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Preface

This document is under ESDIS Project configuration control. Once this document is approved, ESDIS approved changes are handled in accordance with Class I and Class II change control requirements described in the ESDIS Configuration Management Procedures, and changes to this document shall be made by change bars or by complete revision.

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Abstract

This document provides the completed Level 4 Science Data Processing Segment (SDPS) Requirements for the Data Pool (DPL) subsystem.

Keywords: SDPS, DPL

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1 INTRODUCTION

The EOSDIS Core System (ECS) performs information management and data archiving and distribution for Earthdata mission datasets at NASA Distributed Active Archive Center (DAAC) locations. Each DAAC performs these functions using a combination of standard capabilities provided by ESDIS, and hardware and software specific to the DAAC. The ECS was developed using special hardware and software to support the high ingest rates of Earth Observing System (EOS) instruments. ECS currently resides and operates at three DAACs: Atmospheric Science Data Center (ASDC), Land Processing (LP) DAAC and National Snow and Ice Data Center (NSIDC) DAAC.

Data products are created by NASA's Science Investigator-led Processing Systems (SIPS) or, in a few cases, by systems interfacing with the ECS at the DAACs. The ECS at the DAACs ingests the data from the processing systems and archives them. ECS has interfaces with the Common Metadata Repository (CMR) to provide metadata to support search and access through CMR clients, for example, Earthdata Search. ECS also provides software toolkits to assist instrument teams in their development of product generation software at their Science Computing Facilities (SCFs) to facilitate ingest of the resulting products into ECS or into other DAAC-specific archiving and distribution systems.

ECS is structured as two segments: the Communications and Systems Management Segment (CSMS) and the Science Data Processing Segment (SDPS).

- The Communications and Systems Management Segment (CSMS) provides the communications infrastructure for the ECS and systems management for all of the ECS hardware and software components. The CSMS provides the interconnection between users and service providers within the ECS, transfer of information between subsystems, computer software configuration items (CSCIs), computer software components (CSCs), and processes of the ECS.
- The Science Data Processing System (SDPS) provides science data ingest and production, search and access functions, data archive, and system management capabilities.

The ECS includes the following subsystems:

Subsystem	Segment	Subsystem Description
AIM	SDPS	Archive Inventory Management Subsystem
BMGT	SDPS	Bulk Metadata Generation Tool
CSS	CSMS	Communications Subsystem
Data Access	SDPS	Data Access Subsystem
DMS	SDPS	Data Management Subsystem
DPL	SDPS	Data Pool Subsystem
DPL-Ingest	SDPS	Data Pool Ingest Subsystem
DSS	SDPS	Data Server Subsystem

Subsystem	Segment	Subsystem Description
DTS	SDPS	Defect Tracking Subsystem
EMS	SDPS	EOSDIS Metrics Subsystem
HEG	SDPS	HDF-EOS to Geotiff Converter Subsystem
INS	SDPS	Ingest Subsystem
ISS	CSMS	Internetworking Subsystem
MGS	SDPS	Map Generation Service
MSS	SDPS	System Management Subsystem
OMS	SDPS	Order Manager Subsystem
SSS	SDPS	Spatial Subscription Server Subsystem
TKD	SDPS	Toolkit Subsystem for DAACs
TKS	SDPS	Toolkit Subsystem for Science Teams

1.1 Purpose

The purpose of the ECS Requirements Document Set is to present the system requirements that have been implemented for ECS. This document is one volume of the set.

1.2 Scope

Because the number of requirements is large, this Requirements documentation set has been divided in to a series of Volumes, partitioned by subsystem. This is one volume in the set.

Volume	Subsystems	Requirements
1	AIM, BMGT	462
2	CSS, DMS, Data Access	249
3	DPL	1,670
4	DTS, HEG	125
5	DSS	1,245
6	INS, DPL Ingest	180
7	ISS, MGS, MSS, EMS	374
8	OMS	817
9	SSS	160
10	TKD, TKS	335
	total	5,617

1.3 Related Documentation

The latest versions of all documents below should be used. The latest Earth Science Data and Information System (ESDIS) Project documents can be obtained from Uniform Resource Locator (URL): <https://ops1-cm.ems.eosdis.nasa.gov>. ESDIS documents have a document number starting with either 423 or 505. Other documents are available for reference in the ESDIS project library website at: http://esdisfmp01.gsfc.nasa.gov/esdis_lib/default.php unless indicated otherwise.

