

IVOA: DM Roadmap 2023a

For reference: [Data Model WG 2022B roadmap](#)

The following are works in progress in the working group, in approximate order of readiness for REC.

Spectrum 1.2 RFE: (MCD)

Add support for spectral order, and upper/lower_limits

- * go to RFC and REC this semester

- * Talked with Petr about implementation using "reorder" but really don't want to wait since this is not part of the original request.

- * Q: should it be deferred to 1.3?

- * Petr has another issue which he will put into the Git repository..

something about specifying a quantity "in a vacuum" which

- is not a linear conversion back-and-forth from air (this is in SSA I think).

Transform: (MCD)

Model for coordinate transforms

- * go to RFC and REC this semester. nearly ready..

- * confirm implementations are sufficient and sufficiently documented.

- * implement example python scripts as Jupyter notebooks. These demonstrate interoperability of gWCS and AST implementations.

VODML Toolkit: (PH)

gradle framework, executing various modeling utilities (validation, translation - dsl, html, schema, java)

- * any particular goals for this semester? Integrating into Dataset, Transform, Coordinates, Measurements models

- ** central repository gathering VODML models and creating a Java package for all models?

Dataset Metadata: (MCD)

Centralized model for dataset metadata content for use in various Data product models, the model for which ObsCore is a 'view'.

- * consensus on WD within the working group.

- * Fold in results from interop discussion on relation of (DS, CAOM, Char, Provenance) into WD

- * Need to define what 'implementations' are for this model.

Mango: (LM)

Model to expose data related to astronomical source objects a flexible way

- * pick-up where this was put aside for MIVOT priority

Any particular goal for this semester? 2022B roadmap has "REC", which seems ambitious

** would like brief discussion about continued mention of using Mango for TimeSeries..

** I know there is at least 1 issue to discuss in this model.. I think it was the ModelInstance element.

** How much of this is exercised in implementation?

ObsCore; extensions for Radio domain: (FB)

Additional elements required for discovery of Radio domain datasets

* < goals for this semester? >

Provenance, one step: (MS)

<Specialization> of Provenance model with the goal of serialization in Data Products (FITS, JSON, YAML)

* < goal for this semester.. NOTE? >

** I'm still not sure that the Dataset metadata content isn't essentially equivalent to what is described here.

** How would this fold into VODML? and using annotation in VOTables to provide Provenance info in those Data Products (Cube, Spectra, Mango)?

** Where is this Note being worked?

Proposal DM: (PH)

IVOA data model for making Observation Proposals. It is being created as a project within The Opticon RadioNet Pilot (<https://www.orp-h2020.eu>).

* < goal for this semester?>

** This work is being done on 'IVOA' project, not "IVOA-STD" where all the official standards projects live.

** There were some good questions at the interop about the use-cases this is supposed to serve and inputs from other missions

ie: it is unclear how/if this is an IVOA standard with input from just 1 source.

NDCube: (MCD)

Model for N-Dimensional cube data (Images to Sparse Cubes)

* No real goals for this model while dependent models go to REC. The work on HE data, Dataset usage and TimeSeries should

provide threads to create satisfactory implementations for moving forward.

* Need to review and update model dependencies on Meas/Coords which are now REC

* Need to define and execute implementations that will satisfy the RFC process

* Talked with Vandanna about FireFly migrating to use annotated Cube representation of a Spectrum.

** she said that Gregory D-F was the person who could make that happen.

Modeling High Energy datasets: (MS)

Seeding Interest group/club focused on ensuring the IVOA models support High Energy datasets

- * < goals for this semester? >

- ** This effort could define usage threads which exercise the Cube model in support of high energy data (one of its primary use-cases)

CAOM; discussion regarding its place in the IVOA model ecosystem.

The prospect of this model being adopted by the IVOA community has been looming for many years.

Since there is significant overlap in content between this model and Dataset, Provenance, Characterization, Meas/Coords..

we want to bring this to the forefront and have discussions to plan if/how this might happen.

Characterization 2.0: (ML)

Migration of Characterization to VODML compliant model.

- * may be effected by course of CAOM in the IVOA

Field of View DM: (FB)

Not sure what the scope of this is

- * 2022B goal: complete WD

- ** How does/should this relate to the "Region" component of STC1 (ie: does this serve as STC2 version of that content?)