
Plan Document

NASA Planetary Data System

PDS 2010 System

Build 2 Test Procedures & Report



No index entries found. Change Log

Revision	Date	Description	Author
Draft		Initial draft release.	
1c	May 16, 2011	Modified many tests to work with build 1c of Harvest and Registry. Other minor revisions.	Richard Chen
1d	Oct 24, 2011	Updated for build 1d	Richard Chen
2a	Nov 11, 2011	Updated for build 2a	Richard Chen

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1 Introduction

1.1 Purpose and Scope

This software system test documents specific test procedures and reports test steps and results of the system level tests that demonstrate the PDS 2010 system deployed for Build I. It verifies that PDS 2010 system Build I is compliant with Build I requirements, and ensures that the beta system functions are without critical defects. Test Traceability Matrix can be found in the PDS 2010 Build I Test Plan Section 4.

For PDS 2010 Build I, the following Prototype Software will be deployed at the EN:

- PDS Ingest subsystem (Harvest, Registry, Inventory, Document, Dictionary services), Report and Security services
- Tools suite (Label design and validation, Label and Schema generation)
- Internal administrative portal

The following Prototype Software will be deployed at one or two Discipline Nodes:

- Registry, Harvest services, and Report client

Detailed prototype release description document will be generated to facilitate and to detail the deployment activities.

Test resource will include EN developer to support unit testing, and Integration Team (which consists of EN and Node staff) to perform integration testing.

1.2 Document Revision

Revisions of this document will be held in the PDS Engineering Node website through the use of its document history functionality. Previous versions of this document can be accessed through the use of that tool.

1.3 Applicable Documents

1.3.1 Controlling Documents

[1] Planetary Data System Strategic Roadmap 2006 - 2016, February 2006.

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

1.3.2 Referenced Documents

[3] PDS 2010 Project Plan, March 2010.

[4] PDS 2010 Operations Concept, March 2010.

[4] System Architecture Specification, May 2010.

[5] General System Requirements, June 11, 2011.

[6] Service Software Requirements and Design, for the following:

- Registry Service, June 11, 2011
- Harvest Tool, June 12, 2011
- Security Service, June 11, 2011
- Report Service, June 12, 2011
- Preparation Tools, June 15, 2011

[7] PDS 2010 Build I Test Plan, June 2010.

2 Executive Summary

2.1 Assessment

The tools and services tested here work with the versions specified. However, changes to them and/or the information model broke tests that worked previously, and that is very likely to happen again.

2.2 Major Findings

All tested tools and services worked as described in the Service Software Requirements and Design documents above.

2.3 Success

Tools and services performed as documented.

2.4 Metrics

This section provides a summary of the test metrics

# of tests performed	# of tests passed	# of tests failed	# of high priority anomalies
26	24	2	0

3 Test Procedures for All Nodes

The following section lists procedures and results for the test cases identified as the suite of “PDS 2010 Build 2 system tests” in the PDS 2010 Build 2 Test Plan Section 3. These tests will be run as necessary to re-test the system after any software changes.

The test procedures assume the following software are installed locally:

- an XML-friendly web **browser**, e.g. firefox
- **curl**, a command-line utility to access a URL, used here to manipulate a registry. The Registry Service Guide has more information. This is native to most versions of unix.
- an **XML editor**, e.g. eclipse. This can be skipped, though not recommended.
- **Harvest**, <http://pds-engineering.jpl.nasa.gov/pds2010/development/1.2.0/harvest>
- **Validate**, <http://pds-engineering.jpl.nasa.gov/pds2010/development/1.2.0/preparation/validate>

The **Registry**, <http://pds-engineering.jpl.nasa.gov/pds2010/development/1.2.0/registry/registry-service/>, can reside remotely or locally, controlled or uncontrolled. Local installation makes testing easier, but installation and configuration can be difficult.

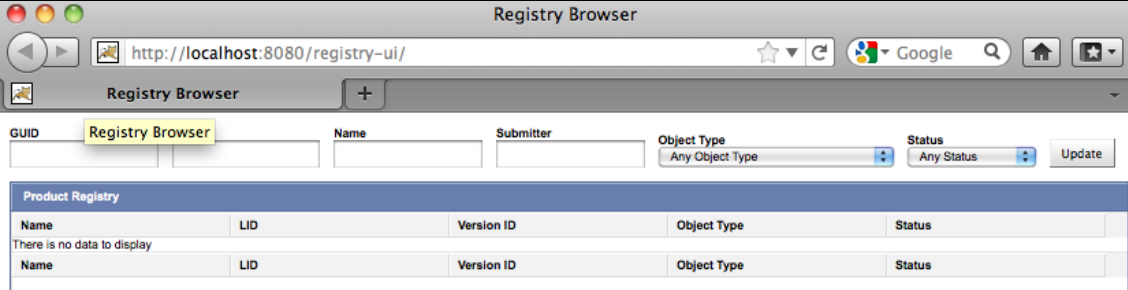
Please follow the installation instructions. For example, the Harvest and HarvestController commands usually require editing to use the correct registry, and those two and Validate also require editing to set environment variable JAVA_HOME.

The tests are written for Unix, though running on Windows should require only simple changes.

In the test procedures below, globally replace:

<i>testDir</i>	directory where input files are extracted
<i>harvestOptions</i>	<ul style="list-style-type: none"> • If the registry is uncontrolled, nothing • Else “-uusername -ppassword” Add “-k keystorePassword” depending on the registry configuration, e.g. if Harvest gives error “Keystore password must be specified”
<i>curlOptions</i>	<ul style="list-style-type: none"> • If the registry is uncontrolled, nothing • Else “-uusername:password -k”
<i>registryURL</i>	Depends. <ul style="list-style-type: none"> • http://localhost:8080, local, uncontrolled. Requires installing and configuring Apache Tomcat and the Registry Others that may be available: <ul style="list-style-type: none"> • https://localhost:8080, local, controlled. Requires installing and configuring Apache Tomcat and the Registry • https://pdstest.jpl.nasa.gov, a remote, controlled server

Test Case ID	SETUP for all tests
Description	This is not really a test.
Test Steps	Get PDS4test.build2a.zip from the "Test Procedures Input" link at http://pds-engineering.jpl.nasa.gov/index.cfm?pid=145&cid=175 . Extract the input files: <pre>mkdir testDir cd testDir unzip PDS4test.build2a.zip mkdir holdings</pre>
Test Results	
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	AATESTME.T1
Description	Query for a registered artifact
Test Steps	Verify in browser: registryURL/registry-ui If "Product Registry" shows rows of data, type "TESTING*" in LID, then hit "Update". If registry-ui is not installed, registryURL/registry/extrinsics/logicals/TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0
Test Results	 <p>If registry-ui has data to display, delete the product from the registry via AATESTME.T5 and re-run this test.</p>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

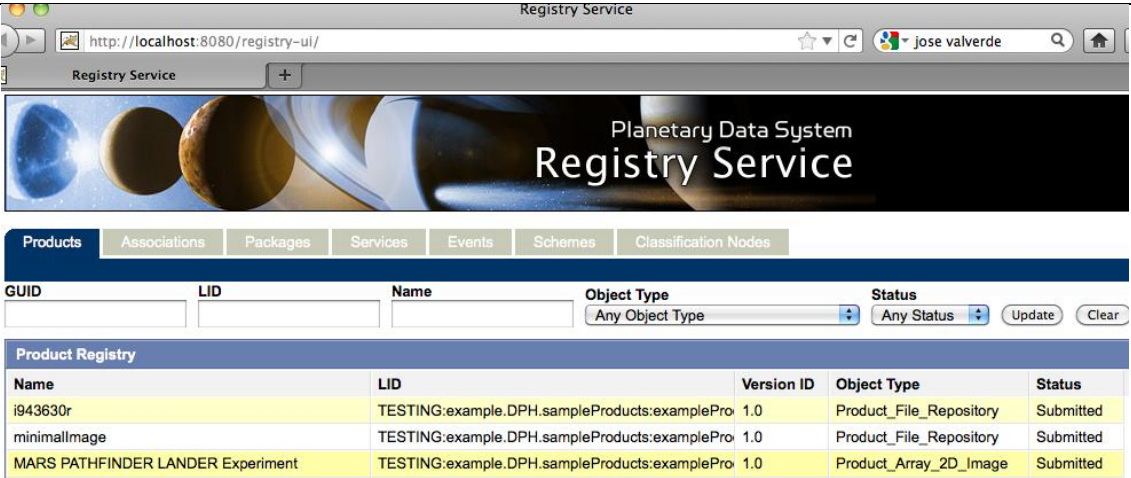
Test Case ID	AATESTME.T2
Description	Create a PDS Product Label using a design tool that initiates from an existing or a blank schema, accepts schema specification from a URL or a filename, facilitates editing of the label via standard editing features, validates, exports the schema, and

	<p>generates the file for the product.</p>
<p>Test Steps</p>	<p>Off-the-shelf XML editors, both free (e.g. eclipse) and commercial (oxygen), provide the functionality required. Verification of installation suffices. Thus,</p> <pre> mkdir holdings cp testAAtestme/ minimallImage.xml holdings/ minimallImage.xml </pre> <p>If manual verification of the XML editor's sufficiency as the design tool is desired, use the editor to create, validate , and export file holdings/ minimallImage.xml (instead of copying above). Tutorials for all editors are widely available. The file's contents:</p> <pre> <?xml version="1.0" encoding="UTF-8"?> <Product_Array_2D_Image xmlns="http://pds.nasa.gov/schema/pds4/pds/v04" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://pds.nasa.gov/schema/pds4/pds/v04 http://pds.nasa.gov/schema/pds4/generic/common/Product_Array_2D_Image_0411f.xsd"> <Data_Standards> <dd_version_id>0.4.1.1.f</dd_version_id> <std_ref_version_id>1.0</std_ref_version_id> </Data_Standards> <Identification_Area_Product> <logical_identifier>TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M- IMP-2-EDR-V1.0</logical_identifier> <version_id>1.0</version_id> <product_class>Product_Array_2D_Image</product_class> <title>MARS PATHFINDER LANDER Experiment</title> <last_modification_date_time>2011-08-23T00:00:00.00</last_modification_date_time> <type>example.DPH</type> <Subject_Area> <target_name>MARS</target_name> <instrument_name>IMAGER FOR MARS PATHFINDER</instrument_name> <instrument_host_name>MARS PATHFINDER LANDER</instrument_host_name> <investigation_name>MARS PATHFINDER</investigation_name> </Subject_Area> </Identification_Area_Product> <Cross_Reference_Area_Product> <Observing_System> <local_identifier>observing_system.MPFL</local_identifier> <name>Observing System for MPFL</name> <description>not applicable</description> <Observing_System_Component> <comment>not applicable</comment> <name>not applicable</name> <observing_system_component_type>Instrument</observing_system_component_type> <!-- <Reference_Entry_Observing_System_Component> <lid_reference>TESTING:instrument.IMP_MPFL</lid_reference> <reference_association_type>Instrument</reference_association_type> </Reference_Entry_Observing_System_Component> --> </Observing_System_Component> </Observing_System> <!-- <Reference_Entry_Product> <lid_reference>urn:nasa:pds:investigation.MARS_PATHFINDER</lid_reference> <reference_association_type>has_investigation</reference_association_type> </Reference_Entry_Product> --> </Cross_Reference_Area_Product> <Observation_Area> <comment>Observation Intent</comment> <start_date_time>1997-07-07T23:48:33.442Z</start_date_time> <stop_date_time>1997-07-07T23:48:51.766Z</stop_date_time> <spacecraft_clock_start_count>1246943630</spacecraft_clock_start_count> <spacecraft_clock_stop_count>unkown</spacecraft_clock_stop_count> <Mission_Area> </pre>

	<pre> </Mission_Area> <Node_Area> </Node_Area> </Observation_Area> <File_Area_Observational> <File> <local_identifier>i943630r.raw</local_identifier> <creation_date_time>2009-05-04T13:46:30.1158Z</creation_date_time> <file_name>i943630r.raw</file_name> <file_size>126976</file_size> <md5_checksum>d220dac0d1fe312f3f3b9c824f6ac294</md5_checksum> <records>270</records> </File> <Array_2D_Image base_class="Array_Base"> <local_identifier>MPFL-M-IMP_IMG_GRAYSCALE</local_identifier> <axes>2</axes> <axis_order>FIRST_INDEX_FASTEST</axis_order> <encoding_type>BINARY</encoding_type> <offset>0</offset> <Object_Statistics> <local_identifier>MPFL_M_IMP_STATISTICS</local_identifier> <maximum>4095</maximum> <mean>1385.3000</mean> <minimum>145</minimum> <standard_deviation>538.0290</standard_deviation> </Object_Statistics> <Array_Axis> <name>LINE</name> <unit>none</unit> <elements>248</elements> <sequence_number>1</sequence_number> </Array_Axis> <Array_Axis> <name>SAMPLE</name> <unit>none</unit> <elements>256</elements> <sequence_number>2</sequence_number> </Array_Axis> <Array_Element> <data_type>UnsignedMSB2</data_type> <scaling_factor>0</scaling_factor> <value_offset>0</value_offset> <unit>pixel</unit> </Array_Element> </Array_2D_Image> </File_Area_Observational> </Product_Array_2D_Image> </pre>
Test Results	File minimalImage.xml sits in directory holdings/.
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	AATESTME.T3
Description	For Harvest, provide a command-line interface, accept a configuration file, determine candidates for registration, capture metadata, submit metadata to the Registry Service. Registry accepts the artifact, assigns a global unique ID to the product.
Test Steps	<ol style="list-style-type: none"> 1. cp testAAtestme/harvestPolicy.xml . 2. Edit ./harvestPolicy.xml to modify <path> to testDir/holdings 3. Create the data file referred to in the label: touch holdings/i943630r.raw 4. Harvest <i>harvestOptions</i> harvestPolicy.xml

