

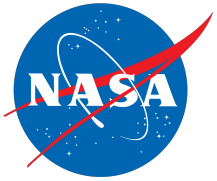


# PDS4 Operational Readiness Review

## LADEE Support

L. Neakrase, L. Huber  
ATMOS

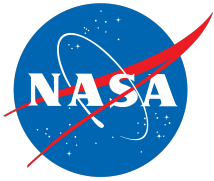




# ToR Requirements



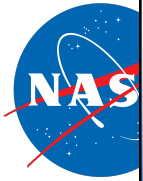
- All major issues and/or liens/actions identified during the review have been satisfactorily resolved and/or plans established to resolve them.
- PDS4 standards documents (Standards Reference, Data Providers Handbook, Concepts Document) are complete and usable.
- PDS4 examples are validated and registered.
- PDS4 deliveries tested by the lead nodes for LADEE and MAVEN.
- Core tools, both off the shelf and custom developed, are in place to support design and validation.



# LADEE Data Types



- First mission in PDS4 and all simple data types
- Software Interface Specification (SIS) documents for all instruments are in the final stages of lien resolution
- Each of the Instruments have simple data types
  - LDEX (ASCII Tables)                      Table\_Character
  - UVS (ASCII Tables)                        Table\_Character
  - NMS (ASCII Tables - delimited)        Table\_Character/Table\_Delimited



### LADEE Mission Bundle (ATM)

*bundle\_ladee\_mission.xml*  
*readme.txt*

**context collection**  
*collection\_mission\_context.xml*  
*collection\_mission\_context\_inventory.tab*

*urn:nasa:pds:ladee\_mission:context:[filename]*

**document collection**  
*collection\_mission\_document.xml*  
*collection\_mission\_document\_inventory.tab*

*ladee\_pds\_mission.xml/.pdf (investigation\_ladee.xml/.pdf)*  
*ladee\_pds\_spacecraft.xml/.pdf (instrument\_host\_ladee.xml/.pdf)*

*urn:nasa:pds:ladee\_mission:document:[filename]*

**xml\_schema collection**  
*collection\_ladee\_mission\_xml\_schema.xml*  
*collection\_ladee\_mission\_xml\_schema\_inventory.tab*

*\*PDS4\_PDS\_1000.xsd/.sch*  
*ladee\_1000.xsd/.sch*

*urn:nasa:pds:ladee\_mission:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_mission\_bundle*

### LDEX Bundle (SBN-Dust)

*bundle\_ladee\_ldex.xml*  
*readme.txt*

**context collection**  
*collection\_ldex\_context.xml*  
*collection\_ldex\_context\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:context:[filename]*

**document collection**  
*collection\_ldex\_document.xml*  
*collection\_ldex\_document\_inventory.tab*

*bundle\_description.xml/.txt \*ladee\_pds\_mission.xml/.pdf*  
*ldex\_pds\_sis.xml/.docx/.pdf \*ladee\_pds\_spacecraft.xml/.pdf*

*urn:nasa:pds:ladee\_ldex:document:[filename]*

**data\_housekeeping collection**  
*collection\_ldex\_data\_housekeeping.xml*  
*collection\_ldex\_data\_housekeeping\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:data\_housekeeping:[filename]*

**data\_calibrated collection**  
*collection\_ldex\_data\_calibrated.xml*  
*collection\_ldex\_data\_calibrated\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:data\_calibrated:[filename]*

**data\_reduced collection**  
*collection\_ldex\_data\_reduced.xml*  
*collection\_ldex\_data\_reduced\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:data\_reduced:[filename]*

**xml\_schema collection**  
*collection\_ldex\_xml\_schema.xml*  
*collection\_ldex\_xml\_schema\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_ldex\_bundle*

