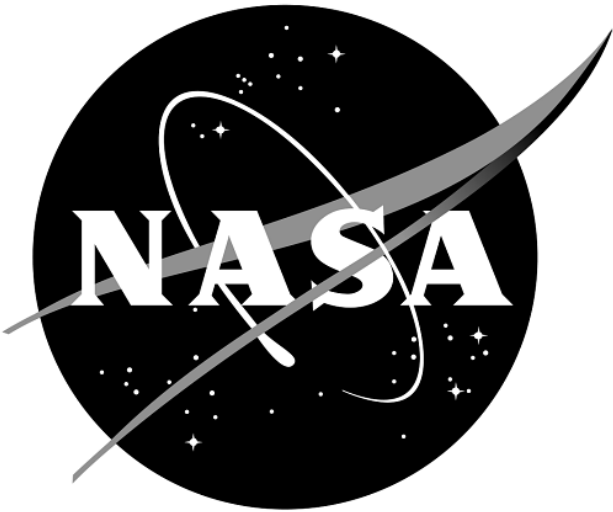




Plan Document

NASA Planetary Data System
PDS4 System
Build 12.1 Test Document



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
2b	Feb 28, 2012	Updated for build 2b	Richard Chen
2b.1	Mar 7, 2012	Re-added HVT.T3, expanded SRCH.T5	Richard Chen
2c	Jul 17, 2012	Updated for build 2c	Richard Chen
3a	Oct 26, 2012	Added BNDL.T1 to .T4	Richard Chen
3b	Apr 09, 2013	Added AAFUNCTION.*	Richard Chen
3b.1	Aug 30, 2013	Incorporated JIRA resolutions	Richard Chen
3b.2	Sep 15, 2013	Cleaned up and removed not applicable test procedures	Richard Chen, Emily Law
4a	Dec. 05, 2013	Incorporated PDS4ORR-RFA1's recommendations by: <ul style="list-style-type: none"> • folding the test plan into this (test procedures and test results) document. • listing the requirements tested in each test case and their pass/fail status • adding version numbers in list of software components tested • indicating for each JIRA issue: the software build under which it was discovered, its severity, the test case demonstrating, and its description. • adding "pass", "fail", or "skip" to the requirements traceability matrix Added tests TPRT.1, SCMA.1 to test transport service and schema. Removed redundant tests AATESTME.*.	Richard Chen, Emily Law
4b'	Apr 14, 2014	Replaced generate0.7.0 with 0.7.1	Richard Chen
5a	Oct 27, 2014	Added PRV.3, TPRT.4. Changed HVT.4 to GEN.2. Changed TPRT.3 to test more of transport-proxy. Deleted TPRT.2 after folding its step into TPRT.1	Richard Chen
5b	Apr 19, 2015	Rewrote TPRT.4 to test transport-proxy correctly. Much work on formatting issues in Generate, Transform, and Transport. Added SRCH.8	Richard Chen
6a	Oct 19, 2015	Added HVT.7, REG.10. Modified HVT.5, PRG.1, PRT.1, PRV.1, PRV.3, PRV.5, PRV.6, REG.3, REG.9, SRCH.5, SRCH.8, TPRT.1, TPRT.3	Richard Chen

6b	Apr 29, 2016	Added PRP.1, PRT.2, PRT.3, PRV.7, TPRT.5	Richard Chen
7a	Oct 24, 2016	Added MOD.1, Changed DSV.1 to POR.1, added POR.2	Richard Chen
7b	Apr 17, 2017	Added HVT.8	Richard Chen
8a	Oct 23, 2017	Added harvest-search, search-analytics	Richard Chen
8b	Apr 23, 2018	Added PRI.1, PRS.1, TPRT.6. Removed obsolete PRV.6	Richard Chen
9a	Oct 30, 2018	Removed SRCH.9 and merged it into POR.1	Richard Chen
9b	Jun 12, 2019	Removed REG.10	Richard Chen
10a	Nov 11, 2019	Removed AAFUNCTION.*, CTLG.3, POR.*, PRP.1, PRS.1, REG.*, SRCH.* Renamed AAFUNCTION.1 to REQ.4, GEN.* to REQ.*, HVT.[5-8] to HVT.[4-7], MOD.1 to LDD.1, PRG.1 to GEN.1, PRI.1 to VIEW.1, PRT.* to XFRM.*, PRV.* to VAL.*, SCMA.1 to REQ.1, SEC.1 to REQ.2	Richard Chen
10b	May 6, 2020	Replaced Section 4's anomaly tracking with RDD referencing. Restored deleted tests. Added DEEP.1. Renamed PRP.1 to VIEW.2, SRCH.8 to SRCH.4, PRS.1 to XFRM.4, REQ.1 to SCMA.1, LDD.1 to SCHMA.2, REQ.7 to REQ.1, POR.1 to SRCH.8, HVT.* to HVTOLD.*, REG.* to REGOLD.*	Richard Chen
11.0	Dec 4, 2020	Added DOI.*. Rewrote HVT.* for new harvest/registry. Added 1 test per issue for DEEP, SCMA, VAL. Dumped Section 5, Requirements Traceability, as those appear in Section 4. Removed Section 3.4, unchanged software.	Richard Chen Gary Chen
11.1	Jun 7, 2021	Added tests for DOI-API, and PDS-WDS-WEB. Added tests that uniquely address defects and enhancements for each tool.	Richard Chen Gary Chen
12.0	Oct. 31, 2021	Added tests for PDSI-API, PDS-API-Client and PDS.nasa.gov-UX. Added tests that uniquely address defects and enhancements for each tool.	Gary Chen Richard Chen
12.1	Apr 29, 2022	Added tests for PDSI-API, PDS-API-Client and PDS-DOI-UI. Added tests that uniquely address defects and enhancements for each tool.	Gary Chen John Engelke Vivian Tang

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1 Introduction

For over twenty years, the Planetary Data System (PDS) has been NASA's official data system for archiving and distribution of data from planetary exploration missions. It has been a leader in defining data standards, working with missions and instrument teams, and developing data system technologies. The PDS has been instrumental in changing the scientific culture by working with the planetary science community to publicly release and peer review the data it captures. It has also been used as a model by other science data systems interested in establishing distributed scientific networks organized by independent discipline nodes at facilities that are doing leading-edge scientific research.

While PDS has been a leader in developing and exploiting new technologies and ideas, an increasing workload and substantial increases in the volume of delivered data are now threatening the system's ability to accomplish its primary missions of both archiving planetary science data and distributing it to working scientists. PDS identified these challenges in its Roadmap published in 2006. In addition to these challenges, the ten year Roadmap outlined several goals including improving the PDS data standards, increasing user services by leveraging newer technologies and technical standards, and re-architecting PDS to ensure efficient operations of the system while supporting the increasing demands on PDS by both the data providers and end users.

In response to these challenges and goals, PDS has developed a plan for the next generation. The vision, as defined by the PDS Management Council at its April 2008 meeting, includes:

- Simplified, but rigorous, archiving standards that are consistent, easy to learn, and easy to use
- Adaptable tools for designing archives, preparing data, and delivering results efficiently to PDS
- On-line services allowing users to access and transform data quickly from anywhere in the system
- A highly reliable, scalable computing infrastructure that protects the integrity of data, links nodes into an integrated data system, and provides the best service to both data providers and users

PDS previously maintained two separate documents:

- the Integration and Test Plan
- the Test Procedures and Report

Because the latter grew to encompass most of the former, this document merges the two.

Purpose

This Test Document 1) defines specific tests that ensure that the new system and the PDS4 standards comply with requirements and meet customers' needs, and 2) reports results of the tests to verify and validate that the PDS4 system deployed for Build 12.1 is free of critical defects. This document describes the integration and test activities and contains test cases that demonstrate compliance to requirements. The test scenarios verify and validate the system components and data products in an integrated manner. A test traceability matrix in section 5 below traces these scenarios to the new PDS4 system design requirements, which in turn can be traced to high-level PDS requirements.

Scope

Testing for build 12.1 is based upon the “Release Description Document (build 12.1), software changes” (RDD), available at

<https://nasa-pds.github.io/releases/12.1/rdd.html>

The modules tested in build 12.1:

- Harvest v3.6.0
- Model/Model DM, Model/Model Ontology v14.0.1
- Iddtool v14.0.1
- Registry-manager v4.5.0-SNAPSHOT
- validate v2.2.0
- pds-deep-archive 1.1.1
- pds-doi-service 2.2.0
- mi-label 1.3.0-SNAPSHOT
- registry-api v1.1.0-SNAPSHOT
- registry-api-service 0.4.2
- pds-wds-web
- Doi-ui
- Feedback-widget
- Pds-api
- Pds-api-client
- Pds-registry-app
- Pds-wds-react
- Pds-jparser
- Plaid

These modules have not changed for this build and are not being tested:

- Catalog
- Data Dictionary Search
- Data Search
- Data Set View
- Design
- Filter
- Generate
- Harvest PDAP
- JParser
- PDS-View
- Phone Book Search
- Product Service
- Registry 1.15.0 (EN version)
- Report Manager
- Search User Interface
- Storage Service
- Security
- Tool Registry
- Tracking Service

- Transform
- Transport

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.

Test Approach

The PDS4 build structure is organized such that the system can be tested and verified early on to ensure seamless transitions. The builds will ensure there is a coordinated testing and deployment of functionality coupled with upgrades of the data standards.

Build 12.1 Integration testing is the execution and management of tests by the Engineering Node to ensure that the release of Build 12.1 meets the intended functionality. The process of verification testing includes the selection of verification items, integration, and regression testing. Any functionality that is added to the system is treated as a new verification item.

Applicable Documents

1.5.1 Controlling Documents

- [1] Planetary Data System Strategic Roadmap 2006 - 2016, February 2006.
- [2] Planetary Data System Level 1, 2 and 3 Requirements, March 26, 2010.

1.5.2 Referenced Documents

- [3] PDS4 Project Plan, July 2013.
- [4] PDS4 Operations Concept, September 2013.
- [4] System Architecture Specification, September 2013.
- [5] General System Requirements, September 2013.
- [6] Software Requirements and Design, 2013.
- [7] PDS4 Standards Documents, 2014.
- [8] <https://github.com/NASA-PDS/pds-deep-archive/issues?q=label%3Arequirement>

2 Executive Summary

The testing documented herein substantiates that all tested tools and services meet Build 12.1 requirements as specified in their Software Requirements and Design documents.

# of tests performed	# of tests passed	# of tests failed	# of high priority anomalies
127	123	4	0

[Section 3.2](#) tests all new or modified software modules. Its test sequences cover level 4 and 5 requirements for completeness. The sequences:

- [DEEP.*](#) : Generate Deep Archive metadata, i.e. AIPs and SIPs
- [DOI.*](#): reserve, draft, and release DOIs for bundles, collections, documents
- [HVT.*](#): the Data Nodes' harvest ingests labels into a DN registry
- [SCMA.*](#): Schema 1.F.0.0 is validated externally, and LDDtool creates local data dictionaries.
- [VAL.*](#): Validate PDS4 labels and data.

Four issues failed (two of them are minor)

Issue ID	Type	Result	Test ID	Description
Doi-ui#117	D	Partial fail	DOI-UI.4	Fix DOI Search And DOI UI Integration Bugs.
Bug Ticket:				https://github.com/NASA-PDS/doi-ui/issues/117
pds-api#137	I	Partial fail	API.11	As a user, I want to have a detailed description of the API q parameter syntax
Bug Ticket:				https://github.com/NASA-PDS/pds-api/issues/137
validate#390	D	fail	VAL.6	Validate does not flag *.tab files with variable length records
Bug Ticket:				https://github.com/NASA-PDS/validate/issues/491
Pds4-information-model#453	R	fail	IM.10	CCB-335: Inventory Specification Allows Too Many Delimiters
Bug Ticket:				https://github.com/NASA-PDS/pds4-information-model/issues/478

Column 2: type of issue. I: improvement D: defect R: requirement

[Section 3.4](#) lists the status of all issues described in the [Build 12.1 RDD](#). Briefly,

123 issues were verified as passed, 4 issues were marked as failed (1 in VAL, 1 in DOI-UI, 1 in API, 1 in IM).

All are minor issues:

- Doi-ui#117 – If the user switches between “Home” & “Search” buttons multiple times without doing anything else, then the style of the page starts to fail.
- pds-api#137 – The descriptions for “q” are correct in two of the three end-points, the description in “/Products” needs to be updated, it is still showing the simple version.
- pds4-information-model#453 – Unclear documentation. 1 out of 4 changes was implemented, and the rest will be scheduled to implement in the future release.
- Validate#390 – Issue is not valid and to be revisited with working group, more detail in validate#229. (Validate does not flag *.tab files with variable length records.)

3 Test Cases, Procedures and Results

The following section defines the test cases and lists their results. These cover all level 5 requirements for PDS. Testing for build 12.1 covers changed functionality since build 12.0.

3.1 Setup

The tests are organized upon the Release Description for build 12.1:

[Build 12.1 RDD](#)

The tests for build 12.1 in sections 3.2 and 3.3 require the installation of the following PDS4 software, all accessible from the RDD URL above.

- **Harvest**
- **Registry**
- **LDDtool**
- **Validate**
- **pds-deep-archive**
- **pds-doi-cmd**
- **pds-api**
- **pds-doi-service**
- **pds-doi-ui**
- **pds-registry-app**
- **registry-api-service**

Other needed software:

- **python3**, for pds-deep-archive
- **elasticsearch**
- **docker-desk top**
- 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.

From https://pds-engineering.jpl.nasa.gov/content/build_12.1_it_deliverables , also download PDS4test.build12.1.tgz, the test input files. In the tests below, replace with appropriate values:

/Users/gchen/pds/ pds4test.build12.1/	directory where input files are extracted
/Users/gchen/pds/ PDS4tools	installation directory of the PDS4 software
http://localhost:9200	URL of the elasticsearch server

Please follow the installation instructions carefully. For more help, the file NOTES.txt, created during SETUP below, details one tester’s configuration experience. Note that the tests are written for Unix, but running on other platforms requires simple changes.

In the rest of this document, the Test Case IDs are all caps followed by a dot and a number, while the IDs of the issues in the RDD are also all caps but followed by a # and a number.

3.2 Testing of New/Modified Modules on macOS/Linux/Windows

These tests ensure complete verification and validation of Build 12.1 level 5 requirements of the new or modified modules. In each test case, # indicates a comment, usually linked to an RDD issue.

3.3 Tools installation and configuration

Testing for Release Build B12.1 will be performed on Mac OS, Linux and Windows 10 Pro. PDS tools from previous build will be uninstalled, a clean install will be performed following installation and configuration steps in each tool's installation page. General testing using historical test bundles will be performed for each tool after installation.

Test ID	INT.1
Issue Description	pds-doi-service installation and configuration
Comments	Pass Follow Installation manual page: https://nasa-pds.github.io/pds-doi-service/installation/index.html
Test Steps:	Step 1: gchen@Johns-MacBook-Pro ~ % cd pds gchen@Johns-MacBook-Pro pds % cd venv gchen@Johns-MacBook-Pro venv % bin/pip install pds-doi-service Step 2: gchen@Johns-MacBook-Pro venv % bin/pds-doi-cmd --help
Test Result:	Step 1: Successfully built bs4 nltk openpyxl Installing collected packages: pypersistent, attrs, MarkupSafe, jsonschema, isodate, Werkzeug, PyYAML, openapi-schema-validator, jinja2, itsdangerous, idna, click, charset-normalizer, certifi, soupsieve, requests, openapi-spec-validator, inflection, Flask, clickclick, tqdm, swagger-ui-bundle, regex, pytz, numpy, joblib, jdcals, et-xmlfile, elementpath, connexion, beautifulsoup4, zipp, xmldict, xmlschema, xlrd, waitress, pandas, openpyxl, nltk, flask-cors, filelock, distlib, chardet, bs4, appdirs, pds-doi-service Attempting uninstall: certifi Found existing installation: certifi 2021.10.8 Uninstalling certifi-2021.10.8: Successfully uninstalled certifi-2021.10.8 Successfully installed Flask-1.1.2 MarkupSafe-2.0.1 PyYAML-6.0 Werkzeug-0.16.0 appdirs-1.4.4 attrs-21.2.0 beautifulsoup4-4.10.0 bs4-0.0.1 certifi-2020.4.5.1 chardet-3.0.4 charset-normalizer-2.0.7 click-8.0.3 clickclick-20.10.2 connexion-2.7.0 distlib-0.3.1 elementpath-2.3.2 et-xmlfile-1.1.0

	<pre> filelock-3.0.12 flask-cors-3.0.9 idna-2.9 inflection-0.5.1 isodate-0.6.0 itsdangerous-2.0.1 jdcal-1.4.1 jinja2-3.0.1 joblib-1.1.0 jsonschema- 3.0.0 nltk-3.5 numpy-1.21.2 openapi-schema- validator-0.1.4 openapi-spec-validator-0.3.1 openpyxl-3.0.0 pandas-1.3.3 pds-doi-service-2.0.1 pysistent-0.18.0 pytz-2020.1 regex-2021.10.8 requests-2.26.0 soupsieve-2.2.1 swagger-ui-bundle- 0.0.9 tqdm-4.62.3 waitress-2.0.0 xlrd-2.0.1 xmlschema-1.5.1 xmltodict-0.12.0 zipp-3.6.0 Step 2: usage: pds-doi-cmd [-h] {reserve,draft,release,check,list} ... PDS core command for DOI management. The available subcommands are: reserve (Submit a request to reserve a DOI prior to public release. Reserved DOI's may be released after via the release action), draft (Update a record without submission to the service provider. Metadata updates are pulled from the provided PDS4/DOI label.), release (Move a reserved DOI to review, or submit a DOI for release to the service provider), check (Check for pending DOI submissions from the service provider and update the local database with any changes in status), list (List DOI entries within the transaction database that match the provided search criteria), positional arguments: {reserve,draft,release,check,list} optional arguments: -h, --help show this help message and exit </pre>
--	--

Test ID	INT.2
Issue Description	pds-registry-app/harvest installation and configuration
Comments	Pass
Test Steps	<p>Assumes elasticsearch, pds-app-registry, harvest installed, with executables in \$PATH and registry-api-service-0.1.0 installed in /Users/gchen/PDS4tools/</p> <ol style="list-style-type: none"> 1. rm -r /tmp/harvest <p>Next two run in their own windows; <ctrl>c to stop.</p> <ol style="list-style-type: none"> 2. gchen@dhcp-137-79-237-21 PDS4tools_current % cd elasticsearch-7.15.0 3. gchen@dhcp-137-79-237-21 elasticsearch-7.15.0 % ./bin/elasticsearch 4. cd <whereverInstalled>; java -jar registry-api-service-0.1.0.jar 5. registry-manager delete-registry 6. registry-manager create-registry

	<p>7. http://localhost:8080 > bundles > /bundles > Response Content Type = application/json > Try it out! Swagger isn't useful just yet. Use elasticsearch for now. So skip steps 3 and 6 8. http://localhost:9200 If you trust that the registry works well, run only steps 4 and 5</p>
Test Results	<p>Step 2: the elasticsearch window puts out a ton of messages Step 3: SLF4J: Class path contains multiple SLF4J bindings. SLF4J: Found binding in [jar:file:/Users/gchen/pds/PDS4tools_current/registry-api-service-0.3.2.jar!/BOOT-INF/lib/logback-classic-1.2.3.jar!/org/slf4j/impl/StaticLoggerBinder.class] SLF4J: Found binding in [jar:file:/Users/gchen/pds/PDS4tools_current/registry-api-service-0.3.2.jar!/BOOT-INF/lib/slf4j-log4j12-1.7.30.jar!/org/slf4j/impl/StaticLoggerBinder.class] SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation. SLF4J: Actual binding is of type [ch.qos.logback.classic.util.ContextSelectorStaticBinder]</p> <pre>. _____ _ _ _ _ _ /\ \ / _ \ ' _ _ () _ _ _ \ \ \ \ ((\ _ ' _ ' _ _ V _ \ \ \ \ \ _ (_)))) _ \ \ / / / / ===== _ ===== _ _/ / / / / :: Spring Boot :: (v2.3.1.RELEASE)</pre> <p>2021-10-09 10:18:56.304 INFO 80158 --- [main] g.n.pds.api.engineering.SpringBootMain : Starting SpringBootMain v0.3.2 on ps-128-149-81-249.jpl.nasa.gov with PID 80158 (/Users/gchen/pds/PDS4tools_current/registry-api-service-0.3.2.jar started by gchen in /Users/gchen/pds/PDS4tools_current) 2021-10-09 10:18:56.307 INFO 80158 --- [main] g.n.pds.api.engineering.SpringBootMain : No active profile set, falling back to default profiles: default 2021-10-09 10:18:58.058 INFO 80158 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8080 (http) 2021-10-09 10:18:58.069 INFO 80158 --- [main] o.apache.catalina.core.StandardService : Starting service [Tomcat] 2021-10-09 10:18:58.069 INFO 80158 --- [main] org.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/9.0.36] 2021-10-09 10:18:58.152 INFO 80158 --- [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext 2021-10-09 10:18:58.152 INFO 80158 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 1768 ms 2021-10-09 10:18:58.289 INFO 80158 --- [main] .e.e.ElasticSearchRegistryConnectionImpl : Connection to elastic search 2021-10-09 10:18:58.289 INFO 80158 --- [main] .e.e.ElasticSearchRegistryConnectionImpl : Host localhost:9200 2021-10-09 10:18:58.292 INFO 80158 --- [main] .e.e.ElasticSearchRegistryConnectionImpl : Set elasticSearch connection with username/password 2021-10-09 10:18:59.024 WARN 80158 --- [main] org.elasticsearch.client.RestClient : request [GET http://localhost:9200/_cluster/settings?master_timeout=30s] returned 1 warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-setup.html to enable security." 2021-10-09 10:18:59.058 INFO 80158 --- [main] .e.e.ElasticSearchRegistryConnectionImpl : Cross cluster search is inactive 2021-10-09 10:18:59.374 INFO 80158 --- [main] g.n.p.a.e.configuration.WebMVCCConfig : Number of converters available 0 2021-10-09 10:18:59.531 INFO 80158 --- [main] pertySourcedRequestMappingHandlerMapping : Mapped URL path [/api-docs] onto method</p>

	<pre> [springfox.documentation.swagger2.web.Swagger2Controller#getDocumentation(String, HttpServletRequest)] 2021-10-09 10:18:59.703 WARN 80158 --- [main] ion\$DefaultTemplateResolverConfiguration : Cannot find template location: classpath:/templates/ (please add some templates or check your Thymeleaf configuration) 2021-10-09 10:18:59.749 INFO 80158 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8080 (http) with context path "" 2021-10-09 10:18:59.750 INFO 80158 --- [main] d.s.w.p.DocumentationPluginsBootstrapper : Context refreshed 2021-10-09 10:18:59.772 INFO 80158 --- [main] d.s.w.p.DocumentationPluginsBootstrapper : Found 1 custom documentation plugin(s) 2021-10-09 10:18:59.856 INFO 80158 --- [main] s.d.s.w.s.ApiListingReferenceScanner : Scanning for api listing references 2021-10-09 10:19:00.169 INFO 80158 --- [main] g.n.pds.api.engineering.SpringBootMain : Started SpringBootMain in 4.419 seconds (JVM running for 4.916) Step 4: Elasticsearch URL: http://localhost:9200 Deleting index registry Deleting index registry-refs Deleting index registry-dd Done Step 5: Elasticsearch URL: http://localhost:9200 Creating index... Index: registry Schema: /Users/gchen/pds/PDS4tools/registry- manager/elastic/registry.json Shards: 1 Replicas: 0 [WARN] Parameter [index] has no effect on type [binary] and will be removed in future [WARN] Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security- minimal-setup.html to enable security. Done Creating index... Index: registry-refs Schema: /Users/gchen/pds/PDS4tools/registry- manager/elastic/refs.json Shards: 1 Replicas: 0 [WARN] Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security- minimal-setup.html to enable security. Done Creating index... Index: registry-dd Schema: /Users/gchen/pds/PDS4tools/registry-manager/elastic/data- dic.json Shards: 1 Replicas: 0 [WARN] Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. </pre>
--	---

See <https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-setup.html> to enable security.

Done

[INFO] Loading ES data file: /Users/gchen/pds/PDS4tools/registry-manager/elastic/data-dic-data.jar:dd.json

[INFO] Loaded 3017 document(s)

Step 6:

Swagger UI

localhost:8080/swagger-ui.html#!/bun

408 request time out

Try it out! Hide Response

Curl

```
curl -X GET --header 'Accept: application/json' 'http://localhost:8080/bundles?limit=100&only-summary=false'
```

Request URL

```
http://localhost:8080/bundles?limit=100&only-summary=false
```

Request Headers

```
{
  "Accept": "application/json"
}
```

Response Body

```
{
  "summary": {
    "q": "",
    "start": 0,
    "limit": 100,
    "sort": [],
    "properties": []
  }
}
```

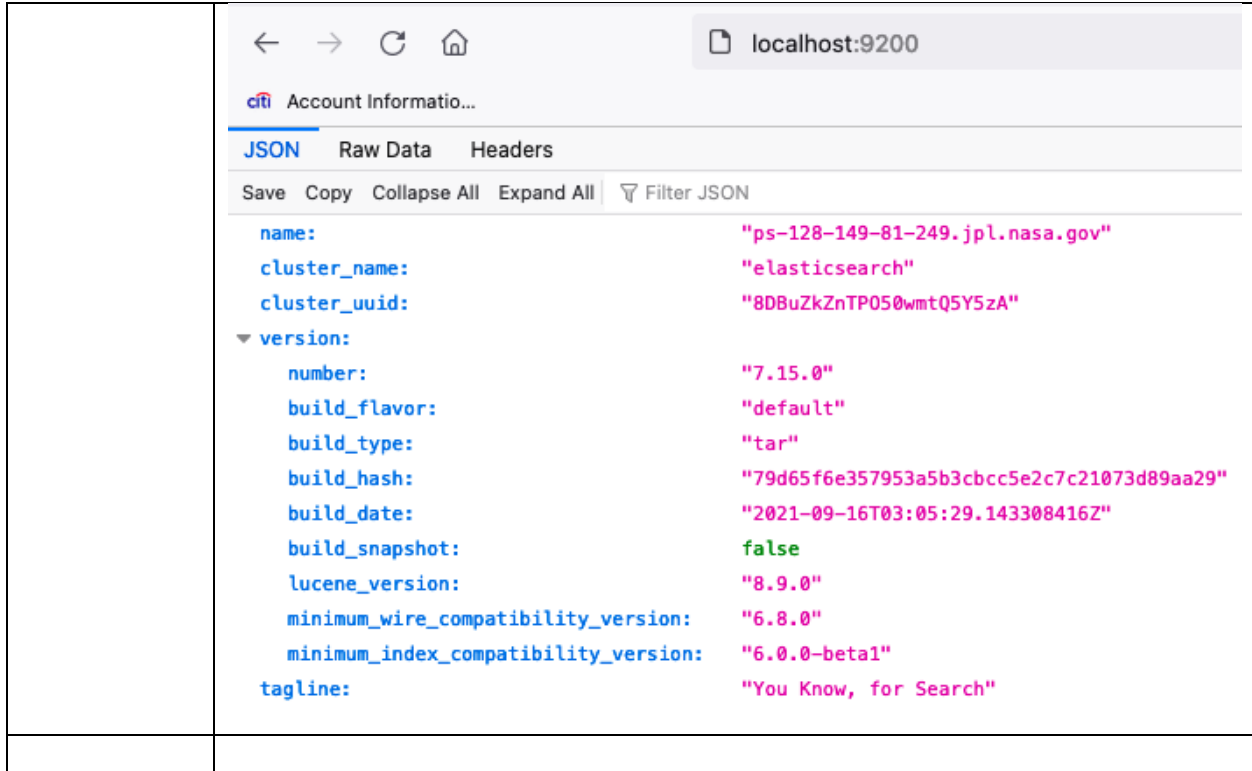
Response Code

```
200
```

Response Headers

```
{
  "connection": "keep-alive",
  "content-type": "application/json",
  ...
}
```

Step 7:



Test ID	INT.3
Issue Description	Pds-doi-ui installation and configuration
Comments	Pass
Test Steps	<ul style="list-style-type: none"> ● Verify/Install Requirements. ● Download and unpack current version ● <code>serve -s pds-doi-ui</code> ● Verify installation
Test Result	<pre> Serving! - Local: http://localhost:5000 - On Your Network: http://192.168.68.104:5000 Copied local address to clipboard! </pre>

Test ID	INT.4
Issue Description	pds-deep-archive installation and configuration
Comments	Pass
Test Steps	<ul style="list-style-type: none"> ● Remove old versions. ● <code>/usr/local/python-3.9.5/bin/python3 -m venv venv-deep-archive</code> ● <code>source venv-deep-archive/bin/activate</code> ● <code>pip install pds.deeparchive</code>

	● pds-deep-archive --version
Test Result	<pre> Step 4 (venv-deep-archive) [gxchen@pds-dev3 ~]\$ pip install pds.deepparchive Collecting pds.deepparchive Downloading pds.deepparchive-1.1.1-py3-none-any.whl (68 kB) [REDACTED] 68 kB 288 kB/s Collecting zope.interface==5.4.0 Downloading zope.interface-5.4.0-cp39-cp39-manylinux2010_x86_64.whl (255 kB) [REDACTED] 255 kB 57.7 MB/s Collecting lxml==4.6.3 Downloading lxml-4.6.3-cp39-cp39-manylinux2014_x86_64.whl (6.9 MB) [REDACTED] 6.9 MB 72.6 MB/s Collecting zope.component==5.0.1 Downloading zope.component-5.0.1-py2.py3-none-any.whl (68 kB) [REDACTED] 68 kB 3.2 MB/s Requirement already satisfied: setuptools in ./venv-deep- archive/lib/python3.9/site-packages (from pds.deepparchive) (56.0.0) Collecting pds.api-client==0.8.0 Downloading pds.api_client-0.8.0-py3-none-any.whl (133 kB) [REDACTED] 133 kB 73.7 MB/s Collecting urllib3>=1.25.3 Downloading urllib3-1.26.9-py2.py3-none-any.whl (138 kB) [REDACTED] 138 kB 73.9 MB/s Collecting python-dateutil Downloading python_dateutil-2.8.2-py2.py3-none-any.whl (247 kB) [REDACTED] 247 kB 76.6 MB/s Collecting zope.event Using cached zope.event-4.5.0-py2.py3-none-any.whl (6.8 kB) Collecting zope.hookable>=4.2.0 Downloading zope.hookable-5.1.0-cp39-cp39- manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_12_x86_64.manylinux2010_x86_64 .whl (27 kB) Collecting six>=1.5 Using cached six-1.16.0-py2.py3-none-any.whl (11 kB) Installing collected packages: six, zope.interface, zope.hookable, zope.event, urllib3, python-dateutil, zope.component, pds.api-client, lxml, pds.deepparchive Successfully installed lxml-4.6.3 pds.api-client-0.8.0 pds.deepparchive-1.1.1 python-dateutil-2.8.2 six-1.16.0 urllib3-1.26.9 zope.component-5.0.1 zope.event- 4.5.0 zope.hookable-5.1.0 zope.interface-5.4.0 Step 4: (venv-deep-archive) [gxchen@pds-dev3 ~]\$ pds-deep-archive --version pds-deep-archive 1.1.1 </pre>

3.4 Software Changes

PDS deep-archive

Test ID	DEEP.1
Issue ID	pds-deep-archive#124
Issue Type	Bug
Issue Description	Unexpected fatal error when running pds-deep-archive against bundle
Comments	Pass
Test Steps	pds-deep-archive -s PDS_ATM -b \

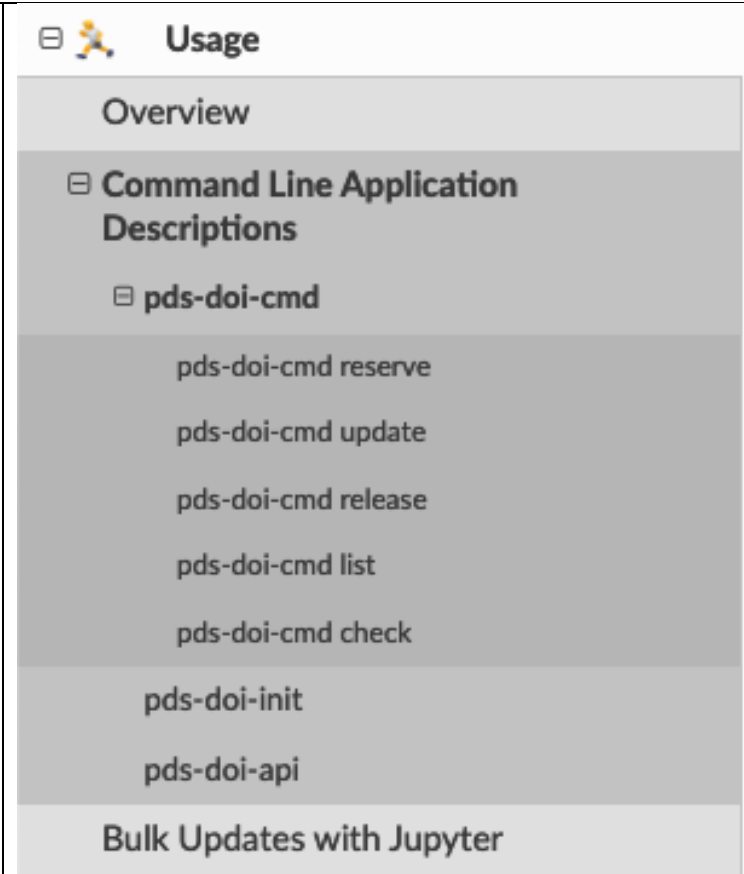
	<p>https://pds-atmospheres.nmsu.edu/PDS/data/PDS4/ /data/pds4/test-data/registry/lab.hydrocarbon_spectra/\ bundle.lab.hydrocarbon_spectra.xml</p>
Test Results:	<pre> Step 1: INFO 🐞 PDS Deep Archive, version 1.1.1 DEBUG 🐞 command line args = Namespace(include_latest_collection_only=False, site='PDS_ATM', bundle_base_url='https://pds-atmospheres.nmsu.edu/PDS/data/PDS4/', disable_url_validation=False, loglevel=10, bundle=<_io.BufferedReader name='/data/pds4/test- data/registry/lab.hydrocarbon_spectra/bundle.lab.hydrocarbon_spectra.xml'>) DEBUG 🐞 Creating potentially future-multitprocessing-capable DB in /tmp/deepvdjr4lx2.dir/pds-deep-archive.sqlite3 DEBUG 📁 Deconstructing /data/pds4/test- data/registry/lab.hydrocarbon_spectra/bundle.lab.hydrocarbon_spectra.xml DEBUG 📁 Deconstructing /data/pds4/test- data/registry/lab.hydrocarbon_spectra/context/collection_lab.hydrocarbon_spectra_c ontext.xml DEBUG 📁 Deconstructing /data/pds4/test- data/registry/lab.hydrocarbon_spectra/data/collection_lab.hydrocarbon_spectra_data .xml ... DEBUG 📄 Writing SIP table with hash md5 DEBUG 🕒 Wrote 100 entries into the SIP DEBUG 🕒 Wrote 200 entries into the SIP DEBUG 🕒 Wrote 300 entries into the SIP DEBUG 🕒 Wrote 400 entries into the SIP DEBUG 🕒 Wrote 500 entries into the SIP DEBUG 📄 Writing SIP label to <_io.BufferedReader name='lab.hydrocarbon_spectra_v1.1_20220415_sip_v1.0.xml'> INFO 🎉 Success! From /data/pds4/test- data/registry/lab.hydrocarbon_spectra/bundle.lab.hydrocarbon_spectra.xml, generated these output files: INFO 📄 SIP Manifest: lab.hydrocarbon_spectra_v1.1_20220415_sip_v1.0.tab INFO 📄 XML label for the SIP: lab.hydrocarbon_spectra_v1.1_20220415_sip_v1.0.xml INFO 🙌 That's it for now. Bye. </pre>

PDS doi-service

Test ID	DOI.1
Issue ID	doi-service#201
Issue Type	requirement
Issue Description	Improve DOI Service Documentation As an operator, I want to know how to deploy and use the API from the Sphinx documentation
Comments	Pass
Test Steps	Check https://nasa-pds.github.io/doi-service/usage/index.html

