



THEORY SESSION 1

2011 Oct 17

Theory Interest Group

Agenda

- Theory - I: Monday 14:00 - 15:30 Bhaskara 2

Goals:

- discuss the last comments on SimDM gathered during the extended RFC,
- prepare the DAL/Theory joint session,
- check whether new theoretical project (e.g. IMPEX) can reuse SimDM 1.0,
- discuss new ideas related to theory in the VO

- Talks/discussions

- Michel Gangloff: IMPEX
- Carlo Maria-Zwolf: Parameter Data Language
- Discussion SimDAL

Goals

- SimDM

- In extended RFC until October 12th

- <http://www.ivoa.net/cgi-bin/twiki/bin/viewauth/IVOA/SimRFC>

Comments received during RFC extent

- In my opinion, there is a fundamental issue still missing in the document: Specific examples where the data model has been used. This is a complex model and without examples it will be very difficult for the data providers to implement it in their data collections.
 - Implementation examples can be found in the Implementation Note (see IVOA.MireilleLouys comment, DM WG at that time, on May 4th) in a form that editors found to be smarter than simply providing an endless XML file. The Implementation Note has been provided as an accompanying document of the PR, has been updated for the RFC extent and will be published as an IVOA Note soon after REC.
- For the Naples Interop. (May 2011) Carlos Rodrigo uploaded a couple of examples on the use of the data model in a very simple case (a collection of isochrones). He identified a number of problems (even in this very simple case) and asked for help and comments. No replies yet.
 - F. LePetit has answered (this morning) and has given advice.
 - It is not the purpose of SimDM to be serialized in a VOTable. For PDR 'micro-'simulations the XML file is 13000 lines long!

Comments received during RFC extent

- *A recent effort has been the proposal for a simpler access standard for small scale simulation, the Simple Self-describing Service protocol (S3, [14]).*
--> Remove "recent" or change it by "parallel". The S3 Note was published in 2008.
 - OK. Action: change *recent* by *parallel*
- *This was a result of an investigation started in the Cambridge 2007 interoperability meeting whether "micro-physics" simulations as they are sometimes called require special attention.*
This is not correct. A description of how to handle theoretical spectra (a clear example of "microsimulations") appears in a SSAP Proposed Recommendation issued on Sep 17, 2007. The Cambridge Interop. took place on Sep 27-28. What it is included in the Proposed Recommendation is the result of a joint collaboration between ESA-VO and SVO started some month before. Moreover, already in 2004, Spanish and Mexican groups were working in this topic in the framework of the PGoS3 project.
 - Handling theoretical spectra is related to handling the output of a modeling process or simulation (a DataObjectType in SimDM). The full description of the model (or the simulation) that produces such spectra is a much larger topic. Describing all kind of microsimulations, in a generic approach, is also a much larger topic that was decided during the Cambridge 2007 INTEROP.
- *The SimDM was shown to be able to incorporate the metadata for S3-like services, and indeed proposes extensions of that.*
Well. Not yet proven. Actually, this is why we are asking for comments about the couple of examples (using the model for isochrones) Carlos uploaded to the Twiki page some months ago. Simply because we do not know whether SimDM is able to incorporate the S3 metadata.
 - This has been discussed in various past INTEROP sessions and dedicated meetings (such as Sep 2010 in Strasbourg). SimDM has been improved to handle S3 services needs. The Implementation Note (section 5) contains an in-depth analysis of this problem.

Comments received during RFC extent

- *It was decided that the S3 protocol should be merged with/incorporated into the SimDAP² standard*

Clearly, this sentence has to be rephrased. It is quite weird to say that it was decided to merge/incorporate S3 into the SIMDAP standard if there is NO a single reference to SIMDAP in the whole IVOA Documents and standards page. On the contrary, you'll find there the S3 Note.

- S3 is indeed described in an IVOA Note but is not an IVOA standard. SimDAP is a long evolution from preliminary SNAP initiative and its goal is described in **The IVOA in 2008: Technical Assessment and Roadmap** release in August 2008. The decision to have only one access protocol for accessing simulation has been taken in Victoria 2010. SimDAL (which is the name of the common effort to define a DAL protocol) is in the IVOA roadmap since then. **Action: rephrase: "...should be merged with SimDAP protocol to create the SimDAL standard"**
- *The appendix document addresses this question from a formal point of view, namely by defining how S3-like services can be described by the data model.*
If I am correct, the appendix is not included in the document. And, again, whether S3 services can be described by the data model or not is still an open question (see above).
 - This is a mistake. Appendices have been included in the last document (20110906). **Action: replace "appendix document" by "implementation note"**
- *We then propose how also the S3 proposal could use the model.*
To my knowledge, not in the present version of the document.
 - Right. This part has been moved to the Implementation Note in order to collect all points related to implementation in a single document (see IVOA.MireilleLouys comment on May 4th)