VO Paris Data Centre - CDPP.

EUROPLANET Data Access Layer

DAL for Europlanet (pre existing)

- **Existing protocol dedicated to space mission PDAP evolution**

 V1.0 09/11/2011

http://planetarydata.org/standards/planetary-data-access-protocol-pdap/pdap-v1.0-09-11-2011/view

- **Typically based on Simple access protocol**

query REST type with param= or adql syntax /

- **Access portal at :**

    http://voparis-srv.obspm.fr/portal/ipda.php

DAL for Europlanet

Proposition of IDIS-TAP

- Based on core of Europlanet data model

- Simple and standard protocol used in IVOA

- Basic level of data access that can be used for any kind of data

- Can use the knowledge of OBSTap in IVOA

- Can used the clients developed on IVOA

- ❏ **Comprison with ObsTap**

Column Name Obs_core	EPN_Core	Description
	ressource_type	**dataset or granule**
dataproduct_type	**dataproduct_type**	*Logical data product type (image etc.)* **predefine list in EPN image, spectrum, dynamic_spectrum, spectral_cube, profile, volume, movie, cube, time_series, catalog, spatial_vector**
calib_level		Calibration level {0, 1, 2, 3} **in the response as processing_level**
obs_collection		Name of the data collection **In the response as well as reference and title**
obs_id		Observation ID
obs_publisher_did		Dataset identifier given by the publisher **In the response**

TAP description

🔲 **Comprison with ObsTap**

access_url		URL used to access (download) dataset **in the response**
access_format		File content format in the response
access_estsize		Estimated size of dataset in kilo bytes **in the response**
target_name	**target_name**	Astronomical object observed, if any **boby name + sample + exoplanet**
	target_class	**Enumeration planet, dwarf_planet, asteroid, satellite, interplanetary_medium, exoplanet, sample, ring, comet, star, sky, spacecraft, spacejunk.**
s_ra		Central right ascension, ICRS
s_dec		Central declination, ICRS

TAP description

□ **Comprison with ObsTap**

C1min	Spatial range
c2min	
c3min	
c1max	
c2max	
c3max	
c1_resol_min	Spatial resolution
c2_resol_min	
c3_resol_min	
c1_resol_max	
c2_resol_max	
c3_resol_max	
spatial_frame_type	Enumeration celestial(alph delta), body(lon, lat)

TAP description

□ **Comprison with ObsTap**

t_min	**t_min**	Start time in MJD **in JD**
t_max	**t_max**	Stop time in MJD **in JD**
	time_scale	**Define from stc mainly UTC**
t_exptime	**t_exp_min**	Total exposure time
	t_exp_max	**Needed for long exposure time and dataset**
t_resolution		Temporal resolution FWHM
	t_sampling_step_min	**sampling time for measurements of dynamical phenomena**
	t_sampling_step_max	

em_min	**spectral_range_min**	Start in spectral coordinates **frequency in Hz**
em_max	**spectral_range_max**	Stop in spectral coordinates
em_res_power		Spectral resolving power
	spectral_resolution_ min	**The spectral_resolution corresponds to the spectral bandwidth used for the measurement (Full Width at Half Maximum)**
	spectral_resolution_ max	
o_ucd	**measurement_type**	UCD of observable (e.g. phot.flux.density)
pol_states		List of polarization states or NULL if not applicable
facility_name		Name of the facility used for this observation
instrument_name		Name of the instrument used for this observation
	instrument_host_na me	
	instrument_name	

EPN-TAP

– Standard name of table or view epn_core

pb with schema name

– Need to define specific output metadata : target_region, unit, unit_scale, dimentional equation

– Complex questions of coordinate, time and spectroscopy

Why TAP & PDAP

PDAP is related to IPDA (PDS+PSA+JAXA)

- Data model specific to PDS description.

- Time Scale for modification of protocol is not compatible with Europlanet deliverable

- May not fit all type of data in the idis field

EPNTap implementation

Using GAVO framework
(thanks to Markus)

- Access via Topcat or Curl

- Dedicated client is needed.

- Already two resources available

- Need to register them.

- Service access

    http://voparis-tap.obspm.fr/__system__/tap/run/tap

EPNTap implementation

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Conclusion

TAP is a powerful flexible protocol

- – No need for asynchronous

- – Not so easy to implement unless you have publication tools