

DMP Implementation Status of IPP

2025-02-26

IMAS versions updated on the TOK and Citrix systems

- No change

DD	AL	TOK cluster	Citrix system
3.38.1	4.11.4		2023-06-08
3.39.0	4.11.5	2023-07-26	2023-07-31
3.39.0	5.0.0	2023-10-10	
3.41.0	4.11.10	2024-04-17	
3.41.0	2024.07-foss-2023b		2024-08-11
3.42.0	2024.08-foss-2023b		2024-08-13
3.42.0	2024.08.1-foss-2023b	2024-08-23	2024-08-22
3.42.0	2024.08.1-intel-2023b	2024-08-23	2024-08-22
3.42.0	4.11.10		2024-10-09
3.42.0	2024.09-foss-2023b	2024-10-21	2024-10-21
3.42.0	2024.09-intel-2023b	2024-10-21	2024-10-21
4.0.0	2024.12-foss-2023b	2025-01-22	2025-01-22
4.0.0	2024.12-intel-2023b	2025-01-22	2025-01-22

Some stuff from a long time ago

- GK database
 - See <https://indico.euro-fusion.org/event/3206/> (though no talk was uploaded)
 - **Overview of GK database** 20m
 - Overview of the Gyrokinetic database that will be available on the GW.
 - **Speaker:** Yann Camenen (CEA)
- Tried uploading his files to simdb
 - Simdb crashed
 - Eventually fixed
 - Simdb version on too old software
 - New simdb1 server
 - Gateway went swimming
 - Eventually surfaced
 - Tried again to upload
 - Failed validation
 - Asked if the validation tests could be bypassed
 - No

Failed validation tests

- simdb sim push g2ycam/gk/linear/test
- Uploading file /afs/eufus.eu/user/g/g2dpc/GIT/simdb/GK_DB/IMASPy/linear/master.h5 Complete
- Uploading file /afs/eufus.eu/user/g/g2dpc/GIT/simdb/GK_DB/IMASPy/linear/gyrokinetics_local.h5 Complete
- Uploading simulation data ... Error: Simulation validation failed and server has error_on_fail=True.
-
- validate_uri exception [Validation of following URI:
[imas:hdf5?path=/tmp/simdb/simulations/914fb4663f3d11efb55b0894ef442712], failed with following report:
- Summary Report :
- Tested URI : imas:hdf5?path=/tmp/simdb/simulations/914fb4663f3d11efb55b0894ef442712
- Number of tests carried out : 1
- Number of successful tests : 0
- Number of failed tests : 1
-
- PASSED IDSs:
-
- FAILED IDSs:
- - IDS gyrokinetics_local occurrence 0
- RULE: ids_properties/comment_validate.py:validate_comment_summary
- MESSAGE:
- TRACEBACK: FrameSummary file /my_test/my_custom_ruleset_dir/ids_properties/comment_validate.py, line 10 in
validate_comment_summary
- NODES COUNT: 1
- NODES: ['ids_properties/comment']
-
-]

So what are the validation tests

- Output from
 - `simdb remote schema -d 1000`
 - `{ 'summary': { 'required': True,`
 - `'schema': { 'ids_properties': { 'required': True,`
 - `'schema': {'comment': {'required': False, 'type': 'string'}},`
 - `'type': 'dict'}},`
 - `'type': 'dict'}}`
- Which I interpret as having something to do with the comment field in `ids_properties` being either required or not
- Write a stupid python program to read an ids, add a comment if one does not exist in the `ids_properties.comment` field, and then over-write the ids


And now

- `time simdb sim push g2ycam/gk/linear/test/dummy_summary`
 - Uploading file `/afs/eufus.eu/user/g/g2dpc/GIT/simdb_test/GK_DB/IMASPy/linear/master.h5`
Complete
 - Uploading file `/afs/eufus.eu/user/g/g2dpc/GIT/simdb_test/GK_DB/IMASPy/linear/gyrokinetics_local.h5`
Complete
 - Uploading simulation data ... Success
 - Successfully pushed simulation `5ad2ed52-f39e-11ef-b57a-0894ef442712`
 - `1.068u 0.179s 0:03.25 37.8% 0+0k 0+0io 0pf+0w`
- `time simdb sim push g2ycam/gk/non_linear/test/dummy_summary`
 - Uploading file `/afs/eufus.eu/user/g/g2dpc/GIT/simdb_test/GK_DB/IMASPy/non_linear/master.h5`
Complete
 - Uploading file
`/afs/eufus.eu/user/g/g2dpc/GIT/simdb_test/GK_DB/IMASPy/non_linear/gyrokinetics_local.h5`
Complete
 - Uploading simulation data ... Success
 - Successfully pushed simulation `61d545be-f39e-11ef-9a6e-0894ef442712`
 - `7.694u 0.491s 2:24.32 5.6% 0+0k 0+0io 0pf+0w`
- Success!

And now



- Search simdb1.eufus.eu for “unknown” workflow ...
 - Comes together with a bonus error message!

Search Results

 SyntaxError: JSON.parse: unexpected character at line 1 column 1 of the JSON data

Search Results

COMPARE

<input type="checkbox"/>	Alias	Status	Datetime	Workflow Name
<input type="checkbox"/>	g2ycam/gk/linear/test/dum...	passed	Tue, 25 Feb 2025 17:31:32 GMT	unknown 
<input type="checkbox"/>	g2ycam/gk/non_linear/test/d...	passed	Tue, 25 Feb 2025 17:31:44 GMT	unknown 

However

- The description in the documentation for the `ids_properties/comment` field is
 - `ids_properties/comment`
 - [STR_OD¶](#)
 - Any comment describing the content of this IDS
- If this is going to be mandatory for simdb validation, perhaps the documentation should be amended to indicate this!
- Should these validation tests really be a barrier to upload data?
 - I suggest that the results of the validation be stored as part of the simdb record, but the data still be uploaded

Why the large discrepancy in times for the push?

- `idssize -u "imas:hdf5?path=GK_DB/IMASPy/linear"`
 - Reading 4.729 MB of data for gyrokinetics_local/0 took 0.08 seconds
 - Processing...

100% 0:00:00
 - Total reading time = **0.08 s**
 - Total data size = 4.7 MB
 - Fractions of the total size for imas:hdf5?path=GK_DB/IMASPy/linear
 - % bytes IDS
 - 100.00 % gyrokinetics_local/0
- `idssize -u "imas:hdf5?path=GK_DB/IMASPy/non_linear"`
 - Reading 163.513 MB of data for gyrokinetics_local/0 took 3.21 seconds
 - Processing...

100% 0:00:03
 - Total reading time = **3.21 s**
 - Total data size = 163.5 MB
 - Fractions of the total size for imas:hdf5?path=GK_DB/IMASPy/non_linear
 - % bytes IDS
 - 100.00 % gyrokinetics_local/0
- Which translated into push times of 0:03.25 and 2:24.32, respectively

Data access times

