

CHANGE LOG

| Revision | Submission Date | Affected Sections or Pages | Change Summary |
|------------------|-----------------|----------------------------|-------------------------------------|
| Initial | 3/20/2023 | All | Initial issue of document. |
| Post-TRR updates | 4/9/2023 | All | Update all B13.0 reference to B13.1 |

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1 INTRODUCTION

1.1 IDENTIFICATION

| Property | Value |
|-----------------------|---------|
| Configuration ID (CI) | |
| Element | PDS |
| Program Set | |
| Version | B13.1.3 |

1.2 PURPOSE

This Test Plan defines specific tests Integration and Testing Team will perform to verify and validate that the PDS4 system deployed for Build 13.1. Section 5 of this document lists each test and a summary of how each test is going to be performed. A traceability matrix in section 6 and section 7 traces these tests to the new PDS4 system design requirements, enhancements and defects.

1.3 OVERVIEW

See [B13.1 RDD](#).

1.4 TERMINOLOGY AND NOTATION

N/A

1.5 REFERENCES

See [B13.1 RDD](#).

Table 1: Applicable JPL Rules Documents

| Title | DocID |
|---|-------|
| <i>Software Development</i> | 57653 |
| <i>Overview of Software Development Processes</i> | 78187 |

Table 2: Applicable MGSS Documents

| Title | Document Number |
|--|-----------------|
| <i>MGSS Implementation and Maintenance Task Requirements</i> | DOC-001455 |

2 DEPENDENCIES AND ENVIRONMENTS

2.1 SOFTWARE DEPENDENCIES AND ASSUMPTIONS

Included in this release are the following packages.

Table 3: Software Packages

| Product | Version |
|---|-----------|
| Java Runtime Environment (JRE) | 11.0.16.1 |
| Various Java dependency libraries used by testable products (e.g., JASON, etc.) | varies |
| Python | 3.9.7 |
| Various Python modules used for test setup/analysis (e.g., Pandas, etc.) | varies |

2.2 TEST ENVIRONMENT

Build 13.1 integration and test environment encompasses the following:

| Host | OS | RAM | Software |
|-----------------|------------------------------|-------|--|
| Miguel's laptop | Mac OS X 11.6.5 | 16 GB | Validate, im |
| GC's laptop | Mac OS X 13.2.1 | 16 GB | Deep-archive, PDS-API, Registry, Registry-API, Registry-Mgr, Doi Service, DOI-UI, harvest, Nucleus, pds4-jparser, portal-tasks |
| Miguel's pc | Windows 10 Enterprise (21H2) | 32 GB | Validate, im |
| pds-int | Oracle Linux Server 8.7 | 16 GB | Registry. Open-Search |

3 TEST POLICY

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 13.1 Integration testing is the execution and management of tests by the Engineering Node to ensure that the release of Build 13.1 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.

4 TEST TOOLS

Table 4: Test Tools

| Tool | Version |
|----------------|---------|
| Docker Desktop | 4.12.0 |
| Curl | 7.79.1 |
| PostMan | |

5 TEST PROCEDURES

Table 5 identifies all the test procedures that verify the implementation of requirements, improvements, features, and so on, as well as the correction of defects and the time to perform each test. The total estimated time to execute the test procedures is 38.5 hours. [Release Build 13.1 Test Procedure](#) identifies the complete specification of the test procedures.

Table 5: Summary of Test Procedures

| Test Procedure ID | Test Procedure Summary Statement | Time to Perform Test |
|-------------------|---|----------------------|
| API.1 | Verify PDS Search only return the latest version | 0.5 hour |
| API.2 | Verify api only return latest version if query is not /all | 0.5 hour |
| API.3 | Test performance of api service | 1 hour |
| API.4 | Verify that vnd.nasa.pds.pds4+xml format does return information | 0.5 hour |
| API.5 | Verify Swagger API page does show the expected deployed API version | 0.5 hour |
| API.6 | Verify that text/csv format does return information | 0.5 hour |
| API.7 | Verify that API Client can connect to current deployed API | 0.5 hour |
| API.8 | Verify that hits shows the overall number of hits | 0.5 hour |
| API.9 | Verify that vnd.nasa.pds.pds4+json format does return information | 0.5 hour |
| API.10 | Verify that Swagger interface from pds.nasa.gov works | 0.5 hour |