### UVS Bundle (ATM)

*bundle\_ladee\_uvsv.xml*  
*readme.txt*

**context collection**  
*collection\_uvsv\_context.xml*  
*collection\_uvsv\_context\_inventory.tab*

*urn:nasa:pds:ladee\_uvsv:context:[filename]*

**document collection**  
*collection\_uvsv\_document.xml*  
*collection\_uvsv\_document\_inventory.tab*

*UVS\_SIS.xml/.doc/.pdf \*ladee\_pds\_mission.xml/.pdf*  
*UVS\_operations.xml/.pdf \*ladee\_pds\_spacecraft.xml/.pdf*  
*UVS\_calibration.xml/.pdf*  
*instrument\_uvsv.xml/.pdf*

*urn:nasa:pds:ladee\_uvsv:document:[filename]*

**data\_raw collection**  
*collection\_uvsv\_data\_raw.xml*  
*collection\_uvsv\_data\_raw\_inventory.tab*

*urn:nasa:pds:ladee\_uvsv:data\_raw:[filename]*

**data\_calibrated collection**  
*collection\_uvsv\_data\_calibrated.xml*  
*collection\_uvsv\_data\_calibrated\_inventory.tab*

*urn:nasa:pds:ladee\_uvsv:data\_calibrated:[filename]*

**xml\_schema collection**  
*collection\_uvsv\_xml\_schema.xml*  
*collection\_uvsv\_xml\_schema\_inventory.tab*

*urn:nasa:pds:ladee\_uvsv:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_uvsv\_bundle*

### NMS Bundle (ATM)

*bundle\_ladee\_nms.xml*  
*readme.txt*

**context collection**  
*collection\_nms\_context.xml*  
*collection\_nms\_context\_inventory.tab*

*urn:nasa:pds:ladee\_nms:context:[filename]*

**document collection**  
*collection\_nms\_document.xml*  
*collection\_nms\_document\_inventory.tab*

*bundle\_description.xml/.pdf \*ladee\_pds\_mission.xml/.pdf*  
*nms\_pds\_icd.xml/.pdf \*ladee\_pds\_spacecraft.xml/.pdf*  
*nms\_pds\_sis.xml/.pdf*  
*nms\_cal\_report.xml/.pdf*

*urn:nasa:pds:ladee\_nms:document:[filename]*

**calibration collection**  
*collection\_nms\_calibration.xml*  
*collection\_nms\_calibration\_inventory.tab*

*urn:nasa:pds:ladee\_nms:calibration:[filename]*

**data\_raw collection**  
*collection\_nms\_data\_raw.xml*  
*collection\_nms\_data\_raw\_inventory.tab*

*urn:nasa:pds:ladee\_nms:data\_raw:[filename]*

**data\_calibrated collection**  
*collection\_nms\_data\_calibrated.xml*  
*collection\_nms\_data\_calibrated\_inventory.tab*

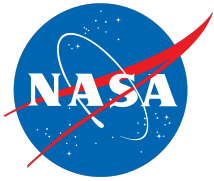
*urn:nasa:pds:ladee\_nms:data\_calibrated:[filename]*

**xml\_schema collection**  
*collection\_nms\_xml\_schema.xml*  
*collection\_nms\_xml\_schema\_inventory.tab*

*urn:nasa:pds:ladee\_nms:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_nms\_bundle*





## LDEX Bundle (SBN-Dust)

*bundle\_ladee\_ldex.xml*  
*readme.txt*

### context collection

*collection\_ldex\_context.xml*  
*collection\_ldex\_context\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:context:[filename]*

### document collection

*collection\_ldex\_document.xml*  
*collection\_ldex\_document\_inventory.tab*

*bundle\_description.xml/.txt* \**ladee\_pds\_mission.xml/.pdf*  
*ldex\_pds\_sis.xml/.docx/.pdf*

*urn:nasa:pds:ladee\_ldex:document:[filename]*

### data\_housekeeping collection

*collection\_ldex\_data\_housekeeping.xml*  
*collection\_ldex\_data\_housekeeping\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:data\_housekeeping:[filename]*

### data\_calibrated collection

*collection\_ldex\_data\_calibrated.xml*  
*collection\_ldex\_data\_calibrated\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:data\_calibrated:[filename]*

### data\_reduced collection

*collection\_ldex\_data\_reduced.xml*  
*collection\_ldex\_data\_reduced\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:data\_reduced:[filename]*