1.3.1 Applicable Documents

The following document contains policies or other directive matters that are binding upon the content of this document.

423-46-01	Functional and Performance Requirements Specification for the ECS Science Data Processing System
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1.3.2 Reference Documents

The following documents are not binding on the content but referenced herein and amplify or clarify the information presented in this document.

NPR 2810.1A	Security of Information Technology document
170-TP-013-001	HDF-EOS Data Format Converter User's Guide', (170-TP-013-001), January 2002
170-TP-600	HDF-EOS Library Users Guide Volume 1 (170-TP-600)
n/a	BMGTCollectionMetadata.dtd provide link here
n/a	BMGTGranuleMetadata.dtd provide link here
n/a	BMGTBrowseMetadata.dtd provide link here
n/a	ECHO PackageManifest.xsd provide link here
170-WP-023	Bulk Metadata and Browse Export Capability for the ECS Project' (170-WP-023-011, 9/27/00)
209-CD-036	Interface Control Document for ECS Interfaces That Support External Subsetters Located at DAACs', ECS Project document number 209-CD-036-001
304-CD-002	Science and Data Processing Segment (SDPS) Requirements Specification for the ECS Project (March 1995)
311-EMD-xxx	Archive Management Inventory (AIM) Database Design Schema Specifications for the EMD Project

423-41-57	Interface Control Document between the EOSDIS Core System (ECS) and the Science Investigator-led Processing Systems (SIPS), Volume 0
423-41-58	ICD between ECS and the LP DAAC
423-41-63	ICD between EMOS and the SDPS
423-45-02	Interface Control Document between EOSDIS Core System (ECS) and EOS Clearinghouse (ECHO) for Metadata Inventory and Ordering
423-45-03	Interface Control Document for ECS ECHO WSDL Order Component (EWOC) and External Processing Systems Co-located at the DAACs
423-ICD-EDOS/EGS	Interface Control Document Between the Earth Observing System (EOS) Data and Operations System (EDOS) and the EOS Ground System (EGS) Elements, renumbered as 428-ICD-EDOS/EGS
505-41-17	Interface Requirements Document between EOSDIS Core System (ECS) and the NASA Science Internet (NSI), 505-41-17
505-41-30	Interface Control Document Between EOSDIS Core Systems (ECS) and the Version 0 System for Interoperability', ESDIS document number 505-41-30
910-TDA-042	EMD Browsers Baseline
CK_70_01	ECS Ticket: End-To-End Checksum Capability
DP_72_02	ECS Ticket: Ingest of Level 0 Data from EDOS into the Data Pool
DP_72_03	ECS Ticket: Ingest of ASTER L1A and Browse into Data Pool
DP_72_04	ECS Ticket: Data Pool Ingest of Data at the ASDC DAAC
DP_72_05	ECS Ticket: Support for MISR Browse Linkages in Release 7.20
DP_S3_01	ECS Ticket: Populate Data Pool from ECS Archive
DP_S3_02	ECS Ticket: Accommodate Non ECS Data in Data Pool
DP_S4_07	ECS Ticket: Support Compression on Data Pool Insert
DP_S6_01	ECS Ticket: SIPS Ingest Into Data Pool
DP_SY_01	ECS Ticket: Data Pool FTP Service
DP_SY_03	ECS Ticket: Data Pool Cleanup
DP_SY_04	ECS Ticket: Data Pool Insert
DP_SY_06	ECS Ticket: Update Granule Expiration in Data Pool
DP_SY_08	ECS Ticket: Compile & Examine Data Pool Access Statistics
DS_7E_01	ECS Ticket: Removal of Science Data Server
ES_SY_01	ECS Ticket: External Subsetter Support
OD_S3_01	ECS Ticket: Order Manager
OD_S4_01	ECS Ticket: Improve Distribution to End Users through Data Pool
OD_S5_02	ECS Ticket: Managing HEG Orders
OD_S5_06	ECS Ticket: Hiding Order-Only Granules In The Data Pool
OG_S5_01	ECS Ticket: HEG Extensions for OWS
OM_80_01	ECS Ticket: Operational Updates to OMS

OP_S4_06	ECS Ticket: Support Multiple Data Pool File Systems
WD_S3_01	ECS Ticket: HDF-EOS Format Converter Integration with Data Pool
WD_S4_02	ECS Ticket: HEG Integration Enhancements
WL_S4_01	ECS Ticket: Synergy IV 24-Hour Workload Performance

2 REQUIREMENTS

2.1 DPL

These are the completed ECS requirements for the DPL subsystem (Data Pool). The Data Pool is a large online archive of ECS data at each DAAC. Science, metadata (in xml format), and browse files (in jpg format) are stored in the public Data Pool. DPL provides services for managing the Data Pool and tape archives, and ingest supporting services that handle the SIPS ingest interface¹, cross-DAAC ingest, EDOS ingest, Advanced Spaceborne Thermal Emission and Reflection radiometer (ASTER) Ingest and Polling without Delivery Record specifically for EMOS.

