A few lessons learnt from data modeling

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Different purposes for Data models

Core information

- VOResource
- VODataService
- STC
- Photometry

Data product oriented + Protocols

- Spectral DM → concepts
- SSA re-uses the concepts and add more for query parameters and access
- SSLDM → SLAP

Data model life cycle: first step

- Use-case oriented separate data models

- Good to start and get practice
- Helps to identify the core concepts and define the vocabulary

- Needs some iterations to converge and be robust
- Needs implementations to adjust to use-cases in practice

and not only the primary specification

Provides a patchy map of how our DMs cover the domain field

Caveat : avoid overlap of DMs : one major concept should be in only one model

Data model life cycle: second step

- Refactoring
- Identify reusable parts
- Identify abstract properties or roles
- Re-organise the concepts
- Fill the gaps

e.g : Spectral DM and side models : SED, Timeseries

Characterisation 2.0 need to access to external products (resolution maps, sensitivity maps, etc.)

Not yet modeled

Complex observations

- Consider various possible aggregations
  - Other efforts pointing to this : DCP ontology
- Consider the way the user proceeds
  - Need for intermediate preview data

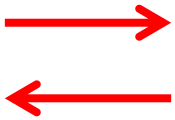
- Codes used in analysis of data
- Other use cases ?

The other approach

- Top-down from domain model down to physical data model
- Followed by the SimDM
- Gives a more uniform coverage of the needs
- Feasible for a rather homogeneous application domain
- Applicable with few contributors

Conclusion

- Having a complete view involves both approach

Applied models  Abstract view

Explore specification details

Organise the overall architechure

multiple iterations

in a reasonnable time