H2020 VESPA

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TAP protocol and EPN-TAP

❑ **TAP Table access Protocol is for accessing table in relational database. It come from IVOA**

- **It use an SQL like language called ADQL**
- **It handle polygon intersect and inclusion but using ICRS like coordinate, no projection**
- **It support Synchronous and asynchronous query**
- **All TAP services are registered in IVOA registry and can be discovered in a standard way.**

EPN-TAP

❏ **Each row on the table is a define parameter describe in**

https://voparis-confluence.obspm.fr/display/VES/EPNcore+v2

❏ **Vespa use a predifine list of mandatory parameters + a number of otionals**

- **It allow same queries on all services**
- **The parameters (metadata) used a common decription and unit.**
- **It's firstly coverage in time, spectrum, space + standard description of target, instrument, ...**

EPN-TAP implementation

 As it's a complex work to implement all IVOA TAP requirement we use DaCHS on of the two implementation framework.

http://soft.g-vo.org/dachs

DaCHS have easy install on Linux Debian Stable distribution :

https://voparis-confluence.obspm.fr/display/VES/Implementing+a+VESPA+service

http://docs.g-vo.org/DaCHS/install.html

- – It allow you to publish a table/view called epn_core using an existing database

As you have promote the table in the database, you must describe the content in DaCHS using a specific file q.rd (xml syntax)

https://github.com/epn-vespa/DaCHS-for-VESPA/tree/master/q.rd_examples

See also the DaCHS online documentation

If you use an existing table or view the syntax to ingest metadata in DaCHS is

gavo imp -m q.rd

As your service is ready please validate the structure of the output

Go to : http://voparis-validator.obspm.fr/

Select EPN-TAP2 and Load

Replace in query : select * from

By : select * from <MySchema>.epn_core

Fill URL of the service to validate

By : http://<URLofMyservice>/tap

Validate

EPN-TAP service registration

As you want your service to be discovered by all the VO Clients : Vespa, TapHandle, Topcat ...

You must declare it in the registry.

Two solutions :

Use DaCHS facilities, follow the (in construction) Tutorial :

https://voparis-confluence.obspm.fr/display/VES/Registering+your+VESPA+EPN-TAP+Server

Go to a One of the two open registries

http://registry.euro-vo.org/eurovo/#landing_page

http://nvo.stsci.edu/vor10/xpublish.aspx

To take advantage of facilities given by DaCHS we will describe the mixin procedure to ingest directly in the database the metadata :

From a csv file or directly from the data if data format is standard