<p>Test Results</p>	<h3>pds-doi-api</h3> <p>The <code>pds-doi-api</code> script is the main interface for launching the REST API used to interact with the core PDS DOI Service library. The script launches the API within a <code>waitress</code> application server.</p> <p>The host IP address and port the API binds to at launch are configured by the INI config. See the installation section for more details on configuring the INI.</p> <p><code>pds-doi-api</code> takes no arguments, however, it is typical to launch the API using <code>screen</code> or <code>nohup</code> to ensure the process remains after an operator has launched it and logged out of the host system:</p> <pre style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;">\$ nohup pds-doi-api > nohup.out &</pre> <p>You can explore the API documentation and test it using its built-in Swagger UI. To access the test UI, navigate to http://localhost:8080/PDS_APIs/pds_doi_api/0.2/ui/ using a web-browser on the same machine that is running the API service (or a machine with an SSH tunnel to the host machine). Note that this assumes the host and port configured in the INI are set to <code>localhost</code> and <code>8080</code>, respectively.</p> <div style="background-color: #e1f5fe; padding: 10px; border: 1px solid #cfe2f3;"> <p>Note</p> <p>In order to access the built-in Swagger UI, there must not be any value set for the <code>OTHER.api_valid_referrers</code> section of the INI config. To ensure the value is not set, add the following the user configuration file described in the Configuration section above:</p> <pre style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;">[OTHER] api_valid_referrers =</pre> </div> <p>A copy of the Swagger API definition, with available endpoints and URL query parameters, for the <code>pds-doi-api</code> application is available within the api section.</p>
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Test ID	DOI.2
Issue ID	doi-service#202
Issue Type	requirement
Issue Description	Improve DOI Service Documentation As an operator, I want one place to go for all DOI Service / API / UI documentation
Comments	Pass
Test Steps	Step 1. Check https://nasa-pds.github.io/doi-service/usage/index.html Step 2. Check https://github.com/NASA-PDS/doi-ui

<p>Test Results</p>	 <p>Step 2. pds-doi-ui Front-end interface for pds-doi-service An example for the reservation excel input file can be found at https://pds-engineering.jpl.nasa.gov/user/login?destination=node/691 Pre-requisites Install the pds-doi-service: <pre>pip install pds-doi-service pds-doi-api</pre> See https://nasa-pds.github.io/pds-doi-service/ for details</p>
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Test ID	DOI.3
Issue ID	doi-service#256
Issue Type	task
Issue Description	Improve DOI Service Documentation Develop DOI documentation for PDS Operator
Comments	Improve DOI Service Documentation #203
Test Steps	Check https://nasa-pds.github.io/doi-service/usage/index.html find sections for Reserve, Release, Review, and submit

Test Result	<p>In the context of PDS, publishing a new DOI follows this workflow:</p> <p>Reserve : Before a dataset is published in PDS, a DOI is reserved so the researchers working with the digital resource may cite it at early stage.</p> <p>Update : The metadata associated to an existing DOI is elaborated and validated, but without submission to the DOI provider (DataCite).</p> <p>Review : Once all metadata has been properly associated to the DOI, the requester submits the DOI record for review to the PDS Engineering node.</p> <p>Release : After the PDS Engineering node determines that the DOI record is filled out properly, the DOI and its metadata are officially registered at DataCite and made available for public discovery. If there any issues with the reviewed record, PDS Engineering node may move the record back to a hidden status until correction by the original submitter. Corrections may be made via the Update action. Once updated, the record can be re-released to move it back to findable status.</p> <p>The Update, Review and Release steps may be repeated multiple times to iterate on the metadata associated to the DOI. However, a Reserve should only ever occur once.</p> <p>The metadata managed with DOIs is meant to be preserved and traceable, as it is used to permanently cite a digital resource. For this reason, all transactions, creations, and updates with the PDS DOI Service are registered in a local database. This database is used to track submissions-in-progress and help ensure the proper workflow (Reserve → Update → Review → Release) is enforced.</p>
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Test ID	DOI.4
Issue ID	doi-service#303
Issue Type	Bug
Issue Description	identifiers vs alternateIdentifiers appear disconnected from current DataCite schema
Comments	Pass
Test Steps	spot checked a few DOIs relatedIndentifiers is removed update DOIs with identifierType value URN to Site ID For PDS3 Data Sets, verify we not have at least 2 alternateIdentifiers with alternateIdentifierType=Site ID and their values include both a LID(VID) and a data set ID (basically just confirm it is not a LIDVID, e.g. startswith('urn:nasa:pds')). In some cases, this will requiring parsing the value from relatedIdentifiers
Test Results	10.17189/d3nm-pp09

	<pre> ▼ identifiers: ▼ 0: identifier: "urn:nasa:pds:mars2020_navcam_ops_raw::1.0" identifierType: "Site ID" ▼ descriptions: ▼ 0: lang: "en" ▼ description: "Raw data products for the Mars 2020 Perseverance Rover Navigation Cameras." descriptionType: "Abstract" relatedIdentifiers: [] </pre>
	10.17189/1519454
	<pre> ▼ identifiers: ▼ 0: identifier: "1519454" identifierType: "IAD ID" ▼ 1: identifier: "A14A-L-CCIG-3-ATMOS-DENSITY-PLOTS-V1.0" identifierType: "Site ID" ▼ 2: ▼ identifier: "urn:nasa:pds:context_pds3:data_set:data_set.a14a-l-ccig-3-atmos-density-plots-v1.0" identifierType: "Site ID" relatedIdentifiers: [] </pre>
	10.17189/1510487
	<pre> ▼ identifiers: ▼ 0: identifier: "urn:nasa:pds:insight_cameras:data::1.0" identifierType: "Site ID" sizes: [] formats: [] rightsList: [] </pre>

Test ID	DOI.5
Issue ID	doi-service#257
Issue Type	requirement
Issue Description	As a PDS Operator, I want to perform a bulk update of a specific field across many DOI records
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Find document and example at https://github.com/NASA-PDS/doi-service/blob/main/src/pds_doi_service/notebooks/Bulk%20Record%20Update.ipynb. 2. Follow example to write a Jupyter notebook script 3. % python3 doinotebook.py 4. Ls -l 5. View Doi-released-record-label.json

Test Result	<p>Step 3. Python runs successfully.</p> <p>Step 4.</p> <pre>16 -rw-r--r-- 1 gchen staff 6471 Apr 25 23:18 doi-label.json 16 -rw-r--r-- 1 gchen staff 6471 Apr 25 23:18 doi-released-record-label.json 16 -rw-r--r-- 1 gchen staff 6537 Apr 25 23:18 doi-update-label.json 16 -rw-r--r-- 1 gchen staff 4250 Apr 25 23:18 doinotebook.py</pre> <p>Step 5.</p> <pre>"url": "https://pds.nasa.gov/ds-view/pds/viewCollection.jsp?identifier=urn%3Anasa%3Apds%3Atest20210512&version=1.0", "created": "2022-04-21T05:48:25.000000Z", "updated": "2022-04-26T06:18:22.000000Z", "url": "https://pds.nasa.gov/ds-view/pds/viewBundle.jsp?identifier=urn%3Anasa%3Apds%3Ainsight_cameras&version=3.0", "created": "2022-04-22T05:04:55.000000Z", "updated": "2022-04-26T06:18:23.000000Z",</pre>
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Test ID	DOI.6
Issue ID	doi-service#278
Issue Type	requirement
Issue Description	As a user, I want to update the LIDVID associated with a DOI
Comments	Pass
Test Steps	<ol style="list-style-type: none"> run Test Doi-Service #233 Create an updated xlsx file with a column including the DOI to update, also update the meta data and LIDVID gchen@Johns-MacBook-Pro venv % ./bin/pds-doi-cmd update -s gxchen@jpl.nasa.gov -n eng -I ../system-i-n-t/12/DOI278/doi5-update.xlsx > ../system-i-n-t/12/DOI278/doi5-update.json Check for updated fields in doi5-update.json
Test Result	<p>Step 4:</p> <pre>{ "data": { "id": "10.13143/575h-8b15", "type": "dois", "attributes": { "doi": "10.13143/575h-8b15", "suffix": "575h-8b15", "identifiers": [{ "identifier": "urn:nasa:pds:test20220108::1.1", "identifierType": "URN" }] } } }</pre>

	<pre> }, { "identifier": "10.13143/575h-8b15", "identifierType": "DOI" }], "creators": [{ "nameType": "Personal", "name": "Gary Chen", "nameIdentifiers": [] }], "titles": [{ "title": "Lunar Crustal Magnetic Field Map 20220108 Bundle", "lang": "en" }], "publisher": "NASA Planetary Data System", "publicationYear": "2022", "subjects": [{ "subject": "PDS" }, { "subject": "PDS4" }], "contributors": [{ "nameType": "Organizational", "name": "Planetary Data System: Engineering Node", "contributorType": "DataCurator" }], "types": { "resourceTypeGeneral": "Collection", "resourceType": "PDS4 Bundle" }, "relatedIdentifiers": [{ "relatedIdentifier": "urn:nasa:pds:test20220108::1.0", "relatedIdentifierType": "URN", "relationType": "IsIdenticalTo" }, { "relatedIdentifier": "urn:nasa:pds:test20220108::1.1", </pre>
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	<pre> "relatedIdentifierType": "URN", "relationType": "IsIdenticalTo" }], "created": "2022-01-08T18:34:34.000000Z", "updated": "2022-01-09T20:58:21.992699Z", "state": "draft", "language": "en", "schemaVersion": "http://datacite.org/schema/kernel-4" } } </pre>
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Test ID	DOI.7
Issue ID	doi-service#299
Issue Type	Bug
Issue Description	DOI Service does not assign adequate permissions to transaction database/history
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Install a fresh instance of the DOI service 2. Submit a reserve request using any valid label or input spreadsheet 3. If the submission is successful, observe the permissions on the doi.db file created, as well as the permissions of the transaction_history directory and any subdirectories. None of which should have group-write permissions enabled by default.
Test Result	<p>Step 3.</p> <pre> 0 drwxrwxr-x 3 gchen staff 96 Apr 20 22:48 transaction_history </pre>

Test ID	DOI.8
Issue ID	doi-service#305
Issue Type	Bug
Issue Description	no-review argument has potential to be confused with -n (node ID) argument
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Read pds-doi-cmd release -help 2. % pds-doi-cmd reserve -i test143/bundle_in_with_contributors.xml -s gxchen@jpl.nasa.gov -N eng >/tmp/doi.xml 3. % pds-doi-cmd release -i /tmp/doi.xml -s gxchen@jpl.nasa.gov -N eng -no-review
Test Result	<p>Step 1</p> <pre> usage: pds-doi-cmd release [-h] -i INPUT [-N NODE_ID] [-s EMAIL] [-f] [--no-review] </pre>

	<p>Release a DOI, in draft or reserve status, for review. A DOI may also be released to the DOI service provider directly.</p> <p>optional arguments:</p> <ul style="list-style-type: none"> -h, --help show this help message and exit -i INPUT, --input INPUT Path to a file containing the record to release. The format may be either a PDS4 label, or a DataCite JSON label. DataCite JSON labels are produced by the Reserve and Draft actions, and can be retrieved for a DOI with the List action. -N NODE_ID, --node NODE_ID The PDS Discipline Node in charge of the released DOI. If not provided, the node(s) currently assigned to each record are maintained. Authorized values are: atm,eng,geo,img,naif,ppi,rs,rms,sbn,unk -s EMAIL, --submitter EMAIL The email address to associate with the Release request. Defaults to pds-operator@jpl.nasa.gov -f, --force If provided, forces the release action to proceed even if warning are encountered during submission of the release request. Without this flag, any warnings encountered are treated as fatal exceptions. --no-review If provided, the requested DOI will be released directly to the DOI service provider for registration. Use to override the default behavior of releasing a DOI to "Review" status. <p>Step 3</p> <p>usage: pds-doi-cmd [-h] {reserve,update,release,check,list} ...</p> <p>pds-doi-cmd: error: unrecognized arguments: -no-review</p>
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Test ID	DOI.9
Issue ID	doi-service#258
Issue Type	Bug
Issue Description	Spreadsheet parser does not validate parsed contents of rows
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Create a reserve spreadsheet with one or more invalid rows (empty fields, improper format) 2. Submit the erroneous spreadsheet as input to the reserve action <ol style="list-style-type: none"> 0. pds-doi-cmd reserve -N eng -I doi258.xlsx -s "gchen@jpl.nasa.gov" 3. Verify Doi records are created for erroneous rows
Test Result	<p>pds_doi_service.core.entities.exceptions.InputFormatException:</p> <p>Failed to parse row 3 of the provided spreadsheet.</p> <p>Reason: No value provided for product_type_specific column</p> <p>Row: ['Reserved', 'Lunar Crustal Magnetic Field Map 20201203 *', Timestamp('2022-04-21 00:00:00'), ', ', 'Chen', 'Gary', 'urn:nasa:pds:test2020420::1.1']</p>

Test ID	DOI.10
Issue ID	doi-service#310
Issue Type	Bug

Issue Description	Test DOIs are showing up in pds-gamma DOI search now linked from operations Citing PDS Data page																																																																																																				
Comments	Pass																																																																																																				
Test Steps	<ol style="list-style-type: none"> 1. Go to https://pds-gamma.jpl.nasa.gov/tools/doi/#/search/MSL 2. Review the results <p>Since the pds-gamma deployment is now linked from Citing PDS Data webpage, the user expects to only see DOIs with 10.17189 prefix.</p>																																																																																																				
Test Results	<p>Only DOIs with 10.17189 prefix were return.</p> <p>154 results found</p> <table border="1"> <thead> <tr> <th>DOI</th> <th>Identifier</th> <th>Title</th> <th>Status</th> </tr> </thead> <tbody> <tr><td>10.17189/22340</td><td>MSL-M-REMS-5-UVRDR-V1.0</td><td>MSL MARS ROVER ENV MONITORING STATION 5 UVRDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/23171</td><td>MSL-M-HAZCAM-2-EDR-V1.0</td><td>MSL MARS HAZARD AVOIDANCE CAMERA 2 EDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/28316</td><td>MSL-M-MAHLI-4-RDR-Z-V1.0</td><td>MSL MARS HAND LENS IMAGER 4 RDR ZSTACK V1.0</td><td>Findable</td></tr> <tr><td>10.17189/28528</td><td>MSL-M-MASTCAM-4-RDR-VID-V1.0</td><td>MSL MARS MAST CAMERA 4 RDR VIDEO V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24190</td><td>MSL-M-ROVER-6-RDR-PLACES-V1.0</td><td>MSL MARS ROVER 6 RDR PLACES ROVER MOTION COUNTER V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24185</td><td>MSL-M-MARDI-2-EDR-IMG-V1.0</td><td>MSL MARS DESCENT IMAGER 2 EDR IMAGE V1.0</td><td>Findable</td></tr> <tr><td>10.17189/28316</td><td>MSL-M-MAHLI-4-RDR-Z-V1.0</td><td>MSL MARS HAND LENS IMAGER 4 RDR ZSTACK V1.0</td><td>Findable</td></tr> <tr><td>10.17189/22340</td><td>MSL-M-REMS-5-UVRDR-V1.0</td><td>MSL MARS ROVER ENV MONITORING STATION 5 UVRDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/22426</td><td>MSL-M-NAVCAM-5-RDR-MOSAIC-V1.0</td><td>MSL MARS NAVIGATION CAMERA 5 RDR MOSAIC V1.0</td><td>Findable</td></tr> <tr><td>10.17189/22929</td><td>MSL-M-CHEMCAM-LIBS-2-EDR-V1.0</td><td>MSL CHEMCAM LASER INDUCED BREAKDOWN SPECTROMETER EDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/22989</td><td>MSL-M-MASTCAM-2-EDR-IMG-V1.0</td><td>MSL MARS MAST CAMERA 2 EDR IMAGE V1.0</td><td>Findable</td></tr> <tr><td>10.17189/23171</td><td>MSL-M-HAZCAM-2-EDR-V1.0</td><td>MSL MARS HAZARD AVOIDANCE CAMERA 2 EDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/23328</td><td>MSL-M-CHEMCAM-LIBS-4/5-RDR-V1.0</td><td>MSL MARS CHEMCAM LIBS SPECTRA 4/5 RDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/23452</td><td>MSL-M-CHEMCAM-RMI-5-RDR-V1.0</td><td>MSL MARS CHEMCAM REMOTE MICRO-IMAGER CAMERA 5 RDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/23807</td><td>MSL-M-MASTCAM-4-RDR-IMG-V1.0</td><td>MSL MARS MAST CAMERA 4 RDR IMAGE V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24095</td><td>MSL-M-CHEMCAM-SOH-2-EDR-V1.0</td><td>MSL CHEMCAM STATE OF HEALTH EDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24131</td><td>MSL-M-RAD-2-EDR-V1.0</td><td>MSL MARS RADIATION ASSESSMENT DETECTOR EDR</td><td>Findable</td></tr> <tr><td>10.17189/24175</td><td>MSL-M-MAHLI-2-EDR-Z-V1.0</td><td>MSL MARS HAND LENS IMAGER 2 EDR ZSTACK V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24209</td><td>MSL-M-SAM-2-RDR-L0-V1.0</td><td>MSL MARS SAMPLE ANALYSIS AT MARS 2 RDR LEVEL 0 V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24327</td><td>MSL-M-SAM-4-RDR-L1B-V1.0</td><td>MSL MARS SAMPLE ANALYSIS AT MARS 4 RDR LEVEL 1B V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24680</td><td>MSL-M-MAHLI-2-EDR-VID-V1.0</td><td>MSL MARS HAND LENS IMAGER 2 EDR VIDEO V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24669</td><td>MSL-M-HAZCAM-2-EDR-V1.0</td><td>MSL MARS HAZARD AVOIDANCE CAMERA 2 EDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/24902</td><td>MSL-M-REMS-5-UVRDR-V1.0</td><td>MSL MARS ROVER ENV MONITORING STATION 5 UVRDR V1.0</td><td>Findable</td></tr> <tr><td>10.17189/25697</td><td>MSL-M-REMS-5-MODRDR-V1.0</td><td>MSL MARS ROVER ENV MONITORING STATION 5 MODRDR V1.0</td><td>Findable</td></tr> </tbody> </table>	DOI	Identifier	Title	Status	10.17189/22340	MSL-M-REMS-5-UVRDR-V1.0	MSL MARS ROVER ENV MONITORING STATION 5 UVRDR V1.0	Findable	10.17189/23171	MSL-M-HAZCAM-2-EDR-V1.0	MSL MARS HAZARD AVOIDANCE CAMERA 2 EDR V1.0	Findable	10.17189/28316	MSL-M-MAHLI-4-RDR-Z-V1.0	MSL MARS HAND LENS IMAGER 4 RDR ZSTACK V1.0	Findable	10.17189/28528	MSL-M-MASTCAM-4-RDR-VID-V1.0	MSL MARS MAST CAMERA 4 RDR VIDEO V1.0	Findable	10.17189/24190	MSL-M-ROVER-6-RDR-PLACES-V1.0	MSL MARS ROVER 6 RDR PLACES ROVER MOTION COUNTER V1.0	Findable	10.17189/24185	MSL-M-MARDI-2-EDR-IMG-V1.0	MSL MARS DESCENT IMAGER 2 EDR IMAGE V1.0	Findable	10.17189/28316	MSL-M-MAHLI-4-RDR-Z-V1.0	MSL MARS HAND LENS IMAGER 4 RDR ZSTACK V1.0	Findable	10.17189/22340	MSL-M-REMS-5-UVRDR-V1.0	MSL MARS ROVER ENV MONITORING STATION 5 UVRDR V1.0	Findable	10.17189/22426	MSL-M-NAVCAM-5-RDR-MOSAIC-V1.0	MSL MARS NAVIGATION CAMERA 5 RDR MOSAIC V1.0	Findable	10.17189/22929	MSL-M-CHEMCAM-LIBS-2-EDR-V1.0	MSL CHEMCAM LASER INDUCED BREAKDOWN SPECTROMETER EDR V1.0	Findable	10.17189/22989	MSL-M-MASTCAM-2-EDR-IMG-V1.0	MSL MARS MAST CAMERA 2 EDR IMAGE V1.0	Findable	10.17189/23171	MSL-M-HAZCAM-2-EDR-V1.0	MSL MARS HAZARD AVOIDANCE CAMERA 2 EDR V1.0	Findable	10.17189/23328	MSL-M-CHEMCAM-LIBS-4/5-RDR-V1.0	MSL MARS CHEMCAM LIBS SPECTRA 4/5 RDR V1.0	Findable	10.17189/23452	MSL-M-CHEMCAM-RMI-5-RDR-V1.0	MSL MARS CHEMCAM REMOTE MICRO-IMAGER CAMERA 5 RDR 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Test ID	DOI.11
Issue ID	doi-service#273
Issue Type	Bug
Issue Description	Default keywords/subjects are not always added to DOI records
Comments	Pass
Test Step	<ol style="list-style-type: none"> 1. create test doi xlsx file 2. gchen@Johns-MacBook-Pro venv % bin/pip install --upgrade pds-doi-service 3. Check pds_doi_service.ini for global_keyword_values 4. gchen@Johns-MacBook-Pro venv % ./bin/pds-doi-cmd reserve -s gchen@jpl.nasa.gov -n eng -I ../system-i-n-t/12/DOI273/doi5.xlsx > doi5out.json 5. Check doi5.out.json for default values
Test Result	<p>Step 5</p> <pre>{ "data":</pre>

	<pre> { "id": "10.13143/575h-8b15", "type": "dois", "attributes": { "doi": "10.13143/575h-8b15", "suffix": "575h-8b15", "identifiers": [{ "identifier": "urn:nasa:pds:test20220108::1.0", "identifierType": "URN" }, { "identifier": "10.13143/575h-8b15", "identifierType": "DOI" }], "creators": [{ "nameType": "Personal", "name": "Gary Chen", "nameIdentifiers": [] }], "titles": [{ "title": "Lunar Crustal Magnetic Field Map 20220108 Bundle", "lang": "en" }], "publisher": "NASA Planetary Data System", "publicationYear": "2022", "subjects": [{ "subject": "PDS" }, { "subject": "PDS4" }], "contributors": [{ "nameType": "Organizational", "name": "Planetary Data System: Engineering Node", "contributorType": "DataCurator" }], "types": { "resourceTypeGeneral": "Collection", </pre>
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	<pre> "resourceType": "PDS4 Bundle" }, "relatedIdentifiers": [{ "relatedIdentifier": "urn:nasa:pds:test20220108::1.0", "relatedIdentifierType": "URN", "relationType": "IsIdenticalTo" }], "created": "2022-01-08T18:34:34.000000Z", "updated": "2022-01-08T18:34:34.000000Z", "state": "draft", "language": "en", "schemaVersion": "http://datacite.org/schema/kernel-4" } } } </pre>
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Test ID	DOI.12
Issue ID	doi-service#279
Issue Type	Requirement
Issue Description	As a user, I want to update the bundle/collection metadata associated with a DOI for accumulating data sets
Comments	Pass
Test Result	Test with doi-service#278

Test ID	DOI.13
Issue ID	doi-service#231
Issue Type	Enhancement
Issue Description	Improve upon application security for write access
Comments	Pass
Test Steps	<pre> Step1 curl -location -request POST 'https://pds-gamma.jpl.nasa.gov/api/doi/0.2/does?action=reserve&submitter=loubrieu@jpl.nasa.gov&node=eng' \ --header 'Content-Type: application/json' \ --data-raw '{"labels": [{ "status": "Reserved", "title": "Laboratory Shocked Feldspars Bundle2", "publication_date": 43901, "product_type_specific": "PDS4 Collection", "author_last_name": "Johnson", "author_first_name": "J. R.", "related_resource": "urn:nasa:pds:lab_shocked_feldspars" }]}' </pre>

Test Results	<pre> Step 1 <!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN"> <html><head> <title>403 Forbidden</title> </head><body> <h1>Forbidden</h1> <p>You don't have permission to access /api/doi/0.2/does on this server.</p> </body></html> </pre>
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Test ID	DOI.14
Issue ID	doi-service#260
Issue Type	Enhancement
Issue Description	Improve spreadsheet parser error handling
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Download test file: TC-2_DOI_reserve_VG1_Sat_PLS-CUP_multi3_invalid_date.xlsx 2. <code>pds-doi-cmd reserve -N eng -I TC-2_DOI_reserve_VG1_Sat_PLS-CUP_multi3_invalid_date.xlsx -s gchen@jpl.nasa.gov</code> 3. <u>verify error message has row number for failure.</u>
Test Result	<p>pds_doi_service.core.entities.exceptions.InputFormatException: Failed to parse row 2 of the provided spreadsheet. Reason: Incorrect publication_date format, should be YYYY-MM-DD Row: ['Reserved', '20211001f: Voyager 1 Plasma Science Experiment (PLS) Saturn Faraday Cup Data Collection', 666, 'PDS4 Collection', 'Richardson', 'J. D.', 'urn:nasa:pds:vg1-pls-sat:data-pls-cup-20211001f']</p>

Test ID	DOI.15
Issue ID	doi-service#289
Issue Type	Enhancement
Issue Description	As a user, I want to obtain json label format from a list command query
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. <code>gchen@Johns-MacBook-Pro venv % ./bin/pds-doi-cmd list -f record > ../system-i-n-t/12/DOI289/record-out.txt</code> 2. <code>gchen@Johns-MacBook-Pro venv % ./bin/pds-doi-cmd list -f label > ../system-i-n-t/12/DOI289/label-out.json</code>
Test Result	<p>Step 1:</p> <pre> [{"identifier": "urn:nasa:pds:test20210529", "doi": "10.13143/8zrt-ra61", "status": "draft", "title": "Lunar Crustal Magnetic Field Map 20210529 Bundle", "submitter": "gchen@jpl.nasa.gov", "type": "Collection", "subtype": "PDS4 Bundle", "node_id": "eng", "date_added": "2021-10-17T16:23:07+08:00", "date_updated": "2021-10-17T16:23:07+08:00", "transaction_key": </pre>

	<pre> "/Users/gchen/pds/venv/transaction_history/eng/2021-10-17T09:23:06.124938", "is_latest": 1}, {"identifier": "urn:nasa:pds:test20211006::1.0", "doi": "10.13143/9p7y-by45", "status": "draft", "title": "Lunar Crustal Magnetic Field Map 20211006 collection", "submitter": "gxchen@jpl.nasa.gov", "type": "Collection", "subtype": "PDS4 Collection", "node_id": "eng", "date_added": "2021-10-17T17:15:30+08:00", "date_updated": "2021-10-17T17:15:30+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2021-10-17T10:15:29.821249", "is_latest": 1}, {"identifier": "urn:nasa:pds:test20210512::1.0", "doi": "10.13143/0cy5-d511", "status": "draft", "title": "Lunar Crustal Magnetic Field Map 20201203 Bundle", "submitter": "gxchen@jpl.nasa.gov", "type": "Collection", "subtype": "PDS4 Bundle", "node_id": "eng", "date_added": "2021-10-17T18:02:38+08:00", "date_updated": "2021-10-17T18:02:38+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2021-10-17T11:02:37.949203", "is_latest": 1}, {"identifier": "urn:nasa:pds:insight_cameras::7.0", "doi": null, "status": "draft", "title": "InSight Cameras Bundle", "submitter": "gary.x.chen@jpl.nasa.gov", "type": "Bundle", "subtype": "PDS4 Refereed Data Bundle", "node_id": "eng", "date_added": "2021-10-26T21:32:14.589209+08:00", "date_updated": "2021-10-26T21:57:46.350340+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2021-10-26T21:57:48.051297", "is_latest": 1}, {"identifier": "urn:nasa:pds:insight_cameras_test11::1.0", "doi": null, "status": "draft", "title": "InSight Cameras Bundle TEST 12", "submitter": "", "type": "Bundle", "subtype": "PDS4 Refereed Data Bundle", "node_id": "eng", "date_added": "2021-10-26T22:02:41.244607+08:00", "date_updated": "2021-10-26T22:02:41.244607+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2021-10-26T22:02:41.327090", "is_latest": 1}, {"identifier": "urn:nasa:pds:lab_shocked_feldspars_test1::15.0", "doi": "10.13143/8rvx-y675", "status": "draft", "title": "Laboratory Shocked Feldspars Bundle #3yx", "submitter": "gary.x.chen@jpl.nasa.gov", "type": "Collection", "subtype": "PDS4 Bundle", "node_id": "img", "date_added": "2021-10-27T04:28:03+08:00", "date_updated": "2021-10-27T04:28:03+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/img/2021-10-26T21:28:02.673790", "is_latest": 1}, {"identifier": "urn:nasa:pds:test20210512::", "doi": "10.17189/29743", "status": "review", "title": "Lunar Crustal Magnetic Field Map 20210601 Bundle", "submitter": "gary.x.chen@jpl.nasa.gov", "type": "Dataset", "subtype": "PDS4 Refereed Data Bundle", "node_id": "eng", </pre>
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	<pre>"date_added": "2021-10-31T19:47:36.832031+08:00", "date_updated": "2021-10-31T19:47:36.832031+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2021-10-31T19:48:58.594347", "is_latest": 1}, {"identifier": "urn:nasa:pds:test20211031::", "doi": "10.17189/29744", "status": "draft", "title": "Test Lunar Crustal Magnetic Field Map 20210601 Bundle", "submitter": "gary.x.chen@jpl.nasa.gov", "type": "Dataset", "subtype": "PDS4 Refereed Data Bundle", "node_id": "eng", "date_added": "2021-10-31T20:11:05.581228+08:00", "date_updated": "2021-10-31T20:14:14.386754+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2021-10-31T20:14:14.480100", "is_latest": 1}, {"identifier": "urn:nasa:pds:test20220108::1.0", "doi": "10.13143/575h-8b15", "status": "draft", "title": "Lunar Crustal Magnetic Field Map 20220108 Bundle", "submitter": "gxchen@jpl.nasa.gov", "type": "Collection", "subtype": "PDS4 Bundle", "node_id": "eng", "date_added": "2022-01-08T18:34:34+08:00", "date_updated": "2022-01-08T18:34:34+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2022-01-08T10:34:33.737035", "is_latest": 1}, {"identifier": "urn:nasa:pds:tdoiest223::1.0", "doi": "10.13143/3a5j-3y16", "status": "draft", "title": "Lunar Crustal Magnetic Field Map doi-test 223 Bundle", "submitter": "gxchen@jpl.nasa.gov", "type": "Collection", "subtype": "PDS4 Bundle", "node_id": "eng", "date_added": "2022-01-09T05:49:10+08:00", "date_updated": "2022-01-09T05:49:10+08:00", "transaction_key": "/Users/gchen/pds/venv/transaction_history/eng/2022-01-08T21:49:10.578857", "is_latest": 1}]</pre> <p>Step 2: Result is in json format. See testrail attachment for complete json file.</p>
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PDS doi-ui

Test ID	DOI-UI.1
Issue ID	doi-ui#106
Issue Type	Enhancement
Issue Description	Update DOI UI app to use NPM package
Comments	Pass
Test Step	Verify build instructions at https://github.com/NASA-PDS/doi-ui
Test Result	To Run And Build Locally Run <code>npm install</code> This will install all necessary dependencies. Change API Locations In The Config File

	<p>The config file is located at: <code>public/config.js</code> It contains the necessary HTTP request URLs for the application to function correctly. These must be changed to point to your deployed backend server.</p> <p>Run <code>npm start</code> Runs the app in development mode.</p> <p>Open http://localhost:3000 to view it in the browser.</p> <p>Run <code>npm run build</code> Builds the app into deployable files in the <code>/build</code> directory. These files can be put into any server to run the app.</p>
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Test ID	DOI-UI.2
Issue ID	doi-ui#87
Issue Type	Bug
Issue Description	When I try to reload a reserve which has been updated, the web page does not update
Comments	Pass
Test Steps	Tested with doi-ui#67

Test ID	DOI-UI.3
Issue ID	doi-ui#88
Issue Type	Bug
Issue Description	Pre-existing keyword show in a weird way in the UI
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. search for doi 10.17189/22185 2. click update 3. click published: yes 4. edit keywords <p>Expected behavior: The keywords should be in different subject tags</p>
Test Result	Can't reproduce error.

Test ID	DOI-UI.4
Issue ID	doi-ui#117
Issue Type	Bug
Issue Description	Fix DOI Search And DOI UI Integration Bugs
Comments	Partial Fail
Test Steps	<p>Verify the following bugs have been fixed:</p> <ol style="list-style-type: none"> 1. Hovering over status value will crash the app. A popover is supposed to show but something must be causing an error. 2. Going to the search page will cause the app bar to become white and jumbled. There must be some sort of styling issue. 3. Searching needs to click or enter twice before running.

Test Result	<ol style="list-style-type: none"> 1. Hovering over status value doesn't crash the app 2. Clicking between the Home and the SEARCH button will cause different errors on the app bar. The SEARCH button is causing the errors. 3. Searching box works fine.
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Test ID	DOI-UI.5
Issue ID	doi-ui#67
Issue Type	Bug
Issue Description	Issue with displaying the content of an uploaded file after multiple selections
Comments	<ol style="list-style-type: none"> 1. Go to http://localhost:3000/create 2. Click on Has the data been registered and made publicly available? NO 3. choose a file and load it in the form (see compressed test dataset) 4. update locally the chosen file 5. choose a file again <p>The displayed content of the file is not updated.</p> <p>The content displayed in the form should be updated as well as the content sent to the API back-end.</p>

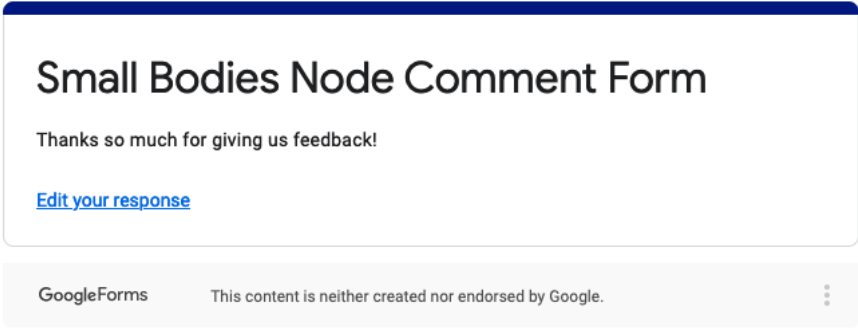
Test ID	DOI-UI.6
Issue ID	doi-ui#68
Issue Type	Enhancement
Issue Description	Improve Search UI behavior to only show results when search button is selected
Comments	Pass
Test Steps	<p>Verify the following:</p> <p>Search page is not supposed to display any results until the search button (or enter from the search bar) is entered.</p> <p>Clicking the 'X' in the search bar to clear the search – should clear the results as well as the text in the search bar.</p>
Test Result	Verified searching procedures works as stated.

