

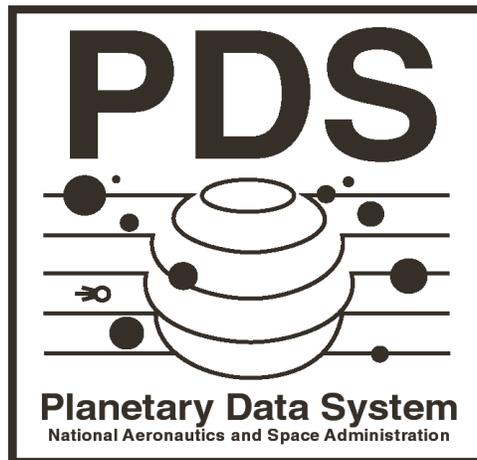
Planetary Data System

Home Page Requirements

DRAFT

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CHANGE LOG

Revision	Date	Description	Author
Initial Draft	Sept 03, 2006	Define L4/L5 PDS Home Page based on L3 requirements and use cases captured in the PDS Home Page Use Cases Document.	E.Law
V.061204	Dec 04, 2006	Incorporated Mark Rose's comments.	E.Law
V.061211	Dec 11, 2006	Accepted Ron Joyner's comments and matrix, updated table of content	E.Law
V.061219	Dec 19, 2006	Incorporated Dan Crichton and Sean Hardman's comments. Added requirements to map to new use cases. Updated traceability matrix.	E.Law
V.070103	Jan 03, 2007	Fixed use cases mapping	E.Law
V.070213	Feb 13, 2007	Remove L5 requirements, update L4 to align with latest use cases document	E.Law
V.070228	Feb 28, 2007	Accepted Todd King, and Mitch Gordon's edits. Updated based on working group telecon held on Feb 27, 2007.	E.Law
V.070301	Mar 01, 2007	Organized requirements by function	M.Gordon
V.070307	Mar 07, 2007	Aligned with use cases' new numbers	E.Law

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1.0 INTRODUCTION

1.1 Purpose

The purpose of this document is to provide level 4 requirements for the PDS Home Page. The PDS Home Page is the primary portal by which the PDS user communities gain access to PDS data and the various functions supported by the Home Page.

Note: *PDS Home Page* and *Home Page* are used within this document to describe the contents and capabilities of the entire web site located at <http://pds.nasa.gov>.

Within the context of this document, PDS archive data refers to any of the PDS products, data sets, software, and documents.

The principle functions of the PDS Web Interface are to:

- provide users with an introduction to the PDS and assist them in navigating the PDS on-line resources.
- provide users with mechanisms to locate and retrieve PDS resources, and to guide users in selecting the most suitable of the available options.
- provide users with access to supplemental information and/or links relating to the missions, instruments, citations, references, and software available in the PDS holdings.
- assist missions and other users in planning for, preparing, and submitting archive data and materials.
- provide information about the PDS data model, the structure and organization of the PDS, and access to PDS documents and tools.
- provide an interface to administrative features such as help pages, answers to Frequently Asked Questions, contact information, announcements, etc.

1.2 Scope

The scope of this document specifies the Level 4 PDS Home Page requirements that can be traceable to Level 1-3 PDS requirements, and/or the PDS Home Page Use Cases.

1.3 Notation

The L4 requirements are grouped into several categories:

- Finding Data – Searching for and navigating to desired data within any of the PDS nodes.
- Using PDS Data – Interpreting or manipulating PDS-format data, or finding tools and information necessary to interpret or manipulate the data.
- Archiving with the PDS – Planning for archiving and preparing data for archiving.
- Interacting with the PDS – Getting help, and keeping informed about new data, tools, and documents.
- External Capabilities or Requirements – Finding links to sites and applications external to the PDS that are commonly needed by users of the PDS, and complying with requirements external to the PDS.

The numbering of the requirements in this document will be formatted as

L4.HP.XX.YY.ZZ, where:

- **LX** represents the requirements level where X is a number.
- **HP** is an acronym representing Home Page requirements for the specified level.
- **XX** represents the category of the requirement:
 - **FR** – Finding Data
 - **UD** – Using PDS Data
 - **AD** – Archiving with the PDS
 - **IP** – Interacting with the PDS
 - **EX** – External capabilities or requirements
- **YY** is an optional field, **NR**, indicating a Non-Functional requirement.
- **ZZ** is a unique number for the category of requirement.

Following the text of a requirement will be the reference(s) to the higher-level requirement(s) from which it was derived [1]. The references will be in parenthesis.

Following the requirement reference will be the use case(s) from which the requirement was derived. The use cases are formatted as **UC-X** where **X** is a unique number [3]. The use cases will be in parenthesis.

1.4 Audience

This document is written primarily for those who will determine the scope of PDS Home Page usability improvement, and who will use the requirements to design and implement new and additional PDS Home Page capabilities, as well as enhance the PDS Home Page. The expected audience includes:

- PDS Management Council
- Web Interface Working Group

- PDS EN Web Development Staff
- PDS Nodes Staffs

1.5 Controlling Documents

[1] Planetary Data System (PDS) Level 1, 2 and 3 Requirements, August, 2006.