### xml\_schema collection

*collection\_ldex\_xml\_schema.xml*  
*collection\_ldex\_xml\_schema\_inventory.tab*

*urn:nasa:pds:ladee\_ldex:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_ldex\_bundle*

## UVS Bundle (ATM)

*bundle\_ladee\_uvs.xml*  
*readme.txt*

### context collection

*collection\_uvs\_context.xml*  
*collection\_uvs\_context\_inventory.tab*

*urn:nasa:pds:ladee\_uvs:context:[filename]*

### document collection

*collection\_uvs\_document.xml*  
*collection\_uvs\_document\_inventory.tab*

*UVS\_SIS.xml/.doc/.pdf* \**ladee\_pds\_mission.xml/.pdf*  
*UVS\_operations.xml/.pdf* \**ladee\_pds\_spacecraft.xml/.pdf*  
*UVS\_calibration.xml/.pdf*  
*instrument\_uvs.xml/.pdf*

*urn:nasa:pds:ladee\_uvs:document:[filename]*

### data\_raw collection

*collection\_uvs\_data\_raw.xml*  
*collection\_uvs\_data\_raw\_inventory.tab*

*urn:nasa:pds:ladee\_uvs:data\_raw:[filename]*

### data\_calibrated collection

*collection\_uvs\_data\_calibrated.xml*  
*collection\_uvs\_data\_calibrated\_inventory.tab*

*urn:nasa:pds:ladee\_uvs:data\_calibrated:[filename]*

### xml\_schema collection

*collection\_uvs\_xml\_schema.xml*  
*collection\_uvs\_xml\_schema\_inventory.tab*

*urn:nasa:pds:ladee\_uvs:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_uvs\_bundle*

## NMS Bundle (A7)

*bundle\_ladee*  
*readme.txt*

### context collection

*collection\_nms\_context.xml*  
*collection\_nms\_context\_inve*

*urn:nasa:pds:ladee\_nn*

### document collection

*collection\_nms\_document.xml*  
*collection\_nms\_document\_in*

*bundle\_description.xml/.pdf*  
*nms\_pds\_icd.xml/.pdf*  
*nms\_pds\_sis.xml/.pdf*  
*nms\_cal\_report.xml/.pdf*  
*urn:nasa:pds:ladee\_r*

### calibration collection

*collection\_nms\_calibration.xi*  
*collection\_nms\_calibration\_i*

*urn:nasa:pds:ladee\_nn*

### data\_raw collection

*collection\_nms\_data\_raw.xml*  
*collection\_nms\_data\_raw\_in*

*urn:nasa:pds:ladee\_n*

### data\_calibrated collecti

*collection\_nms\_data\_calibrat*  
*collection\_nms\_data\_calibrat*

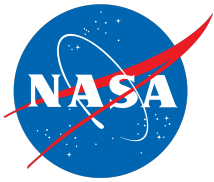
*urn:nasa:pds:ladee\_nn*

### xml\_schema collection

*collection\_nms\_xml\_schema.*  
*collection\_nms\_xml\_schema.*

*urn:nasa:pds:ladee\_nn*

*urn:nasa:pds:ladee\_nms\_b*



Flexibility for different data organization

**LDEX Bundle (SBN-Dust)**  
*bundle\_ladee\_ldex.xml*  
*readme.txt*

**context collection**  
*collection\_ldex\_context.xml*  
*collection\_ldex\_context\_inventory.tab*  
*urn:nasa:pds:ladee\_ldex:context:[filename]*

**document collection**  
*collection\_ldex\_document.xml*  
*collection\_ldex\_document\_inventory.tab*  
*bundle\_description.xml/.txt* \**ladee\_pds\_mission.xml/.pdf*  
*ldex\_pds\_sis.xml/.docx/.pdf*  
*urn:nasa:pds:ladee\_ldex:document:[filename]*

**data\_housekeeping collection**  
*collection\_ldex\_data\_housekeeping.xml*  
*collection\_ldex\_data\_housekeeping\_inventory.tab*  
*urn:nasa:pds:ladee\_ldex:data\_housekeeping:[filename]*