Test ID	DOI-UI.7
Issue ID	doi-ui#102
Issue Type	Enhancement
Issue Description	Have a single entry for the backend API url configuration

Comments	Pass
Test Steps	Verify changes @ https://github.com/NASA-PDS/doi-ui/pull/103/files/bedd9903c8d21cfcb5469b56bec27f45593753c8
Test Result	<pre> 1 1 window['getGlobalConfig'] = { 2 - api:{ 3 - reserveUrl: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/does', 4 - getDoiByLidvidUrl: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/does/', 5 - getDoiByDoiUrl: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/does', 6 - getDoiByPds4LabelUrl: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/does', 7 - getDoiByIdentifier: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/doi/', 8 - releaseDoiUrl: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/doi/', 9 - searchUrl: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/does' 10 - } 11 2 + api: 'http://localhost:8085/PDS_APIs/pds_doi_api/0.2/' 11 3 }⊖ </pre> <pre> src/Config.js @@ -1,13 +1,5 @@ 1 1 const Config = { 2 - api:{ 3 - reserveUrl: window['getGlobalConfig'].api.reserveUrl, 4 - getDoiByLidvidUrl: window['getGlobalConfig'].api.getDoiByLidvidUrl, 5 - getDoiByDoiUrl: window['getGlobalConfig'].api.getDoiByDoiUrl, 6 - getDoiByPds4LabelUrl: window['getGlobalConfig'].api.getDoiByPds4LabelUrl, 7 - getDoiByIdentifier: window['getGlobalConfig'].api.getDoiByIdentifier, 8 - releaseDoiUrl: window['getGlobalConfig'].api.releaseDoiUrl, 9 - searchUrl: window['getGlobalConfig'].api.searchUrl 10 - } 11 2 + api: window['getGlobalConfig'].api </pre>

feedback-widget

Test ID	FEEDBACK.1
Issue ID	Feedback-widget#17
Issue Type	Bug
Issue Description	Feedback does not let submissions through for SBN
Comments	
Test Steps	<p>Steps to reproduce the behavior:</p> <ol style="list-style-type: none"> 1. Go to <ul style="list-style-type: none"> ○ https://pds-smallbodies.astro.umd.edu/ ○ https://pdssbn.astro.umd.edu/ ○ https://sbn.psi.edu/pds/ ○ https://arcnav.psi.edu/ 2. Open the Feedback form by clicking the blue tab on the right side of the screen which says "Need Help?" 3. Fill in some comment and click the button to "Send Feedback" 4. See message

<p>Test Results</p>	
---------------------	--

Pds Registry Harvest

Test ID	HAR.1
Issue ID	Harvest#70
Issue Type	Bugs
Issue Description	Harvest fails on yyyyZ date time
Comments	Pass
Test Steps	<p>Step1. Make config file from https://pds-geosciences.wustl.edu/lab/urn-nasa-pds-lab_shocked_feldspars/data/collection_data_inventory.xml</p> <p>Step 2. % harvest -c pds4test.build12.1/testHarvest/harvest70/hvt70_cfg.xml</p>
Test Result	<pre>[SUMMARY] Reading configuration from /Users/gchen/pds/pds4test.build12.1/testHarvest/ harvest70/hvt70_cfg.xml [WARN] XML BLOB storage is disabled (see <fileInfo storeLabels="false"> configuration). Not all Registry features will be available. [WARN] JSON BLOB storage is disabled (see <fileInfo storeJsonLabels="false"> configuration). Not all Registry features will be available. [SUMMARY] Output directory: /tmp/harvest/out [SUMMARY] Elasticsearch URL: http://localhost:9200, index: registry [INFO] Connecting to Elasticsearch [INFO] Loading PDS to ES data type mapping from /Users/gchen/pds/PDS4tools/harvest/elastic/data-dic- types.cfg [INFO] Processing directory: /Users/gchen/pds/pds4test.build12.1/testHarvest/ harvest70/collection [INFO] Processing /Users/gchen/pds/pds4test.build12.1/testHarvest/ harvest70/collection/collection_data_inventory.xml [WARN] Skipping registered product urn:nasa:pds:lab_shocked_feldspars:data::1.0 [SUMMARY] Summary:</pre>

	<p>[SUMMARY] Skipped files: 1 [SUMMARY] Loaded files: 0 [SUMMARY] Failed files: 0 [SUMMARY] Package ID: 97802404-50cb-4556-8700-c1d273f96a57</p>
--	---

Test ID	HAR.2
Issue ID	Harvest#75
Issue Type	Bug
Issue Description	harvest stops rather than skips a file with bad permissions
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. create test files and config.xml for #75 2. point one of the path in the config file to an inaccessible location (/Users/tester/Downloads/pds/system-i-n-t/20/harvest75/collection2) 3. start elasticsearch in docker. 4. cd to the test folder /Users/gchen/pds/system-i-n-t/20/harvest75 5. harvest -c hvt75 cfg.xml
Test Result	<p>harvest didn't halt. it gives a warning and continue to finish the process.</p> <pre>gchen@Johns-MacBook-Pro harvest75 % harvest -c hvt75_cfg.xml [SUMMARY] Output directory: /tmp/harvest/out [SUMMARY] Output format: json [SUMMARY] Reading configuration from /Users/gchen/pds/system-i-n-t/20/harvest75/hvt75_cfg.xml [WARN] XML BLOB storage is disabled (see <fileInfo storeLabels="false"> configuration). Not all Registry features will be available. [WARN] JSON BLOB storage is disabled (see <fileInfo storeJsonLabels="false"> configuration). Not all Registry features will be available. [SUMMARY] Elasticsearch URL: http://localhost:9200, index: registry [INFO] Processing directory: /Users/gchen/pds/system-i-n-t/20/harvest75/collection1 [INFO] Processing /Users/gchen/pds/system-i-n-t/20/harvest75/collection1/hvt22.xml [WARN] Invalid path: /Users/tester/Downloads/pds/system-i-n-t/20/harvest75/collection2 [SUMMARY] Summary: [SUMMARY] Skipped files: 0 [SUMMARY] Processed files: 1 [SUMMARY] File counts by type: [SUMMARY] Product_Ancillary: 1 [SUMMARY] Package ID: fc6951cc-908c-499c-a88b-65b416543974</pre>

Test ID	HAR.3
Issue ID	Harvest#78
Issue Type	Bug
Issue Description	Error ingesting an XML boolean with values of 0/1
Comments	Pass
Test Steps	<p>1 down load data file from https://atmos.nmsu.edu/PDS/data/PDS4/Mars2020/\moxie_bundle/data_derived/0004/OX__0004_0667297777DDR__0010052moxi00101P01.xml</p> <p>3 create config.xml</p> <p>4 % harvest -c hvt78 cfg.xml</p>
Test Result	<p>Step 4</p> <pre>[SUMMARY] Reading configuration from /Users/gchen/pds/pds4test.build12.1/testHarvest/hvst78/hvt78_cfg.xml [WARN] XML BLOB storage is disabled (see <fileInfo storeLabels="false"> configuration). Not all Registry features will be available. [WARN] JSON BLOB storage is disabled (see <fileInfo storeJsonLabels="false"> configuration). Not all Registry features will be available. [SUMMARY] Output directory: /tmp/harvest/out [SUMMARY] Elasticsearch URL: http://localhost:9200, index: registry [INFO] Connecting to Elasticsearch Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse WARNING: request [GET http://localhost:9200/registry/_mappings] returned 1 warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal- setup.html to enable security."] Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse WARNING: request [GET http://localhost:9200/registry-dd/_search] returned 1 warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal- setup.html to enable security."] Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse WARNING: request [GET http://localhost:9200/registry-dd/_search] returned 1 warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal- setup.html to enable security."] [INFO] Loading PDS to ES data type mapping from /Users/gchen/pds/PDS4tools/harvest/elastic/data-dic-types.cfg [INFO] Processing directory: /Users/gchen/pds/pds4test.build12.1/testHarvest/hvst78/collection [INFO] Processing /Users/gchen/pds/pds4test.build12.1/testHarvest/hvst78/collection/OX__0004_066729777 7DDR__0010052moxi00101P01.xml [INFO] Updating LDDs. [INFO] Updating 'mars2020' LDD. Schema location: https://pds.nasa.gov/pds4/mission/mars2020/v1/PDS4_MARS2020_1G00_1000.xsd Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse WARNING: request [GET http://localhost:9200/registry-dd/_search] returned 1 warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See</pre>


```

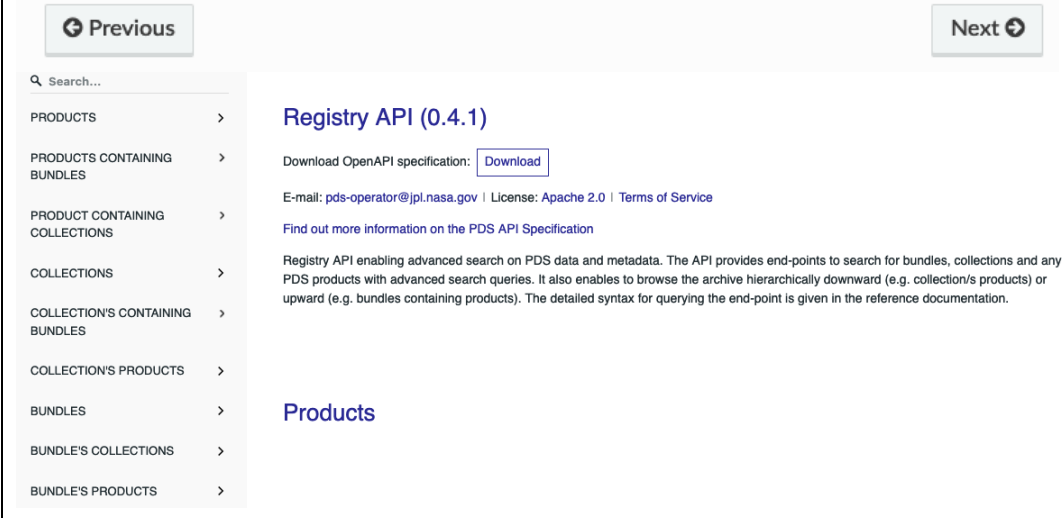
https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-
setup.html to enable security."]
[INFO] This LDD already loaded.
[INFO] Updating Elasticsearch schema.
Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse
WARNING: request [GET http://localhost:9200/registry-dd/_mget?_source=es_data_type]
returned 1 warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29
" Elasticsearch built-in security features
are not enabled. Without authentication, your cluster could be accessible to anyone.
See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-
setup.html to enable security."]
Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse
WARNING: request [PUT http://localhost:9200/registry/_mapping] returned 1 warnings:
[299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch
built-in security features are not enabled. Without authentication, your cluster
could be accessible to anyone. See
https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-
setup.html to enable security."]
[INFO] Updated 191 fields
Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse
WARNING: request [GET http://localhost:9200/registry/_mappings] returned 1 warnings:
[299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch
built-in security features are not enabled. Without authentication, your cluster
could be accessible to anyone. See
https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-
setup.html to enable security."]
Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse
WARNING: request [GET http://localhost:9200/registry-dd/_search] returned 1
warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29
"Elasticsearch built-in security features are not enabled. Without authentication,
your cluster could be accessible to anyone. See
https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-
setup.html to enable security."]
Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse
WARNING: request [GET http://localhost:9200/registry-dd/_search] returned 1
warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29
"Elasticsearch built-in security features are not enabled. Without authentication,
your cluster could be accessible to anyone. See
https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-
setup.html to enable security."]
Apr 24, 2022 9:03:50 PM org.elasticsearch.client.RestClient logResponse
WARNING: request [GET http://localhost:9200/registry/_search] returned 1 warnings:
[299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch
built-in security features are not enabled. Without authentication, your cluster
could be accessible to anyone. See
https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-
setup.html to enable security."]
[INFO] Wrote 1 product(s)
[SUMMARY] Summary:
[SUMMARY] Skipped files: 0
[SUMMARY] Loaded files: 1
[SUMMARY] Product_Observational: 1
[SUMMARY] Failed files: 0
[SUMMARY] Package ID: e288bdea-dd64-41ef-a1b2-7f86ac1e0afc
    
```

PDS mi-label

Test ID	MI.1
Issue ID	mi-label#21
Issue Type	Bug
Issue Description	Product-Tools parsing mode cannot parse units
Comments	Pass
Test Steps	Steps to reproduce the behavior:

	<p>1. Create a file <code>problem_illustration.lbl</code> with these contents:</p> <pre>PDS_VERSION_ID = PDS3 PROPERTY_WITH_UNIT = 29.7245241213 <DEGREE></pre> <p>1. Create a file <code>template.vm</code> with these contents:</p> <pre>The property with a unit: The unit: \$label.getUnits('PROPERTY_WITH_UNIT') The value: \$label.get('PROPERTY_WITH_UNIT')</pre> <p>1. Switch MILabel to Product-Tools mode via the instructions at “Advanced Usage”/”Changing the Underlying Parser” of this document.</p> <p>2. Run MILabel with the above files with <code>pds-generate -t template.vm -p problem_illustration.lbl</code></p> <p>3. Observe the following output in the file <code>problem_illustration.xml</code>:</p> <pre>The property with a unit: The unit: none The value: 29.7245241213</pre>
<p>Test Result</p>	<pre>rayl-c01375:21 johngengelke\$ rayl-c01375:21 johngengelke\$ ls -laF /sourcecode/source/pds/mi-label-latest/lib/mi* -rw-r--r--@ 1 johngengelke wheel 82784 Oct 26 15:04 /sourcecode/source/pds/mi-label-latest/lib/mi-label-1.2.1.jar rayl-c01375:21 johngengelke\$ java --version java 11.0.3 2019-04-16 LTS Java(TM) SE Runtime Environment 18.9 (build 11.0.3+12-LTS) Java HotSpot(TM) 64-Bit Server VM 18.9 (build 11.0.3+12-LTS, mixed mode) rayl-c01375:21 johngengelke\$ cat problem_illustration.lbl PDS_VERSION_ID = PDS3 PROPERTY_WITH_UNIT = 29.7245241213 <DEGREE> rayl-c01375:21 johngengelke\$ cat template.vm The property with a unit: The unit: \$label.getUnits('PROPERTY_WITH_UNIT') The value: \$label.get('PROPERTY_WITH_UNIT') rayl-c01375:21 johngengelke\$ tail -5 /sourcecode/source/pds/mi-label-latest/bin/pds-generate # Executes MILabel software via the executable jar file # Arguments are passed in to the tool via '\$@' \${JAVA_CMD} -jar -Dpds.generate.parser.type=product-tools \${GENERATE_JAR} "\$@" rayl-c01375:21 johngengelke\$ pds-generate -t template.vm -p problem_illustration.lbl INFO: Using lib dir '/sourcecode/source/pds/mi-label-latest/lib' [Fatal Error] :1:1: Content is not allowed in prolog. Error applying XSLT to output XML. Verify label and template are correctly formatted. Content is not allowed in prolog. Outputting without formatting. rayl-c01375:21 johngengelke\$ cat problem_illustration.xml The property with a unit: The unit: DEGREE The value: 29.7245241213 rayl-c01375:21 johngengelke\$</pre>

PDS-API

Test ID	API.1
Issue ID	Pds-api#139
Issue Type	Requirement
Issue Description	As a user, I want to see API stable release specifications
Comments	Pass
Test Steps	Check the website and inspect each specification. https://nasa-pds.github.io/pds-api/specifications.html
Test Result	<p>Specifications</p> <p>The specification details and the rationale that drove the design are given in this document</p> <p>Each published version of NASA PDS APIs is documented here:</p> <ul style="list-style-type: none"> • Search API v0.4.1 • Search API v1.0.0-SNAPSHOT • DOI API v0.2 <p style="text-align: center;"> ← Previous Next → </p>  <p>The screenshot shows a web page with a search bar at the top. On the left is a navigation menu with categories like PRODUCTS, BUNDLES, and COLLECTIONS. The main content area is titled 'Registry API (0.4.1)' and includes a 'Download OpenAPI specification' button, contact information, and a brief description of the API's capabilities.</p>

The screenshot shows a web interface with a navigation menu on the left and two main content areas. The top content area is titled 'Registry API (1.0.0-SNAPSHOT)' and includes a 'Download' button for the OpenAPI specification, an email address (pds-operator@jpl.nasa.gov), a license (Apache 2.0), and terms of service. Below this is a section titled 'Products'. The bottom content area is titled 'Planetary Data System DOI Service API (0.2)' and includes a 'Download' button for the OpenAPI specification and a description of the PDS API for managing DOI registration.

Test ID	API.2
Issue ID	Pds-api#142
Issue Type	Requirement
Issue Description	flesh out the registry repository.
Comments	
	Test docker image at https://github.com/NASA-PDS/registry-api

Test ID	API.3
Issue ID	Pds-api#66
Issue Type	Requirement
Issue Description	As an API user, I want to get an XML response
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. get docker image from github: git clone https://github.com/NASA-PDS/registry.git 2. Start the prerequisites: docker compose --profile=dev-api up 3. Get the latest stable release https://github.com/NASA-PDS/registry-api-service/releases

	<ol style="list-style-type: none"> 4. Decompress zip or tar.gz file 5. java -jar registry-api-service-0.4.2.jar 6. launch http://localhost:8080/swagger-ui.html#!/ 7. click collections. 8. choose Response Content Type: application/json 9. click “try it out” 10. choose Response Content Type: application/pds4+json 11. Click “try it out” 12 Response Content Type: application/pds4_xml 12. click “try it out”
<p>Test Result</p>	<p>Application/xml and Application/json returns same results.</p> <p>XML:</p> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <p>Curl</p> <pre>curl -X GET --header 'Accept: application/json' 'http://localhost:8080/collections?limit=100&keyword=*&only-summary=false'</pre> <p>Request URL</p> <pre>http://localhost:8080/collections?limit=100&keyword=*&only-summary=false</pre> <p>Request Headers</p> <pre>{ "Accept": "application/json" }</pre> <p>Response Body</p> <pre>no content</pre> <p>Response Code</p> <pre>501</pre> <p>Response Headers</p> <pre>{ "connection": "close", "content-length": "0", "date": "Sun, 06 Mar 2022 06:22:23 GMT", "content-type": null }</pre> </div> <p>JSON:</p>

Curl

```
curl -X GET --header 'Accept: application/json' 'http://localhost:8080/collections?limit=100&keyword=*&only-summary=false'
```

Request URL

```
http://localhost:8080/collections?limit=100&keyword=*&only-summary=false
```

Request Headers

```
{
  "Accept": "application/json"
}
```

Response Body

```
{
  "summary": {
    "q": "",
    "hits": 3,
    "took": 19,
    "start": 0,
    "limit": 100,
    "sort": [],
    "properties": [
      "pds:Inventory.pds:offset",
      "pds:Modification_Detail.pds:description",
      "lid",
      "pds:Modification_Detail.pds:modification_date",
      "pds:Inventory.pds:field_delimiter",
      "ref_lid_instrument",
      "ops:Label_File_Info.ops:md5_checksum",
      "pds:File.pds:file_name",
      "vid",
      "product_class".
    ]
  }
}
```

Pds4+json:

Curl

```
curl -X GET --header 'Accept: application/pds4+json' 'http://localhost:8080/collections?limit=100&keyword=*&only-summary=false'
```

Request URL

```
http://localhost:8080/collections?limit=100&keyword=*&only-summary=false
```

Request Headers

```
{
  "Accept": "application/json"
}
```

Response Body

```
{
  "summary": {
    "start": 0,
    "limit": 100
  },
  "data": [
    {
      "id": "urn:nasa:pds:insight_rad:data_calibrated::7.0",
      "meta": {
        "node_name": "PDS_ENG",
        "label_file": {
          "file_name": "collection_data_rad_calibrated.xml",
          "file_ref": "/data/data_calibrated/collection_data_rad_calibrated.xml",
          "creation_date": "2020-12-11T00:46:36Z",
          "file_size": "9225",
          "md5_checksum": "ab37d5904cdee8f554652986a81911a5"
        }
      },
      "data_files": [
        {

```

Test ID	API.4
Issue ID	Pds-api#125
Issue Type	Requirement
Issue Description	As a user, I want to get the metadata in a pds4+xml response
Comments	Pass
Test Steps	Tested with pds-api#152
Test Result	<pre> <pds_api:meta> <node_name>PDS_ENG</node_name> <ops:Label_File_Info> <ops:file_name>collection_data_inventory.xml</ops:file_name> <ops:file_ref>/Users/gchen/pds/pds4test.build12.1/testHarvest/harvest70/collection/collection_data_inventory.xml</ops:file_ref> <ops:creation_date>2022-04-15T17:54:59Z</ops:creation_date> <ops:file_size>5731</ops:file_size> <ops:md5_checksum>014321d63296ad4fdfa283449f55e025</ops:md5_checksum> </ops:Label_File_Info> </pds_api:meta> </pre>

Test ID	API.5
Issue ID	Pds-api#127
Issue Type	Requirement
Issue Description	As a user, I want to clearly see which formats are accepted by the API when a 406 error is raised.
Comments	Pass
Test Steps	Tested with API#153

Test ID	API.6
Issue ID	Pds-api#152
Issue Type	Requirement
Issue Description	As a user, I want the API response media types to be compliant with RFC 6838.
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. perform a request on any end-point using header Accept:application/vnd.nasa.pds.pds4+xml 2. expect to get a result in format pds4+xml

<p>Test Result</p>	<pre> <pds_api:products xmlns:pds_api="http://pds.nasa.gov/api" xmlns:ops="https://pds.nasa.gov/pds4/ops/v1"> <pds_api:Summary> <pds_api:q/> <pds_api:hits>1</pds_api:hits> <pds_api:took>502</pds_api:took> <pds_api:start>0</pds_api:start> <pds_api:limit>100</pds_api:limit> <pds_api:sort/> <pds_api:properties> <pds_api:properties>ops:Data_File_Info/ops:creation_date_time</pds_ap i:properties> <pds_api:properties>ops:Data_File_Info/ops:file_name</pds_api:propert ies> <pds_api:properties>ops:Data_File_Info/ops:file_ref</pds_api:properti es> <pds_api:properties>ops:Data_File_Info/ops:file_size</pds_api:propert ies> <pds_api:properties>ops:Data_File_Info/ops:md5_checksum</pds_api:prop erties> <pds_api:properties>ops:Data_File_Info/ops:mime_type</pds_api:propert ies> <pds_api:properties>ops:Harvest_Info/ops:node_name</pds_api:propertie s> <pds_api:properties>ops:Label_File_Info/ops:blob</pds_api:properties> <pds_api:properties>ops:Label_File_Info/ops:creation_date_time</pds_a pi:properties> <pds_api:properties>ops:Label_File_Info/ops:file_name</pds_api:proper ties> <pds_api:properties>ops:Label_File_Info/ops:file_ref</pds_api:propert ies> <pds_api:properties>ops:Label_File_Info/ops:file_size</pds_api:proper ties> <pds_api:properties>ops:Label_File_Info/ops:md5_checksum</pds_api:pro perties> </pds_api:properties> </pds_api:Summary> <pds_api:data> <pds_api:product> <pds_api:id>urn:nasa:pds:lab_shocked_feldspars:data::1.0</pds_api:id> <pds_api:meta> <node_name>PDS_ENG</node_name> <ops:Label_File_Info> </pre>
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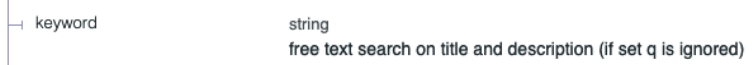
	<pre> <ops:file_name>collection_data_inventory.xml</ops:file_name> <ops:file_ref>/Users/gchen/pds/pds4test.build12.1/testHarvest/harvest 70/collection/collection_data_inventory.xml</ops:file_ref> <ops:creation_date>2022-04-15T17:54:59Z</ops:creation_date> <ops:file_size>5731</ops:file_size> <ops:md5_checksum>014321d63296ad4fdfa283449f55e025</ops:md5_checksum> </ops:Label_File_Info> </pds_api:meta> <pds_api:pds4>Could not decode blob. See logs for error details.</pds_api:pds4> </pds_api:product> </pds_api:data> </pds_api:products> </pre>
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Test ID	API.7
Issue ID	Pds-api#153
Issue Type	Requirement
Issue Description	As a user, I want to receive error messages when an invalid request is submitted to the API
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Continue from test case “registry-api#66” 2. click get /products/{lidvid} . 3. enter a non existing lidvid urn:nasa:pds:notexists_rad::2.1 4. choose Response Content Type: application/json 5. click “try it out” 6. choose Response Content Type: application/pds4+json 7. Click “try it out” 8. Response Content Type: application/pds4_xml 9. click “try it out”

Test Result	identifier <input type="text" value="urn:nasa:pds:mer1_mb_raw::1.0"/> lidvid or lid path string																												
	Response Messages																												
	<table border="1"> <thead> <tr> <th>HTTP Status Code</th> <th>Reason</th> <th>Response Model</th> <th>Headers</th> </tr> </thead> <tbody> <tr> <td>400</td> <td>Unsuccessful request</td> <td>Object is not a primitive</td> <td></td> </tr> <tr> <td>401</td> <td>Unauthorized</td> <td></td> <td></td> </tr> <tr> <td>403</td> <td>Forbidden</td> <td></td> <td></td> </tr> <tr> <td>404</td> <td>Unsuccessful request</td> <td>Object is not a primitive</td> <td></td> </tr> <tr> <td>500</td> <td>Unsuccessful request</td> <td>Object is not a primitive</td> <td></td> </tr> <tr> <td>501</td> <td>Unsuccessful request</td> <td>Object is not a primitive</td> <td></td> </tr> </tbody> </table>	HTTP Status Code	Reason	Response Model	Headers	400	Unsuccessful request	Object is not a primitive		401	Unauthorized			403	Forbidden			404	Unsuccessful request	Object is not a primitive		500	Unsuccessful request	Object is not a primitive		501	Unsuccessful request	Object is not a primitive	
	HTTP Status Code	Reason	Response Model	Headers																									
	400	Unsuccessful request	Object is not a primitive																										
	401	Unauthorized																											
	403	Forbidden																											
	404	Unsuccessful request	Object is not a primitive																										
	500	Unsuccessful request	Object is not a primitive																										
	501	Unsuccessful request	Object is not a primitive																										
<input type="button" value="Try it out!"/> Hide Response																													
Curl																													
<pre>curl -X GET --header 'Accept: application/json' 'http://localhost:8080/products/urn%3Anasa%3Apds%3Amer1_mb_raw%3A%3A1.0'</pre>																													
Request URL																													
<pre>http://localhost:8080/products/urn%3Anasa%3Apds%3Amer1_mb_raw%3A%3A1.0</pre>																													
Request Headers																													
<pre>{ "Accept": "application/json" }</pre>																													
Response Body																													
<pre>{ "request": "/products/urn%3Anasa%3Apds%3Amer1_mb_raw%3A%3A1.0", "message": "The lidvid urn:nasa:pds:mer1_mb_raw was not found" }</pre>																													
Response Code																													
<pre>404</pre>																													
Response Headers																													
<pre>{ "connection": "keep-alive", "content-type": "application/json", "date": "Wed, 09 Mar 2022 05:59:16 GMT", "keep-alive": "timeout=60", "transfer-encoding": "chunked" }</pre>																													

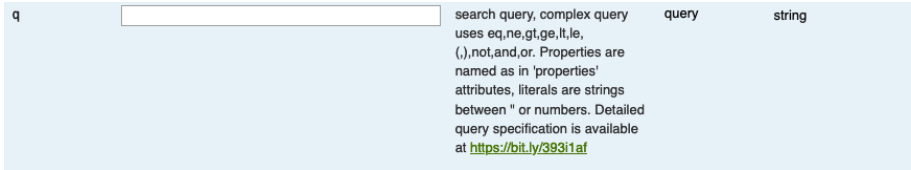
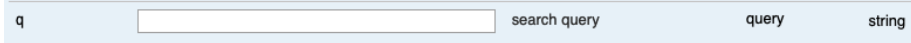
Test ID	API.8
Issue ID	Pds-api#154
Issue Type	Enhancement
Issue Description	Refactor <i>meta</i> section of pds4+json and pds4+xml to use ops namespace
Comments	Pass
Test Steps	Go to http://localhost:8080/swagger-ui.html#!/bundles/getBundles Check response for ops namespace.
Test Result	<pre>"pds:Investigation_Area.pds:name": ["Investigation of Laboratory Shocked Feldspars"], "ops:Label_File_Info.ops:creation_date_time": ["2022-04-15T17:54:59Z"], "pds:Inventory.pds:records": [</pre>

	"1049"],
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Test ID	API.9
Issue ID	Pds-api#133
Issue Type	Enhancement
Issue Description	clarify what <i>keyword</i> parameter is for.
Comments	Pass
Test Steps	Verify the API documentation is improved to make sense of what the keyword parameter actually means. https://nasa-pds.github.io/pds-api/specifications/search-v1.0.0-SNAPSHOT-redoc.html
Test Result	

Test ID	API.10
Issue ID	Pds-api#136
Issue Type	Enhancement
Issue Description	Revise the pds-api README so that it gives a perspective on non search api (e.g. doi) from pds
Comments	Pass
Test Steps	Step 1. Verify pds-api README https://github.com/NASA-PDS/pds-api Step 2. Verify API specification (https://nasa-pds.github.io/pds-api/) has descriptions of the API and how the various versions are deployed.
Test Result	Step 1: The detailed documentation can be found https://nasa-pds.github.io/pds-api/ Step 2: Specifications The specification details and the rationale that drove the design are given in this document Each published version of NASA PDS APIs is documented here: <ul style="list-style-type: none"> • Search API v0.4.1 • Search API v1.0.0 • Search API v1.1.0-SNAPSHOT • DOI API v0.2

	<h2 style="margin: 0;">API implementations</h2> <h3 style="margin: 10px 0 0 0;">Search</h3> <ul style="list-style-type: none"> Server: https://github.com/NASA-PDS/registry-api Client: https://github.com/NASA-PDS/pds-api-client <h3 style="margin: 10px 0 0 0;">DOI</h3> <ul style="list-style-type: none"> Server: https://github.com/NASA-PDS/doi-service/ Client (UI): https://github.com/NASA-PDS/doi-ui/ Client (react component): to be completed
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Test ID	API.11
Issue ID	Pds-api#137
Issue Type	Enhancement
Issue Description	As a user, I want to have a detailed description of the API q parameter syntax
Comments	Partial Fail
Test Steps	Inspection - Verify the q parameter description in the Swagger spec makes sense from an external user perspective.
Test Results	<p>It is clear on /bundles and collections</p>  <p>/products missing the same statement.</p> 

Test ID	API.12
Issue ID	Pds-api#121
Issue Type	Bug
Issue Description	Deployed API + Registry does not contain product metadata for pds4+json response
Comments	Pass
Test Steps	curl -X GET -header 'Accept: application/json' 'http://localhost:8080/products?limit=100&only-summary=false'
Test Result	Response Body has product metadata:

	<p>Response Body</p> <pre> "metadata": { "creation_date_time": "2019-04-23T00:00:00Z", "update_date_time": "2019-04-23T00:00:00Z", "version": "1.0", "label_url": "/Users/gchen/pds/pds4test.build12.1/testHarvest/harvest70/collection/collection_data_invento }, "properties": { "pds:Inventory.pds:offset": ["0"], "pds:Modification_Detail.pds:description": ["Initial version of Laboratory Shocked Feldspars data collection."], "lid": ["urn:nasa:pds:lab_shocked_feldspars:data"], "pds:Modification_Detail.pds:modification_date": ["2019-04-23T00:00:00Z"], "pds:Inventory.pds:field_delimiter": [</pre>
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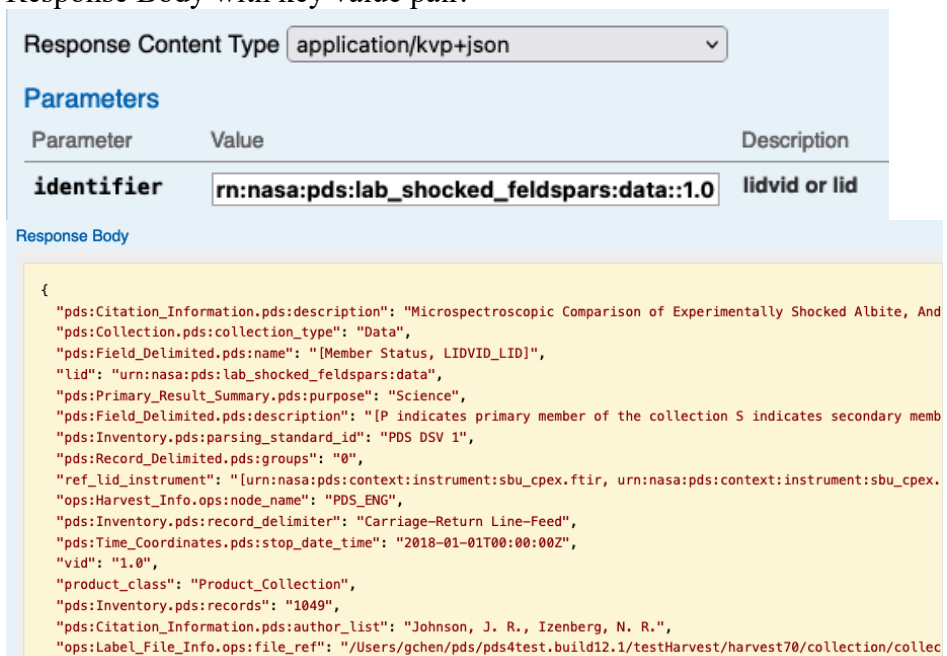
Test ID	API.13
Issue ID	Pds-api#155
Issue Type	Bug
Issue Description	<i>products/{identifier}</i> missing properties object in application/json response
Comments	Pass
Test Steps	Query http://localhost:8080/products/urn%3Anasa%3Apds%3Alab_shocked_feldspars%3Adata%3A%3A1.0/all?limit=10
Test Results	<pre> "properties": { "pds:Inventory.pds:offset": ["0"], "pds:Modification_Detail.pds:description": ["Initial version of Laboratory Shocked Feldspars data collection."], "lid": ["urn:nasa:pds:lab_shocked_feldspars:data"], "pds:Modification_Detail.pds:modification_date": ["2019-04-23T00:00:00Z"], "pds:Inventory.pds:field_delimiter": ["Comma"], "ref_lid_instrument": ["urn:nasa:pds:context:instrument:sbu_cpex.ftir", "urn:nasa:pds:context:instrument:sbu_cpex.raman"], "ops:Tracking_Meta.ops:archive_status": ["archived"], "ops:Label_File_Info.ops:md5_checksum": ["014321d63296ad4fdfa283449f55e025"], "pds:File.pds:file_name": [</pre>

	<pre> "hvt22.tab"], "vid": ["1.0"], "product_class": ["Product_Collection"], "pds:Time_Coordinates.pds:stop_date_time": ["2018-01-01T00:00:00Z"], "pds:Primary_Result_Summary.pds:processing_level": ["Raw", "Calibrated", "Derived"],], ... </pre>
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Test ID	API.14
Issue ID	Pds-api#72
Issue Type	Requirement
Issue Description	As an API user, I want to search by a temporal range as an ISO-8601 time interval.
Comments	Pass
Test Steps	<p>Using postman,</p> <p>perform A request with time criteria</p> <pre>curl -X GET --header 'Accept: application/json' 'http://localhost:8080/collections?limit=100&q=(pds%3ATime_Coordinates .pds%3Astart_date_time%20eq%20%222015-01-01T00%3A00%3A00Z%22) &only- summary=false'</pre> <p>expect a result where the start date time property matches the criteria</p>
Test Result	<p>Json formatted response with result matching start date.</p> <pre>{ "summary": { "q": "(pds:Time_Coordinates.pds:start_date_time eq \\\"2015-01-01T00:00:00Z\\\")", "hits": 1, "took": 20, "start": 0, "limit": 100, "sort": [], "properties": ["_package_id", "description", "lid", "lidvid", "ops:Harvest_Info.ops:harvest_date_time", "ops:Harvest_Info.ops:node_name", "ops:Label_File_Info.ops:creation_date_time", "ops:Label_File_Info.ops:file_name", "ops:Label_File_Info.ops:file_ref", "ops:Label_File_Info.ops:file_size", "ops:Label_File_Info.ops:md5_checksum", "ops:Tracking_Meta.ops:archive_status", "pds:Citation_Information.pds:author_list", "pds:Citation_Information.pds:description", "pds:Citation_Information.pds:editor_list", "pds:Citation_Information.pds:publication_year", "pds:Collection.pds:collection_type", "pds:Field_Delimited.pds:data_type", "pds:Field_Delimited.pds:description", "pds:Field_Delimited.pds:field_number", "pds:Field_Delimited.pds:maximum_field_length", "pds:Field_Delimited.pds:name", "pds:File.pds:creation_date_time", "pds:File.pds:file_name", "pds:Identification_Area.pds:information_model_version", "pds:Identification_Area.pds:logical_identifier", "pds:Identification_Area.pds:product_class", "pds:Identification_Area.pds:title", "pds:Identification_Area.pds:version_id", "pds:Internal_Reference.pds:lid_reference", "pds:Internal_Reference.pds:reference_type", "pds:Inventory.pds:field_delimiter", "pds:Inventory.pds:offset", "pds:Inventory.pds:parsing_standard_id", "pds:Inventory.pds:record_delimiter", "pds:Inventory.pds:records", "pds:Inventory.pds:reference_type", "pds:Investigation_Area.pds:name", "pds:Investigation_Area.pds:type", "pds:Modification_Detail.pds:description", "pds:Modification_Detail.pds:modification_date", "pds:Modification_Detail.pds:version_id", "pds:Observing_System_Component.pds:name", "pds:Observing_System_Component.pds:type", "pds:Primary_Result_Summary.pds:processing_level", "pds:Primary_Result_Summary.pds:purpose", "pds:Record_Delimited.pds:fields", "pd</pre>

