

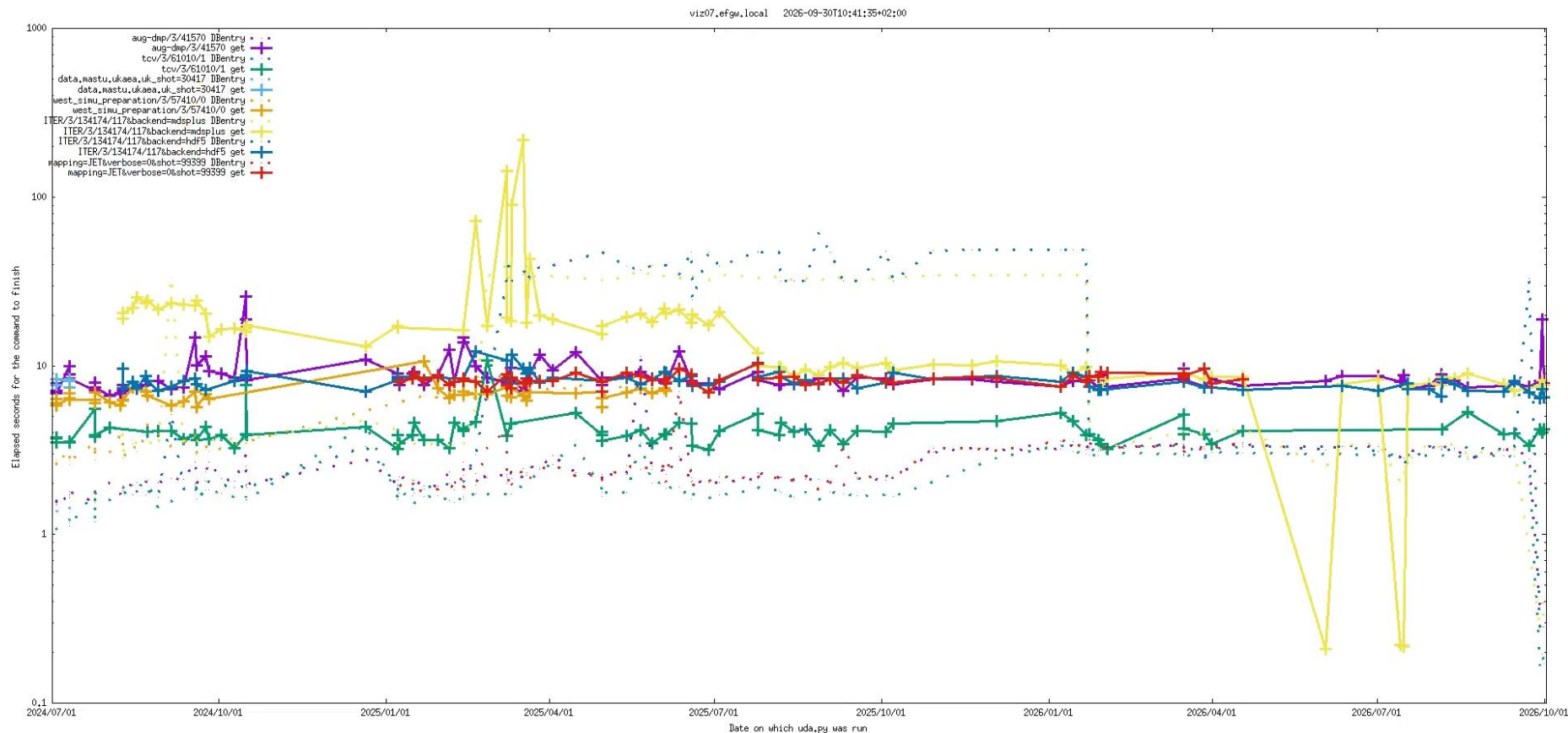
# DMP Implementation Status of IPP

2026-09-30

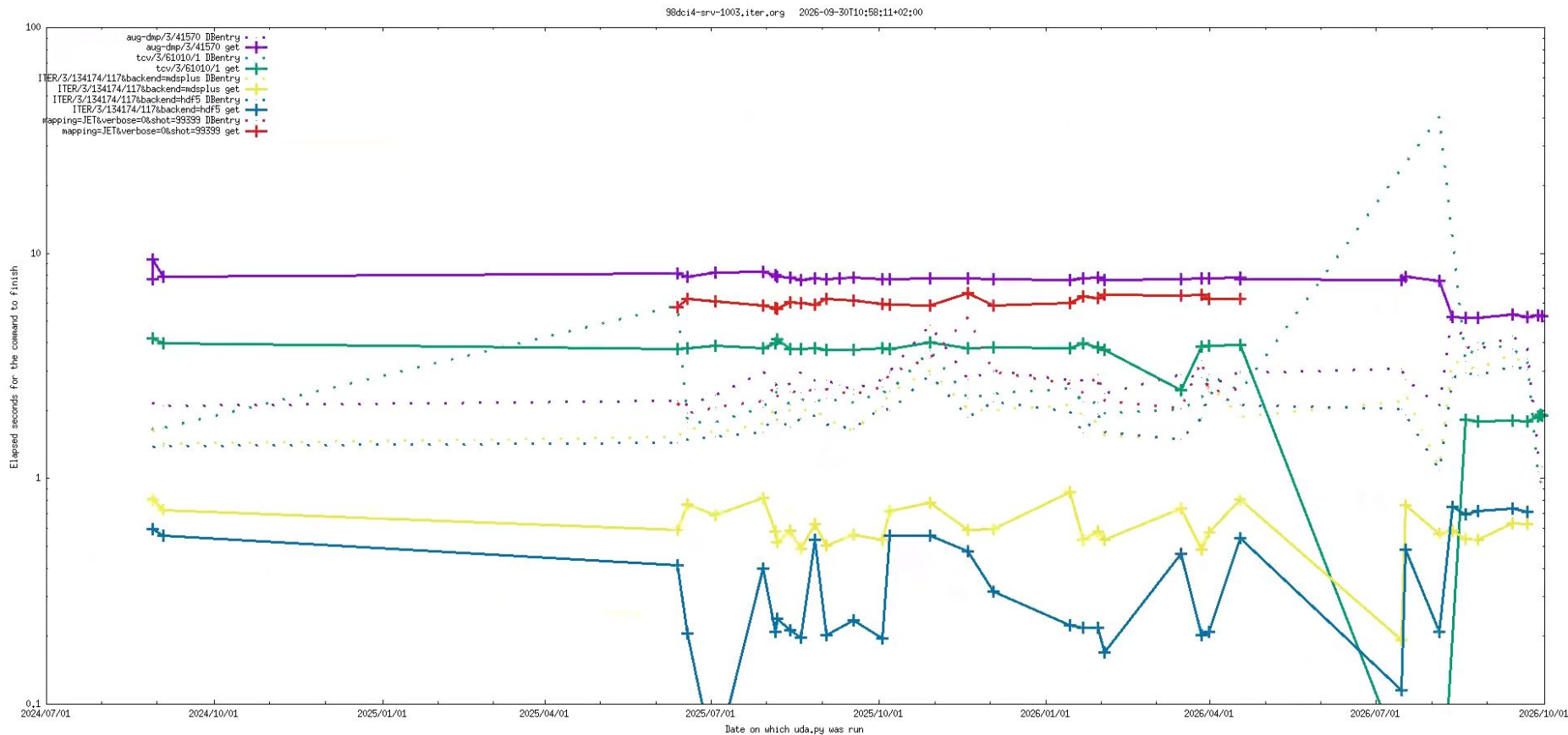
# Updated AUG summary IDS

- Have now created
  - 19570 summary (and related IDSes) for DD 3.42.0
  - 19570 summary (and related IDSes) for DD 4.1.1
- The lists of URIs can be found at
  - <https://wiki.euro-fusion.org/images/6/61/Aug-dmp-3.uris.txt>
  - <https://wiki.euro-fusion.org/images/1/11/Aug-dmp-4.uris.txt>

