

This is the Rings Node's response to the PDS4 Core document distributed during the January MC telecon. We have some general comments and then provide additional specific recommendations for each section of the document.

The document does not include a statement of purpose. The closest it comes is buried in the second paragraph and does not capture what we believe is the purpose.

“This document defines the core aspects of the data model and the associated software that will be used to support data suppliers in a version 1.0 public release of PDS4.”

We would argue that the following is a more accurate statement of the purpose.

“The purpose of the document is to give the MC enough information about what is and is not essential ("the core") with the understanding that the "core" must be functional in order for the MC to approve release 1.0. Assuming the document does provide that information, it would also provide the basis for the PDS internal review prior to the version 1.0 release.”

We also need a high level summary of the essential aspects of PDS4 for which the document is providing the details. Something like:

The minimum subset of PDS4 essential for the MC to authorize the first incremental 'public' release of PDS4 includes:

- A stable subset of product classes will be identified for data provider use, and the primary driver in determining which classes need to be sufficiently mature to afford long term stability was based on the needs of LADEE & MAVEN.
- Tools and services sufficient to meet the needs of data providers, focused on the needs of LADEE & MAVEN.

NOTES: Tools and services designed for end user support are specifically not included in the initial public release. Provided tools and services will be first generation and will evolve over future releases.

- Sufficient documentation to support the above.

Two terminology issues arise immediately.

- a) Use of “Version 1.0”. We share Mike Martin's concern that regardless of how clearly we try to explain that this is a limited release, with limited functionality, we are going to face

potential dissatisfaction from unmatched expectations from any end users who take a peek. We suggest referring to the first public release as either: as

- “Beta release, Version 1.0”, or
- “Version 1.0 for Data Providers”.

- b) Use of the term “core”. As an example, product level search is part of the ‘core’ capabilities planned for PDS4. However, product level search is not part of the essential services we expect to have ready for Version 1.0, and it shouldn’t be. When we say ‘core’ in the context of the document, we really mean “essential for release of Version 1.0”. Rather than the term “core of PDS4”, we recommend using the slightly more cumbersome, but more accurate term “essential subset of PDS4”.

With the above stated purpose and definitions, the current PDS4 Core Document is not adequate. We don't see how the managers can look at this document and reasonably say “this gives the targets; these are the minimum set of classes, documents, services and tools we consider essential for release 1.0”. Nor will they be able to turn to their staffs in April and say “Test the current build to see if the stuff we said is essential actually works”. We need more details.

The following are comments and suggestions referencing the specific contents of the current document.

I. Introduction & II. Core Information Model

Dick suggests these sections add nothing and could be removed. We recommend the introduction and the first two paragraphs of Section II be rewritten.

Here are some points that we think should be made in the Introduction.

Timeline:

- End of March: release 3b. Includes the full information model, schema, documentation, and available PDS4 system tools and services. A subset of release 3b will be identified as “essential” for the Version 1.0 “public” release.
- April – June: Acceptance testing and review by the PDS
- July: Assuming a favorable review and successful lien resolution, release Version 1.0 of PDS4 with the title suitably modified (e.g., “Beta release, Version 1.0”). It will include the full information model, schema, documentation, and available PDS4 system tools and services. A subset of Version 1.0 will be identified as “essential”.

Purpose of the Document:

“The purpose of this document is to give the MC enough information about what is and is not essential for release of Version 1.0, with the understanding that the "essential subset" of PDS4 identified here must be functional in order for the MC to approve release 1.0. This document also provides the basis for the PDS internal review prior to the version 1.0 release.”

General description of what we mean by the “essential subset” and its implications.

The “essential subset” of PDS4 is the target for the Version 1.0 release. It represents the minimum set that must be present in the release. This includes

- an identified subset of the Information Model essential for data design for the LADEE & MAVEN teams and migration of some PDS3 data by the nodes,
- Tools and services sufficient to meet the needs of data providers, focused on the needs of LADEE & MAVEN, including those essential for data preparation, validation, ingestion, migration and peer review.
- Documentation adequate to support these tasks and tool usage.

Regarding the contents of the Information Model, the expectation is that all classes identified as part of the essential subset will be sufficiently stable that the version 1.0 essential classes will be backwards compatible with future iterations of the IM.

Regarding the system portion of the essential subset, the expectation is that the essential services and tools will be functional, but that future iterations will likely produce improvements in ease of use, scope, and efficiency. We are looking for good enough, not perfect. Essential tools and services prepared for release 1.0 should be designed to support future improvements.

While at this stage we are identifying the minimum essential elements, the internal review may identify additional elements to be identified as essential in version 1.0 if they meet the expectations above. (This allows us to identify as reasonably stable additional classes beyond the minimum if they mature sufficiently rapidly).

Section II beginning with Data Structures

The remainder of this section seems unnecessary. It is sufficient to say that all four base structures are considered essential. Everything else is covered in better detail in what is now Appendix A.

Section III. Essential Software

This section lacks specificity. Dick does a good job of identifying short comings here in his items 6 through 14. We support every one of these points and don't see a need to reiterate them here. This portion of the document currently does not provide the information the MC needs in order to make the decisions before it. See also the section "Necessary additional documents" below.

IV. Essential Documentation

This section is not terribly enlightening, but should be sufficient for the MC's purposes. The list of documentation should also include "examples of products, collections and bundles". Either here, or in Section III, we need an explicit statement that all tools must include sufficient documentation.

Appendix A – Core Classes

Should be promoted to **Section II**, with the name changed appropriately and the corrections Dick specified in his item 4 (less the comment on SPICE). However this is still not sufficient detail. See below.

Necessary additional documents.

A document (spreadsheet?) listing every class in the IM, indicating which are in the "essential subset" required to be ready for version 1.0 and which are identified for subsequent releases.

A document (spreadsheet?) listing every projected service, indicating which are in the "essential subset" required to be ready for version 1.0 and which are identified for subsequent releases.

A document (spreadsheet?) listing every projected tool, indicating which are in the "essential subset" required to be ready for version 1.0 and which are identified for subsequent releases.

We need details; it is not sufficient to say the transformation tool is essential. For example, we need to know which transformations are essential for version 1.0 and which will be available with subsequent releases.