# Planetary Data System

# **DDWG Update**

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MC Face-to-Face UMD, College Park, MD March 27-28, 2012

## **Topics**

- Summary of Progress to Date
- RFA Status
- Plans for Build 2c
- Next Steps

## **Summary of Progress to Date**

- Released PDS4 Data Standards V0.600h for Build 2b on January 31
- Updated product label preamble
- Updated Table classes
  - required for LADEE/MAVEN data products
- Implemented XML Schema 1.1 capabilities.
- Created a Data Provider Wiki with FAQ.
- Provided "catalog" products for testing.
- All DDWG Build 2b RFAs have been delivered/ implemented.

## **Summary of Progress to Date**

#### Development since Build 2b

- Good progress in learning how to use "master" schemas
- Updated Array class
  - Required for LADEE data product
- Added Packed\_Data\_Fields for bit fields to Table\_Binary
- Simplified Product\_Collection, Product\_Context, and Product\_SPICE\_Kernel.
- Using new validation mechanism for XML product labels.
  - Schematron is a rule-based validation language for making assertions.
- Started adding meanings to the data dictionary "value meaning" section.
  - For example, in filter\_name = T15, what does T15 mean?
- An incremental version is planned to support testing.

## **RFA Summary**

#### Build 2b

- The majority of the RFAs were DELIVERED by implementing the recommendations that resulted from the special teams process.
  - Review/recommend team; recommendations review team; implementation team
  - Special topics: e.g. label preamble, table, array, bundle collection, schematron
- The PDS4 data standards were delivered for LADEE & MAVEN product development as scheduled on Jan 31<sup>st</sup>
  - The DDWG continues to support the lead nodes as needed.

#### Build 2c

 Most of the pending RFAs are documentation related; The goal for Build 2c is a significant update of PDS4 Data Standards documentation.

#### **DDWG RFA Status**

•	Build 2b		<ul> <li>Build 2c</li> </ul>	
	• OPEN	0	• OPEN	0
	<ul> <li>PENDING</li> </ul>	0	<ul> <li>REQUIRES FOLLOW-UP</li> </ul>	1
	• DELIVERED	26	<ul><li>PENDING</li></ul>	15
	<ul> <li>CLOSED</li> </ul>	3	<ul> <li>IMPLEMENTED</li> </ul>	22
	• TOTAL	29	• CLOSED	5
			<ul> <li>TOTAL</li> </ul>	33

- Pending 10 Documentation
  - 3 Local Data Dictionary
  - 1 RS Data Formats
  - 1 Data Structure Issues
- Follow-up 1 Magic Number

#### Plans for Build 2c

- Documentation, Documentation
  - Information Model being updated and deployed for online access to class, attribute, value, and term definitions.
  - More details to follow.
- Comprehensive testing of the core model is required.
  - Includes node testing of the products and data objects, from binary tables to bundles and collections.
  - Includes continued development and testing of the validation rules in the schematron files.
  - Identify missing discipline classes.
- Significant updates to the schematron files are planned.

## **Next Steps**

- Obtain MC support for node testing of the core model.
- Freeze an incremental release of the schemas and information model for testing.
- Test the core model.
  - Address the issues found.
  - Update the schematron files as necessary.
  - Identify missing discipline classes.
- Deliver a updated suite of the data standards documentation.
- Release a new version of the data standards and documentation for build 2c by May 31.

#### Liens

- Build 2c Spice Products
  - Due to upcoming SPICE class (mid April) and large amount of work on the new toolkit release (planned for the end of April) NAIF will not be able to participate in this test.
  - NAIF will need to test the SPICE part of the model as part of 2d activities.

## **Questions and Answers**

## **Backup**

# **Build 2b Scope**

- Begin PDS4 label design for LADEE and MAVEN; Begin planning/testing migration (post release)
- Deploy a PDS4 standard that supports the Policy on "Acceptable PDS4 Data Formats"
- Transition the central catalog to the registry infrastructure
- Deploy early PDS4 software tools and services

## **Summary of Progress to Date**

- Key DDWG Liens Areas from ORR
  - Information Model
    - Compiled, reviewed, and applied a list of high priority actionable items.
    - 54 action items completed to date.
  - Local Data Dictionary (LDD)
    - Documented the then current local data dictionary process in a wiki and generated local schema and DD reports for LADEE and MAVEN
    - Have since proposed a new LDD approach.
  - PDS4 Data Standards Documentation
    - Made minimal changes to current documentation.
    - Created a Wiki site for new information.
  - PDS4 Master Schema (aka Extension Schema)
    - Implemented XML Schema 1.1, made related changes, and delivered schemas on schedule.

# PDS4 Documents and their Relationships

