

Core System D4.1.0

Release Description Document (RDD)
Review

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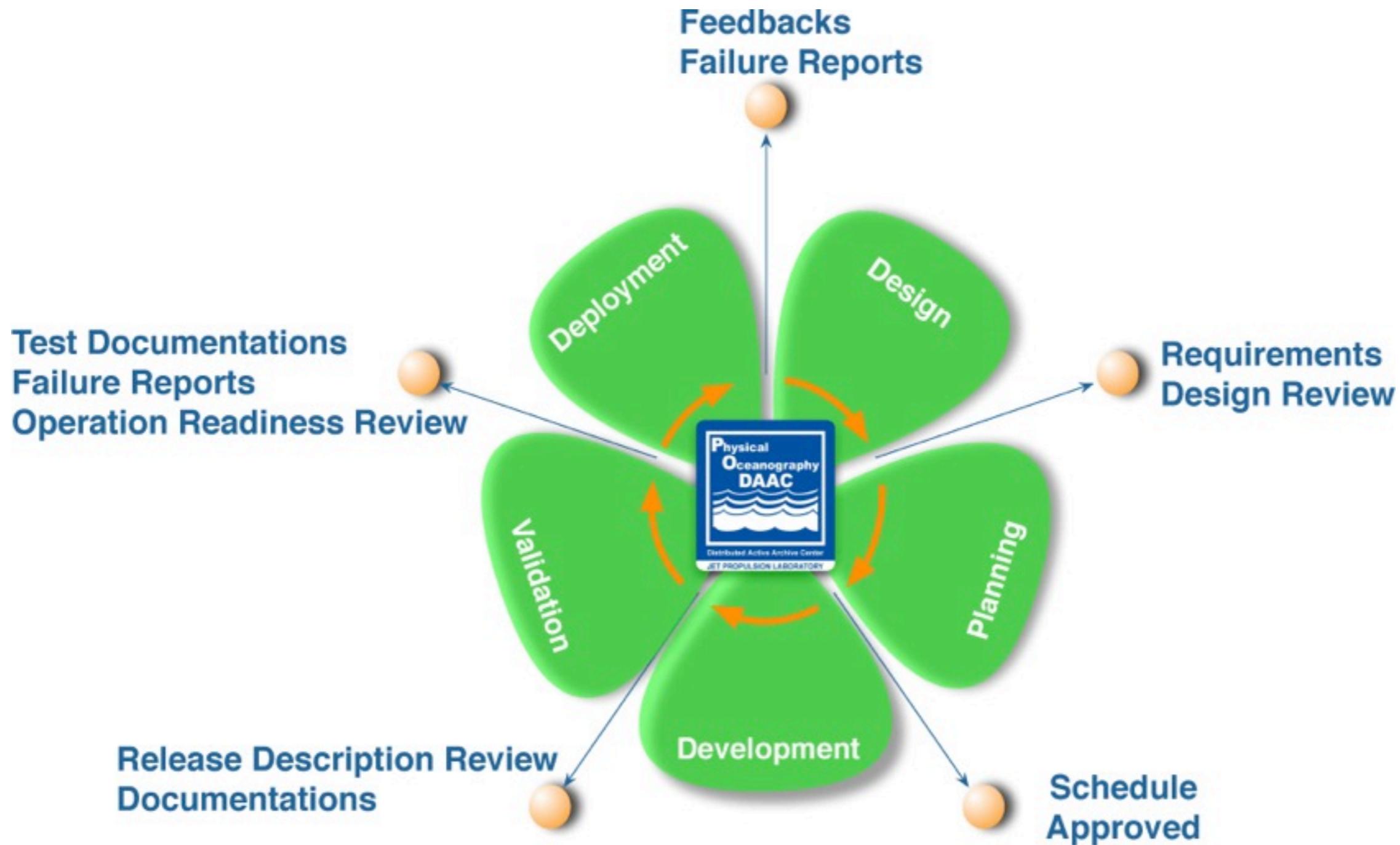
National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

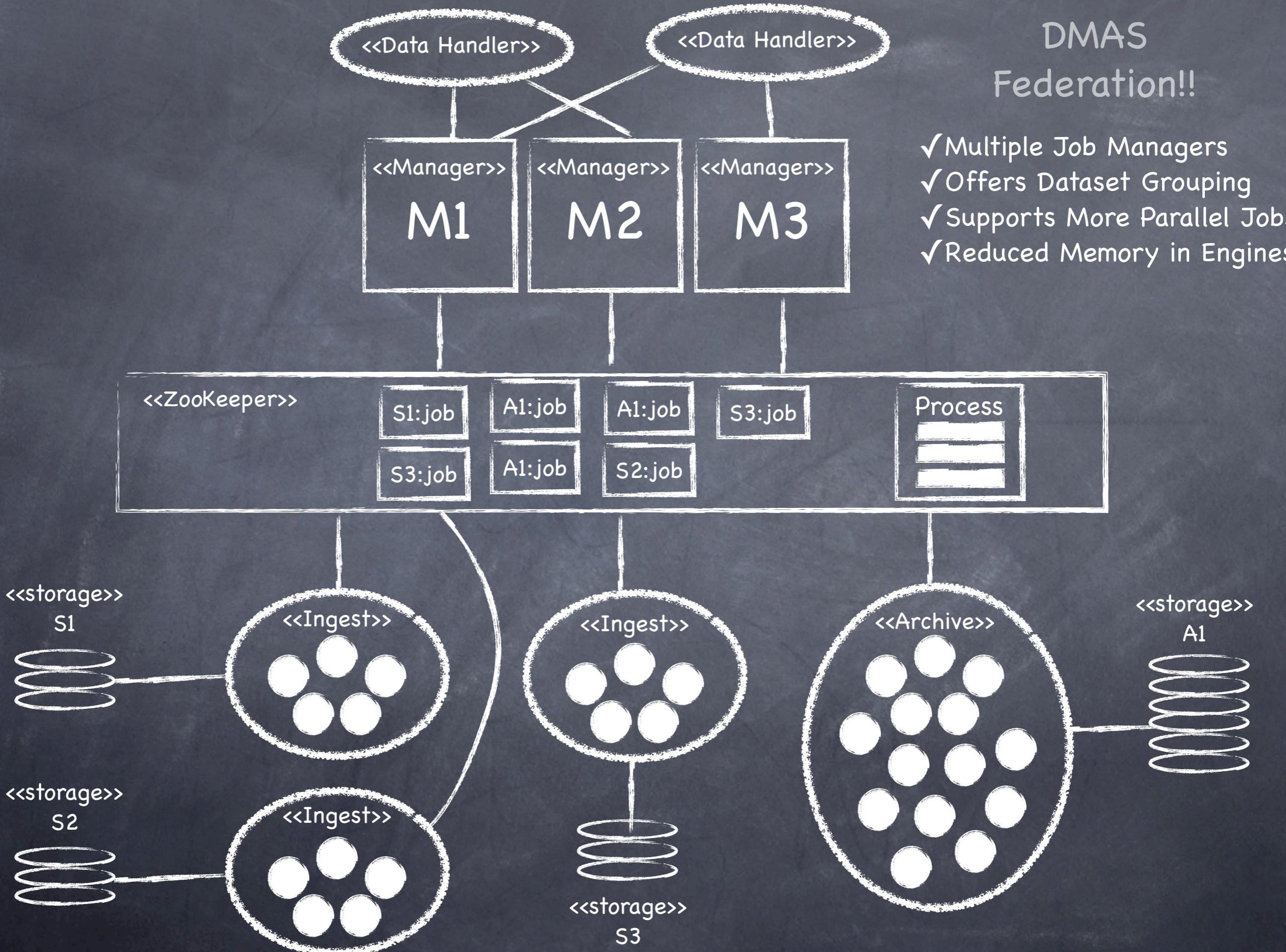
JPL



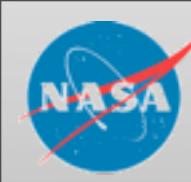
Our Process



DMAS Federation!!



Core System 4.1.0 Highlights



National Aeronautics and
Space Administration

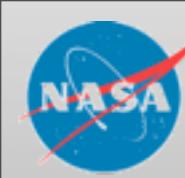
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Priority Queue For Data Ingestion





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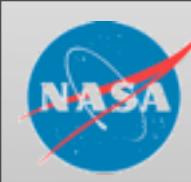
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Priority Queue For Data Ingestion



Because not all datasets should be served equally



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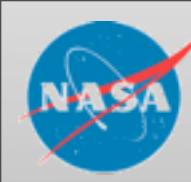
JPL



Security Web Service



Centralized Authentication and Authorization Service



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Space Administration

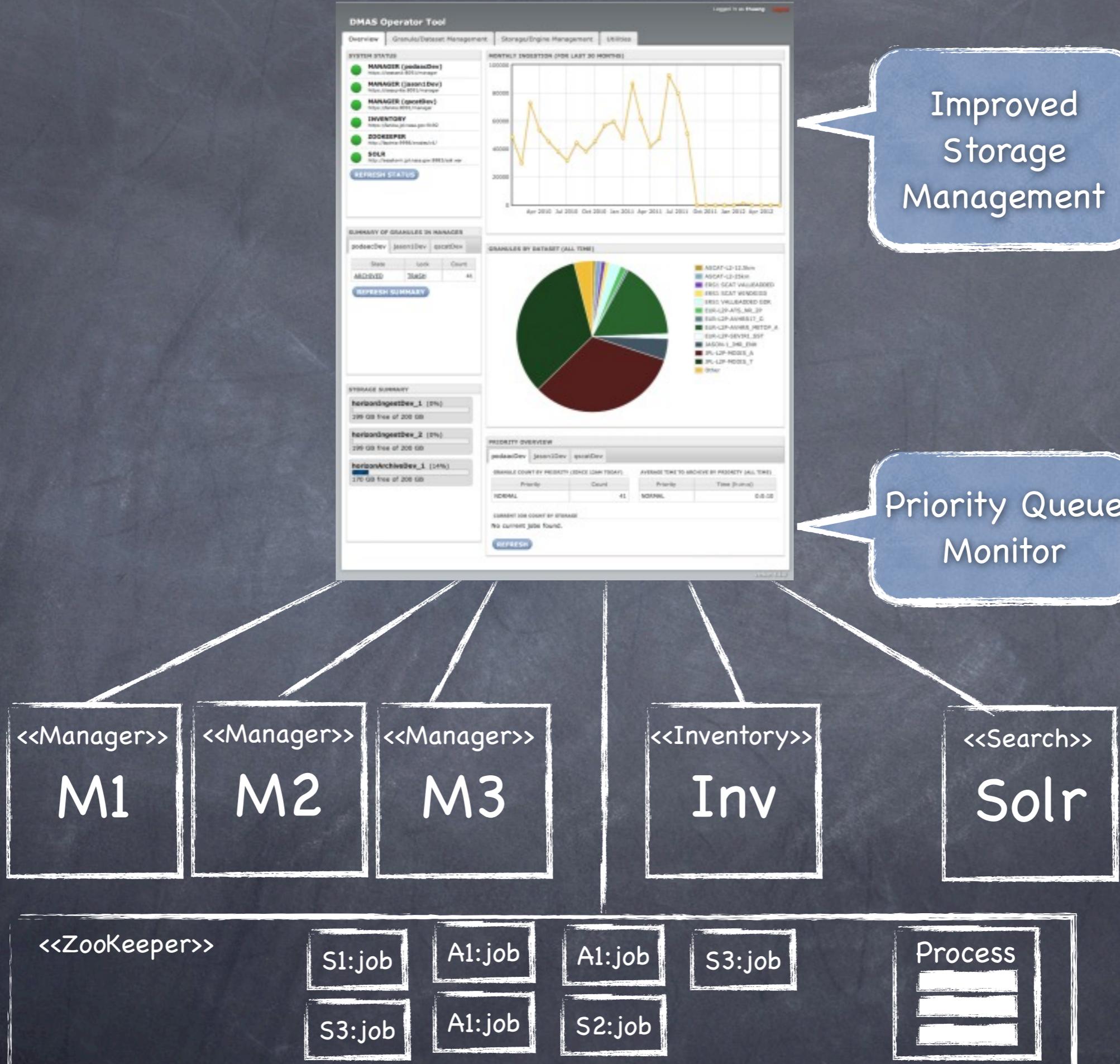
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PO.DAAC







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Portable Operator Console

This screenshot shows the PO.DAAC Operator Interface. It displays a list of granules with columns for ID, Name, Current Status, Created, Last Updated, Archived At, and Status Note. Below this is a 'PRODUCT MANAGEMENT' section with a tree view of categories like GRANULES, GEOTIFFS, GRIDSETS, and more.

This screenshot shows the DMAS Operator Tool. It displays storage management details for datasets like horizonIngestDev_1, horizonIngestDev_2, and horizonArchiveDev_3. It includes sections for storage summary, priority overview, and current job count by storage.

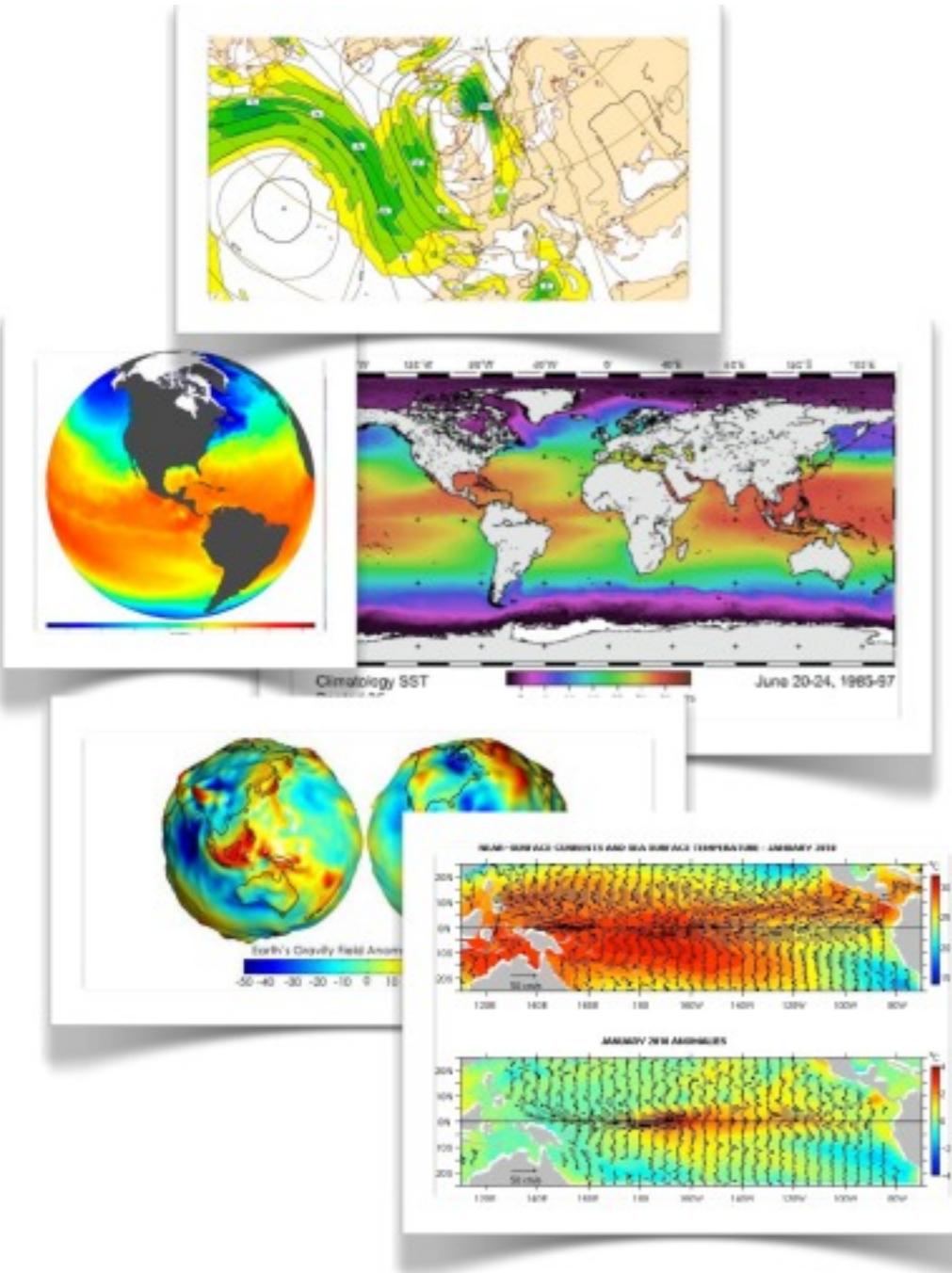
This screenshot shows the DMAS Operator Tool. It includes a 'SYSTEM STATUS' section with roles like MANAGER, INVENTORY, ZOOKEEPER, and SOLR. It features a 'MONTHLY INGESTION (POB LAST 30 MONTHS)' line graph and a 'GRANULES BY DATASET (ALL TIME)' pie chart.