| Test Procedure ID | Test Procedure Summary Statement | Time to Perform Test |
|-------------------|--|----------------------|
| API.11 | Verify that user get application/json response format by default | 0.5 hour |
| API.12 | Verify that query responses for empty results is clearly documented | 0.5 hour |
| API.13 | Verify updated cookbook documents how to query observational data only | 0.5 hour |
| API.14 | Verify that NASA/PDS Skin is developed for Search API Swagger interface | 0.5 hour |
| JPAR.1 | Verify that validate doesn't fail for table fields of type ASCII_Numeric_Base16 | 0.5 hour |
| PORT.1 | Test portal XSS vulnerability | 1 hour |
| PORT.2 | Evaluate portal re-scan result | 05. hour |
| PORT.3 | Verify there is a login page for release manager | 0.5 hour |
| PORT.4 | Verify there is no error for Subscription Service | 0.5 hour |
| PORT.5 | Test vulnerability for dataset status | 1 hour |
| REG.1 | Verify dashboard has bundles with archive status and other tracking information | 1 hour |
| REG.2 | Verify registry-manager can change archive status on bundle contents | 1 hour |
| REG.3 | Test with Reg.2 | 0 hour |
| REG.4 | Verify registry-manager can change archive status on Collection contents | 0.5 hour |
| REG.5 | Verify Open-search service starts on Linux | 1 hour |
| REG.6 | Verify ref_collection_lidvid field doesn't use old version | 0.5 hour |
| REG.7 | Verify TLS endpoint is on 8443 | 0.5 hour |
| REG.8 | Verify updated document has explicit example of how to query staged data | 0.5 hour |
| REG_API.1 | Verify that registry-api does return latest version of product metadata when multiple versions are harvested | 0.5 hour |
| REG_API.2 | Verify /all suffix returns a message that is clear | 0.5 hour |

| Test Procedure ID | Test Procedure Summary Statement | Time to Perform Test |
|-------------------|--|----------------------|
| REG_API.3 | Verify that requests with bad q= syntax should return 400 error | 0.5 hour |
| REG_API.4 | Verify pagination is working as expected with /collections/{identifier}/products | 0.5 hour |
| REG_API.5 | Verify observational end-point returns correct data | 0.5 hour |
| REG_API.6 | Verify API returns the correct version when LIDVID is used as an id. | 0.5 hour |
| REG_API.7 | Verify /classes/collections/<lidvid>/members works | 0.5 hour |
| REG_API.8 | Verify documents / members works | 0.5 hour |
| REG_API.9 | Verify api does return 400 error when q parameter value cannot be parsed | 0.5 hour |
| REG_API.10 | Verify Keyword search does work on registry-api deployed on pds.nasa.gov | 0.5 hour |
| REG_API.11 | Verify idvid not found does not raises 500 error | 0.5 hour |
| REG_API.12 | Verify no vulnerabilities is raised by sonalift | 0.5 hour |
| REG_API.13 | Verify q="" the returns 400 | 0.5 hour |
| REG_API.14 | Verify https://pds.nasa.gov/api/search/1/swagger-ui/index.html has no errors | 0.5 hour |
| REG_API.15 | Verify /classes endpoint does work | 0.5 hour |
| REG_API.16 | Verify if not found lidvid, API returns 404 error | 0.5 hour |
| REG_API.17 | Verify /members of a bundle can be requested | 0.5 hour |
| REG_API.18 | Verify leading multiple forward-slashes in request paths are stripped out | 0.5 hour |
| REG_API.19 | Verify API to support redundant / in the url | 0.5 hour |
| REG_API.20 | Verify lidvid/members and lidvid/members/members works | 0.5 hour |
| REG_API.21 | Verify I can search by any metadata attribute with q= | 1 hour |