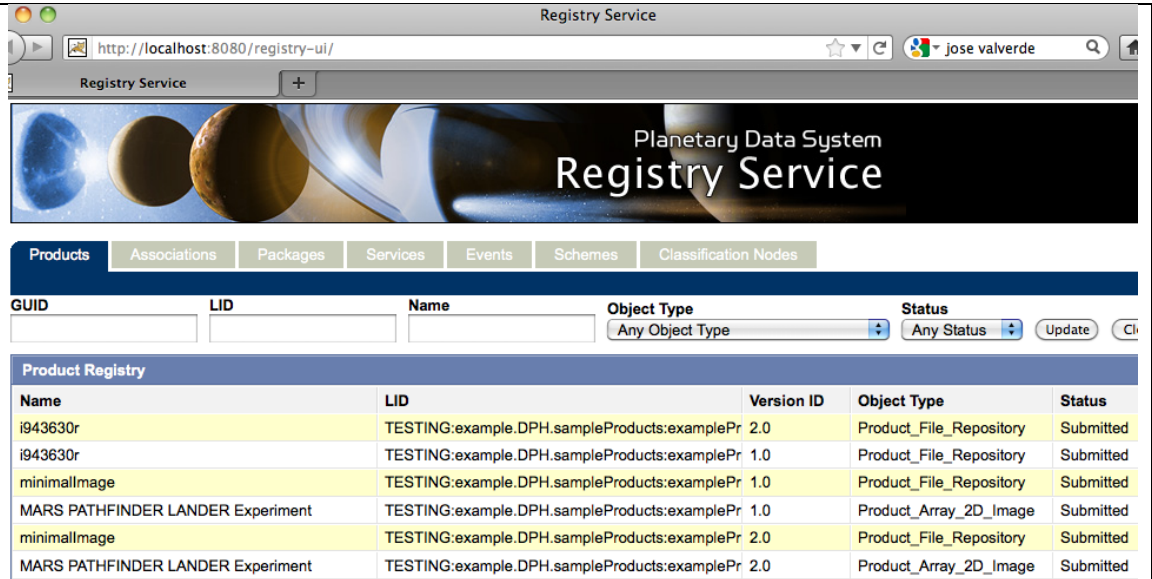
<p>Test Results</p>	<p>5. Verify in browser: registryURL/registry-ui</p> <p>Step 4 returns the following:</p> <pre> PDS Harvest Tool Log Version Version 1.0.0 Time Thu, Nov 17 2011 at 03:47:15 PM Registry Location registryURL/registry Registry Package Name Harvest-Package_20111117154715 Registration Package GUID urn:uuid:822b12ff-260f-4ffb-aedc-d2c4315b7da2 INFO: XML extractor set to the following default namespace: http://pds.nasa.gov/schema/pds4/pds/v04 INFO: [testDir/holdings/minimalImage.xml] Begin processing. INFO: [testDir/holdings/minimalImage.xml] No associations found. INFO: [testDir/holdings/minimalImage.xml] Captured file information for minimalImage.xml INFO: [testDir/holdings/minimalImage.xml] Capturing file object metadata for i943630r.raw SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0::1.0 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:88404965-74de- 40e6-8531-fc6a91f5e0de SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:minimalImage.xml::1.0 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:809825ba-b388- 4d82-961b-b4ff817a0b45 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:i943630r.raw::1.0 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:8025587b-a060- 47a7-810f-30017df8522b SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:minimalImage.xml::1.0 INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:576265b5- 2f61-4a76-95cf-6ab93c49341b SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:i943630r.raw::1.0 INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:85d9cc41- f496-4a38-9b15-4c4e2d49f09d Summary: 1 of 1 file(s) processed, 0 skipped 3 of 3 products registered. 2 of 2 associations registered, 0 skipped End of Log </pre> <p>Harvest registered product holdings/ minimalImage.xml because it has a <product_class> that matches harvestPolicy.xml's objectType.</p> <p>Step 5 shows the registration of the product referred to in minimalImage.xml as well as two extra products associated with this product: the metadata file (i.e. the label) minimalImage.xml and the data file i943630r.raw.</p>
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Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	AATESTME.T4
Description	(Skip this test if registry is uncontrolled) Authorize only authenticated users access to a controlled capacity.
Test Steps	1. Harvest <i>harvestOptions -username -pANY_BAD_PASSWORD harvestPolicy.xml</i>
Test Results	<p>Step 2:</p> <pre><html><head><title>Apache Tomcat/6.0.26 - Error report</title><style><!--H1 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:14px;} BODY {font-family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;} P {font-family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;} A {color : black;} A.name {color : black;} HR {color : #525D76;}--></style> </head><body><h1>HTTP Status 401 - </h1><HR size="1" noshade="noshade"><p>type Status report</p><p>message <u></u></p><p>description <u>This request requires HTTP authentication ().</u></p><HR size="1" noshade="noshade"><h3>Apache Tomcat/6.0.26</h3></body></html></pre> <p>Summary: 0 of 0 file(s) processed, 0 skipped 0 of 0 products registered. 0 of 0 associations registered, 0 skipped End of Log</p>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	AATESTME.T5
Description	Update and delete registered artifacts.
Test Steps	<ol style="list-style-type: none"> 1. Edit <code>holdings/minimalImage.xml</code> to change <code><version_id></code> to 4.4 2. Harvest <i>harvestOptions harvestPolicy.xml</i> 3. Verify in browser: registryURL/registry-ui 4. In AATESTME.T3's Test Results, step 3's output includes GUIDs (highlighted) assigned by Harvest/Registry to the 3 version 1.0 products. For each, replace

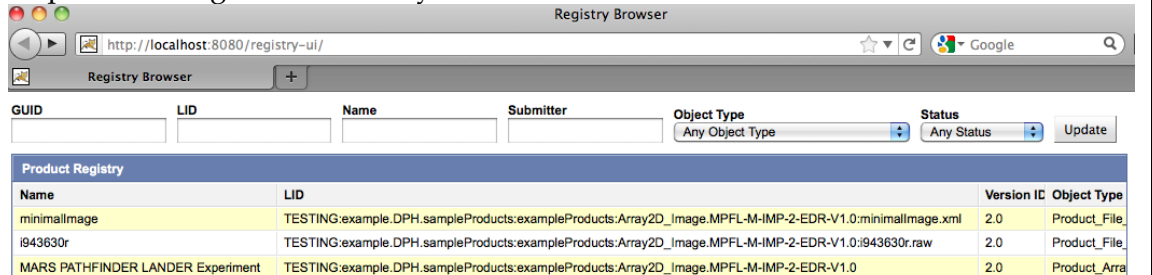
	<p><i>guid</i> below with the GUID: <code>curl curlOptions -X DELETE -v registryURL/registry/extrinsics/guid</code></p> <ol style="list-style-type: none"> 5. Verify in browser: registryURL/registry-ui 6. Step 2's output includes GUIDs (highlighted) assigned by Harvest/Registry to the 3 version 4.4 products. For each, replace <i>guid</i> below with the GUID: <code>curl curlOptions -X DELETE -v registryURL/registry/extrinsics/guid</code> 7. Verify in browser: registryURL/registry-ui
<p>Test Results</p>	<p>Step 2:</p> <pre> PDS Harvest Tool Log Version Version 1.0.0 Time Thu, Nov 17 2011 at 03:57:41 PM Registry Location registryURL/registry Registry Package Name Harvest-Package_20111117155741 Registration Package GUID urn:uuid:d1ee8a77-198a-43ba-97c5-cb3425081897 INFO: XML extractor set to the following default namespace: http://pds.nasa.gov/schema/pds4/pds/v04 INFO: [testDir/holdings/minimalImage.xml] Begin processing. INFO: [testDir/holdings/minimalImage.xml] No associations found. INFO: [testDir/holdings/minimalImage.xml] Captured file information for minimalImage.xml INFO: [testDir/holdings/minimalImage.xml] Capturing file object metadata for i943630r.raw SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0::4.4 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:f36b94c9-e525- 4b67-9f41-f544c50474d3 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:minimalImage.xml::4.4 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:a7fba08-f9e0- 4650-8bab-d7f3e6f25cc2 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:i943630r.raw::4.4 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:30997169-f7ef- 48bb-bf46-d3d7717796f6 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:minimalImage.xml::4.4 INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:8e22c18c- 9638-483b-bc5b-33e83b62fa43 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:i943630r.raw::4.4 INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:2d69a003- 6395-4bcf-b3e2-61ec99d1a7b3 Summary: 1 of 1 file(s) processed, 0 skipped 3 of 3 products registered. 2 of 2 associations registered, 0 skipped End of Log </pre> <p>Step 3: three additional lines displayed</p>



Step 4: For each of the 3 products to delete, output must have line "HTTP/1.1 200 OK".

```
* About to connect() to localhost port 8080 (#0)
* Trying 127.0.0.1... connected
* Connected to localhost (127.0.0.1) port 8080 (#0)
> DELETE /registry/extrinsics/urn:uuid:88404965-74de-40e6-8531-fc6a91f5e0de HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8r zlib/1.2.3
> Host: localhost:8080
> Accept: */*
< HTTP/1.1 200 OK
< Server: Apache-Coyote/1.1
< Content-Type: application/xml
< Content-Length: 0
< Date: Fri, 18 Nov 2011 00:00:07 GMT
* Connection #0 to host localhost left intact
* Closing connection #0
```

Step 5 shows registration of only the newer version



Step 6 has similar output to step 4

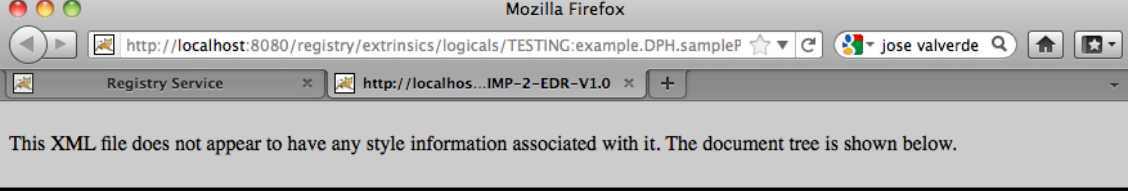
Step 7 shows no records with LID beginning with "TESTING"

Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	AATESTME.T6
Description	Harvest skips candidate products not matching configuration file
Test Steps	<ol style="list-style-type: none"> 1. cp testAatestme/unharvested* holdings/ 2. Harvest <i>harvestOptions</i> harvestPolicy.xml <p>In a browser, check the registration of the 2 unsuccessful and 1 successful products:</p> <ol style="list-style-type: none"> 3. Verify in browser: registryURL/registry-ui

<p>Test Results</p>	<p>Step 2: note that the two files unharvested* were skipped because harvestPolicy.xml does not list their types.</p> <pre> PDS Harvest Tool Log Version Version 1.0.0 Time Thu, Nov 17 2011 at 04:18:07 PM Registry Location registryURL/registry Registry Package Name Harvest-Package_20111117161807 Registration Package GUID urn:uuid:22e34864-b3c8-41ad-8d0b-721b1d6f1d56 INFO: XML extractor set to the following default namespace: http://pds.nasa.gov/schema/pds4/pds/v04 INFO: [testDir/holdings/minimalImage.xml] Begin processing. INFO: [testDir/holdings/minimalImage.xml] No associations found. INFO: [testDir/holdings/minimalImage.xml] Captured file information for minimalImage.xml INFO: [testDir/holdings/minimalImage.xml] Capturing file object metadata for i943630r.raw SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0:4.4 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:5be934f2-fe66-44b2-93a7-57de082ded35 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0:minimalImage.xml:4.4 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:c6aa9700-8d62-4919-9719-b691f34535e4 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0:i943630r.raw:4.4 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:56c98100-9bc3-4ff8-a138-7ee45247b446 INFO: [testDir/holdings/unharvestedDoc.xml] Begin processing. SKIP: [testDir/holdings/unharvestedDoc.xml] 'Product_Document' is not an object type found in the policy file. INFO: [testDir/holdings/unharvestedTable.xml] Begin processing. SKIP: [testDir/holdings/unharvestedTable.xml] 'Product_Table_Binary' is not an object type found in the policy file. SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0:minimalImage.xml:4.4 INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:2853cfbf-e23e-4328-bef7-b87d84a42b11 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0:i943630r.raw:4.4 INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:4fb4bbbb-e5ca-4e43-922b-11ddc4c50c78 Summary: 1 of 1 file(s) processed, 2 skipped 3 of 3 products registered. 2 of 2 associations registered, 0 skipped End of Log </pre> <p>Step 3: shows no LID with (from files unharvested*) TESTING:example.DPH.sampleProducts:exampleProducts:DocumentProduct.PHX-M-MECA-4-NIRDR-V1.0 or TESTING:example.DPH.sampleProducts:exampleProducts:TableBinjjj.PHX-M-TT-5-WIND-VEL-DIR-V1.0</p>
<p>Comments</p>	
<p>Date of Testing</p>	<p>2011 Nov 22</p>
<p>Test Personnel</p>	<p>Richard Chen</p>

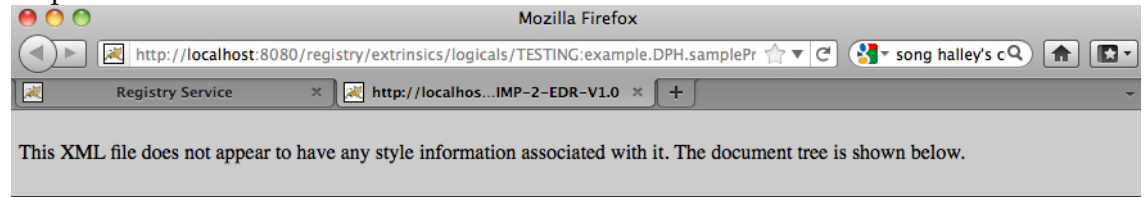
<p>Test Case ID</p>	<p>AATESTME.T7</p>
<p>Description</p>	<p>Registry relates artifacts via (LID-based) association.</p>

<p>Test Steps</p>	<ol style="list-style-type: none"> 1. Note whether minimalImage.xml was previously registered: <i>registryURL/registry/extrinsics/logicals/TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0</i> 2. Edit holdings/minimalImage.xml to: <ol style="list-style-type: none"> a. uncomment <Reference_Entry_Observing_System_Component> b. uncomment <Reference_Entry_Product> c. set <version_id> to 5.5 3. Harvest <i>harvestOptions</i> harvestPolicy.xml 4. Repeat step 1. This time note that the new version has slots for the two LID-based associations "Instrument" and "has_investigation"
<p>Test Results</p>	<p>Step 1: If minimalImage.xml was registered:</p>  <pre> - <ns2:response> - <ns2:results> - <ns2:extrinsicObject versionName="1.0" status="Submitted" objectType="Product_Array_2D_Image" name="MARS PATHFINDER LANDER Experiment" lid="TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-V1.0" home="http://localhost:8080/registry" guid="urn:uuid:5be934f2-fe66-44b2-93a7-57de082ded35"> - <ns2:slot name="local_identifier" id="1599"> <ns2:value>MPFL-M-IMP_IMG_GRAYSCALE</ns2:value> </ns2:slot> - <ns2:slot name="file_name" id="1600"> <ns2:value>i943630r.raw</ns2:value> </ns2:slot> - <ns2:slot name="version_id" id="1601"> <ns2:value>4.4</ns2:value> </ns2:slot> </ns2:extrinsicObject> </ns2:results> </ns2:response> </pre> <p>Step 3:</p> <pre> PDS Harvest Tool Log Version Version 1.0.0 Time Mon, Nov 21 2011 at 02:01:38 PM Registry Location registryURL/registry Registry Package Name Harvest-Package_20111121140137 Registration Package GUID urn:uuid:f54b0457-3f17-49d5-a144-586324e20bb7 INFO: XML extractor set to the following default namespace: http://pds.nasa.gov/schema/pds4/pds/v04 INFO: [testDir/holdings/minimalImage.xml] Begin processing. INFO: [testDir/holdings/minimalImage.xml] Setting LID-based association, 'TESTING:instrument.IMP__MPFL', under slot name 'Instrument'. INFO: [testDir/holdings/minimalImage.xml] Setting LID-based association, 'urn:nasa:pds:investigation.MARS_PATHFINDER', under slot name 'has_investigation'. INFO: [testDir/holdings/minimalImage.xml] Captured file information for minimalImage.xml INFO: [testDir/holdings/minimalImage.xml] Capturing file object metadata for i943630r.raw SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0::5.5 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:5e18152c-7b89- 4459-91ea-dfc43ba200e8 SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:minimalImage.xml::5.5 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:14572ab0-054d- 4052-906c-87ca3c7eddad SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0:i943630r.raw::5.5 INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:a8b170fd-5875- </pre>


```

428f-aa59-72afd7b30bea
INFO: [testDir/holdings/unharvestedDoc.xml] Begin processing.
SKIP: [testDir/holdings/unharvestedDoc.xml] 'Product_Document' is not an object type found in the
policy file.
INFO: [testDir/holdings/unharvestedTable.xml] Begin processing.
SKIP: [testDir/holdings/unharvestedTable.xml] 'Product_Table_Binary' is not an object type found in
the policy file.
SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to
TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-
V1.0:minimalImage.xml::5.5
INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:7203ac8f-
8983-49cb-8b73-d6d9e6475d80
SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to
TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-
V1.0:i943630r.raw::5.5
INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:4b6c372e-
d13d-4e8f-8bc8-b7f5d6b47ed4
Summary:
1 of 1 file(s) processed, 2 skipped
3 of 3 products registered.
2 of 2 associations registered, 0 skipped
End of Log
    
```

