

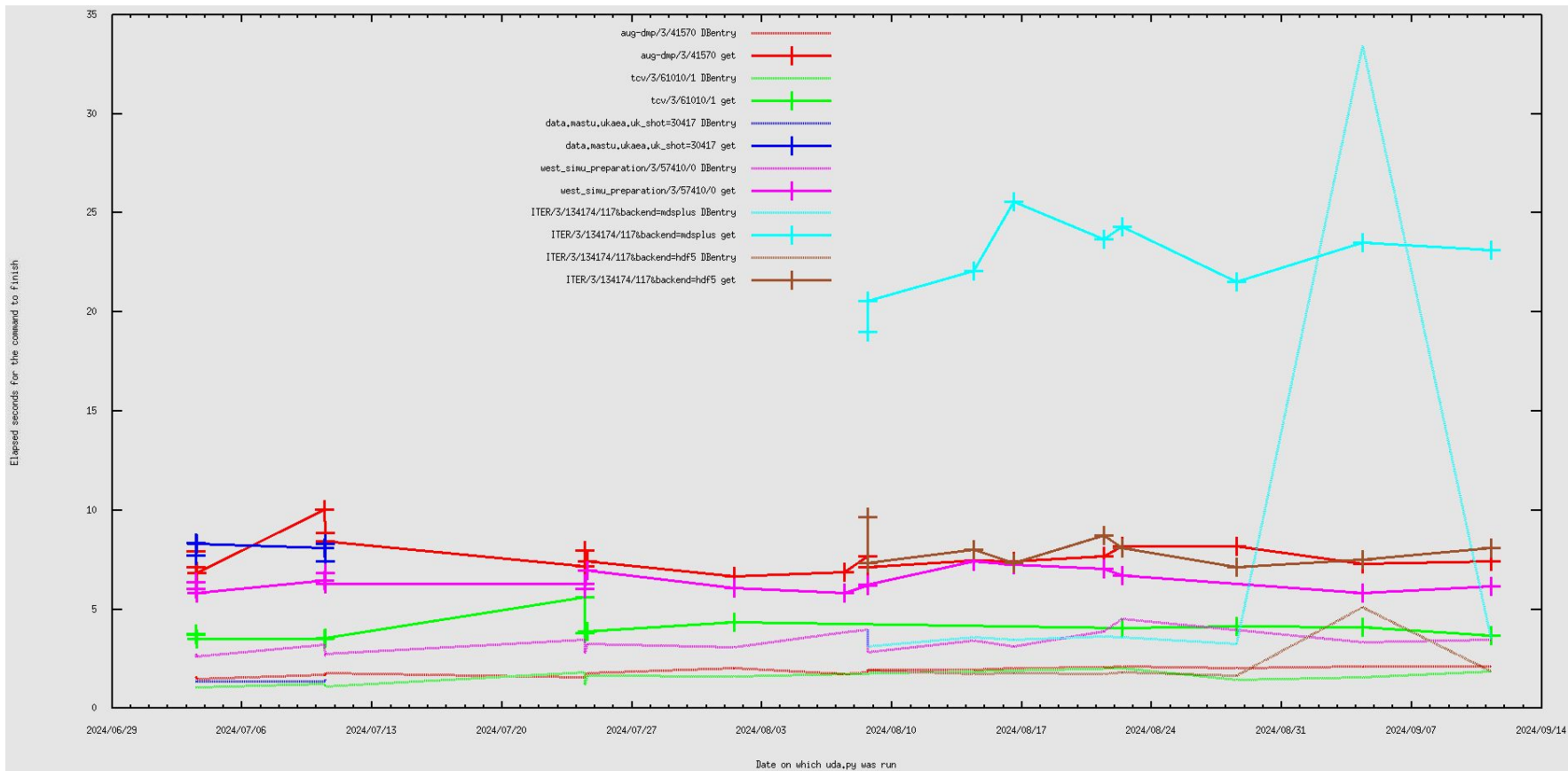
DMP Implementation Status of IPP

2024-09-11

EasyBuild

- Issue with the change in license of Anaconda impacting older IMAS installations
- Still continuing with easybuild installations