| Test Procedure ID | Test Procedure Summary Statement | Time to Perform Test |
|-------------------|---|----------------------|
| REG_API.22 | Verify API returns application/json by default | 0.5 hour |
| REG_HAR.1 | Verify harvest service doesn't skip collection inventory files | 0.5 hour |
| REG_MGR.1 | Test with registry#136 | 0.5 hour |
| REG_MGR.2 | Verify searching with ref_lid_* returns the description of the bundle of the requested product. | 1 hour |
| DEEP.1 | Verify Pagination works | 1 hour |
| DEEP.2 | Verify connection with PDS API | 1 hour |
| DOI.1 | Verify DOI can generate /export json report of DOI metadata | 0.5 hour |
| DOI.2 | Verify DOI Service does accurately parse <author_list> and <editor_list> in XML labels | 0.5 hour |
| DOI.3 | Verify DOI service sends out email notification when a new DOI has been minted or updated. | 0.5 hour |
| DOI.4 | Verify DOI service can release a DOI with a label that does not contain the DOI | 0.5 hour |
| DOI.5 | Verify reporting to push to ADS SFTP server | 1 hour |
| DOI-UI.1 | Verify no vulnerabilities from the package per npm audit. | 1 hour |
| DOI-UI.2 | Verify doi-editor release ui works under Firefox | 1 hour |
| HAR.1 | Verify --overwrite flag is respected for <bundles> elements in harvest config | 1 hour |
| HAR.2 | Verify Harvest does not skip path that is the root of a soft link | 0.5 hour |
| HAR.3 | Verify Harvest skipped message is clear | 0.5 hour |
| NUC.1 | Verify user can find documents to understand the baseline architecture and deployment | 0.5 hour |
| IM.1 | Execute Iddtool against the latest released ingest data dictionary and the previously released ingest data dictionary. Validate that the latest generated schema only includes a single line for rule | 1 hour |

| Test Procedure ID | Test Procedure Summary Statement | Time to Perform Test |
|-------------------|--|----------------------|
| | "disp:Movie_Display_settings" whereas the previous release shows multiple duplicate rules. | |
| IM.2 | Execute validate against a dataset that references kg/m3 and g/cm3 against the latest data schema release. Verify that it is successful. Likewise test against an older data schema release to verify that errors/warnings are raised. | 1 hour |
| IM.3 | Verify that Funding_Acknowledgement class is within Citation_Information Class | 0.5 hour |
| IM.4 | Verify new permissible values has been added to Header/parsing_standard_id to support new versions of CDF | 0.5 hour |
| IM.5 | Verify new permissible value has been added for microradians to Units_of_Angle | 0.5 hour |
| IM.6 | Verify new permissible value has been added to Units_of_Misc | 0.5 hour |
| IM.7 | As a developer I want to have the PDS4 Information Model expressed in the RDF/OWL/TTL format. | 0.5 hour |
| IM.8 | Verify new permissible value of nm/mm has been added to Units_of_Misc | 0.5 hour |
| IM.9 | Verify that more rigorous/stringent rules for leap seconds are being used | 0.5 hour |
| IM.10 | Verify support for video and audio as product observational | 0.5 hour |
| VAL.1 | Verify that content validation has been refactored to more robustly handle intermingled Headers | 0.5 hour |
| VAL.2 | Verify that Validate does not calculate overlaps correctly when Header is not first object in file | 1.0 hour |
| VAL.3 | As a user, I want to execute content validation against every nth file | 1.5 hour |
| VAL.4 | As a user, I want to be able to use validate from a docker container | 1.0 hour |
| VAL.5 | Verify that pds4.bundle option travels and finds nested subdirectories | 0.5 hour |

| Test Procedure ID | Test Procedure Summary Statement | Time to Perform Test |
|-------------------|---|----------------------|
| VAL.6 | Verify that Validate does not check PDF/A validity if content validation is disabled | 0.5 hour |
| VAL.7 | Verify that Validate can find files in directory specified by <directory_path_name> | 0.5 hour |
| VAL.8 | Verify that Validate flags a data file correctly | 0.5 hour |
| VAL.9 | Verify that Validate does not pass confusing message to the command window | 0.5 hour |
| VAL.10 | Verify that Table_Character is accurately checking field formats | 0.5 hour |
| VAL.11 | Verify that Validate catches NaNs in Binary Tables | 0.5 hour |
| VAL.12 | Verify that Validate throws record length error when record delimiter does not occur in correct location | 0.5 hour |
| VAL.13 | Verify that Validate does not incorrectly throw ERROR [error.array.value_out_of_min_max_range] | 0.5 hour |
| VAL.14 | Verify that Validate does not incorrectly throw ERROR [error.table.bad_file_read] | 0.5 hour |
| VAL.15 | Verify that Validate does not incorrectly throw ERROR [error.table.bad_file_read] | 0.5 hour |
| VAL.16 | Verify that Validate doesn't erroneously throw IOException when using -spot-check-data flag | 0.5 hour |
| VAL.17 | Verify that Validate properly validates Array objects | 0.5 hour |
| VAL.18 | Verify that Validate correctly handles field format checks for hex values | 0.5 hour |
| VAL.19 | As a user, I want to validate a bundle that uses multiple versions of the Information Model / Discipline LDDs | 0.5 hour |
| VAL.20 | Verify that Validate enables CRLF to be embedded within a Table_Character record | 0.5 hour |
| VAL.21 | Verify that Validate does not throw NullPointerException when Table_Delimited is missing records attribute | 0.5 hour |

