

EPN-TAP and the Registry

The good, the Bad and the Ugly

B. Cecconi, P. Le Sidaner, S. Erard, C. Chauvin
PADC, Observatoire de Paris-PSL

Trying to find all EPN-TAP resources in the registry

- By table_utype (strict):

```
"SELECT distinct ivoid FROM rr.res_table WHERE  
    table_utype = 'ivo://vopdc.obspm/std/epncore#schema-2.0'"
```

=> Found 45 tables

- By table_utype (relaxed):

```
"SELECT distinct ivoid FROM rr.res_table WHERE  
    table_utype LIKE '%epn%'"
```

=> Found 67 tables

- By ivoid (relaxed):

```
"SELECT distinct ivoid FROM rr.res_table WHERE  
    ivoid LIKE '%epn%'"
```

=> Found 43 tables

- By table_name (relaxed):

```
"SELECT distinct ivoid FROM rr.res_table WHERE  
    table_name LIKE '%epn_core%'"
```

=> Found 82 tables

- **All those methods return *ivoids* for TAP Services, Collections or EPNcore tables.**

Table utype in “res_table”

- This should be the “correct way” to find an EPNcore table:

```
"SELECT distinct ivoid FROM rr.res_table WHERE  
  table_utype = 'ivo://vopdc.obspm/std/epncore#schema-2.0'"
```

=> found 45 distinct ivoid's with this query.

```
"SELECT distinct ivoid FROM rr.res_table WHERE  
  table_utype LIKE '%epn%'"
```

=> found 67 distinct ivoid's with this query.

```
"SELECT distinct table_utype FROM rr.res_table WHERE  
  table_utype LIKE '%epn%'"
```

=> found this:

model IVOID	Count
ivo://vopdc.obspm/std/epncore#schema-2.0	9
ivo://vopdc.obspm/std/epncore#schema-2.0	45
ivo://vopdc.obspm/std/epncore/schema-2.0	14

TAP interface declared with EPN-TAP data model in XML

```
13 <capability standardID="ivo://ivoa.net/std/TAP" xsi:type="tr:TableAccess">
14   <interface role="std" xsi:type="vs:ParamHTTP">
15     <accessURL use="base">http://vespa-ae.oma.be/tap</accessURL>
16   </interface>
17   <dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore#schema-2.0">EpnCore#schema-2.0</dataModel>
18 </capability>
```

ivo://astro.ucl.ac.uk/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore/v1.0">Obscore-1.0</dataModel> <dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore-2.0">EPN-TAP 2.0</dataModel>
ivo://bira-iasb/tap	<dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore#schema-2.0">EpnCore#schema-2.0</dataModel>
ivo://fu-berlin.planet.hrsc/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore#table-1.1">Obscore-1.1</dataModel>
ivo://ia2.inaf.it/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore/v1.0">Obscore-1.0</dataModel>
ivo://iap/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore#table-1.1">Obscore-1.1</dataModel> <dataModel ivo-id="ivo://ivoa.net/std/ObsCore#core-1.1">Obscore-1.1</dataModel>
ivo://latmos.ipsl/tap	<dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore#schema-2.0">EpnCore#schema-2.0</dataModel>
ivo://lmd.jussieu/tap	<dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore#schema-2.0">EpnCore#schema-2.0</dataModel>
ivo://osug-vo.osug/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore#table-1.1">Obscore-1.1</dataModel> <dataModel ivo-id="ivo://ivoa.net/std/ObsCore#core-1.1">Obscore-1.1</dataModel>
ivo://pvoll/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore/v1.0">Obscore-1.0</dataModel> <dataModel ivo-id="ivo://ivoa.net/std/ObsCore#table-1.1">Obscore-1.1</dataModel> <dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore#schema-2.0">EpnCore#schema-2.0</dataModel> <dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore/schema-2.0">EpnCore/schema-2.0</dataModel>
ivo://spectrum.iaa/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore/v1.0">Obscore-1.0</dataModel> <dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore/schema-2.0">EpnCore/schema-2.0</dataModel>
ivo://tohoku.univ.jp/tap	<dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore/schema-2.0">EpnCore#schema-2.0</dataModel>
ivo://vo-plasma.oeaw.ac.at/tap	<dataModel ivo-id="ivo://ivoa.net/std/ObsCore/v1.0">Obscore-1.0</dataModel> <dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore-2.0">EPN-TAP 2.0</dataModel>