**data\_calibrated collection**  
*collection\_ldex\_data\_calibrated.xml*  
*collection\_ldex\_data\_calibrated\_inventory.tab*  
*urn:nasa:pds:ladee\_ldex:data\_calibrated:[filename]*

**data\_reduced collection**  
*collection\_ldex\_data\_reduced.xml*  
*collection\_ldex\_data\_reduced\_inventory.tab*  
*urn:nasa:pds:ladee\_ldex:data\_reduced:[filename]*

**xml\_schema collection**  
*collection\_ldex\_xml\_schema.xml*  
*collection\_ldex\_xml\_schema\_inventory.tab*  
*urn:nasa:pds:ladee\_ldex:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_ldex\_bundle*

**UVS Bundle (ATM)**  
*bundle\_ladee\_uvs.xml*  
*readme.txt*

**context collection**  
*collection\_uvs\_context.xml*  
*collection\_uvs\_context\_inventory.tab*  
*urn:nasa:pds:ladee\_uvs:context:[filename]*

**document collection**  
*collection\_uvs\_document.xml*  
*collection\_uvs\_document\_inventory.tab*  
*UVS\_SIS.xml/.doc/.pdf* \**ladee\_pds\_mission.xml/.pdf*  
*UVS\_operations.xml/.pdf* \**ladee\_pds\_spacecraft.xml/.pdf*  
*UVS\_calibration.xml/.pdf*  
*instrument\_uvs.xml/.pdf*  
*urn:nasa:pds:ladee\_uvs:document:[filename]*

**data\_raw collection**  
*collection\_uvs\_data\_raw.xml*  
*collection\_uvs\_data\_raw\_inventory.tab*  
*urn:nasa:pds:ladee\_uvs:data\_raw:[filename]*

**data\_calibrated collection**  
*collection\_uvs\_data\_calibrated.xml*  
*collection\_uvs\_data\_calibrated\_inventory.tab*  
*urn:nasa:pds:ladee\_uvs:data\_calibrated:[filename]*

**xml\_schema collection**  
*collection\_uvs\_xml\_schema.xml*  
*collection\_uvs\_xml\_schema\_inventory.tab*  
*urn:nasa:pds:ladee\_uvs:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_uvs\_bundle*

**NMS Bundle (MMS)**  
*bundle\_ladee\_nms.xml*  
*readme.txt*

**context collection**  
*collection\_nms\_context.xml*  
*collection\_nms\_context\_inventory.tab*  
*urn:nasa:pds:ladee\_nms:context:[filename]*

**document collection**  
*collection\_nms\_document.xml*  
*collection\_nms\_document\_inventory.tab*  
*bundle\_description.xml/.pdf*  
*nms\_pds\_icd.xml/.pdf*  
*nms\_pds\_sis.xml/.pdf*  
*nms\_cal\_report.xml/.pdf*  
*urn:nasa:pds:ladee\_nms:document:[filename]*

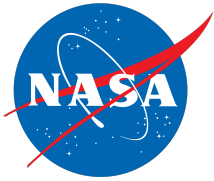
**calibration collection**  
*collection\_nms\_calibration.xml*  
*collection\_nms\_calibration\_inventory.tab*  
*urn:nasa:pds:ladee\_nms:calibration:[filename]*

**data\_raw collection**  
*collection\_nms\_data\_raw.xml*  
*collection\_nms\_data\_raw\_inventory.tab*  
*urn:nasa:pds:ladee\_nms:data\_raw:[filename]*

**data\_calibrated collection**  
*collection\_nms\_data\_calibrated.xml*  
*collection\_nms\_data\_calibrated\_inventory.tab*  
*urn:nasa:pds:ladee\_nms:data\_calibrated:[filename]*

**xml\_schema collection**  
*collection\_nms\_xml\_schema.xml*  
*collection\_nms\_xml\_schema\_inventory.tab*  
*urn:nasa:pds:ladee\_nms:xml\_schema:[filename]*

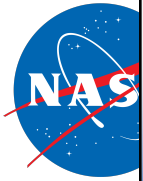
*urn:nasa:pds:ladee\_nms\_bundle*



Mission Bundles would house common files used between instruments (e.g., spacecraft or mission descriptions and context products, etc.)