| Test Procedure ID | Test Procedure Summary Statement | Time to Perform Test |
|-------------------|---|----------------------|
| VAL.22 | Verify that validate does not throw an uncaught exception error when validating an array object | 0.5 hour |
| VAL.23 | Verify that Validate contains improved error message when file is truncated and cannot be read | 0.5 hour |
| VAL.24 | Verify that Validate contains improved error message when there are overlapping object in a label | 0.5 hour |
| VAL.25 | Verify unit tests have been added to test support registry referential integrity checker tool | 0.5 hour |
| VAL.26 | Verify that a user is able to validate all products referenced from a collection exist within the archive | 0.5 hour |
| VAL.27 | Verify that a user is able to validate all collections referenced from a bundle exist within the archive | 0.5 hour |
| VAL.28 | Verify that a user is able to validate all internal references to products in the PDS archive are valid | 0.5 hour |
| VAL.29 | Verify that a user is able to validate all internal references from one product to another exist within the archive | 0.5 hour |

6 TRACEABILITY MATRICES

Table 6 identifies the implemented requirements, improvements, features and so on, including references to the test procedures that verify them.

Table 6: Requirement, Improvement, and Feature Traceability Matrix

| ID | Requirement, Improvement, or Feature Statement | Verification Procedure ID |
|-----------------|--|---------------------------|
| doi-service#283 | As a publisher, I want to be notified when a new DOI has been minted or significant update to the metadata | DOI.3 |
| doi-service#344 | As a user, I want to release a DOI with a label that does not contain the DOI | DOI.4 |
| pds-api#193 | As a user, I want to be able to access the Search API Swagger interface from pds.nasa.gov | API.10 |
| pds-api#239 | As a user, I want to get application/json response format by default if I request an API url in my browser | API.11 |
| pds-api#198 | As a user, I want query responses for empty results to be clearly documented | API.12 |

| ID | Requirement, Improvement, or Feature Statement | Verification Procedure ID |
|-----------------------------------|--|----------------------------------|
| pds-api#175 | As a user, I want to know how to query observational data only | API.13 |
| nucleus#29 | As a user, I want to know the baseline architecture and deployment | NUC.1 |
| pds4-information-model#473 | As a user, I want to describe a relationship between an attribute in the model and the column of a table | IM.2 |
| pds4-information-model#611 | CCB-355: Add Funding_Acknowledgement class to Citation_Information Class | IM.3 |
| pds4-information-model#608 | CCB-354: Add new permissible values to Header/parsing_standard_id to support new versions of CDF | IM.4 |
| pds4-information-model#602 | CCB-361: Add a permissible value for microradians to Units_of_Angle | IM.5 |
| pds4-information-model#599 | CCB-360: Add new permissible value to Units_of_Misc | IM.6 |
| pds4-information-model#458 | As a developer I want to have the PDS4 Information Model expressed in the RDF/OWL/TTL format. | IM.7 |
| pds4-information-model#603 | CCB-362: Add a permissible value of nm/mm to Units_of_Misc | IM.8 |
| pds4-information-model#502 | CCB-350: Adopt more rigorous / stringent rules for leap seconds and use of "24:00:00" in datetimes | IM.9 |
| pds4-information-model#616 | CCB-325: Support for video and audio as product observational | IM.10 |
| registry#100 | Update documentation to include explicit example of how to query staged data | REG.8 |
| registry-api#208 | As a registry-tool/registry-user I want to ensure leading multiple forward-slashes in request paths are stripped out | REG_API.18 |
| registry-api#212 | As a user, I want the API to support redundant / in the url | REG_API.19 |
| registry-api#223 | As a user, I want to know the members of a bundle product | REG_API.20 |
| registry-api#282 | As a user, I want to search by any metadata attribute | REG_API.21 |
| registry-api#248 | Suggest: Return Content-Type application/json by default | REG_API.22 |

| ID | Requirement, Improvement, or Feature Statement | Verification Procedure ID |
|-----------------|---|---------------------------|
| doi-service#363 | Enhance weekly reporting to push to ADS SFTP server | DOI.5 |
| harvest#106 | Improve skipped product INFO message | HAR.3 |
| pds-api#194 | Develop NASA/PDS Skin for Search API Swagger interface | API.14 |
| validate#569 | Improve error message when file is truncated and cannot be read | VAL.23 |
| validate#436 | Improve error messages for overlapping objects in a label | VAL.24 |
| validate#603 | Verify unit tests have been added to test support registry referential integrity checker tool | VAL.25 |
| validate#596 | Verify that a user is able to validate all products referenced from a collection exist within the archive | VAL.26 |
| validate#595 | Verify that a user is able to validate all collections referenced from a bundle exist within the archive | VAL.27 |
| validate#415 | Verify that a user is able to validate all internal references to products in the PDS archive are valid | VAL.28 |
| validate#316 | Verify that a user is able to validate all internal references from one product to another exist within the archive | VAL.29 |
| registry#130 | As a user, I want to view dashboard report of bundles with archive status and other tracking information | REG.1 |