ID	Title	Status
ECS-L4-12045	S-DPL-00010 The Data Pool shall provide anonymous FTP service for accessing the data pool.	Completed
ECS-L4-12046	S-DPL-00020 The Data Pool service shall support FTP sessions in interactive mode.	Completed
ECS-L4-12047	S-DPL-00021 The Data Pool FTP service shall display a banner with the standard Government security warning containing the following text: U.S. GOVERNMENT COMPUTER If not authorized to access this system, disconnect now.YOU SHOULD HAVE NO EXPECTATION OF PRIVACY By continuing, you consent in your keystrokes and data content being monitored.	Completed
ECS-L4-12048	S-DPL-00022 The Data Pool FTP service shall allow the FTP banner to be configurable by the operator.	Completed
ECS-L4-12049	S-DPL-00030 The Data Pool service shall support FTP sessions via script execution.	Completed
ECS-L4-12050	S-DPL-00050 The Data Pool FTP service shall allow the operator to specify the default FTP home directory where all users are placed, upon their successful log-in.	Completed
ECS-L4-12051	S-DPL-00070 The Data Pool FTP service shall allow users to list the content of the data pool directories.	Completed
ECS-L4-12052	S-DPL-00071 In listing the directory content, the Data Pool FTP service shall make the actual file invisible to the user if it is associated with a file link.	Completed
ECS-L4-12053	S-DPL-00080 The Data Pool FTP service shall allow users to traverse the data pool directory structure.	Completed
ECS-L4-12054	S-DPL-00090 The Data Pool FTP service shall allow users to transfer single or multiple data files from the data pool to a remote host.	Completed
ECS-L4-12055	S-DPL-00110 The Data Pool FTP service shall prevent users from deleting any files or directories.	Completed
ECS-L4-12056	S-DPL-00120 The Data Pool FTP service shall prevent users from renaming any files or directories.	Completed
ECS-L4-12057	S-DPL-00130 The Data Pool FTP service shall prevent users from modifying any files or directories.	Completed

ID	Title	Status
ECS-L4-12058	S-DPL-00131 The Data Pool FTP service shall prevent users from creating a new directory in the data pool.	Completed
ECS-L4-12059	S-DPL-00132 The Data Pool FTP service shall prevent users from modifying access privileges on any files or directories in the data pool.	Completed
ECS-L4-12060	S-DPL-00140 The Data Pool FTP service shall prevent users from transferring a file into the data pool.	Completed
ECS-L4-12061	S-DPL-00150 The Data Pool FTP service shall prevent users from accessing any files or directories other than those included in the data pool.	Completed
ECS-L4-12062	S-DPL-00160 The Data Pool FTP service shall provide an operator-configurable option for logging user events and errors.	Completed
ECS-L4-12063	S-DPL-00190 The Data Pool FTP service shall log user events and errors.	Completed
ECS-L4-12064	S-DPL-00200 The Data Pool FTP service shall log the following for each FTP log-in event: a.Time of log-in (Month, Day, Time of day) b.user name (i.e. anonymous) c.remote host name	Completed
ECS-L4-12065	S-DPL-00205 The Data Pool FTP service shall log the following for each file transfer event. a.Time of access (Month, Day, and Time of day) b.Identity of the retrieved object (path & filename) c.File size (in bytes) d.Service (i.e. ftpd)	Completed
ECS-L4-12066	S-DPL-00220 The Data Pool FTP service shall terminate a user session upon detecting inactivity for a preconfigured timeout period.	Completed
ECS-L4-12067	S-DPL-00230 The Data Pool FTP service shall allow the operator to set the inactivity timeout period.	Completed
ECS-L4-12071	S-DPL-00250 The DPL CI shall provide an interface that allows the selection and identification of science granules that are in the public Data Pool based upon the collection to which they belong and optionally the time interval during which they were published in the Data Pool. [NOTE: This supports automatic export as per S-BGT-00685i and S-BGT-00700a, and manual export as per S-BGT-00980.]	Completed
ECS-L4-12072	S-DPL-00255 For all science granules removed from the public Data Pool whose removal from the public Data Pool is not identified as per requirements S-DPL-00260 and S-DPL-00265, the DPL CI shall provide an interface that allows their selection and identification based upon the time interval during which they were removed from the public Data Pool. [NOTE: This supports automatic export as per S-BGT-00685j, S-BGT-00700b, and S-BGT-00720.]	Completed
ECS-L4-12075	S-DPL-00270 The DPL CI shall provide an interface that allows the selection and identification of science granules based upon the time interval during which their public Data Pool URLs changed because their Data Pool collection was moved or re-assigned. [NOTE: This supports automatic export as per S-BGT-00685k and S-BGT-00700c.]	Completed
ECS-L4-12076	S-DPL-00275 The DPL CI shall allow DAAC staff to configure the length of time for which event Data Pool information that the DPL CI maintains for access by the BGT CI shall be retained after the event occurred.	Completed
ECS-L4-12080	S-DPL-00285 The DPL CI shall support the specification of time intervals for selection purposes that are closed at the beginning date/time and open at the ending date/time, i.e., include items for a time greater than or equal to (\geq) the beginning date time and less than ($<$) the ending date/time.	Completed
ECS-L4-12081	S-DPL-00300 The Data Pool Ingest service shall be able to ingest 4,072 granules (combination between MISBR, MISR Level 1 and MISR Level 2) with an approximate volume of 0.4TB and publish them in Data Pool within 6 hours. Note : The 24-hour behavior can be extrapolated from the 6-hour run.	Completed