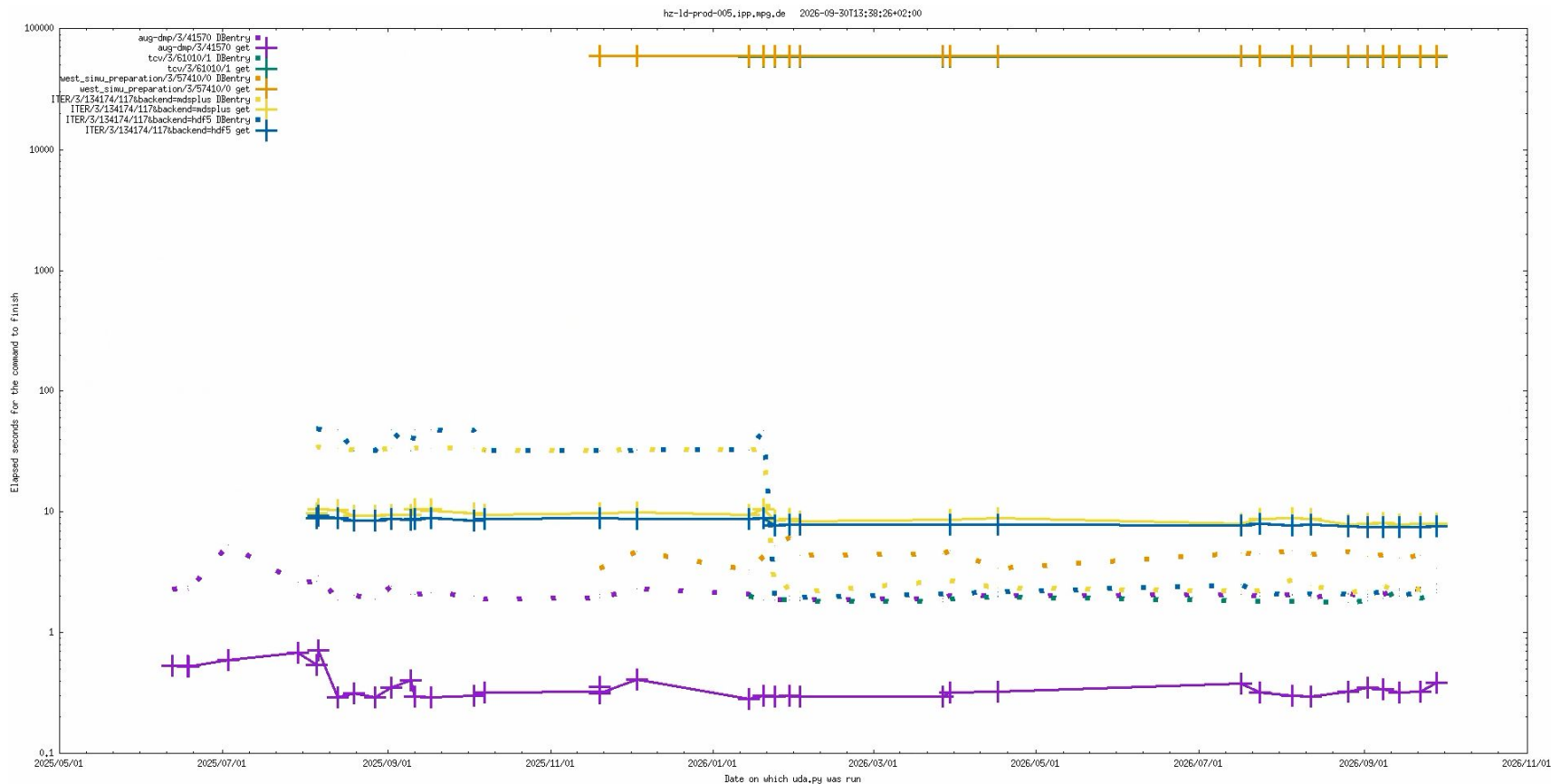
# Data access times: run on Gateway



