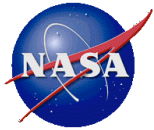# PDS Home Page

Engineering Node

March 28, 2007
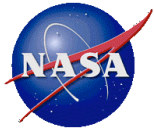
http://pds.nasa.gov/

Topics

- Background

- Goals

- Recent Accomplishments

- Use Cases Summary

- L4 Requirements Summary
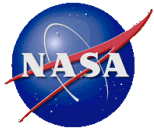
- Mockups

- Impacts

- Next Steps

- Backup Material

Background

- This effort was initiated at the August 2006 face to face MC meeting.

- "Improve web interface design based on lessons learned from usability study" was identified as one of the EN baseline expectation for FY07.

- An informal working group was formed to define requirements for the PDS web interface.

- First set of use cases were developed in September 2006.

- First set of L4 and L5 requirements were defined and sent to the MC in December 2006.

- Formal working group was established to focus the web effort on the PDS Home Page in January 2007.
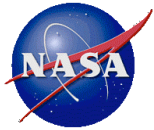
Goals

- Take users to tools within the discipline nodes for finding data products via the shortest and best paths.

- Improve usability and quality of the PDS Catalog data set search interface on the PDS Home Page.

- Improve usability of other areas of the PDS Home Page. For example:
  - Add a text search option on every page
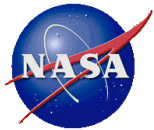 - Better accommodate different user roles

Recent Accomplishment

- Created PDS Home Page EN web page
    - http://pds-engineering.jpl.nasa.gov/index.cfm?pid=100&cid=102
- Revised use cases document
    - http://pds-engineering.jpl.nasa.gov/system_eng/pds_home_page_uc070307.pdf
- Completed L4 requirements document
    - http://pds-engineering.jpl.nasa.gov/system_eng/pds_home_page_req070307.pdf
- Created traceability matrix
    - http://pds-engineering.jpl.nasa.gov/system_eng/pds_home_page_matrix070307.pdf
- Started prototype of PDS Home Page mockups in lieu of defining L5 requirements
- Investigated and experimented application of published search strategies to PDS data set catalog
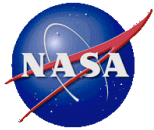- Documents and a few sample mockups ready for MC review

Use Cases Summary

- Finding Data
    - Find a search tool or a path
    - Find data sets

- Using PDS Data
    - Find tools and supplemental information
    - Find contact information
    - Follow citation in PDS data
    - Learn about DAP support

- Archiving with the PDS
    - Learn how to create a data archive plan
    - Learn how to prepare data
    - Learn how to submit data
    - Learn how to review data
    - Find keywords and values
    - Find archiving tools
    - Find PDS Archive Standards
    - Find related Standards
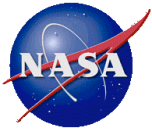
- Interacting with the PDS
    - Get answers to frequently asked and common questions
    - Find PDS announcements
    - Keep informed of new releases
    - Provide feedback and request help
- External capabilities
    - Find ready images
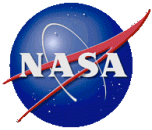   - Find related external sites
- A total of 20 use cases

Level 4 Requirements Summary

- 24 Requirements were derived from either L3 requirements and/or use cases

- 6 Finding Data requirements
  - **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)

- 4 Using PDS Data requirements
  - **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)

- 6 Archiving with the PDS requirements
  - **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)

- 5 Interacting with the PDS requirements
  - **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)

- 3 External capabilities 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)

Top Home Page Mockup

PDS: The Planetary Data System

Search [_____] **Search**

Quick Links

Search or browse data sets

Science Nodes
- Atmospheric Sciences
- Geosciences
- Imaging
- Navigation & Ancillary Information (NAIF)
- Planetary Plasma Interactions (PPI)
- Rings
- Small Bodies

PDS Management

Engineering Activities

Welcome to the PDS

The PDS archives and distributes scientific data from NASA planetary missions, astronomical observations, and laboratory measurements. The PDS is sponsored by NASA's Office of Space Science. Its purpose is to ensure the long-term usability of NASA data and to stimulate advanced research. Learn more about PDS.

Researchers

Search or browse for data sets

Find tools for viewing and working with PDS data

Visit other PDS science nodes

Students, Educators, & the General Public

Planetary Photojournal: the best in planetary images

Welcome to the Planets: an overview of our solar system

Find tools for viewing PDS images

Related sites for Earth and planetary information

Data Preparers, Reviewers & Proposers

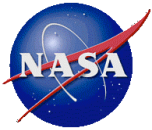Archive preparation guide

Information for proposers

Tools for data preparation

How to estimate archiving effort

Example documents and archives

PDS standards and documents

New Releases

27 Nov 2006
Odyssey Radio Science Data 54

1 Nov 2006
Mars Exploration Rovers Release 10

12 Oct 2006
Odyssey Radio Science Data 53

more releases...

get notified of new releases

2006 ROSES DAP

Cassini DAP (Atmospheres Node)

Cassini DAP (Rings Node)

Discovery DAP (Small Bodies Node)

PDS Nodes & Search Tools Page Mockup

PDS: The Planetary Data System

| Search |

Home | **Data** | Tools & Documentation | Related Sites | About PDS | Contact Us

Data Search | How to Search | Data Set Status

PDS Nodes and Search Tools

PDS Node Web Sites

There are 7 other PDS sites that are specialize in specific science disciplines or data types. Start your search with one of these sites, or use one of the search engines on the right.