	<pre>s:Record_Delimited.pds:groups", "pds:Time_Coordinates.pds:start_date_time", "pds:Time_Coordinates.pds:stop_date_time", "product_class", "ref_lid_facility", "ref_lid_instrument", "ref_lid_investigation", "title", "vid"], "data": [{"id": "urn:nasa:pds:lab_shocked_feldspars:data:1.0", "type": "Product_Collection", "title": "Laboratory Shocked Feldspars Data Collection", "start_date_time": "2015-01-01T00:00:00Z", "stop_date_time": "2018-01-01T00:00:00Z", "investigations": [{"id": "urn:nasa:pds:context:investigation:individual.lab_shocked_feldspars", "href": "http://localhost:8080/products/urn:nasa:pds:context:investigation:individual.lab_shocked_feldspars"}], "observing_system_components": [{"id": "urn:nasa:pds:context:instrument:sbu_cpex.ftir", "href": "http://localhost:8080/products/urn:nasa:pds:context:instrument:sbu_cpex.ftir"}, {"id": "urn:nasa:pds:context:instrument:sbu_cpex.raman", "href": "http://localhost:8080/products/urn:nasa:pds:context:instrument:sbu_cpex.raman"}], "targets": [], "metadata": {"creation_date_time": "2019-04-23T00:00:00Z", "update_date_time": "2019-04-23T00:00:00Z", "version": "1.0", "label_url": "/Users/gchen/pds/pds4test.build12.1/testHarvest/harvest70/collection/collection_data_inventory.xml"}, "properties": {"pds:Inventory.pds:offset": "0"}, "pds:Modification_Detail.pds:description": ["Initial version of Laboratory Shocked Feldspars data collection."], "lid": ["urn:nasa:pds:lab_shocked_feldspars:data"], "pds:Modification_Detail.pds:modification_date": ["2019-04-23T00:00:00Z"], "pds:Inventory.pds:field_delimiter": ["Comma"], "ref_lid_instrument": ["urn:nasa:pds:context:instrument:sbu_cpex.ftir", "urn:nasa:pds:context:instrument:sbu_cpex.raman"], "ops:Tracking_Meta.ops:archive_status": ["archived"], "ops:Label_File_Info.ops:md5_checksum": ["014321d63296ad4fdfa283449f55e025"], "pds:File.pds:file_name": ["hvt22.tab"], "vid": ["1.0"], "product_class": ["Product_Collection"], "pds:Time_Coordinates.pds:stop_date_time": ["2018-01-01T00:00:00Z"], "pds:Primary_Result_Summary.pds:processing_level": ["Raw", "Calibrated", "Derived"], "pds:Observing_System_Component.pds:type": ["Laboratory", "Instrument", "Instrument"], "ops:Label_File_Info.ops:file_ref": ["Users/gchen/pds/pds4test.build12.1/testHarvest/harvest70/collection/collection_data_inventory.xml"], "ops:Harvest_Info.ops:harvest_date_time": ["2022-04-24T03:54:36.601258Z"], "pds:Field_Delimited.pds:data_type": ["ASCII_String", "ASCII_LIDVID_LID"], "pds:Record_Delimited.pds:groups": ["0"], "pds:Identification_Area.pds:title": ["Laboratory Shocked Feldspars Data Collection"], "pds:Inventory.pds:parsing_standard_id": ["PDS_DSV_1"], "pds:Observing_System_Component.pds:name": ["Center for Planetary Exploration at Stony Brook University", "Raman Spectrometer", "Nicolet iN10MX FTIR microscope"], "ref_lid_facility": ["urn:nasa:pds:context:facility:laboratory.sbu_cpex"], "pds:Investigation_Area.pds:name": ["Investigation of Laboratory Shocked Feldspars"], "ops:Label_File_Info.ops:creation_date_time": ["2022-04-15T17:54:59Z"], "pds:Inventory.pds:records": ["1049"], "pds:Identification_Area.pds:product_class": ["Product_Collection"], "pds:Citation_Information.pds:author_list": ["Johnson, J. R., Izenberg, N. R."], "description": ["Microspectroscopic Comparison of Experimentally Shocked Albite, Andesine, and Bytownite.", "Initial version of Laboratory Shocked Feldspars data collection.", "P indicates primary member of the collection S indicates secondary member of the collection", "The LID or LIDVID of a product that is a member of the collection."], "pds:Citation_Information.pds:publication_year": ["2019-01-01T00:00:00Z"], "ops:Harvest_Info.ops:node_name": ["PDS_ENG"], "pds:Record_Delimited.pds:fields": ["2"], "title": ["Laboratory Shocked Feldspars Data Collection"], "pds:Collection.pds:collection_type": ["Data"], "_package_id": ["2140cde0-892a-4ced-b37f-8010d4c244e9"], "pds:Field_Delimited.pds:name": ["Member Status", "LIDVID_LID"], "pds:File.pds:creation_date_time": ["2019-04-23T00:00:00Z"], "pds:Field_Delimited.pds:maximum_field_length": ["1", "255"], "pds:Identification_Area.pds:version_id": ["1.0"], "pds:Citation_Information.pds:description": ["Microspectroscopic Comparison of Experimentally Shocked Albite, Andesine, and"]</pre>
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	<pre>Bytownite."], "pds:Primary_Result_Summary.pds:purpose": ["Science"], "pds:Internal_Reference.pds:reference_type": ["collection_to_investigation", "is_facility", "is_instrument", "is_instrument"], "pds:Identification_Area.pds:information_model_version": ["1.11.0.0"], "pds:Internal_Reference.pds:lid_reference": ["urn:nasa:pds:context:investigation:individual.lab_shocked_feldspars", "urn:nasa:pds:context:facility:laboratory.sbu_cpex", "urn:nasa:pds:context:instrument:sbu_cpex.raman", "urn:nasa:pds:context:instrument:sbu_cpex.ftir"], "pds:Field_Delimited.pds:description": ["P indicates primary member of the collection S indicates secondary member of the collection", "The LID or LIDVID of a product that is a member of the collection."], "pds:Citation_Information.pds:editor_list": ["Ward, Jennifer"], "pds:Field_Delimited.pds:field_number": ["1", "2"], "pds:Identification_Area.pds:logical_identifer": ["urn:nasa:pds:lab_shocked_feldspars:data"], "pds:Time_Coordinates.pds:start_date_time": ["2015-01-01T00:00:00Z"], "ref_lid_investigation": ["urn:nasa:pds:context:investigation:individual.lab_shocked_feldspars"], "lidvid": ["urn:nasa:pds:lab_shocked_feldspars:data:1.0"], "pds:Modification_Detail.pds:version_id": ["1.0"], "ops:Label_File_Info.ops:file_size": ["5731"], "pds:Inventory.pds:record_delimiter": ["Carriage-Return Line-Feed"], "pds:Inventory.pds:reference_type": ["inventory_has_member_product"], "ops:Label_File_Info.ops:file_name": ["collection_data_inventory.xml"], "pds:Investigation_Area.pds:type": ["Individual Investigation"]}]]}</pre>
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Test ID	API.15
Issue ID	Pds-api#134
Issue Type	Requirement
Issue Description	As an API user, I want to get a key-value-pair JSON response
Comments	Pass
Test Steps	Query registry-api with response format application/kvp+json Verify the result set has the value “key:value” paire.
Test Result	<p>Response Body with key value pair.</p>  <pre>{ "pds:Citation_Information.pds:description": "Microspectroscopic Comparison of Experimentally Shocked Albite, And", "pds:Collection.pds:collection_type": "Data", "pds:Field_Delimited.pds:name": "[Member Status, LIDVID_LID]", "lid": "urn:nasa:pds:lab_shocked_feldspars:data", "pds:Primary_Result_Summary.pds:purpose": "Science", "pds:Field_Delimited.pds:description": "[P indicates primary member of the collection S indicates secondary memb", "pds:Inventory.pds:parsing_standard_id": "PDS DSV 1", "pds:Record_Delimited.pds:groups": "0", "ref_lid_instrument": "[urn:nasa:pds:context:instrument:sbu_cpex.ftir, urn:nasa:pds:context:instrument:sbu_cpex.", "ops:Harvest_Info.ops:node_name": "PDS_ENG", "pds:Inventory.pds:record_delimiter": "Carriage-Return Line-Feed", "pds:Time_Coordinates.pds:stop_date_time": "2018-01-01T00:00:00Z", "vid": "1.0", "product_class": "Product_Collection", "pds:Inventory.pds:records": "1049", "pds:Citation_Information.pds:author_list": "Johnson, J. R., Izenberg, N. R.", "ops:Label_File_Info.ops:file_ref": "/Users/gchen/pds/pds4test.build12.1/testHarvest/harvest70/collection/collec", "pds:File.pds:creation_date_time": "2019-04-23T00:00:00Z",</pre>

Test ID	API.16
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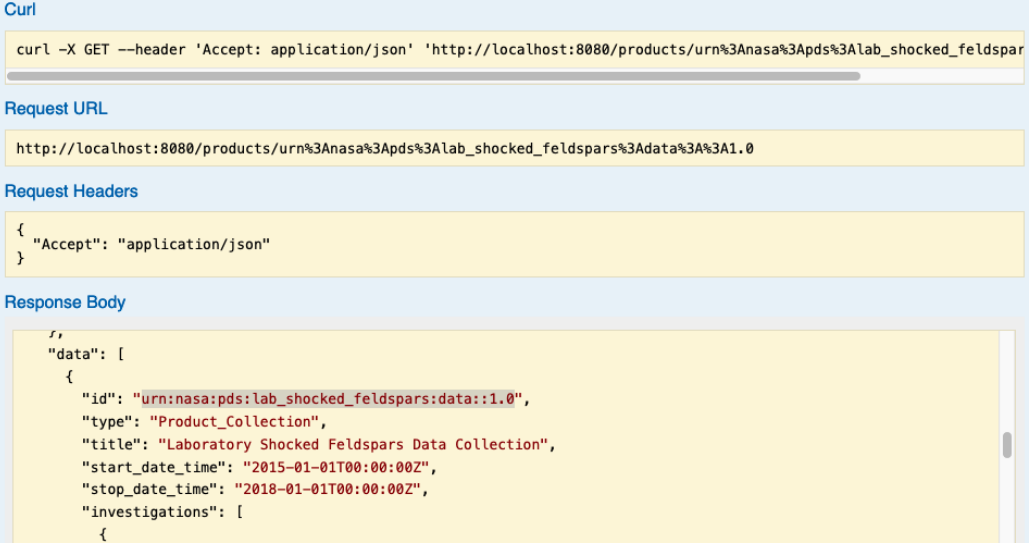
Issue ID	Pds-api#65
Issue Type	Requirement
Issue Description	As an API user, I want to get only the fields I explicitly requested
Comments	Pass
Test Steps	Query the API with fields “pds:Observing_System_Component/pds:name”, pds:Observing_System_Component/pds:type” Verify the result only return this two fields.
Test Result	<p>The API returns a default set of properties:</p> <pre> "properties": ["lidvid", "ops:Label_File_Info/ops:file_ref", "pds:File/pds:creation_date_time", "pds:Modification_Detail/pds:modification_date", "pds:Time_Coordinates/pds:start_date_time", "pds:Time_Coordinates/pds:stop_date_time", "product_class", "ref_lid_instrument", "ref_lid_instrument_host", "ref_lid_investigation", "ref_lid_target", "title", "vid"] </pre> <p>When I populate the fields with pds:Observing_System_Component/pds:name, it only returns the default set plus the field I specified.</p> <pre> "properties": ["lidvid", "ops:Label_File_Info/ops:file_ref", "pds:File/pds:creation_date_time", "pds:Modification_Detail/pds:modification_date", "pds:Observing_System_Component/pds:name", "pds:Time_Coordinates/pds:start_date_time", "pds:Time_Coordinates/pds:stop_date_time", "product_class", "ref_lid_instrument", "ref_lid_instrument_host", "ref_lid_investigation", "ref_lid_target", "title", "vid"] </pre> <pre> "properties": ["lidvid", </pre>

	<pre> "ops:Label_File_Info/ops:file_ref", "pds:File/pds:creation_date_time", "pds:Modification_Detail/pds:modification_date", "pds:Observing_System_Component/pds:name", "pds:Observing_System_Component/pds:type", "pds:Time_Coordinates/pds:start_date_time", "pds:Time_Coordinates/pds:stop_date_time", "product_class", "ref_lid_instrument", "ref_lid_instrument_host", "ref_lid_investigation", "ref_lid_target", "title", "vid"] </pre>
--	---

Test ID	API.17
Issue ID	Pds-api#74
Issue Type	Requirement
Issue Description	As an API user, I want to specify whether I get the latest or all versions of a product
Comments	Pass
Test Steps	<ol style="list-style-type: none"> testing at https://pds-gamma.jpl.nasa.gov/api/swagger-ui.html check API includes latest/all for all endpoints bundle_by_lidvid_all bundle_by_lidvid_latest collections_by_lidvid_all collections_by_lidvid_latest products_by_lidvid_all products_by_lidvid_latest get /bundles/{identifier}/collections/all get /bundles/{identifier}/collections/latest get /collections/{identifier}/products/all get /collections/{identifier}/products/latest

Test Result	<p>Request URL</p> <pre>https://pds-gamma.jpl.nasa.gov/api/bundles/urn%3Anasa%3Aapds%3Aorex.ovirs%3A%3A10.0/collections/all?limit=100&only-summa</pre>
	<p>Request Headers</p> <pre>{ "Accept": "application/json" }</pre>
	<p>Response Body</p> <pre>{ "summary": { "hits": 2, "took": 186, "start": 0, "limit": 100, "sort": [], "properties": [] }, "data": [{ "id": "urn:nasa:pds:orex.ovirs:calibration::5.0", "type": "Product_Collection", "title": "Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS-REX)", "start_date_time": "2016-09-08T00:00:00Z", "stop_date_time": "3000-01-01T00:00:00.000Z", "investigations": [{ "id": "urn:nasa:pds:context:investigation:mission.orex", </pre>
	<p>Collection Last:</p>
	<p>Request URL</p> <pre>https://pds-gamma.jpl.nasa.gov/api/bundles/urn%3Anasa%3Aapds%3Aorex.ovirs/collections/latest?limit=100&only-summary=false</pre>
	<p>Request Headers</p> <pre>{ "Accept": "application/json" }</pre>
	<p>Response Body</p> <pre>{ "summary": { "hits": 2, "took": 23, "start": 0, "limit": 100, "sort": [], "properties": [] }, "data": [{ "id": "urn:nasa:pds:orex.ovirs:calibration::5.0", "type": "Product_Collection", "title": "Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS-REX)", "start_date_time": "2016-09-08T00:00:00Z", "stop_date_time": "3000-01-01T00:00:00.000Z", "investigations": [{ "id": "urn:nasa:pds:context:investigation:mission.orex", </pre>

Test ID	API.18
Issue ID	Pds-api#106

Issue Type	Requirement
Issue Description	As a API manager, I want to restrict access to registered products that should not be publicly accessible
Comments	Pass
Test Steps	<p>Step 1. change product status to staged % registry-manager set-archive-status -status staged -lidvid "urn:nasa:pds:lab_shocked_feldspars:data::1.0"</p> <p>Step 2. Check "urn:nasa:pds:lab_shocked_feldspars:data::1.0" Returns in Swagger UI.</p>
Test Result	<p>Step 1. [INFO] Setting product status. LIDVID = urn:nasa:pds:lab_shocked_feldspars:data::1.0, status = staged [INFO] Setting status of primary references from collection inventory [WARN] Collection urn:nasa:pds:lab_shocked_feldspars:data::1.0 doesn't have primary products.</p> <p>Step 2. Before:</p>  <p>After:</p>

```

Curl
curl -X GET --header 'Accept: application/json' 'http://localhost:8080/products/urn%3Anasa%3Aaps%3A1ab_shocked_feldspar

Request URL
http://localhost:8080/products/urn%3Anasa%3Aaps%3A1ab_shocked_feldspars%3Adata%3A%3A1.0

Request Headers
{
  "Accept": "application/json"
}

Response Body
{
  "request": "/products/urn%3Anasa%3Aaps%3A1ab_shocked_feldspars%3Adata%3A%3A1.0",
  "message": "The lidvid urn:nasa:pds:lab_shocked_feldspars:data was not found"
}
    
```

Test ID	API.19
Issue ID	Pds-api#120
Issue Type	Requirement
Issue Description	As an API user, I want a CSV response format option
Comments	Pass
Test Steps	Query the API with response format as application/csv or text/csv Verify a valid CSV response is turned
Test Results	

Test ID	API.20
Issue ID	Pds-api#110
Issue Type	Enhancement
Issue Description	Extend application/pds4+json support to all endpoints
Comments	Pass
Test Steps	Verify application/pds4+json response format supports all endpoints.
Test Result	Bundle:

GET
request all PDS bundles

Response Class (Status 200)
Successful request

Model | Example Value

```
{}
```

Response Content Type

GET
request PDS collections

Response Class (Status 200)
Successful request

Model | Example Value

```
{}
```

Response Content Type

GET
search across all PDS data products, including bundles, collections, documentation, context and observational products,

Response Class (Status 200)
Successful request

Model | Example Value

```
{}
```

Response Content Type

Test ID	API.21
Issue ID	Pds-api#108
Issue Type	Enhancement
Issue Description	Update API endpoints to use <i>identifier</i> instead of <i>lidvid</i>
Comments	Pass
Test Steps	Pds-gamma swagger UI, verify it displays identifier instead of lidvid

Test Result	Parameters			
	Parameter	Value	Description	Parameter Type Data Type
	identifier	(required)	lidvid or lid	path string

Test ID	API.22
Issue ID	Pds-api#145
Issue Type	Enhancement
Issue Description	Remove the x-total-count header from the API specification
Comments	Pass
Test Step	Verify API specification. https://nasa-pds.github.io/pds-api/specifications/search-v1.0.0-redoc.html
Test Result	x-total-count header is not found in the specification.

PDS-api-client

Test ID	API-CL.1
Issue ID	Pds-api-client#18
Issue Type	Bug
Issue Description	Links to client API details are broken on GitHub site
Comments	Pass
Test Steps	<p>Visit https://nasa-pds.github.io/pds-api-client/quickstart/index.html#request-one-end-point Verify the links are working</p> <div style="border: 1px solid #ccc; padding: 10px; background-color: #f9f9f9;"> <p>There are different API end points:</p> <ul style="list-style-type: none"> • CollectionsApi • BundleApi • ProductApi (for all products) </div>
Test Result	The links have been repaired

Test ID	API-CL.2
Issue ID	Pds-api-client#17
Issue Type	Bug
Issue Description	Import failure for pds.api_client.CollectionsApi using PIP package 0.8.0
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Check document update on https://nasa-pds.github.io/pds-api-client/quickstart/index.html 2. Install pip package, start python 3.8 on Linux ubuntu 20

	<pre>\$ pip3 install pds.api-client \$ python3.8</pre> <p>3. Import the CollectionsApi</p> <pre>>>> from pds.api_client.api.collections_api import CollectionsApi</pre>
<p>Test Result</p>	<p>Step1:</p> <p>For collections for example:</p> <pre>from pds.api_client.api.collections_api import CollectionsApi from pprint import pprint collections = CollectionsApi(api_client) try: api_response = collections.get_collection(start=0, limit=20) pprint(api_response) except ApiException as e: print("Exception when calling CollectionsApi->get_collection: %s\n" % e)</pre> <p>Step 3:</p> <p>no error from import</p>


<p>Test ID</p>	<p>API-CL.3</p>
<p>Issue ID</p>	<p>Pds-api-client#19</p>
<p>Issue Type</p>	<p>Bug</p>
<p>Issue Description</p>	<p>The demo provided on pds-api-client quickstart gives a 500 error</p>
<p>Comments</p>	<p>Pass</p>
<p>Test Step</p>	<pre>Create demo.py as: from __future__ import print_function from pds.api_client.rest import ApiException from pds.api_client import Configuration from pds.api_client import ApiClient configuration = Configuration() configuration.host = 'http://localhost:8080/' # use demo api server api_client = ApiClient(configuration) from pds.api_client.api.collections_api import CollectionsApi from pprint import pprint collections = CollectionsApi(api_client) try: api_response = collections.get_collection(start=0, limit=20) pprint(api_response) except ApiException as e:</pre>

	<pre>print("Exception when calling CollectionsApi->get_collection: %s\n" % e) >>> python3 demo.py</pre>
<p>Test Result</p>	<pre>... 'summary': {'hits': 1, 'limit': 20, 'properties': ['_package_id', 'description', 'lid', 'lidvid', 'ops:Harvest_Info.ops:harvest_date_time', 'ops:Harvest_Info.ops:node_name', 'ops:Label_File_Info.ops:creation_date_time', 'ops:Label_File_Info.ops:file_name', 'ops:Label_File_Info.ops:file_ref', 'ops:Label_File_Info.ops:file_size', 'ops:Label_File_Info.ops:md5_checksum', 'ops:Tracking_Meta.ops:archive_status', 'pds:Citation_Information.pds:author_list', 'pds:Citation_Information.pds:description', 'pds:Citation_Information.pds:editor_list', 'pds:Citation_Information.pds:publication_year', 'pds:Collection.pds:collection_type', 'pds:Field_Delimited.pds:data_type', 'pds:Field_Delimited.pds:description', 'pds:Field_Delimited.pds:field_number', 'pds:Field_Delimited.pds:maximum_field_length', 'pds:Field_Delimited.pds:name', 'pds:File.pds:creation_date_time', 'pds:File.pds:file_name',</pre>

	<pre>'product_class', 'ref_lid_facility', 'ref_lid_instrument', 'ref_lid_investigation', 'title', 'vid'], 'sort': [], 'start': 0, 'took': 49}}</pre>
--	---

PDS registry-app

Test ID	REG-APP.1
Issue ID	pds-registry-app#179
Issue Type	requirement
Issue Description	As a user, I want the registry app components to be able to ingest data sets containing 1+ million products
Comments	Pass
Test Steps	Read updated document for harvest https://github.com/NASA-PDS/registry-harvest-service https://github.com/NASA-PDS/registry-harvest-cli
Test Result	Documents has detail installation and usage sections.

Test ID	REG-APP.2				
Issue ID	pds-registry-app#200				
Issue Type	requirement				
Issue Description	As a user, I want big data ingestion tools packaged and dockerized together				
Comments	Pass				
Test Steps	1. Check the 'registry' documentation manual https://github.com/NASA-PDS/registry/blob/main/docker/README.md				
Test Result	<p> Steps to configure the Scalable Harvest components to be executed with docker compose</p> <ol style="list-style-type: none"> 1. Open the <code>.env</code> file (located in the same directory with the <code>docker.compose.yml</code> file). 2. Check and update (if necessary) the following common environment variable. <table border="1" data-bbox="430 1157 1421 1302"> <thead> <tr> <th>Environment Variable</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>HARVEST_DATA_DIR</td> <td>Absolute path of the Harvest data directory in the host machine (E.g.: <code>/tmp/registry-harvest-data</code>). If the Registry Harvest CLI is executed with the option to download test data, then this directory will be cleaned-up and populated with test data</td> </tr> </tbody> </table> <pre data-bbox="430 1323 1421 1564"> # ----- # Common Configurations # ----- # Absolute path of the Harvest data directory in the host machine (E.g.: <code>./test-data/registry-harvest-data`</code>). # If the Registry Harvest CLI is executed with the option to download test data, then this directory will be # cleaned-up and populated with test data. Make sure to have the same `HARVEST_DATA_DIR` value set in the # environment variables of the Registry Harvest Service, Registry Crawler Service and Registry Harvest CLI. # Also, this `HARVEST_DATA_DIR` location should be accessible from the docker containers of the Registry Harvest Service, # Registry Crawler Service and Registry Harvest CLI. HARVEST_DATA_DIR=./test-data/registry-harvest-data </pre>	Environment Variable	Description	HARVEST_DATA_DIR	Absolute path of the Harvest data directory in the host machine (E.g.: <code>/tmp/registry-harvest-data</code>). If the Registry Harvest CLI is executed with the option to download test data, then this directory will be cleaned-up and populated with test data
Environment Variable	Description				
HARVEST_DATA_DIR	Absolute path of the Harvest data directory in the host machine (E.g.: <code>/tmp/registry-harvest-data</code>). If the Registry Harvest CLI is executed with the option to download test data, then this directory will be cleaned-up and populated with test data				

Test ID	REG-APP.3
Issue ID	pds-registry-app#201
Issue Type	requirement
Issue Description	As a user, I want to be able to ingest a set of files specified in a file listing
Comments	Pass

<p>Test Steps</p>	<p>First, create a manifest file and list all files you want to process. One file path per line. Save it to manifest.txt</p> <pre>/Users/gchen/pds/pds4test.build12.1/testHarvest/registry-app201/collections/collection_data-1.0.xml /Users/gchen/pds/pds4test.build12.1/testHarvest/registry-app201/collections/hvt22.xml</pre> <p>Next, add the following section in Harvest configuration file:</p> <pre><harvest nodeName="PDS_SBN"> ... <files> <manifest>/some-directory/manifest.txt</manifest> </files> ... </harvest></pre> <p>Save it as 201cfg.xml Step 3. Run harvest harvest -c 201cfg.xml</p>
<p>Test Results</p>	<p>Step 3. [SUMMARY] Reading configuration from /Users/gchen/pds/pds4test.build12.1/testHarvest/registry-app201/201cfg.xml [WARN] XML BLOB storage is disabled (see <fileInfo storeLabels="false"> configuration). Not all Registry features will be available. [WARN] JSON BLOB storage is disabled (see <fileInfo storeJsonLabels="false"> configuration). Not all Registry features will be available. [SUMMARY] Output directory: /tmp/harvest/out [SUMMARY] Elasticsearch URL: http://localhost:9200, index: registry [INFO] Connecting to Elasticsearch ... [INFO] Wrote 1 product(s) [SUMMARY] Summary: [SUMMARY] Skipped files: 1 [SUMMARY] Loaded files: 1 [SUMMARY] Product_Ancillary: 1 [SUMMARY] Failed files: 0 [SUMMARY] Package ID: d4affd93-2b6a-4a6b-bddc-ec0bb5aff9c0</p>

Test ID	REG-APP.4
Issue ID	pds-registry-app #223
Issue Type	requirement
Issue Description	As a user, I want to change the archive status for a collection and it's associated products
Comments	Pass
Test Steps	Same as pds-registry-app#224

Test Results	"ops:Tracking_Meta.ops:archive_status": ["archived"],
--------------	---

Test ID	REG-APP.5
Issue ID	pds-registry-app#224
Issue Type	requirement
Issue Description	As a user, I want to switch a bundle and it's associated collections and products from a protected status to operational.
Comments	Pass
Test Steps	Update local Registry / Elasticsearch (http://localhost:9200), no authentication. Registry-manager set-archive-status \ -status archived -lidvid " urn:nasa:pds:lab_shocked_feldspars:data::1.0" Query API and check for response.
Test Result	[INFO] Setting product status. LIDVID = urn:nasa:pds:lab_shocked_feldspars:data::1.0, status = archived [INFO] Setting status of primary references from collection inventory [WARN] Collection urn:nasa:pds:lab_shocked_feldspars:data::1.0 doesn't have primary products. Json Response: "ops:Tracking_Meta.ops:archive_status": ["archived"],

Test ID	REG-APP.6
Issue ID	pds-registry-app#187
Issue Type	requirement
Issue Description	As a developer, I want to be able to access the registry related docker images from https://hub.docker.com/
Comments	Pass
Test Steps	Clone each of the following image from github: <input type="checkbox"/> batch loader (https://github.com/NASA-PDS/registry-loader/tree/main/docker) <input type="checkbox"/> crawler service (https://github.com/NASA-PDS/registry-crawler-service/tree/main/docker) <input type="checkbox"/> harvest service (https://github.com/NASA-PDS/registry-harvest-service/tree/main/docker) <input type="checkbox"/> harvest service cli (https://github.com/NASA-PDS/registry-harvest-cli/tree/main/docker)

	<input type="checkbox"/> api (https://github.com/NASA-PDS/registry-api/tree/main/service/docker) Follow readme to start each docker image, verify each image is accessible.
Test Result	Was able to access all docker images.

Test ID	REG-APP.7
Issue ID	pds-registry-app#208
Issue Type	requirement
Issue Description	As a developer I want to start the registry with a single command
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. clone the repository https://github.com/NASA-PDS/registry.git 2. cd docker 3. docker compose -profile=pds-core-registry up -d <p>Should be able to launch registry-api http://localhost:8080/swagger-ui.html#!/</p>
Test Result	docker image started with one command. able to access registry api http://localhost:8080/swagger-ui.html#!/ with reloaded data

Test ID	REG-APP.8
Issue ID	pds-registry-app#220
Issue Type	Bug
Issue Description	harvest flags as mandatory a config elements the docs describe as optional
Comments	Pass
Test Steps	If the cfg file doesn't include the <registry> field, harvest should still pass. Check documentation for update: https://nasa-pds.github.io/pds-registry-app/operate/harvest.html
Test Results	Document updated: Registry Integration Harvest requires PDS Registry (Elasticsearch) to get LDD (schema) information and to find out if a product is already registered. <pre> <harvest nodeName="PDS_SBN"> ... <registry url="http://localhost:9200" index="registry" auth="/path/to/auth.cfg" /> ... </harvest> </pre>

Test ID	REG-APP.9
Issue ID	pds-registry-app#205
Issue Type	Bug
Issue Description	Harvest network I/O errors can cause corrupted JSON
Comments	Pass
Test Step	<input type="checkbox"/> Create a directory for test data files, e.g., /tmp/test,

	<ul style="list-style-type: none"> ❑ Copy few valid PDS labels to this folder. You may also need to copy corresponding data files or disable data file processing in harvest config file. ❑ create an invalid XML file in the same directory, for example, x.xml with some invalid content like, kdffkdjfd;dkflkf. ❑ Run Harvest to process files from your test folder. harvest -c /my/test/harvest-cfg.xml ● Check JSON files in harvest output directory, such as /tmp/harvest/out (default). Make sure they are not corrupted (cut off in the middle of a field name or value.) ● NOTE: Output JSON files are NJSON files (new line terminated JSON). Each line contains its own JSON.
<p>Test Result</p>	<pre> gchen@johns-macbook-pro harvest67 % harvest -c hvt62_cfg.xml [SUMMARY] Output directory: /tmp/harvest/out [SUMMARY] Output format: json [SUMMARY] Reading configuration from /Users/gchen/pds/system-i-n-t/11/harvest67/hvt62_cfg.xml [WARN] XML BLOB storage is disabled (see <fileInfo storeLabels="false"> configuration). Not all Registry features will be available. [WARN] JSON BLOB storage is disabled (see <fileInfo storeJsonLabels="false"> configuration). Not all Registry features will be available. [SUMMARY] Elasticsearch URL: http://localhost:9200, index: registry Dec 21, 2021 10:22:04 PM org.elasticsearch.client.RestClient logResponse WARNING: request [GET http://localhost:9200/registry/_mappings] returned 1 warnings: [299 Elasticsearch-7.15.0-79d65f6e357953a5b3cbcc5e2c7c21073d89aa29 "Elasticsearch built-in security features are not enabled. Without authentication, your cluster could be accessible to anyone. See https://www.elastic.co/guide/en/elasticsearch/reference/7.15/security-minimal-setup.html to enable security."] [INFO] Processing directory: /Users/gchen/pds/system-i-n-t/11/harvest67 [INFO] Processing /Users/gchen/pds/system-i-n-t/11/harvest67/hvt22.xml [INFO] Processing /Users/gchen/pds/system-i-n-t/11/harvest67/collection_data-1.0.xml [ERROR] Could not parse file /Users/gchen/pds/system-i-n-t/11/harvest67/hvt63.xml. Content is not allowed in prolog. (line = 1, column = 1). </pre>

Test ID	REG-APP.10
Issue ID	pds-registry-app#186
Issue Type	requirement
Issue Description	As a developer, I want to deploy the registry with a single docker-compose command
Comments	Pass
Test Steps	Test with pds-registry-app#257

Test ID	REG-APP.11
Issue ID	pds-registry-app#257
Issue Type	Enhancement
Issue Description	Simple wrappers to call the pds-batch-loader and pds-service-loader docker compose services
Comments	Pass
Test Step	<ol style="list-style-type: none"> 1. docker compose --profile=pds-core-registry up -d 2. docker compose --profile=pds-batch-loader up 3. ./pds-batch-loader.sh default-config/harvest-job-config.xml 4. ./pds-service-loader.sh default-config/harvest-job-config.xml <p>In docker directory</p>
Test Result	<p>Step3</p> <p>Elasticsearch URL: https://elasticsearch:9200</p> <p>Creating index...</p> <p>Index: registry</p> <p>Schema: /opt/harvest/elastic/registry.json</p> <p>Shards: 1</p> <p>Replicas: 0</p> <p>[ERROR] unable to find valid certification path to requested target</p> <p>Harvesting data based on the configuration file: /cfg/harvest-config.xml ...</p> <p>[SUMMARY] Output directory: /tmp/harvest/out</p> <p>[SUMMARY] Output format: json</p> <p>[SUMMARY] Reading configuration from /cfg/harvest-config.xml</p> <p>[SUMMARY] Elasticsearch URL: https://elasticsearch:9200, index: registry</p> <p>[INFO] Processing directory: /data</p> <p>[INFO] Processing /data/test-data/bundle_insight_rad.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/collection_data_rad_calibrated.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/hp3_rad_cal_00014_20181211_073042.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/hp3_rad_cal_00122_20190401_123217.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/hp3_rad_cal_00213_20190703_052044.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/hp3_rad_cal_00305_20191006_053040.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/hp3_rad_cal_00390_20200101_120222.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/hp3_rad_cal_00478_20200401_121608.xml</p> <p>[INFO] Processing /data/test-data/data_calibrated/hp3_rad_cal_00567_20200701_125545.xml</p> <p>[INFO] Processing /data/test-data/data_derived/collection_data_rad_derived.xml</p>

	<pre> [INFO] Processing /data/test- data/data_derived/hp3_rad_der_00014_20181211_073042.xml [INFO] Processing /data/test- data/data_derived/hp3_rad_der_00122_20190401_123217.xml [INFO] Processing /data/test- data/data_derived/hp3_rad_der_00213_20190703_052044.xml [INFO] Processing /data/test- data/data_derived/hp3_rad_der_00305_20191006_053040.xml [INFO] Processing /data/test- data/data_derived/hp3_rad_der_00390_20200101_120222.xml [INFO] Processing /data/test- data/data_derived/hp3_rad_der_00478_20200401_121608.xml [INFO] Processing /data/test- data/data_derived/hp3_rad_der_00567_20200701_125545.xml [INFO] Processing /data/test-data/data_raw/collection_data_rad_raw.xml [INFO] Processing /data/test- data/data_raw/hp3_rad_raw_00004_20181130_085325.xml [INFO] Processing /data/test- data/data_raw/hp3_rad_raw_00122_20190401_123217.xml [INFO] Processing /data/test- data/data_raw/hp3_rad_raw_00213_20190703_051705.xml [INFO] Processing /data/test- data/data_raw/hp3_rad_raw_00305_20191006_053040.xml [INFO] Processing /data/test- data/data_raw/hp3_rad_raw_00390_20200101_120222.xml [INFO] Processing /data/test- data/data_raw/hp3_rad_raw_00478_20200401_121608.xml [INFO] Processing /data/test- data/data_raw/hp3_rad_raw_00567_20200701_125545.xml [SUMMARY] Summary: [SUMMARY] Skipped files: 0 [SUMMARY] Processed files: 25 [SUMMARY] File counts by type: [SUMMARY] Product_Bundle: 1 [SUMMARY] Product_Collection: 3 [SUMMARY] Product_Observational: 21 [SUMMARY] Package ID: 2d860a68-702d-435e-b9a0-d704f02bd48e Loading harvested data into Elasticsearch ... [INFO] Registry URL: https://elasticsearch:9200 [INFO] Registry index: registry [INFO] Loading PDS to ES data type mapping from /opt/harvest/elastic/data-dic-types.cfg [INFO] Updating LDDs from /tmp/harvest/out/missing_xsds.txt [INFO] Updating 'insight' LDD. Schema location: https://pds.nasa.gov/pds4/mission/insight/v1/PDS4_INSIGHT_1A10_1830.xsd Step 4. [INFO] Reading job from /cfg/harvest-job-config.xml [INFO] Reading configuration from /cfg/harvest- client.cfg [INFO] Creating new job... [INFO] Connecting to RabbitMQ [ERROR] rabbit-mq: Name or service not known </pre>
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pds-wds-react

Test ID	WDS.1
Issue ID	pds-wds-react#5
Issue Type	bug
Issue Description	Some findable product do not have links in the search results
Comments	Pass
Test Steps	Verify pds-wds-react search results has links like doi-ui Check on https://pds.nasa.gov/tools/doi/#/search/insight*

