Vespa client & Tap validator

Cyril Chauvin, Baptiste Cecconi, S. Erard, Pierre Le Sidaner

All VO | Custom resource | Direct Query | Advanced Query | Help

Submit | Reset

Main Parameters

Target Name

Granule UID

Granule GID

Obs ID

Time selection

Data range is included in

Time Min

Target Class

Asteroid
Comet
Dwarf Planet
Exoplanet

Dataproduct Type

Catalog
Catalogue Item
Cube

Measurement Type

The range between

Time Max

Location

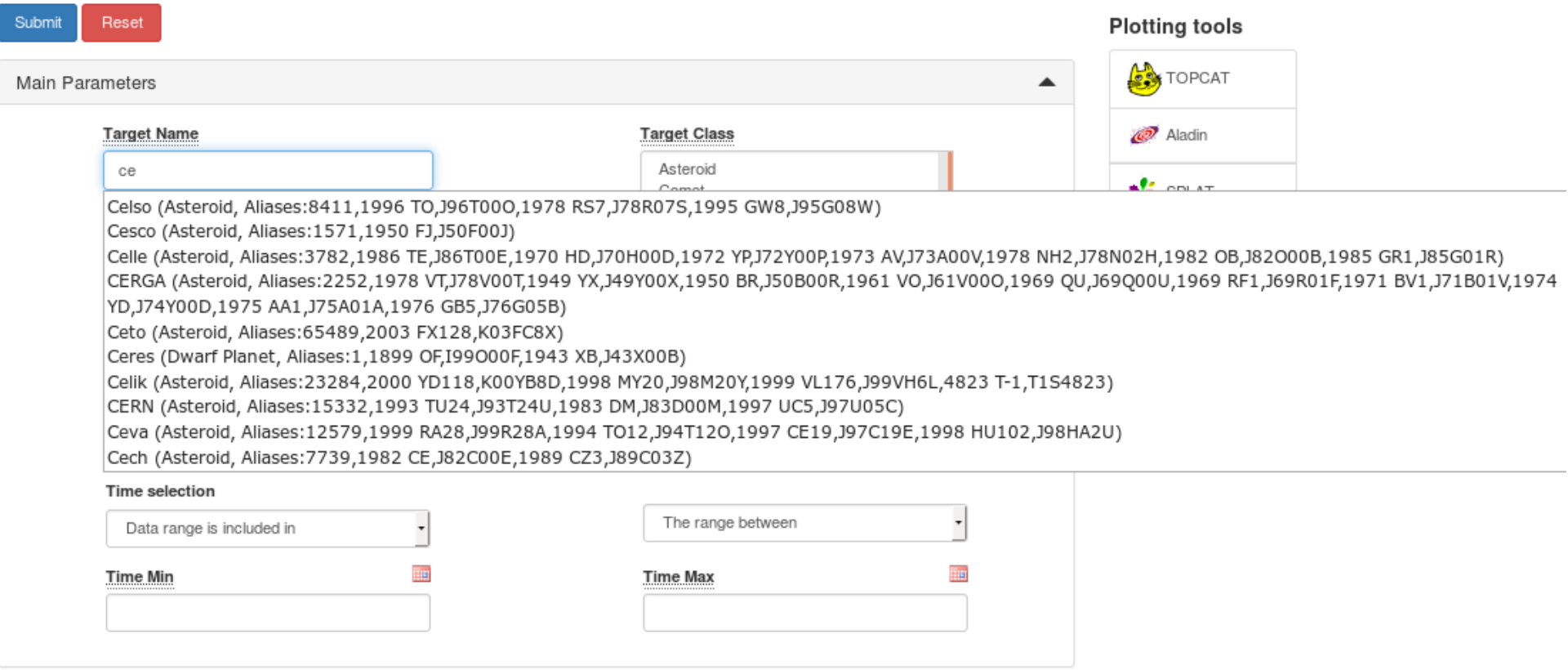
Plotting tools

TOPCAT
Aladin
SPLAT
CASSIS
3DView

Example queries

Saturn in March 2012

Use source resolver of IMCCE using target name



PADC
Paris Astronomical Data Centre

Spatial Frame Type

All

Data range intersects

The range between

C1 Min

C1 Max

C2 Min

C2 Max

C3 Min

C3 Max

C1 Resolution Min

C1 Resolution Max

C2 Resolution Min

C2 Resolution Max

C3 Resolution Min

C3 Resolution Max

Location

Spatial Frame Type

All

- All
- Body
- Cartesian
- Celestial
- Cylindrical
- Spherical

Data range intersects