uda.py data access times



IMASpy analysis of AUG-DMP

- Attended this morning's ITER data mapping meeting
 - <https://confluence.iter.org/display/IMP/Experimental+data+mapping+coordination+meeting>
 - Short presentation on imaspy
 - [costerd@sdcc-login02 uda-test]\$ imaspy analyze-db `find ~/public/imasdb/aug-dmp -type d`
 - [09/11/24 10:51:44] INFO Output data is stored in imaspy-db-analysis.json.gz
db_analysis.py:104
 - [costerd@sdcc-login02 uda-test]\$ imaspy process-db-analysis imaspy-db-analysis.json.gz
 - [09/11/24 10:51:55] INFO Parsing data dictionary version 3.42.0
dd_zip.py:166
 - INFO Using Data Dictionary version 3.42.0.
db_analysis.py:158
 - INFO Reading 1 input files...
db_analysis.py:159
 - [09/11/24 10:51:56] INFO Done reading input files.
db_analysis.py:171
 - INFO Analyzing filled data...
db_analysis.py:172
 - [09/11/24 10:51:57] INFO Analysis done. Printing results:
db_analysis.py:204
 - | IDS | Filled nodes |
|---------------------|--------------------|
| dataset_description | 16 / 87 (18.39%) |
| summary | 73 / 4027 (1.81%) |
 - Usage summary
 - Enter IDS name to show detailed usage [exit]:

IMASpy analysis of AUG-DMP

```
• Enter IDS name to show detailed usage [exit]: summary
•
• summary: 73/4027 data nodes filled
• |— ids_properties: 8/44 descendent nodes filled
• | |— ids_properties/comment is used
• | |— ids_properties/homogeneous_time is used
• | |— ids_properties/occurrence_type: 0/3 descendent nodes filled
• | |— ids_properties/source is used
• | |— ids_properties/provider is used
• | |— ids_properties/creation_date is used
• | |— ids_properties/version_put: 3/3 descendent nodes filled
• | | |— ids_properties/version_put/data_dictionary is used
• | | |— ids_properties/version_put/access_layer is used
• | | |— ids_properties/version_put/access_layer_language is used
• | |— ids_properties/provenance: 0/3 descendent nodes filled
• | |— ids_properties/plugins: 0/29 descendent nodes filled
• |— tag: 2/2 descendent nodes filled
• | |— tag/name is used
• | |— tag/comment is used
• |— configuration: 0/2 descendent nodes filled
• |— magnetic_shear_flag: 0/2 descendent nodes filled
• |— stationary_phase_flag: 0/2 descendent nodes filled
• |— midplane: 0/3 descendent nodes filled
• |— global_quantities: 36/252 descendent nodes filled
• | |— global_quantities/ip: 3/5 descendent nodes filled
• | | |— global_quantities/ip/value is used
• | | |— global_quantities/ip/value_error_upper is used
• | | |— global_quantities/ip/source is used
• | |— global_quantities/current_non_inductive: 0/5 descendent nodes filled
• | |— global_quantities/current_bootstrap: 0/5 descendent nodes filled
• | |— global_quantities/current_ohm: 0/5 descendent nodes filled
• | |— global_quantities/current_alignment: 0/5 descendent nodes filled
• | |— global_quantities/v_loop: 3/5 descendent nodes filled
• | | |— global_quantities/v_loop/value is used
• | | |— global_quantities/v_loop/value_error_upper is used
• | | |— global_quantities/v_loop/source is used
• |— time is used
```

Looking at WEST data

DMP Wiki:

- For example, the following URI allows to access the WEST shot 57410 with run=0:
 - uri =
'imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5'

```
./uda.py -u
```

```
'imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5'
```

Accessing data from

```
imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5
```

Available IDses are: ['core_profiles', 'core_sources', 'dataset_description', 'equilibrium', 'pulse_schedule', 'summary', 'temporary']

Timing information

```
DBentry = 3.180
```

```
get = 6.345
```

```
close = 0.028
```

Looking at WEST data: summary IDS

```
./uda.py -u
```

```
'imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5' -c summary
```

```
Accessing data from
```

```
imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5
```

```
Time data for IDS summary
```

```
[0.]
```

```
summary.ids_properties.homogeneous_time: 1
```

```
summary.ids_properties.version_put.data_dictionary: 3.37.0
```

```
summary.ids_properties.version_put.access_layer: 4.11.0
```

```
summary.ids_properties.version_put.access_layer_language: python
```

```
summary.time: [0.]
```

```
Timing information
```

```
DBentry = 3.166
```

```
get = 5.556
```

```
close = 0.029
```

Looking at WEST data: equilibrium IDS

```
./uda.py -u
```

```
'imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5' -c equilibrium
```

```
Accessing data from
```

```
imas://irfm-uda.partenaires.cea.fr:8083/uda?path=/Imas_public/imas_simulation/public/imasdb/west_simu_preparation/3/57410/0&backend=hdf5
```

```
Time data for IDS equilibrium
```

```
[0.]
```

```
equilibrium.ids_properties.homogeneous_time: 1
```

```
equilibrium.ids_properties.version_put.data_dictionary: 3.37.0
```

```
equilibrium.ids_properties.version_put.access_layer: 4.11.0
```

```
equilibrium.ids_properties.version_put.access_layer_language: python
```

```
equilibrium.time: [0.]
```

```
Timing information
```

```
DBentry = 3.175
```

```
get = 3.015
```

```
close = 0.032
```