Test Result	<p>All return results have link.</p> <p>23 results found</p> <table border="1"> <thead> <tr> <th>DOI</th> <th>Identifier</th> </tr> </thead> <tbody> <tr> <td>10.17189/1510484</td> <td>urn:nasa:pds:insight_cameras::1.0</td> </tr> <tr> <td>10.17189/1510485</td> <td>urn:nasa:pds:insight_cameras:browse::1.0</td> </tr> <tr> <td>10.17189/1510487</td> <td>urn:nasa:pds:insight_cameras:data::1.0</td> </tr> <tr> <td>10.17189/1510488</td> <td>urn:nasa:pds:insight_cameras:document::1.0</td> </tr> <tr> <td>10.17189/1510489</td> <td>urn:nasa:pds:insight_cameras:miscellaneous::1.0</td> </tr> <tr> <td>10.17189/1510490</td> <td>urn:nasa:pds:insight_cameras:xml_schema::1.0</td> </tr> <tr> <td>10.17189/1510486</td> <td>urn:nasa:pds:insight_cameras:calibration::1.0</td> </tr> <tr> <td>10.17189/1517566</td> <td>urn:nasa:pds:insight_documents::2.0</td> </tr> <tr> <td>10.17189/1517567</td> <td>urn:nasa:pds:insight_ida::1.0</td> </tr> <tr> <td>10.17189/1517568</td> <td>urn:nasa:pds:insight_rad::2.1</td> </tr> <tr> <td>10.17189/1517569</td> <td>urn:nasa:pds:insight_rise_raw::2.0</td> </tr> <tr> <td>10.17189/1517570</td> <td>urn:nasa:pds:insight_seis::3.0</td> </tr> </tbody> </table>	DOI	Identifier	10.17189/1510484	urn:nasa:pds:insight_cameras::1.0	10.17189/1510485	urn:nasa:pds:insight_cameras:browse::1.0	10.17189/1510487	urn:nasa:pds:insight_cameras:data::1.0	10.17189/1510488	urn:nasa:pds:insight_cameras:document::1.0	10.17189/1510489	urn:nasa:pds:insight_cameras:miscellaneous::1.0	10.17189/1510490	urn:nasa:pds:insight_cameras:xml_schema::1.0	10.17189/1510486	urn:nasa:pds:insight_cameras:calibration::1.0	10.17189/1517566	urn:nasa:pds:insight_documents::2.0	10.17189/1517567	urn:nasa:pds:insight_ida::1.0	10.17189/1517568	urn:nasa:pds:insight_rad::2.1	10.17189/1517569	urn:nasa:pds:insight_rise_raw::2.0	10.17189/1517570	urn:nasa:pds:insight_seis::3.0
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Test ID	WDS.2
Issue ID	pds-wds-react#9
Issue Type	requirement
Issue Description	As a developer, I want to update the DOIsearch component backend url in an attribute.
Comments	Pass
Test Steps	<p>Step 1. Check https://github.com/nasa-pds/pds-wds-react#usage</p> <p>Step 2. Check page source of https://pds-gamma.jpl.nasa.gov/tools/doi/#/search/</p>
Test Results	<p>Step 1.</p> <p>Then include the component in your react render code:</p> <pre><DoiSearch api="{api}" ... /></pre> <p>Parameters:</p> <ul style="list-style-type: none"> api The endpoint to the search API. By default this is pointing to http://localhost:8085/PDS_APIs/pds_doi_api/0.2/ <p>Step 2.</p> <pre><div style="height:100vh;margin-right:70px;"></pre>

	<pre> <div id="DoiSearch" data- api="/api/doi/0.2/"></div> <script src="pds-wds/index.js"></script> </div> </pre>
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Test ID	WDS.3																																																																																				
Issue ID	pds-wds-react#10																																																																																				
Issue Type	task																																																																																				
Issue Description	DOI Search updates per testing																																																																																				
Comments	Pass																																																																																				
Test Steps	<p>Verify pds-wds-react search:</p> <p>Hover/clickable info icon next to status indicating what the various status-es mean.</p> <p>Add margin to right of table – status column gets covered a bit by the feedback widget.</p> <p>Only rows with Status = Findable should have links – Registered/Draft means they are not online</p> <p>Change page title from “PDS: Tools” to “PDS: DOI Search”</p> <p>searches need to be case insensitive</p> <p>https://pds-gamma.jpl.nasa.gov/tools/doi/#/search/urn:nasa:\pds:insight_cameras:data:c000m0000_596533559edr_f0000_0106m</p>																																																																																				
Test Results	<p>Test Results matches expectations.</p> <p>507 results found</p> <table border="1"> <thead> <tr> <th>DOI</th> <th>Identifier</th> <th>Title</th> <th>Status</th> </tr> </thead> <tbody> <tr><td>10.17189/20151</td><td>urn:nasa:pds:insight_cameras:1.0</td><td>InSight Cameras Bundle</td><td>Findable</td></tr> <tr><td>10.17189/19944</td><td>urn:nasa:pds:insight_cameras:1.0</td><td>InSight Cameras Bundle</td><td>Findable</td></tr> <tr><td>10.17189/19943</td><td>urn:nasa:pds:insight_cameras:1.0</td><td>InSight Cameras Bundle</td><td>Findable</td></tr> <tr><td>10.17189/19915</td><td>urn:nasa:pds:insight_cameras.document:1.0</td><td>Collection of document products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products</td><td>Findable</td></tr> <tr><td>10.17189/19916</td><td>urn:nasa:pds:insight_cameras.calibration:1.0</td><td>Collection of calibration products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) 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Test ID	WDS.4
Issue ID	pds-wds-react#12
Issue Type	requirement

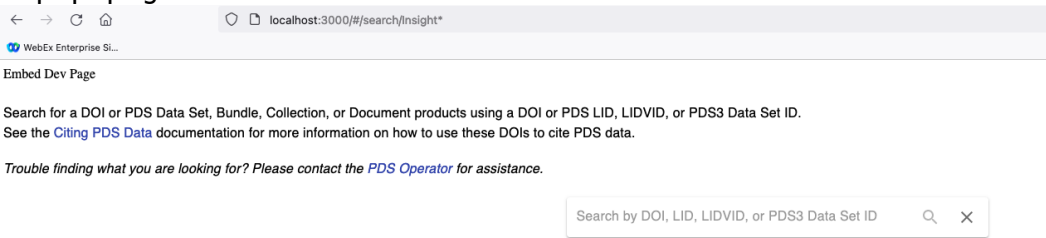
Issue Description	As a DOI Search user, I want to be able to find a parent data set DOI from a product identifier																
Comments	Pass																
Test Step	Step 1. search with a product LIDVID (e.g. urn:nasa:pds:insight_cameras:data:\d01410122_607341680rus_g0103_0100m::8.0) https://pds-gamma.jpl.nasa.gov/tools/doi/#/search/urn:nasa:pds:insight_cameras:data:c000m0000_596533559edr_f0000_0106m																
Test Result	<table border="1"> <thead> <tr> <th colspan="4">Parent Data Set DOI(s)</th> </tr> <tr> <th>DOI</th> <th>Identifier</th> <th>Title</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>10.17189/19918</td> <td>urn:nasa:pds:insight_cameras:data:1.0</td> <td>Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products</td> <td>Findable</td> </tr> <tr> <td>10.17189/26343</td> <td>urn:nasa:pds:insight_cameras:data:1.0</td> <td>Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products</td> <td>Findable</td> </tr> </tbody> </table>	Parent Data Set DOI(s)				DOI	Identifier	Title	Status	10.17189/19918	urn:nasa:pds:insight_cameras:data:1.0	Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products	Findable	10.17189/26343	urn:nasa:pds:insight_cameras:data:1.0	Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products	Findable
Parent Data Set DOI(s)																	
DOI	Identifier	Title	Status														
10.17189/19918	urn:nasa:pds:insight_cameras:data:1.0	Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products	Findable														
10.17189/26343	urn:nasa:pds:insight_cameras:data:1.0	Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products	Findable														

Test ID	WDS.5												
Issue ID	pds-wds-react#14												
Issue Type	requirement												
Issue Description	As a PDS.nasa.gov user, I want to search for the DOI for a PDS4 data product from a public facing website (pds.nasa.gov)												
Comments	Pass												
Test Step	search pds.nasa.gov with the bundle LID verify DOI is return from the interface https://pds.nasa.gov/tools/doi/#/search/urn:nasa:pds:insight_cameras:data												
Test Result	<table border="1"> <thead> <tr> <th colspan="4">1 result found</th> </tr> <tr> <th>DOI</th> <th>Identifier</th> <th>Title</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>10.17189/1510487</td> <td>urn:nasa:pds:insight_cameras:data:1.0</td> <td>Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products</td> <td>Findable</td> </tr> </tbody> </table>	1 result found				DOI	Identifier	Title	Status	10.17189/1510487	urn:nasa:pds:insight_cameras:data:1.0	Collection of data products: PDS4 InSight Cameras Experiment Data Record (EDR) and Reduced Data Record (RDR) Data Products	Findable
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Test ID	WDS.6
Issue ID	pds-wds-react#8
Issue Type	Enhancement
Issue Description	Create a NPM package
Comments	Pass
Test Steps	Follow Installation steps in https://github.com/NASA-PDS/pds-wds-react
Test Results	Test with pds-wds-react#8

Test ID	WDS.7
Issue ID	pds-wds-react#15
Issue Type	Enhancement
Issue Description	Improve Search UI Behavior for DOI Search Widget
Comments	Pass
Test Steps	On the DOI Search page:

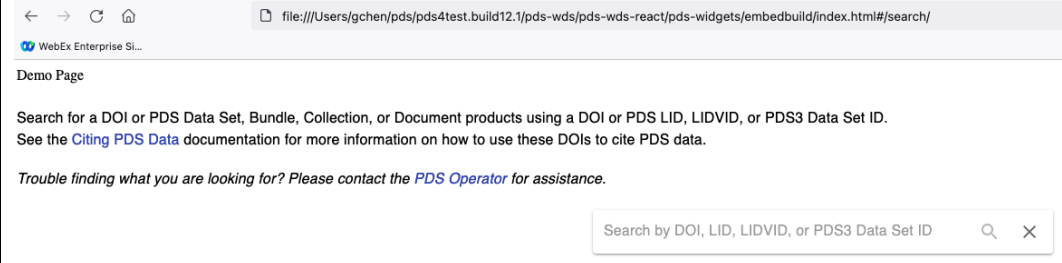
	<ol style="list-style-type: none"> click on the X button on the search box. Type in a LIDVID in the search box.
Test Result	<ol style="list-style-type: none"> Clicking on the X button removes the search string and the previous search result. Page doesn't display the result until the user press "Enter" key

Test ID	WDS.8
Issue ID	pds-wds-react#4
Issue Type	Enhancement
Issue Description	Add Search DOI Component
Comments	Pass
Test Steps	<ol style="list-style-type: none"> git clone https://github.com/NASA-PDS/pds-wds-react.git cd pds-wds-react npm run embeddev
Test Results	<p>Compiled successfully!</p> <p>You can now view <code>@nasapds/pds-wds-react</code> in the browser.</p> <p>Local: <code>http://localhost:3000/</code> On Your Network: <code>http://192.168.68.118:3000/</code></p> <p>Note that the development build is not optimized. To create a production build, use <code>npm run build</code>.</p> <p>Popup page on browser:</p> 

Test ID	WDS.9
Issue ID	pds-wds-react#18
Issue Type	Enhancement
Issue Description	Create PDS React Component Library Process For NPM Packages
Comments	Pass
Test Steps	Test with pds-wds-react#8

Test ID	WDS.10
Issue ID	pds-wds-react#30

Issue Type	Enhancement
Issue Description	Update NPM Package Documentation
Comments	Pass
Test Steps	Verify https://github.com/NASA-PDS/pds-wds-react/README has correct installation information
Test Results	Test with pds-wds-react#8

Test ID	WDS.11
Issue ID	pds-wds-react#19
Issue Type	Enhancement
Issue Description	Create javascript library for website integration
Comments	Pass
Test Steps	In your project create a directory for example: pds-widgets/ Drop the contents of the /embedbuild directory into the newly created directory. Add a div with the ID of the component set as DoiSearch. <code><div id="DoiSearch"></div></code> Link the library into your project HTML using the script tag. Change the directory to the one that you created. <code><script src="pds-widgets/index.js"></script></code> Parameters data-api Point this to your doi api. It is set to localhost 8080 by default.
Test Result	

PLAID

Test ID	PLAID.1
Issue ID	PLAID#32
Issue Type	bug
Issue Description	Base image used by APPS PLAID is not supported
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. git clone https://github.com/NASA-PDS/PLAID.git 2. cd PLAID 3. docker image build --tag plaid --file docker/Dockerfile . 4. docker scan -login 5. docker scan plaid
Test Results	Step 3. [+] Building 76.5s (18/18) FINISHED

```

=> [internal] load build definition from Dockerfile
0.0s
=> => transferring dockerfile: 2.60kB
0.0s
=> [internal] load .dockerignore
0.0s
=> => transferring context: 133B
0.0s
=> [internal] load metadata for docker.io/library/php:7.4.27-apache-
bullseye
5.0s
=> [internal] load build context
2.3s
=> => transferring context: 72.25MB
2.3s
""
=> [ 2/13] RUN : && mv "/usr/local/etc/php/php.ini-production"
"/usr/local/etc/php/php.ini" && apt-get update --quiet && apt-get
install --quiet --yes ssmtp && docker-php-ext-install mysqli pdo pdo_
28.1s
=> [ 3/13] COPY config/          config/
0.2s
=> [ 4/13] COPY css/            css/
0.0s
=> [ 5/13] COPY js/            js/
0.0s
=> [ 6/13] COPY php/           php/
0.0s
=> [ 7/13] COPY thirdparty/    thirdparty/
0.0s
=> [ 8/13] COPY workspace/     workspace/
0.0s
=> [ 9/13] COPY documentation/ documentation/
0.1s
=> [10/13] COPY resources/plaid_guide.pdf resources/plaid_guide.pdf
0.0s
=> [11/13] COPY resources/plaid_dump.sql resources/plaid_dump.sql
0.0s
=> [12/13] COPY *.php *.html .
0.0s
=> [13/13] COPY docker/docker-entrypoint.sh /usr/local/bin
0.0s
=> exporting to image
0.5s
=> => exporting layers
0.5s
=> => writing image
sha256:ec09117efa75c3f91d536af2ee58dae85a7092557a2da58356770ab57de7fcd4
0.0s
=> => naming to docker.io/library/plaid
Step 5.
Php is upgraded to php:7.4-apache-bullseye
No vulnerability found for php 7.4

```

Test ID	PLAID.2
Issue ID	PLAID#30
Issue Type	Requirement
Issue Description	Revise Docker and deployment docs for open-source access
Comments	Pass
Test Steps	Validate document for spinning up docker containers for dev and ops.
Test Result	README

Quick Start

To get going quickly, run:

```
$ docker image build --tag plaid --file docker/Dockerfile .
$ env PLAID_IMAGE_OWNER= PLAID_VERSION=latest PLAID_PORT=8080 SMTP_HOST=smtp.jpl.nasa.gov \
  docker compose --file docker/docker-compose.yaml up
```

where `$` is the command prompt.

Then, visit <http://localhost:8080/> with a browser.

For a full set of instructions, see the [development notes](#) or the [production instructions](#).

Production.me

Deploying APPS PLAID to Production

To deploy APPS PLAID to production, follow the instructions below.

1. Log into the host that runs the production instance.
2. Assume the identity of the production process user.
3. Change into the directory that contains the `docker-compose.yaml` file for APPS PLAID. If this file doesn't yet exist, [fetch it from GitHub](#).
4. Stop any existing composition with `docker compose down`.
5. Pull updated images with `docker compose pull`.
6. Start the composition back up with `docker compose up --detach`.

You may also wish to double-check that the crontab of the production process user includes a `@reboot` entry that also runs `docker compose up --detach` in the correct directory (or uses `--file` to give the full path to the `docker-compose.yaml` file).

If the front-end system administrators have not yet configured the HTTP reverse-proxy for APPS PLAID, inform them to set it up for port 7166.

No further configuration is necessary. Honest 😊.

Test ID	PLAID.3
Issue ID	Portal-tasks#16
Issue Type	Enhancement
Issue Description	Document processes for deploying PLAID
Comments	Pass
Test Steps	Same test as PLAID#30

Portal-tasks


Test ID	PORTAL.1
Issue ID	Portal-tasks #10
Issue Type	bug
Issue Description	DD Search and Tool Registry not working on pdscloud-gamma
Comments	Pass
Test Steps	Check DD Search and Tool Registry @ https://pds-gamma.jpl.nasa.gov/ DD search

	<p>https://pds-gamma.jpl.nasa.gov/tools/dd-search/ Tool Registry https://pds-gamma.jpl.nasa.gov/tools/tool-registry/</p>																
<p>Test Results</p>	<p>Tool Registry” Tool Registry This interface enables search and discovery of tools, services, and APIs for working with data following the PDS standards. Tools have been submitted from the broad PDS community and multiple institutions, including those from members of the International Planetary Data Alliance (IPDA). This interface allows the user to search for and discover these tools. The interface also allows tool providers to submit their software for inclusion in the registry.</p> <p>Search for Tools Submit a Tool</p> <hr/> <p>Browse or search the PDS tool registry. Select a tool below to view the details.</p> <p>Search insig</p> <p>Category: <input checked="" type="radio"/> All <input type="radio"/> Design <input type="radio"/> Planning <input type="radio"/> Validation <input type="radio"/> Analysis <input type="radio"/> Dissemination <input type="radio"/> Search <input type="radio"/> Visualization <input type="radio"/> Reader <input type="radio"/> Generation <input type="radio"/> Transformation</p> <p>Interface Type: <input checked="" type="radio"/> All <input type="radio"/> GUI <input type="radio"/> Service <input type="radio"/> PDS3 <input type="radio"/> PDS4</p> <p>Support: <input checked="" type="radio"/> Both</p> <hr/> <p>Tools</p> <p>Displaying 1 to 3 of 3 results.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>PDS Version</th> </tr> </thead> <tbody> <tr> <td>Mars InSight Analyst's Notebook <small>Search or browse for data and science information from the Mars InSight Lander.</small></td> <td>PDS3</td> </tr> <tr> <td>Mars InSight Analyst's Notebook <small>Search or browse for data and science information from the Mars InSight Lander.</small></td> <td>PDS4</td> </tr> <tr> <td>Marsviewer <small>The Mars Image Viewer (Marsviewer) is an image viewing tool tailored to Mars in-situ missions.</small></td> <td>PDS3</td> </tr> </tbody> </table> <p>DD Search: Data Dictionary Search This interface enables search and discovery of the attributes and classes that make up the PDS information model. It supports both PDS3 (keywords and objects from the ODL-based labels) and PDS4 (attributes and classes from the XML-based labels).</p> <p>Browse or search the PDS data dictionary. Select an item to view the details.</p> <p>Search inst_cmd_cal</p> <p><input checked="" type="radio"/> Ascending Alphabetical Order <input type="radio"/> Descending Alphabetical Order <input checked="" type="radio"/> Attribute <input type="radio"/> Class <input checked="" type="radio"/> Both <input type="radio"/> PDS3 <input type="radio"/> PDS4</p> <hr/> <p>Displaying 1 to 3 of 3 results.</p> <table border="1"> <thead> <tr> <th>Attribute Name</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>inst_cmd_cal_co_add</td> <td>The INST_CMD_CAL_CO_ADD element gives the commanded value of the number of calibration observations to be averaged together for a calibration product.</td> </tr> <tr> <td>inst_cmd_cal_dwell</td> <td>The INST_CMD_CAL_DWELL element gives the commanded value of the number of scans to collect during a calibration observation.</td> </tr> <tr> <td>inst_cmd_cal_frequency</td> <td>The INST_CMD_CAL_FREQUENCY element gives the commanded value of the minimum number of scans that have to expire from the end of the last internal calibration look before a new set of calibration looks are taken.</td> </tr> </tbody> </table>	Name	PDS Version	Mars InSight Analyst's Notebook <small>Search or browse for data and science information from the Mars InSight Lander.</small>	PDS3	Mars InSight Analyst's Notebook <small>Search or browse for data and science information from the Mars InSight Lander.</small>	PDS4	Marsviewer <small>The Mars Image Viewer (Marsviewer) is an image viewing tool tailored to Mars in-situ missions.</small>	PDS3	Attribute Name	Description	inst_cmd_cal_co_add	The INST_CMD_CAL_CO_ADD element gives the commanded value of the number of calibration observations to be averaged together for a calibration product.	inst_cmd_cal_dwell	The INST_CMD_CAL_DWELL element gives the commanded value of the number of scans to collect during a calibration observation.	inst_cmd_cal_frequency	The INST_CMD_CAL_FREQUENCY element gives the commanded value of the minimum number of scans that have to expire from the end of the last internal calibration look before a new set of calibration looks are taken.
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Test ID	PORTAL.2
Issue ID	Portal-tasks #6
Issue Type	bug
Issue Description	links not working on data dictionary pages
Comments	Pass
Test Steps	Check data dictionary links in https://pds.nasa.gov/datastandards/dictionaries/index-1.17.0.0.shtml#ml
Test Result	All links work as expected.

Test ID	PORTAL.3
Issue ID	Portal-tasks #19
Issue Type	bug
Issue Description	viewBundle not working properly for DOI search logic

Comments	Pass																				
Test Steps	<p>Searching</p> <p>https://pds.nasa.gov/tools/doi/#/search/urn:nasa:pds:insight_cameras::1.0</p> <p>Verify that it returns the same result as https://pds.nasa.gov/ds-view/pds/viewBundle.jsp?identifier=urn:nasa:pds:insight_cameras&version=1.0</p> <p>When clicking on the DOI number</p>																				
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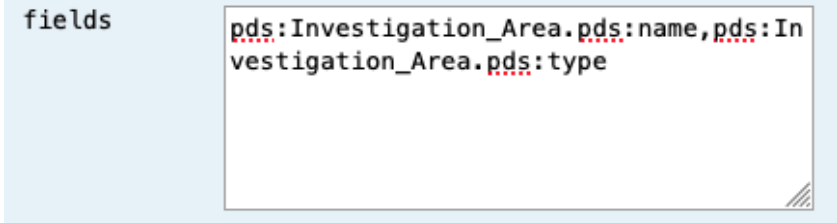
Test ID	PORTAL.4
Issue ID	Portal-tasks #3
Issue Type	Enhancement
Issue Description	improvement on citing page
Comments	Pass
Test Steps	Check https://pds-gamma.jpl.nasa.gov/datastandards/citing/
Test Result	<p>Before:</p> <ol style="list-style-type: none"> Find the logical identifier within each product, for instance, the logical identifier (LID) from this InSight Camera's product label (<i>C000M0300_623161840EDR_F0000_0461M2.xml</i>): <pre><Identification_Area> <logical_identifier/>urn:nasa:pds:insight_cameras:data:c000m0300_623161840edr_f0000_0461m</logical_identifier> <version_id>2.0</version_id> <title>InSight ICC EDR Observational Product - c000m0300_623161840edr_f0000_0461m</title> <information_model_version>1.11.1.0</information_model_version> <product_class>Product_Observational</product_class></pre> <p>After:</p> <ol style="list-style-type: none"> Find the logical identifier within each product, for instance, the logical identifier (LID) from this InSight Camera's product label  (<i>C000M0300_623161840EDR_F0000_0461M2.xml</i>) (Note: Value has been shortened from actual): <pre><Identification_Area> <logical_identifier/>u:n:p:ic:d:c000m0300_623161840edr_f0000_0461m</logical_identifier> <version_id>2.0</version_id> <title>InSight ICC EDR Observational Product</title> <information_model_version>1.11.1.0</information_model_version> <product_class>Product_Observational</product_class></pre>

registry-api/ registry-api-service

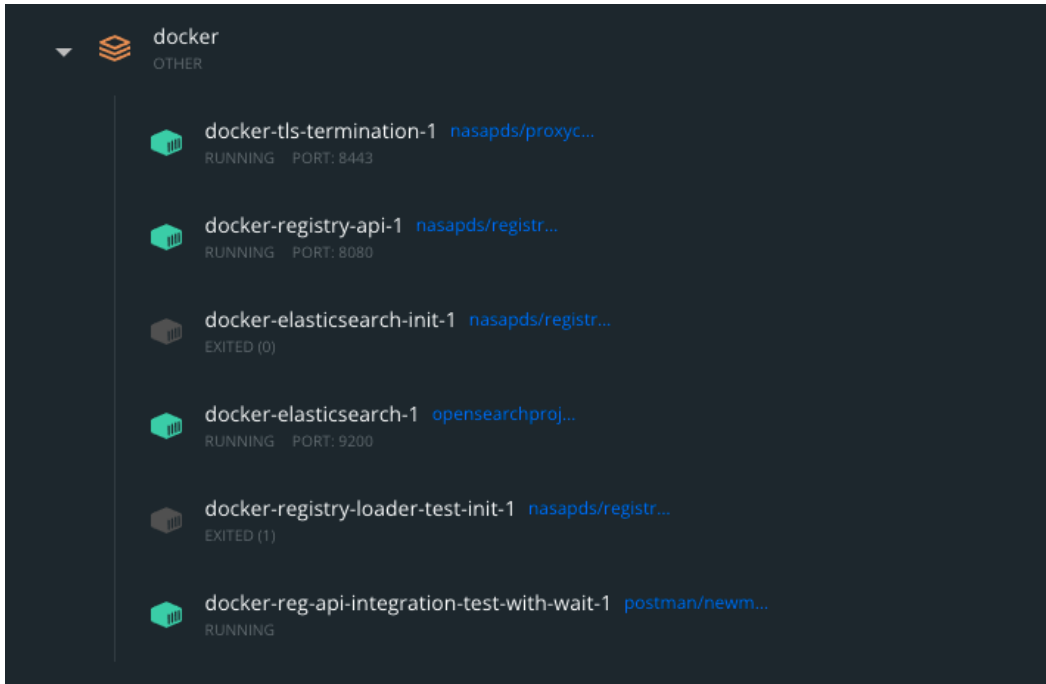
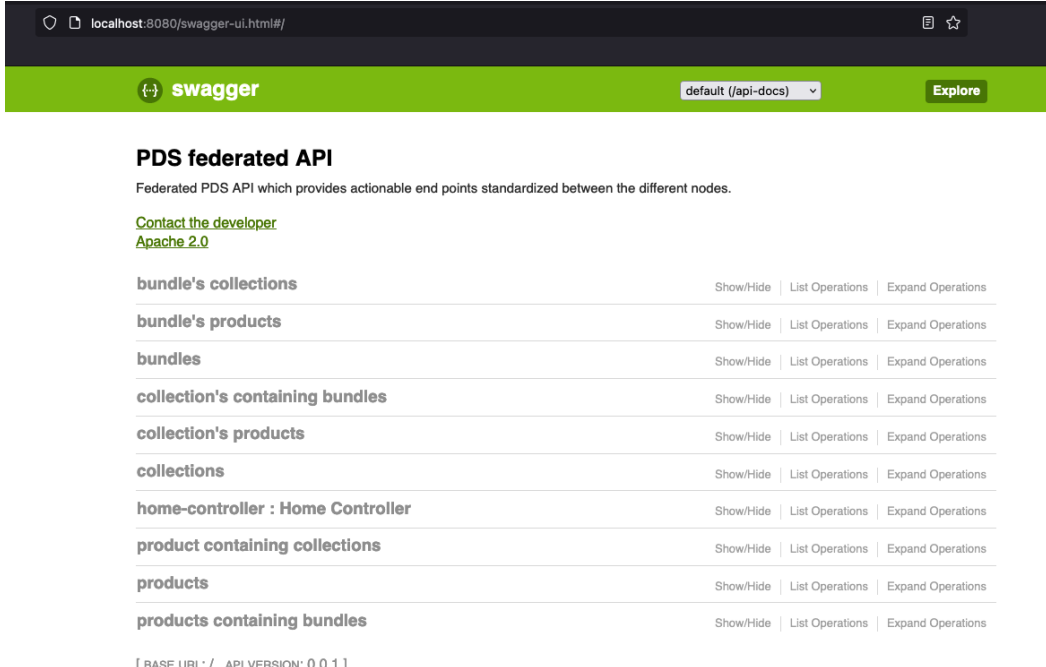
Test ID	REG-API.1
Issue ID	registry-api#73
Issue Type	bug
Issue Description	blob/json_blob should not be included in default response
Comments	Pass
Test Steps	<p>Test with this request for example: curl –location –request GET ‘http://localhost:8080/bundles’ --header ‘Accept: application/kvp+json’ Expected behavior: The blob should not be available in default responses so to improve the performance and not to confuse the users.</p>
Test Result	<pre>"ops:Label_File_Info.ops:json_blob": "eJzFV21v4jgQ/itWPKNI2Pd8a6G9RSq7FeGk092uLJMMYF1iR7YDrVb97zvjbEiBsnva011VQUg8j2eeeWbG+RbcG5 3XmePXteoLCJJvwSQH5eRSZsJJrfiVAUG3q3ZhVghrg+TYsBdMdX6w+it0+aRDJ/dH4MTsgisV74FZfd+LhxuHgyj+ H0/GvajGAFzsJmRFT33+0G/AjDMwEbCIm3AWHrSC9orLvMgicL4qfci9od+9Lo/HJ5g30pjHQIXICweI4A720/PvV1 vgaW6aKAjG5YVhuVKGFFUuU2kcrK1dpxl/IEoQTPRCExBkFzJIT+xXr7MzfZYwcjNwgvBYMMJHneOk0c2tp2 UuAC584tpVuzSYqJTW2ayhg8S18omH4Mg3DCPOFWTuhYbQWaoWefF5YMBupVjx9tA5KpJlpRXKjCIRApOq8b QQCyjY0uiSza7GFAB+TT5Pb+Y3s3NRfHGMPfXCZwvWz14cKzVqUcO2c1DhZyiDyPpGrcnaqIN6a9Zx92TeFFIX 596gTws5xg+FHwnvCSIwzgOozBC00KvkJcCTZviAYPPX0rZ6Va94Jx/vuzqRbFj/BEEwKNNbPcPocil7oEh6VC0tjIG fmxWJSW6WVz37Nu4JlSk3M0e4EZse2x17n2SK+sq7/wnd051zohCqtx46yo0X/cHtjH+1cDSnaql24rDIWBni9FBiytIN vLjdw9B97FyHVWl6SqQ0SUV1G7tTa8wOiRqj1NtGkmQeFOcxAlqVdLyr2kHfx+w+D+E387s3b9wGqwEIHzTGYC mP3RN+RskyX7zHxemWyNXJBZg9loahXrp2rksEAZRCShsKV3tCP1/Qx2FD/OLTfhinuHivasAPWLOFTKBDg+11y 1F6xjYy5waWWPgyYyXVJbs84nZ1A2JRe3XTzGUPEK8X7JF2HrT+rIXITfr33AbUEv7Z7gft/19OtrFr97z3Y6dMmuy u+r141DeHYIRSwYPOfcGahIHxOk0rPysRmayjFnc7abvIjHTJ6bi8sGNyP09ccP3h8HUXhgyXPbyW6QqcEPsf+SxJO Hf4q9z8LfdlZr3//NL67Ccc36Wg2uZ9PPn9CIL1cWvAWtZJUqotHR9PYd3aFNyKsggorkCYJEkX05L6DBu/619Kxq3 Q0mTC/LZGwaXyMHVuW0vldR8IYKVbQn4HDBLE7qaB/C14KNC58d3DN/KCw4yconBR4W6tPtejk75IoaBEw9 Bwnj/NOZLosvetngRct0K5TJi0Q5a22224rVqsxoMoyge/DG9S31C+6gnjD4jbkbN1Nuf0iZqA9bJ1fOzm++pCpMwO 0j0B5ptxylqtWoyINLS2ApbRV/QptP8mSnRtec4bY1bk2mDSkuOjwrk54nZy+cJ3xB/KVrrTFuZ2rEVjilMiOW7LI0vI jw0vRpntM3zn+FW8Ts9foTzva8FwzDq4OekspINQ2xvRTVsXjqd16VulP6KYSlfWjNPEQRPYRIYX6kFblBO/MH Mj55RdwSM21aMDau15bfljrOEm0ubyarAI3V1m+gbbPM+nFdCkltLa39gcEX0lyWgHra0pcKN/FA+CpS+eMqd7L0 9FJ3VPQegiEC0iCLGZ57fY+s1d9Kb70YscqM6xq27ydv8P9PwJAXZgWOP39j+sWCex4zqQqhwIXIsb1cZc36TjKnjU m78N7jIDVPT98BkgHceA=",</pre>

Test ID	REG-API.2
Issue ID	registry-api #102
Issue Type	bug
Issue Description	add ops:Tracking_Meta/ops:node_name and ops:Tracking_Meta/ops:harvest_date_time to meta section of API response
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. query API 2. Check api response <pre>"meta": { "ops:Tracking_Meta": { "ops:node_name": "PSA", "ops:harvest_date_time": "1999-01-01T00:00:00Z" } }</pre>
Test Result	<pre>"ops:Harvest_Info.ops:harvest_date_time": ["2022-04-24T03:54:36.601258Z"</pre>

	<pre>], "ops:Harvest_Info.ops:node_name": ["PDS_ENG"],</pre>
--	--

Test ID	REG-API.3
Issue ID	registry-api-service#102
Issue Type	bug
Issue Description	when fields are selected in the 'application/kvp+json' format some extra fields are found
Comments	Pass
Test Steps	<p>Query api with selected fields, choose application/kvp+json' as respond format. Only selected fields should be return in the response.</p> 
Test Results	<pre>{ "summary": { "hits": 1, "took": 21, "start": 0, "limit": 100, "sort": [], "properties": ["pds:Investigation_Area/pds:name", "pds:Investigation_Area/pds:type"] }, "data": [{ "pds:Investigation_Area.pds:name": "Investigation of Laboratory Shocked Feldspars", "pds:Investigation_Area.pds:type": "Individual Investigation" }] }</pre>

Test ID	REG-API.4
Issue ID	registry-api-service#87
Issue Type	bug
Issue Description	service is not handling value of ES login correctly
Comments	Pass
Test Steps	<p>Follow instructions https://github.com/NASA-PDS/registry/tree/main/docker on using profile `int-registry-batch-loader`</p> <ol style="list-style-type: none"> 1. docker compose --profile=pds-core-registry up -d 2. docker compose --profile=int-registry-batch-loader up

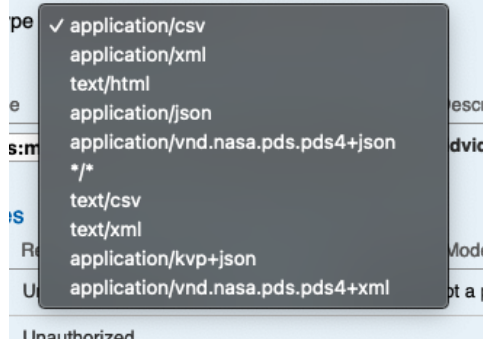
Test Result	<p>2.</p>  <p>Swagger up</p> 
-------------	--

Test ID	REG-API.5
Issue ID	registry-api-service#88
Issue Type	bug
Issue Description	api should handle request with no Accept header
Comments	Pass
Test Steps	curl -X GET 'http://localhost:8080/products/\