Table 7 identifies the corrected defects and the references to the test procedures that verify them.

Table 7: Defect Traceability Matrix

| ID | Summary Statement of Defect | Verification Procedure ID |
|------------------|---|---------------------------|
| deep-archive#137 | Pagination handling does not appear to work properly for pds-deep-registry-archive | DEEP.1 |
| deep-archive#134 | Cannot connect to any PDS API endpoints for pds-deep-archive-registry | DEEP.2 |
| doi-service#398 | Still – Unable to generate / export json report of DOI metadata | DOI.1 |
| doi-service#377 | DOI Service does not accurately parse <author_list> and <editor_list> in XML labels | DOI.2 |
| doi-ui#130 | Remove vulnerabilities from the package per npm audit | DOI-UI.1 |
| doi-ui#167 | doi-editor release ui inoperable under Firefox | DOI-UI.2 |
| harvest#102 | Harvest skips path that is the root of a soft link | HAR.2 |
| harvest#112 | –overwrite flag is not respected for <bundles> elements in harvest config | HAR.1 |
| pds-api#200 | API performance degradation from B12.1 release | API.3 |

| ID | Summary Statement of Defect | Verification Procedure ID |
|-----------------------------------|--|---------------------------|
| pds-api#215 | vnd.nasa.pds.pds4+xml format does not return information | API.4 |
| pds-api#196 | Swagger API page does not show the expected deployed API version | API.5 |
| pds-api#213 | Accept header of text/csv returns blank lines | API.6 |
| pds-api#240 | API Client cannot connect to current deployed API | API.7 |
| pds-api#199 | hits appears to be showing the current page count, not the overall number of its | API.8 |
| pds-api#214 | vnd.nasa.pds.pds4+json format does return information | API.9 |
| pds4-information-model#618 | Information Model does not have Product_External included in Identification_Area.product_class | IM.1 |
| pds4-jparser#57 | Parse failure for table fields of type ASCII_Numeric_Base16 | JPAN.1 |
| portal-tasks#54 | Possible XSS vulnerability on data set view pages | PORT.1 |
| portal-tasks#47 | [SECURITY] JQuery upgrade needed to avoid possible injection | PORT.2 |
| portal-tasks#31 | Data release manager pages missing login session check | PORT.3 |
| portal-tasks#8 | URL Encoding errors from Subscription Service pages | PORT.4 |
| portal-tasks#55 | dataset status needs to be updated to better handle potential security vulnerability | PORT.5 |
| registry#136 | follow on to #118, registry-manager still unable to change archive status on bundle contents | REG.2 |
| registry#118 | archive status value was not changed on bundle's contents | REG.3 |
| registry#97 | registry-manager won't set archive-status on some collections | REG.4 |
| registry#146 | OpenSearch service of Registry won't start on Linux | REG.5 |
| registry#159 | ref_collection_lidvid field in some node registries populated using older versions of registry loader tools create string fields in the schema vs. the expected list types | REG.6 |
| registry#150 | TLS termination listening on wrong port | REG.7 |
| registry-api#224 | registry-api does not return latest version of product metadata when multiple versions are harvested | REG_API.1 |
| registry-api#190 | /all suffix returns a message which I don't understand | REG_API.2 |
| registry-api#241 | requests with bad q= syntax should return 400 error | REG_API.3 |