ID	Title	Status
ECS-L4-12082	S-DPL-00310 The DPL Insert service shall use the MISR science and browse linkage information maintained in the AIM inventory database when publishing MISR science and MISBR granules in Data Pool. [The linkage relationship is captured in Data Pool only if MISR science granules and MISBR granules are in public Data Pool]	Completed
ECS-L4-12083	S-DPL-00315 The DPL Insert service shall automatically fix the error condition caused by the overwrite of the browse representation of an existing MISBR granule (by a newer MISBR granule with the same file name and acquisition date) by replacing the DPL MISBR Browse representation and updating all its corresponding AIM and DPL science links. [Note: the 7.20 behavior fails the insert of the browse representation of the new MISBR granule and expects the operator to manually repair the error and re-insert the new MISBR granule.]	Completed
ECS-L4-12084	S-DPL-00450 The Data Pool FTP service shall give users an option to download metadata in .met file format rather than XML file format, generating the .met files on the fly. [NOTE: These .met files cannot include collection level metadata since they will be generated on the fly form the XML files in the Data Pool which do not contain this type of metadata.]	Completed
ECS-L4-12085	S-DPL-00500 The Data Pool FTP service shall provide a data compression capability upon data download.	Completed
ECS-L4-12086	S-DPL-00510 The Data Pool FTP service shall support the following data compression options to be applied to the data files upon download: a. No Compression b. Unix Compression c. gzip Compression	Completed
ECS-L4-12087	S-DPL-00520 The Data Pool FTP service shall allow a user to specify a particular data compression option to be applied to individual or a group of data files upon download.	Completed
ECS-L4-12088	S-DPL-00530 The data compression options supported by the Data Pool FTP service shall be operator configurable.	Completed
ECS-L4-12089	S-DPL-00540 The Data Pool FTP log shall indicate whether or not compression was used for each data file transferred.	Completed
ECS-L4-12090	S-DPL-00550 The Data Pool FTP service shall log the length of time it takes for transferring each data file.	Completed
ECS-L4-12091	S-DPL-00600 The Data Pool FTP Service shall be able to download the files created by the Most Recent Data Pool Insert Utility at the Data Pool top-level directory using anonymous FTP.	Completed
ECS-L4-12092	S-DPL-00610 The Data Pool FTP Service shall be able to download the files created by the Most Recent Data Pool Insert Utility at each Data Pool collection level directory using anonymous FTP.	Completed
ECS-L4-12094	S-DPL-00620 The DPL Ingest service shall allow the configuration, within the application configuration file, of a directory location for obtaining MCFs (Note: all MCFs will be stored within one directory).	Completed
ECS-L4-12095	S-DPL-00625 The DPL Ingest service shall allow the Operator to configure a directory location for storing granule metadata files that received warning messages during validation.	Completed
ECS-L4-12096	S-DPL-00630 The DPL Ingest GUI shall allow the operator to configure ESDTs to suppress the saving of metadata files when receiving validation warnings.	Completed
ECS-L4-12097	S-DPL-00635 The DPL Ingest service shall allow the configuration of a list of email addresses to be notified in the event of validation warnings.	Completed
ECS-L4-12098	S-DPL-00640 The DPL Ingest service shall, when ingesting a granule that contains a metadata file, use the AIM XML Validation Utility to validate the inventory metadata.	Completed