	<p>urn%3Anasa%3Apds%3Alab_shocked_feldspars%3Adata%3A%3A1.0/all?limit=10' should use the default format proposed (application/json)</p>
<p>Test Result</p>	<p>Returns application/json {"id":"urn:nasa:pds:lab_shocked_feldspars:data::1.0", "type":"Product_Collection", "title":"Laboratory Shocked Feldspars Data Collection", "start_date_time":"2015-01-01T00:00:00Z", "stop_date_time":"2018-01-01T00:00:00Z", "investigations":[{"id":"urn:nasa:pds:context:investigation:individual.lab_shocked_feldspars", "href":"http://localhost:8080/products/urn:nasa:pds:context:investigation:individual.lab_shocked_feldspars"}], "observing_system_components":[{"id":"urn:nasa:pds:context:instrument:sbu_cpex.ftir", "href":"http://localhost:8080/products/urn:nasa:pds:context:instrument:sbu_cpex.ftir"}, {"id":"urn:nasa:pds:context:instrument:sbu_cpex.raman", "href":"http://localhost:8080/products/urn:nasa:pds:context:instrument:sbu_cpex.raman"}], "targets":[], "metadata":{"creation_date_time":"2019-04-23T00:00:00Z", "update_date_time":"2019-04-23T00:00:00Z", "version":"1.0", "label_url":"/Users/gchen/pds/pds4test.build12.1/testHarvest/harvest70/collection/collection_data_inventory.xml"}, "properties":{"pds:Inventory.pds:offset":["0"], "pds:Modification_Detail.pds:description":["Initial version of Laboratory Shocked Feldspars data collection."], "lid":["urn:nasa:pds:lab_shocked_feldspars:data"], "pds:Modification_Detail.pds:modification_date":["2019-04-23T00:00:00Z"], "pds:Inventory.pds:field_delimiter":["Comma"], "ref_lid_instrument":["urn:nasa:pds:context:instrument:sbu_cpex.ftir", "urn:nasa:pds:context:instrument:sbu_cpex.raman"], "ops:Tracking_Meta.ops:archive_status":["staged"], "ops:Label_File_Info.ops:md5_checksum":["014321d63296ad4fdfa283449f55e025"], "pds:File.pds:file_name":["hvt22.tab"], "vid":["1.0"], "product_class":["Product_Collection"], "pds:Time_Coordinates.pds:stop_date_time":["2018-01-01T00:00:00Z"], "pds:Primary_Result_Summary.pds:processing_level":["Raw", "Calibrated", "Derived"], "pds:Observing_System_Component.pds:type":["Laboratory", "Instrument", "Instrument"], "ops:Label_File_Info.ops:file_ref":["/Users/gchen/pds/pds4test.build12.1/testHarvest/harvest70/collection/collection_data_inventory.xml"], "ops:Harvest_Info.ops:harvest_date_time":["2022-04-24T03:54:36.601258Z"], "pds:Field_Delimited.pds:data_type":["ASCII_String", "ASCII_LIDVID_LID"], "pds:Rec</p>

	<pre>ord_Delimited.pds:groups":["0"],"pds:Identification _Area.pds:title":["Laboratory Shocked Feldspars Data Collection"],"pds:Inventory.pds:parsing_standard_id ":["PDS DSV 1"],"pds:Observing_System_Component.pds:name":["Cen ter for Planetary Exploration at Stony Brook University","Raman Spectrometer","Nicolet iN10MX FTIR microscope"],"ref_lid_facility":["urn:nasa:pds:cont ext:facility:laboratory.sbu_cpex"],"pds:Investigati on_Area.pds:name":["Investigation of Laboratory Shocked Feldspars"],"ops:Label_File_Info.ops:creation_date_ time":["2022-04- 15T17:54:59Z"],"pds:Inventory.pds:records":["1049"] ,"pds:Identification_Area.pds:product_class":["Prod uct_Collection"],"pds:Citation_Information.pds:auth or_list":["Johnson, J. R., Izenberg, N. R."],"description":["Microspectroscopic Comparison of Experimentally Shocked Albite, Andesine, and Bytownite.","Initial version of Laboratory Shocked Feldspars data collection.","P indicates primary member of the collection S indicates secondary member of the collection","The LID or LIDVID of a product that is a member of the collection."],"pds:Citation_Information.pds:publica tion_year":["2019-01- 01T00:00:00Z"],"ops:Harvest_Info.ops:node_name":["P DS_ENG"],"pds:Record_Delimited.pds:fields":["2"],"t itle":["Laboratory Shocked Feldspars Data Collection"],"pds:Collection.pds:collection_type":[" Data"],"_package_id":["2140cde0-892a-4ced-b37f- 8010d4c244e9"],"pds:Field_Delimited.pds:name":["Mem ber Status","LIDVID_LID"],"pds:File.pds:creation_date_t ime":["2019-04- 23T00:00:00Z"],"pds:Field_Delimited.pds:maximum_fie ld_length":["1","255"],"pds:Identification_Area.pds :version_id":["1.0"],"pds:Citation_Information.pds: description":["Microspectroscopic Comparison of Experimentally Shocked Albite, Andesine, and Bytownite."],"pds:Primary_Result_Summary.pds:purpos e":["Science"],"pds:Internal_Reference.pds:referenc e_type":["collection_to_investigation","is_facility ","is_instrument","is_instrument"],"pds:Identificat ion_Area.pds:information_model_version":["1.11.0.0"],"pds:Internal_Reference.pds:lid_reference":["urn: nasa:pds:context:investigation:individual.lab_shock ed_feldspars","urn:nasa:pds:context:facility:labora</pre>
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	<pre>tory.sbu_cpex","urn:nasa:pds:context:instrument:sbu_cpex.raman","urn:nasa:pds:context:instrument:sbu_cpex.ftir"],"pds:Field_Delimited.pds:description":["P indicates primary member of the collection S indicates secondary member of the collection","The LID or LIDVID of a product that is a member of the collection."],"pds:Citation_Information.pds:editor_list":["Ward, Jennifer"],"pds:Field_Delimited.pds:field_number":["1","2"],"pds:Identification_Area.pds:logical_identifier":["urn:nasa:pds:lab_shocked_feldspars:data"],"pds:Time_Coordinates.pds:start_date_time":["2015-01-01T00:00:00Z"],"ref_lid_investigation":["urn:nasa:pds:context:investigation:individual.lab_shocked_feldspars"],"lidvid":["urn:nasa:pds:lab_shocked_feldspars:data:1.0"],"pds:Modification_Detail.pds:version_id":["1.0"],"ops:Label_File_Info.ops:file_size":["5731"],"pds:Inventory.pds:record_delimiter":["Carriage-Return Line-Feed"],"pds:Inventory.pds:reference_type":["inventory_has_member_product"],"ops:Label_File_Info.ops:file_name":["collection_data_inventory.xml"],"pds:Investigation_Area.pds:type":["Individual Investigation"]}]}</pre>
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Test ID	REG-API.6
Issue ID	registry-api-service#103
Issue Type	bug
Issue Description	All the supported format don't show in the swagger-ui
Comments	Pass
Test Steps	Check Response Content type in swagger-ui
Test Result	

Test ID	REG-API.7
Issue ID	registry-api-service#79
Issue Type	bug
Issue Description	simple url requested in a browser generate a 500 error
Comments	Pass

Test Steps	http://localhost:8080/products/?limit=100&only-summary=falsein chrome should return valid json format response.
Test Results	<pre> JSON as text { "summary" : { "hits" : 0, "took" : 12, "start" : 0, "limit" : 100, "sort" : [], "properties" : [] }, "data" : [] } </pre>

Registry-common

Test ID	REG-COM.1
Issue ID	registry-common#20
Issue Type	bug
Issue Description	Missing support for datetime conversion for ASCII_Date_Time_DOY.UTC.
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. download test data from https://atmos.nmsu.edu/ 2. create config file pointing path to data_calibrated_env 3. rm -rf /tmp/harvest 4. harvest -c reg-comm20.cfg > reg-comm20.log 5. ll /tmp/harvest/out 6. registry-manager load-data -dir /tmp/harvest/out <p>Expected behavior: Registry manager runs successfully without warning message</p>
Test Result	<p>Step 4:</p> <pre> ... [SUMMARY] Summary: [SUMMARY] Skipped files: 0 [SUMMARY] Processed files: 1870 [SUMMARY] File counts by type: [SUMMARY] Product_Collection: 1 [SUMMARY] Product_Observational: 1869 [SUMMARY] Package ID: f424032d-45f7-40f5-ab94-9daf81ef45c3 </pre> <p>Step 6:</p> <pre> gchen@Johns-MacBook-Pro reg-comm20 % registry-manager load-data -dir /tmp/harvest/out [INFO] Registry URL: http://localhost:9200 [INFO] Registry index: registry [INFO] Loading PDS to ES data type mapping from /Users/gchen/pds/PDS4tools/registry-manager/elastic/data-dic-types.cfg </pre>

	<p>[INFO] Updating LDDs from /tmp/harvest/out/missing_xsds.txt</p> <p>[INFO] Updating 'pds' LDD. Schema location: https://pds.nasa.gov/pds4/pds/v1/PDS4_PDS_1G00.xsd</p> <p>[INFO] Downloading https://pds.nasa.gov/pds4/pds/v1/PDS4_PDS_1G00.JSON to /var/folders/p3/n2qz3vl563j4hywkfq61wwbw0000gq/T/LDD-14933339093572645759.JSON</p> <p>[INFO] Creating temporary ES data file /var/folders/p3/n2qz3vl563j4hywkfq61wwbw0000gq/T/es-10748542738226729489.json</p> <p>[INFO] Loading ES data file: /var/folders/p3/n2qz3vl563j4hywkfq61wwbw0000gq/T/es-10748542738226729489.json</p> <p>[INFO] Loaded 500 document(s)</p> <p>[INFO] Loaded 1000 document(s)</p> <p>[INFO] Loaded 1326 document(s)</p> <p>[INFO] Updating 'mars2020' LDD. Schema location: https://pds.nasa.gov/pds4/mission/mars2020/v1/PDS4_MARS2020_1G00_1000.xsd</p> <p>[INFO] Downloading https://pds.nasa.gov/pds4/mission/mars2020/v1/PDS4_MARS2020_1G00_1000.JSON to /var/folders/p3/n2qz3vl563j4hywkfq61wwbw0000gq/T/LDD-18129124094756800863.JSON</p> <p>[INFO] Creating temporary ES data file /var/folders/p3/n2qz3vl563j4hywkfq61wwbw0000gq/T/es-16029245745636997553.json</p> <p>[INFO] Loading ES data file: /var/folders/p3/n2qz3vl563j4hywkfq61wwbw0000gq/T/es-16029245745636997553.json</p> <p>[INFO] Loaded 321 document(s)</p> <p>[INFO] Updating schema with fields from /tmp/harvest/out/missing_fields.txt</p> <p>[INFO] Updated 38 fields</p> <p>[INFO] Loading ES data file: /tmp/harvest/out/refs-docs.json</p> <p>[INFO] Loaded 4 document(s)</p> <p>[INFO] Loading ES data file: /tmp/harvest/out/registry-docs.json</p> <p>[INFO] Loaded 500 document(s)</p> <p>[INFO] Loaded 1000 document(s)</p> <p>[INFO] Loaded 1500 document(s)</p> <p>[INFO] Loaded 1870 document(s)</p>
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Registry-mgr

Test ID	REG-MGR.1
Issue ID	registry-mgr#43
Issue Type	bug
Issue Description	Improve error message for corrupted registry_docs.json
Comments	Pass
Test Steps	1. rm -r /tmp/harvest

	<p>Next two run in their own windows; <ctrl>c to stop.</p> <ol style="list-style-type: none"> 2. elasticsearch 3. cd <whereverInstalled>; java -jar registry-api-service-0.5.0-SNAPSHOT.jar 4. registry-manager delete-registry 5. registry-manager create-registry 6. create config file reg-mgr31_cfg.xml 7. harvest -c reg-mgr31_cfg.xml 8. ll /tmp/harvest/out 9. check http://localhost:9200/registry/_search?q=*
Test Result	<p>The latest version of Harvest loads data directly into Elasticsearch. Temporary JSON data files are not generated anymore.</p> <p>Step 8.</p> <pre>gchen@johns-macbook-pro harvest70 % ll /tmp/harvest/out total 0 0 -rw-r--r-- 1 gchen wheel 0 Apr 23 20:54 supplemental.txt</pre>

Test ID	REG-MGR.2
Issue ID	registry-mgr#31
Issue Type	Enhancement
Issue Description	Update registry-mgr to use schema from schemaLocation in file
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 10. rm -r /tmp/harvest <p>Next two run in their own windows; <ctrl>c to stop.</p> <ol style="list-style-type: none"> 11. elasticsearch 12. cd <whereverInstalled>; java -jar registry-api-service-0.5.0-SNAPSHOT.jar 13. registry-manager delete-registry 14. registry-manager create-registry 15. create config file reg-mgr31_cfg.xml 16. harvest -c reg-mgr31_cfg.xml
Test Result	<p>Step 7.</p> <pre>[SUMMARY] Reading configuration from /Users/gchen/pds/pds4test.build12.1/testHarvest/registry- mgr31/reg-mgr31_cfg.xml [WARN] XML BLOB storage is disabled (see <fileInfo storeLabels="false"> configuration). Not all Registry features will be available. [WARN] JSON BLOB storage is disabled (see <fileInfo storeJsonLabels="false"> configuration). Not all Registry features will be available. [SUMMARY] Output directory: /tmp/harvest/out [SUMMARY] Elasticsearch URL: http://localhost:9200, index: registry [INFO] Connecting to Elasticsearch</pre>

	<pre> ''' [INFO] Loaded 12 document(s) [INFO] Updating 'pds' LDD. Schema location: https://pds.nasa.gov/pds4/pds/v1/PDS4_PDS_1D00.xsd Apr 23, 2022 8:38:05 PM org.elasticsearch.client.RestClient logResponse .. [INFO] Wrote 1 product(s) [SUMMARY] Summary: [SUMMARY] Skipped files: 0 [SUMMARY] Loaded files: 1 [SUMMARY] Product_Observational: 1 [SUMMARY] Failed files: 0 [SUMMARY] Package ID: 29c61141-81c2-4466-aba4- bf27b363dfb5 </pre>
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software-issues-repo

Test ID	SOFTWARE.1
Issue ID	software-issues-repo#15
Issue Type	task
Issue Description	Generate Draft B12.0 RDD
Comments	SKIP
Test Step	

Test ID	SOFTWARE.2
Issue ID	software-issues-repo#16
Issue Type	task
Issue Description	Final testing and delivery to I&T
Comments	SKIP
Test Step	

Test ID	SOFTWARE.3
Issue ID	software-issues-repo#19
Issue Type	bug
Issue Description	viewHostProfile.jsp never returns useful information
Comments	Pass
Test Steps	Check https://pds.nasa.gov/ds-view/pds/viewHostProfile.jsp?INSTRUMENT_HOST_ID=CO
Test Result	INSTRUMENT_HOST_ID=CO now return the valid page.

	<p>Instrument Host Information</p> <table border="1"> <tr> <td>INSTRUMENT_HOST_ID</td> <td>CO</td> </tr> <tr> <td>INSTRUMENT_HOST_NAME</td> <td>CASSINI ORBITER</td> </tr> <tr> <td>INSTRUMENT_HOST_TYPE</td> <td>SPACECRAFT</td> </tr> <tr> <td>INSTRUMENT_HOST_DESC</td> <td> <p>The majority of the text in this file was extracted from the Cassini Mission Plan Document, D. Seal, 2003. [JPLD-5564]</p> <p>Instrument Host Overview =====</p> <p>For most Cassini Orbiter experiments, data were collected by instruments on the spacecraft then relayed via the orbiter telemetry system to stations of the NASA Deep Space Network (DSN). Radio Science required the DSN for its data acquisition on the ground. The following sections provide an overview, first of the orbiter, then the science instruments, and finally the DSN ground system.</p> <p>Instrument Host Overview - Spacecraft =====</p> <p>Cassini was successfully launched on 15 October 1997 from Cape Canaveral, Florida, using a Titan IV/Centaur launch vehicle with Solid Rocket Motor Upgrade (SRMU) strap-ons and a Centaur upper stage. The spacecraft flew a 6.7-year Venus-Venus-Earth-Jupiter Gravity Assist (VVEJGA) trajectory to Saturn, during which cruise operations included checkout, characterization, calibration, and maintenance of the instruments and limited science observations.</p> <p>Until they separated after Saturn orbit insertion, Cassini was a combined Saturn orbiter and Titan atmospheric probe. It was a three-axis stabilized spacecraft equipped for 27 diverse science investigations with 12 orbiter and 6 Huygens probe instruments, one high gain (HGA) and two low gain antennas (LGAs), three Radioisotope Thermoelectric Generators (RTGs), main engines, attitude thrusters, and reaction wheels. This description covers the orbiter portion of Cassini, which will frequently be called 'the spacecraft.'</p> </td> </tr> </table>	INSTRUMENT_HOST_ID	CO	INSTRUMENT_HOST_NAME	CASSINI ORBITER	INSTRUMENT_HOST_TYPE	SPACECRAFT	INSTRUMENT_HOST_DESC	<p>The majority of the text in this file was extracted from the Cassini Mission Plan Document, D. Seal, 2003. [JPLD-5564]</p> <p>Instrument Host Overview =====</p> <p>For most Cassini Orbiter experiments, data were collected by instruments on the spacecraft then relayed via the orbiter telemetry system to stations of the NASA Deep Space Network (DSN). Radio Science required the DSN for its data acquisition on the ground. The following sections provide an overview, first of the orbiter, then the science instruments, and finally the DSN ground system.</p> <p>Instrument Host Overview - Spacecraft =====</p> <p>Cassini was successfully launched on 15 October 1997 from Cape Canaveral, Florida, using a Titan IV/Centaur launch vehicle with Solid Rocket Motor Upgrade (SRMU) strap-ons and a Centaur upper stage. The spacecraft flew a 6.7-year Venus-Venus-Earth-Jupiter Gravity Assist (VVEJGA) trajectory to Saturn, during which cruise operations included checkout, characterization, calibration, and maintenance of the instruments and limited science observations.</p> <p>Until they separated after Saturn orbit insertion, Cassini was a combined Saturn orbiter and Titan atmospheric probe. It was a three-axis stabilized spacecraft equipped for 27 diverse science investigations with 12 orbiter and 6 Huygens probe instruments, one high gain (HGA) and two low gain antennas (LGAs), three Radioisotope Thermoelectric Generators (RTGs), main engines, attitude thrusters, and reaction wheels. This description covers the orbiter portion of Cassini, which will frequently be called 'the spacecraft.'</p>
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template-repo-java

Test ID	JAVA.4
Issue ID	template-repo-java#9
Issue Type	bug
Issue Description	Update README to include more details similar to python template repo
Comments	Pass
Test Steps	Check README in https://github.com/NASA-PDS/template-repo-java
Test Result	Good documentation with clear instructions.

👉 Getting Started With This Template

See our wiki page for more info on setting up your new repo. You can remove this section once you have completed the necessary start-up steps.

<https://github.com/NASA-PDS/nasa-pds.github.io/wiki/Git-and-Github-Guide#creating-a-new-repo>

👉 **Important!** You must assign the teams as mentioned on the wiki page above! At a minimum, these are:

Team	Permission
@NASA-PDS/pds-software-committers	write
@NASA-PDS/pds-software-pmc	admin
@NASA-PDS/pds-operations	admin

My Project

This is the XYZ that does this, that, and the other thing for the Planetary Data System.

Please visit our website at: <https://nasa-pds.github.io/pds-my-project>

It has useful information for developers and end-users.

- 📄 Quick Start: Installation and Usage
 - 📦 Using this Package
- 👤 Contributing
 - 📄 Versioning
 - 🌿 Development
 - 🚚 Continuous Integration & Deployment
 - 🛠 Manual Publication
 - Update Version Numbers
 - Update Changelog
 - Commit Changes
 - Build and Deploy Software to Maven Central Repo
 - Push Tagged Release
 - Deploy Site to Github Pages
 - Update Versions For Development
 - Complete Release in Github
- 📄 License

Validate

Test ID	VAL.1
Issue ID	validate#388
Issue Type	requirement
Issue Description	Improve PDF/A validation to include more robust reporting on failures
Comments	Pass (provisional) – Passes, VeraPDF report is only generated on structural errors in PDF/A1a or PDF/A1b files. Others are reported as unaccepted.
Test Steps	1. Download test data from https://github.com/NASA-PDS/validate/tree/main/src/test/resources/github388 (or the testdata directory in the InT data server)

	<ol style="list-style-type: none"> 2. Execute ‘pds4.label -t testdata/pixl_edr_sis_bad.xml -v2’ 3. Perform grep to ensure that a message on the ‘pixl_edr_sis_bad.pdf’ contains “ERROR [error.pdf.file.not_pdfa_compliant] Invalid PDF/A version detected”. 4. Perform grep to ensure that a message in the report contains “Expected: 1a or 1b. Actual: 2b”. 5. Verify that a VeraPDF-style report detailing errors accompanies the execution in the current working directory.
<p>Test Results:</p>	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0 Date 2022-04-25T08:54:03Z</p> <p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/388/testdata/pixl_edr_sis_bad.xml]</p> <p>Rule Type pds4.label Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>FAIL: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/388/testdata/pixl_edr_sis_bad.xml ERROR [error.pdf.file.not_pdfa_compliant] Invalid PDF/A version detected for file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/388/testdata/pixl_edr_sis_bad.pdf. Expected: 1a or 1b. Actual: 2b 1 product validation(s) completed</p> <p>Summary:</p> <p>1 error(s)</p>

	<p>0 warning(s)</p> <p>Product Validation Summary:</p> <p>0 product(s) passed</p> <p>1 product(s) failed</p> <p>0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed</p> <p>0 check(s) failed</p> <p>0 check(s) skipped</p> <p>Message Types:</p> <p>1 error.pdf.file.not_pdfa_compliant</p> <p>End of Report</p> <p>Completed execution in 4909 ms</p>
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Test ID	VAL.2
Issue ID	validate#412
Issue Type	Task
Issue Description	Update PDF validation to check against flavor specified in PDF metadata
Comments	Pass – Validate reports acceptable formats and identifies the exact unacceptable format.
Test Steps	<ol style="list-style-type: none"> 1. Download test data from https://github.com/NASA-PDS/validate/tree/main/src/test/resources/github412 (or the testdata directory in the InT data server) 2. Testing options: <ol style="list-style-type: none"> a. Five tests: Only (1) should pass. Others should return cogent errors detailing that they are not accepted nor meet specs for A1a/A1b. b. Tests are validated separately. c. Any failures should beyond type compatibility should generate a VeraPDF report. 3. For (1) verify there are no errors. For (2) through (5) verify various errors.
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0</p> <p>Date 2022-04-25T11:35:14Z</p>

	<p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test- validations/12-1/validate/412/testdata/m20_test_pdf_A2a.xml]</p> <p>Rule Type pds4.label Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate- latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>FAIL: file:/System/Volumes/Data/sourcecode/source/pds/test- validations/12-1/validate/412/testdata/m20_test_pdf_A2a.xml ERROR [error.pdf.file.not_pdfa_compliant] Invalid PDF/A version detected for file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12- 1/validate/412/testdata/A2a-HelloWorld.pdf. Expected: 1a or 1b. Actual: 2a 1 product validation(s) completed</p> <p>Summary:</p> <p>1 error(s) 0 warning(s)</p> <p>Product Validation Summary:</p> <p>0 product(s) passed 1 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>Message Types:</p> <p>1 error.pdf.file.not_pdfa_compliant</p>
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	End of Report Completed execution in 4140 ms
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Test ID	VAL.3
Issue ID	validate#423
Issue Type	bug
Issue Description	Validate does not allow a single-character subdirectory
Comments	Pass Test data is available at https://github.com/NASA-PDS/validate/files/7393508/gbo.ast.alcdef-database_v1.0_20211021.zip .
Test Steps	<ol style="list-style-type: none"> 1. Unpack provided test data (or the testdata directory in the InT data server) 2. Testing options 3. Execute validate -t gbo.ast.alcdef-database_v1.0_20211021_aip_v1.0.xml,gbo.ast.alcdef-database_v1.0_20211021_sip_v1.0.xml 4. Verify that the following error is no longer in output: ‘The directory spec '/data/1/' does not match the pattern '/?([A-Za-z0-9][A-Za-z0-9 -]*[A-Za-z0-9]/?)?’
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0-SNAPSHOT Date 2021-12-07T03:53:31Z</p> <p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/sprint16/423/gbo.ast.alcdef-database_v1.0_20211021_aip_v1.0.xml, file:/System/Volumes/Data/sourcecode/source/pds/test-validations/sprint16/423/gbo.ast.alcdef-database_v1.0_20211021_sip_v1.0.xml]</p> <p>Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p>

	<p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/sprint16/423/gbo.ast.alcdef-database_v1.0_20211021_aip_v1.0.xml 1 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/sprint16/423/gbo.ast.alcdef-database_v1.0_20211021_sip_v1.0.xml 2 product validation(s) completed</p> <p>Summary:</p> <p>0 error(s) 0 warning(s)</p> <p>Product Validation Summary:</p> <p>2 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 4616 ms</p>
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Test ID	VAL.4
Issue ID	validate#424
Issue Type	bug
Issue Description	Validate does not allow SIP tab file to have lines of differing lengths
Comments	Pass Test data is available at https://github.com/NASA-PDS/validate/files/7393587/asurpif_photos_amboycrater_v1.0_20211021.zip .
Test Steps	Unpack provided test data (or retrieve from the testdata directory in the InT data server) Run the following command:

	<pre> validate -t asurpif_photos_amboycrater_v1.0_20211021_aip_v1.0.xml,asurpif_p hotos_amboycrater_v1.0_20211021_sip_v1.0.xml The ERROR should no longer exist in output: ERROR [error.table.record_length_mismatch] table 1: File that ends with .tab should have same record length. </pre>
<p>Test Results:</p>	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <pre> Version 2.2.0-SNAPSHOT Date 2021-12-07T04:02:31Z </pre> <p>Parameters:</p> <p>Targets</p> <pre> [file:/System/Volumes/Data/sourcecode/source/pds/test- validations/sprint16/424/asurpif_photos_amboycrater_v1.0_20211021 _aip_v1.0.xml, file:/System/Volumes/Data/sourcecode/source/pds/test- validations/sprint16/424/asurpif_photos_amboycrater_v1.0_20211021 _sip_v1.0.xml] </pre> <pre> Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate- latest/resources/registered_context_products.json </pre> <p>Product Level Validation Results</p> <pre> PASS: file:/System/Volumes/Data/sourcecode/source/pds/test- validations/sprint16/424/asurpif_photos_amboycrater_v1.0_20211021 _aip_v1.0.xml 1 product validation(s) completed PASS: file:/System/Volumes/Data/sourcecode/source/pds/test- validations/sprint16/424/asurpif_photos_amboycrater_v1.0_20211021 _sip_v1.0.xml 2 product validation(s) completed </pre> <p>Summary:</p> <pre> 0 error(s) </pre>

	<p>0 warning(s)</p> <p>Product Validation Summary: 2 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary: 0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 4866 ms</p>
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Test ID	VAL.5
Issue ID	validate#447
Issue Type	bug
Issue Description	Validate does not correctly pass PDF/A files that are in a subdirectory
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/validate/files/7589692/document.zip.</p>
Test Steps	<p>Run 'validate -r report_github447_valid_3.json -s json -t src/test/resources/github447/document'. # directory, not target</p> <p>Pass: Examine results to ensure that "status": "PASS" for individual files in the directory.</p>
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration: Version 2.2.0 Date 2022-04-21T20:43:39Z</p> <p>Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/447/document/] Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on</p>

	<p>Max Errors 100000</p> <p>Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/447/document/orex_ldd_description_doc.xml 1 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/447/document/mission_phase_plans/Preliminary_Survey_Phase_Plan_Narrative.xml 2 product validation(s) completed</p> <p>Summary:</p> <p>0 error(s) 0 warning(s)</p> <p>Product Validation Summary:</p> <p>2 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 6505 ms</p>
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Test ID	VAL.6
Issue ID	validate#390
Issue Type	Bug
Issue Description	validate does not flag *.tab files with variable length records
Comments	<p>Fail – SKIP-INT</p> <p>Validate does not report the requisite error, “Validate should report that *.tab files must have fixed-length fields”.</p> <p>Test data is available at https://github.com/NASA-PDS/validate/files/6970348/validate-tab.tar.gz and</p>

	https://github.com/NASA-PDS/validate/files/6970349/validate-csv.tar.gz .
Test Steps	Run 'validate -t collection_calib_freq.xml' Pass: Ensure that an error is reported that *.tab files must have fixed-length fields.
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0 Date 2022-04-25T11:58:49Z</p> <p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/390/VALIDATE-TAB/collection_calib_freq.xml] Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/390/VALIDATE-TAB/collection_calib_freq.xml 1 product validation(s) completed</p> <p>Summary:</p> <p>0 error(s) 0 warning(s)</p> <p>Product Validation Summary:</p> <p>1 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed</p>

	<p>0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 4362 ms</p>
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Test ID	VAL.7
Issue ID	validate#461
Issue Type	Bug
Issue Description	[SECURITY] Patch log4j library
Comments	Pass
Test Steps	<p>Clone the validate repo at https://github.com/NASA-PDS/validate and checkout the release version 2.2.0.</p> <p>Examine the pom.xml file to ensure log4j2 version is greater than or equal to 2.17.1.</p> <p>Verify you are using Java 11 with <code>java -version</code> and that the Maven subsystem is configured properly with the PDS settings.xml file.</p> <p>Run <code>'mvn clean install'</code></p>
Test Results:	<pre>[INFO] Scanning for projects... [INFO] Inspecting build with total of 1 modules... [INFO] Installing Nexus Staging features: [INFO] ... total of 1 executions of maven-deploy-plugin replaced with nexus-staging-maven-plugin [INFO] [INFO] -----< gov.nasa.pds:validate >----- [INFO] Building gov.nasa.pds:validate 2.2.0 [INFO] -----[jar]----- [WARNING] The POM for gov.nasa.pds:vicario:jar:48.0.3-SNAPSHOT is missing, no dependency information available [INFO] [INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ validate --- [INFO] Deleting /System/Volumes/Data/sourcecode/source/pds/test-validations/12- 1/validate/461/validate/target [INFO] [INFO] --- buildnumber-maven-plugin:1.4:create (default) @ validate --- [INFO] Storing buildNumber: 2022-04-25 06:45:17 at timestamp: 1650894317400 [WARNING] Cannot get the branch information from the git repository: Detecting the current branch failed: fatal: ref HEAD is not a symbolic ref [INFO] Executing: /bin/sh -c cd '/System/Volumes/Data/sourcecode/source/pds/test-validations/12- 1/validate/461/validate' && 'git' 'rev-parse' '--verify' 'HEAD' [INFO] Working directory: /System/Volumes/Data/sourcecode/source/pds/test-validations/12- 1/validate/461/validate [INFO] Storing buildScmBranch: UNKNOWN [INFO] [INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ validate --- [WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent! [WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent! [INFO] Copying 54 resources [INFO] Copying 1 resource to gov/nasa/pds/validate/util [INFO] Copying 1 resource to gov/nasa/pds/tools/util [INFO] [INFO] --- maven-compiler-plugin:3.8.1:compile (default-compile) @ validate --- [INFO] Changes detected - recompiling the module! [WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent!</pre>

```
[INFO] Compiling 213 source files to /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/target/classes
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/src/main/java/gov/nasa/pds/tools/validate/rule/pds3/VolumeValidationRule.java: Some input files use or override a deprecated API.
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/src/main/java/gov/nasa/pds/tools/validate/rule/pds3/VolumeValidationRule.java: Recompile with -Xlint:deprecation for details.
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/src/main/java/gov/nasa/pds/tools/validate/rule/RuleContext.java: Some input files use unchecked or unsafe operations.
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/src/main/java/gov/nasa/pds/tools/validate/rule/RuleContext.java: Recompile with -Xlint:unchecked for details.
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ validate ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 710 resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.1:testCompile (default-testCompile) @ validate ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent!
[INFO] Compiling 5 source files to /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/target/test-classes
[INFO]
[INFO] --- maven-surefire-plugin:3.0.0-M3:test (default-test) @ validate ---
[INFO] Tests are skipped.
[INFO]
[INFO] --- maven-jar-plugin:3.2.0:jar (default-jar) @ validate ---
[INFO] Building jar: /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/target/validate-2.2.0.jar
[INFO]
[INFO] --- maven-assembly-plugin:3.3.0:single (bin-release) @ validate ---
[INFO] Reading assembly descriptor: src/main/assembly/tar-assembly.xml
[INFO] Reading assembly descriptor: src/main/assembly/zip-assembly.xml
[WARNING] The assembly id bin is used more than once.
[INFO] Building tar: /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/target/validate-2.2.0-bin.tar.gz
[INFO] Building zip: /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/461/validate/target/validate-2.2.0-bin.zip
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 14.709 s
[INFO] Finished at: 2022-04-25T06:45:29-07:00
[INFO] -----
```

Test ID	VAL.8
Issue ID	validate#376
Issue Type	Bug
Issue Description	Checksums output lowercase and do not accept uppercase checksums
Comments	Pass Test data is available at https://pds-geosciences.wustl.edu/mariner/mariner69/urn-nasa-pds-duxbury_pdart14_mariner69/ .
Test Steps	Execute 'validate -t readme.txt -M d41d8cd98f00b204e9800998ecf8427e -r report.txt -R pds4.bundle'

	<p>Pass: The string 'ERROR [error.label.checksum_mismatch] Generated checksum' does not appear in output.</p>
<p>Test Results:</p>	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0 Date 2022-04-25T14:04:36Z</p> <p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/376/testdata/bundle_duxbury_pdart14_mariner69.xml] Rule Type pds4.bundle Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Checksum Manifest File file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/376/testdata/urn-nasa-pds-duxbury_pdart14_mariner69.md5 Manifest File Base Path file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/376/testdata/ Data Content Validation on Product Level Validation on Allow Unlabeled Files false Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/376/testdata/bundle_duxbury_pdart14_mariner69.xml 1 product validation(s) completed</p> <p>PDS4 Bundle Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/376/testdata/urn-nasa-pds-duxbury_pdart14_mariner69.md5 WARNING [warning.file.not_referenced_in_label] File is not referenced by any label 1 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/376/testdata/bundle_duxbury_pdart14_mariner69.xml WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:duxbury_pdart14_mariner69:data_mars_far' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:duxbury_pdart14_mariner69:data_mars_near' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:duxbury_pdart14_mariner69:data_table' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:duxbury_pdart14_mariner69:spice_kernels' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:duxbury_pdart14_mariner69:document' could not be found in any product within the given target. 2 integrity check(s) completed</p> <p>Summary:</p> <p>0 error(s) 6 warning(s)</p> <p>Product Validation Summary:</p>

	<p>1 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary: 2 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>Message Types: 5 warning.integrity.member_not_found 1 warning.file.not_referenced_in_label</p> <p>End of Report Completed execution in 4082 ms</p>
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Test ID	VAL.9
Issue ID	validate#439
Issue Type	Bug
Issue Description	Incorrect Warning for Missing document_standard_id is Stream Text.
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/validate/files/7499249/stream_text.tar.gz.</p>
Test Steps	<p>Run 'validate -R pds4.label -r report_github439_label_valid.json -s json -t src/test/resources/github439/stream_text.xml'</p> <p>On examining outputs, there should be no warnings. Pass: The results show "PASS" and no "WARNING" messages.</p>
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration: Version 2.2.0 Date 2022-04-26T16:25:07Z</p> <p>Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/439/testdata/stream_text.xml] Rule Type pds4.label Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/439/testdata/stream_text.xml 1 product validation(s) completed</p> <p>Summary: 0 error(s) 0 warning(s)</p> <p>Product Validation Summary: 1 product(s) passed</p>

	<p>0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary: 0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 4404 ms</p>
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Test ID	VAL.10
Issue ID	validate#419
Issue Type	Bug
Issue Description	validate 2.2.0-SNAPSHOT warns about a pretty benign bundle + readme.txt
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/validate/files/7359455/bug.zip.</p>
Test Steps	<p>Run the following command: validate -t bug/bundle_astromat_chem.xml The WARNING [warning.file.not_text_mimetype] no longer exists in output.</p>
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration: Version 2.2.0 Date 2022-04-26T16:34:21Z</p> <p>Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/419/testdata/bundle_astromat_chem.xml] Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/419/testdata/bundle_astromat_chem.xml 1 product validation(s) completed</p> <p>Summary: 0 error(s) 0 warning(s)</p> <p>Product Validation Summary: 1 product(s) passed 0 product(s) failed 0 product(s) skipped</p>

	<p>Referential Integrity Check Summary:</p> <p>0 check(s) passed</p> <p>0 check(s) failed</p> <p>0 check(s) skipped</p> <p>End of Report</p> <p>Completed execution in 4289 ms</p>
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Test ID	VAL.11
Issue ID	validate#408
Issue Type	Bug
Issue Description	Validate 2.1.0-SNAPSHOT skips a collection XML label
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/validate/files/7226301/validate.zip.</p>
Test Steps	<p>Execute 'validate -R pds4.bundle -r report_github408_bundle_valid.json -s json -t src/test/resources/github408/valid/bundle_insight_seis.xml'</p> <p>Verify that the output passes and version 9 is skipped with the message "Skipping file:/home/qchau/sandbox/validate/src/test/resources/github408/valid/data/collection_data_seed_2.xml due to collection not latest or does not sharing the same logical_identifier as the bundle target".</p>
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0</p> <p>Date 2022-04-26T16:43:24Z</p> <p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/bundle_insight_seis.xml]</p> <p>Rule Type pds4.bundle</p> <p>Severity Level WARNING</p> <p>Recurse Directories true</p> <p>File Filters Used [*.xml, *.XML]</p> <p>Data Content Validation on</p> <p>Product Level Validation on</p> <p>Allow Unlabeled Files false</p> <p>Max Errors 100000</p> <p>Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>SKIP: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_seed_2.xml</p> <p>INFO [info.integrity.unreferenced_file] Skipping file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_seed_2.xml due to collection not latest or does not sharing the same logical_identifier as the bundle target</p> <p>SKIP: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_table_2.xml</p>

<p>INFO [info.integrity.unreferenced_file] Skipping file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_table_2.xml due to collection not latest or does not sharing the same logical_identifier as the bundle target</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/bundle_insight_seis.xml 3 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_lander.xml 4 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_table.xml 5 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_seed.xml 6 product validation(s) completed</p> <p>PDS4 Bundle Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_lander.xml WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_laf:lander-activity_fsw.xb.elys0.2018.330.3::1.0' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_laf:lander-activity_fsw.xb.elys0.2018.331.3::1.0' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_laf:lander-activity_fsw.xb.elys0.2018.332.4::1.0' could not be found in any product within the given target. 1 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_table.xml WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_table:stationxml.xb.elyh0.2019.032::1.1' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_table:stationxml.xb.elyh0.2019.171::1.1' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_table:stationxml.xb.elyhk.2019.077::1.1' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_table:stationxml.xb.elyhk.2019.170::1.1' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_table:stationxml.xb.elyhk.2019.245::1.1' could not be found in any product within the given target. 2 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/data/collection_data_seed.xml WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_seed:dataless.xb.elys0.2019.144::1.1' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_seed:dataless.xb.elys0.2019.171::1.1' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_seed:dataless.xb.elys0.2019.087::1.1' could not be found in any product within the given target. WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_seed:dataless.xb.elyhk.2019.170::1.1' could not be found in any product within the given target. 3 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/408/testdata/valid/bundle_insight_seis.xml</p>
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	<p>WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:data_derived' could not be found in any product within the given target.</p> <p>WARNING [warning.integrity.member_not_found] The member 'urn:nasa:pds:insight_seis:schema_mqs' could not be found in any product within the given target.</p> <p>4 integrity check(s) completed</p> <p>Summary:</p> <p>0 error(s) 14 warning(s)</p> <p>Product Validation Summary:</p> <p>4 product(s) passed 0 product(s) failed 2 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>4 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>Message Types:</p> <p>14 warning.integrity.member_not_found</p> <p>End of Report Completed execution in 6223 ms</p>
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Test ID	VAL.12
Issue ID	validate#411
Issue Type	Bug
Issue Description	Validate repo cannot be checked out on Windows without errors
Comments	Pass
Test Steps	On a Windows platform, execute 'git clone git@github.com:NASA-PDS/validate.git ' Test passes if there are no errors, 'invalid path', and no warnings, 'checkout failed.'
Test Results:	Cloning into 'validate'... remote: Enumerating objects: 41019, done. remote: Counting objects: 100% (12932/12932), done. remote: Compressing objects: 100% (2249/2249), done. remote: Total 41019 (delta 10156), reused 12770 (delta 10075), pack-reused 28087 Receiving objects: 100% (41019/41019), 65.32 MiB 4.55 MiB/s, done. Resolving deltas: 100% (31680/31680), done.