- Data range intersects
- Data range is included in

C2 Min

C2 Max

C3 Min

C3 Max

C1 Resolution Min

C1 Resolution Max

C2 Resolution Min

C2 Resolution Max

C3 Resolution Min

C3 Resolution Max

Spectral

Time

Photometry

PADC
Paris Astronomical Data Centre

Spectral

Data range

Data range intersects

- Data range intersects
- Data range is included in
- Data range includes

Unit

Hz

Spectral Range Max

Spectral Resolution Min

Spectral Resolution Max

Spectral Sampling Step Min

Spectral Sampling Step Max

Time

Exposure Time Min

≥

Exposure Time Max

≤

Time Sampling Step Min

≥

Time Sampling Step Max

≤

Photometry

Phase Min

≥

Phase Max

≤

Incidence Min

≥

Incidence Max

≤

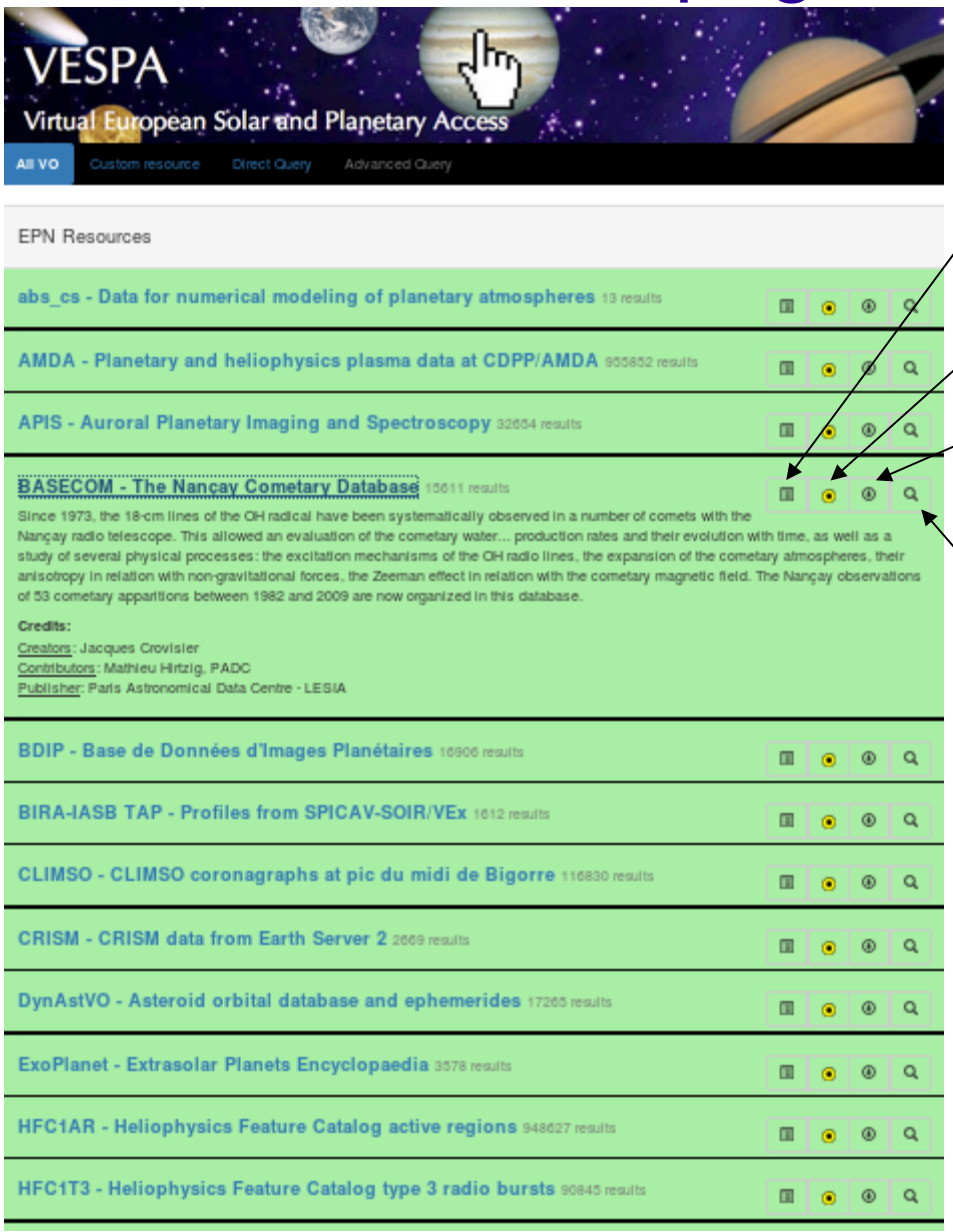
Emergence Min

≥

Emergence Max

≤

Intermediate result page



Show result

Samp

Download VOTable

Advanced Query from

Direct query page

Submit Reset

Services

All VO Services

Custom Service

Resource Url

Schema Name

WHERE...

target_name = 'Saturn' AND target_class LIKE '%planet%'

