

Title: PDS 2010 Data Standards Project

Project Status: Startup

Team Title : Data Design Working Group (DDWG)

Team Leader: Steve Hughes

Team Members:

Mitch Gordon (Rings)
Edward Guinness (Geosciences)
Lyle Huber (Atmospheres)
Ron Joyner (EN)
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Elizabeth Rye (Imaging, Standards)
Dick Simpson (Observer)

Description: The Data Design Working Group (DDWG) will design the components of the PDS Data Architecture based on the findings of the PDS Data Architecture Working Group (DAWG). The deliverables include a formal data model, a new version of PDS Standards, and a new data dictionary model. Users will be brought in to provide advice and review.

Timeline: (see diagram below)

04-Dec-2008 - Project and Project Members Defined
31-Dec-2008 - Requirements updated
30-Apr-2009 - General Data Model (Draft)
30-Apr-2009 - Product Data Model (Draft)
30-Apr-2009 - Data Dictionary Model (Draft)
30-Apr-2009 - Grammar Options Outlined
30-Apr-2009 - PDS Standards Reference (Outline)
30-Sep-2009 - Data Dictionary Model (Final)
30-Sep-2009 - Grammar Decision
30-Sep-2009 - PDS Standards Reference (Draft)
30-Jul-2010 - General Data Model (Final)
30-Jul-2010 - Product Data Model (Final)
30-Jul-2010 - PDS Standards Reference (Final)
30-Jul-2010 - PDS Data Dictionary (Prototype)

Governing Documents:

- PDS 2010 Project Plan, Executive Summary, July 1, 2008.
- PDS Requirements, L3 Updates: Approved by MC August 3, 2006.
- PDS 2010 "Fundamental" questions (with MC answers), Meeting Minutes, Planetary Data System (PDS) Management Council (MC) Meeting, 20-21 November 2008.

Reference Documents:

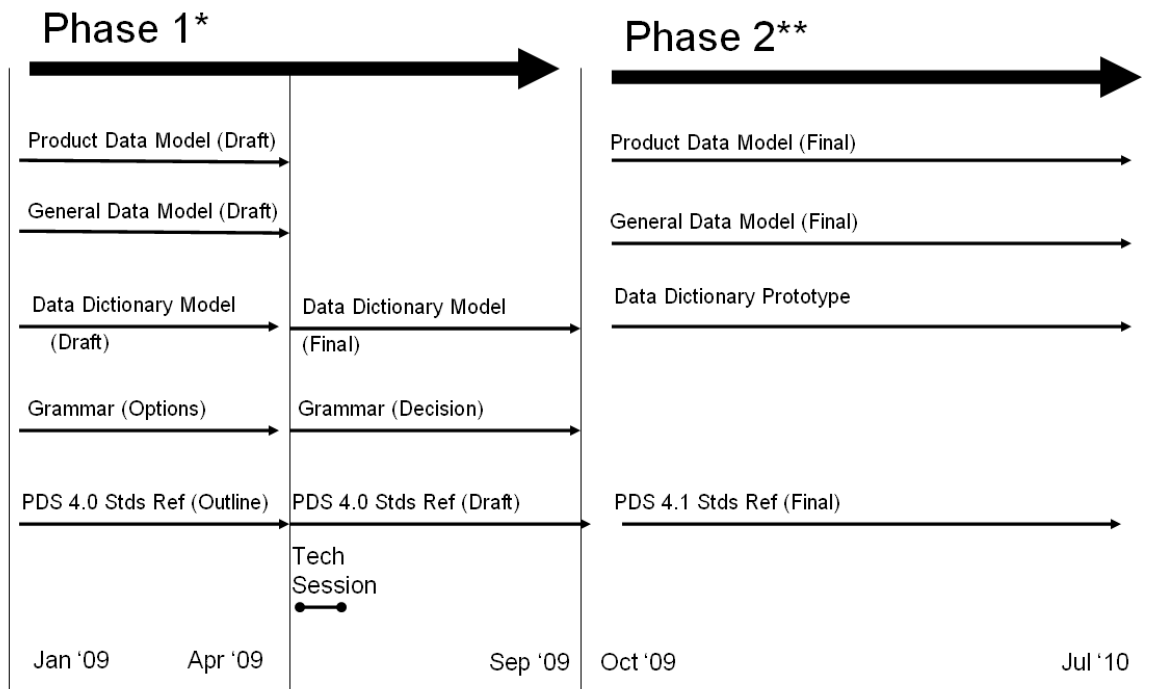
- PDS Information Model Specification, Version 0.070916t, September 8, 2008.
- PDS4 Data Model Problems, Fixes, and Impacts Summary Matrix, October, 2008
- PDS4 Data Model, Response to Requirements, October, 27, 2008.

