Phase II External Assessment for PDS4 Build 1d

Reports due: October 14, 2011

Please send input to Reta Beebe <rbeebe@nmsu.edu>

This assessment document is intended as a guideline for the 2nd Phase in assessing build 1d of the emerging PDS4 data standards. Version 1d will be the version used for external review. The objective is to ensure that the documents and content are appropriate so that data engineers and providers a) understand the emerging data standards at their current level; b) have an opportunity to provide input before this is set in stone and c) provide comments on how to improve the documentation/communication of the standard.

This Phase II 1d review is geared towards external data providers, system developers and external users.

It is important to note that the standards are a "work in progress". Therefore, some sections of documents are incomplete. For example the next principal focus in the PDS4 development cycle is identifying the discipline-specific extensions such as coordinate systems and camera models. Gathering input will help PDS determine the best path forward during 2011 as PDS prepares a production release of PDS4.

The information below provides a guideline of documents to review and example data products. It is followed by a set of questions to guide the input. Please provide those answers directly to Reta Beebe <rbeebe@nmsu.edu>.

Section 1 – Resources

> Build 1d includes a number of supporting documents that define the structure and usage of a PDS4 data product. The following provides links to the critical resources that you are requested to review during Phase II. Under each section is a set of criteria that would be useful to consider when answering the questions in section 3.

> **Build 1d Assessment Website** – this website contains links to the documents that support Build 1d. Links to all of the supporting materials required to assess Build 1d can be found at the following website under the Phase II Review section (login with username: pds4, password: 1dReview):

> > http://pds.jpl.nasa.gov/build1dreview/

Data Providers Handbook (DPH) – A cookbook to guide data providers step-by-step through the process of developing an archive.

As an assessor of Build 1d, review the document for its ability to:

- Guide / coach novice PDS4 data providers towards designing and producing PDS4 compliant products.

- Illustrate PDS4 concepts and building blocks and the data structures into which PDS4 products can be assembled.

- Provide meaningful, well-formed examples of PDS4 products.

Standards Reference – One of the two fundamental reference documents for PDS4. You will need this as you work your way through the Data Provider's Handbook and as you prepare an archive.

As an assessor of Build 1d, review the document for its ability to:

- Serve as a reference document detailing PDS4 Standards used in the preparation of PDS4 compliant data.

- Provide definitive, concise guidance to the preparation of a PDS4 compliant archive.

- Describe PDS4 principles and concepts and the data structures into which PDS4 products can be assembled.

Section 2 – PDS4 Data Products

PDS4 is a data product-centric model. Within PDS4, both the XML label and the data itself have specific rigidly defined structures that are governed by the standard and implemented in the PDS4 Information Model. The principal function of the XML label is to provide a concise definition of the structure and format of the underlying PDS4 product being described by the label. Please review the sample products below:

The sample data products to be reviewed can be found at the following build 1d review site under the Data Product Examples section:

http://pds.jpl.nasa.gov/build1dreview/

As an assessor of Build 1d, review the generated XML labels for the PDS4 products:

- To assess the XML label structure (e.g., the definition and content) and how well the label accurately defines the structure and format of the underlying PDS4 product.

- To assess the various functional components (e.g., <Product_Identification_Area>, <Observation_Area>, <File_Area>, etc) and how these area form a fully functional definition of the PDS4 product.

- Note that the XML labels conform to Version 0.3.0.0.e of the PDS4 product schemas.

Section 3 – Assessment Questions

Below are a set of questions to help guide the assessment. Given that PDS4 is a development project, your input will be very valuable in helping to set priorities in the future.

1) Do the document provide sufficient background and information for understanding PDS4 data standards? If not, how could they be improved?

2) Assess the four fundamental structures. Are they useful? Will they support your needs? Do you have products that you believe will not fit into the structures?

3) Assess the PDS4 product types. Do they provide an adequate set of baseline templates for constructing new templates and new PDS4 products? What is missing?

4) Assess the structure and layout of the PDS4 product examples? How can it be improved?

5) What overall recommendations do you have for the team? Do have you have suggestions for improvement?

Where possible, please itemize your final responses in the build 1d phase II review spreadsheet which includes a sheet for both issues and responses to the above questions.