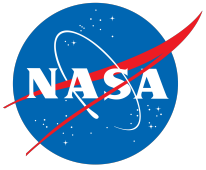




Software Tools

PDS Management Council Face-to-Face
Arcadia, California
September 28-29, 2015

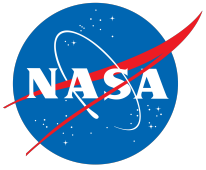
Sean Hardman



Topics

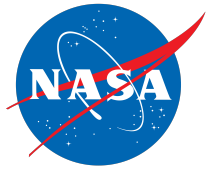


- Overview
- Build 6a
- Tool Status
- Reporting
- Build 6b
- Next Steps



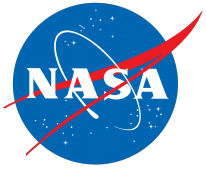
Overview

- Build 5b
 - Deployed to EN operations in May 2015.
 - Deployed to selected Nodes
 - Actively worked with Atmospheres and SBN PSI to deploy and populate the software.
- Build 6a
 - Delivery to Integration and Test scheduled for September 30, 2015.



Node Deployment

Node	Status	Comment
Atmospheres	Build 5b Installed	Populated with PDS4 content. Actively working with Node to improve performance and exercise PDS4 search scenarios.
Geosciences	Build 5b Installed	
Imaging (JPL)	Build 5a Installed	Actively working with Node to exercise PDS3 registration scenarios.
Imaging (USGS)	Build 4b Installed	
NAIF	Build 4b Installed	Current installation populated with PDS3 content.
PPI	Build 4b Installed	
Rings	Build 5a Installed	
Small Bodies (UMD)	Build 4b Installed	
Small Bodies (PSI)	Build 5b Installed	Populated with PDS4 content.



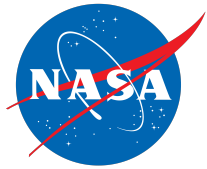
Build 6a Highlights

- Addressed the following issues:
 - 2 New, 12 Modified and 12 Corrected Capabilities
- Highlights
 - Harvest/Registry: Improved performance for registration, search and other issues.
 - Validate: Improve handling of bad or missing schemas and other general improvements.
 - Transform: Added support for commas in field names.
 - Report: Improved automation for metric log processing.
 - Portal: Updated the Phone Book Search interface.



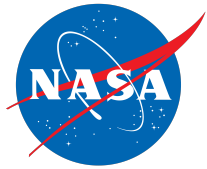
Tool Status

Tool	Tool Name	PDS Version	Classification	Developer/ Maintainer	Status
Label Design Intended to be a GUI-based tool for designing PDS label templates that conform to the PDS standards. This tool is not intended for bulk population of labels.	Oxygen/Eclipse	PDS4	Archive Preparation	COTS	COTS/Open Source
	LACE	PDS4	Archive Preparation	ARC	Available from ARC.
	APPS LDT	PDS4	Archive Preparation	AMMOS	Available from AMMOS.
	Label Template Design Tool (LTDTTool)	PDS3	Archive Preparation	Engineering	Released
Label Generation Software for generating PDS4 labels from existing PDS3 labels or a PDS4 DOM in bulk.	Generate Tool	PDS4	Archive Preparation	Engineering	Released
Local Data Dictionary Generation Software for generating a Local Data Dictionary in the form of an XML Schema file that can be referenced by product labels.	LDDTool	PDS4	Archive Preparation	Engineering	Released
Label and Data Validation Software for validating PDS4 product labels and product data. The associated specific schema for the product label specifies syntactic and semantic constraints. The product label itself specifies the constraints for the data.	Validate Tool	PDS4	Archive Preparation Archive Management	Engineering	Released / Upgrade in Progress
	Web-based Validator	PDS4	Archive Preparation Archive Management	ARC	Proposed
	Validation Tool (VTool)	PDS3	Archive Preparation Archive Management	Engineering	Released
	PDS3 Volume Validator	PDS3	Archive Preparation Archive Management	ARC	Released



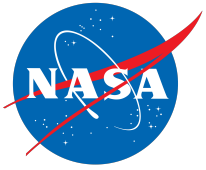
Tool Status (continued)