Step 4:



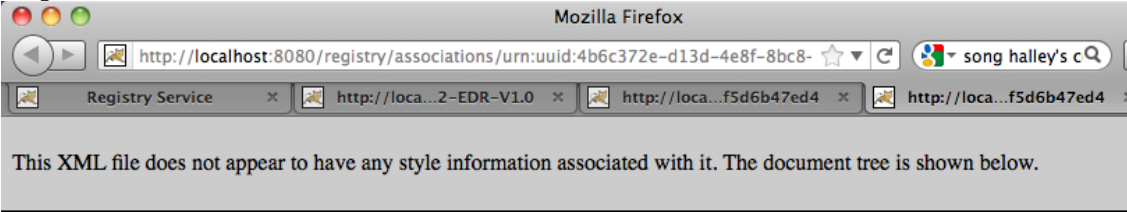
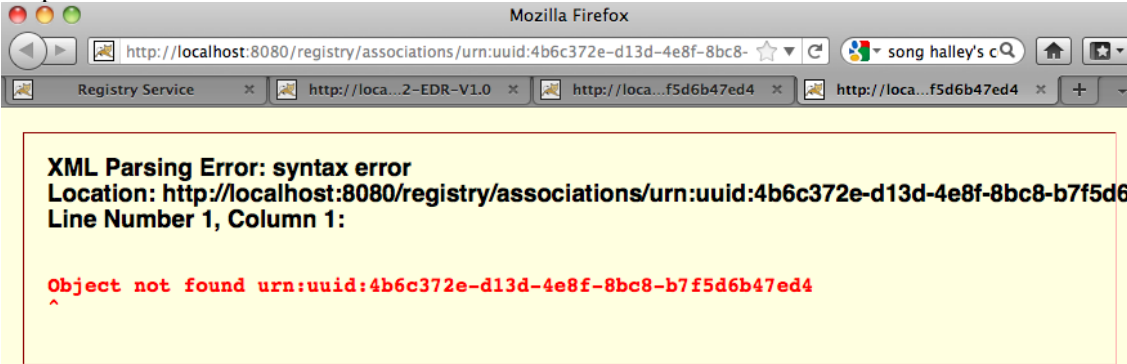
```

- <ns2:response>
- <ns2:results>
- <ns2:extrinsicObject versionName="1.0" status="Submitted" objectType="Product_Array_2D_Image" name="MARS
PATHFINDER LANDER Experiment" lid="TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-
M-IMP-2-EDR-V1.0" home="http://localhost:8080/registry" guid="urn:uuid:5be934f2-fe66-44b2-93a7-57de082ded35">
- <ns2:slot name="local_identifier" id="1599">
<ns2:value>MPFL-M-IMP_IMG_GRAYSCALE</ns2:value>
</ns2:slot>
- <ns2:slot name="file_name" id="1600">
<ns2:value>i943630r.raw</ns2:value>
</ns2:slot>
- <ns2:slot name="version_id" id="1601">
<ns2:value>4.4</ns2:value>
</ns2:slot>
</ns2:extrinsicObject>
- <ns2:extrinsicObject versionName="2.0" status="Submitted" objectType="Product_Array_2D_Image" name="MARS
PATHFINDER LANDER Experiment" lid="TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-
M-IMP-2-EDR-V1.0" home="http://localhost:8080/registry" guid="urn:uuid:5e18152c-7b89-4459-91ea-dfc43ba200e8">
- <ns2:slot name="local_identifier" id="1681">
<ns2:value>MPFL-M-IMP_IMG_GRAYSCALE</ns2:value>
</ns2:slot>
- <ns2:slot name="version_id" id="1682">
<ns2:value>5.5</ns2:value>
</ns2:slot>
- <ns2:slot name="Instrument" id="1683">
<ns2:value>TESTING:instrument.IMP__MPFL</ns2:value>
</ns2:slot>
- <ns2:slot name="has_investigation" id="1684">
<ns2:value>urn:nasa:pds:investigation.MARS_PATHFINDER</ns2:value>
</ns2:slot>
- <ns2:slot name="file_name" id="1685">
<ns2:value>i943630r.raw</ns2:value>
</ns2:slot>
</ns2:extrinsicObject>
</ns2:results>
</ns2:response>
    
```

Comments	
Date of Testing	2011 Nov 22

Test Personnel	Richard Chen
Test Case ID	AATESTME.T8
Description	Harvest checks for previous registration.
Test Steps	Harvest <i>harvestOptions</i> harvestPolicy.xml
Test Results	<p>PDS Harvest Tool Log Version Version 1.0.0 Time Mon, Nov 21 2011 at 02:06:23 PM Registry Location <i>registryURL/registry</i> Registry Package Name Harvest-Package_20111121140622 Registration Package GUID urn:uuid:c6b9095c-1d62-4990-9bbe-256936d8874d INFO: XML extractor set to the following default namespace: http://pds.nasa.gov/schema/pds4/pds/v04 INFO: [<i>testDir/holdings/minimalImage.xml</i>] Begin processing. INFO: [<i>testDir/holdings/minimalImage.xml</i>] Setting LID-based association, 'TESTING:instrument.IMP__MPFL', under slot name 'Instrument'. INFO: [<i>testDir/holdings/minimalImage.xml</i>] Setting LID-based association, 'urn:nasa:pds:investigation.MARS_PATHFINDER', under slot name 'has_investigation'. INFO: [<i>testDir/holdings/minimalImage.xml</i>] Captured file information for minimalImage.xml INFO: [<i>testDir/holdings/minimalImage.xml</i>] Capturing file object metadata for i943630r.raw FAILURE: [<i>testDir/holdings/minimalImage.xml</i>] Product already exists: TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR- V1.0::5.5 INFO: [<i>testDir/holdings/unharvestedDoc.xml</i>] Begin processing. SKIP: [<i>testDir/holdings/unharvestedDoc.xml</i>] 'Product_Document' is not an object type found in the policy file. INFO: [<i>testDir/holdings/unharvestedTable.xml</i>] Begin processing. SKIP: [<i>testDir/holdings/unharvestedTable.xml</i>] 'Product_Table_Binary' is not an object type found in the policy file. Summary: 1 of 1 file(s) processed, 2 skipped 0 of 1 products registered. 0 of 0 associations registered, 0 skipped End of Log</p> <p>Notice that no products (and no associations) were registered.</p>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

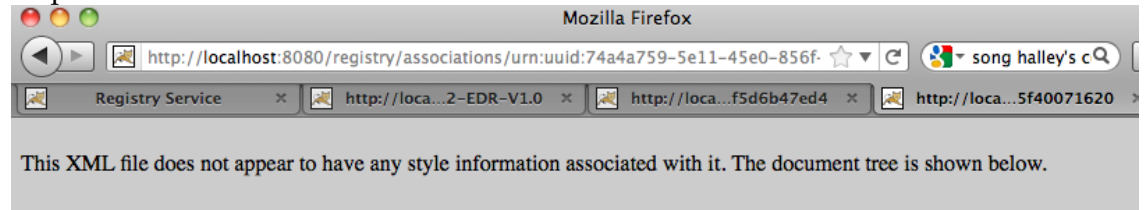
Test Case ID	AATESTME.T9
Description	(Skip this test if test 3 of AATESTME.T7 reported "0 of 0 associations registered".) Query and delete associations (not just products). When Harvest registers a product, it also registers associations to the XML label file and to the referenced data file. These associations (non-LID-based) can be deleted.
Test Steps	<ol style="list-style-type: none"> 1. AATESTME.T7's Test Results, step 4's output includes the GUID (highlighted) of the association between the data product and the file. Replace <i>guid</i> below with the GUID <i>registryURL/registry/associations/guid</i> 2. <code>curl curlOptions -X DELETE -v registryURL/registry/associations/guid</code> 3. Repeat step 1 <p>Another way to delete an association is to delete its source object.</p> <ol style="list-style-type: none"> 4. Edit <i>holdings/minimalImage.xml</i>; change <code><version_id></code> to 6.6 5. Harvest <i>harvestOptions</i> harvestPolicy.xml

	<ol style="list-style-type: none"> 6. View association: use the GUID (highlighted) of the association registered in step 5: registryURL/registry/associations/guid 7. Delete association's source object: use the GUID (highlighted) of the product registered in step 5, which was also the value of sourceObject in step 6: <code>curl curlOptions -v -X DELETE registryURL/registry/extrinsics/guid</code> 8. Repeat step 6. Association should be gone.
<p>Test Results</p>	<p>Step 1:</p>  <pre> - <ns2:association associationType="has_file" targetObject="urn:uuid:a8b170fd-5875-428f-aa59-72afd7b30bea" sourceObject="urn:uuid:5e18152c-7b89-4459-91ea-dfc43ba200e8" versionName="1.0" status="Submitted" objectType="Association" lid="urn:uuid:b7f7949e-0fe9-465e-bc35-6598938e8f40" home="http://localhost:8080/registry" guid="urn:uuid:4b6c372e-d13d-4e8f-8bc8-b7f5d6b47ed4"> - <ns2:slot name="verified" id="1704"> <ns2:value>true</ns2:value> </ns2:slot> </ns2:association> </pre> <p>Step 2: benign output, with "HTTP/1.1 200 OK" somewhere in the middle:</p> <pre> * About to connect() to localhost port 8080 (#0) * Trying 127.0.0.1... connected * Connected to localhost (127.0.0.1) port 8080 (#0) > DELETE /registry/associations/urn:uuid:4b6c372e-d13d-4e8f-8bc8-b7f5d6b47ed4 HTTP/1.1 > User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8r zlib/1.2.3 > Host: localhost:8080 > Accept: */* < HTTP/1.1 200 OK < Server: Apache-Coyote/1.1 < Content-Length: 0 < Date: Mon, 21 Nov 2011 23:36:33 GMT * Connection #0 to host localhost left intact * Closing connection #0 </pre> <p>Step 3:</p>  <pre> XML Parsing Error: syntax error Location: http://localhost:8080/registry/associations/urn:uuid:4b6c372e-d13d-4e8f-8bc8-b7f5d6b47ed4 Line Number 1, Column 1: Object not found urn:uuid:4b6c372e-d13d-4e8f-8bc8-b7f5d6b47ed4 ^ </pre> <p>Step 5:</p> <pre> PDS Harvest Tool Log Version Version 1.0.0 Time Mon, Nov 21 2011 at 03:41:10 PM Registry Location registryURL/registry Registry Package Name Harvest-Package_20111121154110 Registration Package GUID urn:uuid:08eb5ea7-b891-4949-a05d-bcea40d16656 INFO: XML extractor set to the following default namespace: http://pds.nasa.gov/schema/pds4/pds/v04 INFO: [testDir/holdings/minimalImage.xml] Begin processing. INFO: [testDir/holdings/minimalImage.xml] Setting LID-based association, 'TESTING:instrument.IMP__MPFL', under slot name 'Instrument'. INFO: [testDir/holdings/minimalImage.xml] Setting LID-based association, </pre>

```

'urn:nasa:pds:investigation.MARS_PATHFINDER', under slot name 'has_investigation'.
INFO: [testDir/holdings/minimalImage.xml] Captured file information for minimalImage.xml
INFO: [testDir/holdings/minimalImage.xml] Capturing file object metadata for i943630r.raw
SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product:
TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-
V1.0::6.6
INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:bc7d7686-65e4-
4b43-ae4b-012fdc471a14
SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product:
TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-
V1.0:minimalImage.xml::6.6
INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:50ea8691-62ac-
4c5c-8919-3cd13fdeaae5
SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered product:
TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-
V1.0:i943630r.raw::6.6
INFO: [testDir/holdings/minimalImage.xml] Product has the following GUID: urn:uuid:648b0212-1440-
496a-b415-71489b4f5b8e
INFO: [testDir/holdings/unharvestedDoc.xml] Begin processing.
SKIP: [testDir/holdings/unharvestedDoc.xml] 'Product_Document' is not an object type found in the
policy file.
INFO: [testDir/holdings/unharvestedTable.xml] Begin processing.
SKIP: [testDir/holdings/unharvestedTable.xml] 'Product_Table_Binary' is not an object type found in
the policy file.
SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to
TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-
V1.0:minimalImage.xml::6.6
INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:cd043f53-
017c-4e4f-96f4-51fc1c873a53
SUCCESS: [testDir/holdings/minimalImage.xml] Successfully registered association to
TESTING:example.DPH.sampleProducts:exampleProducts:Array2D_Image.MPFL-M-IMP-2-EDR-
V1.0:i943630r.raw::6.6
INFO: [testDir/holdings/minimalImage.xml] Association has the following GUID: urn:uuid:74a4a759-
5e11-45e0-856f-215f40071620
Summary:
1 of 1 file(s) processed, 2 skipped
3 of 3 products registered.
2 of 2 associations registered, 0 skipped
End of Log
    
```

Step 6:




```

- <ns2:association associationType="has_file" targetObject="urn:uuid:648b0212-1440-496a-b415-71489b4f5b8e"
sourceObject="urn:uuid:bc7d7686-65e4-4b43-ae4b-012fdc471a14" versionName="1.0" status="Submitted"
objectType="Association" lid="urn:uuid:4a37e91a-5808-431b-a1f4-1ba5f7351f74" home="http://localhost:8080/registry"
guid="urn:uuid:74a4a759-5e11-45e0-856f-215f40071620">
- <ns2:slot name="verified" id="1733">
<ns2:value>true</ns2:value>
</ns2:slot>
</ns2:association>
    
```