- PDS 2010 Fundamental Questions, MC Presentation, November 20, 2008.
- PDS 4 Data Architecture - Developmental Approach, Tech Session Presentation, September 2008
- PDS 4 Data Architecture Report, MC Meeting Presentation, November 20, 2008.

Deliverables:

1. PDS4 Information Model Specification
 - The Information Model specification captures the PDS data models in a formal data engineering notation. The data model groupings currently under consideration are product, context, and operations.
2. PDS4 Data Dictionary Model
 - The Data Dictionary Model provides the schema for the PDS data dictionary.
3. PDS4 Data Dictionary Prototypes
 - The Data Dictionary prototype will consist of a migration of the PDS data dictionary content to a prototype database that conforms to the PDS4 Data Dictionary Model. This will be used as a reference by the systems development group to implement the PDS 2010 data dictionary.
4. PDS Standards Reference V4.0 and V4.1
 - Version 4.0 of the PDS Standards Reference document will be a rewrite of Version 3.x of the PDS Standards Reference. Most PDS data model information will be omitted from the standards reference since that information will be included in the Information Model specification document. Version 4.1 will be an update released toward the end of the project.
5. Grammar
 - The PDS Grammar will be used to capture PDS archive metadata. The plan is to either fix or replace ODL. XML is being considered as an additional grammar for processing.

Timeline Diagram:



✚*WG Design **PDS Node and Community Review and Implementation

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Document URLs:

- PDS 2010 Project Plan, Executive Summary, July 1, 2008.
 - <http://pds-engineering.jpl.nasa.gov/projects/PDS4/pds2010-execsummary20080701.pdf>
- PDS Requirements, L3 Updates: Approved by MC August 3, 2006.
 - http://pds-engineering.jpl.nasa.gov/system_eng/pds-level123-requirements-20060828.pdf
- "Fundamental" questions (with MC answers), Meeting Minutes, Planetary Data System (PDS) Management Council (MC) Meeting, 20-21 November 2008.
 - tbd
- PDS Information Model Specification, Version 0.070916t, September 8, 2008.
 - http://pds-engineering.jpl.nasa.gov/system_eng/InfoModel/PDSInfoModel.pdf
- PDS4 Data Model Problems, Fixes, and Impacts Summary Matrix, October, 2008.
 - http://pds-engineering.jpl.nasa.gov/system_eng/PDS4_InfoModel/anomaliessummary.xls
- PDS4 Data Model, Response to Requirements, October, 27, 2008.
 - http://pds-engineering.jpl.nasa.gov/system_eng/PDS4_InfoModel/requirements_response_matrix.xls
- PDS 2010 Fundamental Questions, MC Presentation, November 20, 2008.
 - tbd
- PDS 4 Data Architecture - Developmental Approach, Tech Session Presentation, September 2008
 - http://pds-engineering.jpl.nasa.gov/meeting/2008Tech/PDS4_DataArch_080923_B.pdf
- PDS 4 Data Architecture Report, MC Meeting Presentation, November 20, 2008
 - tbd