Test ID	VAL.13
Issue ID	validate#435
Issue Type	Bug
Issue Description	Array Content Validator is not accepting values at the min/max due to false precision
Comments	Pass

	Test data is available at https://github.com/NASA-PDS/validate/files/7437701/flat_w.zip .
Test Steps	Run the following command: ‘validate -R pds4.label -r report_github435_label_valid.json -s json -t src/test/resources/github435/flat_w.xml’ Check results for a status of ‘PASS’ for the label ‘file:/home/qchau/sandbox/validate/src/test/resources/github435/flat_w.xml’
Test Results:	<p>PDS Validate Tool Report</p> <p>Configuration: Version 2.2.0 Date 2022-04-26T16:14:37Z</p> <p>Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/435/testdata/flat_w.xml] Rule Type pds4.label Severity Level WARNING Recurse Directories true File Filters Used [*.*ml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/435/testdata/flat_w.xml 1 product validation(s) completed</p> <p>Summary: 0 error(s) 0 warning(s)</p> <p>Product Validation Summary: 1 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary: 0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 7444 ms</p>

Test ID	VAL.14
Issue ID	validate#441
Issue Type	Bug
Issue Description	Validate is reporting a ‘String index out of range’ error for a text file
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/validate/files/7507136/validate_bug.zip.</p>
Test Steps	Run ‘validate -t bundle_insight_rise_raw.xml -r validate_report_3.txt’

	<p>Run ‘validate -R pds4.label -t bundle_insight_rise_raw.xml -r validate_report_2.txt’ Verify that the both executions pass with the ‘PASS: file:’ and ‘0 error(s)’ or warnings are in the output.</p>
<p>Test Results:</p>	<p>PDS Validate Tool Report</p> <p>Configuration: Version 2.2.0 Date 2022-04-26T15:08:43Z</p> <p>Parameters: Targets [file:/D:/pds/test-validations/12-1/validate/441/validate_bug/bundle_insight_rise_raw.xml] Rule Type pds4.label Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File D:\pds\validate-2.2.0\bin\..\resources\registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/D:/pds/test-validations/12-1/validate/441/validate_bug/bundle_insight_rise_raw.xml 1 product validation(s) completed</p> <p>Summary:</p> <p>0 error(s) 0 warning(s)</p> <p>Product Validation Summary: 1 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary: 0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 5090 ms</p>

<p>Test ID</p>	<p>VAL.15</p>
<p>Issue ID</p>	<p>validate#349</p>
<p>Issue Type</p>	<p>Bug</p>
<p>Issue Description</p>	<p>validate allows absolute path in directory_path_name but shouldn't</p>
<p>Comments</p>	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/validate/files/6530272/Archive.zip.</p>
<p>Test Steps</p>	<p>SETUP: ensure test data directory named 01 is directly above test data dirs.</p> <ul style="list-style-type: none"> - cd valid and verify ls ../01 produces results - Execute validate -t datasetgood.xml

	<p>- cd invalid For valid there should be no error. For invalid, an error should complain about the absolute dir path which is unallowed.</p>
<p>Test Results:</p>	<p>PDS Validate Tool Report</p> <p>Configuration: Version 2.2.0 Date 2022-04-27T00:56:46Z</p> <p>Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/349/invalid/datasetbad.xml] Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>FAIL: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/349/invalid/datasetbad.xml ERROR [error.directory.unallowed_name] The directory name /tmp/01/ for tag 'directory_path_name' cannot be absolute. ERROR [error.label.missing_file] URI reference does not exist: file:/tmp/01//dataset.txt 1 product validation(s) completed</p> <p>Summary: 2 error(s) 0 warning(s)</p> <p>Product Validation Summary: 0 product(s) passed 1 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary: 0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>Message Types: 1 error.label.missing_file 1 error.directory.unallowed_name</p> <p>End of Report Completed execution in 4201 ms</p>

Test ID	VAL.16
Issue ID	validate#470
Issue Type	Bug
Issue Description	Fix validate compilation issues due to removal of veraPDF artifacts from maven central
Comments	Pass
Test Steps	Clone the validate repo at https://github.com/NASA-PDS/validate

	<p>Verify you are using Java 11 with <code>java -version</code> and that the Maven subsystem is configured properly with the <code>PDS settings.xml</code> file. Run <code>'mvn clean install'</code> There should be no errors related to <code>'org.verapdf.pdfbox:pdfbox:jar:2.0.44'</code> missing and a successful build message should be displayed.</p>
<p>Test Results:</p>	<pre> rayl-c01375:470 johnengelke\$ cat 470_execution.txt grep -v 'Downloaded from' grep -v 'Downloading from' rayl-c01375:470 johnengelke\$ cd validate/ rayl-c01375:validate johnengelke\$ git checkout v2.2.0 HEAD is now at ba910e5a Update changelog rayl-c01375:validate johnengelke\$ git clean -ffxd rayl-c01375:validate johnengelke\$ mvn -U clean [INFO] Scanning for projects... [INFO] Inspecting build with total of 1 modules... [INFO] Installing Nexus Staging features: [INFO] ... total of 1 executions of maven-deploy-plugin replaced with nexus-staging-maven-plugin [INFO] [INFO] -----< gov.nasa.pds:validate >----- [INFO] Building gov.nasa.pds:validate 2.2.0 [INFO] -----[jar]----- [INFO] [INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ validate --- [INFO] ----- [INFO] BUILD SUCCESS [INFO] ----- [INFO] Total time: 13.262 s [INFO] Finished at: 2022-04-25T08:27:48-07:00 [INFO] ----- rayl-c01375:validate johnengelke\$ java --version java 11.0.3 2019-04-16 LTS Java(TM) SE Runtime Environment 18.9 (build 11.0.3+12-LTS) Java HotSpot(TM) 64-Bit Server VM 18.9 (build 11.0.3+12-LTS, mixed mode) rayl-c01375:validate johnengelke\$ git status HEAD detached at v2.2.0 nothing to commit, working tree clean rayl-c01375:validate johnengelke\$ mvn -U clean package -DskipTests [INFO] Scanning for projects... [INFO] Inspecting build with total of 1 modules... [INFO] Installing Nexus Staging features: [INFO] ... total of 1 executions of maven-deploy-plugin replaced with nexus-staging-maven-plugin [INFO] [INFO] -----< gov.nasa.pds:validate >----- [INFO] Building gov.nasa.pds:validate 2.2.0 [INFO] -----[jar]----- [INFO] [INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ validate --- [INFO] [INFO] --- buildnumber-maven-plugin:1.4:create (default) @ validate --- [INFO] Storing buildNumber: 2022-04-25 08:30:08 at timestamp: 1650900608148 [WARNING] Cannot get the branch information from the git repository: Detecting the current branch failed: fatal: ref HEAD is not a symbolic ref [INFO] Executing: /bin/sh -c cd '/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/470/validate' && 'git' 'rev-parse' '--verify' 'HEAD' [INFO] Working directory: /System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/470/validate [INFO] Storing buildScmBranch: UNKNOWN [INFO] [INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ validate --- [WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent! [WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent! [INFO] Copying 54 resources [INFO] Copying 1 resource to gov/nasa/pds/validate/util [INFO] Copying 1 resource to gov/nasa/pds/tools/util </pre>

```

[INFO]
[INFO] --- maven-compiler-plugin:3.8.1:compile (default-compile) @ validate ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform
dependent!
[INFO] Compiling 213 source files to /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/target/classes
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/src/main/java/gov/nasa/pds/web/ui/utills/DataSetValidator.java: Some input files
use or override a deprecated API.
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/src/main/java/gov/nasa/pds/web/ui/utills/DataSetValidator.java: Recompile with -
Xlint:deprecation for details.
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/src/main/java/gov/nasa/pds/tools/label/XMLCatalog.java: Some input files use
unchecked or unsafe operations.
[INFO] /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/src/main/java/gov/nasa/pds/tools/label/XMLCatalog.java: Recompile with -
Xlint:unchecked for details.
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ validate ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform
dependent!
[INFO] Copying 710 resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.1:testCompile (default-testCompile) @ validate ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform
dependent!
[INFO] Compiling 5 source files to /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/target/test-classes
[INFO]
[INFO] --- maven-surefire-plugin:3.0.0-M3:test (default-test) @ validate ---
[INFO] Tests are skipped.
[INFO]
[INFO] --- maven-jar-plugin:3.2.0:jar (default-jar) @ validate ---
[INFO] Building jar: /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/target/validate-2.2.0.jar
[INFO]
[INFO] --- maven-assembly-plugin:3.3.0:single (bin-release) @ validate ---
[INFO] Reading assembly descriptor: src/main/assembly/tar-assembly.xml
[INFO] Reading assembly descriptor: src/main/assembly/zip-assembly.xml
[WARNING] The assembly id bin is used more than once.
[INFO] Building tar: /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/target/validate-2.2.0-bin.tar.gz
[INFO] Building zip: /System/Volumes/Data/sourcecode/source/pds/test-validations/12-
1/validate/470/validate/target/validate-2.2.0-bin.zip
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 05:11 min
[INFO] Finished at: 2022-04-25T08:34:40-07:00
[INFO] -----
rayl-c01375:validate johnengelke$ echo $?
0
    
```

Test ID	VAL.17
Issue ID	validate#469
Issue Type	Bug
Issue Description	Validate content validation does not properly handle special_constants and field statistics when they both appear
Comments	Pass

	<p>Test data is available at https://github.com/NASA-PDS/validate/files/8016971/201401031400_rdr.zip and https://github.com/NASA-PDS/validate/files/8016970/201401031400_rdr.xml.txt.</p>
<p>Test Steps</p>	<p>Run 'validate --strict-field-checks -t 201401031400_rdr.xml, 201401031400_rdr.tab' If results do not include an error message with "error.table.field value out of min max range" then the test passes.</p>
<p>Test Results:</p>	<p>PDS Validate Tool Report</p> <p>Configuration: Version 2.2.0 Date 2022-04-25T20:48:38Z</p> <p>Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/469/testdata/201401031400_rdr.xml, file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/469/testdata/201401031400_rdr.tab] Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/469/testdata/201401031400_rdr.xml</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: ["] found between fields 1 and 2 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: ["] found between fields 2 and 3 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 3 and 4 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 4 and 5 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 5 and 6 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 6 and 7 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 7 and 8 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 8 and 9 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 9 and 10 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 10 and 11 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 11 and 12 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 12 and 13 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 13 and 14 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 14 and 15 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 15 and 16 WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 16 and 17</p>

	<p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 17 and 18</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 18 and 19</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 19 and 20</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 20 and 21</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 21 and 22</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 22 and 23</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 23 and 24</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 24 and 25</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 25 and 26</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 26 and 27</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 27 and 28</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 28 and 29</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 29 and 30</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 30 and 31</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 31 and 32</p> <p>WARNING [warning.table.characters_between_fields] Unexpected alphanumeric characters found between fields in record 1: [,] found between fields 32 and 33</p> <p>1 product validation(s) completed</p> <p>Fatal error: [node=null,object=null,url=file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/469/testdata/201401031400_rdr.tab,line=1,col=1,offset=-1]: Content is not allowed in prolog.</p> <p>Fatal error: [node=null,object=null,url=file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/469/testdata/201401031400_rdr.tab,line=1,col=1,offset=-1]: Content is not allowed in prolog.</p> <p>FAIL: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/validate/469/testdata/201401031400_rdr.tab</p> <p>ERROR [error.label.bad_extension] Label file names must end with the extension '.xml' or '.XML'</p> <p>ERROR [error.label.schema] line 1, 1: Content is not allowed in prolog.</p> <p>ERROR [error.validation.invalid_label] Cannot extract */*/Table_Character/Record_Character from label</p> <p>ERROR [error.validation.invalid_label] Error occurred while trying to get the table file areas: null</p> <p>2 product validation(s) completed</p> <p>Summary:</p> <p>4 error(s) 32 warning(s)</p> <p>Product Validation Summary:</p> <p>1 product(s) passed 1 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>Message Types:</p> <p>2 error.validation.invalid_label 1 error.label.bad_extension 1 error.label.schema 32 warning.table.characters_between_fields</p>
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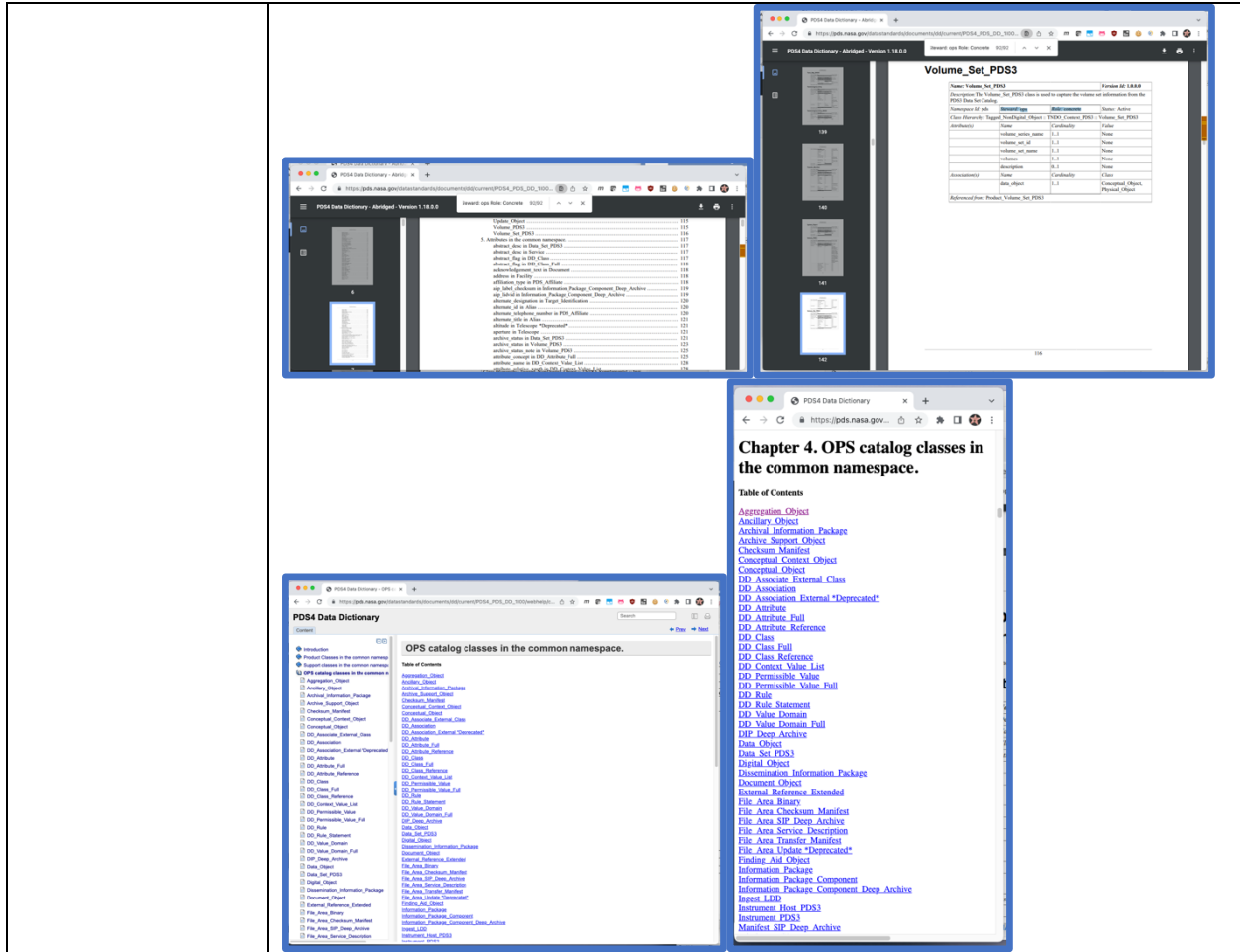
	End of Report Completed execution in 8225 ms
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Test ID	VAL.18
Issue ID	validate#421
Issue Type	Enhancement
Issue Description	Improve warning message
Comments	<p>Fail – SKIP INT</p> <p>No WARNING is issued at all that says, “WARNING [warning.integrity.missing_context_reference]”.</p> <p>Test data available at https://github.com/NASA-PDS/validate/files/8383215/validate421.zip.</p>
Test Steps	<p>Unpack test data</p> <p>Run ‘find . -type f -name ".DS_Store" -delete’ to remove hidden OS files.</p> <p>Run ‘validate -R pds4.bundle -t <bundle_dir>’ separately with the four datasets provided.</p> <p>Note that the warning reads as follows: ‘WARNING [warning.integrity.missing_context_reference] This file should reference</p> <p>'urn:nasa:pds:context:investigation:mission.lunar_reconnaissance_orbiter' because its child product with LIDVID</p> <p>'...:document:watkins_2018_boulderdata_archive_description::1.0' references it.’</p>
Test Results:	<p>TESTING 1 -- val308a. ...</p> <p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0</p> <p>Date 2022-04-14T14:20:36Z</p> <p>Parameters:</p> <p>Targets</p> <p>[file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/]</p> <p>Rule Type pds4.bundle</p> <p>Severity Level WARNING</p> <p>Recurse Directories true</p> <p>File Filters Used [*.xml, *.XML]</p> <p>Data Content Validation on</p> <p>Product Level Validation on</p> <p>Allow Unlabeled Files false</p> <p>Max Errors 100000</p> <p>Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS:</p> <p>file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/bundle-voyager1-pls-sat-1.0.xml</p> <p>1 product validation(s) completed</p>

	<p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/browse-ion-moments/collection-browse-ion-moments-1.0.xml 2 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/browse-ion-moments/ION_MOM.xml 3 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/data-ion-moments-96sec/collection-data-ion-moments-96s-1.0.xml 4 product validation(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/data-ion-moments-96sec/ION_MOM.xml 5 product validation(s) completed</p> <p>PDS4 Bundle Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/browse-ion-moments/collection-browse-ion-moments-1.0.xml 1 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/data-ion-moments-96sec/collection-data-ion-moments-96s-1.0.xml 2 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/bundle-voyager1-pls-sat-1.0.xml 3 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/data-ion-moments-96sec/ION_MOM.xml 4 integrity check(s) completed</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/validate/src/test/resources/github421/val308a/browse-ion-moments/ION_MOM.xml 5 integrity check(s) completed</p> <p>Summary:</p> <p>0 error(s) 0 warning(s)</p> <p>Product Validation Summary: 5 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary: 5 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 5453 ms</p>
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pds4-information-model

Test ID	IM.1
Issue ID	pds4-information-model#281
Issue Type	Enhancement
Issue Description	Tag ops classes/attributes in IM so they are easily identifiable by users
Comments	Pass
Test Steps	<p>Open the following documents for comparison:</p> <p>https://pds.nasa.gov/datastandards/documents/dd/current/PDS4_PDS_DD_1I00.pdf (latest version)</p> <p>https://pds.nasa.gov/datastandards/documents/dd/current/PDS4_PDS_DD_1H00.pdf (previous release)</p> <ol style="list-style-type: none"> (1) Examine the section “PDS3 catalog classes in the common namespace”. <ol style="list-style-type: none"> a. Ensure that the section name is updated to “OPS catalog classes in the common namespace” b. Ensure that that the section is significantly longer and more detailed than the previous release. (2) Ensure that the “OPS Catalog” section contains only “ops” classes and that no “ops” classes exist elsewhere. (NOTE: Attributes not moved. Search for “Steward: ops Role: Concrete”.) (3) Compare all current versions to ensure they match: .pdf, .html and .webhelp by ensuring all current versions compare identically to the corresponding previous version. <ol style="list-style-type: none"> a. Section name updated and significantly longer with more detailed description of classes and all “ops” classes.
Test Results:	<p>PASS</p>



Test ID	IM.2
Issue ID	pds4-information-model#428
Issue Type	Enhancement
Issue Description	IMTool Refactoring - Phase 2 - Move deprecated values to Protege ontology file
Comments	<p>PASS</p> <p>This is a one-time fix not suitable for regression placement. Phase 2, see pds4-information-model#306 for more information. These tests use the Protégé Ontology files available from the model-ontology release at https://github.com/NASA-PDS/pds4-information-model/releases/download/v14.0.1/model-ontology-14.0.1.jar:</p> <ul style="list-style-type: none"> • <release>/ontology/Model_DataDictionary/dd11179_Gen*.pins
Test Steps	<p>(1) Test 'isInactive':</p> <ol style="list-style-type: none"> Execute a diff for forward changes between the 'H' and the 'I' versions of the Protégé Ontology files by executing 'diff -Bb testdata/H/dd11179_Gen 211005.pins'

	<p>testdata/I/dd11179_GenPClass_220418.pins grep -B10 -A3 'isInactive'</p> <p>b. Execute a reverse diff for backward changes by executing 'diff -Bb testdata/H/dd11179_Gen_211005.pins testdata/I/dd11179_GenPClass_220418.pins grep -B10 -A3 'isInactive' grep '^<'</p> <p>c. PASS is indicated by numerous changes in the forward direction and no changes in the reverse direction.</p> <p>(2) Test 'isDeprecated':</p> <p>a. Execute a diff for forward changes between the 'H' and the 'I' versions of the Protégé Ontology files by executing 'diff -Bb testdata/H/dd11179_Gen_211005.pins testdata/I/dd11179_GenPClass_220418.pins grep 'isDeprecated'</p> <p>b. Execute a reverse diff for backward changes by executing 'diff -Bb testdata/H/dd11179_Gen_211005.pins testdata/I/dd11179_GenPClass_220418.pins grep -B10 -A3 'isDeprecated' grep '^<'</p> <p>c. PASS is indicated by numerous changes in the forward direction and no changes in the reverse direction.</p>
<p>Test Results:</p>	<p>Sample changes showed in the new files, as intended.</p> <pre> ... -- > (isDataType "false") > (isUnitOfMeasure "false") > (versionIdentifier "1.2.0.0") > ([OC.0001_NASA_PDS_1.pds.Zip] of ObjectClass > (administrationRecord [DD_1.18.0.0]) > (dataIdentifier "OC.0001_NASA_PDS_1.pds.Zip") > (registeredBy [RA_0001_NASA_PDS_1]) > (registrationAuthorityIdentifier [0001_NASA_PDS_1]) > (steward [pds]) > (terminologicalEntry [TE.0001_NASA_PDS_1.pds.Zip]) > (isInactive "false") > (isDeprecated "false") > (used "Y") > (section "#12") rayl-c01375:428 johnengelke\$ diff -Bb testdata/H/dd11179_Gen_211005.pins testdata/I/dd11179_GenPClass_220418.pins grep -B10 -A3 'isInactive' grep '^<' rayl-c01375:428 johnengelke\$ rayl-c01375:428 johnengelke\$ diff -Bb testdata/H/dd11179_Gen_211005.pins testdata/I/dd11179_GenPClass_220418.pins grep 'isDeprecated' > (isDeprecated "false") </pre>

	<ul style="list-style-type: none"> > (isDeprecated "false") > (isDeprecated "false") > (isDeprecated "false") > (isDeprecated "true") > (isDeprecated "false") ...
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Test ID IM.3 (pds4-information-model#444) was removed from the release.

Test ID	IM.4
Issue ID	pds4-information-model#269
Issue Type	bug
Issue Description	The PDS4 IM Specification Document is not consistent in the ordering of Permissible Values
Comments	<p>Conditional pass</p> <p>Test data is available at https://github.com/NASA-PDS/pds4-information-model/files/8674058/testdata.zip.</p>
Test Steps	<ol style="list-style-type: none"> (1) Information Model Spec: In a browser navigate to the PDS Internal Reference at https://pds.jpl.nasa.gov/datastandards/documents/im/current/index_1I00.html#attribute_pds_internal_reference_pds_reference_type to find the PDS Internal Reference Types. <ol style="list-style-type: none"> a. Verify that the values are in strict alphabetical order. (2) Schema: <ol style="list-style-type: none"> a. At terminal execute: <code>grep -B2 -A10 -n -i 'Internal_Reference' PDS4_PDS_1I00.sch grep -iE 'attribute_to_image class_to_image is_facility package_compiled_from_package ancillary_to_browse bundle_to_errata collection_to_spice_kernel node_to_data_archivist package_has_product document_to_instrument_host data_curated_by_node thumbnail_to_document'</code> b. Verify that the resultant lines present value ordering in strict alphabetical order.
Test Results:	(1) Information Model:

(2) Schema:

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rayl-c01375:269 johngengelke$ grep -B2 -A10 -n -i
'Internal_Reference' /sourcecode/source/pds/model-ontology-
14.0.1/ontology/SchemaXML4/PDS4_PDS_1I00.sch | grep -iE
'attribute_to_image|class_to_image|is_facility|package_compiled_fro
m_package|ancillary_to_browse|bundle_to_errata|collection_to_spice
_kernel|node_to_data_archivist|package_has_product|document_to_in
strument_host|data_curated_by_node|thumbnail_to_document'
436-   <sch:assert test="every $ref in (pds:reference_type) satisfies
$ref = ('attribute_to_image', 'attribute_to_document')">
436-   <sch:assert test="every $ref in (pds:reference_type) satisfies
$ref = ('attribute_to_image', 'attribute_to_document')">
438-     The attribute reference_type must be set to one of the
following values 'attribute_to_image',
'attribute_to_document'.</sch:assert>
478-   <sch:assert test="every $ref in (pds:reference_type) satisfies
$ref = ('class_to_image', 'class_to_document')">
478-   <sch:assert test="every $ref in (pds:reference_type) satisfies
$ref = ('class_to_image', 'class_to_document')">
480-     The attribute reference_type must be set to one of the
following values 'class_to_image', 'class_to_document'.</sch:assert>
1357-   <sch:assert test="every $ref in (pds:reference_type) satisfies
$ref = ('is_instrument', 'is_instrument_host', 'is_other', 'is_facility',
'is_telescope', 'is_airborne')">
1357-   <sch:assert test="every $ref in (pds:reference_type) satisfies
$ref = ('is_instrument', 'is_instrument_host', 'is_other', 'is_facility',
'is_telescope', 'is_airborne')">

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	<p>1359- The attribute reference_type must be set to one of the following values 'is_instrument', 'is_instrument_host', 'is_other', 'is_facility', 'is_telescope', 'is_airborne'.</sch:assert></p> <p>1532- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package')"></p> <p>1532- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package')"></p> <p>1534- The attribute reference_type must be set to one of the following values 'package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package'.</sch:assert></p> <p>1553- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('ancillary_to_data', 'ancillary_to_document', 'ancillary_to_browse')"></p> <p>1553- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('ancillary_to_data', 'ancillary_to_document', 'ancillary_to_browse')"></p> <p>1555- The attribute reference_type must be set to one of the following values 'ancillary_to_data', 'ancillary_to_document', 'ancillary_to_browse'.</sch:assert></p> <p>1655- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('bundle_to_errata', 'bundle_to_document', 'bundle_to_investigation', 'bundle_to_instrument', 'bundle_to_instrument_host', 'bundle_to_target', 'bundle_to_resource', 'bundle_to_associate')"></p> <p>1655- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('bundle_to_errata', 'bundle_to_document', 'bundle_to_investigation', 'bundle_to_instrument', 'bundle_to_instrument_host', 'bundle_to_target', 'bundle_to_resource', 'bundle_to_associate')"></p> <p>1657- The attribute reference_type must be set to one of the following values 'bundle_to_errata', 'bundle_to_document', 'bundle_to_investigation', 'bundle_to_instrument', 'bundle_to_instrument_host', 'bundle_to_target', 'bundle_to_resource', 'bundle_to_associate'.</sch:assert></p> <p>1731- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('collection_to_resource', 'collection_to_associate', 'collection_to_calibration', 'collection_to_geometry', 'collection_to_spice_kernel', 'collection_curated_by_node', 'collection_to_document', 'collection_to_browse', 'collection_to_context', 'collection_to_data', 'collection_to_ancillary', 'collection_to_schema', 'collection_to_errata', 'collection_to_bundle', 'collection_to_personnel', 'collection_to_investigation',</p>
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	<p>'collection_to_instrument', 'collection_to_instrument_host', 'collection_to_target')"> 1731- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('collection_to_resource', 'collection_to_associate', 'collection_to_calibration', 'collection_to_geometry', 'collection_to_spice_kernel', 'collection_curated_by_node', 'collection_to_document', 'collection_to_browse', 'collection_to_context', 'collection_to_data', 'collection_to_ancillary', 'collection_to_schema', 'collection_to_errata', 'collection_to_bundle', 'collection_to_personnel', 'collection_to_investigation', 'collection_to_instrument', 'collection_to_instrument_host', 'collection_to_target')"> 1733- The attribute reference_type must be set to one of the following values 'collection_to_resource', 'collection_to_associate', 'collection_to_calibration', 'collection_to_geometry', 'collection_to_spice_kernel', 'collection_curated_by_node', 'collection_to_document', 'collection_to_browse', 'collection_to_context', 'collection_to_data', 'collection_to_ancillary', 'collection_to_schema', 'collection_to_errata', 'collection_to_bundle', 'collection_to_personnel', 'collection_to_investigation', 'collection_to_instrument', 'collection_to_instrument_host', 'collection_to_target'.</sch:assert> 1738- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('context_to_associate', 'instrument_to_document', 'instrument_to_instrument_host', 'instrument_host_to_document', 'instrument_host_to_instrument', 'instrument_host_to_investigation', 'instrument_host_to_target', 'investigation_to_document', 'investigation_to_instrument', 'investigation_to_instrument_host', 'investigation_to_target', 'node_to_personnel', 'node_to_agency', 'node_to_manager', 'node_to_operator', 'node_to_data_archivist', 'resource_to_instrument', 'resource_to_instrument_host', 'resource_to_investigation', 'resource_to_target', 'target_to_document', 'target_to_instrument', 'target_to_instrument_host', 'target_to_investigation', 'instrument_to_telescope', 'instrument_to_observatory', 'instrument_to_facility', 'telescope_to_observatory', 'telescope_to_facility', 'telescope_to_airborne', 'investigation_to_telescope', 'facility_to_investigation', 'facility_to_instrument', 'facility_to_telescope', 'investigation_to_facility', 'telescope_to_instrument')"> 1738- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('context_to_associate', 'instrument_to_document', 'instrument_to_instrument_host', 'instrument_host_to_document', 'instrument_host_to_instrument', 'instrument_host_to_investigation', 'instrument_host_to_target', 'investigation_to_document', 'investigation to instrument', 'investigation to instrument host',</p>
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	<p>'investigation_to_target', 'node_to_personnel', 'node_to_agency', 'node_to_manager', 'node_to_operator', 'node_to_data_archivist', 'resource_to_instrument', 'resource_to_instrument_host', 'resource_to_investigation', 'resource_to_target', 'target_to_document', 'target_to_instrument', 'target_to_instrument_host', 'target_to_investigation', 'instrument_to_telescope', 'instrument_to_observatory', 'instrument_to_facility', 'telescope_to_observatory', 'telescope_to_facility', 'telescope_to_airborne', 'investigation_to_telescope', 'facility_to_investigation', 'facility_to_instrument', 'facility_to_telescope', 'investigation_to_facility', 'telescope_to_instrument')"></p> <p>1740- The attribute reference_type must be set to one of the following values 'context_to_associate', 'instrument_to_document', 'instrument_to_instrument_host', 'instrument_host_to_document', 'instrument_host_to_instrument', 'instrument_host_to_investigation', 'instrument_host_to_target', 'investigation_to_document', 'investigation_to_instrument', 'investigation_to_instrument_host', 'investigation_to_target', 'node_to_personnel', 'node_to_agency', 'node_to_manager', 'node_to_operator', 'node_to_data_archivist', 'resource_to_instrument', 'resource_to_instrument_host', 'resource_to_investigation', 'resource_to_target', 'target_to_document', 'target_to_instrument', 'target_to_instrument_host', 'target_to_investigation', 'instrument_to_telescope', 'instrument_to_observatory', 'instrument_to_facility', 'telescope_to_observatory', 'telescope_to_facility', 'telescope_to_airborne', 'investigation_to_telescope', 'facility_to_investigation', 'facility_to_instrument', 'facility_to_telescope', 'investigation_to_facility', 'telescope_to_instrument'.</sch:assert></p> <p>1745- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package')"></p> <p>1745- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package')"></p> <p>1747- The attribute reference_type must be set to one of the following values 'package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package'.</sch:assert></p> <p>1752- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package')"></p> <p>1752- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package')"></p>
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	<p>1754- The attribute <code>reference_type</code> must be set to one of the following values 'package_has_collection', 'package_has_bundle', 'package_has_product', 'package_compiled_from_package'.</sch:assert></p> <p>1780- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('document_to_associate', 'document_to_investigation', 'document_to_instrument_host', 'document_to_instrument', 'document_to_target', 'document_to_data')"></p> <p>1780- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('document_to_associate', 'document_to_investigation', 'document_to_instrument_host', 'document_to_instrument', 'document_to_target', 'document_to_data')"></p> <p>1782- The attribute <code>reference_type</code> must be set to one of the following values 'document_to_associate', 'document_to_investigation', 'document_to_instrument_host', 'document_to_instrument', 'document_to_target', 'document_to_data'.</sch:assert></p> <p>1823- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data', 'data_to_partially_processed_product')"></p> <p>1823- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data', 'data_to_partially_processed_product')"></p> <p>1825- The attribute <code>reference_type</code> must be set to one of the following values 'data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data', 'data_to_partially_processed_product'.</sch:assert></p> <p>1830- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product')"></p>
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	<p>1830- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('package_has_collection', 'package_has_bundle', 'package_has_product')"></p> <p>1832- The attribute reference_type must be set to one of the following values 'package_has_collection', 'package_has_bundle', 'package_has_product'.</sch:assert></p> <p>1851- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('thumbnail_to_data', 'thumbnail_to_browse', 'thumbnail_to_document')"></p> <p>1851- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('thumbnail_to_data', 'thumbnail_to_browse', 'thumbnail_to_document')"></p> <p>1853- The attribute reference_type must be set to one of the following values 'thumbnail_to_data', 'thumbnail_to_browse', 'thumbnail_to_document'.</sch:assert></p> <p>rayl-c01375:269 johnengelke\$</p>
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Test ID	IM.5
Issue ID	pds4-information-model#341
Issue Type	requirement
Issue Description	As a user, I want to specify an IngestLDD using a relative path
Comments	<p>Pass</p> <p>Test data available at https://github.com/NASA-PDS/pds4-information-model/files/8674062/testdata.zip.</p>
Test Steps	<p>(1) Run 'lddtool -lpJ <./relative/path/to/PDS4_CART_IngestLDD >',</p> <p>(2) Run 'lddtool -lpJ </full/path/to/PDS4_CART_IngestLDD >'</p> <p>a. Pass: Verify that outputs are identical, irrespective of paths and creation/modification times.</p>
Test Results:	<pre>rayl-c01375:results johnengelke\$ diff -Bb relative/PDS4_CART_1I00_1950.xsd full/PDS4_CART_1I00_1950.xsd 2c2 < <!-- PDS4 XML/Schema for Name Space Id:cart Version:1.9.5.0 - Mon May 09 06:05:46 PDT 2022 --> --- > <!-- PDS4 XML/Schema for Name Space Id:cart Version:1.9.5.0 - Mon May 09 06:06:36 PDT 2022 --> rayl-c01375:results johnengelke\$ diff -Bb relative/PDS4_CART_1I00_1950.sch full/PDS4_CART_1I00_1950.sch 2c2 < <!-- PDS4 Schematron for Name Space Id:cart Version:1.9.5.0 - Mon May 09 06:05:46 PDT 2022 --></pre>