Submit Reset

Plotting tools

TOPCAT

Aladin

SPLAT

CASSIS

3DView

Example queries

Saturn in March 2012

Advanced query form

Dynastvo

access_url
access_format
access_estsize
processing_level
publisher
bib_reference
service_title
target_region
release_date
creation_date
modification_date
s_region
thumbnail_url
semi_major_axis
eccentricity
inclination
long_asc
arg_perihel
mean_anomaly
epoch

access_url =

Plotting tools

- TOPCAT
- Aladin
- SPLAT
- CASSIS
- 3DView

Example queries

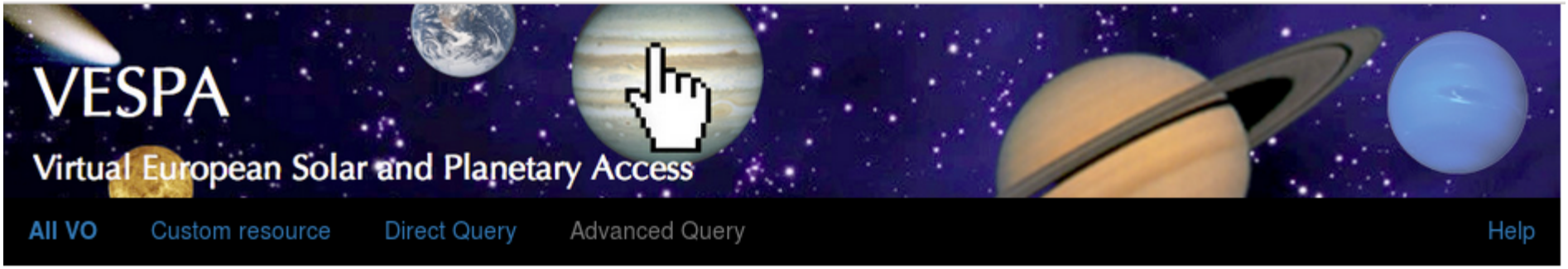
Saturn in March 2012

How to have this system working

If we want eco system to work

- **Monitor services**
- **Validation of services**
  - **Test if TAP is compliant : Taplint**
  - **Test presence of UCD, units, type on metadata for EPN-TAP service response**
  - **Test content of metadata response :**
    - **Target_name / target_class name in resolver**
    - **Processing level, dataproduct type, access format, spatial frame type**
    - **Time min and max, Spectral range min and max**