New Data Handlers

- ✓ GHRSS GDS2 - 20 datasets
- ✓ GRACE - 70 datasets
- ✓ OSCAR - 2 datasets
- ✓ AVHRR - 7 datasets
- ✓ ECMWF - 1 dataset

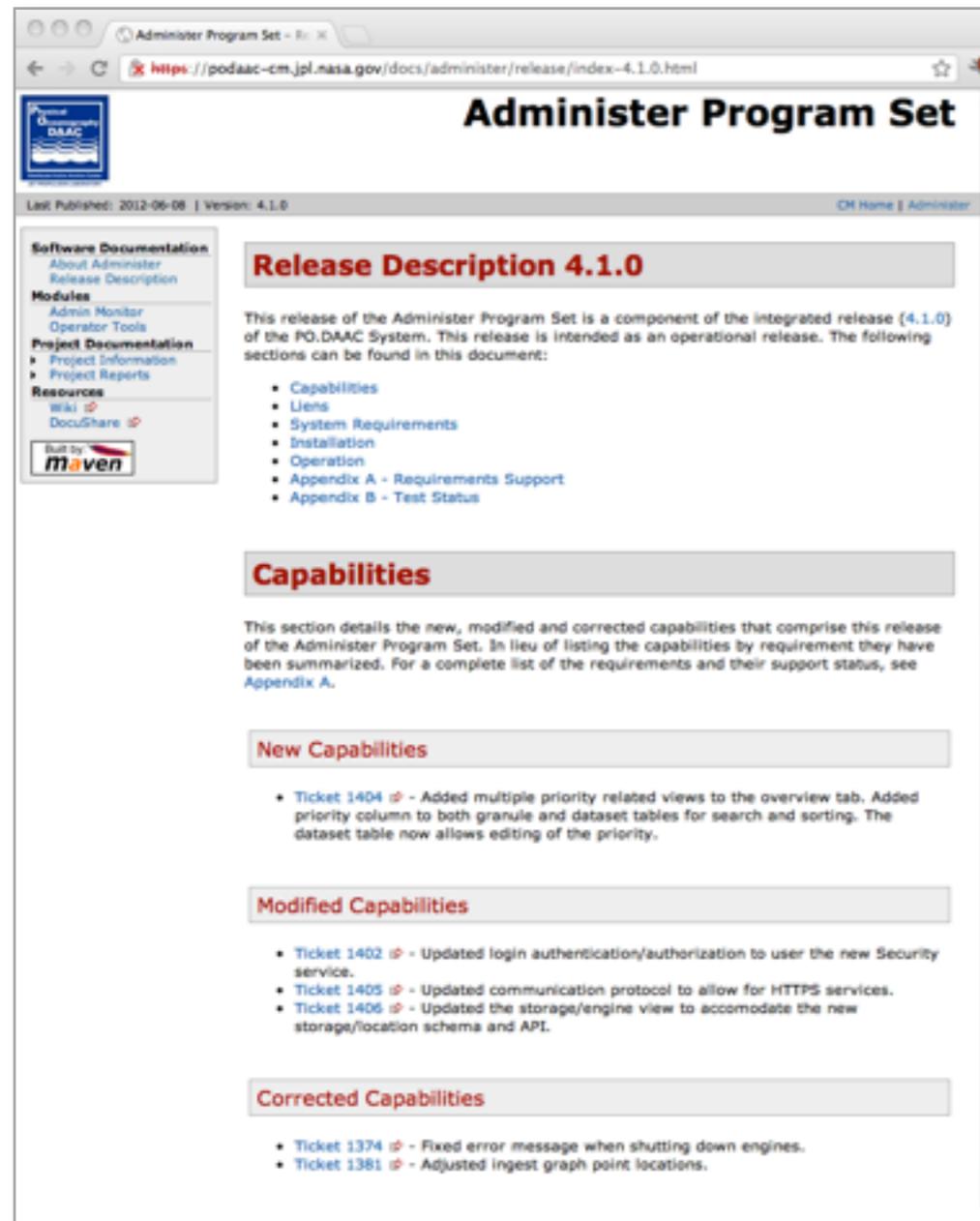


100
New Datasets

Core System 4.1.0 Program Sets



Administer



The screenshot shows the "Release Description 4.1.0" page of the Administer Program Set. The page includes a navigation bar with links like Software Documentation, About Administer, Release Description, Admin Monitor, Operator Tools, Project Documentation, Project Information, Project Reports, Resources, Wiki, DocShare, and a Maven build status. The main content area has three main sections: "New Capabilities", "Modified Capabilities", and "Corrected Capabilities", each listing specific tickets and their descriptions.

- New Capabilities**
 - Ticket 1404 - Added multiple priority related views to the overview tab. Added priority column to both granule and dataset tables for search and sorting. The dataset table now allows editing of the priority.
- Modified Capabilities**
 - Ticket 1402 - Updated login authentication/authorization to user the new Security service.
 - Ticket 1405 - Updated communication protocol to allow for HTTPS services.
 - Ticket 1406 - Updated the storage/engine view to accomodate the new storage/location schema and API.
- Corrected Capabilities**
 - Ticket 1374 - Fixed error message when shutting down engines.
 - Ticket 1381 - Adjusted ingest graph point locations.

- New Capabilities**

- [Trac 1404](#) - Modify operator tool to include priority

- Modified Capabilities**

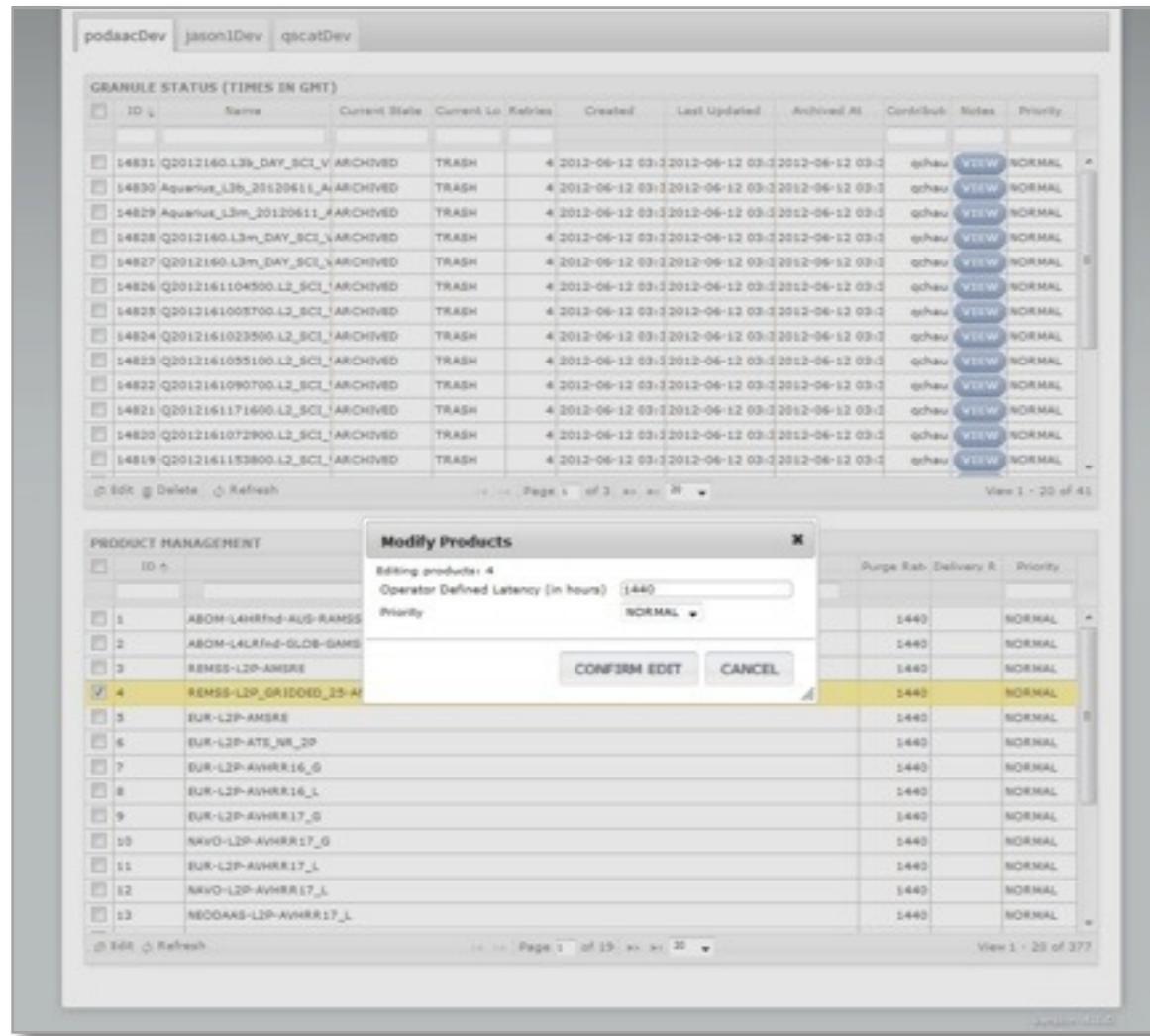
- [Trac 1402](#) - Use Security Service for Authentication and Authorization
- [Trac 1405](#) - Update tools to allow for HTTPS web service backends
- [Trac 1406](#) - Update Operator Tool with storage/location changes

- Corrected Capabilities**

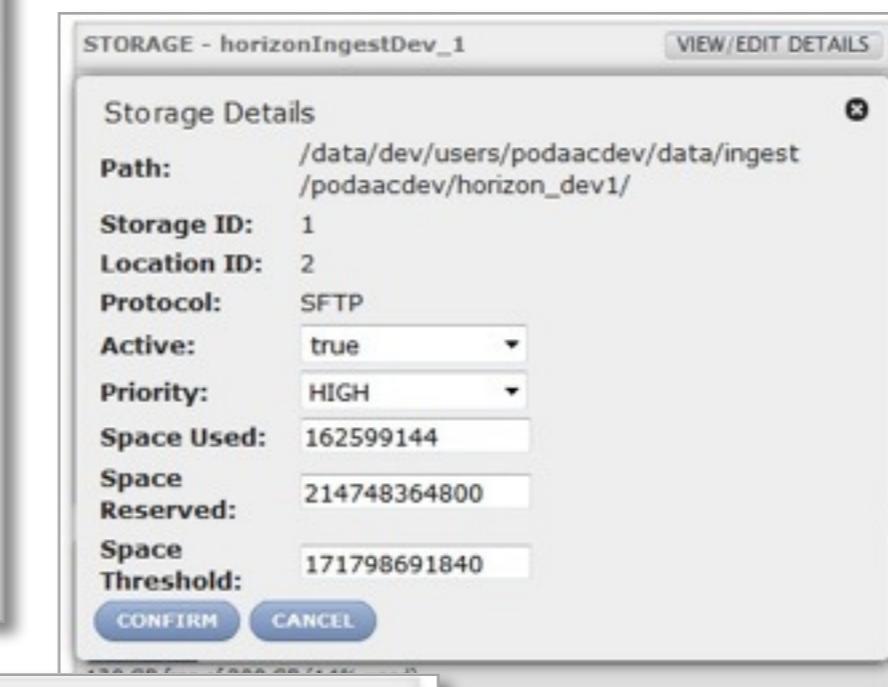
- [Trac 1374](#) - Operator Interface: Process did not complete successfully alert box when shutting down engines
- [Trac 1381](#) - operator interface: point on graph doesn't match the graph gridline



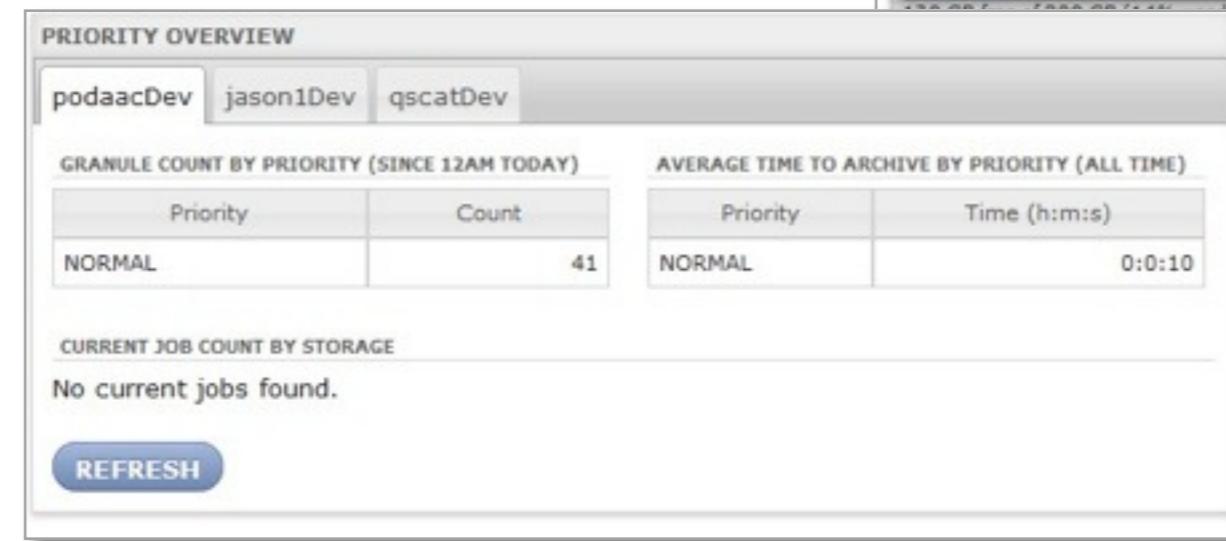
New to Operator Tool



The screenshot shows the 'PRODUCT MANAGEMENT' section of the operator tool. It displays a list of products with columns for ID, Name, Current Status, Current Loc, Keywords, Created, Last Updated, Archived At, Contribut, Notes, and Priority. A modal dialog titled 'Modify Products' is open, showing a table with columns for Purge Rate, Delivery R, and Priority. The table has four rows, each corresponding to a selected product from the list below. The products listed are: ABOM-L4HRFind-AUS-RAMSS, ABOM-L4LRFind-GLB-GAMS, REMSS-L2P-AMSR2, and REMSS-L2P_GRIDDED_15_A. The 'Priority' dropdown in the modal is set to 'NORMAL'. Buttons for 'CONFIRM EDIT' and 'CANCEL' are at the bottom of the modal.



The screenshot shows a 'Storage Details' dialog box. It contains fields for Path, Storage ID, Location ID, Protocol, Active, Priority, Space Used, Space Reserved, and Space Threshold. The Path is set to '/data/dev/users/podaacdev/data/ingest/podaacdev/horizon_dev1/'. The Storage ID is 1, Location ID is 2, Protocol is SFTP, Active is true, Priority is HIGH, Space Used is 162599144, Space Reserved is 214748364800, and Space Threshold is 171798691840. Buttons for 'CONFIRM' and 'CANCEL' are at the bottom.

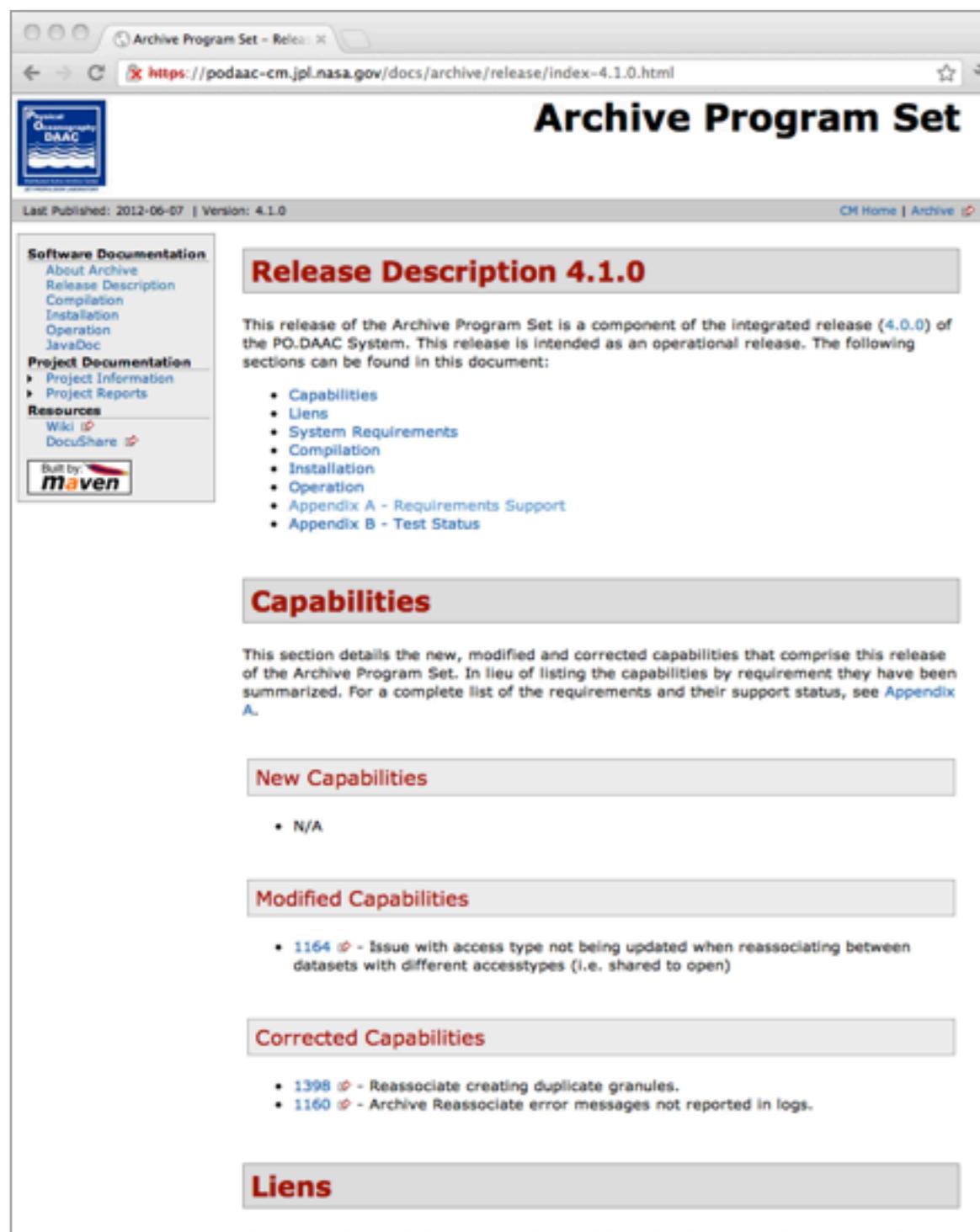


The screenshot shows the 'PRIORITY OVERVIEW' section. It includes tabs for 'podaacDev', 'jason1Dev', and 'qscatDev'. Below the tabs are two tables: 'GRANULE COUNT BY PRIORITY (SINCE 12AM TODAY)' and 'AVERAGE TIME TO ARCHIVE BY PRIORITY (ALL TIME)'. The first table shows a single row for 'NORMAL' with a count of 41. The second table shows a single row for 'NORMAL' with a time of 0:0:10. Below these tables is a section for 'CURRENT JOB COUNT BY STORAGE' which states 'No current jobs found.' A 'REFRESH' button is at the bottom.