[2] Planetary Data System (PDS) System Requirements Document (SRD), In Preparation.

[3] Planetary Data System (PDS) Home Page Use Case, March 2007, Version 0.20070307.

1.6 Document Maintenance

New functionality may be requested from the PDS MC, Nodes and user community. This document will be evolved and updated to reflect any changes or additions accordingly.

2.0 LEVEL 4 REQUIREMENTS

This section details the level 4 functional and non-functional requirements for the PDS Home Page. These requirements are derived directly from the level 3 requirements [1] and/or use cases [3]. The requirements are functional requirements unless .NF. is included in the requirement identifier.

2.1 Finding Data Requirements

L4.HP.FD.1 - The PDS Home Page shall provide a set of search tools that allow users to easily find desired PDS datasets. (3.1.1) (UC-1)

L4.HP.FD.2 - The PDS Home Page shall provide direct links to Discipline Nodes search tools for users to find domain-specified PDS archive data. (3.1.2) (UC-1)

L4.HP.FD.3 - The PDS Home Page shall provide a set of search tools that allow users to easily find desired PDS compliant compatible datasets at other archive systems. (2.8.4) (UC-2)

L4.HP.FD.4 - The PDS Home Page shall inform users when desired data cannot be found via the PDS Home Page. (UC-1)

L4.HP.FD.5 - The PDS Home Page shall provide suggestions and information to help users select the best search tool to find desired PDS archive data. (UC-1)

L4.HP.FD.6 - The PDS Home Page shall allow users to easily find tutorial information with procedures and examples that will assist users in searching and retrieving archive data (UC-1, UC-2)

2.2 Using Data Requirements

L4.HP.UD.1 – The PDS Home Page shall allow users to easily find available and other supplemental information and software. (UC-3)

L4.HP.UD.2 – The PDS Home Page shall allow users to easily determine the best PDS staff member(s) to obtain assistance and find the contact information. (UC-4)

L4.HP.UD.3 – The PDS Home Page shall allow users to easily look up PDS archive citations and bibliographic references to find related articles and documents. (UC-5)

L4.HP.UD.4 - The PDS Home Page shall provide links to information for proposers to NASA data analysis programs interested in using PDS archival data. (UC-6)

2.3 Archiving Data Requirements

L4.HP.AD.1 – The PDS Home Page shall allow users to easily find the PDS data model and Standards. (1.4.1) (UC-12)

L4.HP.AD.2 – The PDS Home Page shall allow users to easily find all available PDS software tools and to download the ones that are of interest. (UC-3, UC-14)

L4.HP.AD.3 – The PDS Home Page shall provide suggestions and information to help users select the best tools to accomplish their tasks. (UC-3, UC-14)

L4.HP.AD.4 – The PDS Home Page shall allow users to easily look up PDS standard keywords and values. (1.4.2) (UC-11)

L4.HP.AD.5 - The PDS Home Page shall allow users to easily find tutorial information with procedures and examples that will assist users in archiving data:

- How to archive data with PDS (1.3.1) (UC-9)
- How to estimate cost of preparing and archiving data (1.3.1) (UC-9)
- How to submit data to PDS (2.2.1) (UC-8)
- How to prepare PDS compliant archival data (2.3.1) (UC-7)
- How to review archival data (2.4.1) (UC-10)

L4.HP.AD.6 – The PDS Home Page shall allow users to easily find International Planetary Data Alliance (IPDA) information including IPDA Standards. (2.8.4) (UC-13)

2.4 Interacting with PDS Requirements

L4.HP.IP.1 – The PDS Home Page shall provide a Frequently Asked Questions (FAQ) service that allows users to search and find the answers to questions commonly asked by other users without having to contact PDS staff. (UC-16)

L4.HP.IP.2 - The PDS Home Page shall provide an input mechanism that will allow users to easily submit comments and inquiries. (UC-18)

L4.HP.IP.3 - The PDS Home Page shall allow users to easily view PDS announcements including new releases of data, Standards, documents and tools, as well as general announcements. (UC-15)

L4.HP.IP.4 - The PDS Home Page shall provide a subscription service that will notify users when specified archive data set(s), tool(s), or PDS documentation is released or updated. (3.3.6) (UC-17)

L4.HP.IP.5 – The PDS Home Page shall provide links to the PDS Management and Nodes websites to allow users to easily navigate and find additional PDS information. (2.8)

2.5 External Requirements

L4.HP.EX.1 - The PDS Home Page shall allow for external links to relevant web pages such as mission home pages. (UC-20)

L4.HP.EX.2 - The PDS Home Page shall provide a link to the Planetary Photojournal to allow users to easily find and access images that are held in the Planetary Image Archive. (UC-19)

L4.HP.EX.NF.3 - The PDS Home Page shall comply to NASA web framework requirements to contain NASA header and footer, Freedom of Information Act, and NASA Privacy Statement and Copyright. (2.9.2)

APPENDIX A ACRONYMS

Acronyms pertaining to this document:

EN	Engineering Node (PDS)
FR	Functional Requirement
HP	Home Page
JPL	Jet Propulsion Laboratory
NASA	National Aeronautics and Space Administration
NF	Non-functional requirement
PDS	Planetary Data System
PSDD	Planetary Science Data Dictionary