<p><b>LADEE Mission Bundle (ATM)</b>  <i>bundle_ladee_mission.xml</i>  <i>readme.txt</i></p> <p><b>context collection</b>  <i>collection_mission_context.xml</i>  <i>collection_mission_context_inventory.tab</i></p> <p><i>urn:nasa:pds:ladee_mission:context:[filename]</i></p>	<p><b>document collection</b>  <i>collection_mission_document.xml</i>  <i>collection_mission_document_inventory.tab</i></p> <p><i>ladee_pds_mission.xml/.pdf (investigation_ladee.xml/.pdf)</i>  <i>ladee_pds_spacecraft.xml/.pdf (instrument_host_ladee.xml/.pdf)</i></p> <p><i>urn:nasa:pds:ladee_mission:document:[filename]</i></p>	<p><i>urn:nasa:pds:ladee_mission_bundle</i></p> <p><b>xml_schema collection</b>  <i>collection_ladee_mission_xml_schema.xml</i>  <i>collection_ladee_mission_xml_schema_inventory.tab</i></p> <p><i>*PDS4_PDS_1000.xsd/.sch</i>  <i>ladee_1000.xsd/.sch</i></p> <p><i>urn:nasa:pds:ladee_mission:xml_schema:[filename]</i></p>
<p><b>LDEX Bundle (SBN-Dust)</b>  <i>bundle_ladee_ldex.xml</i>  <i>readme.txt</i></p> <p><b>context collection</b>  <i>collection_ldex_context.xml</i>  <i>collection_ldex_context_inventory.tab</i></p> <p><i>urn:nasa:pds:ladee_ldex:context:[filename]</i></p> <p><b>document collection</b>  <i>collection_ldex_document.xml</i>  <i>collection_ldex_document_inventory.tab</i></p> <p><i>bundle_description.xml/.txt *ladee_pds_mission.xml/.pdf</i>  <i>ldex_pds_sis.xml/.docx/.pdf</i></p>	<p><b>UVS Bundle (ATM)</b>  <i>bundle_ladee_uvs.xml</i>  <i>readme.txt</i></p> <p><b>context collection</b>  <i>collection_uvs_context.xml</i>  <i>collection_uvs_context_inventory.tab</i></p> <p><i>urn:nasa:pds:ladee_uvs:context:[filename]</i></p> <p><b>document collection</b>  <i>collection_uvs_document.xml</i>  <i>collection_uvs_document_inventory.tab</i></p> <p><i>UVS_SIS.xml/.doc/.pdf *ladee_pds_mission.xml/.pdf</i>  <i>UVS_operations.xml/.pdf *ladee_pds_spacecraft.xml/.pdf</i></p>	<p><b>NMS Bundle (ATM)</b>  <i>bundle_ladee_nms.xml</i>  <i>readme.txt</i></p> <p><b>context collection</b>  <i>collection_nms_context.xml</i>  <i>collection_nms_context_inventory.tab</i></p> <p><i>urn:nasa:pds:ladee_nms:context:[filename]</i></p> <p><b>document collection</b>  <i>collection_nms_document.xml</i>  <i>collection_nms_document_inventory.tab</i></p> <p><i>bundle_description.xml/.pdf *ladee_pds_mission.xml/.pdf</i>  <i>nms_pds_icd.xml/.pdf *ladee_pds_spacecraft.xml/.pdf</i></p>





### LADEE Mission Bundle (ATM)

*bundle\_ladee\_mission.xml*  
*readme.txt*

**context collection**  
collection\_mission\_context.xml  
collection\_mission\_context\_inventory.tab

*urn:nasa:pds:ladee\_mission:context:[filename]*

**document collection**  
collection\_mission\_document.xml  
collection\_mission\_document\_inventory.tab

*ladee\_pds\_mission.xml/.pdf* (*investigation\_ladee.xml/.pdf*)  
*ladee\_pds\_spacecraft.xml/.pdf* (*instrument\_host\_ladee.xml/.pdf*)