- ✓ Dynamic update to dataset priority
- ✓ Priority queue monitors
- ✓ Details on storage



Archive



The screenshot shows a web browser displaying the 'Archive Program Set' documentation. The URL is <https://podaac-cm.jpl.nasa.gov/docs/archive/release/index-4.1.0.html>. The page title is 'Archive Program Set'. On the left, there's a sidebar with links for Software Documentation (About Archive, Release Description, Compilation, Installation, Operation, JavaDoc), Project Documentation (Project Information, Project Reports), and Resources (Wiki, DocuShare). It also mentions 'Built by maven'. The main content area has a red header 'Release Description 4.1.0'. Below it, text states: 'This release of the Archive Program Set is a component of the integrated release (4.0.0) of the PO.DAAC System. This release is intended as an operational release. The following sections can be found in this document:'. A bulleted list follows: Capabilities, Liens, System Requirements, Compilation, Installation, Operation, Appendix A - Requirements Support, Appendix B - Test Status. Another red header 'Capabilities' is shown, with text: 'This section details the new, modified and corrected capabilities that comprise this release of the Archive Program Set. In lieu of listing the capabilities by requirement they have been summarized. For a complete list of the requirements and their support status, see Appendix A.'. Under 'New Capabilities', it says 'N/A'. Under 'Modified Capabilities', it lists '1164 - Issue with access type not being updated when reassociating between datasets with different accesstypes (i.e. shared to open)'. Under 'Corrected Capabilities', it lists '1398 - Reassociate creating duplicate granules.', '1160 - Archive Reassociate error messages not reported in logs.' Under 'Liens', there's a link to 'http://podaac-cm.jpl.nasa.gov/docs/archive/release/index-4.1.0.html#links'.

- **New Capabilities**

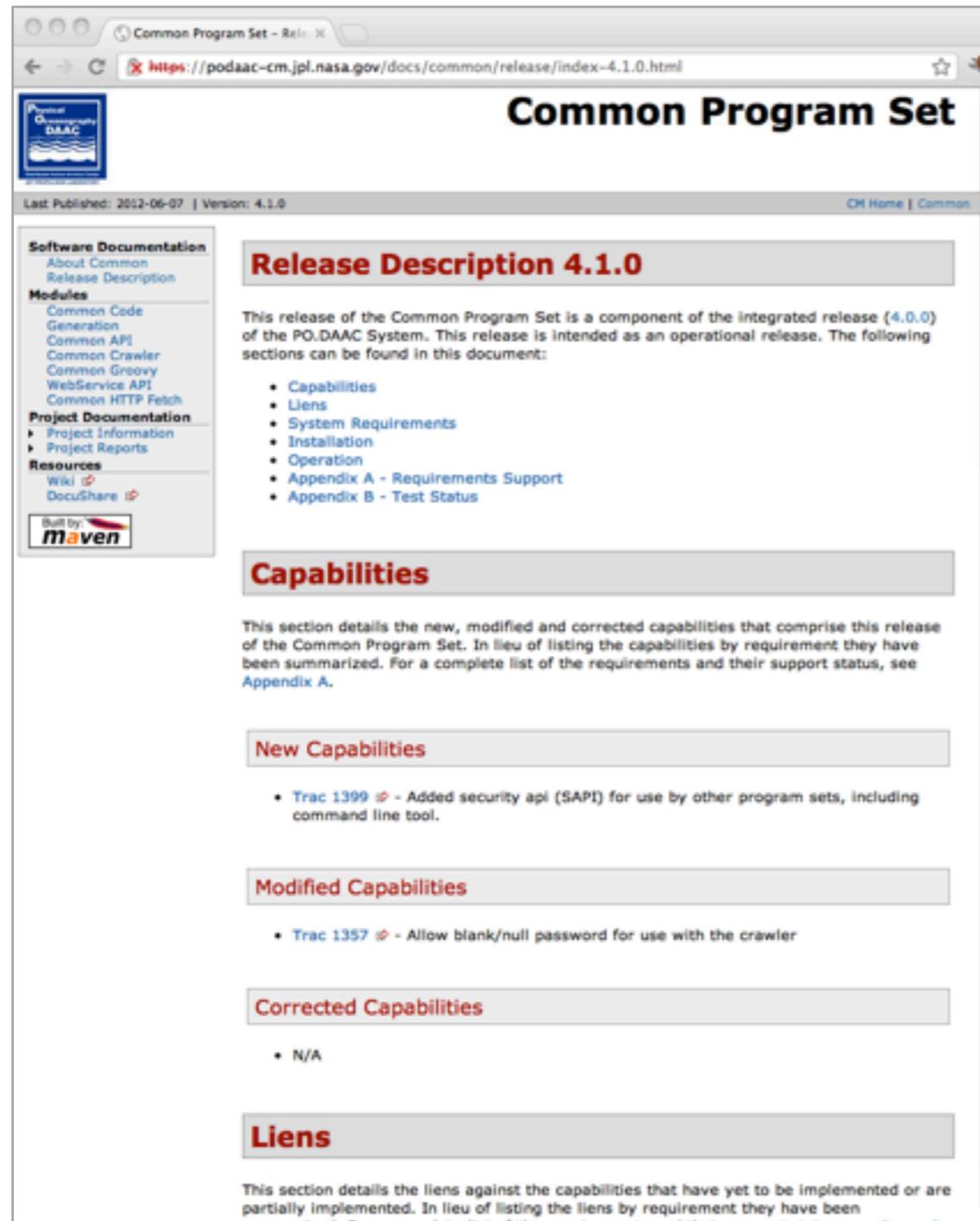
- none

- **Modified Capabilities**

- [Trac 1164](#) - Jason-1 stream line tool to use DMAS

- **Corrected Capabilities**

- [Trac 1160](#) - Archive Reassociate error messages not reported in logs
- [Trac 1398](#) - Reassociate creates duplicate granules



Common Program Set - Rel. 4.1.0

https://podaac-cm.jpl.nasa.gov/docs/common/release/index-4.1.0.html

Common Program Set

Last Published: 2012-06-07 | Version: 4.1.0

CH Home | Common

Software Documentation

- About Common
- Release Description

Modules

- Common Code Generation
- Common API
- Common Crawler
- Common Groovy
- WebService API
- Common HTTP Fetch

Project Documentation

- Project Information
- Project Reports

Resources

- Wiki
- DocuShare

Built by: 

Release Description 4.1.0

This release of the Common Program Set is a component of the integrated release (4.0.0) of the PO.DAAC System. This release is intended as an operational release. The following sections can be found in this document:

- Capabilities
- Liens
- System Requirements
- Installation
- Operation
- Appendix A - Requirements Support
- Appendix B - Test Status

Capabilities

This section details the new, modified and corrected capabilities that comprise this release of the Common Program Set. In lieu of listing the capabilities by requirement they have been summarized. For a complete list of the requirements and their support status, see Appendix A.

New Capabilities

- Trac 1399 - Added security api (SAPI) for use by other program sets, including command line tool.

Modified Capabilities

- Trac 1357 - Allow blank/null password for use with the crawler

Corrected Capabilities

- N/A

Liens

This section details the liens against the capabilities that have yet to be implemented or are partially implemented. In lieu of listing the liens by requirement they have been

Common

• New Capabilities

- Trac 1399 - Create Security Service for shared use across PODAAC

• Modified Capabilities

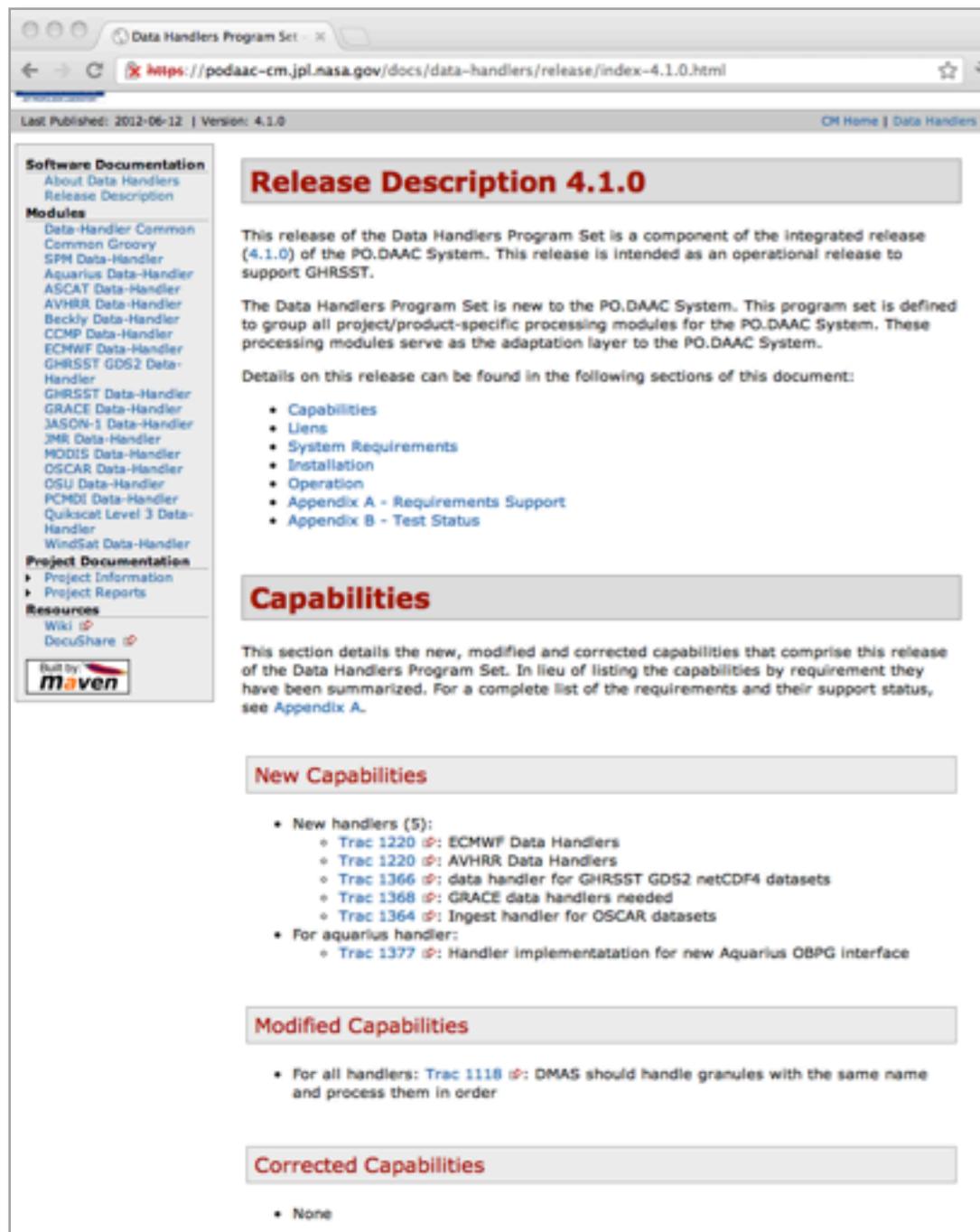
- Trac 1357 - change create_user_authentication code to handle null password or need new method for crawling ftp sites with only username

• Corrected Capabilities

- none



Data Handlers



The screenshot shows a web browser displaying the 'Release Description 4.1.0' page of the Data Handlers Program Set. The URL is <https://podaac-cm.jpl.nasa.gov/docs/data-handlers/release/index-4.1.0.html>. The page includes a left sidebar with navigation links for Software Documentation, Modules, Project Documentation, Resources, and a Maven badge. The main content area features sections for 'Release Description 4.1.0', 'Capabilities', 'New Capabilities', 'Modified Capabilities', and 'Corrected Capabilities'. The 'New Capabilities' section lists several Trac tickets related to new data handlers for various datasets.

Release Description 4.1.0

This release of the Data Handlers Program Set is a component of the integrated release (4.1.0) of the PO.DAAC System. This release is intended as an operational release to support GHRSST.

The Data Handlers Program Set is new to the PO.DAAC System. This program set is defined to group all project/product-specific processing modules for the PO.DAAC System. These processing modules serve as the adaptation layer to the PO.DAAC System.

Details on this release can be found in the following sections of this document:

- Capabilities
- Liens
- System Requirements
- Installation
- Operation
- Appendix A - Requirements Support
- Appendix B - Test Status

Capabilities

This section details the new, modified and corrected capabilities that comprise this release of the Data Handlers Program Set. In lieu of listing the capabilities by requirement they have been summarized. For a complete list of the requirements and their support status, see Appendix A.

New Capabilities

- New handlers (5):
 - [Trac 1220](#): ECMWF Data Handlers
 - [Trac 1220](#): AVHRR Data Handlers
 - [Trac 1366](#): data handler for GHRSST GDS2 netCDF4 datasets
 - [Trac 1368](#): GRACE data handlers needed
 - [Trac 1364](#): Ingest handler for OSCAR datasets
- For aquarius handler:
 - [Trac 1377](#): Handler implementation for new Aquarius OBPG interface

Modified Capabilities

- For all handlers: [Trac 1118](#): DMAS should handle granules with the same name and process them in order

Corrected Capabilities

- None

• New Capabilities

- [Trac 1364](#) - Ingest handler for OSCAR datasets
- [Trac 1365](#) - Handlers for AVHRR SST NAVO datasets
- [Trac 1366](#) - data handler for GHRSST GDS2 netCDF4 datasets
- [Trac 1368](#) - GRACE data handlers needed
- [Trac 1375](#) - Ingest handler for ECMWF (model) data
- [Trac 1377](#) - Handler implementation for new Aquarius OBPG interface

• Modified Capabilities

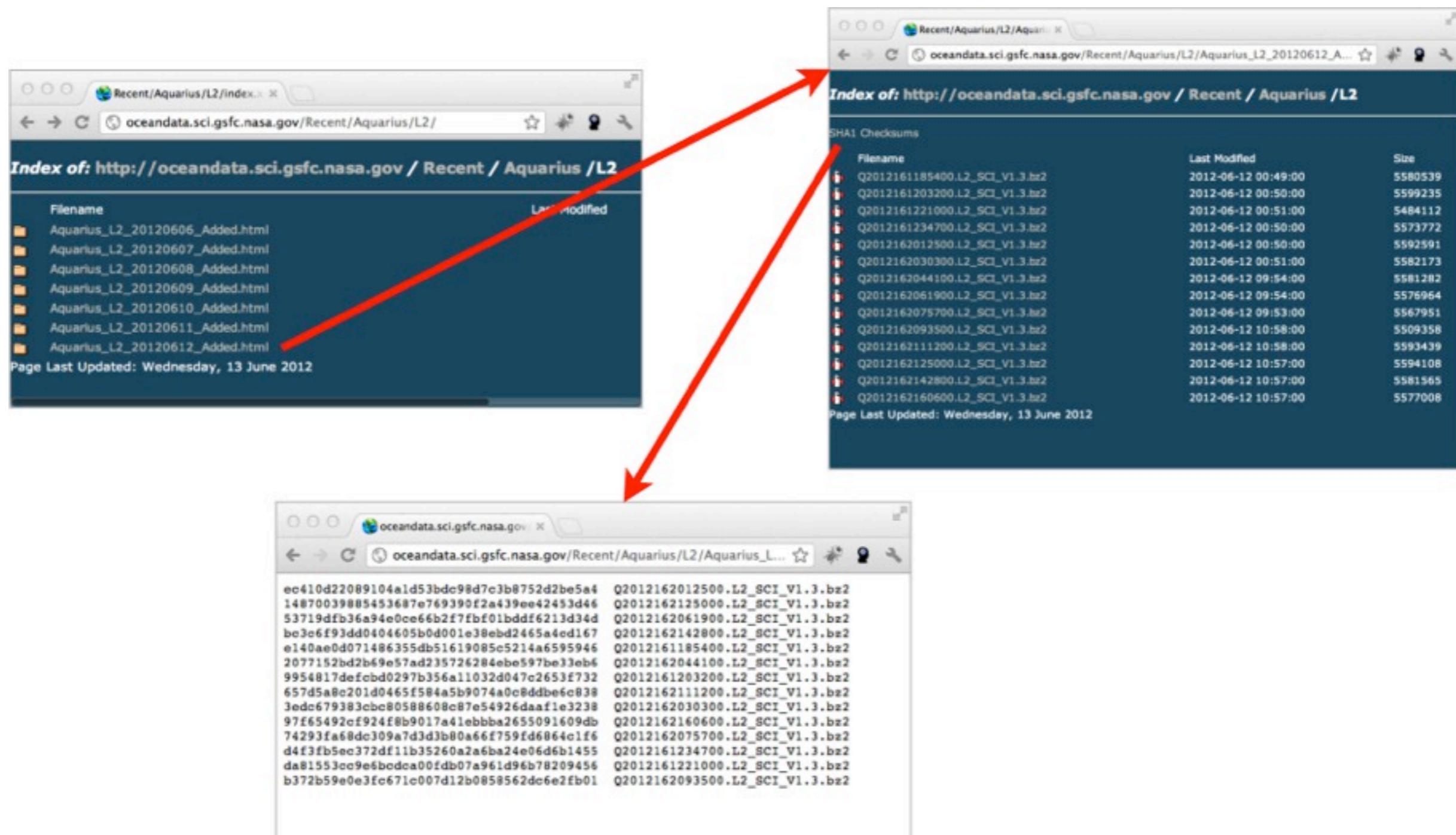
- [Trac 1118](#) - DMAS should handle granules with the same name and process them in order

• Corrected Capabilities

- none



New Interface for Aquarius Handler



The figure displays three screenshots of a web browser interface for managing Aquarius L2 data files. The top window shows a list of files with SHA1 checksums. The middle window shows a list of files with Last Modified and Size information. The bottom window shows a list of files with file IDs.