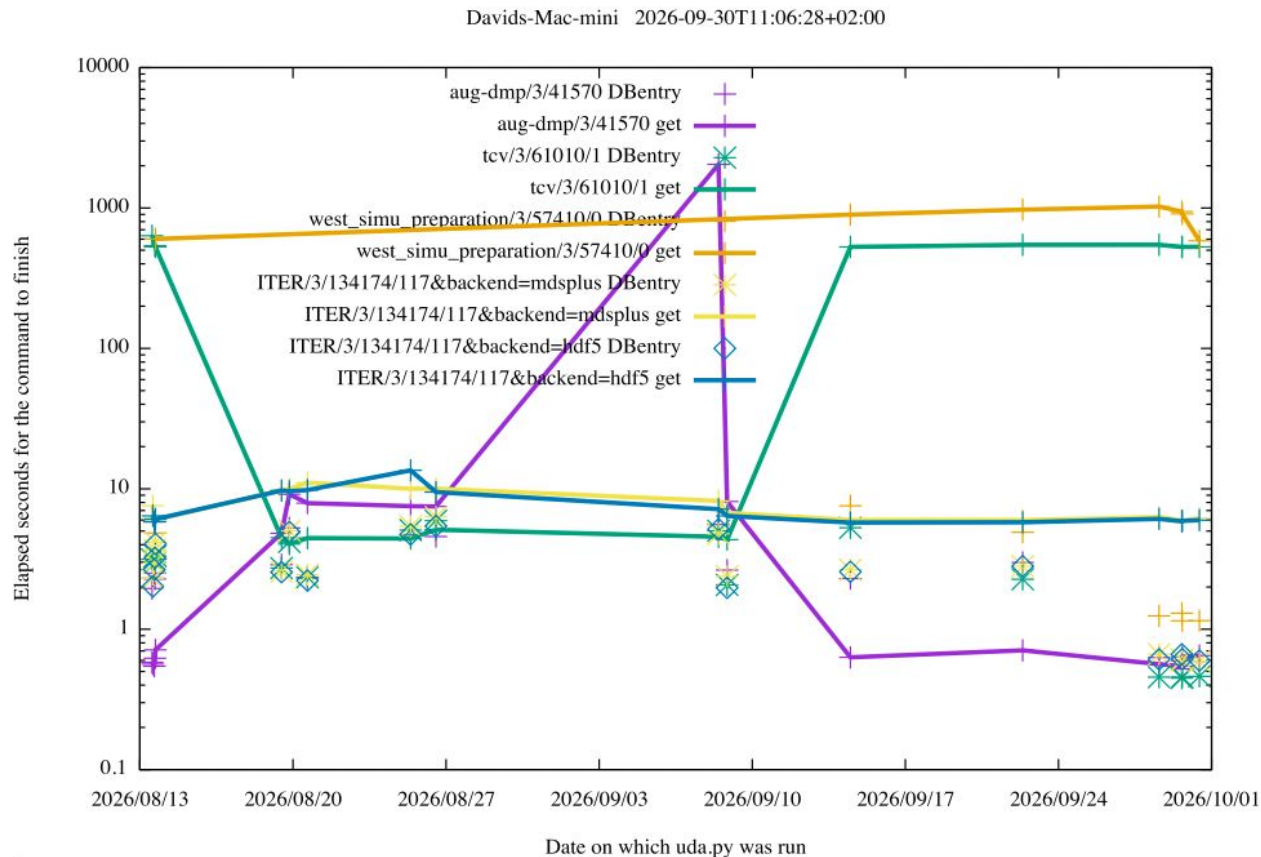
# Data access times: run at ITER (IMAS-PYTHON)