*urn:nasa:pds:ladee\_mission:document:[filename]*

**xml\_schema collection**  
collection\_ladee\_mission\_xml\_schema.xml  
collection\_ladee\_mission\_xml\_schema\_inventory.tab

\*PDS4\_PDS\_1000.xsd/.sch  
*ladee\_1000.xsd/.sch*

*urn:nasa:pds:ladee\_mission:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_mission\_bundle*

### LDEX Bundle (SBN-Dust)

*bundle\_ladee\_ldex.xml*  
*readme.txt*

**context collection**  
collection\_ldex\_context.xml  
collection\_ldex\_context\_inventory.tab

*urn:nasa:pds:ladee\_ldex:context:[filename]*

**document collection**  
collection\_ldex\_document.xml  
collection\_ldex\_document\_inventory.tab

*bundle\_description.xml/.pdf* \**ladee\_pds\_mission.xml/.pdf*  
*ldex\_pds\_sis.xml/.docx/.pdf* \**ladee\_pds\_spacecraft.xml/.pdf*

*urn:nasa:pds:ladee\_ldex:document:[filename]*

**data\_housekeeping collection**  
collection\_ldex\_data\_housekeeping.xml  
collection\_ldex\_data\_housekeeping\_inventory.tab

*urn:nasa:pds:ladee\_ldex:data\_housekeeping:[filename]*

**data\_calibrated collection**  
collection\_ldex\_data\_calibrated.xml  
collection\_ldex\_data\_calibrated\_inventory.tab

*urn:nasa:pds:ladee\_ldex:data\_calibrated:[filename]*

**data\_reduced collection**  
collection\_ldex\_data\_reduced.xml  
collection\_ldex\_data\_reduced\_inventory.tab

*urn:nasa:pds:ladee\_ldex:data\_reduced:[filename]*

**xml\_schema collection**  
collection\_ldex\_xml\_schema.xml  
collection\_ldex\_xml\_schema\_inventory.tab

*urn:nasa:pds:ladee\_ldex:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_ldex\_bundle*

### UVS Bundle (ATM)

*bundle\_ladee\_uvs.xml*  
*readme.txt*

**context collection**  
collection\_uvs\_context.xml  
collection\_uvs\_context\_inventory.tab

*urn:nasa:pds:ladee\_uvs:context:[filename]*

**document collection**  
collection\_uvs\_document.xml  
collection\_uvs\_document\_inventory.tab

*UVS\_SIS.xml/.doc/.pdf* \**ladee\_pds\_mission.xml/.pdf*  
*UVS\_operations.xml/.pdf* \**ladee\_pds\_spacecraft.xml/.pdf*  
*UVS\_calibration.xml/.pdf*  
*instrument\_uvs.xml/.pdf*

*urn:nasa:pds:ladee\_uvs:document:[filename]*

**data\_raw collection**  
collection\_uvs\_data\_raw.xml  
collection\_uvs\_data\_raw\_inventory.tab

*urn:nasa:pds:ladee\_uvs:data\_raw:[filename]*

**data\_calibrated collection**  
collection\_uvs\_data\_calibrated.xml  
collection\_uvs\_data\_calibrated\_inventory.tab

*urn:nasa:pds:ladee\_uvs:data\_calibrated:[filename]*

**xml\_schema collection**  
collection\_uvs\_xml\_schema.xml  
collection\_uvs\_xml\_schema\_inventory.tab

*urn:nasa:pds:ladee\_uvs:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_uvs\_bundle*

### NMS Bundle (ATM)

*bundle\_ladee\_nms.xml*  
*readme.txt*

**context collection**  
collection\_nms\_context.xml  
collection\_nms\_context\_inventory.tab

*urn:nasa:pds:ladee\_nms:context:[filename]*

**document collection**  
collection\_nms\_document.xml  
collection\_nms\_document\_inventory.tab

*bundle\_description.xml/.pdf* \**ladee\_pds\_mission.xml/.pdf*  
*nms\_pds\_icd.xml/.pdf* \**ladee\_pds\_spacecraft.xml/.pdf*  
*nms\_pds\_sis.xml/.pdf*  
*nms\_cal\_report.xml/.pdf*