Top Window (SHA1 Checksums):

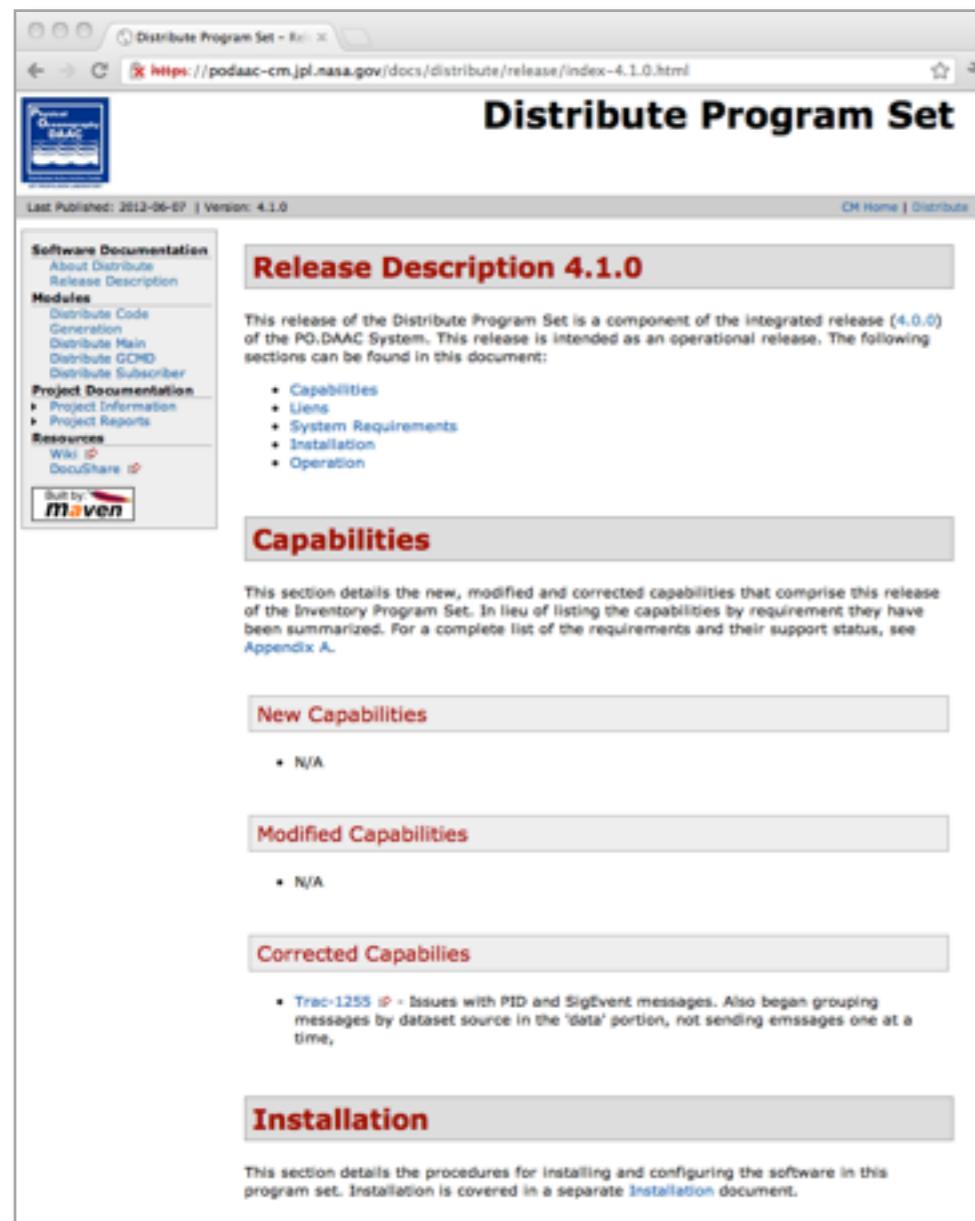
Filename	Last Modified	Size
Q2012161185400.L2_SCI_V1.3.bz2	2012-06-12 00:49:00	5580539
Q2012161203200.L2_SCI_V1.3.bz2	2012-06-12 00:50:00	5599235
Q2012161221000.L2_SCI_V1.3.bz2	2012-06-12 00:51:00	5484112
Q2012161234700.L2_SCI_V1.3.bz2	2012-06-12 00:50:00	5573772
Q2012162012500.L2_SCI_V1.3.bz2	2012-06-12 00:50:00	5592591
Q2012162030300.L2_SCI_V1.3.bz2	2012-06-12 00:51:00	5582173
Q2012162044100.L2_SCI_V1.3.bz2	2012-06-12 09:54:00	5581282
Q2012162061900.L2_SCI_V1.3.bz2	2012-06-12 09:54:00	5576964
Q2012162075700.L2_SCI_V1.3.bz2	2012-06-12 09:53:00	5567951
Q2012162093500.L2_SCI_V1.3.bz2	2012-06-12 10:58:00	5509358
Q2012162111200.L2_SCI_V1.3.bz2	2012-06-12 10:58:00	5593439
Q2012162125000.L2_SCI_V1.3.bz2	2012-06-12 10:57:00	5594108
Q2012162142800.L2_SCI_V1.3.bz2	2012-06-12 10:57:00	5581565
Q2012162160600.L2_SCI_V1.3.bz2	2012-06-12 10:57:00	5577008

Middle Window (Last Modified and Size):

Filename	Last Modified	Size
Q2012161185400.L2_SCI_V1.3.bz2	2012-06-12 00:49:00	5580539
Q2012161203200.L2_SCI_V1.3.bz2	2012-06-12 00:50:00	5599235
Q2012161221000.L2_SCI_V1.3.bz2	2012-06-12 00:51:00	5484112
Q2012161234700.L2_SCI_V1.3.bz2	2012-06-12 00:50:00	5573772
Q2012162012500.L2_SCI_V1.3.bz2	2012-06-12 00:50:00	5592591
Q2012162030300.L2_SCI_V1.3.bz2	2012-06-12 00:51:00	5582173
Q2012162044100.L2_SCI_V1.3.bz2	2012-06-12 09:54:00	5581282
Q2012162061900.L2_SCI_V1.3.bz2	2012-06-12 09:54:00	5576964
Q2012162075700.L2_SCI_V1.3.bz2	2012-06-12 09:53:00	5567951
Q2012162093500.L2_SCI_V1.3.bz2	2012-06-12 10:58:00	5509358
Q2012162111200.L2_SCI_V1.3.bz2	2012-06-12 10:58:00	5593439
Q2012162125000.L2_SCI_V1.3.bz2	2012-06-12 10:57:00	5594108
Q2012162142800.L2_SCI_V1.3.bz2	2012-06-12 10:57:00	5581565
Q2012162160600.L2_SCI_V1.3.bz2	2012-06-12 10:57:00	5577008

Bottom Window (File IDs):

File ID	File ID
ec410d22089104ald53bdc98d7c3b8752d2be5a4	Q2012162012500.L2_SCI_V1.3.bz2
14870039805453687e769390f2a439ee42453d46	Q2012162125000.L2_SCI_V1.3.bz2
53719dfb36a94e0ce66b2f7fbf01bddf6213d34d	Q2012162061900.L2_SCI_V1.3.bz2
bc3e6f93dd0404605b0d001e38ebd2465a4cd167	Q2012162142800.L2_SCI_V1.3.bz2
e140ae0d071486355db51619085c5214a6595946	Q2012161185400.L2_SCI_V1.3.bz2
2077152bd2b69e57ad235726284ebe597be33eb6	Q2012162044100.L2_SCI_V1.3.bz2
9954817defcbd0297b356a11032d047c2653f732	Q2012161203200.L2_SCI_V1.3.bz2
657d5a8c201d0465f584a5b9074a0c8ddbe6c838	Q2012162111200.L2_SCI_V1.3.bz2
3edc679383cbc80588608c87e54926daaf1e3238	Q2012162030300.L2_SCI_V1.3.bz2
97f65492cf924f8b9017a41ebba2655091609db	Q2012162160600.L2_SCI_V1.3.bz2
74293fa68dc309a7d3d3b0a66f759fd6864clf6	Q2012162075700.L2_SCI_V1.3.bz2
d4f3fb5ec372df11b35260a2a6ba24e06d6b1455	Q2012161234700.L2_SCI_V1.3.bz2
da81553cc9e6bcdca00fdb07a961d96b78209456	Q2012161221000.L2_SCI_V1.3.bz2
b372b59e0e3fc671c007d12b0858562dc6e2fb01	Q2012162093500.L2_SCI_V1.3.bz2



The screenshot shows a web browser displaying the 'Distribute Program Set' documentation. The URL is <https://podaac-cm.jpl.nasa.gov/docs/distribute/release/index-4.1.0.html>. The page title is 'Distribute Program Set'. On the left, there's a sidebar with links for Software Documentation, Modules (Distribute Code Generation, Distribute Main, Distribute GOMD, Distribute Subscriber), Project Documentation (Project Information, Project Reports), and Resources (Wiki, DocuShare). A 'Built by Maven' badge is also present. The main content area has a red header 'Release Description 4.1.0'. It states: 'This release of the Distribute Program Set is a component of the integrated release (4.0.0) of the PO.DAAC System. This release is intended as an operational release. The following sections can be found in this document:'. Below this is a list of sections: Capabilities, New Capabilities (N/A), Modified Capabilities (N/A), and Corrected Capabilities (Trac 1255 - Distribute-subscriber bug fixes for disk out of space error). There's also an 'Installation' section with a note about separate documentation.

Distribute

- **New Capabilities**

- none

- **Modified Capabilities**

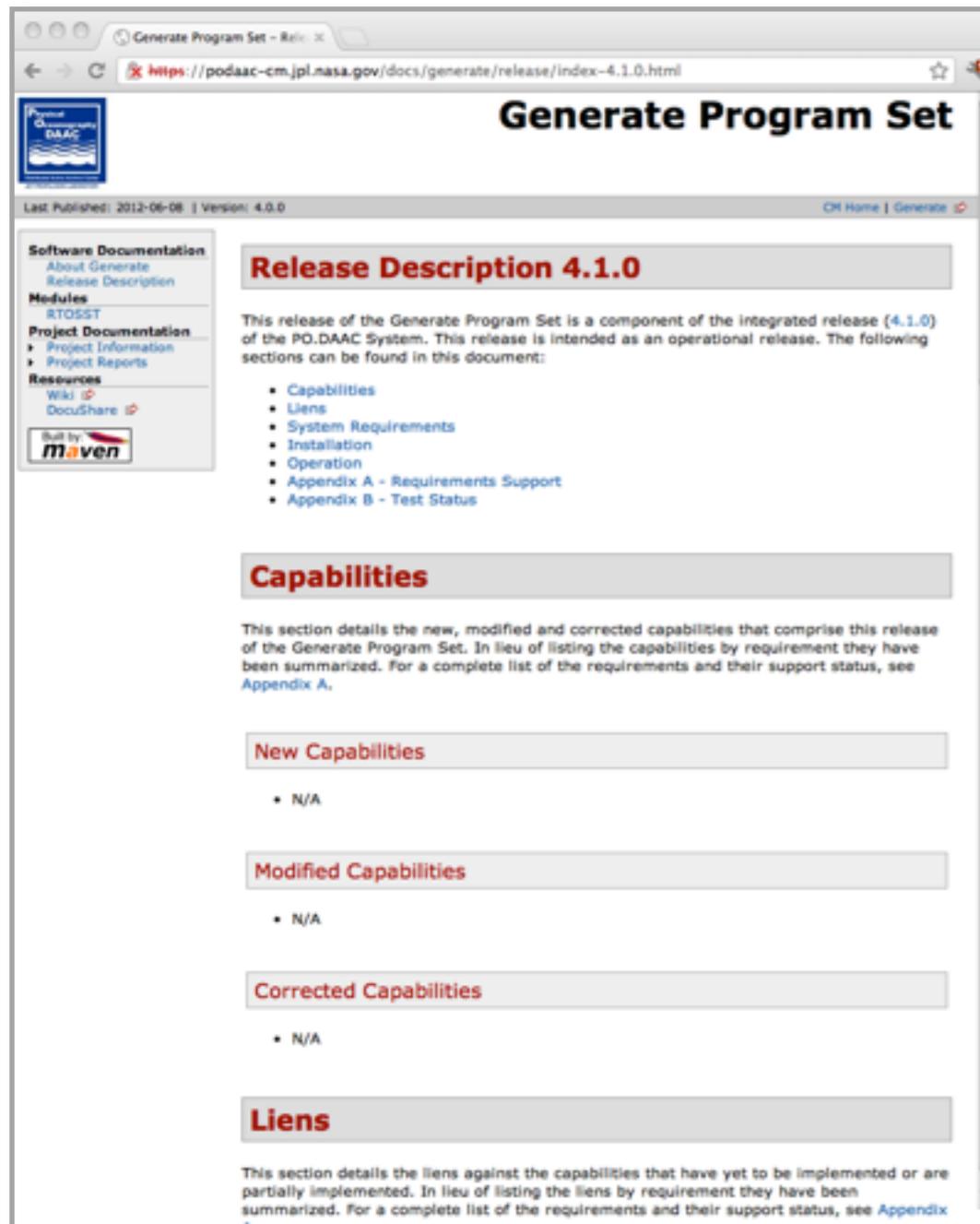
- none

- **Corrected Capabilities**

- [Trac 1255](#) - Distribute-subscriber bug fixes for disk out of space error



Generate



The screenshot shows a web browser displaying the 'Generate Program Set' release description for version 4.1.0. The page includes a navigation bar with links for Software Documentation, Project Documentation, and Resources, along with a Maven build status indicator. The main content area features sections for 'Release Description 4.1.0' and 'Capabilities'. The 'Capabilities' section is further divided into 'New Capabilities', 'Modified Capabilities', and 'Corrected Capabilities', each listing 'N/A'. Below the capabilities section is a 'Liens' section with a similar note about N/A.

Generate Program Set - Rel... X

https://podaac-cm.jpl.nasa.gov/docs/generate/release/index-4.1.0.html

Physical Oceanography DAAC

Last Published: 2012-06-08 | Version: 4.0.0 OH Home | Generate

Software Documentation
About Generate
Release Description

Modules
RTOSST

Project Documentation
Project Information
Project Reports

Resources
Wiki
DocuShare

Built by  Maven

Generate Program Set

Release Description 4.1.0

This release of the Generate Program Set is a component of the integrated release (4.1.0) of the PO.DAAC System. This release is intended as an operational release. The following sections can be found in this document:

- Capabilities
- Liens
- System Requirements
- Installation
- Operation
- Appendix A - Requirements Support
- Appendix B - Test Status

Capabilities

This section details the new, modified and corrected capabilities that comprise this release of the Generate Program Set. In lieu of listing the capabilities by requirement they have been summarized. For a complete list of the requirements and their support status, see [Appendix A](#).

New Capabilities

- N/A

Modified Capabilities

- N/A

Corrected Capabilities

- N/A

Liens

This section details the liens against the capabilities that have yet to be implemented or are partially implemented. In lieu of listing the liens by requirement they have been summarized. For a complete list of the requirements and their support status, see [Appendix](#)

• New Capabilities

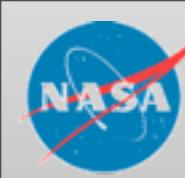
- none

• Modified Capabilities

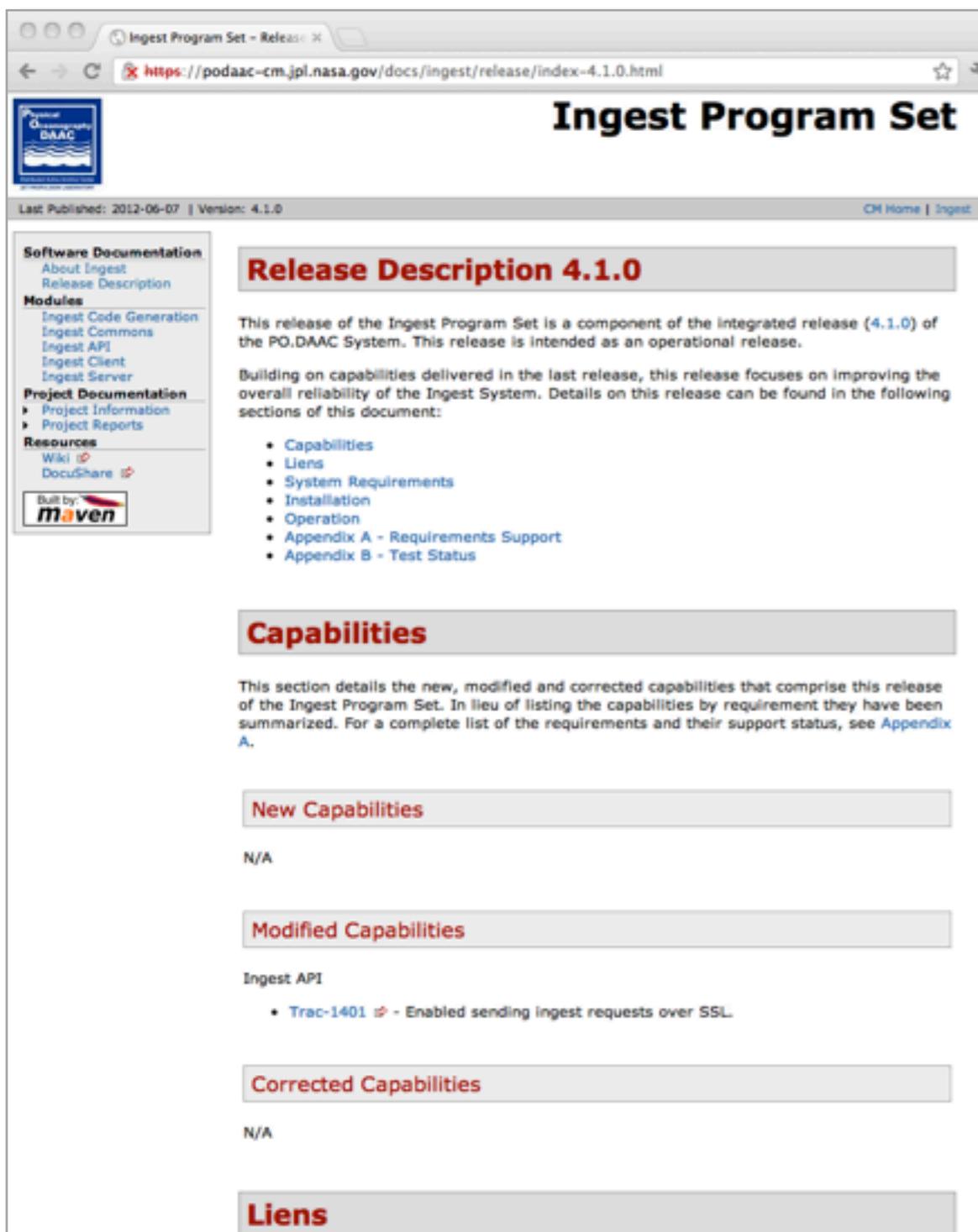
- none

• Corrected Capabilities

- none



Ingest



The screenshot shows a web browser displaying the "Ingest Program Set - Release 4.1.0" page. The URL in the address bar is <https://podaac-cm.jpl.nasa.gov/docs/ingest/release/index-4.1.0.html>. The page title is "Ingest Program Set". On the left, there's a sidebar with links for Software Documentation (About Ingest, Release Description), Modules (Ingest Code Generation, Ingest Commons, Ingest API, Ingest Client, Ingest Server), Project Documentation (Project Information, Project Reports), and Resources (Wiki, DocShare). A "Built by maven" badge is also present. The main content area has a section titled "Release Description 4.1.0" which states: "This release of the Ingest Program Set is a component of the integrated release (4.1.0) of the PO.DAAC System. This release is intended as an operational release. Building on capabilities delivered in the last release, this release focuses on improving the overall reliability of the Ingest System. Details on this release can be found in the following sections of this document: Capabilities, Liens, System Requirements, Installation, Operation, Appendix A - Requirements Support, Appendix B - Test Status". Below this is a "Capabilities" section with sub-sections for "New Capabilities" (N/A), "Modified Capabilities" (Ingest API: Trac-1401 - Enabled sending ingest requests over SSL), "Corrected Capabilities" (N/A), and "Liens" (N/A).