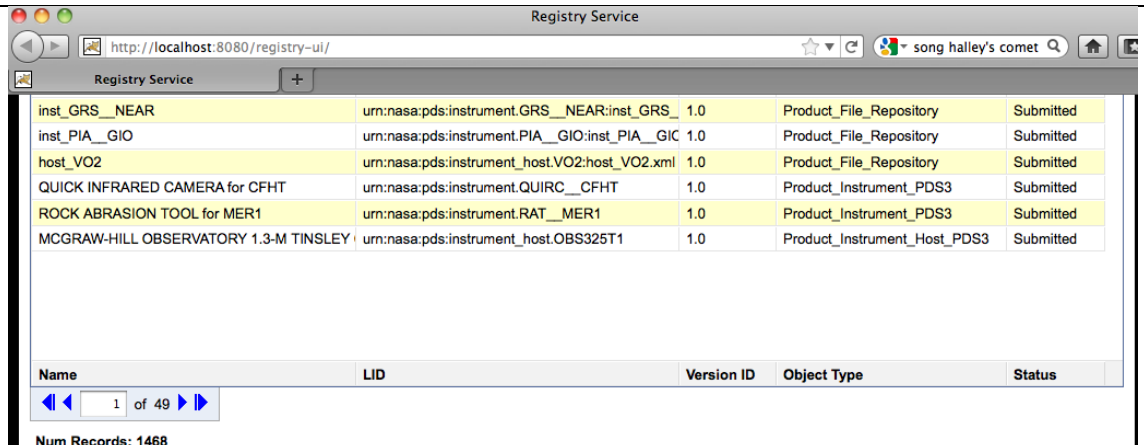
Step 7:

```

About to connect() to localhost port 8080 (#0)
* Trying 127.0.0.1... connected
* Connected to localhost (127.0.0.1) port 8080 (#0)
> DELETE /registry/extrinsics/urn:uuid:bc7d7686-65e4-4b43-ae4b-012fdc471a14 HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8r zlib/1.2.3
> Host: localhost:8080
> Accept: */*
< HTTP/1.1 200 OK
< Server: Apache-Coyote/1.1
< Content-Type: application/xml
< Content-Length: 0
    
```

	<p>< Date: Mon, 21 Nov 2011 23:47:13 GMT * Connection #0 to host localhost left intact * Closing connection #0</p> <p>Step 8:</p> 
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	HVT.T1
Description	Provide a command-line interface, accept a configuration file, recursively traverse directories, determine candidates for registration, capture metadata, submit metadata to the Registry Service, track each artifact registration.
Test Steps	<p>Note: Steps 4 and 7 may take an hour to run. Steps 5 to 8 remove Harvest's results from the registry (to be nice to the next tester).</p> <ol style="list-style-type: none"> 1. <code>cd testDir/; cp testHarvest/harvestContext.xml ./harvestContext.xml</code> 2. Edit <code>harvestContext.xml</code>: change path of <code><file></code> to <code>testDir/testHarvest/...</code> 3. In browser, note Num Records at bottom of <code>registryURL/registry-ui/</code> 4. Harvest <code>harvestOptions harvestContext.xml > out.txt</code> 5. In browser, check for harvested files. <code>registryURL/registry-ui/</code> 6. <code>grep "Registration Package GUID" out.txt</code> 7. Replace <code>guid</code> with the GUID from the previous line: <code>curl curlOptions -X DELETE -v registryURL/registry/packages/guid/members</code> 8. <code>registryURL/registry-ui</code>
Test Results	<p>Step 3: If registry was empty (ideally), Num Records was 0</p> <p>Step 4: The bottom of <code>out.txt</code> should have:</p> <pre>Summary: 736 of 736 file(s) processed, 0 skipped 1468 of 1470 products registered. 734 of 734 associations registered, 0 skipped End of Log</pre> <p>Step 5: Num Records = old value + products registered in previous step</p>

	 <p>Step 8: Num Records should return to original value</p>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	HVT.T2
Description	Execute from a scheduler, accept a configuration file, recursively traverse directories, determine candidates for registration, capture metadata, submit metadata to the Registry Service.
Test Steps	<ol style="list-style-type: none"> 1. In browser, note current Num Records. <i>registryURL/registry-ui/</i> 2. <code>cd testDir/; mv testHarvest/context_bundle/ ./context_bundleXXX/</code> 3. Harvest <i>harvestOptions</i> <code>harvestContext.xml -l log.txt -P 9000 -w 120</code> 4. In browser, note unchanged Num Records. <i>registryURL/registry-ui/</i> <p>In a different terminal window</p> <ol style="list-style-type: none"> 5. <code>HarvestController --url http://localhost:9000/xmlrpc --operation --isRunning</code> 6. <code>mv testDir/context_bundleXXX testDir/testHarvest/context_bundle</code> 7. In browser, note changing Num Records. <i>registryURL/registry-ui/</i> <p>After Num Records stops increasing</p> <ol style="list-style-type: none"> 8. <code>grep "products registered" log.txt</code> 9. <code>HarvestController --url http://localhost:9000/xmlrpc --operation --stop</code> 10. <code>grep Registration log.txt</code> 11. Replace <i>guid</i> with the GUID from the previous line: <code>curl curlOptions -X DELETE -v registryURL/registry/packages/guid/members</code> 12. Check Num Records back to original value: <i>registryURL/registry-ui</i>
Test Results	<p>Step 8: Num Records should have increased by the number of products registered.</p> <p>Step 9: Crawl Daemon: [http://localhost:9000/xmlrpc]: shutdown successful</p>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	HVT.T3
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Description	Harvest a large number of files.
Test Steps	<p>Steps 3 and 6 may take 2 hours each.</p> <ol style="list-style-type: none"> 1. <code>cd testDir/; cp testHarvest/harvestLarge.xml ./harvestLarge.xml</code> 2. Edit <code>harvestLarge.xml</code>: change path of <code><file></code> to <code>testDir/testHarvest/...</code> 3. Harvest <code>harvestOptions harvestLarge.xml > out.txt</code> 4. In browser, check for harvested files. <code>registryURL/registry-ui/</code> 5. <code>grep Registration out.txt</code> 6. Replace <code>guid</code> with the GUID from the previous line: <code>curl curlOptions -X DELETE -v registryURL/registry/packages/guid/members</code> Concurrently, in a browser, <code>registryURL/registry-ui</code> 7. <code>registryURL/registry-ui</code>
Test Results	<p>Step 3: The bottom of <code>out.txt</code> should have:</p> <pre>Summary: 6660 of 6661 file(s) processed, 0 skipped 13308 of 13314 products registered. 6654 of 6654 associations registered, 0 skipped End of Log</pre>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

4 Test Procedures for Engineering Node

Test Case ID	GEN.T1
Description	Run components distributed over multiple machines on any PDS-supported platforms.
Test Steps	Ensure your machine is not the same machine as the Registry's. Run AATESTME.* steps.
Test Results	Results should be as described in the AATESTME.* Test Results.
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	GEN.T2 *not ready for build 1
Description	Services provide an application programming interface.
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	GEN.T3 *not ready for build 1
Description	Run tools via an application programming interface.
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	GEN.T4 *not ready for build 1
Description	Services provide an interface to enable monitoring of health.
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	GEN.T5 *not ready for build 1
Description	Applications meet Section 508 compliance guidelines.
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	GEN.T6
Description	Restrict access to operations that alter the content of the registry.
Test Steps	(Skip this test if registry is uncontrolled) As in AATESTME.T4, run any other test in AATESTME.* with an incorrect username or password.
Test Results	
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	GEN.T7
Description	Document components' capabilities, dependencies, interfaces, installation, operation
Test Steps	Examine such documentation, currently accessible from http://pds-engineering.jpl.nasa.gov/pds2010/development/1.2.0/
Test Results	
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	PRV.T1
Description	Accept a file or a directory name for product(s) to be validated. If directory, be able to traverse the tree to find products. Indicate the schemas utilized during validation.
Test Steps	<ol style="list-style-type: none"> 1. cd testDir; mkdir vtest; cp testAAtestme/* vtest/ 2. Validate -m0411f vtest 3. mv vtest/harvestPolicy.xml . 4. Validate -m0411f vtest 5. mkdir vtest/bad; mv ./harvestPolicy.xml vtest/bad/ 6. Validate -m0411f vtest 7. Validate -m0411f vtest/minimalInst.xml
Test Results	Every run of Validate traces the schemas used and PASSes minimalImage.xml,

	<p>minimalInst.xml, unharvestedDoc.xml, unharvestedTable.xml. Also, Step 2: only 1 error Configuration: Version 0.4.0 Time Tue, Nov 22 2011 at 10:58:00 AM Core Schemas [Product_Attribute_Definition_0500g.xsd, Product_Resource_0500g.xsd, Product_Collection_Data_0500g.xsd, Product_Instrument_Host_0500g.xsd, Header_Binary_0500g.xsd, Product_Data_Set_PDS3_0500g.xsd, Product_PDS_Affiliate_0500g.xsd, Product_Bundle_0500g.xsd, Product_Collection_0500g.xsd, Product_Instrument_Host_PDS3_0500g.xsd, Product_Thumbnail_0500g.xsd, Product_Table_Binary_0500g.xsd, Product_Browse_0500g.xsd, Product_Array_3D_Movie_0500g.xsd, Product_Table_Character_0500g.xsd, Product_Zipped_0500g.xsd, Product_SPICE_Kernel_Text_0500g.xsd, Product_Update_0500g.xsd, Product_Array_3D_Spectrum_0500g.xsd, Product_Service_0500g.xsd, Product_Array_2D_Image_0500g.xsd, Product_Archive_Bundle_0500g.xsd, Product_Table_Binary_Grouped_0500g.xsd, Base_Types_0500g.xsd, Product_XML_Schema_0500g.xsd, Product_Table_Character_Grouped_0500g.xsd, Product_Delimited_Table_0500g.xsd, Delivery_Manifest_0500g.xsd, Product_Target_PDS3_0500g.xsd, Product_File_Repository_0500g.xsd, Telemetry_Parameters_0500g.xsd, Product_Document_0500g.xsd, Product_File_Text_0500g.xsd, Product_Mission_0500g.xsd, Product_Target_0500g.xsd, Rings_Prod_Info_0500g.xsd, Product_Instrument_PDS3_0500g.xsd, Collection_Volume_Set_PDS3_0500g.xsd, Product_SPICE_Kernel_Binary_0500g.xsd, Product_Non_Specific_0500g.xsd, Product_Instrument_0500g.xsd, Product_Delimited_Table_Grouped_0500g.xsd, Product_Mission_PDS3_0500g.xsd, Product_Software_0500g.xsd, Attribute_Types_0500g.xsd, Product_Node_0500g.xsd, Product_PDS_Guest_0500g.xsd, Header_0500g.xsd, Product_Array_3D_Image_0500g.xsd, Product_Investigation_0500g.xsd, Class_Types_0500g.xsd, Collection_Volume_PDS3_0500g.xsd, Detector_0500g.xsd, Product_Delivery_Manifest_0500g.xsd, Local_DD_0500g.xsd, Product_Proxy_PDS3_0500g.xsd] Model Version 0411f Parameters: Target(s) [vtest] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file: testDir/vtest/harvestPolicy.xml ERROR Could not find product class for label. PASS: file: testDir/vtest/minimalImage.xml PASS: file: testDir/vtest/minimalInst.xml PASS: file: testDir/vtest/unharvestedDoc.xml PASS: file: testDir/vtest/unharvestedTable.xml Summary: 5 of 5 validated, 0 skipped 4 of 5 passed End of Report Step 4: no errors since the bad label (harvestPolicy.xml is not a PDS4 product) is gone Step 6: very similar error to Step 2 since Validate traverses Step 7: no errors, as test AATESTME.T2 might have shown</p>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	PRV.T2 *not ready for build 1
Description	Verify that a referenced file exists.
Test Steps	<ol style="list-style-type: none"> 1. Validate vtest/minimalImage.xml 2. echo fakeTokenOfData > vtest/i943630r.raw 3. Validate vtest/minimalImage.xml
Test Results	Step 1: ERROR [testDir/vtest/harvestPolicy.xml] Step 3: no errors
Comments	

Date of Testing	
Test Personnel	

Test Case ID	PRV.T3
Description	Validate aggregate products and all products referenced in the aggregation.
Test Steps	<ol style="list-style-type: none"> 1. <code>cd testDir</code> 2. <code>Validate -m0411f testHarvest/context_bundle/context_node/collection_context_node_20111012.xml</code>
Test Results	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 0.4.0</p> <p>Time Tue, Nov 22 2011 at 01:27:54 PM</p> <p>Core Schemas [Product_Attribute_Definition_0500g.xsd, Product_Resource_0500g.xsd, Product_Collection_Data_0500g.xsd, Product_Instrument_Host_0500g.xsd, Header_Binary_0500g.xsd, Product_Data_Set_PDS3_0500g.xsd, Product_PDS_Affiliate_0500g.xsd, Product_Bundle_0500g.xsd, Product_Collection_0500g.xsd, Product_Instrument_Host_PDS3_0500g.xsd, Product_Thumbnail_0500g.xsd, Product_Table_Binary_0500g.xsd, Product_Browse_0500g.xsd, Product_Array_3D_Movie_0500g.xsd, Product_Table_Character_0500g.xsd, Product_Zipped_0500g.xsd, Product_SPICE_Kernel_Text_0500g.xsd, Product_Update_0500g.xsd, Product_Array_3D_Spectrum_0500g.xsd, Product_Service_0500g.xsd, Product_Array_2D_Image_0500g.xsd, Product_Archive_Bundle_0500g.xsd, Product_Table_Binary_Grouped_0500g.xsd, Base_Types_0500g.xsd, Product_XML_Schema_0500g.xsd, Product_Table_Character_Grouped_0500g.xsd, Product_Delimited_Table_0500g.xsd, Delivery_Manifest_0500g.xsd, Product_Target_PDS3_0500g.xsd, Product_File_Repository_0500g.xsd, Telemetry_Parameters_0500g.xsd, Product_Document_0500g.xsd, Product_File_Text_0500g.xsd, Product_Mission_0500g.xsd, Product_Target_0500g.xsd, Rings_Prod_Info_0500g.xsd, Product_Instrument_PDS3_0500g.xsd, Collection_Volume_Set_PDS3_0500g.xsd, Product_SPICE_Kernel_Binary_0500g.xsd, Product_Non_Specific_0500g.xsd, Product_Instrument_0500g.xsd, Product_Delimited_Table_Grouped_0500g.xsd, Product_Mission_PDS3_0500g.xsd, Product_Software_0500g.xsd, Attribute_Types_0500g.xsd, Product_Node_0500g.xsd, Product_PDS_Guest_0500g.xsd, Header_0500g.xsd, Product_Array_3D_Image_0500g.xsd, Product_Investigation_0500g.xsd, Class_Types_0500g.xsd, Collection_Volume_PDS3_0500g.xsd, Detector_0500g.xsd, Product_Delivery_Manifest_0500g.xsd, Local_DD_0500g.xsd, Product_Proxy_PDS3_0500g.xsd]</p> <p>Model Version 0411f</p> <p>Parameters:</p> <p>Target(s) [testHarvest/context_bundle/context_node/collection_context_node_20111012.xml]</p> <p>Severity Level Warnings</p> <p>Recurse Directories true</p> <p>Validation Details:</p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/collection_context_node_20111012.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_ATMOS.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_EN.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_GEO.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_HQ.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_IMG.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_NAIF.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_NSSDC.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_PDS-MGT.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_PPI.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_RINGS.xml</code></p> <p>PASS: file: <code>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_RS.xml</code></p>

	PASS: file: <i>testDir/testHarvest/context_bundle/context_node/aaaProduct_files_20111012/node_SBN.xml</i> Summary: 13 of 13 validated, 0 skipped 13 of 13 passed End of Report
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	PRV.T4 *not ready for build 1
Description	Merge label fragments
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