	<pre> --- > <!-- PDS4 Schematron for Name Space Id:cart Version:1.9.5.0 - Mon May 09 06:06:36 PDT 2022 --> rayl-c01375:results johnengelke\$ diff -Bb relative/PDS4_CART_1I00_1950.xml full/PDS4_CART_1I00_1950.xml 2c2 < <!-- PDS4 XML product label for PDS4 V1.18.0.0 Mon May 09 06:05:46 PDT 2022 --> --- > <!-- PDS4 XML product label for PDS4 V1.18.0.0 Mon May 09 06:06:36 PDT 2022 --> 29c29 < <creation_date_time>2022-05- 09T06:05:46</creation_date_time> --- > <creation_date_time>2022-05- 09T06:06:36</creation_date_time> 43c43 < <creation_date_time>2022-05- 09T06:05:46</creation_date_time> --- > <creation_date_time>2022-05- 09T06:06:36</creation_date_time> rayl-c01375:results johnengelke\$ </pre>
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Test ID	IM.6
Issue ID	pds4-information-model#418
Issue Type	bug
Issue Description	Inconsistent naming of JSON schema files
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/pds4-information-model/releases/download/v14.0.1/model-ontology-14.0.1.jar.</p>
Test Steps	<ol style="list-style-type: none"> 1. Unpack releases by unzipping or go to https://pds.nasa.gov/datastandards/dictionaries/index-1.18.0.0.shtml 2. Find and copy files from ontology stack with 'find ontology/ -type f grep -iE '(.XSD \.JSON \.PDF \.SCH \.XML)\$' grep -v -E '/0.*' xargs -I{} cp -pr {} .'. 3. Verify uniqueness of base names both programmatically and visually: <ol style="list-style-type: none"> 1. 'ls -l cut -f1 -d' uniq' 2. Check PDS schema files: PDS4_PDS_1I00.xsd and PDS4_PDS_JSON_1I00.JSON

	<p>3. Check non-PDS schema files, e.g., PDS4_CART_1H00_1950.xsd, PDS4_CART_1H00_1950.JSON</p> <p>Verify that .XSD, .JSON, .PDF, .SCH, .XML files are correlated **only** by a different extension and not differences in file names.</p>
Test Results:	PDS4_CART_1H00_1950 PDS4_CART_IngestLDD PDS4_DISP_1H00_1510 PDS4_DISP_IngestLDD PDS4_PDS_1I00 PDS4_PDS_DD_1I00

Test ID	IM.7
Issue ID	pds4-information-model#375
Issue Type	bug
Issue Description	LDDTool documentation inconsistency
Comments	Pass Test data is available at https://github.com/NASA-PDS/pds4-information-model/files/8674075/testdata.zip .
Test Steps	<ol style="list-style-type: none"> 1. Execute ./lddtool -lp PDS4_CLIPPER_IngestLDD.xml 2. Execute ./lddtool -lpM PDS4_CLIPPER_IngestLDD.xml 3. Compare the schemas generated. <ol style="list-style-type: none"> a. They should be identical b. The result WITHOUT the -M flag should display 'ERROR Init: - LDD Dictionary_Type not Found:TBD_dictionary_type Defaulting to Discipline' c. The result with the -M flag should display 'WARNING The -M flag has been deprecated as of PDS4' 4. Compare generated schemas with 'diff -Bb results/1/PDS4_CLIPPER_1I00_1000.sch results/2/PDS4_CLIPPER_1I00_1000.sch' to verify they are identical. 5. Pass: If above criteria match and schema only differs by creation/modification dates.
Test Results:	diff -Bb results/1/PDS4_CLIPPER_1I00_1000.sch results/2/PDS4_CLIPPER_1I00_1000.sch 2c2 < <!-- PDS4 Schematron for Name Space Id:clipper Version:1.0.0.0 - Mon May 09 06:53:45 PDT 2022 --> --- > <!-- PDS4 Schematron for Name Space Id:clipper Version:1.0.0.0 - Mon May 09 06:54:02 PDT 2022 -->

Test ID	IM.8
Issue ID	pds4-information-model#351
Issue Type	bug
Issue Description	Contradictory DISP rule assertions exist in the PDS4 IM from legacy ingestion
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/pds4-information-model/files/8674078/testdata.zip.</p>
Test Steps	<p>Execute ‘diff -Bb -U10 testdata/PDS4_DISP_1G00_1500.sch testdata/PDS4_DISP_1H00_1510.sch grep -i -B4 -A4 'Local_Internal_Reference' grep '^-' and verify the following assertions were removed:</p> <ol style="list-style-type: none"> 1. Display Dictionary: In the pds:Local_Internal_Reference class, the value of the pds:local_identifier_reference must match the value of the pds:local_idenfiter of an Array class or sub-class within the File_Area. 2. Display_Dictionary: In the pds:Local_Internal_Reference class, the value of the pds:local_reference_type must be 'display_settings_to_array'. <p>Execute ‘diff -Bb -U10 testdata/PDS4_DISP_1G00_1500.sch testdata/PDS4_DISP_1H00_1510.sch grep -i -B4 -A4 'Display_Direction' grep '^-' and verify the following assertions were removed:</p> <ol style="list-style-type: none"> 1. Display Dictionary: If the Display_Direction class is in the label, it must be contained in a Display_Settings class.
Test Results:	<p>(1-1 and 1-2)</p> <pre>rayl-c01375:351 johnengelke\$ diff -Bb -U10 testdata/PDS4_DISP_1G00_1500.sch testdata/PDS4_DISP_1H00_1510.sch grep -i -B4 -A4 'Local_Internal_Reference' grep '^-' -- -- -- -- - The attribute disp:vertical_display_direction must be equal to one of the following values 'Bottom to Top', 'Top to Bottom'.</sch:assert> - </sch:rule> - </sch:pattern> - <sch:pattern></pre>

	<pre> - <sch:rule context="disp:Display_Settings/pds:Local_Internal_Reference"> - <sch:assert test="pds:local_identifier_reference = //pds:*/pds:*/(pds:Array pds:Array_2D pds:Array_2D_Image pds:Array_2 D_Map pds:Array_2D_Spectrum pds:Array_3D pds:Array_3D_Image pds: Array_3D_Movie pds:Array_3D_Spectrum)/pds:local_identifier"> -- - <sch:assert test="pds:local_identifier_reference = //pds:*/pds:*/(pds:Array pds:Array_2D pds:Array_2D_Image pds:Array_2 D_Map pds:Array_2D_Spectrum pds:Array_3D pds:Array_3D_Image pds: Array_3D_Movie pds:Array_3D_Spectrum)/pds:local_identifier"> - <title>disp:Display_Settings/pds:Local_Internal_Reference/local_identifie r_reference</title> - Display Dictionary: In the pds:Local_Internal_Reference class, the value of the pds:local_identifier_reference must match the value of the pds:local_identifer of an Array class or sub-class within the File_Area.</sch:assert> - <sch:assert test="pds:local_reference_type = ('display_settings_to_array')"> -- - <sch:assert test="pds:local_reference_type = ('display_settings_to_array')"> - <title>disp:Display_Settings/pds:Local_Internal_Reference/local_referenc e_type</title> - Display Dictionary: In the pds:Local_Internal_Reference class, the value of the pds:local_reference_type must be 'display_settings_to_array'.</sch:assert> -- -- rayl-c01375:351 johnengelke\$ (2) rayl-c01375:351 johnengelke\$ diff -Bb -U10 testdata/PDS4_DISP_1G00_1500.sch testdata/PDS4_DISP_1H00_1510.sch grep -i -B4 -A4 'Display_Direction' grep '^' - <sch:rule context="disp:Discipline_Area"> - <sch:assert test="if (disp:Display_Direction) then (disp:Display_Settings/disp:Display_Direction) else true("> - <title>disp:Discipline_Area/logical_identifier</title> -- - <title>disp:Discipline_Area/logical_identifier</title> - Display Dictionary: If the Display_Direction class is in the label, it must be contained in a Display_Settings class.</sch:assert> </pre>
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	<pre> - </sch:rule> - </sch:pattern> - <sch:pattern> -- - </sch:rule> - </sch:pattern> - <sch:pattern> -- - The attribute disp:horizontal_display_direction must be equal to one of the following values 'Left to Right', 'Right to Left'.</sch:assert> -- -- - The attribute disp:vertical_display_direction must be equal to one of the following values 'Bottom to Top', 'Top to Bottom'.</sch:assert> - </sch:rule> - </sch:pattern> - <sch:pattern> - <sch:rule context="disp:Display_Settings/pds:Local_Internal_Reference"> -- -- - Display Dictionary: In the pds:Local_Internal_Reference class, the value of the pds:local_identifier_reference must match the value of the pds:local_idenfifer of an Array class or sub-class within the File_Area.</sch:assert> - <sch:assert test="pds:local_reference_type = ('display_settings_to_array')"> - <title>disp:Display_Settings/pds:Local_Internal_Reference/local_referenc e_type</title> - Display Dictionary: In the pds:Local_Internal_Reference class, the value of the pds:local_reference_type must be 'display_settings_to_array'.</sch:assert> -- -- rayl-c01375:351 johnengelke\$ </pre>
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Test ID	IM.9
Issue ID	pds4-information-model#443
Issue Type	Requirement
Issue Description	CCB-339: add Units_of_Power with SI watts as option
Comments	Fail Test data is available at https://github.com/NASA-PDS/pds4-information-model/files/8674008/testdata.zip .

<p>Test Steps</p>	<p>Retrieve latest SNAPSHOT archive of the validate tool: Execute the following: 1. validate -t badtype.xml 2. validate -t shouldpass.xml The former file should fail. The latter file should pass. This passes if both conditions are met.</p>
<p>Test Results:</p>	<pre> rayl-c01375:443 johnengelke\$ find . -type f -name ".DS_Store" -delete rayl-c01375:443 johnengelke\$ validate --version gov.nasa.pds:validate Version 2.2.0 Release Date: 2022-04-07 06:25:14 Copyright 2019, by the California Institute of Technology ("Caltech"). (1) PDS Validate Tool Report Configuration: Version 2.2.0 Date 2022-05-09T15:22:33Z Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/443/testdata/badtype.xml] Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json Product Level Validation Results PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/443/testdata/badtype.xml WARNING [warning.label.schematron] line 30, 29: The attribute pds:DD_Value_Domain/pds:unit_of_measure_type must be equal to one of the following values 'Units_of_Acceleration', 'Units_of_Amount_Of_Substance', 'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Current', 'Units_of_Energy', 'Units_of_Force', 'Units_of_Frame_Rate', 'Units_of_Frequency', 'Units_of_Gmass', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pixel_Resolution_Angular', 'Units_of_Pixel_Resolution_Linear', 'Units_of_Pixel_Resolution_Map', 'Units_of_Pixel_Scale_Angular', 'Units_of_Pixel_Scale_Linear', 'Units_of_Pixel_Scale_Map', 'Units_of_Power', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume', 'Units_of_Wavenumber'. 1 product validation(s) completed Summary: 0 error(s) 1 warning(s) Product Validation Summary: 1 product(s) passed 0 product(s) failed </pre>

	<pre> 0 product(s) skipped Referential Integrity Check Summary: 0 check(s) passed 0 check(s) failed 0 check(s) skipped Message Types: 1 warning.label.schematron End of Report Completed execution in 4643 ms (2) PDS Validate Tool Report Configuration: Version 2.2.0 Date 2022-05-09T15:24:32Z Parameters: Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/443/testdata/shouldpass.xml] Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json Product Level Validation Results PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/443/testdata/shouldpass.xml 1 product validation(s) completed Summary: 0 error(s) 0 warning(s) Product Validation Summary: 1 product(s) passed 0 product(s) failed 0 product(s) skipped Referential Integrity Check Summary: 0 check(s) passed 0 check(s) failed 0 check(s) skipped End of Report Completed execution in 4174 ms </pre>
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Test ID	IM.10
Issue ID	pds4-information-model#453
Issue Type	Requirement

Issue Description	CCB-335: Inventory Specification Allows Too Many Delimiters
Comments	<p>Fail</p> <p>Test data is available at https://github.com/NASA-PDS/pds4-information-model/files/8674004/testdata.zip.</p>
Test Steps	<ol style="list-style-type: none"> 1. Perform the following tests: <ol style="list-style-type: none"> a. Execute 'diff -Bb /sourcecode/source/pds/model-ontology-13.1.0/ontology/SchemaXML4/PDS4_PDS_1H00.sch /sourcecode/source/pds/model-ontology-14.0.1/ontology/SchemaXML4/PDS4_PDS_1I00.sch grep -B4 -A4 -i "Comma" grep -B4 -A4 -i "Inventory"' <ol style="list-style-type: none"> i. Verify that Inventory.field_delimiter is limited to one and only one value "Comma". b. Execute 'cat testdata/PDS4_PDS_1I00.sch grep -A3 -B3 -n 'maximum_field_length' grep -A3 -B3 -i 'byte'' <ol style="list-style-type: none"> i. Verify that XML attribute unit="byte" is required in both instances of Inventory.Record_Delimited.Field_Delimited.maximum_field_length ii. Verify that permissible value list is expanded to contain "LID", "LIDVID", and "LIDVID_LID" in Inventory.Record_Delimited.Field_Delimited.name c. Prohibit inclusion of Inventory.Uniformly_Sampled (for example, by setting its cardinality to 0..0)
Test Results:	<pre> rayl-c01375:453 johngengelke\$ diff -Bb /sourcecode/source/pds/model-ontology-13.1.0/ontology/SchemaXML4/PDS4_PDS_1H00.sch /sourcecode/source/pds/model-ontology-14.0.1/ontology/SchemaXML4/PDS4_PDS_1I00.sch grep -B4 -A4 -i "Comma" grep -B4 -A4 -i "Inventory" < <title>pds:Inventory/x</title> --- --- --- > <title>pds:Inventory/Inventory</title> 1208a1209,1211 > <sch:assert test=".= ('Comma')"> -- 1208a1209,1211 > <sch:assert test=".= ('Comma')"> > <title>pds:Inventory/pds:field_delimiter/field_delimiter</title> -- -- -- > <title>pds:Inventory/pds:field_delimiter/field_delimiter</title> > The attribute pds:Inventory/pds:field_delimiter must ONLY be equal to the value 'Comma'.</sch:assert> 1820c1823 < <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data')"> --- > <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data', 'data_to_partially_processed_product')"> rayl-c01375:453 johngengelke\$ </pre>

<pre> rayl-c01375:453 johngengelke\$ cat testdata/PDS4_PDS_1100.sch grep -A8 -B8 -n 'maximum_field_length' grep -A8 -B8 -i 'byte' 867- <sch:rule context="pds:Field_Delimited/pds:data_type"> 868- <sch:assert test=" = ('ASCII_AnyURI', 'ASCII_BibCode', 'ASCII_Boolean', 'ASCII_DOI', 'ASCII_Date_DOY', 'ASCII_Date_Time_DOY', 'ASCII_Date_Time_DOY_UTC', 'ASCII_Date_Time_YMD', 'ASCII_Date_Time_YMD_UTC', 'ASCII_Date_YMD', 'ASCII_Directory_Path_Name', 'ASCII_File_Name', 'ASCII_File_Specification_Name', 'ASCII_Integer', 'ASCII_LID', 'ASCII_LIDVID', 'ASCII_LIDVID_LID', 'ASCII_MD5_Checksum', 'ASCII_NonNegative_Integer', 'ASCII_Numeric_Base16', 'ASCII_Numeric_Base2', 'ASCII_Numeric_Base8', 'ASCII_Real', 'ASCII_String', 'ASCII_Time', 'ASCII_VID', 'UTF8_String')"> 869- <title>pds:Field_Delimited/pds:data_type/pds:data_type</title> 870- The attribute pds:Field_Delimited/pds:data_type must be equal to one of the following values 'ASCII_AnyURI', 'ASCII_BibCode', 'ASCII_Boolean', 'ASCII_DOI', 'ASCII_Date_DOY', 'ASCII_Date_Time_DOY', 'ASCII_Date_Time_DOY_UTC', 'ASCII_Date_Time_YMD', 'ASCII_Date_Time_YMD_UTC', 'ASCII_Date_YMD', 'ASCII_Directory_Path_Name', 'ASCII_File_Name', 'ASCII_File_Specification_Name', 'ASCII_Integer', 'ASCII_LID', 'ASCII_LIDVID', 'ASCII_LIDVID_LID', 'ASCII_MD5_Checksum', 'ASCII_NonNegative_Integer', 'ASCII_Numeric_Base16', 'ASCII_Numeric_Base2', 'ASCII_Numeric_Base8', 'ASCII_Real', 'ASCII_String', 'ASCII_Time', 'ASCII_VID', 'UTF8_String'.</sch:assert> 871- </sch:rule> 872- </sch:pattern> 873- <sch:pattern> 874: <sch:rule context="pds:Field_Delimited/pds:maximum_field_length"> 875- <sch:assert test="@unit = ('byte')"> -- -- 875- <sch:assert test="@unit = ('byte')"> 876: <title>pds:Field_Delimited/pds:maximum_field_length/pds:maximum_field_length</title> -- 876: <title>pds:Field_Delimited/pds:maximum_field_length/pds:maximum_field_length</title> 877- The attribute @unit must be equal to one of the following values 'byte'.</sch:assert> 878- </sch:rule> 879- </sch:pattern> 880- <sch:pattern> 881- <sch:rule context="pds:File/pds:file_size"> -- 878- </sch:rule> 879- </sch:pattern> 880- <sch:pattern> 881- <sch:rule context="pds:File/pds:file_size"> 882- <sch:assert test="@unit = ('byte')"> 883- <title>pds:File/pds:file_size/pds:file_size</title> -- 883- <title>pds:File/pds:file_size/pds:file_size</title> 884- The attribute @unit must be equal to one of the following values 'byte'.</sch:assert> -- -- 1172- The attribute pds:groups must be equal to '0'.</sch:assert> 1173- </sch:rule> 1174- </sch:pattern> 1175- <sch:pattern> 1176- <sch:rule context="pds:Inventory/pds:Record_Delimited/pds:Field_Delimited[1]"> 1177- <sch:assert test="pds:field_number eq '1'"> rayl-c01375:453 johngengelke\$ rayl-c01375:453 johngengelke\$ cat testdata/PDS4_PDS_1100.sch grep -A25 -B25 -n -i 'Uniformly_sampled' grep '[' rayl-c01375:453 johngengelke\$ cat testdata/PDS4_PDS_1100.sch grep -A25 -B25 -n -i 'Uniformly_sampled' grep '0' 2555- <sch:let name="leapsecs" value="contains(.,'60')"/> 2560- The value for "pds:Time_Coordinates/pds:stop_date_time" does not appear to be a valid date-time: '<sch:value- of select="."/>' - '<sch:value-of select="\$type-date"/>'.</sch:assert> 2570- <sch:pattern> 2580- <sch:let name="collBaseRef" value="pds:sampling_parameter_base"/> 2583- <sch:let name="purposeType" value="every \$ref in (\$collBaseRef) satisfies \$ref > 0"/> 2580- <sch:let name="collBaseRef" value="pds:sampling_parameter_base"/> 2583- <sch:let name="purposeType" value="every \$ref in (\$collBaseRef) satisfies \$ref > 0"/> 2590- <sch:assert test="if (\$refExpType) then (\$purposeType) else true()"> 2590- <sch:assert test="if (\$refExpType) then (\$purposeType) else true()"> 2592: For 'pds:Uniformly_Sampled/pds:sampling_parameter_scale' = 'Exponential', 'pds:Uniformly_Sampled/pds:sampling_parameter_base' must have a value > '0'.</sch:assert> 2600- </sch:rule> 2601- </sch:pattern> 2602- <sch:pattern> </pre>	
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	<pre> 2600- </sch:rule> 2601- </sch:pattern> 2602- <sch:pattern> 2603: <sch:rule context="pds:Uniformly_Sampled/pds:sampling_parameters" role="warning"> 2604- <sch:assert test="false()"> 2604- <sch:assert test="false()"> 2605: <title>pds:Uniformly_Sampled/pds:sampling_parameters role="warning"/pds:Uniformly_Sampled.sampling_parameters</title> 2606: pds:Uniformly_Sampled/pds:sampling_parameters is deprecated and should not be used.</sch:assert> 2607- </sch:rule> 2608- </sch:pattern> 2609- <sch:pattern> 2610- <sch:rule context="pds:Units_of_Map_Scale" role="warning"> 2620- pds:Update is deprecated and should not be used.</sch:assert> 2630- <sch:pattern> rayl-c01375:453 johngengelke\$ cat testdata/PDS4_PDS_1I00.sch grep -A25 -B25 -n -i 'Uniformly_sampled' grep '1' 2561- </sch:rule> 2571- <sch:rule context="pds:Transfer_Manifest/pds:record_delimiter"> 2581- <sch:let name="refExpType" value="every \$ref in (\$collScaleRef) satisfies \$ref = ('Exponential')"/> 2581- <sch:let name="refExpType" value="every \$ref in (\$collScaleRef) satisfies \$ref = ('Exponential')"/> 2591: <title>pds:Uniformly_Sampled/sampling_parameter_scale</title> 2601- </sch:pattern> 2601- </sch:pattern> 2610- <sch:rule context="pds:Units_of_Map_Scale" role="warning"> 2611- <sch:assert test="false()"> 2612- <title>pds:Units_of_Map_Scale role="warning"/pds:Units_of_Map_Scale</title> 2613- pds:Units_of_Map_Scale is deprecated and should not be used.</sch:assert> 2614- </sch:rule> 2615- </sch:pattern> 2616- <sch:pattern> 2617- <sch:rule context="pds:Update" role="warning"> 2618- <sch:assert test="false()"> 2619- <title>pds:Update role="warning"/pds:Update</title> 2621- </sch:rule> 2631- <sch:rule context="pds:Update/pds:update_purpose" role="warning"> rayl-c01375:453 johngengelke\$ </pre>
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Test ID	IM.11
Issue ID	pds4-information-model#448
Issue Type	Requirement
Issue Description	CCB-343: Revise Product Metadata Supplemental
Comments	Pass
Test Steps	<ol style="list-style-type: none"> 1. Open https://pds.jpl.nasa.gov/datastandards/documents/im/current/index_1I00.html#attribute_pds_internal_reference_pds_reference_type and https://pds.jpl.nasa.gov/datastandards/documents/im/current/index_1H00.html#attribute_pds_internal_reference_pds_reference_type <ol style="list-style-type: none"> a. Verify that 'data_to_partially_processed_product' is in the 1I00 version b. Verify that 'data_to_partially_processed_product' is NOT in the 1H00 version 2. Verify in schema files: <ol style="list-style-type: none"> a. Execute 'cat testdata/PDS4_PDS_1H00.sch grep -A30 -B3 -n

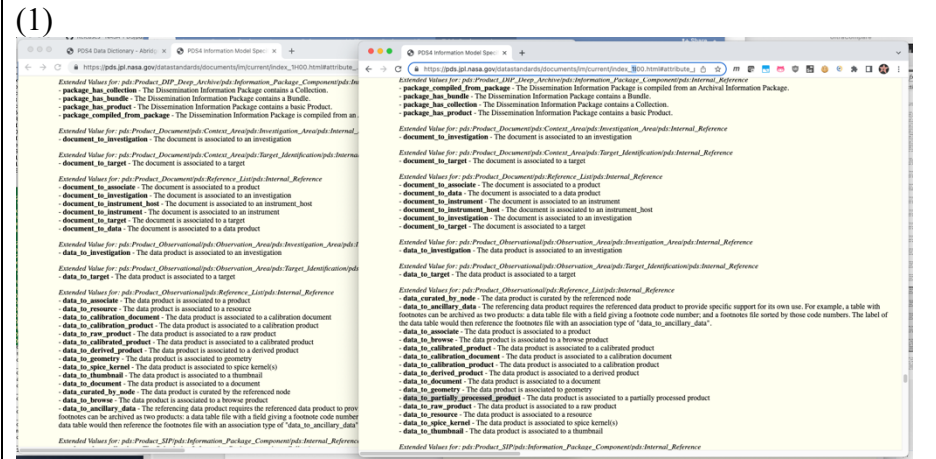
'pds:Product_Observational/pds:Reference_List/pds:Internal_Reference' | grep -B15
 'data_to_partially_processed_product' to show the attribute is NOT available.
 b. Execute 'cat testdata/PDS4_PDS_1100.sch | grep -A30 -B3 -n
 'pds:Product_Observational/pds:Reference_List/pds:Internal_Reference' | grep -B15
 'data_to_partially_processed_product' to show the attribute is available.

Test Results:

(1)

(2b)

1819- </sch:rule>
 1820- </sch:pattern>
 1821- <sch:pattern>
 1822: <sch:rule
 context="pds:Product_Observational/pds:Reference_List/pds:Internal_Reference">
 1823- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data', 'data_to_partially_processed_product')">
 --
 --
 1823- <sch:assert test="every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data to document', 'data curated by node',



	<pre>'data_to_browse', 'data_to_ancillary_data', 'data_to_partially_processed_product')"> -- 1824: <title>pds:Product_Observational/pds:Reference_List/pds:Internal_Re ference/reference_type</title> 1825- The attribute reference_type must be set to one of the following values 'data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data', 'data_to_partially_processed_product'.</sch:assert></pre>
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Test ID	IM.12
Issue ID	pds4-information-model#446
Issue Type	Requirement
Issue Description	CCB-344: Add data_to_partially_processed_product to reference types for Internal Reference
Comments	<p>Pass</p> <p>Test data is available at https://github.com/NASA-PDS/pds4-information-model/files/8674001/testdata.zip.</p>
Test Steps	<ol style="list-style-type: none"> 1. Execute 'diff ccb344a.xml ccb344b.xml' 2. Execute 'validate -x PDS4_PDS_1I00.xsd -S PDS4_PDS_1I00.sch -t ccb344a.xml' 3. Execute 'validate -x PDS4_PDS_1I00.xsd -S PDS4_PDS_1I00.sch -t ccb344b.xml'
Test Results:	<pre>(1) 86c86 < <reference_type>data_to_partially_processed_product</reference_type> --- > <reference_type>data_to_XXXXXX</reference_type> (2) Error evaluating ((attr{title=...}, ...)) in xsl:variable/@select on line 12701 column 92 FORG0001: Invalid date "" (Too short) In template rule with match="element(Q{http://pds.nasa.gov/pds4/pds/v1}Time_Coordinates)/element(Q{http://pds.nasa.gov/pds4/pds/v1}stop_date_time)" on line 12696 of</pre>

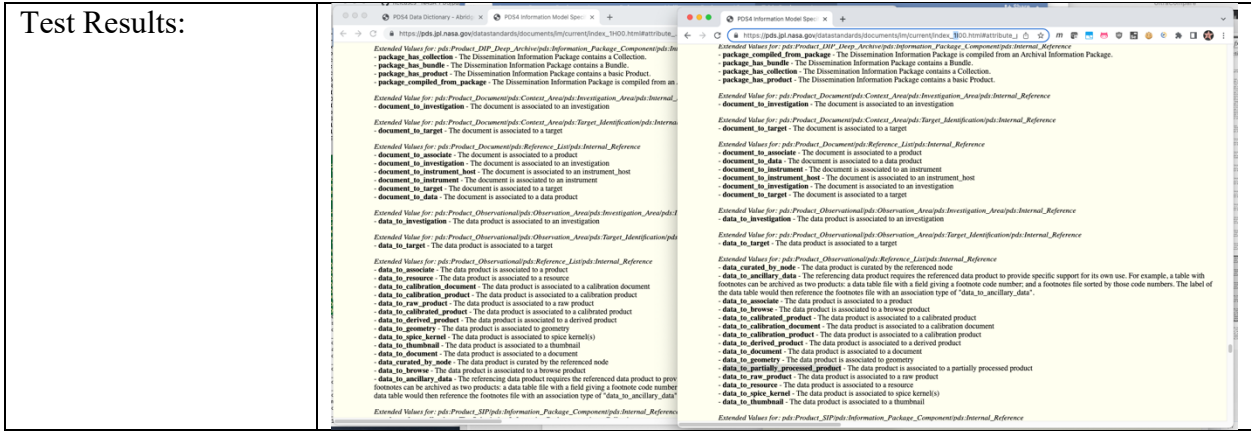
	<p>invoked by xsl:apply-templates at #12726 In template rule with match="(element() text() comment() processing-instruction())" on line 12725 of invoked by xsl:apply-templates at #12726 In template rule with match="(element() text() comment() processing-instruction())" on line 12725 of invoked by xsl:apply-templates at #12726 In template rule with match="(element() text() comment() processing-instruction())" on line 12725 of invoked by built-in template rule (text-only) In template rule with match="/" on line 152 of invoked by xsl:apply-templates at #2158 In template rule with match="/" on line 152 of</p> <p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0 Date 2022-05-09T18:30:15Z</p> <p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/ccb344a.xml]</p> <p>User Specified Schemas [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/PDS4_PDS_1I00.xsd]</p> <p>User Specified Schematrons [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/PDS4_PDS_1I00.sch]</p> <p>Severity Level WARNING Recurse Directories true File Filters Used [*.xml, *.XML] Data Content Validation on Product Level Validation on Max Errors 100000 Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/ccb344a.xml 1 product validation(s) completed</p>
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	<p>Summary:</p> <p>0 error(s) 0 warning(s)</p> <p>Product Validation Summary:</p> <p>1 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report Completed execution in 4101 ms</p> <p>(3) Error evaluating ((attr{title=...}, ...)) in xsl:variable/@select on line 12701 column 92 FORG0001: Invalid date "" (Too short) In template rule with match="element(Q{http://pds.nasa.gov/pds4/pds/v1}Time_Coordinates)/element(Q{http://pds.nasa.gov/pds4/pds/v1}stop_date_time)" on line 12696 of invoked by xsl:apply-templates at #12726 In template rule with match="(element() text() comment() processing-instruction())" on line 12725 of invoked by xsl:apply-templates at #12726 In template rule with match="(element() text() comment() processing-instruction())" on line 12725 of invoked by xsl:apply-templates at #12726 In template rule with match="(element() text() comment() processing-instruction())" on line 12725 of invoked by built-in template rule (text-only) In template rule with match="/" on line 152 of invoked by xsl:apply-templates at #2158 In template rule with match="/" on line 152 of</p> <p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 2.2.0</p>
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	<p>Date 2022-05-09T18:30:24Z</p> <p>Parameters:</p> <p>Targets [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/ccb344b.xml]</p> <p>User Specified Schemas [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/PDS4_PDS_1100.xsd]</p> <p>User Specified Schematrons [file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/PDS4_PDS_1100.sch]</p> <p>Severity Level WARNING</p> <p>Recurse Directories true</p> <p>File Filters Used [*.xml, *.XML]</p> <p>Data Content Validation on</p> <p>Product Level Validation on</p> <p>Max Errors 100000</p> <p>Registered Contexts File /sourcecode/source/pds/validate-latest/resources/registered_context_products.json</p> <p>Product Level Validation Results</p> <p>PASS: file:/System/Volumes/Data/sourcecode/source/pds/test-validations/12-1/pds4-im/446/testdata/ccb344b.xml 1 product validation(s) completed</p> <p>Summary:</p> <p>0 error(s) 0 warning(s)</p> <p>Product Validation Summary:</p> <p>1 product(s) passed 0 product(s) failed 0 product(s) skipped</p> <p>Referential Integrity Check Summary:</p> <p>0 check(s) passed 0 check(s) failed 0 check(s) skipped</p> <p>End of Report</p>
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	Completed execution in 3985 ms
Test ID	IM.13
Issue ID	pds4-information-model#450
Issue Type	Requirement
Issue Description	CCB-340 : <Local_Internal_Reference>.<local_identifier_reference> cardinality
Comments	<p>PASSED</p> <p>These tests use:</p> <p>PDS4 Information Model Specification at https://pds.jpl.nasa.gov/datastandards/documents/im/current/index_1I00.html (latest)</p> <p>https://pds.jpl.nasa.gov/datastandards/documents/im/current/index_1H00.html (previous)</p> <p>PDS4 Information Model Specification at https://pds.nasa.gov/datastandards/documents/dph/current/PDS4_DataProvidersHandbook_1.18.0.pdf (latest)</p> <p>and</p> <p>https://pds.nasa.gov/datastandards/documents/dph/current/PDS4_DataProvidersHandbook_1.17.0.pdf (previous)</p>
Test Steps	<ol style="list-style-type: none"> 1. Open https://pds.jpl.nasa.gov/datastandards/documents/im/current/index_1I00.html#10.26%C2%A0%C2%A0class_pds_local_internal_reference and https://pds.jpl.nasa.gov/datastandards/documents/im/current/index_1H00.html#10.26%C2%A0%C2%A0class_pds_local_internal_reference 2. For the 'local_identifier_reference': <ol style="list-style-type: none"> a. Verify that 'card' column reflects a cardinality of '1..*' in the 1I00 version b. Verify that 'card' column reflects a cardinality of '1' in the 1H00 version 3. Open https://pds.nasa.gov/datastandards/documents/dph/current/PDS4_DataProvidersHandbook_1.18.0.pdf 4. Verify that 'Appendix F' contains the following text: 'In Local_Internal_Reference the required attribute, local_identifier_reference, has a cardinality of [1,*]. This means that an instance of Local_Internal_Reference may refer to multiple objects within the label, providing that the association specified by the required local_reference_type is the same for each of those objects.'

Test Results:



4 Miscellaneous

Test Data

The PDS Engineering Node (PDSEN) contains an archive of build-related documents at https://pds-engineering.jpl.nasa.gov/content/build_12.1_it_deliverables. Test data also is maintained in state on the pds-int test server at /data/int/testdata/by_release/12-1.

Test Environment

Build 12.0 integration and test environment encompasses the following:

Host	OS	RAM	Software
John's laptop	macOS 11.6.5	16 GB	Validate, im
GC's laptop	macOS 11.2.3	16 GB	Harvest, pds-deep-archive, pds-doi-api, pds-api, doi-service, pds-doi-ui, pds-registry-app, pds-registry-mgr-elastic, pds-wds-web, PDS.nasa.gov-Search, PDS.nasa.gov-UX, registry-api-service
John's pc	Windows 10 Enterprise	32 GB	Validate, im

Configuration Management

The PDS Configuration Management process will uniquely identify the build 12.1 and other releases. It will be followed and maintained by the Operations Team, which will act as the configuration management process engineer.

Acronyms

DN – PDS Discipline or Data Node
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 MC – PDS Management Council