- **New Capabilities**

- none

- **Modified Capabilities**

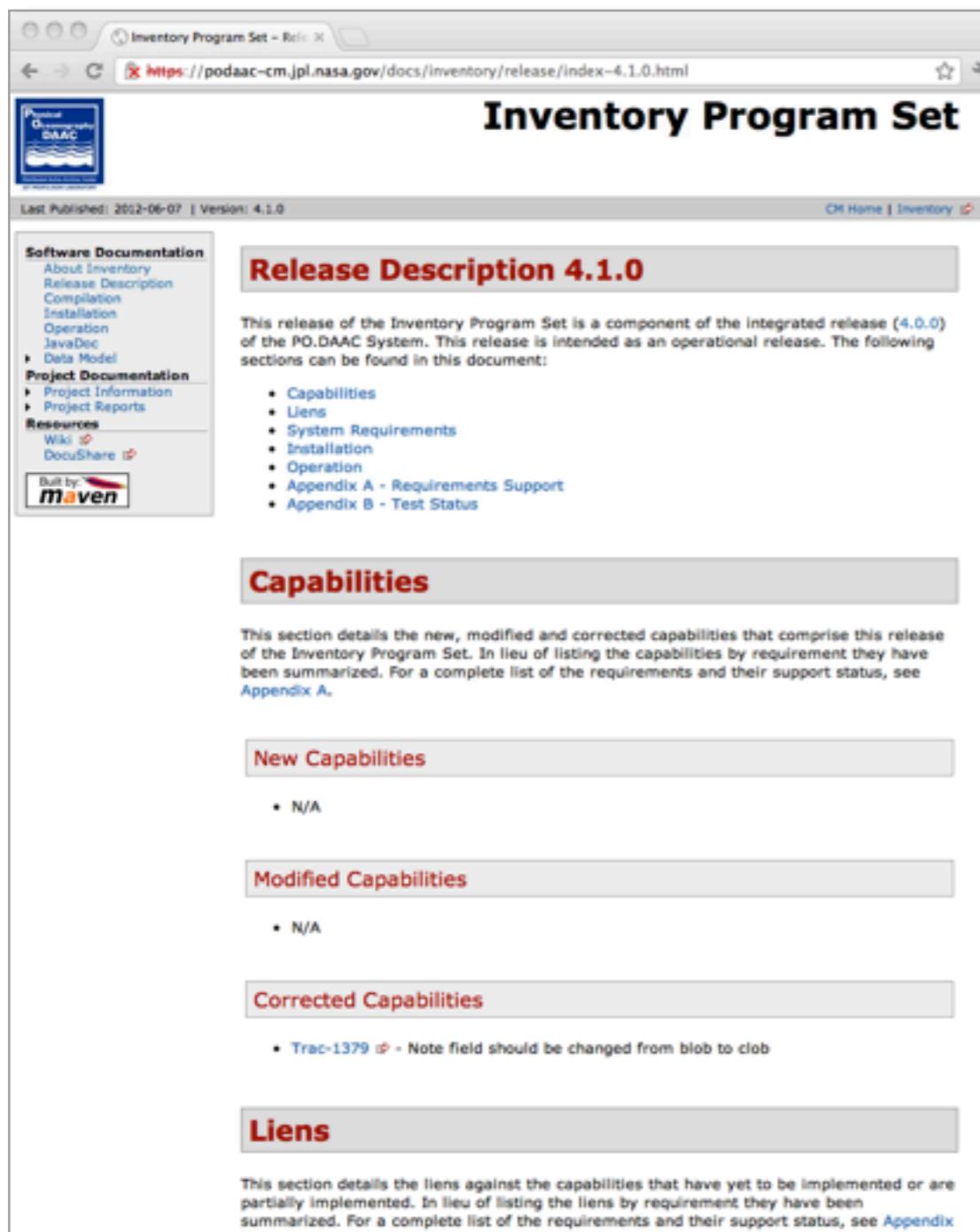
- Trac 1401 - DMAS services to communicate over HTTPS

- **Corrected Capabilities**

- none



Inventory



The screenshot shows a web browser displaying the 'Inventory Program Set' documentation. The URL is <https://podaac-cm.jpl.nasa.gov/docs/inventory/release/index-4.1.0.html>. The page title is 'Inventory Program Set'. On the left, there's a sidebar with links for Software Documentation (About Inventory, Release Description, Compilation, Installation, Operation, JavaDoc, Data Model), Project Documentation (Project Information, Project Reports), and Resources (Wiki, DocuShare). Below the sidebar, it says 'Built by maven'. The main content area has a section titled 'Release Description 4.1.0' which includes a brief summary of the release and a list of sections: Capabilities, Liens, System Requirements, Installation, Operation, Appendix A - Requirements Support, and Appendix B - Test Status. There are three main sections under 'Capabilities': 'New Capabilities' (N/A), 'Modified Capabilities' (N/A), and 'Corrected Capabilities' (Trac-1379 - Note field should be changed from blob to clob). The 'Liens' section is described as detailing requirements against capabilities.

- **New Capabilities**

- none

- **Modified Capabilities**

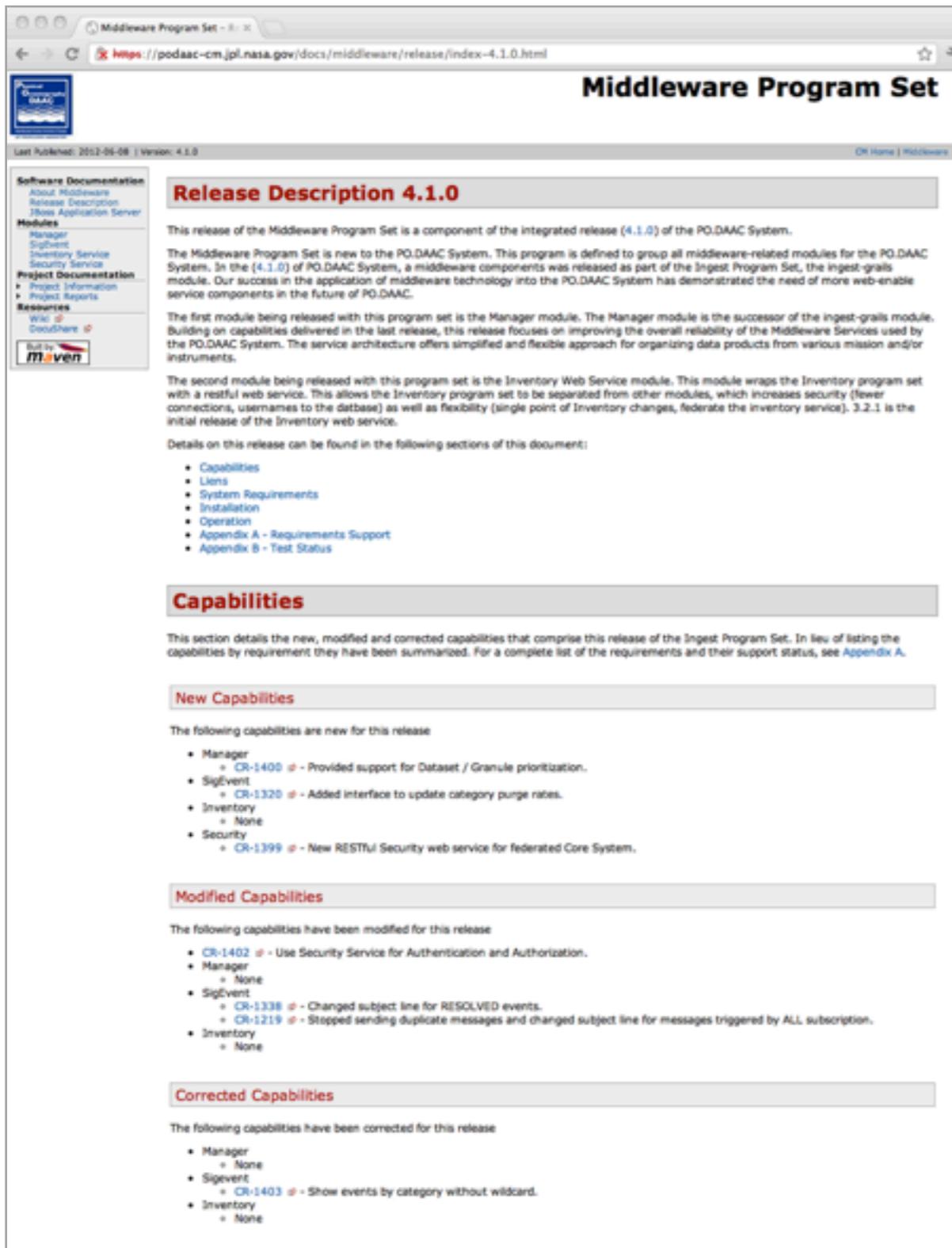
- none

- **Corrected Capabilities**

- [Trac 1379](#) - Note field should be changed from blob to clob



Middleware



The screenshot shows a web browser displaying the 'Middleware Program Set' documentation at <https://podaac-cm.jpl.nasa.gov/docs/middleware/release/index-4.1.0.html>. The page title is 'Middleware Program Set'. The left sidebar contains links for Software Documentation, About Middleware, Release Description, Java Application Server, Modules (Manager, SigEvent, Inventory Service, Security Service), Project Documentation (Project Information, Project Reports), Resources (Wiki, Document Share), and a Maven build status. The main content area includes sections for 'Release Description 4.1.0', 'Capabilities' (New Capabilities, Modified Capabilities, Corrected Capabilities), and 'Appendix A'.

Release Description 4.1.0

This release of the Middleware Program Set is a component of the integrated release (4.1.0) of the PO.DAAC System. The Middleware Program Set is new to the PO.DAAC System. This program is defined to group all middleware-related modules for the PO.DAAC System. In the (4.1.0) of PO.DAAC System, a middleware components was released as part of the Ingest Program Set, the ingest-grails module. Our success in the application of middleware technology into the PO.DAAC System has demonstrated the need of more web-enable service components in the future of PO.DAAC.

The first module being released with this program set is the Manager module. The Manager module is the successor of the ingest-grails module. Building on capabilities delivered in the last release, this release focuses on improving the overall reliability of the Middleware Services used by the PO.DAAC System. The service architecture offers simplified and flexible approach for organizing data products from various mission and/or instruments.

The second module being released with this program set is the Inventory Web Service module. This module wraps the Inventory program set with a restful web service. This allows the Inventory program set to be separated from other modules, which increases security (fewer connections, usernames to the database) as well as flexibility (single point of Inventory changes, federate the inventory service). 3.2.1 is the initial release of the Inventory web service.

Details on this release can be found in the following sections of this document:

- Capabilities
- Licenses
- System Requirements
- Installation
- Operation
- Appendix A - Requirements Support
- Appendix B - Test Status

Capabilities

This section details the new, modified and corrected capabilities that comprise this release of the Ingest Program Set. In lieu of listing the capabilities by requirement they have been summarized. For a complete list of the requirements and their support status, see Appendix A.

New Capabilities

The following capabilities are new for this release

- Manager
 - = [CR-1400](#) - Provided support for Dataset / Granule prioritization.
- SigEvent
 - = [CR-1320](#) - Added interface to update category purge rates.
- Inventory
 - = None
- Security
 - = [CR-1399](#) - New RESTful Security web service for Federated Core System.

Modified Capabilities

The following capabilities have been modified for this release

- [CR-1402](#) - Use Security Service for Authentication and Authorization.
- Manager
 - = None
- SigEvent
 - = [CR-1338](#) - Changed subject line for RESOLVED events.
 - = [CR-1219](#) - Stopped sending duplicate messages and changed subject line for messages triggered by ALL subscription.
- Inventory
 - = None

Corrected Capabilities

The following capabilities have been corrected for this release

- Manager
 - = None
- Sigevent
 - = [CR-1403](#) - Show events by category without wildcard.
- Inventory
 - = None

• New Capabilities

- [Trac 1320](#) - SIGEVENT INTERFACE: desire ability to edit purge rate for categories
- [Trac 1399](#) - Create Security Service for shared use across PODAAC
- [Trac 1400](#) - Provide mechanism to support Dataset/ Granule prioritization

• Modified Capabilities

- [Trac 1219](#) - desire identification of which subscription triggered the email recorded in the sig event email message
- [Trac 1338](#) - Have sig-event stop sending resolved e-mail
- [Trac 1402](#) - Use Security Service for Authentication and Authorization

• Corrected Capabilities

- [Trac 1403](#) - Clicking sigevent category that is prefix of other categories show events for all categories



Product Type Prioritization

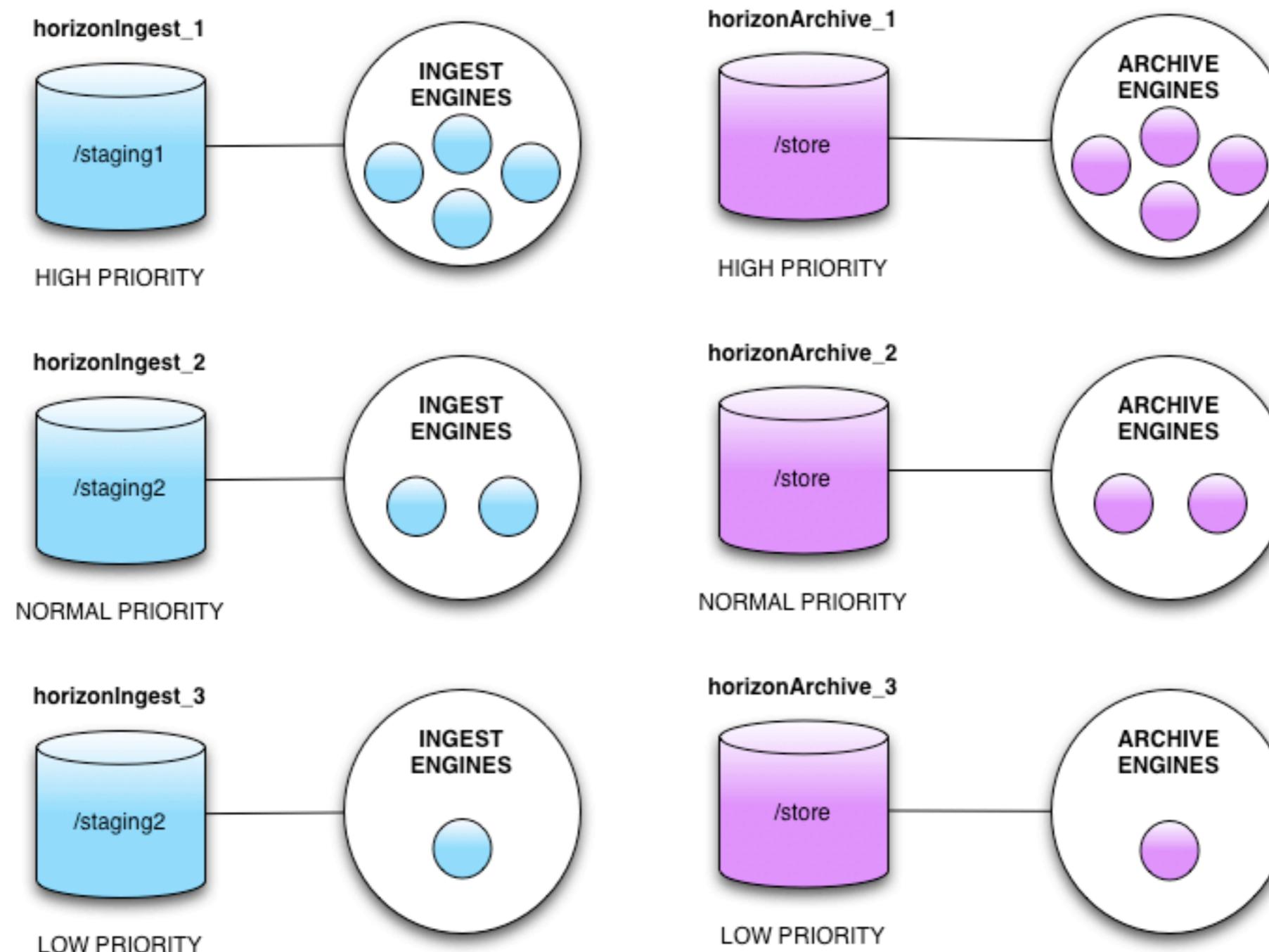
- Enable operator to influence how DMAS handles jobs according to provider QoS requirement
- Priority is assigned to each product type (a.k.a. dataset). Default priority = NORMAL
- DMAS priorities
 - HIGH
 - NORMAL
 - LOW
- For each state/lock in the current cycle, Manager retrieves n products sorted by priority (HIGH to LOW), job received time (oldest to latest) and sends them off to ZooKeeper (a.k.a. job keeper)

