DDWG Status

MC Face-to-Face
UCLA
Los Angeles, CA
February 4-5, 2016

Topics

- Information Model Status
- DDWG
- DDWG Task Statuses
- Conclusion

Information Model Status

- The PDS4 Common Model remains stable.
- V1.6.0.0 has been staged for the implementation of CCB approved SCRs and Bug Fixes
- Discipline dictionaries development continues.
- International community is engaged at all levels.

IM V1.6.0.0 Release Schedule

1. *Feb 25, 2016 – All SCRs to be included have been identified*

2. *Feb 25 - Mar 9, 2016 – Finalize implementation*
   - *Release IM to development directory*
   - *Internal testing*
   - *Address bugs*

3. *Mar 10 - Mar 23, 2016 – Node testing*
   - *Release IM to development directory*
   - *Perform regression testing at EN*

4. *Mar 24 - Mar 30, 2016 – Prepare IM for release to System I&T*

5. *Mar 31, 2016 – Release IM to release directory*
   - *"Start of Build" and System I&T*
   - *IM is frozen*

6. *System I&T - System Testing*

7. *System Release Build*

IM Update Status

- 6 - SCRs implemented in the staged V1.6.0.0.
- 11 – SCRs under consideration
- A detailed list of the SCRs is available in a backup slide.

DDWG

- The DDWG meets for a one hour teleconference on alternate weeks

- In general the DDWG Agenda consists of:
  - SCR Statuses
  - Tiger Team Statuses
  - Votes to recommend SCRs to the CCB
  - Some discussion on open issues.

Task - Geometry

Team lead and members: E. Guinness, M. Gordon, A. Raugh, C. Isbell, S. McLaughlin, B. Semenov , C. Acton, E. Rye, S. Hughes

Short Description: Capture geometry requirements from across the disciplines, obtain a consensus model, and write a geometry dictionary. Currently focusing on classes for flyby/orbital and landed missions.

Goals: Cross-discipline Geometry Model and Dictionary

Status:

Several rounds of review by DDWG and non-PDS interested parties.

Focus has been on classes for lander/rover geometry to support InSight cameras.

Orbiter classes mostly stable, but with some comments from DDWG to be resolved.

Projected Beta release this month.

Next will work on Earth-ground-based observations section.

Task - Cartography

Team leads: C. Isbell, J. Padams, E. Rye, R. Joyner

Short Description/Goals: Capture planetary cartography requirements and definitions across disciplines and projects. Produce a cross-discipline Cartography dictionary compliant with the PDS4 IM.

Schedule (Major milestones):

Done - Initiated Federal Geographic Data Committee (FGDC) based model, completed initial testing & sample product labels, extended FGDC model for Planetary (v1.2.0.0), presented status to IPDA, requested initial internal review, with additional extensions for v1.4.0.0

Done - Additional LDD updates: added latitude_type, request spheroid_name & reference_frame move (to GEOM), add/update scale/resolution attributes & descriptions.

Done - Completed internal PDS review. Implemented updates.

Nov 2015 – First operational version released (expect additional adjustments per wider use)

Task – PDS4/NSSDCA Interface

Team lead and members: McLaughlin, Bell, McCaslin, Kodis, Hughes, Hardman, Joyner, Guinness, Huber, Isbell, King, Raugh

Short Description & Goals: Develop an interface for transferring PDS4 data to the NSSDCA deep archive:

- Automate deliveries; eliminate multiple ingests of products
- Provide the ability to return basic products, collections and bundles from the deep archive; report on those entities
- Perform data integrity checks

Schedule (Major milestones)

Oct:Jan – Finalized NSSDCA's PDS4 ingest data model and generated the prototype product ingest database; Continued testing functionality of sample Submission Information Packages (SIPs) generated by EN; Latest SIP for LADEE NMS bundle is viable.