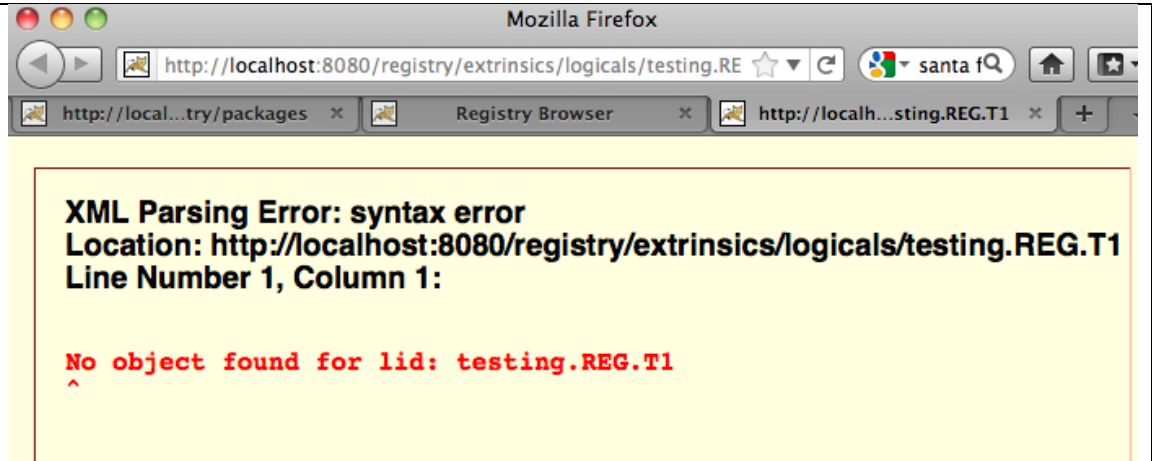
Test Case ID	PRV.T5 *not ready for build 1
Description	Validate schemas
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	PRV.T6
Description	Accept schema file specified by file or directory
Test Steps	<ol style="list-style-type: none"> 1. Validate -m0411f testValidate/im2.xml 2. Validate -m0411f -x testValidate/PIG2.xsd testValidate/im2.xml
Test Results	im2.xml is the same file as testAAtestme/minimalImage.xml except "Product_Array_2D_Image" has been replaced with "PA2I". testValidate/PA2I.xsd defines the schema for PA2I, which is the same as Product_Array_2D_Image's. Step 1: ERROR line 4, 72: cvc-elt.1.a: Cannot find the declaration of element 'PA2I'. Step 2: no error
Comments	This failed, causing the addition of the next test.
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	PRV.T7
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Description	Accept schema file specified by file or directory
Test Steps	<ol style="list-style-type: none"> 1. cp testAAtestme/ minimalImage.xml vtest/ 2. Validate -m0411f holdings/ minimalImage.xml 3. cp testValidate/Product_Array_2D_Image_0411f.xsd vtest/x.xsd 4. Validate -x vtest/x.xsd vtest/ minimalImage.xml 5. To ensure the ERROR is not caused by a name collision, edit vtest/x.xsd and globally replace "Product_Array_2D_Image" with "XXX" 6. Repeat step 4
Test Results	<p>Step 4 should pass, but so should PRV.T6.</p> <p>Step 2: PASS</p> <p>Step 4: FATAL_ERROR line 44, 94: src-resolve: Cannot resolve the name 'pds:dd_version_id' to a(n) 'type definition' component.</p> <p>Step 6: same as step 4</p>
Comments	<p>http://oodt.jpl.nasa.gov/jira/browse/PDS-35</p> <p>First reported for build 1c.</p>
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	REG.T1
Description	Validate and accept metadata to register an artifact or modify an artifact's registration, query for a registered artifact, delete a registered artifact
Test Steps	<ol style="list-style-type: none"> 1. cd testDir 2. registryURL/registry/extrinsics/logicals/testing.REG.T1 in a browser shows no current product has lid "testing.REG.t1", which input files test.REG.T1[abc].xml have. 3. curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T1a.xml registryURL/registry/extrinsics/logicals attempts to register the bad input file 4. Repeat step 1 to ensure lid still does not exist. 5. curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T1b.xml registryURL/registry/extrinsics/logicals registers a good input file 6. Repeat step 2 to see the lid 7. curl curlOptions -X DELETE --verbose registryURL/registry/extrinsics/testing.REG.T1.v1.0 8. Repeat step 1 to ensure lid no longer exists 9. curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T1c.xml registryURL/registry/extrinsics/logicals registers a good input file with different values for the phone numbers 10. Repeat step 1 to see the changed values
Test Results	Step 2: The error message should be "HTTP Status 500 -". If lid does exist, run step 7



Step 3:

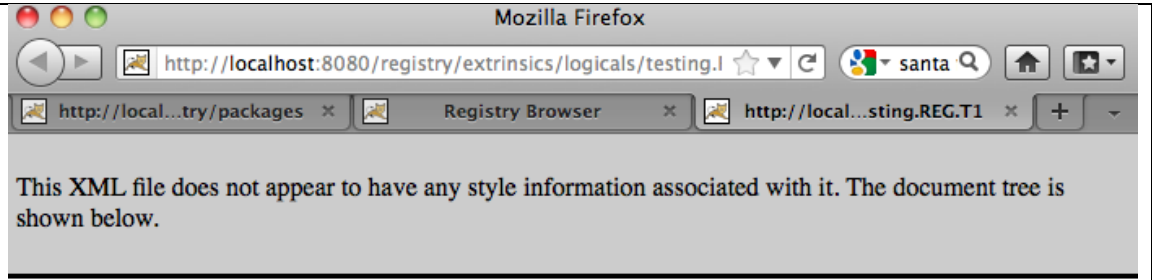
```
* About to connect() to localhost port 8080 (#0)
* Trying 127.0.0.1... connected
* Connected to localhost (127.0.0.1) port 8080 (#0)
> POST /registry/extrinsics/logicals HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8r zlib/1.2.3
> Host: localhost:8080
> Accept: */*
> Content-type:application/xml
> Content-Length: 655
< HTTP/1.1 400 Bad Request
< Server: Apache-Coyote/1.1
< Content-Type: text/html;charset=utf-8
< Content-Length: 1004
< Date: Tue, 22 Nov 2011 23:18:19 GMT
< Connection: close
* Closing connection #0
<html><head><title>Apache Tomcat/6.0.33 - Error report</title><style><!--H1 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:14px;} BODY {font-family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;} P {font-family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;}A {color : black;}A.name {color : black;}HR {color : #525D76;--></style> </head><body><h1>HTTP Status 400 - Bad Request</h1><HR size="1" noshade="noshade"><p><b>type</b> Status report</p><p><b>message</b> <u>Bad Request</u></p><p><b>description</b> <u>The request sent by the client was syntactically incorrect (Bad Request).</u></p><HR size="1" noshade="noshade"><h3>Apache Tomcat/6.0.33</h3></body></html>
```

Step 4: Same as step 2

Step 5: Benign output messages without "ERROR":

```
* About to connect() to localhost port 8080 (#0)
* Trying 127.0.0.1... connected
* Connected to localhost (127.0.0.1) port 8080 (#0)
> POST /registry/extrinsics/logicals HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8r zlib/1.2.3
> Host: localhost:8080
> Accept: */*
> Content-type:application/xml
> Content-Length: 646
< HTTP/1.1 200 OK
< Server: Apache-Coyote/1.1
< Content-Type: application/xml
< Content-Length: 0
< Date: Tue, 22 Nov 2011 23:20:42 GMT
* Connection #0 to host localhost left intact
* Closing connection #0
```

Step 6: Upon success, the registry service returns good xml. In firefox:



```

- <ns2:response>
  - <ns2:results>
    - <ns2:extrinsicObject description="Stolen from http://pdscm/2010/registry/registry-service/operate
      /index.html with attribute lid above changed for uniqueness"
      objectType="Product_Array_2D_Image" name="Product 1234 v1" lid="testing.REG.T1"
      guid="testing.REG.T1.v1.0">
      - <ns2:slot name="last-name" id="139">
        <ns2:value>Doe</ns2:value>
      </ns2:slot>
      - <ns2:slot name="first-name" id="140">
        <ns2:value>John</ns2:value>
      </ns2:slot>
      - <ns2:slot name="phone" id="141">
        <ns2:value>(818)777-7777</ns2:value>
        <ns2:value>(818)888-8888</ns2:value>
      </ns2:slot>
    </ns2:extrinsicObject>
  </ns2:results>
</ns2:response>
  
```

Step 7:

```

* About to connect() to localhost port 8080 (#0)
* Trying 127.0.0.1... connected
* Connected to localhost (127.0.0.1) port 8080 (#0)
> DELETE /registry/extrinsics/testing.REG.T1.v1.0 HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8r zlib/1.2.3
> Host: localhost:8080
> Accept: */*
< HTTP/1.1 200 OK
< Server: Apache-Coyote/1.1
< Content-Type: application/xml
< Content-Length: 0
< Date: Tue, 22 Nov 2011 23:22:54 GMT
* Connection #0 to host localhost left intact
* Closing connection #0
  
```


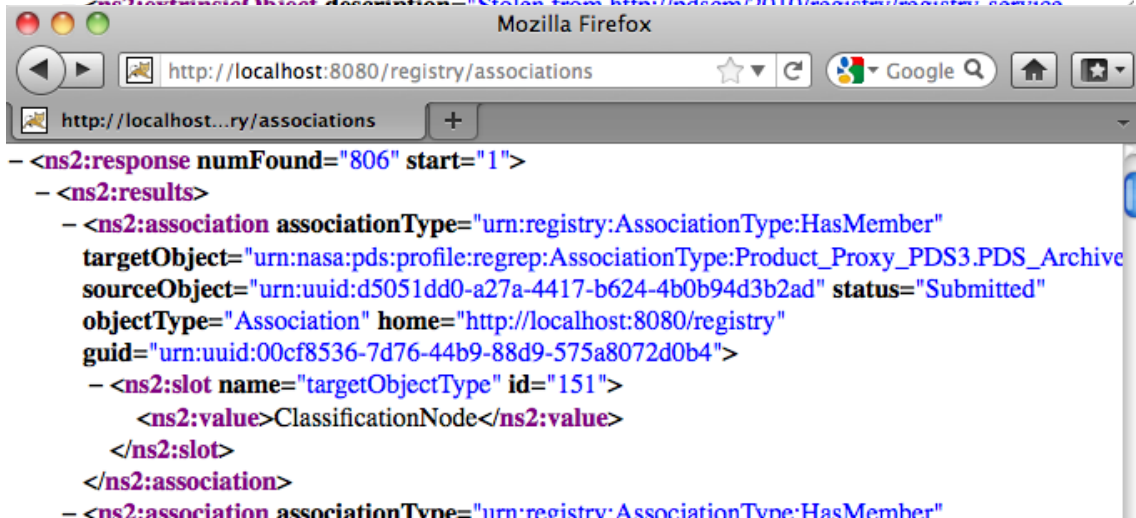
Step 8: Same as step 2
 Step 9: Similar to step 5
 Step 10: Similar to step 6 but with different values for the phone numbers, i.e. from (818)777-7777 and (818)888-8888 to (818)222-2222 and (818)333-3333

Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	REG.T2 *obsolete
Description	Relate artifact registrations, regardless of whether artifact has been registered yet
Test Steps	1. <i>registryURL/registry/associations/linkREG.T1toREG.T2</i> somehow shows no such associations

	<p>2. <code>curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T2.xml registryURL/registry/registry/associations -uusername:password -k</code> adds 1 association (from a nonexistent sourceLid) to desired targetLid</p> <p>3. Repeat step 1 to see the association (PoSTing the sourceLids referenced in steps 2 and 3 is actually unnecessary)</p>
<p>Test Results</p>	<p>Step 1: The error message should be "HTTP Status 500", then much like REG.T1's step 2's output. If not (i.e. if output looks like step 3's below</p> <pre>curl curlOptions -X DELETE -v registryURL/registry/associations/linkREG.T1toREG.T2aSomehow -uusername:password -k</pre> <p>Step 2: Benign output messages without "ERROR"</p> <pre>* About to connect() to pdsops2.jpl.nasa.gov port 80 (#0) * Trying 128.149.132.54... connected * Connected to pdsops2.jpl.nasa.gov (128.149.132.54) port 80 (#0) > POST /registry/registry/associations HTTP/1.1 > User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8l zlib/1.2.3 > Host: pdsops2.jpl.nasa.gov > Accept: */* > Content-type:application/xml > Content-Length: 257 < HTTP/1.1 201 Created < Server: Apache-Coyote/1.1 < Location: registryURL/registry/associations/linkREG.T1toREG.T2aSomehow < Content-Type: text/plain < Transfer-Encoding: chunked < Date: Sat, 30 Apr 2011 07:36:44 GMT * Connection #0 to host pdsops2.jpl.nasa.gov left intact * Closing connection #0 linkREG.T1toREG.T2aSomehow</pre> <p>Step 3:</p>
<p>Comments</p>	
<p>Date of Testing</p>	
<p>Test Personnel</p>	

<p>Test Case ID</p>	<p>REG.T3</p>
<p>Description</p>	<p>Maintain policies for classes of artifacts, i.e. all classes of artifacts capture a base set of metadata, in the form of XML attributes: objectType, guid as well as metadata specific to each artifact class.</p>
<p>Test Steps</p>	<p>In a browser, registryURL/registry/extrinsics registryURL/registry/associations registryURL/registry/services registryURL/registry/schemes registryURL/registry/events</p>

<p>Test Results</p>	<p>registryURL/registry/packages</p> <p>Specific results will differ, but every item in every class has XML attributes objectType, guid. Each class may have others attributes such as lid, name, home. There are no schemes yet.</p>  <pre> - <ns2:response numFound="28" start="1"> - <ns2:results> - <ns2:extrinsicObject description="Stolen from http://pdscm/2010/registry/registry-service/operate/index.html with attribute lid above changed for uniqueness" objectType="Product" name="Stress The Registry " lid="stressTesting.T000000" guid="stressTesting.T000000.v1.0"> - <ns2:slot name="last-name" id="205922"> <ns2:value>Doc</ns2:value> </ns2:slot> - <ns2:slot name="cannotPossibleBeAnExistingSlot" id="205923"> <ns2:value>cannot possibly be an existing value</ns2:value> </ns2:slot> - <ns2:slot name="first-name" id="205924"> <ns2:value>John</ns2:value> </ns2:slot> - <ns2:slot name="phone" id="205925"> <ns2:value>(818)777-7777</ns2:value> <ns2:value>(818)888-8888</ns2:value> </ns2:slot> </ns2:extrinsicObject> </ns2:results> </ns2:response> </pre>  <pre> - <ns2:response numFound="806" start="1"> - <ns2:results> - <ns2:association associationType="urn:registry:AssociationType:HasMember" targetObject="urn:nasa:pds:profile:regrep:AssociationType:Product_Proxy_PDS3.PDS_Archive" sourceObject="urn:uuid:d5051dd0-a27a-4417-b624-4b0b94d3b2ad" status="Submitted" objectType="Association" home="http://localhost:8080/registry" guid="urn:uuid:00cf8536-7d76-44b9-88d9-575a8072d0b4"> - <ns2:slot name="targetObjectType" id="151"> <ns2:value>ClassificationNode</ns2:value> </ns2:slot> </ns2:association> </ns2:results> </ns2:response> </pre>
---------------------	---

The image shows two screenshots of a Mozilla Firefox browser window displaying XML data from a registry service.