| ID | Summary Statement of Defect | Verification Procedure ID |
|-----------------------------|--|---------------------------|
| registry-api#240 | Pagination not working as expected with /collections/{identifier}/products | REG-API.4 |
| registry-api#202 | observational end-point returns collections | REG_API.5 |
| registry-api#234 | registry-api does not respect VID when a LIDVID is used as an id, instead returns latest version | REG_API.6 |
| registry-api#231 | /classes/collections/<lidvid>/members (and deprecated equivalent) hangs | REG_API.7 |
| registry-api#196 | documents / members returns an error | REG_API.8 |
| registry-api#260 | api does not return 400 error when q parameter value cannot be parsed | REG_API.9 |
| registry-api#227 | Keyword search does not work on registry-api deployed on pds.nasa.gov | REG_API.10 |
| registry-api#207 | idvid not found raises 500 error | REG_API.11 |
| registry-api#121 | Fix vulnerabilities raised by sonalift | REG_API.12 |
| registry-api#206 | When q="" the returned status is 500 instead of 400 | REG_API.13 |
| registry-api#211 | swagger ui error in production | REG_API.14 |
| registry-api#200 | /classes endpoint does not work in a browser | REG_API.15 |
| registry-api#258 | not found lidvid does not return 404 error | REG_API.16 |
| registry-api#261 | The members of a bundle can not be requested | REG_API.17 |
| registry-harvest-service#25 | Harvest service sometimes skips collection inventory files | REG_HAR.1 |
| registry-mgr#57 | ref_lid_collection error when ingesting data sets | REG_MGR.1 |
| validate#425 | Refactor content validation to more robustly handle intermingled Headers | VAL.1 |

| ID | Summary Statement of Defect | Verification Procedure ID |
|--------------|--|---------------------------|
| validate#480 | Validate does not calculate overlaps correctly when Header is not first object in file | VAL.2 |
| validate#1 | As a user, I want to execute content validation against every nth file | VAL.3 |
| validate#556 | As a user, I want to be able to use validate from a docker container | VAL.4 |
| validate#444 | pds4.bundle option seems to not travel through enough subdirectories | VAL.5 |
| validate#453 | Validate should not check PDF/A validity if content validation is disabled | VAL.6 |
| validate#474 | Validate can't find files in directory specified by <directory_path_name> | VAL.7 |
| validate#499 | validate doesn't flag a data file with only LF | VAL.8 |
| validate#503 | validate passes confusing message to the command window | VAL.9 |
| validate#511 | Table_Character not accurately checking field formats | VAL.10 |
| validate#514 | Validate does not catch NaNs in Binary Tables | VAL.11 |
| validate#519 | Validate should throw record length error when record delimiter does not occur in correct location | VAL.12 |
| validate#529 | ERROR [error.array.value_out_of_min_max_range] evaluation is not correct | VAL.13 |
| validate#531 | ERROR [error.table.bad_file_read] incorrectly reports that GroupFieldBinary group_length is larger than size of contained fields | VAL.14 |
| validate#544 | validate gives a error.table.bad_field_read error | VAL.15 |
| validate#554 | -spot-check-data flag throws IOException | VAL.16 |
| validate#564 | Array object validation regression in v3.0.3 | VAL.17 |
| validate#576 | validate does not correctly handle field format checks for hex values | VAL.18 |

| ID | Summary Statement of Defect | Verification Procedure ID |
|--------------|---|---------------------------|
| validate#551 | Validate fails regression test on issue 188 | VAL.19 |
| validate#593 | Regression in validate no longer enabling CRLF to be embedded within a Table_Character record | VAL.20 |
| validate#473 | NullPointerException when Table_Delimited is missing records attribute | VAL.21 |
| validate#155 | Fix uncaught exception error when validating an array object | VAL.22 |
| pds-api#220 | Past versions are being returned by API, by default | API.1 |
| pds-api#221 | As a user, I want to query only the latest versions of products unless explicitly requested | API.2 |

7 TEST ENVIRONMENT AND PERSONNEL

Table 8: Availability of Personnel

| Enter total hours or days here | | |
|--------------------------------|--|---------------|
| Gary Chen | PDS-API, Registry, Registry-API, Registry-Mgr, Doi Service, DOI-UI, harvest, Planetarydata.org, WDS-web, Portal-tasks, | 18 hours/week |
| Miguel Pena | Validate, IM, regression tests | 20 hours/week |
| Enter total hours or days here | | |

8 TESTING CONSTRAINTS AND RISKS

These planned tests fully depend on Registry Docker fully functioning, including bringing up swagger web and loading test data from existing test folders.

- IF installation and configuration of external software packages goes poorly THEN testing of the registry will halt until solved WITH LIKELIHOOD OF 50%.
- IF software changes and fixes come in THEN those tests will need to be rerun WITH LIKELIHOOD of 90% and CONSEQUENCE OF resetting the number of days needed for testing.
- IF DataCite's interface works poorly THEN many components of DOI service will halt WITH LIKELIHOOD of less than 1%.