Planetary Atmospheres Node
Repository of non-image atmospheric data of the planets and those moons that have an atmosphere.

Geosciences Node
Holds data related to the study of the surfaces and interiors of terrestrial planetary bodies.

Imaging Node
The curator of NASA's primary digital image collections from past, present and future planetary missions.

Planetary Plasma Interactions Node
Specializes in the interaction between the solar wind and planetary winds with planetary magnetospheres, ionospheres and surfaces.

Rings Node
Repository of data relevant to planetary ring systems.

Small Bodies Node
Specializes in data concerning asteroids, comets and interplanetary dust.

Navigation & Ancilliary Information Node
Holds data and tools to assist scientists in utilizing PDS data by providing geometry, time, and related information about the scientific observations.

Mission-Specific Search Tools

These tools let you search for PDS data products. This is usually the best way to access PDS data. If no tool looks appropriate, you can browse among the PDS data sets at the various PDS Node web sites on the left.

2001 MARS ODYSSEY (2)

2001 Mars Odyssey Image Search
Use the Planetary Atlas to search for GRS and THEMIS images from the 2001 Mars Odyssey mission

GRS Data Search
Search for data from the Gamma Ray Spectrometer from the 2001 Mars Odyssey mission.
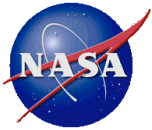
CASSINI-HUYGENS (1)

Cassini Image Search
Use the Planetary Atlas to search for ISS, VIMS, and Radar images from the Cassini mission.

DEEP SPACE PROGRAM SCIENCE EXPERIMENT (1)

Clementine Image Search
Use the Planetary Atlas to search for images from the Clementine mission to Earth's moon.

GALILEO (1)

Tools & Documentation Page Mockup

PDS: The Planetary Data System

[   ] Search

| Home | Data | **Tools & Documentation** | Related Sites | About PDS | Contact Us |

▶ Overview   Archive Preparation Guide   Information for Proposers   Data Dictionary Lookup

Tools & Documentation

Various tools for using and creating data are shown below. For more information and guidance in using these tools PDS data, contact the science node for your area of research. You may also want the PDS Phone Book to get contact information for others within the PDS community.

Tools for Using and Manipulating Data

NASAVIEW for viewing images

ISIS image maniuplation package

UNZIP for unpacking files in ZIP archives

Splash for tabular data display (Windows only)

Julian Library for date conversion

Kepler Library for computing target coordinates

Ring Profile Library: Earth-based profile data for planetary rings

Guides to the Archiving Process

Archive Preparation Guide: an overview of the archiving process

Information for proposers about creating an instrument or data analysis proposal

Archive cost analysis tool for estimating archiving costs

PDS Standards Reference: technical details on PDS archiving formats and standards

Example archive files and documents
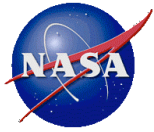
Tools for Archive Data Preparation

Data dictionary lookup tool to find details of keywords and values in PDS labels

Planetary Science Data Dictionary in downloadable format

PDS Tools Package: tools and libraries for low-level creation and access to PDS data

DITDOS tools for creating archive web sites

New Tools

7 Dec 2006
PDS Data Dictionary and Index Version 1.64

1 Dec 2006
VTool Label Validation Tool

Upcoming Tools
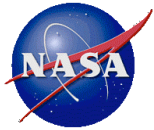
Summer 2007
RTool label validation reporting tool

Impacts

Potential impact to Nodes

- More prominence of Node search tools may highlight usability issues in those tools
- Back-links should be added to Nodes pages to return users to the PDS Home Page
- Possible Node search tools changes to use home page search parameters correctly
  - Home page search parameters should be passed on to Node tools
  - Tools should use these to pre-fill search forms
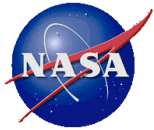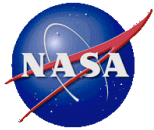 - Both have flaws today

Next Steps

- Obtain MC approval of Level 4 requirements and implementation plan (April 2007)

- Design (April - May 2007)
  - Select content management framework
  - Finalize usability test plan
  - Develop high level mockups
  - Complete site map
  - Hold design review with Tech Staff

- Implementation (June - July 2007)
  - Complete mockups
  - Conduct remote usability test with Tech Staff and external users
  - Create transition plan

- Generate test report and review test results with Tech Staff (July - August 2007)

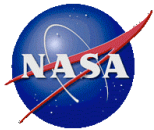- Present review result and demo at the next MC F2F (August - September 2007)

Backup Material

Finding Data L4 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)
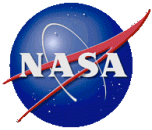
Using Data L4 requirements

- **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)
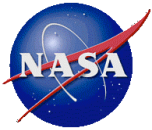
Archiving Data L4 requirements

- **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)
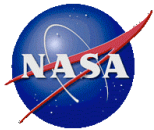
Interfacing with PDS L4 requirements

- **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)

External Capabilities L4 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)