

EPN-TAP Implementation at ESA

Isa Barbarisi, Ángel Montero, on behalf of the ESDC
Planetary Science Archive (PSA) team



PSA EPN-TAP: Current status



PSA EPN-TAP Released on Feb 12, 2018

<https://archives.esac.esa.int/psa/epn-tap/tap>

- Beyond 13 Millions of files (currently 6 M. after removing Rosetta RPC/LAP)

Searchable parameters:

- Mission / Instrument Host
- Instrument
- Target Name / Class
- Time Min / Max
- Access Url, Access Estimated Size, Thumbnail Url
- Processing Level
- Release Date

Next goal: How to determine data product type automatically



European Space Agency

PSA EPN-TAP: Query by target name



Results in service psa

Show entries

Column visibility

access_url	dataprodukt_type	granule_uid	target_name	time_max (d)	time_min (d)
https://archives.esa...	catalogue	RL-C-MULTI-5-ANCDR-V2.0:DATA:LANDER_150414_STEP.TSC	67P	2014-11-13T10:30:30.999	2014-01-21T05:01:37.000
https://archives.esa...	catalogue	RL-C-COSAC-1-FSS-V1.0:DATA:COS_FXXB1_141113064719_1907	67P	2014-11-14T14:34:42.171	2014-11-13T06:47:19.172
https://archives.esa...	catalogue	RL-C-COSAC-1-RBD-V1.0:DATA:COS_FXXB1_141112155734_0014	67P	2014-11-12T16:11:49.172	2014-11-12T15:57:34.172
https://archives.esa...	catalogue	RL-C-COSAC-2-FSS-V1.0:DATA:COS_FGMS2_141114140342_0017	67P	2014-11-14T14:21:31.217	2014-11-14T14:03:42.750
https://archives.esa...	catalogue	RL-C-COSAC-2-FSS-V1.0:DATA:COS_FMSS2_141113064953_0000	67P	2014-11-13T06:49:53.406	2014-11-13T06:49:53.406
https://archives.esa...	catalogue	RL-C-COSAC-2-FSS-V1.0:DATA:COS_FMSS2_141113085138_0000	67P	2014-11-13T08:51:38.061	2014-11-13T08:51:38.061
https://archives.esa...	catalogue	RL-C-COSAC-2-FSS-V1.0:DATA:COS_FMSS2_141113105346_0000	67P	2014-11-13T10:53:46.687	2014-11-13T10:53:46.687
https://archives.esa...	catalogue	RL-C-COSAC-2-FSS-V1.0:DATA:COS_FMSS2_141113125548_0000	67P	2014-11-13T12:55:48.625	2014-11-13T12:55:48.625
https://archives.esa...	catalogue	RL-C-COSAC-2-FSS-V1.0:DATA:COS_FMSS2_141114030007_0000	67P	2014-11-14T03:00:07.467	2014-11-14T03:00:07.467
https://archives.esa...	catalogue	RL-C-MULTI-5-ANCDR-V2.0:DATA:INST_DEPLOYMENTS	67P	2014-11-14T12:31:00.000	2014-11-13T23:34:00.000

Showing 1 to 10 of 3,659,011 entries

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Plotting tools

- TOPCAT
- Aladin
- SPLAT
- CASSIS
- 3DView

Example queries

Data Selection

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Contact / Helpdesk: support.epntap@obspm.fr



PSA EPN-TAP: Lessons learned



Data Model:

- Epn_core View: access very slow, many table joins.
- Epn-core Table: best solution to improve performance

Performance with huge data tables:

- Access timeout (<10s) almost reached for simple queries.
- Very slow for more complex queries.
- Possibility to separate schema for each mission: Loses multi-mission aspect



Thanks and contact info



Email isa.barbarisi@sciops.esa.int for questions about EPN-TAP in ESA's PSA