Validated form



Service/test	Last access	Last modified	Results
MCD / Coherence Content	2017-05-05T15:11:12.362246	2017-05-05T15:11:12.362246	{u'answer': [], u'href': u'http://voparis-europla...'}
MCD / Metadata Content	2017-05-05T15:11:12.362246	2017-05-05T15:11:12.362246	{u'VOTable1.2': u'yes', u'href': u'http://voparis-validat...', u'PN-TAP2': u'no'}
MCD / taplint	2017-05-05T15:11:12.362246	2017-05-05T15:11:12.362246	{u'python_error': u'TOPCAT test: python exception in validation_monitor.py when testing resource MCD (url: http://sery.lmd.jussieu.fr/__system__/tap/run/tap)'}
APIS / Coherence Content	2017-05-05T15:10:54.491984	2017-05-05T15:10:54.491984	{u'answer': [], u'href': u'http://voparis-europla...'}
APIS / Metadata Content	2017-05-05T15:10:54.491984	2017-05-05T15:10:54.491984	{u'href': u'http://voparis-validat...', u'VOTable1.3': u'yes', u'PN-TAP2': u'no'}

Plotting tools

- TOPCAT
- Aladin
- SPLAT
- CASSIS
- 3DView

Example queries

Saturn in

VOTable Validation Service

http://voparis-tap-planeto.obspm.fr/__system__/tap/run/tap/sync?&LANG=ADQL&REQUEST=doQuery&MAXREC=10&FORMAT=VOTable%2FTD&QUERY=select+%2A+from+apis.epn_core+

```
1  <?xml version='1.0' encoding='utf-8'?>
2  <VOTABLE version="1.3" xmlns="http://www.ivoa.net/xml/VOTable/v1.3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocati
3  regions of magnetized planets by accelerated charged particles, in a
4  wide range of wavelengths (from radio to X-rays). The UV range in
5  particular is adequate to measure collisionaly excited transitions of
6  H and H2, the dominant species in the upper atmosphere of giant
7  planets, produced by precipitating auroral particles, and benefits a
8  good angular resolution. Auroral UV observations therefore provide a
9  rich source of informations on planetary atmospheres and
10 magnetospheres. They also offer a unique diagnostic to remotely probe
```

SUCCESS: valid VOTable 1.3!

SUCCESS: valid EPN-TAP2!

Warning: 4.3.1 Exactly one `FIELD` or `PARAM` **must** have `name="access_url",ucd="meta.ref.url;meta.file"`, with `datatype="char"`, and `arraysize="*"` No match found.

Metadata test content

```
[
    "Sycorax is not known in the resolver",
    "Sycorax,asteroid",
    "Haumea is not known in the resolver",
    "Haumea,asteroid",
    "Phoebe is not known in the resolver",
    "Phoebe,asteroid",
    "Eris is not known in the resolver",
    "Eris,asteroid",
    "Makemake is not known in the resolver",
    "Makemake,asteroid"
]
```

They are all dwarf planets and not asteroid

More to come

- Make nicer interface
- Try to validate data content :
  - If file is there
  - It the file is well formed VOTable, Fits , PDS !!
  - If the content fulfill the metadata declaration !!

- The portal give access to externally manage services so we need to characterize error source or location for :
  - Provider (to help fixing the service)
  - User (to know why it's not working)
  - Reviewer (European project)

Conclusion

- Developing and maintaining a network for planetary science is time consuming but usefull.
  - Thanks to M. Demleitner and his team for DaCHS
  - Thanks to IVOA for TAP, SAMP, VOTable, Registry, VO Clients, Semantic ... datalink, UWS, VOEvents

- We can give experience feedback of providing Time Series, data cube, dynamic spectrum, surface images using TAP.