Available in RR: `rr.res_detail.detail_xpath`

Resource Types

- EPN-TAP resources have been declared with either *vs:CatalogService* or *vs:CatalogResource*
- Available in: *rr.resource.res_type*
 - 17 resources with *res_type* = '*vs:catalogresource*'
 - 67 resources with *res_type* = '*vs:catalogservice*'
- NB: the *content_type* field is usually empty, or set to "*catalog*" (or "*archive*" for a few instances)

<relationship>

```
12 <relationship>
13   <relationshipType>served-by</relationshipType>
14   <relatedResource ivo-id="ivo://astro.ucl.ac.uk/tap">UCL DaCHS server TAP service</relatedResource>
15 </relationship>
```

- 42 EPNcore tables have this metadata in the RR
- They have a “serve-by” relation to 17 TAP Services
- Types of relations found:
 - *served-by (or isservedby): Table to TAP*
 - *service-for: TAP to table*
 - *related-to: resource to authority*

<capability>

- Some capability declaration use #aux, without TableAccess type. Is it a problem ?

```
16 <capability standardID="ivo://ivoa.net/std/TAP#aux">
17   <interface role="std" xsi:type="vs:ParamHTTP">
18     <accessURL use="base">http://astroweb.projects.phys.ucl.ac.uk:8000/tap</accessURL>
19   </interface>
20 </capability>

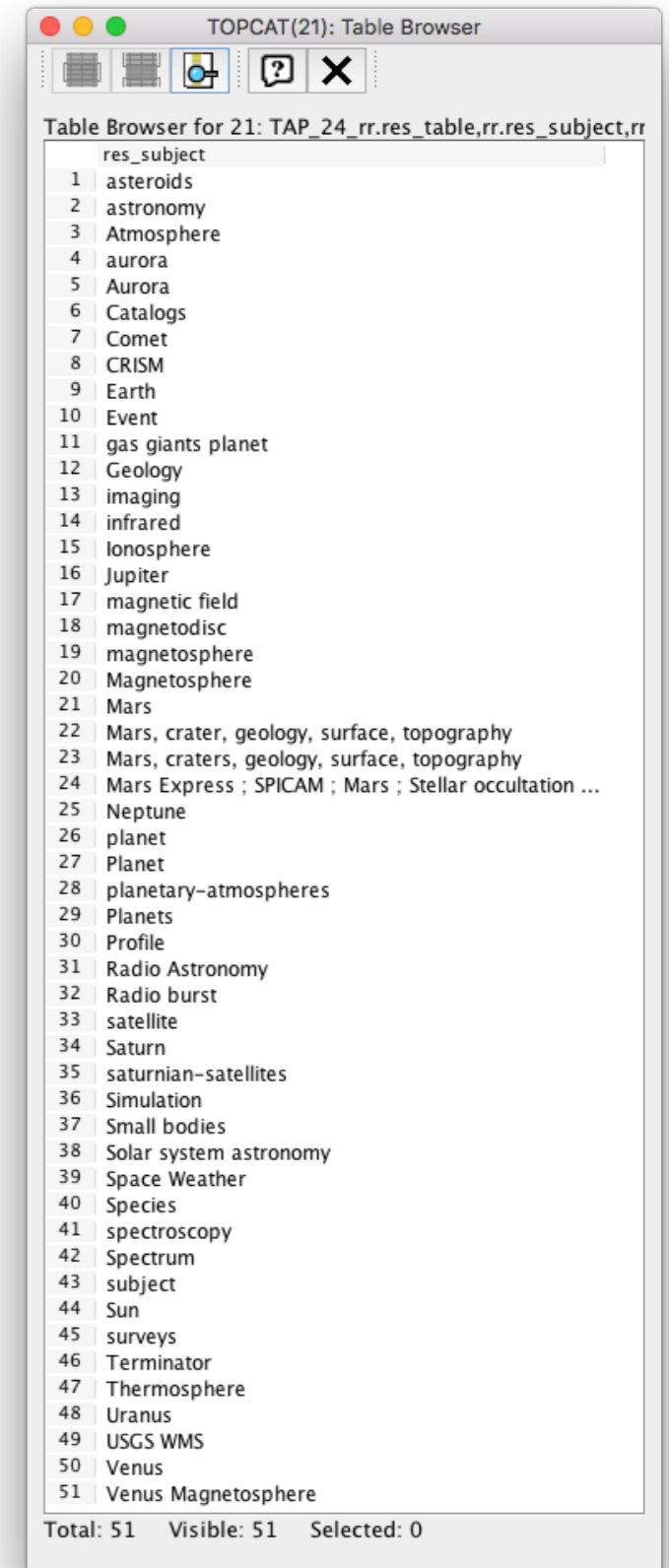
21 <capability standardID="ivo://ivoa.net/std/TAP" xsi:type="tr:TableAccess">
22   <interface role="std" xsi:type="vs:ParamHTTP">
23     <accessURL use="base">http://vespa-ae.oma.be/tap</accessURL>
24   </interface>
25   <dataModel ivo-id="ivo://vopdc.obspm/std/EpnCore#schema-2.0">EpnCore#schema-2.0</dataModel>
26 </capability>
```