Top Screenshot: registry/schemes

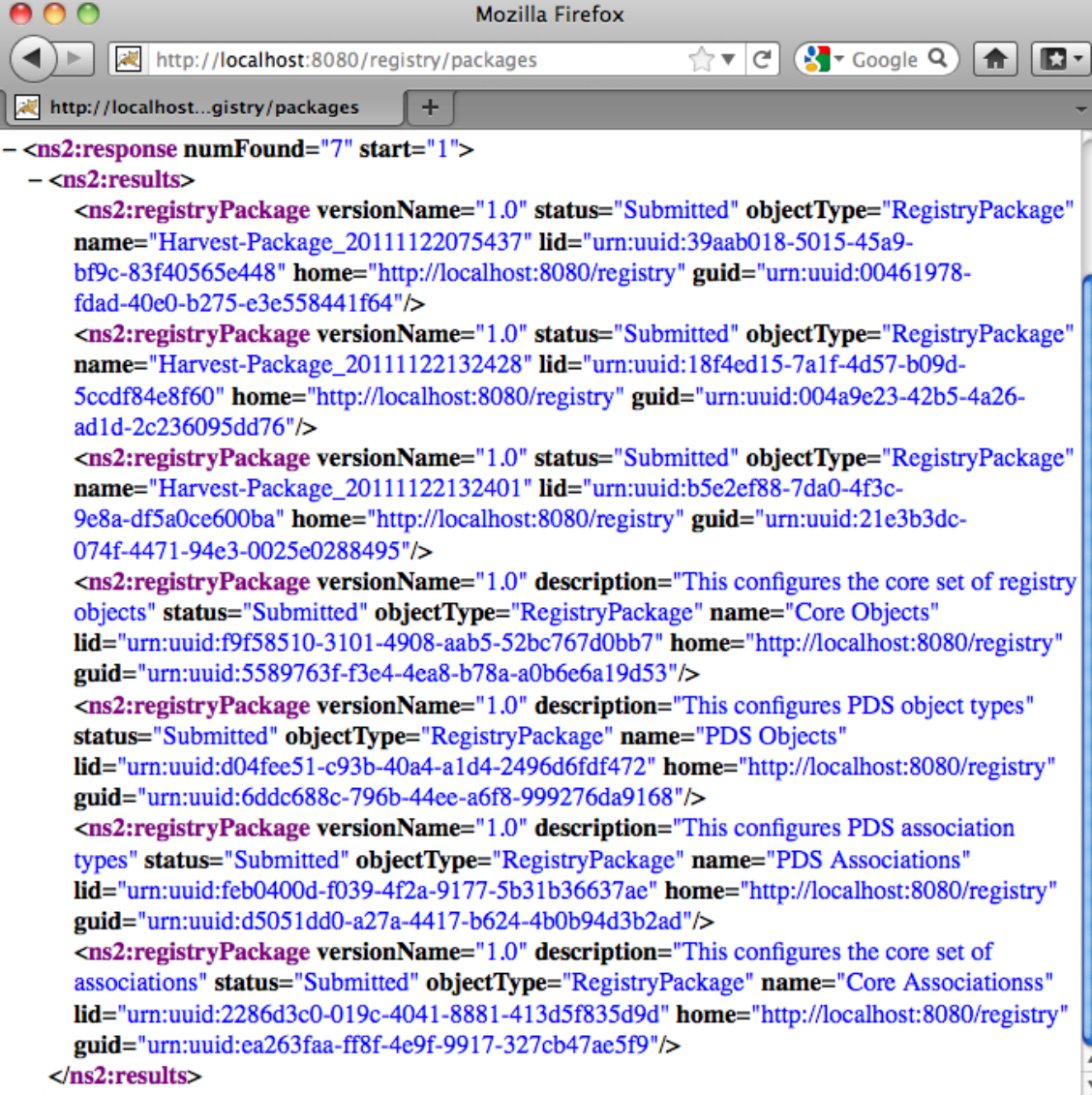
```

- <ns2:response numFound="2" start="1">
  - <ns2:results>
    <ns2:classificationScheme nodeType="UniqueCode" isInternal="true" versionName="1.0"
      description="This is the canonical association type classification that is one of the core registry
      objects" status="Submitted" objectType="ClassificationScheme" name="AssociationType"
      lid="urn:registry:classificationScheme:AssociationType" home="http://localhost:8080/registry"
      guid="urn:registry:classificationScheme:AssociationType"/>
    <ns2:classificationScheme nodeType="UniqueCode" isInternal="true" versionName="1.0"
      description="This is the canonical object type classification that is one of the core registry
      objects" status="Submitted" objectType="ClassificationScheme" name="ObjectType"
      lid="urn:registry:classificationScheme:ObjectType" home="http://localhost:8080/registry"
      guid="urn:registry:classificationScheme:ObjectType"/>
  </ns2:results>
</ns2:response>
  
```

Bottom Screenshot: registry/events

```

- <ns2:response numFound="20772" start="1">
  - <ns2:results>
    - <ns2:auditableEvent user="Unknown" timestamp="2011-11-22T15:22:54.677-08:00"
      requestId="deleteObjectById testing.REG.T1.v1.0" eventType="Deleted"
      objectType="AuditableEvent" home="http://localhost:8080/registry"
      guid="urn:uuid:b24d1d21-85a5-4b40-9eeb-3aae6c3d2e0d">
      - <ns2:slot name="affectedObjectTypes" id="214432">
        <ns2:value>ExtrinsicObject</ns2:value>
      </ns2:slot>
      <ns2:affectedObject>testing.REG.T1.v1.0</ns2:affectedObject>
    </ns2:auditableEvent>
    - <ns2:auditableEvent user="Unknown" timestamp="2011-11-22T13:36:32.267-08:00"
  
```

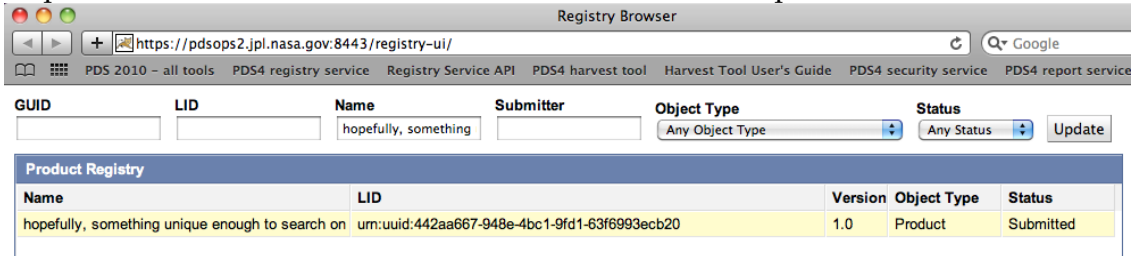
	 <pre> - <ns2:response numFound="7" start="1"> - <ns2:results> <ns2:registryPackage versionName="1.0" status="Submitted" objectType="RegistryPackage" name="Harvest-Package_20111122075437" lid="urn:uuid:39aab018-5015-45a9- bf9c-83f40565e448" home="http://localhost:8080/registry" guid="urn:uuid:00461978- fdad-40e0-b275-e3e558441f64"/> <ns2:registryPackage versionName="1.0" status="Submitted" objectType="RegistryPackage" name="Harvest-Package_20111122132428" lid="urn:uuid:18f4ed15-7a1f-4d57-b09d- 5ccdf84e8f60" home="http://localhost:8080/registry" guid="urn:uuid:004a9e23-42b5-4a26- ad1d-2c236095dd76"/> <ns2:registryPackage versionName="1.0" status="Submitted" objectType="RegistryPackage" name="Harvest-Package_20111122132401" lid="urn:uuid:b5e2ef88-7da0-4f3c- 9e8a-df5a0ce600ba" home="http://localhost:8080/registry" guid="urn:uuid:21e3b3dc- 074f-4471-94e3-0025e0288495"/> <ns2:registryPackage versionName="1.0" description="This configures the core set of registry objects" status="Submitted" objectType="RegistryPackage" name="Core Objects" lid="urn:uuid:f9f58510-3101-4908-aab5-52bc767d0bb7" home="http://localhost:8080/registry" guid="urn:uuid:5589763f-f3c4-4ca8-b78a-a0b6e6a19d53"/> <ns2:registryPackage versionName="1.0" description="This configures PDS object types" status="Submitted" objectType="RegistryPackage" name="PDS Objects" lid="urn:uuid:d04fee51-c93b-40a4-a1d4-2496d6fdf472" home="http://localhost:8080/registry" guid="urn:uuid:6ddc688c-796b-44ec-a6f8-999276da9168"/> <ns2:registryPackage versionName="1.0" description="This configures PDS association types" status="Submitted" objectType="RegistryPackage" name="PDS Associations" lid="urn:uuid:feb0400d-f039-4f2a-9177-5b31b36637ae" home="http://localhost:8080/registry" guid="urn:uuid:d5051dd0-a27a-4417-b624-4b0b94d3b2ad"/> <ns2:registryPackage versionName="1.0" description="This configures the core set of associations" status="Submitted" objectType="RegistryPackage" name="Core Associations" lid="urn:uuid:2286d3c0-019c-4041-8881-413d5f835d9d" home="http://localhost:8080/registry" guid="urn:uuid:ea263faa-ff8f-4e9f-9917-327cb47ae5f9"/> </ns2:results> </ns2:response> </pre>
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	REG.T4
Description	Assign a global unique identifier to a registered artifact with no global unique identifier, query for the registered artifact, delete the registered artifact.
Test Steps	<ol style="list-style-type: none"> 1. curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T4.xml registryURL/registry/extrinsics/logicals 2. In a browser, https://localhost:8080/registry-ui 3. Under "Name", enter "hopefully, something unique enough to search on" from test.REG.T4.xml. Click "Update" 4. curl curlOptions -X DELETE --verbose registryURL/registry/extrinsics/logicals/guidFromStep1 5. Click the "Update" button again.
Test Results	Step 1: Note the value (an assigned LID) of "Location:" in the positive message: * About to connect() to pdsops2.jpl.nasa.gov port 80 (#0)

```

* Trying 128.149.132.54... connected
* Connected to pdsops2.jpl.nasa.gov (128.149.132.54) port 80 (#0)
> POST /registry/extrinsics/logicals HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8l zlib/1.2.3
> Host: pdsops2.jpl.nasa.gov
> Accept: */*
> Content-type:application/xml
> Content-Length: 675
< HTTP/1.1 201 Created
< Server: Apache-Coyote/1.1
< Location: registryURL/registry/extrinsics/logicals/urn:uuid:442aa667-948e-4bc1-9fd1-63f6993ecb20/1.0
< Content-Type: application/xml
< Transfer-Encoding: chunked
< Date: Fri, 29 Apr 2011 21:30:08 GMT
* Connection #0 to host pdsops2.jpl.nasa.gov left intact
* Closing connection #0
urn:uuid:eba1c7a9-3026-470b-85c6-400b5cdc402b
    
```

Step 3: the LID should match the value of "Location:" in step 1



Step 4:

```

* About to connect() to pdsops2.jpl.nasa.gov port 80 (#0)
* Trying 128.149.132.54... connected
* Connected to pdsops2.jpl.nasa.gov (128.149.132.54) port 80 (#0)
> DELETE /registry/extrinsics/logicals/urn:uuid:442aa667-948e-4bc1-9fd1-63f6993ecb20/1.0 HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8l zlib/1.2.3
> Host: pdsops2.jpl.nasa.gov
> Accept: */*
< HTTP/1.1 200 OK
< Server: Apache-Coyote/1.1
< Content-Length: 0
< Date: Fri, 29 Apr 2011 21:36:46 GMT
* Connection #0 to host pdsops2.jpl.nasa.gov left intact
* Closing connection #0
    
```

Step 5: The row should be gone

Comments

<http://oodt.jpl.nasa.gov/jira/browse/PDS-46>

Registry no longer seems to accept extrinsicObjects without attribute guid, which would be reasonable but against requirement L5.REG.6, "The service shall assign a global unique identifier to a registered artifact." Actual output from step 1:

```

* About to connect() to localhost port 8080 (#0)
* Trying 127.0.0.1... connected
* Connected to localhost (127.0.0.1) port 8080 (#0)
> POST /registry/extrinsics/logicals HTTP/1.1
> User-Agent: curl/7.19.7 (universal-apple-darwin10.0) libcurl/7.19.7 OpenSSL/0.9.8r zlib/1.2.3
> Host: localhost:8080
> Accept: */*
> Content-type:application/xml
> Content-Length: 669
>
< HTTP/1.1 500 Internal Server Error
< Server: Apache-Coyote/1.1
< Content-Type: text/html;charset=utf-8
< Transfer-Encoding: chunked
< Date: Mon, 24 Oct 2011 07:12:01 GMT
< Connection: close
<
<html><head><title>Apache Tomcat/6.0.33 - Error report</title><style><!--H1 {font-
    
```

