PDS-NSSDC Interface Report
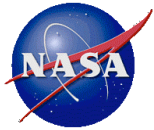
Engineering Node
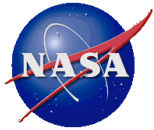
August 2006

http://pds.nasa.gov

Accomplishments

- Coordination Teleconferences (Jun, Jul, Aug, Sep, Oct 2005, Feb, Jul 2006)

- Initial version of the NSSDC MPGA software delivered, installed and tested at EN. (Aug 2005 - Jan 2006)
  - Completed Test Plan tailored to award fee item.
  - Completed Test Phases I, II and III limited to 2-gigabyte volumes.
  - Completed test result capture and documentation.

- Follow on version of the MPGA software delivered, installed and tested at EN. (May 2006)
  - AIP packages of roughly 4 and 50 gigabytes in size were created verifying that the 2-gigabyte limit had been exceeded.

- Paper presented at the 2006 IEEE Mass Storage Systems and Technologies (MSST2006) conference. (May 2006)
  - "A Classification and Evaluation of Data Movement Technologies for the Delivery of Highly Voluminous Scientific Data Products"

Recent Telecon (Jul 2006)

- NSSDC MPGA Software Status
  - Not much progress since May since the main developer had been temporarily reassigned.
  - Work still needed for the attribute map, NSSDC ID determination and the pipeline.

- Action Items
  - Provide information to NSSDC regarding a scenario for how the PDS will utilize the MPGA software in an operational environment. (EN)
  - NSSDC and PDS EN will coordinate schedules in the next couple of weeks before the PDS MC meeting. (NSSDC and EN)
  - NSSDC will provide PDS EN with some information regarding Don Sawyer's work on the attribute mapping. (NSSDC)

Plan

- Deliver a production ready version of the MPGA software (NSSDC - Oct 2006)
  - Incorporate PDS specific attributes in AIP generation
  - Incorporate determination of unique NSSDC storage identifiers
  - Simplify and/or provide interface for MPGA configuration and execution
  - Support DVD-sized (4 GB) and up to 50 gigabyte volumes.
- Receive and test the production ready version of the MPGA software (EN - Oct 2006)
- Test data transfers directly from Discipline Nodes to NSSDC (Nodes - Nov 2006)
  - Geosciences, Rings and Small Bodies have shown interest in participating.
- Prepare documentation for Distribution of Data to the NSSDC from PDS nodes (EN - Oct-Dec 2006)
  - Policy for electronic delivery to NSSDC.
  - PDS specific procedures for using the MPGA software.
- Obtain MC approval for release