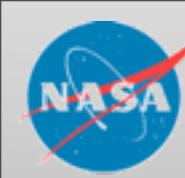




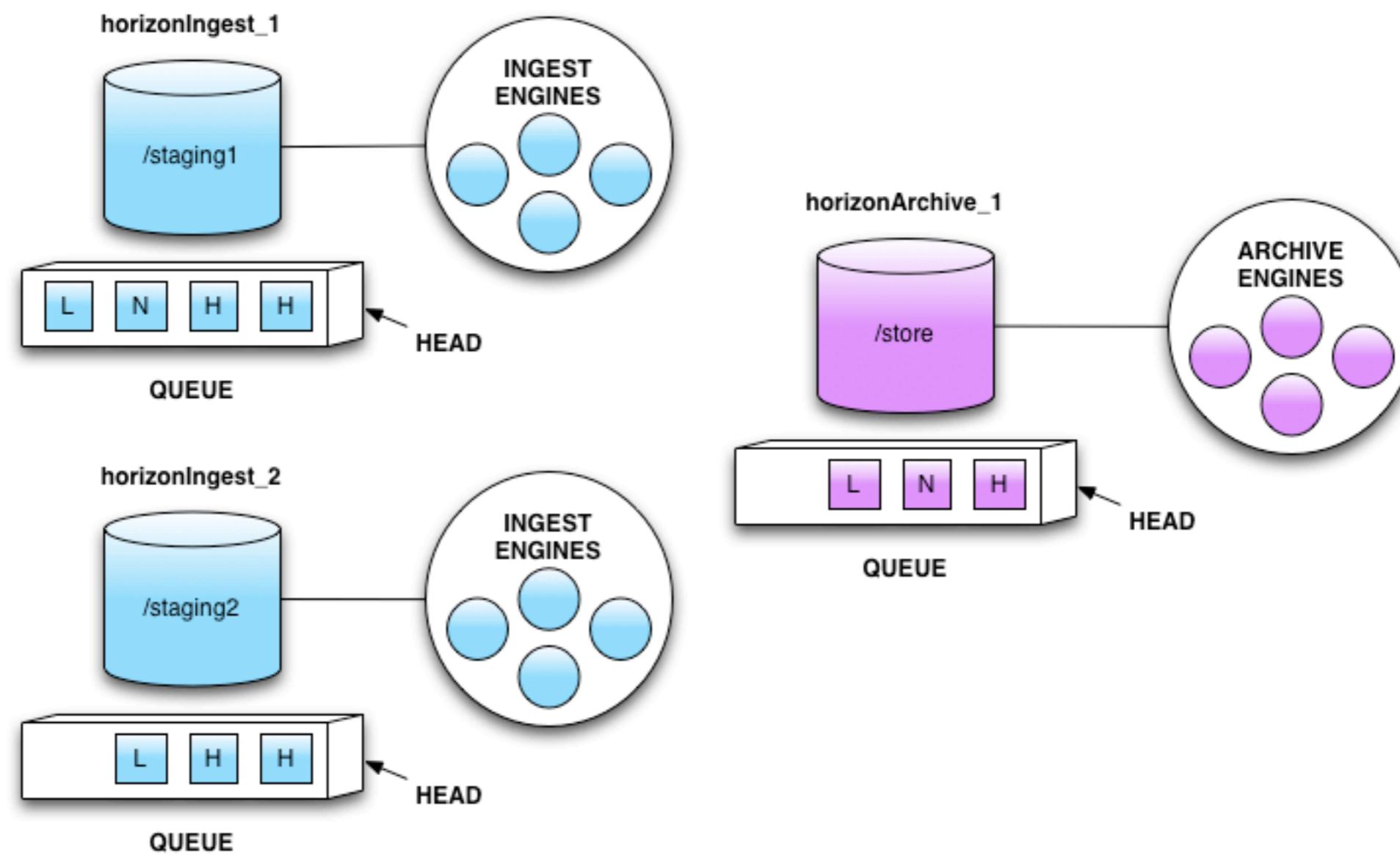
Priority Queue Deployment Strategies - Option 1

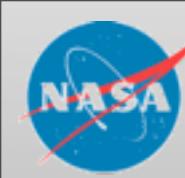
- Assign priority to each storage
- Possible to have more than one storage for each priority





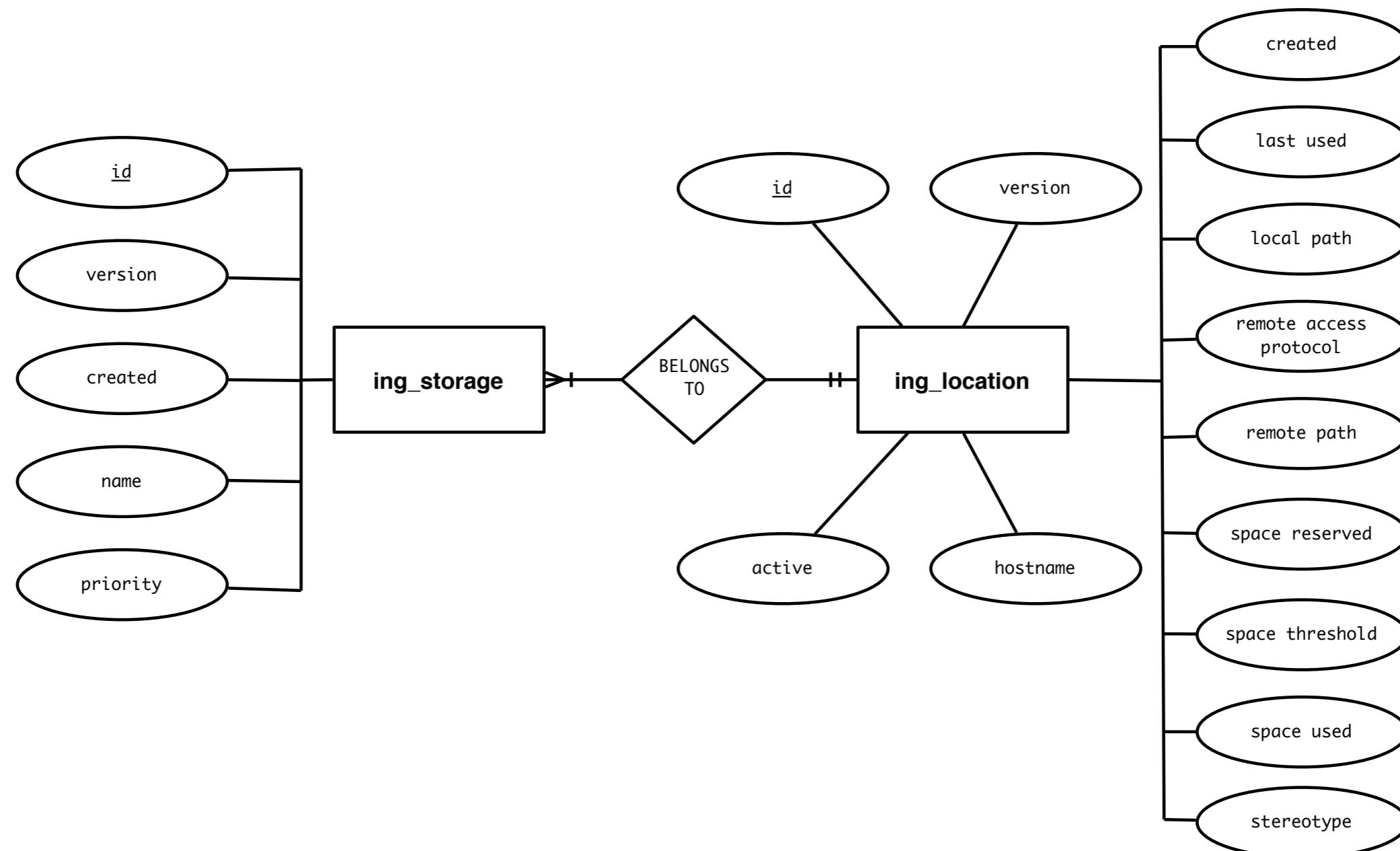
- Each storage to manage its own priority queue
- Manager decides which storage to assign job with x priority based on current number of x priority jobs in each storage and storage size
- HIGH priority jobs will get picked up by engine first, then NORMAL priority jobs, then LOW priority jobs





Storage Database Schema Update

- Allows for multiple names for the same storage location
- Simplifies calculation of space usage

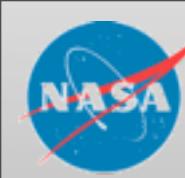




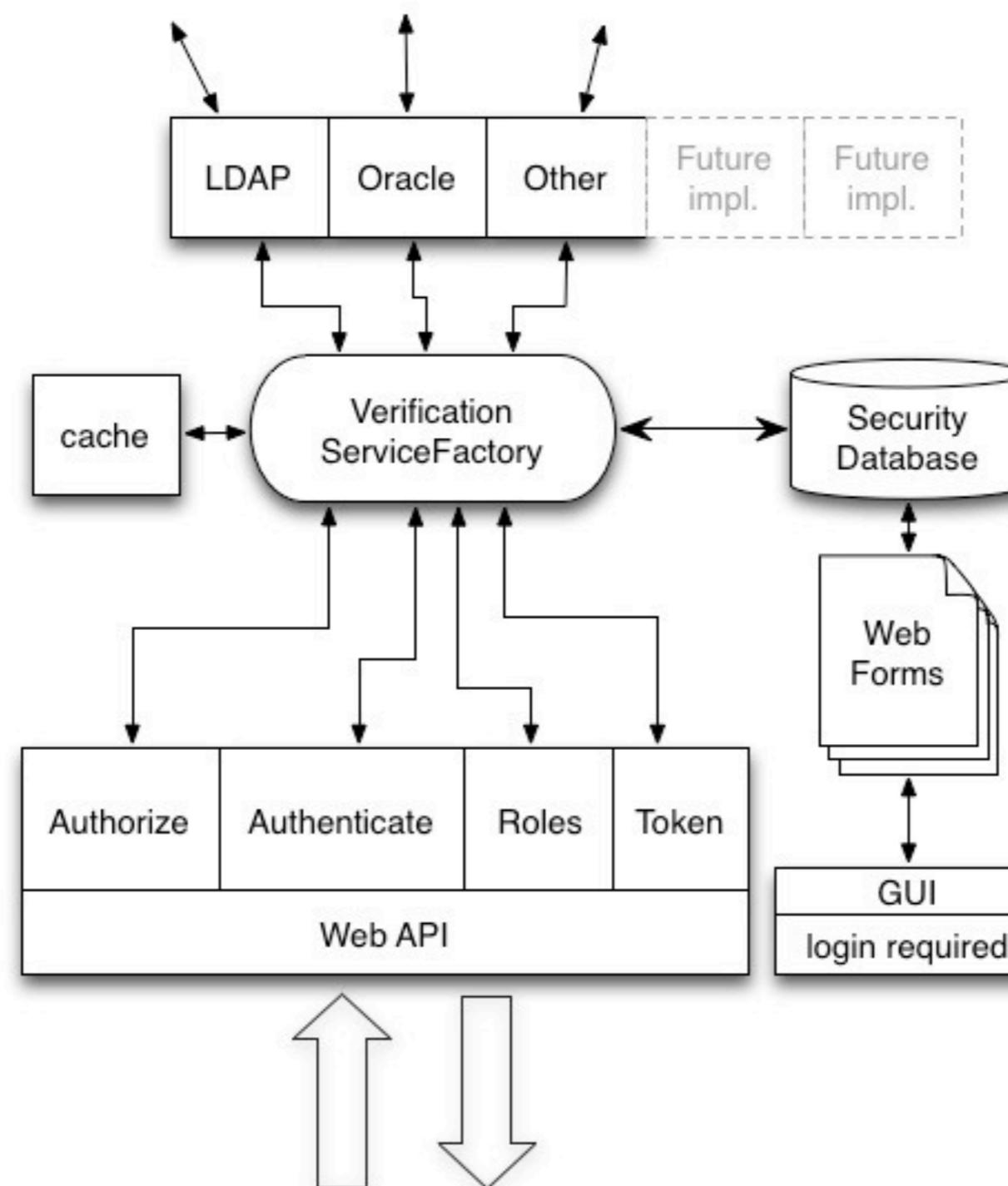
Security Web Service

- Prior to DMAS Federated
 - Manager is responsible for user authentication and authorization.
 - Capability was used by other applications/services, such as Data Handler, Inventory, SigEvent, and web applications (i.e. DMT and Operator Tool)
- DMAS Federated enables multiple instances of Manager web service running in parallel.
 - the architecture calls for a centralized service for authenticating (perhaps also authorizing) Core System applications and services.
- **The new Security Web Service**
 - Encrypted communication using SSL
 - Authorization
 - Realm
 - Access roles
 - Pluggable backend user database. Currently supports
 - DMAS user database using ORACLE
 - JPL LDAP
 - Web interface
 - Command line tool created for token generation to avoid plain password in config files

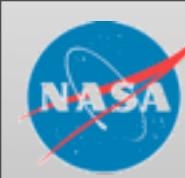




Security Service Architecture

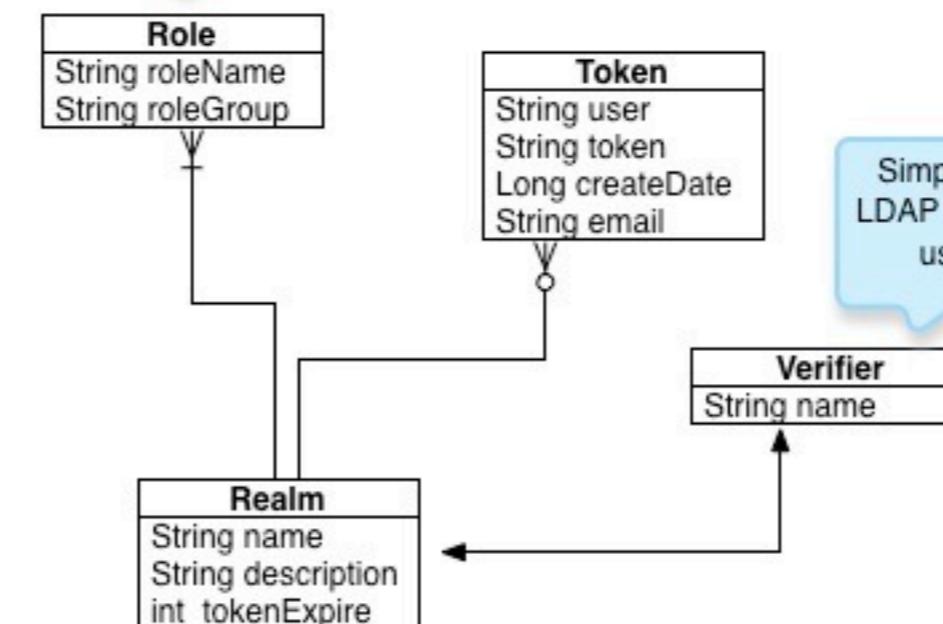


- ✓ RESTful architecture
- ✓ Secure communication
- ✓ Extensible verifier backend



Security Service Database Schema

These are mappings from Common Names (User, Admin) used in applications to the permission groups they represent. For example, 'User' may map to 'podaac.users' in LDAP while 'Admin' maps to 'podaac.admins'

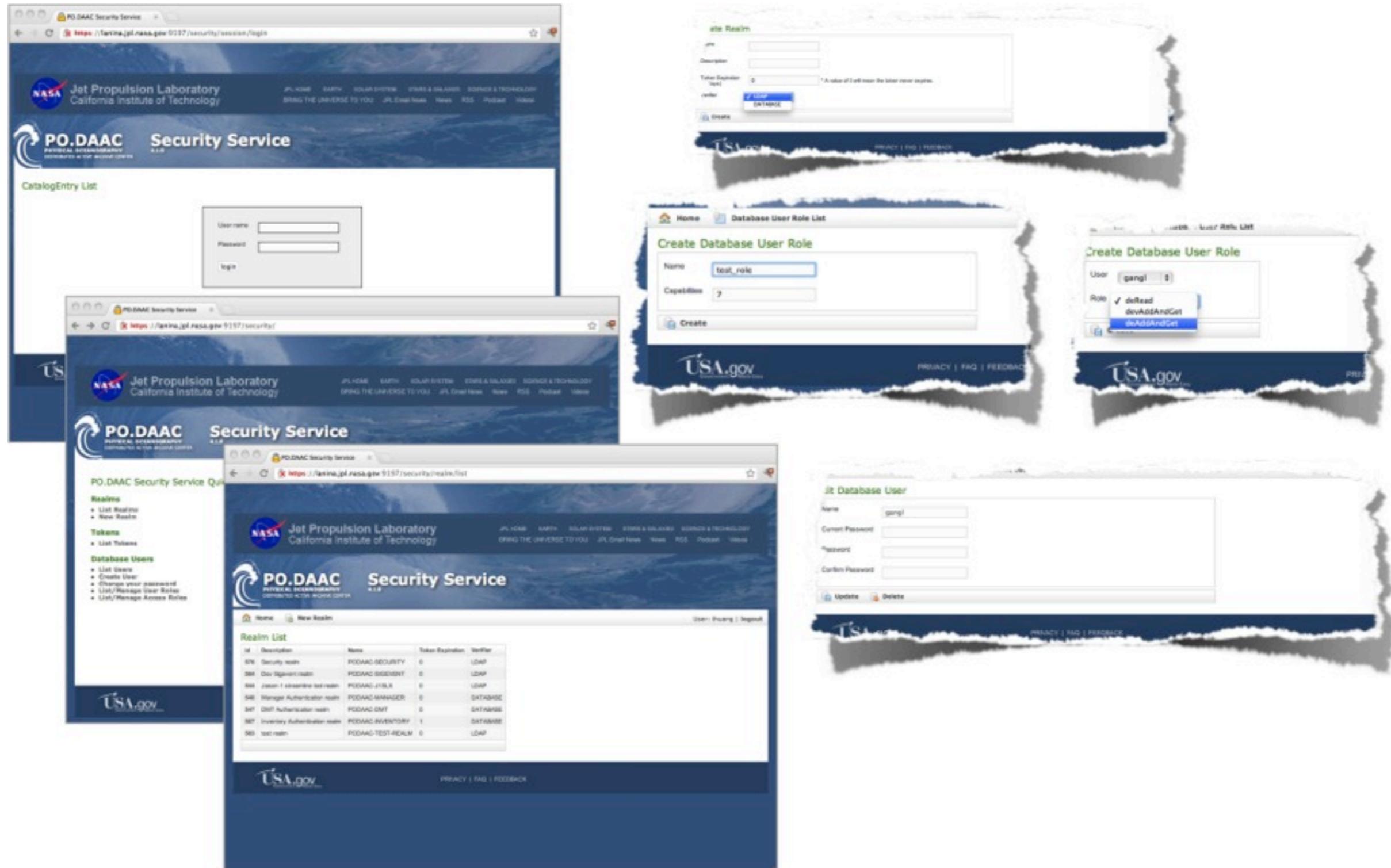


Simple name, like
LDAP or ORACLE to
use for A&A

This is usually the name of an application, like Manager or Inventory. Realms are used to define the type of authentication and authorization used, as well as define and bin access roles.



