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SOLPS-EIRENE IMAS interface status

Piotr Chmielewski, Dmitriy Yadykin, PSNC ACH



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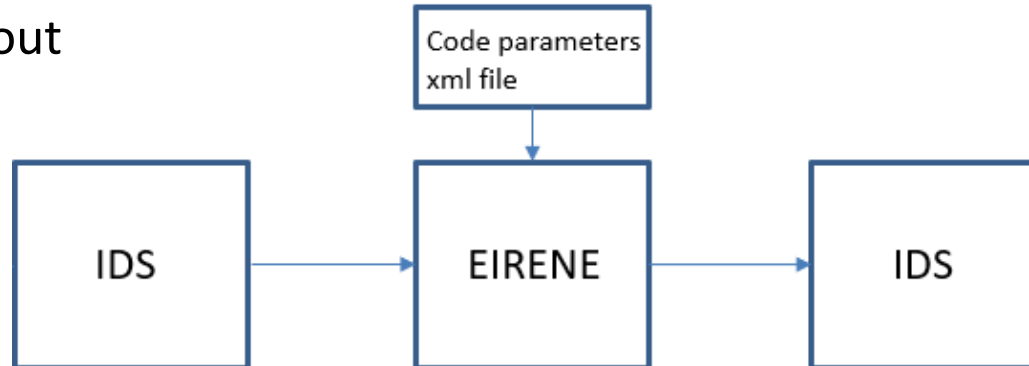


- Introduction
- EIRENE input – tallies
- EIRENE output – concept of IMAS output
- Dockerization

Introduction



Layout



- ❑ Fort.33 – EIRENE grid nodes
- ❑ Fort.34 – EIRENE grid triangles
- ❑ Fort.35 – EIRENE grid triangle neighbours



Input tallies

EIRENE input – tallies



- Fort.33 – EIRENE grid nodes
- Fort.34 – EIRENE grid triangles
- Fort.35 – EIRENE grid triangle neighbours



Input tallies

1	TEIN	Plasma Temperature for Electrons
2	TIIN	Plasma Temperature for Bulk Ions
3	DEIN	Plasma Density for Electrons
4	DIIN	Plasma Density for Bulk Ions
7	VZIN	Plasma Drift Velocity z-component for Bulk
8	BXIN	Magnetic field unit vector, x-component
9	BYIN	Magnetic field unit vector, y-component
10	BZIN	Magnetic field unit vector, z-component
11	BFIN	Magnetic field strength
13	EDRIFT	Kinetic energy in drift motion for Bulk Ions
14	VOL	Zone Volume

IMAS

Ongoing work on the script getting plasma state from IDS and putting to chosen Input tallies

Tallies:

- chosen
- minimum set



Concept of IMAS output

- The proposal is to add new subroutine inside EIRENE code
- In the similar way as subroutine: **outidlta.f**
 - Here, there will be possible to treat the output to IMAS IDSs as one of the standard outputs in the code. ?
- An additional question arises whether to add a standard deviation to the data to IMAS IDS.



Ongoing work

- Script getting plasma state from IDS and putting to chosen Input tallies

Work in the near future

- Code parameters json/xml file
- Dockerization
 - installation EIRENE on Gateway
 - creating a dockerfile that specifies dependencies, environment and commands to run
 - building an image from the dockerfile
 - tests on Gateway
- Output tallies

Plans for 2024

- The EIRENE input and output interfaces
- Dockerization



Thank you for attention