	<pre> family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:22px;} H2 {font- family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;} H3 {font- family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:14px;} BODY {font- family:Tahoma,Arial,sans-serif;color:black;background-color:white;} B {font-family:Tahoma,Arial,sans- serif;color:white;background-color:#525D76;} P {font-family:Tahoma,Arial,sans- serif;background:white;color:black;font-size:12px;}A {color : black;}A.name {color : black;}HR {color : #525D76;--></style> </head><body><h1>HTTP Status 500 - </h1><HR size="1" noshade="noshade"><p>type Exception report</p><p>message <u></u></p><p>description <u>The server encountered an internal error () that prevented it from fulfilling this request.</u></p><p>exception <pre>javax.persistence.PersistenceException: org.hibernate.id.IdentifierGenerationException: ids for this class must be manually assigned before calling save(): gov.nasa.pds.registry.model.ExtrinsicObject org.hibernate.ejb.AbstractEntityManagerImpl.convert(AbstractEntityManagerImpl.java:123 5) org.hibernate.ejb.AbstractEntityManagerImpl.convert(AbstractEntityManagerImpl.java:116 8) org.hibernate.ejb.AbstractEntityManagerImpl.convert(AbstractEntityManagerImpl.java:117 4) org.hibernate.ejb.AbstractEntityManagerImpl.merge(AbstractEntityManagerImpl.java:691) sun.reflect.GeneratedMethodAccessor64.invoke(Unknown Source) sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) java.lang.reflect.Method.invoke(Method.java:597) org.springframework.orm.jpa.ExtendedEntityManagerCreator\$ExtendedEntityManagerInv ocationHandler.invoke(ExtendedEntityManagerCreator.java:365) \$Proxy49.merge(Unknown Source) sun.reflect.GeneratedMethodAccessor64.invoke(Unknown Source) sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) java.lang.reflect.Method.invoke(Method.java:597) org.springframework.orm.jpa.SharedEntityManagerCreator\$SharedEntityManagerInvocati onHandler.invoke(SharedEntityManagerCreator.java:240) \$Proxy49.merge(Unknown Source) gov.nasa.pds.registry.service.MetadataStoreJPA.updateRegistryObject(MetadataStoreJPA.ja va:544) sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) java.lang.reflect.Method.invoke(Method.java:597) org.springframework.aop.support.AopUtils.invokeJoinpointUsingReflection(AopUtils.java: 309) org.springframework.aop.framework.ReflectiveMethodInvocation.invokeJoinpoint(Reflecti veMethodInvocation.java:183) org.springframework.aop.framework.ReflectiveMethodInvocation.proceed(ReflectiveMetho dInvocation.java:150) org.springframework.transaction.interceptor.TransactionInterceptor.invoke(TransactionInte rceptor.java:110) org.springframework.aop.framework.ReflectiveMethodInvocation.proceed(ReflectiveMetho dInvocation.java:172) org.springframework.aop.framework.JdkDynamicAopProxy.invoke(JdkDynamicAopProxy. java:202) \$Proxy50.updateRegistryObject(Unknown Source) gov.nasa.pds.registry.service.RegistryServiceImpl.updateObject(RegistryServiceImpl.java:44 5) gov.nasa.pds.registry.resource.ExtrinsicsResource.updateExtrinsic(ExtrinsicsResource.java:3 81) sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) java.lang.reflect.Method.invoke(Method.java:597) com.sun.jersey.server.impl.model.method.dispatch.AbstractResourceMethodDispatchProvi der\$ResponseOutInvoker._dispatch(AbstractResourceMethodDispatchProvider.java:187) com.sun.jersey.server.impl.model.method.dispatch.ResourceJavaMethodDispatcher.dispatch h(ResourceJavaMethodDispatcher.java:70) com.sun.jersey.server.impl.uri.rules.HttpMethodRule.accept(HttpMethodRule.java:279) com.sun.jersey.server.impl.uri.rules.RightHandPathRule.accept(RightHandPathRule.java:13 6) com.sun.jersey.server.impl.uri.rules.SubLocatorRule.accept(SubLocatorRule.java:121) com.sun.jersey.server.impl.uri.rules.RightHandPathRule.accept(RightHandPathRule.java:13 6) com.sun.jersey.server.impl.uri.rules.ResourceClassRule.accept(ResourceClassRule.java:86) </pre>
--	---

	<pre> 6) com.sun.jersey.server.impl.uri.rules.RightHandPathRule.accept(RightHandPathRule.java:13 com.sun.jersey.server.impl.uri.rules.RootResourceClassesRule.accept(RootResourceClasses Rule.java:74) com.sun.jersey.server.impl.application.WebApplicationImpl._handleRequest(WebApplicati onImpl.java:1357) com.sun.jersey.server.impl.application.WebApplicationImpl._handleRequest(WebApplicati onImpl.java:1289) com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicatio nImpl.java:1239) com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicatio nImpl.java:1229) com.sun.jersey.spi.container.servlet.WebComponent.service(WebComponent.java:420) com.sun.jersey.spi.container.servlet.ServletContainer.service(ServletContainer.java:497) com.sun.jersey.spi.container.servlet.ServletContainer.doFilter(ServletContainer.java:855) com.sun.jersey.spi.container.servlet.ServletContainer.doFilter(ServletContainer.java:828) com.sun.jersey.spi.container.servlet.ServletContainer.doFilter(ServletContainer.java:789) org.springframework.orm.jpa.support.OpenEntityManagerInViewFilter.doFilterInternal(Op enEntityManagerInViewFilter.java:113) org.springframework.web.filter.OncePerRequestFilter.doFilter(OncePerRequestFilter.java:7 6) </pre></p><p>root cause <pre>org.hibernate.id.IdentifierGenerationException: ids for this class must be manually assigned before calling save(): gov.nasa.pds.registry.model.ExtrinsicObject org.hibernate.id.Assigned.generate(Assigned.java:53) org.hibernate.event.def.AbstractSaveEventListener.saveWithGeneratedId(AbstractSaveEven tListener.java:122) org.hibernate.ejb.event.EJB3MergeEventListener.saveWithGeneratedId(EJB3MergeEventLis tener.java:62) org.hibernate.event.def.DefaultMergeEventListener.mergeTransientEntity(DefaultMergeEv entListener.java:313) org.hibernate.event.def.DefaultMergeEventListener.entityIsTransient(DefaultMergeEventLi stener.java:282) org.hibernate.event.def.DefaultMergeEventListener.onMerge(DefaultMergeEventListener.ja va:237) org.hibernate.event.def.DefaultMergeEventListener.onMerge(DefaultMergeEventListener.ja va:84) org.hibernate.impl.SessionImpl.fireMerge(SessionImpl.java:859) org.hibernate.impl.SessionImpl.merge(SessionImpl.java:843) org.hibernate.impl.SessionImpl.merge(SessionImpl.java:847) org.hibernate.ejb.AbstractEntityManagerImpl.merge(AbstractEntityManagerImpl.java:682) sun.reflect.GeneratedMethodAccessor64.invoke(Unknown Source) java.lang.reflect.Method.invoke(Method.java:597) org.springframework.orm.jpa.ExtendedEntityManagerCreator\$ExtendedEntityManagerInv ocationHandler.invoke(ExtendedEntityManagerCreator.java:365) \$Proxy49.merge(Unknown Source) sun.reflect.GeneratedMethodAccessor64.invoke(Unknown Source) sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) java.lang.reflect.Method.invoke(Method.java:597) org.springframework.orm.jpa.SharedEntityManagerCreator\$SharedEntityManagerInvocati onHandler.invoke(SharedEntityManagerCreator.java:240) \$Proxy49.merge(Unknown Source) gov.nasa.pds.registry.service.MetadataStoreJPA.updateRegistryObject(MetadataStoreJPA.ja va:544) sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) java.lang.reflect.Method.invoke(Method.java:597) org.springframework.aop.support.AopUtils.invokeJoinpointUsingReflection(AopUtils.java: 309) org.springframework.aop.framework.ReflectiveMethodInvocation.invokeJoinpoint(Reflecti veMethodInvocation.java:183) org.springframework.aop.framework.ReflectiveMethodInvocation.proceed(ReflectiveMetho dInvocation.java:150) org.springframework.transaction.interceptor.TransactionInterceptor.invoke(TransactionInte rceptor.java:110) org.springframework.aop.framework.ReflectiveMethodInvocation.proceed(ReflectiveMetho dInvocation.java:172) org.springframework.aop.framework.JdkDynamicAopProxy.invoke(JdkDynamicAopProxy. </pre>
--	--

	<pre> java:202) \$Proxy50.updateRegistryObject(Unknown Source) gov.nasa.pds.registry.service.RegistryServiceImpl.updateObject(RegistryServiceImpl.java:44 5) gov.nasa.pds.registry.resource.ExtrinsicsResource.updateExtrinsic(ExtrinsicsResource.java:3 81) sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:39) sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25) java.lang.reflect.Method.invoke(Method.java:597) com.sun.jersey.server.impl.model.method.dispatch.AbstractResourceMethodDispatchProvi der\$ResponseOutInvoker._dispatch(AbstractResourceMethodDispatchProvider.java:187) com.sun.jersey.server.impl.model.method.dispatch.ResourceJavaMethodDispatcher.dispatch h(ResourceJavaMethodDispatcher.java:70) com.sun.jersey.server.impl.uri.rules.HttpMethodRule.accept(HttpMethodRule.java:279) com.sun.jersey.server.impl.uri.rules.RightHandPathRule.accept(RightHandPathRule.java:13 6) com.sun.jersey.server.impl.uri.rules.SubLocatorRule.accept(SubLocatorRule.java:121) com.sun.jersey.server.impl.uri.rules.RightHandPathRule.accept(RightHandPathRule.java:13 6) com.sun.jersey.server.impl.uri.rules.ResourceClassRule.accept(ResourceClassRule.java:86) com.sun.jersey.server.impl.uri.rules.RightHandPathRule.accept(RightHandPathRule.java:13 6) com.sun.jersey.server.impl.uri.rules.RootResourceClassesRule.accept(RootResourceClasses Rule.java:74) com.sun.jersey.server.impl.application.WebApplicationImpl._handleRequest(WebApplicati onImpl.java:1357) com.sun.jersey.server.impl.application.WebApplicationImpl._handleRequest(WebApplicati onImpl.java:1289) com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicatio nImpl.java:1239) com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicatio nImpl.java:1229) com.sun.jersey.spi.container.servlet.WebComponent.service(WebComponent.java:420) com.sun.jersey.spi.container.servlet.ServletContainer.service(ServletContainer.java:497) com.sun.jersey.spi.container.servlet.ServletContainer.doFilter(ServletContainer.java:855) com.sun.jersey.spi.container.servlet.ServletContainer.doFilter(ServletContainer.java:828) com.sun.jersey.spi.container.servlet.ServletContainer.doFilter(ServletContainer.java:789) org.springframework.orm.jpa.support.OpenEntityManagerInViewFilter.doFilterInternal(Op enEntityManagerInViewFilter.java:113) org.springframework.web.filter.OncePerRequestFilter.doFilter(OncePerRequestFilter.java:7 6) * Closing connection #0 </pre></p><p>note <u>The full stack trace of the root cause is available in the Apache Tomcat/6.0.33 logs.</u></p><hr size="1" noshade="noshade"><h3>Apache Tomcat/6.0.33</h3></body></html> </pre>
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	REG.T5 *obsolete
Description	Assign a version to a registered artifact based on its unique identifier
Test Steps	<ol style="list-style-type: none"> 1. <i>registryURL/registry/extrinsics/logicals/testing.REG.T2b</i> shows no current product targetLid=testing.REG.T2b 2. <i>curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T5a.xml registryURL/registry/extrinsics/logicals</i> 3. Repeat step 1. Note that userVersion is 1.0 4. <i>curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T5b.xml registryURL/registry/extrinsics/logicals</i> 5. Repeat step 1. Note that userVersion is 2.0

	6. <i>registryURL/registry/extrinsics/logicals/testing.REG.T2b/all</i> shows both versions
Test Results	Step 1: The error message should be "HTTP Status 500 -" Step 2: Benign output messages without "ERROR" Step 3: Upon success, the registry service returns good xml with userVersion = 1.0 Step 5: Upon success, the registry service returns good xml with userVersion = 2.0 Step 6: Upon success, the registry service returns good xml showing both posts.
Comments	
Date of Testing	
Test Personnel	

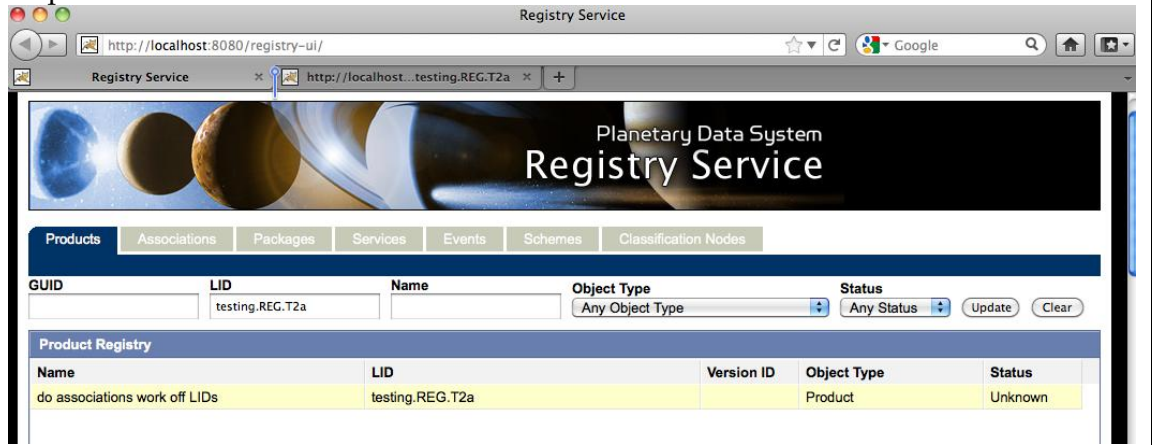
Test Case ID	REG.T6
Description	Allow replacement, approval, deprecation, undeprecation, and verification of registered artifacts.
Test Steps	<ol style="list-style-type: none"> 1. In a browser, <i>registryURL/registry/extrinsics/logicals/testing.REG.T2a</i> shows no current product has lid "testing.REG.T2a". 2. <code>curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T6a.xml registryURL/registry/extrinsics/logicals</code> 3. Repeat step 1 to see the lid 4. In a browser, <i>registryURL/registry-ui/</i> Under "LID", enter "testing.REG.T2a". Click "Update". If that URL is not found, repeat step 1 and note the XML attribute "status". 5. <code>curl curlOptions -X POST -H "Content-type:application/xml" -v registryURL/registry/extrinsics/testing.REG.T2a.v1.0/approve</code> 6. Repeat step 4 to see the Status 7. <code>curl curlOptions -X POST -H "Content-type:application/xml" -v registryURL/registry/extrinsics/testing.REG.T2a.v1.0/deprecate</code> 8. Repeat step 4 to see the Status 9. <code>curl curlOptions -X POST -H "Content-type:application/xml" -v registryURL/registry/extrinsics/testing.REG.T2a.v1.0/undeprecate</code> 10. Repeat step 4 to see the Status 11. <code>curl curlOptions -X POST -H "Content-type:application/xml" -v -d @testRegistry/test.REG.T6b.xml registryURL/registry/extrinsics/logicals</code> replaces the info in the first file with different values for the phone numbers 12. Repeat step 1 to see the lid
Test Results	Step 1: The error message should be "No object found for lid: testing.REG.T2a", very much like REG.T1's step 2's output. If not, <code>curl curlOptions -X DELETE -v <i>registryURL/registry/extrinsics/testing.REG.T2a.v1.0</i></code> Step 2: Benign output messages without "ERROR", like REG.T1's step 5 Step 3:


```

- <ns2:response>
  - <ns2:results>
    - <ns2:extrinsicObject description="Stolen from http://pdscm/2010/registry/registry-service
      /operate/index.html with attribute lid above changed for uniqueness" objectType="Product"
      name="do associations work off LIDs" lid="testing.REG.T2a" guid="testing.REG.T2a.v1.0">
      - <ns2:slot name="phone" id="214439">
        <ns2:value>(818)000-1111</ns2:value>
        <ns2:value>(818)000-2222</ns2:value>
      </ns2:slot>
      - <ns2:slot name="last-name" id="214440">
        <ns2:value>Chen</ns2:value>
      </ns2:slot>
      - <ns2:slot name="first-name" id="214441">
        <ns2:value>Min</ns2:value>
      </ns2:slot>
    </ns2:extrinsicObject>
  </ns2:results>
</ns2:response>

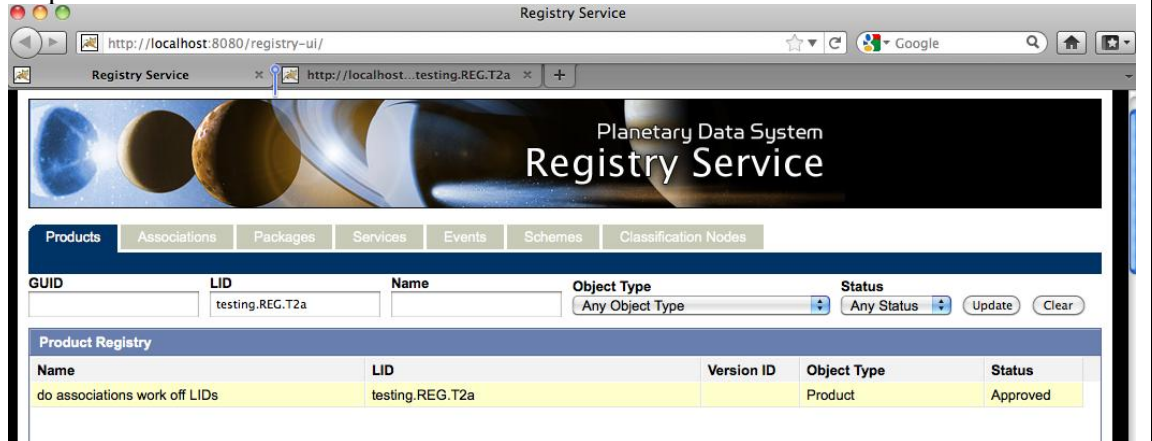
```