*urn:nasa:pds:ladee\_nms:document:[filename]*

**calibration collection**  
collection\_nms\_calibration.xml  
collection\_nms\_calibration\_inventory.tab

*urn:nasa:pds:ladee\_nms:calibration:[filename]*

**data\_raw collection**  
collection\_nms\_data\_raw.xml  
collection\_nms\_data\_raw\_inventory.tab

*urn:nasa:pds:ladee\_nms:data\_raw:[filename]*

**data\_calibrated collection**  
collection\_nms\_data\_calibrated.xml  
collection\_nms\_data\_calibrated\_inventory.tab

*urn:nasa:pds:ladee\_nms:data\_calibrated:[filename]*

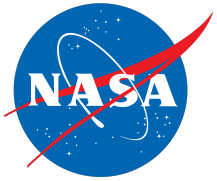
**xml\_schema collection**  
collection\_nms\_xml\_schema.xml  
collection\_nms\_xml\_schema\_inventory.tab

*urn:nasa:pds:ladee\_nms:xml\_schema:[filename]*

*urn:nasa:pds:ladee\_nms\_bundle*



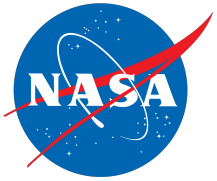




# Standards Documents



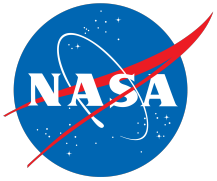
- LADEE instrument prep was occurring during the current editing of the PDS4 Document Set
- ATMOS coordinated between instruments to ensure up-to-date practices during label prototyping for the teams
- Standards Reference and Data Providers Handbook were used extensively during the interface process, with personal access to our development team to ensure compliance with the latest standards up to Version 1.0 (and 1.1 for PRS)
- Future updates will be the nodes' responsibilities



# Validation and Registration



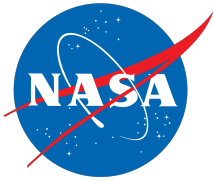
- ATMOS coordinated with the instrument teams to provide valid XML label templates for each of the instrument teams
- Valid label examples were generated by each team in order to complete their SIS documents
- Registration of LADEE data will be accomplished upon delivery
- Migrated Mars Phoenix data (Table\_Character) was used as a test bed for validation and registration in the local registry at ATMOS
- Based on analog studies using PHX, the LADEE data should pose no problems in validation and registration upon arrival



# Delivery of Data



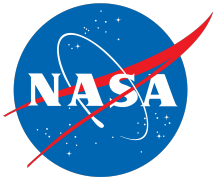
- UVS and NMS will deliver to ATMOS beginning the end of February 2014, with final delivery scheduled for May 2014
- LDEX will deliver to SBN-Dust subnode via the OLAF system there on the same schedule as UVS and NMS
- Communication between teams and PDS has been good, and we expect no problems for this delivery schedule
- Testing will be accomplished at the first delivery date in February 2014 (early submission is encouraged for validation)
- All LADEE data will be available through the web interface hosted by ATMOS after the May delivery



# Support Tools



- Data distribution to the public will be handled through a website at ATMOS, but hosted from appropriate linkage to participating nodes' holdings (ATMOS, SBN-Dust, NAIF, etc.)
- We intend to make use of the tools provided by the EN via the web services accessing our nodes' local registries searchable via both the PDS4 central registry and local node versions for tailored results
- The LADEE PDS4 mission website will provide information about the mission, timelines, and access to the data tailored for experienced and novice end-users alike



# Summary



- Through an iterative process with the instrument teams, the ATMOS has provided all requirements to satisfy the ToR requirements for the LADEE mission
- Proof of concept of the validation and registration process was completed using the PHX data sets as surrogates for the LADEE data
- All SIS documents have been reviewed and liens are addressed
- The path forward is clear to begin to receive and distribute PDS4 LADEE data in Spring 2014