# Data access times: run on IPP (Horizon)



## Data access times: run on laptop (IMAS-PYTHON)



# Why are the DBEntry times so big? Partially solved!

DBentry direct access times are smaller, but still noticeable

```
./uda.py -u 'imas:mdsplus?path=/work/imas/shared/imasdb/ITER/3/134174/117'
```

Timing information

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| DBentry = | 1.682 | 1.744 | 1.793 | 1.777 | 1.662 |
| get =     | 1.094 | 1.102 | 1.135 | 1.091 | 1.111 |
| close =   | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

```
./uda.py -u 'imas:hdf5?path=/work/imas/shared/imasdb/ITER/3/134174/117'
```

Timing information

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| DBentry = | 1.746 | 1.634 | 1.654 | 1.616 | 1.652 |
| get =     | 1.222 | 1.214 | 1.209 | 1.240 | 1.198 |
| close =   | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

after resetting time for successful subprocess

```
./uda.py -u 'imas:mdsplus?path=/work/imas/shared/imasdb/ITER/3/134174/117'
```

Timing information

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| DBentry = | 0.201 | 0.109 | 0.174 | 0.133 | 0.174 |
| get =     | 1.202 | 1.226 | 1.314 | 1.280 | 1.290 |
| close =   | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

```
./uda.py -u 'imas:hdf5?path=/work/imas/shared/imasdb/ITER/3/134174/117'
```

Timing information

|           |       |       |       |       |       |                                          |
|-----------|-------|-------|-------|-------|-------|------------------------------------------|
| DBentry = | 0.026 | 0.024 | 0.044 | 0.021 | 0.033 | ← significantly smaller than for MDSplus |
| get =     | 1.417 | 1.416 | 1.413 | 1.354 | 1.436 |                                          |
| close =   | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |                                          |

# Scenario B data available from uda.ipp.mpg.de

- hdf5
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/17151/1&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/17151/2&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/17151/3&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/17151/4&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/17151/5&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/1&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/2&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/3&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/4&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/5&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/6&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/7&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/8&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/9&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/10&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/11&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/12&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/32408/13&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/35221/1&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/35475/1&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/36774/1&backend=hdf5'
  - 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/36982/1&backend=hdf5'

# Scenario B data available from uda.ipp.mpg.de

```
idslist -u 'imas://uda.ipp.mpg.de:56565/uda?path=/root/public/imasdb/aug/3/36774/1&backend=hdf5'
13:35:12 INFO      Parsing data dictionary version 4.1.1 @dd_zip.py:89
13:35:13 INFO      Parsing data dictionary version 3.42.0 @dd_zip.py:89
                        List of IDSes
```

| IDS            | SLICES | TIME                                                             |
|----------------|--------|------------------------------------------------------------------|
| core_profiles  | 91     | array([0.15, 0.25, 0.35, ..., 8.95, 9.05, 9.15],<br>shape=(91,)) |
| core_sources   | 91     | array([0.15, 0.25, 0.35, ..., 8.95, 9.05, 9.15],<br>shape=(91,)) |
| distributions  | 91     | array([0.15, 0.25, 0.35, ..., 8.95, 9.05, 9.15],<br>shape=(91,)) |
| ec_launchers   | N/A    | heterogeneous IDS                                                |
| ece            | 1      | array([0.])                                                      |
| equilibrium    | 91     | array([0.15, 0.25, 0.35, ..., 8.95, 9.05, 9.15],<br>shape=(91,)) |
| nbi            | N/A    | heterogeneous IDS                                                |
| pulse_schedule | N/A    | heterogeneous IDS                                                |
| summary        | 91     | array([0.15, 0.25, 0.35, ..., 8.95, 9.05, 9.15],<br>shape=(91,)) |
| tf             | 91     | array([0.15, 0.25, 0.35, ..., 8.95, 9.05, 9.15],<br>shape=(91,)) |
| wall           | 1      | array([0.])                                                      |
| waves          | 91     | array([0.15, 0.25, 0.35, ..., 8.95, 9.05, 9.15],<br>shape=(91,)) |