Step 4:



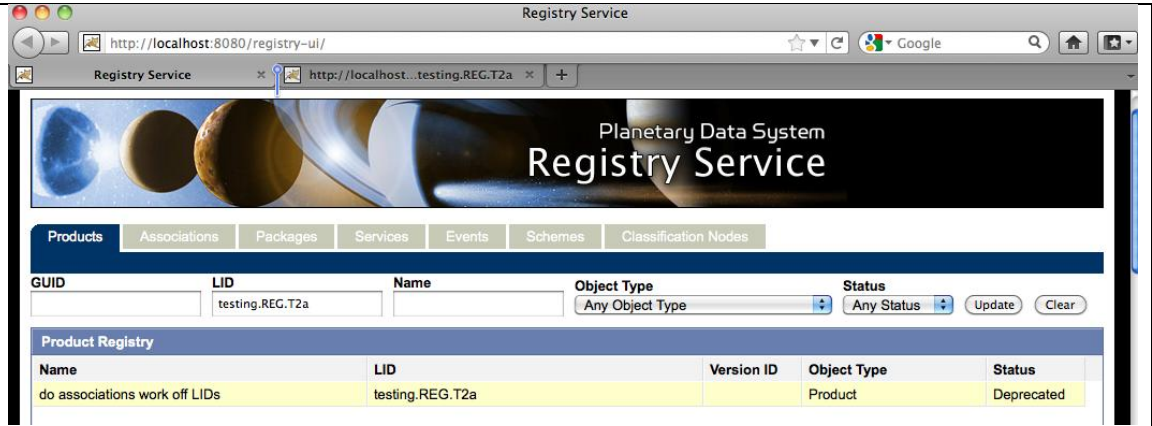
Step 5: Similar to step 2

Step 6:



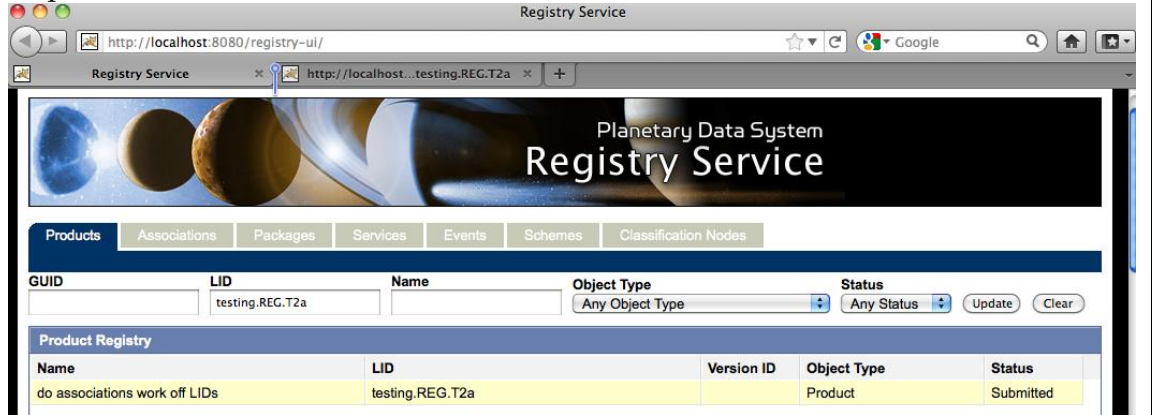
Step 7: Similar to step 2

Step 8:



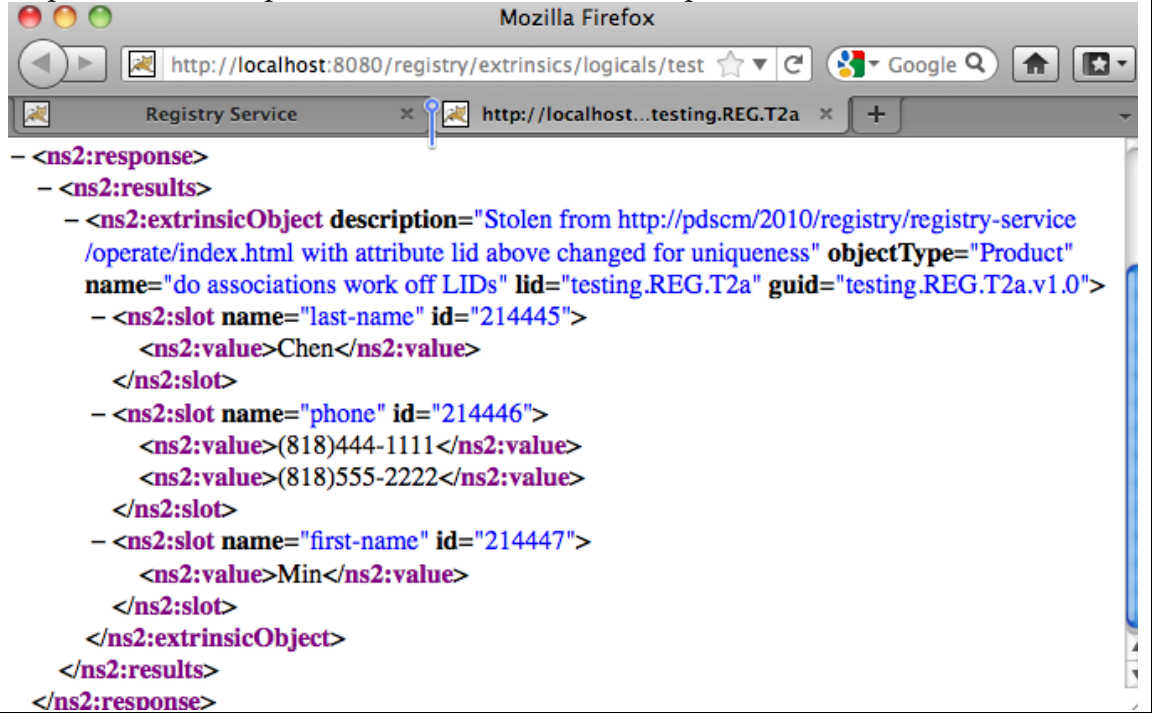
Step 9: Similar to step 2

Step 10:



Step 11: Similar to step 2

Step 12: Same as step 3 but with different values for phone numbers



Comments

<http://oodt.jpl.nasa.gov/jira/browse/PDS-47>

After the initial registration, product's status is "Unknown". It used to be "Submitted"

Date of Testing

2011 Nov 22

Test Personnel	Richard Chen
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Test Case ID	REG.T7 *not ready for build 2a
Description	Enable replication of registry contents
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	REG.T8 *not ready for build 2a
Description	Verify registry contents
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	REG.T9
Description	Test scalability of registry.
Test Steps	<p>This requires python to be installed on the local machine and possible editing of stressTest.py to change the location of the python executable. Step 3 is configurable. 500000 registrations (as shown) may take 3 days.</p> <ol style="list-style-type: none"> 1. cd testDir/bin 2. ./stressTest.py 3. ./stressTest.py -v -n500000 > ../out.txt 4. grep Time ../out.txt
Test Results	<p>Step 2:</p> <pre> stressTesting.T000000.v1.0 deleted stressTesting.T000001.v1.0 deleted stressTesting.T000002.v1.0 deleted Delete 3 done. Time(sec): avg=0.263 median=0.081 stdDev=0.26655 sum=0.8 Regstr 3 done. Time(sec): avg=0.016 median=0.017 stdDev=0.00219 sum=0.0 <?xml version="1.0" encoding="UTF-8" standalone="yes"?><ns2:response xmlns:ns2="http://registry.pds.nasa.gov"><ns2:results><ns2:extrinsicObject description="Stolen from http://pdscm/2010/registry/registry-service/operate/index.html with attribute lid above changed for uniqueness" objectType="Product" name="Stress The Registry " lid="stressTesting.T000000" guid="stressTesting.T000000.v1.0"><ns2:slot name="last-name" id="214451"><ns2:value>Doe</ns2:value></ns2:slot><ns2:slot name="cannotPossibleBeAnExistingSlot" id="214452"><ns2:value>cannot possibly be an existing value</ns2:value></ns2:slot><ns2:slot name="first-name" id="214453"><ns2:value>John</ns2:value></ns2:slot><ns2:slot name="phone" id="214454"><ns2:value>(818)777-7777</ns2:value><ns2:value>(818)888- 8888</ns2:value></ns2:slot></ns2:extrinsicObject></ns2:results></ns2:response> <?xml version="1.0" encoding="UTF-8" standalone="yes"?><ns2:response xmlns:ns2="http://registry.pds.nasa.gov"><ns2:results><ns2:extrinsicObject description="Stolen from http://pdscm/2010/registry/registry-service/operate/index.html with attribute lid above changed for </pre>

	<pre> uniqueness" objectType="Product" name="Stress The Registry " lid="stressTesting.T000001" guid="stressTesting.T000001.v1.0"><ns2:slot name="last-name" id="214455"><ns2:value>Doe</ns2:value></ns2:slot><ns2:slot name="cannotPossibleBeAnExistingSlot" id="214456"><ns2:value>cannot possibly be an existing value</ns2:value></ns2:slot><ns2:slot name="first-name" id="214457"><ns2:value>John</ns2:value></ns2:slot><ns2:slot name="phone" id="214458"><ns2:value>(818)777-7777</ns2:value><ns2:value>(818)888- 8888</ns2:value></ns2:slot></ns2:extrinsicObject></ns2:results></ns2:response> <?xml version="1.0" encoding="UTF-8" standalone="yes"?><ns2:response xmlns:ns2="http://registry.pds.nasa.gov"><ns2:results><ns2:extrinsicObject description="Stolen from http://pdscm/2010/registry/registry-service/operate/index.html with attribute lid above changed for uniqueness" objectType="Product" name="Stress The Registry " lid="stressTesting.T000002" guid="stressTesting.T000002.v1.0"><ns2:slot name="last-name" id="214459"><ns2:value>Doe</ns2:value></ns2:slot><ns2:slot name="cannotPossibleBeAnExistingSlot" id="214460"><ns2:value>cannot possibly be an existing value</ns2:value></ns2:slot><ns2:slot name="first-name" id="214461"><ns2:value>John</ns2:value></ns2:slot><ns2:slot name="phone" id="214462"><ns2:value>(818)777-7777</ns2:value><ns2:value>(818)888- 8888</ns2:value></ns2:slot></ns2:extrinsicObject></ns2:results></ns2:response> View 3 done. Time(sec): avg=0.009 median=0.009 stdDev=0.00035 sum=0.0 Delete 501000 done. Time(sec): avg=0.205 median=0.196 stdDev=0.08713 sum=102548.0 Regstr 501000 done. Time(sec): avg=0.093 median=0.091 stdDev=0.03463 sum=46472.3 View 106227 done. Time(sec): avg=1.454 median=1.452 stdDev=0.05708 sum=154459.2 View 394773 FAIL. Time(sec): avg=0.012 median=0.009 stdDev=0.09480 sum=4882.7 </pre> <p>Step 4:</p>
Comments	Typically, each registration takes 0.1 seconds; deletion, 0.2; view, 0.1
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	RPT.T1, RPT.T2, RPT.T3, RPT.T4, RPT.T5
Description	Various requirements regarding reporting
Test Steps	Commercial applications, in particular Sawmill, provide the functionality required. Verification of installation suffices.
Test Results	
Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

Test Case ID	SEC.T1, SEC.T2, SEC.T3, SEC.T4
Description	Various requirements regarding security
Test Steps	(From http://pds-engineering.jpl.nasa.gov/pds2010/development/1.2.0/security/) The Security Service provides the authentication and authorization functions for the PDS 2010 system. The intent of this service is to control access to interfaces and services that require authentication and authorization (e.g., Monitor, Report, Registry interfaces, etc.). The functionality for this service is satisfied by the open source software package OpenDS, which is a directory service supporting the Lightweight Directory Access Protocol (LDAP).
Test Results	

PDS 2010 Project Plan

Comments	
Date of Testing	2011 Nov 22
Test Personnel	Richard Chen

5 Anomalies

The JIRA issue tracking system (<http://www.atlassian.com/software/jira>) is being used to capture discrepancies found during testing.

Testing of build 1b found 1 anomaly. Resolved.

Testing of build 1c found 2 minor anomalies.

Testing of build 1d found 5 anomalies

Testing of build 2a found 0 anomalies

5.1 Issues Entered

<https://oodt.jpl.nasa.gov/jira/browse/PDS-1>. Resolved

<http://oodt.jpl.nasa.gov/jira/browse/PDS-34>. Resolved

<http://oodt.jpl.nasa.gov/jira/browse/PDS-35>

<http://oodt.jpl.nasa.gov/jira/browse/PDS-45>. Resolved

<http://oodt.jpl.nasa.gov/jira/browse/PDS-46>

<http://oodt.jpl.nasa.gov/jira/browse/PDS-47>

<http://oodt.jpl.nasa.gov/jira/browse/PDS-48>. Resolved

<http://oodt.jpl.nasa.gov/jira/browse/PDS-49>. Resolved

For the full JIRA list, <http://oodt.jpl.nasa.gov/jira/browse/PDS>

5.2 Major Issues

None.

5.3 Open anomalies

See 5.1 above.

6 Test Data

File PDS4test.build2a.zip from the “Test Procedures Input” link at <http://pds-engineering.jpl.nasa.gov/index.cfm?pid=145&cid=175> has all test data.

Appendix A: Acronyms

CM - Configuration Management
DN - PDS Discipline or Data Node
GUI - Graphical User Interface
EN - PDS Engineering Node
I&T - Integration and Test
NASA - National Aeronautics and Space Administration
OS - Operating System
PDS - Planetary Data System
PDS3 - Version 3.8 of the PDS Data Standards
PDS4 - Version 4.0 of the PDS Data Standards
PDS 2010 - PDS 2010 Project
PDS MC - PDS Management Council
SDD - Software Design Document
SRD - Software Requirements Document