

Observations

- Observations relatively simple
 - Photons from a part of the sky (discounting laboratory results)
 - Clear comparability and interoperability (everyone sees same sky, same sources, single time coordinate)
 - Clear standards
- Theory more complex
 - More phenomena
 - More detailed/complex/varied results
 - Simulator services seem hard to standardize on input parameters, maybe on data products ? DAL standard hard to see.
 - Data query services could be made more VO compatible through ADQL
 - At same time, simulator and data access services less well demarcated (compare robot telescopes vs archive access)
- Services producing observation-like results best target for standardization (and potentially of greatest interest to largest subset of community) :
 - Synthetic spectra
 - Models of local universe
 - Virtual telescope workflow

Stages of IVOA compatibility

0. Online availability (all: stability and documentation required)
 - Download library/standalone app via ftp/http
 - Web browser: HTML <FORM>(s)
 - HTTP GET/POST
 - SOAP/WSDL
 - Grid service
1. Registration
2. Produce VOTable
3. Have approved UCD tags
4. For data access services (somewhat blurred):
 1. Comply with ADQL (requires relational DB)
 2. Comply with a DAL standard
5. Fit in a grid/web workflow
6. Described by DM standard

WGs

- Registry
 - Need: registering non-standard services
- DAL
 - SIAP
 - SCP
 - SSAP: may be useful for synthetic spectra
 - Need (?): SNAP, ...
- VOQL
 - ADQL (= SQL)
 - SkyNode
- DM
 - SED: synthetic spectra
 - Characterization
 - Quantity
 - Need: Simulation (= computational metadata and provenance)
- UCD
 - Need: ?
- VOTable
 - utype
- Grid/Web services

First conclusions

- Simulator services: register as generic service with interface definition (we'll ask Registry WG how)
 - Once registered (as non-beta) web app can not be changed, only new versions possibly plus deprecation
- Data query services: ADQL applicable ?
 - UCDs relevant
 - Registry: How to describe theory datasets ?
 - Datamodel for similar datasets may be unified in IVOA standard model
 - Is data applicable for a SxxP standardization ? Is there an existing one applicable (eg SSAP for theory spectra)
 - Standardized simpledb like webapplication for quick startup of a web based RDB interface