

# Semantics WG

## New vocabulary status

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# Moving controlled list of terms into Semantics

- There are still controlled value lists in specification of IVOA recommendations.
- Moving them to Semantics simplifies maintenance and curation of standards (not a new full version for a new term)
- Starting with EPN-TAP (joint with SSIG):  
<https://wiki.ivoa.net/twiki/bin/view/IVOA/EpnTapWordLists>
- Other lists identified in ObsLocTAP (one of them possibly reused in ObsCoreRadioExt).
- Working with other WG and IG to identify all lists.

# EPN-TAP controlled value lists

- **epn-product-type** : different set from ObsCore **product-type** but convergence should be possible eventually.  
<https://voparis-ns.obspm.fr/rdf/epn/2.0/product-type>
- **epn-target-class** : similar to **object-type** vocabulary in solar-system context  
<https://voparis-ns.obspm.fr/rdf/epn/2.0/target-class>
- **epn-spatial-frame-type** : no equivalent in other IVOA vocab  
<https://voparis-ns.obspm.fr/rdf/epn/2.0/spatial-frame-type>
- **epn-small-body-dynamical-class** : classification of solar system small bodies, based on their orbital characteristics  
<https://voparis-ns.obspm.fr/rdf/epn/2.0/small-body-dynamical-class>

# Other lists currently identified

- EPNcore : all lists not implemented yet (only draft)
- ObsLocTAP : execution\_status, tracking\_type, category
- LineTAP : terms from VAMDC dictionary

# Observation Facility

- Observation Facility vocabulary :
  - Observation facility == positional metadata (coordinate, orbit...) ; telescope, observatory, spacecraft, space mission, campaign...
  - Instrument == instrumental metadata (field of view, resolution, spectral range...)
- Many lists of names out there. Wikidata already includes most of identifiers in main lists.
  - We use Wikidata as source of first draft
- Name resolver (find the URI) available :
  - <https://voparis-elasticsearch.obspm.fr/obsfacility/resolve?q=<<STRING>>>
  - Result is ordered list matching your query <<STRING>>
- Vocabulary is being prepared, but still requires some curation
- IVOA Note also prepared to explain the building process

# Heliophysics Reference Frames

- IHDEA (Heliophysics, <https://ihdea.net>) is willing to coordinate closer with IVOA, especially with Semantic WG
- First action is lead by the IHDEA STCT (Space Time Coordinate and Transform) group. They want to describe reference frames and coordinate transforms. This will be based on the SPICE framework.
- In addition, we will produce a list of agreed terms for heliophysics reference frames.
- An initial working draft is here (based on the frames in CDPP/TREPS tool) :  
<https://voparis-ns.obspm.fr/rdf/ihdea/refframe>

# Planetary Reference Frames & Projections

- The Open Geospatial Consortium started defining planetary reference frames, and projections used to present data in maps.
- A registry of those frames and projection is available :  
<http://voparis-vespa-crs.obspm.fr:8080/web/>
- The output is presented in OGC WKT (Well known text) format
- Further work needed to map frames to IVOA RefFrame