The Observation Core Components Model

DM 2

Monday Nov 9th a-m

- Started in the context of the OBS/TAP project
  - Use cases gathered for Data Discovery (Uptake Committee)
- List the relevant observation metadata items for these use-cases
- Check their availability in data centers
- Select TAP/QL protocol as a target for implementation

- With these restrictions :

Build up a conception data model

Modeling Strategy / Scope

- Consider the specific context of OBS/TAP to define a set of Core Components classes

- Re-use classes from Spectrum and Characterisation Data model

- The Full Observation data model should offer an exhaustive general view on the observation metadata

- ObsCoreComponentsDM is a conception view from this more abstract model, derived for the OBS/TAP project

- Foot Print representation can also be derived from the Full Observation DM (Greene, Budavari, Bonnarel) and produce XML or VOTable serialisation

- Consistency between these models is essential for the VO.

Use-case synthesis

-
- Aim at data discovery → set of archive queries
- Most queries focus on physical axis description
  - Concepts covered in the IVOA Characterisation DM
- Multi-wavelength search
  - The spectral coverage should be hierarchical
    - Waveband
    - Filter band name
    - Spectral bounds
- Search on a 'data product type' → to be defined

Required parameters for OBS/TAP

- The mandatory list for OBS/TAP implementation is converging

- Should adjust the stragegy to provide a list which is
  - Understandable for the user formulating a query
  - Flexible enough to accomodate all regimes
  - Present in most of data archives
  - supported for every DBMS system (short names)

- See *ObsCorelistMandatory-v1.3Table.pdf* on the wiki

http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/ObsDMCoreComponents

- See also 'optionalObstap-v1.2tab.pdf'

Topics to discuss

- ## Observation Calibration Level

    - ### Suggestion
        0 - raw telemetry, raw data stream
        1 - formatted, uncalibrated
        2 - calibrated, instrument signature removed
        3 - higher-level product, combination, or optimally reprocessed
        Using a digit allows the meaning to be explained via phrases like the above
        rather than trying to express it all in one word

- ## Data product type

    - ### Several attempts suggested

        - Combined type (Alberto, Mireille)

        - Axis oriented classification (François B)

        - Dimension and axis types classification   (Pat, Doug)

    - Should we restrict ourselves to 6 max categories?

    - Pass it to Semantics group for a real classification /vocabulary

Conclusion

- Item/Utype List to get stabilised

- A test set of queries to be written from the use cases document and tested by data centers.

- Observation CoreComponents Model working draft currently written , to be issued by end of November

- Implementation discussion in DAL2 on Wed, 11
- Splinter meeting on Fri, 13 morning