<subjects>

- Currently the registered subjects are not compliant with <https://www.ivoa.net/rdf/uat/>
- One of 'top level keywords' recommended by VESPA is used: "*Solar System Astronomy*"

NB: the full list is: *exoplanet-astronomy, solar-physics, solar-system-astronomy, planetary-science*

- Most keywords can be translated easily:
Curation work needed with providers.
- Some keywords are not available and must be included: *submission to UAT?*



TOPCAT(21): Table Browser

Table Browser for 21: TAP_24_rr.res_table,rr.res_subject,rr

	res_subject
1	asteroids
2	astronomy
3	Atmosphere
4	aurora
5	Aurora
6	Catalogs
7	Comet
8	CRISM
9	Earth
10	Event
11	gas giants planet
12	Geology
13	imaging
14	infrared
15	Ionosphere
16	Jupiter
17	magnetic field
18	magnetodisc
19	magnetosphere
20	Magnetosphere
21	Mars
22	Mars, crater, geology, surface, topography
23	Mars, craters, geology, surface, topography
24	Mars Express ; SPICAM ; Mars ; Stellar occultation ...
25	Neptune
26	planet
27	Planet
28	planetary-atmospheres
29	Planets
30	Profile
31	Radio Astronomy
32	Radio burst
33	satellite
34	Saturn
35	saturnian-satellites
36	Simulation
37	Small bodies
38	Solar system astronomy
39	Space Weather
40	Species
41	spectroscopy
42	Spectrum
43	subject
44	Sun
45	surveys
46	Terminator
47	Thermosphere
48	Uranus
49	USGS WMS
50	Venus
51	Venus Magnetosphere

Total: 51 Visible: 51 Selected: 0

Recommendations

- **For clients:** Recommended way to find EPN-TAP services (in a perfect world)

```
SELECT rr.res_table.ivoid FROM rr.res_table
  WHERE table_utype = 'ivo://vopdc.obspm/std/epncore#schema-2.0'
  AND ivoid NOT IN (SELECT rr.capability.ivoid
  FROM rr.capability WHERE cap_type = 'tr:tableaccess')
```

Currently shows 29 ivoids (out of 57 from VESPA portal)

- **For Providers :**
 - Use **IVOA-UAT keywords** for subjects (incl. VESPA top-level ones)
 - Register EpnCore table as a **CatalogService**
 - Use **table_utype** for advertising EPNcore data model
 - Use **served-by** relationship to TAP service

NB: if you use DaCHS with EPNcore Mixin + DaCHS publishing registry feature, this should be done properly.

- **For the registry:**
would be nice to have easy access to the original submission VOResource XML

Next steps

- Contact providers to update the faulty records.
Usually automatic when updating from (very?) old version of DaCHS.s
- How can we proceed if teams can't be reached or don't have resources (manpower, knowledge) to update the registry by themselves?