

# DatasetDM and NDCube-1.0 status

#### Mark Cresitello-Dittmar, SAO



The USVOA is recognized by the American Astronomical Society (AAS) as a Special Interest Group (SIG) of the Working Group on Astronomical Software (WGAS).

IVOA Interop. Sydney

Mark Cresitello-Dittmar

Oct. 31, 2015

## DatasetDM

+ Document updated with comments from Sesto

- Generalized Derived object using ObsConfig pattern
- Updated some references and acknowledgments
- Converted section references to links

+ Updates to imbedded STC2 prototype

- 2015-05-04: Coordinates, Frames, dim. Consolidation
- 2015-10-14: Frame-Transform relation, Mapping

### + Submitted to IVOA Document repository - 2015-10-21



+ Very generic model for IVOA Observational Datasets – Compatible with ObsCore

+ No open issues

+ STC2 prototype is equivalent to model diagrams of 2015-10-14 (except for Transform elements)
– This is being actively worked



+ Document is stable and unchanged since 2015-03-20

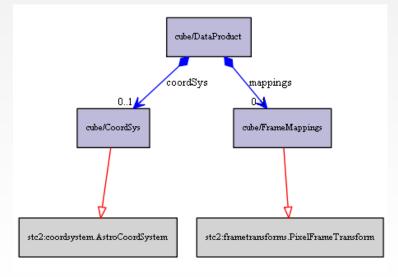
+ Generalizing Spectral library (speclib) to serve other model interfaces.

- Functional with Spectral-2.0 and Spectrum-1.1
- Need to add model specification and interfaces for Dataset and Cube models
- Enhance validation capabilities

# NDCube (cont.)

+ VODML-xml generation in progress

- Process works, cube model validates
- Evaluating and iterating on results
- With this, the vodml-xml interpreter functions on models developed by 3 methods (hand, Altoova, Modelio)



#### 2.2.2 objectType: DataProduct

vodml-id	cube.DataProduct	
description	TODO : Missing description : please, update your UML model asap.	
package	<u>cube</u>	
collections		
name	feature	value
coordSys	type	CoordSys [NDcube:cube.CoordSys]
	vodml-id	cube.DataProduct.coordSys
	multiplicity	01
	isOrdered	false
	description	TODO : Missing description : please, update your UML model asap.
mappings	type	FrameMappings [NDcube:cube.FrameMappings]
	vodml-id	cube.DataProduct.mappings
	multiplicity	01
	isOrdered	false
	description	TODO : Missing description : please, update your UML model asap.

# Next steps

+ Need specs for breadth and depth of reference implementations.

- + Serializations: but by which method?
  - 'traditional' utype based: no utype list or spec at present
  - 'vodml-mapping': document not settled
- + Serializations: by whom?
  - Siav2 effort can produce samples regularly sampled images?
  - Chandra, representation of event list?
  - Others?
- + Produce document for STC2
  - Remove prototype from DatasetDM document