Security Service Web UI



The image displays a collection of screenshots from the PO.DAAC Security Service Web UI, illustrating its functionality for managing security realms, database user roles, and users.

Realm Management:

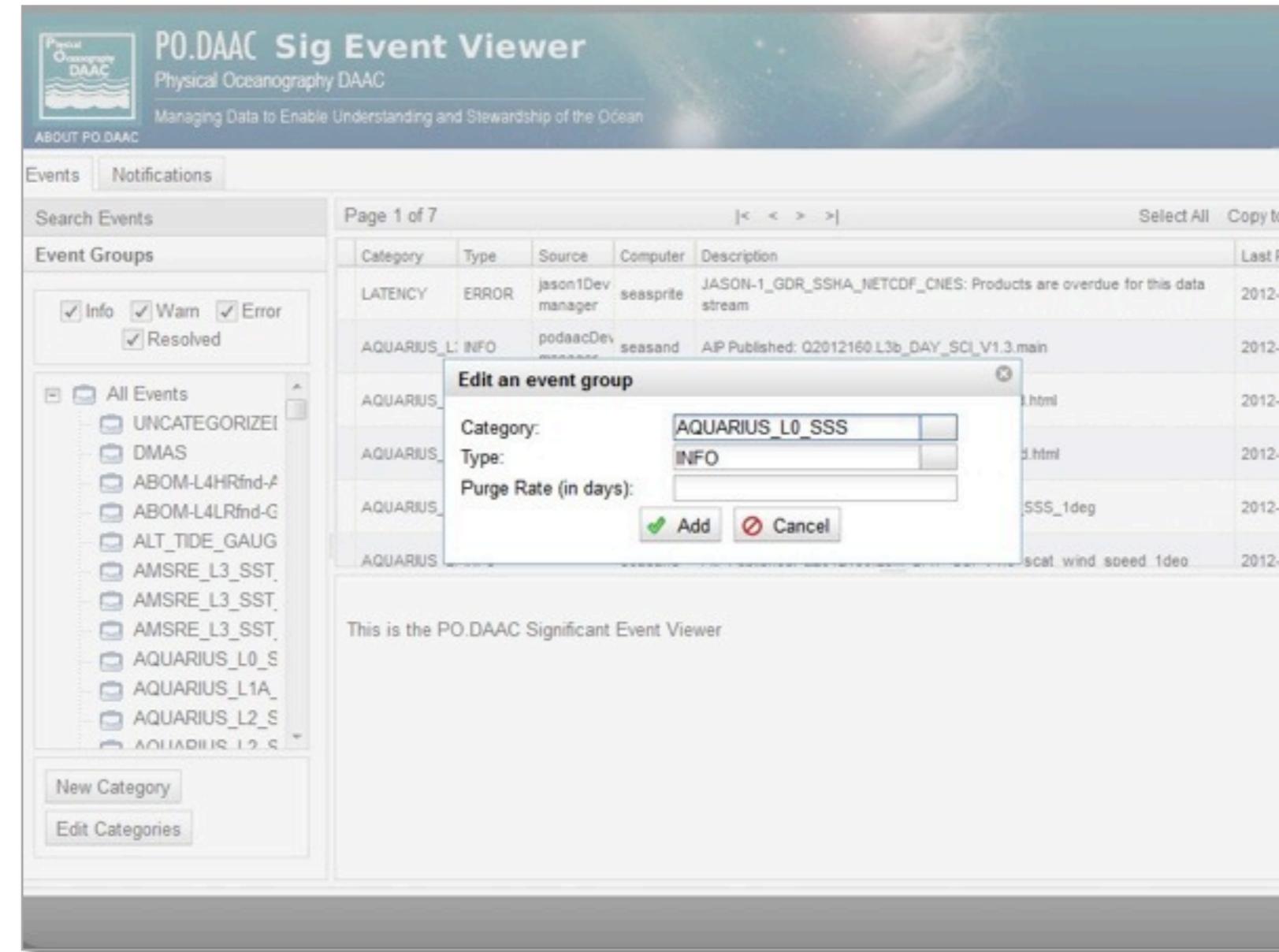
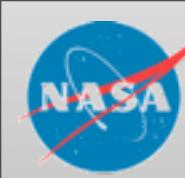
- Create Realm:** A form to define a new realm, including fields for Name (e.g., test_realm), Description, Token Expression (Type: DATABASE, Value: test), and Verifier.
- Realm List:** A table showing existing realms with columns: id, Description, Name, Token Expression, andVerifier. Examples include PODAAC-SECURITY, PODAAC-BENCHMARK, and test_realm.

Database User Role Management:

- Create Database User Role:** A form to create a new database user role named test_role with capabilities set to 7.
- Database User Role List:** A table showing existing database user roles with columns: id, Name, and Capabilities.
- Assign Roles:** A dropdown menu where the role "test_role" is selected for assignment to a user.

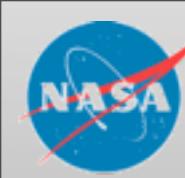
User Management:

- Create Database User:** A form to create a new database user named gangi, requiring a current password, password, and confirmation.

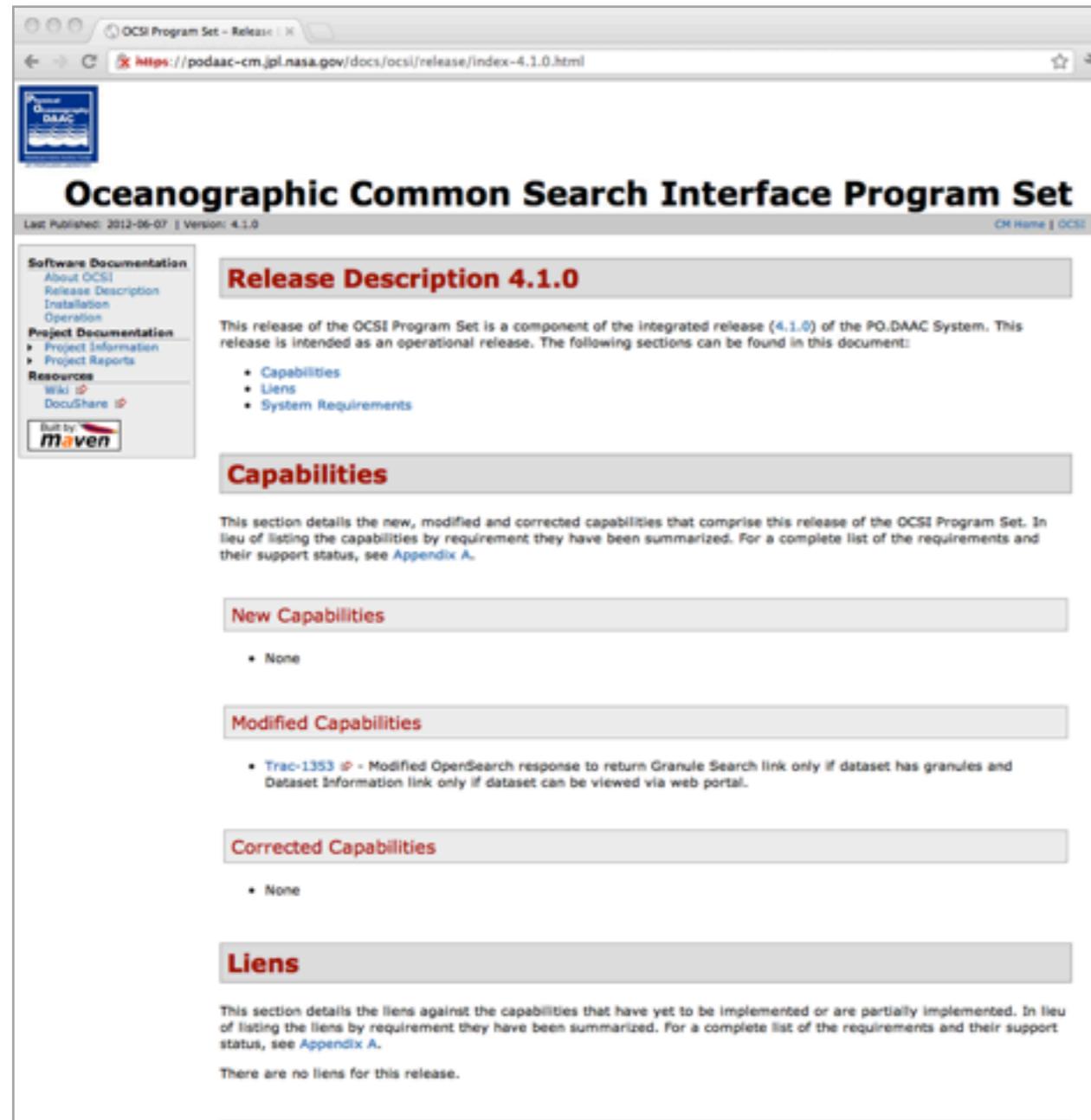


The screenshot shows the PO.DAAC Sig Event Viewer interface. On the left, there's a sidebar with a tree view of event groups like All Events, UNCATEGORIZED, DMAS, ABOM-L4HRfnd-A, ABOM-L4LRfnd-G, ALT_TIDE_GAUG, AMSRE_L3_SST, AMSRE_L3_SST, AMSRE_L3_SST, AQUARIUS_L0_S, AQUARIUS_L1A, AQUARIUS_L2_S, and AQUARIUS_L3_S. Below this are buttons for 'New Category' and 'Edit Categories'. The main area displays a table of events with columns for Category, Type, Source, Computer, Description, and Last R. An event for 'AQUARIUS_L0_S' is selected, and a modal dialog titled 'Edit an event group' is open. In this dialog, the 'Category' field is set to 'AQUARIUS_L0_SSS', the 'Type' field is set to 'INFO', and the 'Purge Rate (in days)' field is empty. At the bottom of the dialog are 'Add' and 'Cancel' buttons. The table lists several other events, including ones from Jason1Dev, Jason2Dev, and Seasat, with descriptions related to data delivery and processing.

User can update the Significant Event purge rate



OCSI



The screenshot shows the 'Release Description 4.1.0' page of the OCSI Program Set. The page includes a navigation bar with links for Software Documentation, Project Documentation, and Resources. It features sections for 'New Capabilities', 'Modified Capabilities', 'Corrected Capabilities', 'Liens', and 'System Requirements'. The 'New Capabilities' section lists 'None'. The 'Modified Capabilities' section lists 'Trac-1353' with a note about modifying OpenSearch responses. The 'Corrected Capabilities' section lists 'None'. The 'Liens' section notes there are no liens for this release.

- **New Capabilities**

- none

- **Modified Capabilities**

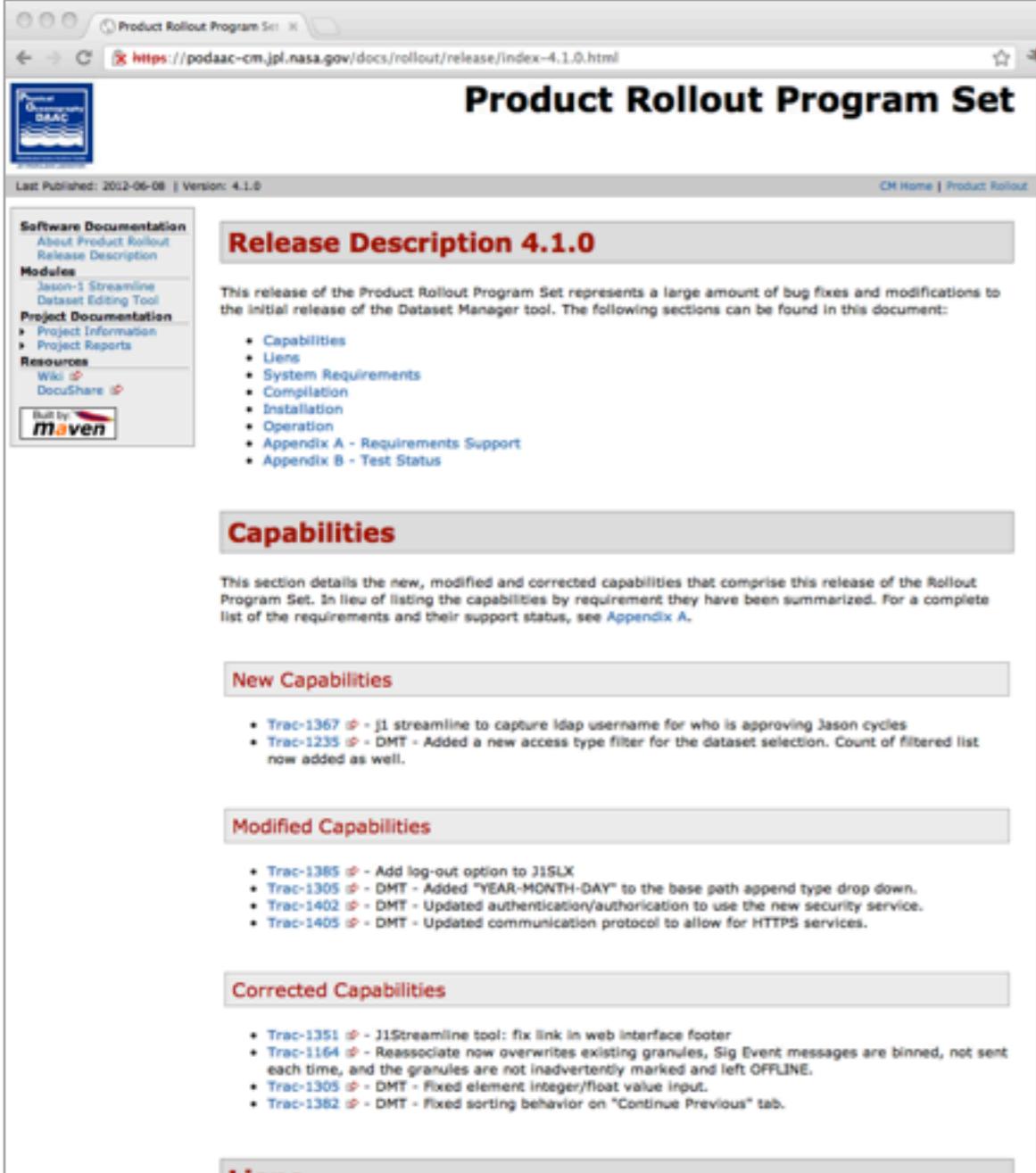
- [Trac 1353](#) - OpenSearch spec to make 'Dataset Information' link optional

- **Corrected Capabilities**

- none



Product Rollout



The screenshot shows the 'Release Description 4.1.0' page of the Product Rollout Program Set. The page includes a sidebar with links to Software Documentation, Project Documentation, and Resources, as well as a Maven badge. The main content area features a 'Release Description' section with a summary of changes and a list of capabilities. Below this are sections for 'New Capabilities', 'Modified Capabilities', and 'Corrected Capabilities', each listing specific Trac tickets and their descriptions.

Release Description 4.1.0

This release of the Product Rollout Program Set represents a large amount of bug fixes and modifications to the initial release of the Dataset Manager tool. The following sections can be found in this document:

- Capabilities
- Lens
- System Requirements
- Compilation
- Installation
- Operation
- Appendix A - Requirements Support
- Appendix B - Test Status

Capabilities

This section details the new, modified and corrected capabilities that comprise this release of the Rollout Program Set. In lieu of listing the capabilities by requirement they have been summarized. For a complete list of the requirements and their support status, see [Appendix A](#).

New Capabilities

- Trac-1367 - j1 streamline to capture ldap username for who is approving Jason cycles
- Trac-1235 - DMT - Added a new access type filter for the dataset selection. Count of filtered list now added as well.

Modified Capabilities

- Trac-1385 - Add log-out option to J1SLX
- Trac-1305 - DMT - Added "YEAR-MONTH-DAY" to the base path append type drop down.
- Trac-1402 - DMT - Updated authentication/authorization to use the new security service.
- Trac-1405 - DMT - Updated communication protocol to allow for HTTPS services.

Corrected Capabilities

- Trac-1351 - J1Streamline tool: fix link in web interface footer
- Trac-1164 - Reassociate now overwrites existing granules, Sig Event messages are binned, not sent each time, and the granules are not inadvertently marked and left OFFLINE.
- Trac-1305 - DMT - Fixed element integer/float value input.
- Trac-1382 - DMT: fix sorting on the continue previous tab

• New Capabilities

- Trac 1235 - Add filter to Dataset Manager Tool and count of filter/search result
- Trac 1367 - j1 streamline to capture ldap username for who is approving Jason cycles

• Modified Capabilities

- Trac 1305 - DMT Problem with Spatial Bounding Box Elements
- Trac 1385 - J1-streamline: add log-out option
- Trac 1402 - Use Security Service for Authentication and Authorization
- Trac 1405 - Update tools to allow for HTTPS web service backends

• Corrected Capabilities

- Trac 1164 - Jason1 - Migrate J1 stream line tool to use DMAS
- Trac 1305 - DMT Problem with Spatial Bounding Box Elements
- Trac 1351 - J1Streamline tool: fix link in web interface footer
- Trac 1382 - DMT: fix sorting on the continue previous tab



Dataset Manager Tool v4.1.0

calarcon

Modify Existing Continue Previous Copy From Existing Create New

Perform edits on existing datasets and related information
Double click a dataset to edit

Filter Name Filter Access Type

Found 369 dataset(s)

ID	Short Name	Access Type
1	ABOM-L4HRfnd-AUS-RAMSSA_09km	OPEN
22	EUR-L4UHFnd-MED-v01	OPEN
84	QSCAT_LEVEL_2B	OPEN
86	QSCAT_LEVEL_2B_COMP_12	OPEN
7	EUR-L2P-AVHRR16_G	OPEN
88	QSCAT_LEVEL_3	OPEN
8	EUR-L2P-AVHRR16_L	OPEN
101	TOPEX ALTSDR	OPEN
102	TOPEX GDR	OPEN
106	PODAAC_MGDR	OPEN
9	EUR-L2P-AVHRR17_G	OPEN
107	GEOS-3_ALT_GDR	OPEN
110	WENTZ NIMBUS-7 SMMR	OPEN
10	NAVO-L2P-AVHRR17_G	OPEN
118	WENTZ SASS SIGMA-0	OPEN
119	WAF DEALIASED SASS	OPEN

DMT now provides filters by dataset and/or access type.