Tool	Tool Name	PDS Version	Classification	Developer/ Maintainer	Status
Label and Data Transformation Software for reading and writing PDS4 data products that also includes transforming data and label files into various formats.	Transform Tool	PDS4	Archive Management User Support	Engineering	Released
	PDS4 Tools	PDS4	Archive Preparation Archive Management User Support	ARC	Released
	Geospatial Data Abstraction Library (GDAL)	PDS3 PDS4	User Support	gdal.org	Released. An upgrade to support PDS4 is planned.
Data Visualization Software for displaying and visualizing PDS data products. Intended to include functionality currently provided by NASAView and TBTool for PDS3 data products.	TBD	PDS4	Archive Preparation Archive Management User Support	TBD	Planned to be integrated with transform tool to take advantage of open source image analysis tools.
	NASAView	PDS3	Archive Preparation Archive Management User Support	Engineering	Released
	PDS3 Table Slicer	PDS3	User Support	ARC	Released
PDS4 Core Tools and Services Tools and services for harvesting, registering and allowing search of PDS products.	Harvest Tool	PDS3 PDS4	Archive Management	Engineering	Released
	Registry Service	PDS3 PDS4	Archive Management	Engineering	Released
	Search Service	PDS3 PDS4	User Support	Engineering	Released



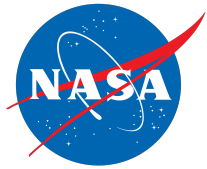
Tool Status (continued)

Tool	Tool Name	PDS Version	Classification	Developer/Maintainer	Status
Search Tools These tools offer specialized search and retrieval interfaces for PDS context products. These tools are built on the PDS4 Core Tools and Services.	Data Search	PDS3 PDS4	User Support	Engineering	Released
	Data Dictionary Search	PDS3 PDS4	Archive Preparation User Support	Engineering	Released
	Tool Registry	PDS3 PDS4	Archive Preparation Archive Management User Support	Engineering	Planned for Build 6a but still in design phase.
	Catalog Template Search	PDS3	Archive Preparation Archive Management	Engineering	Released. An upgrade to support PDS4 is planned.
	Reference Search	PDS3	Archive Management User Support	Engineering	Released. An upgrade to support PDS4 is planned.



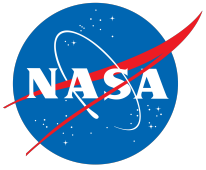
Reporting

- Successfully generated HQ metric reports for all Nodes last month.
 - Report files posted to EN site.
- Will work with management to ensure that the reports meet requirements.
- Other features of Sawmill are available to the Nodes.
 - Some have been disabled in order to streamline processing.



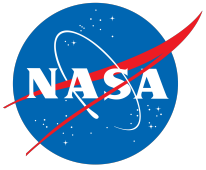
Node HQ Report Status

Node	Status
Atmospheres	Successfully pulled logs via FTP. No transformation necessary. Successfully generating monthly metric reports.
Geosciences	Successfully pulling logs via SFTP. Transformation of logs necessary. Successfully generating monthly metric reports.
Imaging (JPL/USGS)	Successfully pulling logs via FTP. No transformation necessary. Successfully generating monthly metric reports.
NAIF	Node successfully pushing logs via SCP. Transformation of FTP logs necessary. Successfully generating monthly metric reports.
PPI	Successfully pulling logs via SFTP. No transformation necessary. Successfully generating monthly metric reports.
Rings	Successfully pulling logs via HTTP. Decryption required. Successfully generating monthly metric reports.
Small Bodies (UMD)	Successfully pulling logs via HTTP. No transformation necessary. Successfully generating monthly metric reports.
Small Bodies (PSI)	Successfully pulled logs via HTTP. No transformation necessary. Successfully generating monthly metric reports.



Build 6b

- Focus on content validation.
 - Finalize updated validation requirements.
 - Working with Ames to incorporate content validation requirements into Core Library.
- Get Tracking Service development underway.
 - This is where archive status and certification status will reside for PDS4 bundles/collections.
- Better integrate registry content and search results with available tools and services.
 - This includes at the EN and the DNs.



Next Steps

- Continue to work with the Nodes and Management on metric report generation.
- Continue to work with the Nodes to deploy the PDS4 software locally and integrate it into their environments.
 - This includes population of the registries.
- Build 6b Development

Questions/Comments