Feb:Apr – Finish drafting guidelines for generating SIPs and present to Nodes; Continue testing functionality of sample SIPS; Exercise prototype product ingest database using sample SIPs.

Apr:Jun – Continue testing functionality of sample SIPS; Fine tune procedures; Release product ingest database into production environment.

Task - Document Improvement - 1

Team members: D. Simpson, M. Gordon, R. Joyner

Short Description: Address issues associated with the PDS4 Data Standards documents; update documents as needed.

Goals: Consistent data standard documents and information model.

Schedule (ongoing work):

- Support Documents – Planned Reviews and Updates
  - *PDS4 Concepts* document (revised, posted for v1.4)
    - Glossary (included in above)
    - DD Tutorial (included in above)

Task- Document Improvement - 2

- *Standards Reference* (revised, posted for v1.4)
  - Comments from IPDA received but not evaluated

- *Data Providers' Handbook*
  - Sent to CCB for review; comments sent back
  - DPH updated with CCB comments
  - Need to determine best path to review and release
  - Need to determine future of DPH with respect to different types of data providers

Other Documents

- *Proposer's Archiving Guide*
  - To be discussed at this meeting

Data Providers' Handbook Plan

1. Release plan/recommendation for DPH v1.4.0
   - Form DDWG team to review DPH
   - Finalize and post and then move on to step 2
   - This gets latest version out while we work on a longer term plan

2. Develop long term plan for DPH to be discussed at the next MC F2F
   - Address expanding and diverse PDS4 data providers
   - DDWG team to provide inputs on how to structure
   - Review with MC and implement for Fall 2016 build

IPDA PDS4 Implementation

- Working with Santa Martinez to prioritize and work PDS4 open issues.
- PDS4 General / Standards / Information Model
  - PSA LDD contains attributes commonly used across missions – can they be standardized internationally?
  - Handling of detectors, sensor names / names within the same instrument.
  - Registering local dictionary with the PDS
  - Permissible value for Instrument Type – weather station for ExoMars16 and BepiColombo
  - Handling of version numbers for frequent deliveries.
  - Formation rules for context products
  - etc
- PDS4 SW tools
- Plan / Objectives for 2016

Conclusion

- Build 6b is on target but need to make sure there are no SCR surprises.

- The DDWG forms a tiger team for any issue that requires deliberation for resolution.
  - The tiger team presents the resolution to the DDWG for review, comment, and possible recommendation to the CCB.
    - This reduces the amount of deliberation required by the entire group.
  - The use of small teams helps to minimize the use of scarce discipline node resources.

Backup

Implemented SCRs

1. CCB-66 - Refine value domain definitions for ASCII_Numeric_Base2 and ASCII_Numeric_Base8 data types
2. CCB-121 - Information Model Specification Errors in Product_Collection.Collection
3. CCB-128 - DD description of Exponential and Logarithmic uniformly sampled data needs improvement.
4. CCB-134 - Add New Value for Type in Observing_System_Component
5. CCB-137 - Add Lunar Sample and Synthetic Sample to Target_Identification/type.
6. CCB-139 - Resolve Standards Inconsistency in Bundle 'Readme' File Format – Documentation updates only

SCRs under consideration

1. CCB-58 - IM Clean-up in Light of New Policy on Acceptable PDS4 Data Formats
2. CCB-59 - Update pattern Definition, Enumerated Values, and Their Definitions
3. CCB-77 - Augment Product Update with <File_Area_Update>
4. CCB-89 - Check that data_type and field_length are consistent.
5. CCB-93 - Implement Versioning for Class Definitions
6. CCB-126 - Incorrect Validation of Inventory Class by Validation Software
7. CCB-127 - Missing Reference Type for Product_Native
8. CCB-128 - DD description of Exponential and Logarithmic uniformly sampled data needs improvement
9. CCB-129 - Implement PDS4 Query Models
10. CCB-138 - Mismatch between context object types and values of <type> in <Observing_System_Component> class