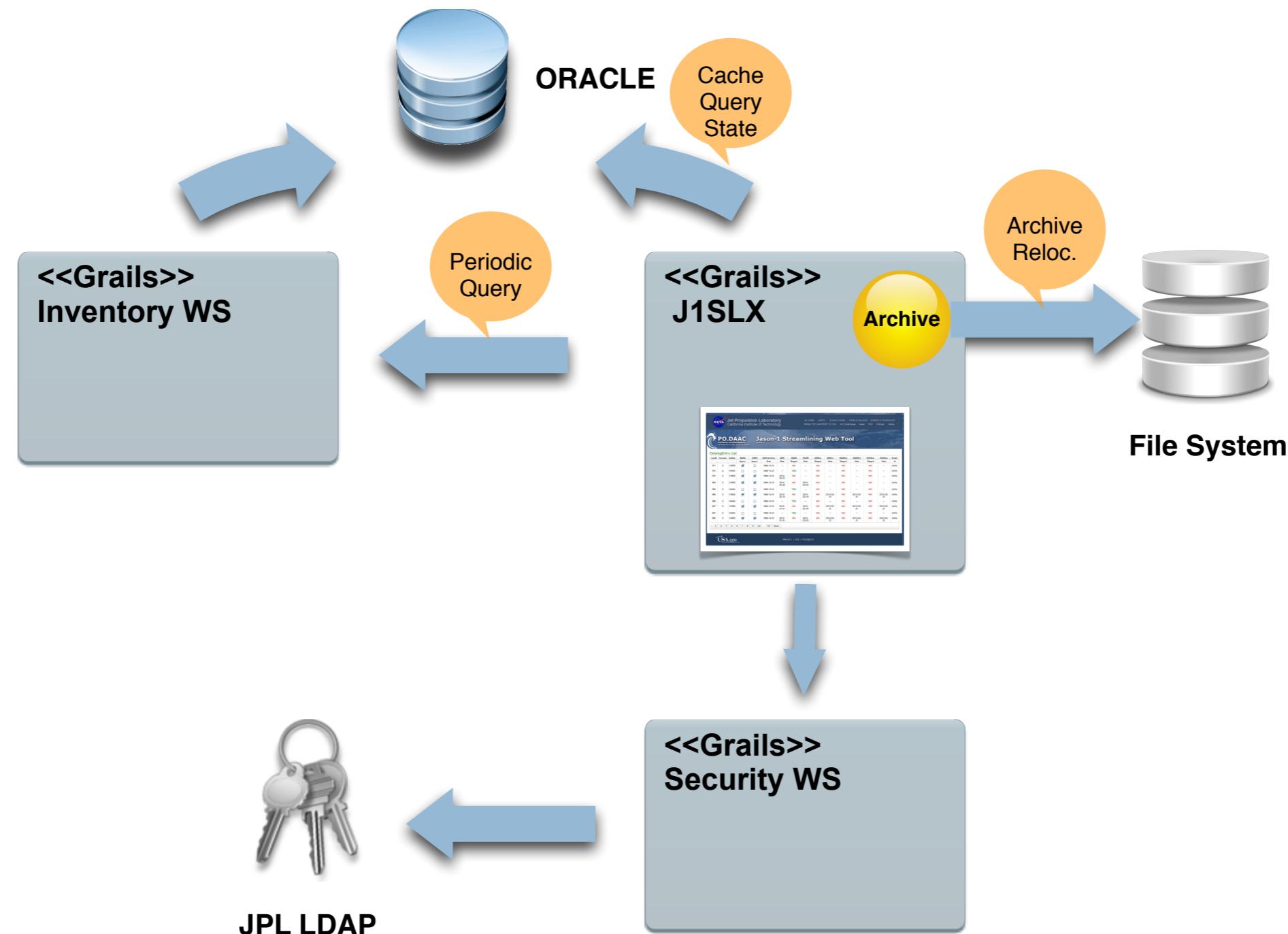


National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California



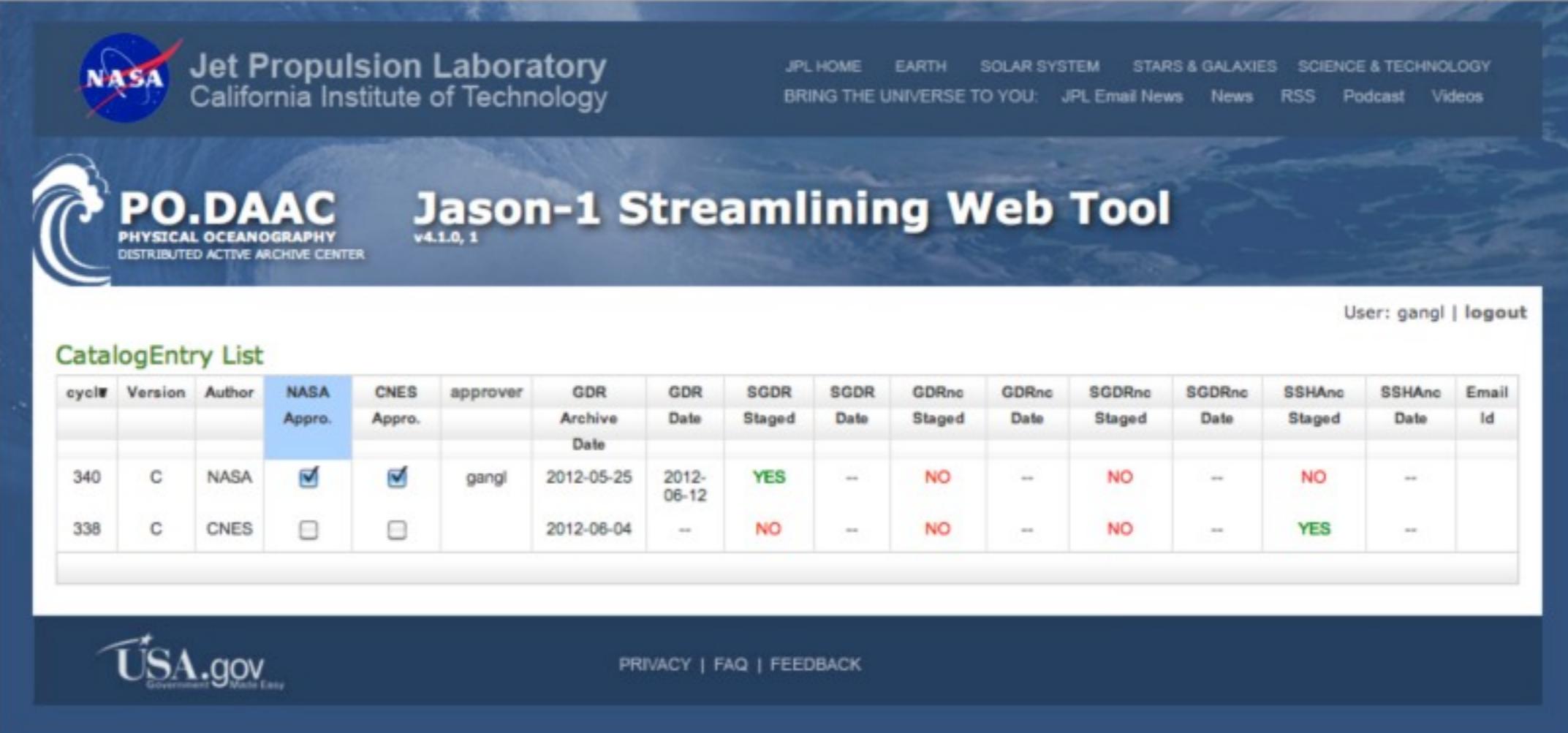
Jason-1 Streamline Web Application



Jason-1 Streamlining Web Tool integrates with Security WS



Jason-1 Streamline Tool - Tracking Approver

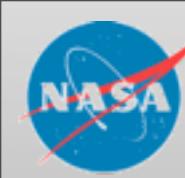


The screenshot shows the Jason-1 Streamlining Web Tool interface. At the top, there are logos for NASA, JPL, and PO.DAAC. The PO.DAAC logo includes "PHYSICAL OCEANOGRAPHY" and "DISTRIBUTED ACTIVE ARCHIVE CENTER". The main title "Jason-1 Streamlining Web Tool" is displayed prominently. Below the title, a sub-header "v4.1.0, 1" is visible. On the right, a user session indicator shows "User: gangl | logout". The central part of the page is a "CatalogEntry List" table with the following data:

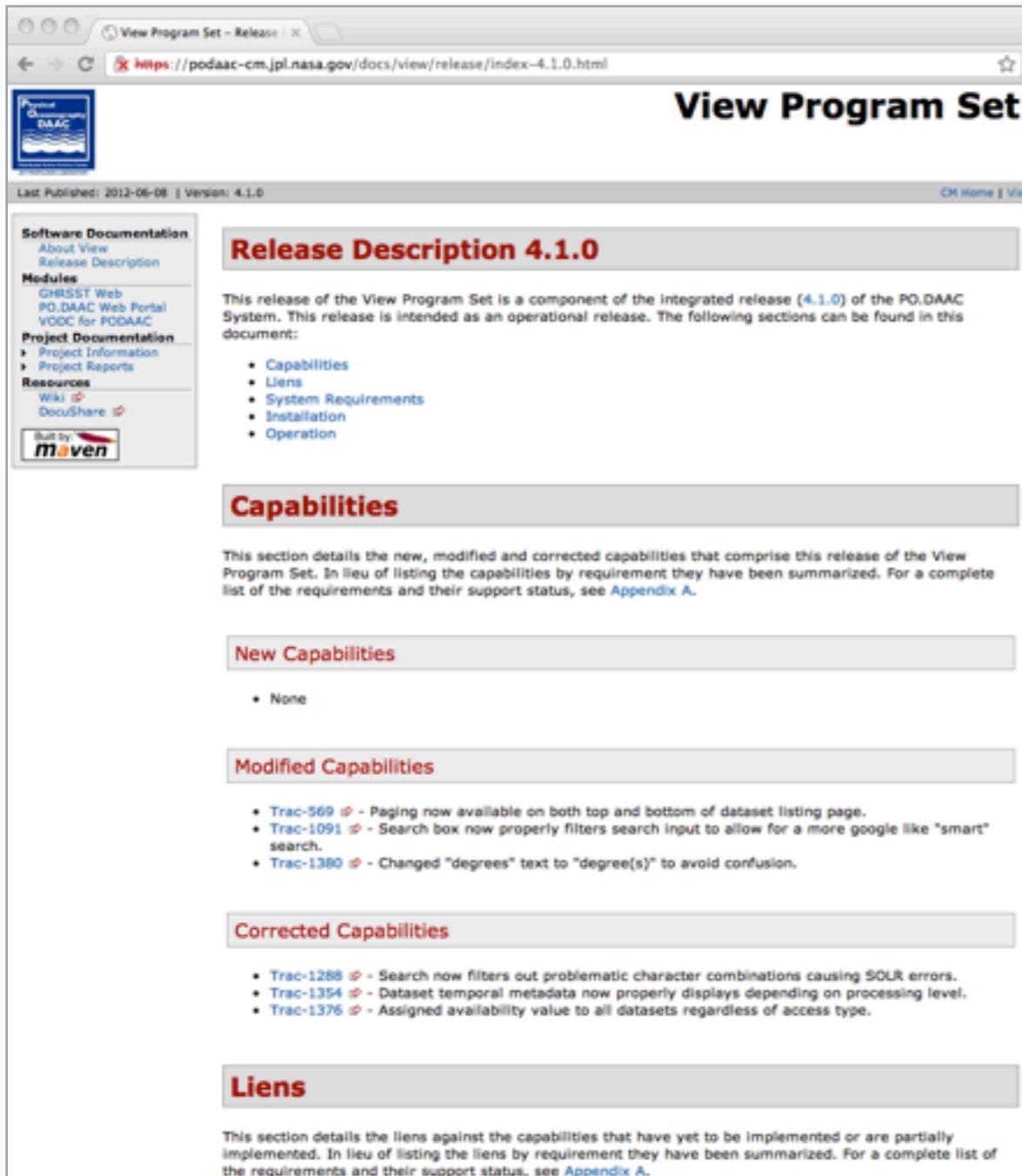
cycle#	Version	Author	NASA Appro.	CNES Appro.	approver	GDR Archive Date	GDR Date	SGDR Staged	SGDR Date	GDRnc Staged	GDRnc Date	SGDRnc Staged	SGDRnc Date	SSHAnc Staged	SSHAnc Date	Email Id
340	C	NASA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	gangl	2012-05-25	2012-06-12	YES	--	NO	--	NO	--	NO	--	
338	C	CNES	<input type="checkbox"/>	<input type="checkbox"/>		2012-06-04	--	NO	--	NO	--	NO	--	YES	--	

At the bottom, there is a USA.gov Government Made Easy logo and links for PRIVACY | FAQ | FEEDBACK.

Jason-1 Streamlining Web Tool now tracks the Approver



View



View Program Set

Release Description 4.1.0

This release of the View Program Set is a component of the integrated release (4.1.0) of the PO.DAAC System. This release is intended as an operational release. The following sections can be found in this document:

- Capabilities
- Liens
- System Requirements
- Installation
- Operation

Capabilities

This section details the new, modified and corrected capabilities that comprise this release of the View Program Set. In lieu of listing the capabilities by requirement they have been summarized. For a complete list of the requirements and their support status, see [Appendix A](#).

New Capabilities

- None

Modified Capabilities

- Trac-569 - Paging now available on both top and bottom of dataset listing page.
- Trac-1091 - Search box now properly filters search input to allow for a more google like "smart" search.
- Trac-1380 - Changed "degrees" text to "degree(s)" to avoid confusion.

Corrected Capabilities

- Trac-1288 - Search now filters out problematic character combinations causing SOLR errors.
- Trac-1354 - Dataset temporal metadata now properly displays depending on processing level.
- Trac-1376 - Assigned availability value to all datasets regardless of access type.

Liens

This section details the liens against the capabilities that have yet to be implemented or are partially implemented. In lieu of listing the liens by requirement they have been summarized. For a complete list of the requirements and their support status, see [Appendix A](#).

- **New Capabilities**

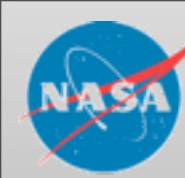
- none

- **Modified Capabilities**

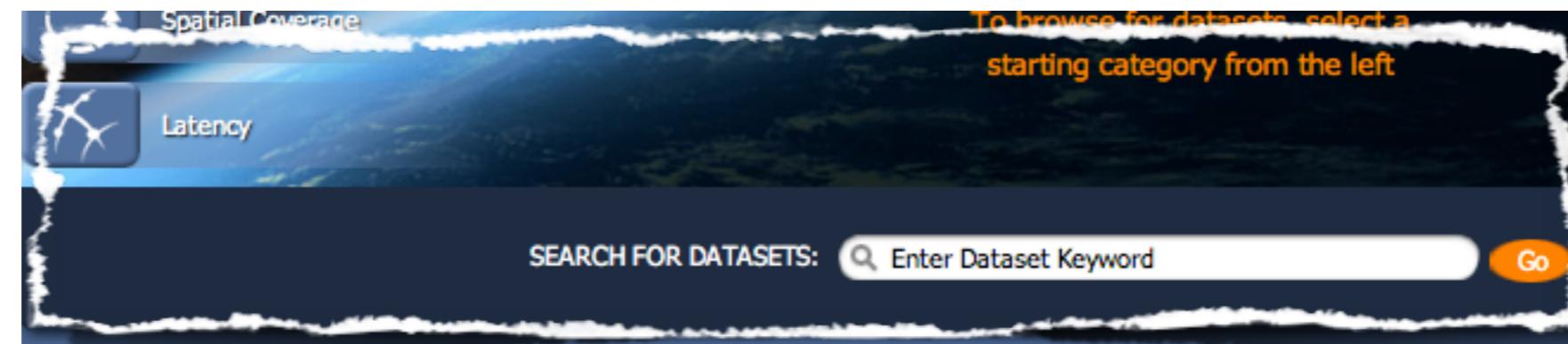
- [Trac 569](#) - ability to change pages on multiple page dset lists from bottom of page.
- [Trac 1091](#) - Dataset Keyword Combining on Web Portal Search Tool
- [Trac 1380](#) - web portal: syntax: degree vs degrees for browse facet

- **Corrected Capabilities**

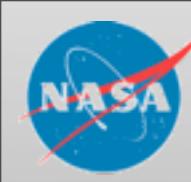
- [Trac 1288](#) - Drupal/Solr severe error for Time Span search
- [Trac 1354](#) - Exposure of temporal information on Drupal pages for L2 datasets
- [Trac 1376](#) - SOLR indexing code does not assign availability value for REMOTE datasets



Improved Keyword Searches



- **Keywords are tokenized on whitespace**
 - Searching **GHRSSST L4** will return datasets that have keywords GHRSSST or L4
- **Required search terms are proceeded by a ‘+’**
 - Searching **+GHRSSST +L4** will return datasets that have keywords GHRSSST and L4
- **Phases can be separated by quotes**
 - Searching “**sea surface temperature**” will return datasets that have keyword phase “sea surface temperature”
- **Plural matching**
 - Searching **temperatures** will return datasets that have keywords temperature or temperatures



National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

JPL



Core System 4.1.0