ID	Title	Status
ECS-L4-12099	S-DPL-00645 The DPL Ingest service shall, when receiving validation warnings for a granule, continue processing of the granule and save the XML metadata file associated with the granule as well as the ODL metadata file received with the granule (if applicable) to the directory configured for storing metadata files with warnings.	Completed
ECS-L4-12100	S-DPL-00650 The DPL Ingest service shall suppress the saving of metadata files that receive validation warnings if the ESDT associated with the metadata file is configured to do so.	Completed
ECS-L4-12101	S-DPL-00655 The DPL Ingest service shall, when receiving the first validation warning return code for an ESDT within a calendar day or since startup of the DPL Ingest service, send an email message to each email address configured to receive notification of validation warnings (unless the ESDT is configured to ignore validation warnings).	Completed
ECS-L4-12102	S-DPL-00660 The DPL Ingest service shall, when receiving a failure result from the AIM XVU, suspend the granule and create an Operator Intervention.	Completed
ECS-L4-12103	S-DPL-00665 The Data Pool Ingest Service shall, when encountering a Fatal or time-out error while attempting to validate a granule using the AIM XML Validation service, suspend the granule unless this is the N-th consecutive error or time-out (where N is configurable on a global basis (see S-DPL-16482-L)).	Completed
ECS-L4-12104	S-DPL-00670 The Data Pool Ingest service shall, when the configured number of consecutive errors for the for the AIM XML Validation service is reached (where N is configurable on a global basis, see S-DPL-16482-L), raise an operator alert for the service.	Completed
ECS-L4-12105	S-DPL-00675 The Data Pool Ingest service shall, while there is an open alert on the AIM XML Validation service, suspend the submission of new requests to the service.	Completed
ECS-L4-12106	S-DPL-00680 The DataPool Ingest service shall, in the event that the AIM XML Validation service was suspended due to consecutive errors, automatically retry sending requests to the service using the alert retry time interval (which is configured on a global basis), and shall react as follows when a retry succeeds: 1. clear the corresponding alert condition and the alert as a whole if there are no other alert conditions for the service, 2. resume dispatching of the operations for that service that were suspended as a consequence of that alert condition.	Completed
ECS-L4-12107	S-DPL-00685 The DPL Ingest service shall store the granule metadata of each Science granule ingested in an XML file within the XML Archive.	Completed
ECS-L4-12108	S-DPL-00690 The DPL Ingest service shall, when ingesting a Science granule, name the associated XML file in the XML metadata archive using the convention: ShortName.VersionID.dbID.xml (where VersionID is zero padded to 3 characters).	Completed
ECS-L4-12109	S-DPL-00695 The DPL Ingest service shall determine the storage location for the XML metadata file associated with a granule based upon a configured base directory path plus the following metadata attributes: 1. ShortName 2. VersionID 3. the year and month of the time recorded for the RangeBeginningDate, or the CalendarDate, or the insertTime if RangeBeginningDate and CalendarDate are not available.	Completed
ECS-L4-12110	S-DPL-00700 The DPL Ingest service shall, when the directory location for storing an XML file does not exist, create the directory within the XML Archive.	Completed

ID	Title	Status
ECS-L4-12111	S-DPL-00705 The DPL Ingest service shall, when creating a new directory within the XML Archive, use the AIM Inventory Insert Service to record the new directory location.	Completed
ECS-L4-12113	S-DPL-00715 The DPL Ingest service shall, when receiving a failure from the AIM Inventory Insert Service, suspend the granule and create an Operator Intervention.	Completed
ECS-L4-12114	S-DPL-00720 The Data Pool Ingest Service shall, when encountering a retry or time-out error on an attempt to insert science granule metadata using the AIM Inventory Insert service, suspend the granule unless this is the N-th consecutive error or time-out (where N is configurable on a global basis, see S-DPL-16482-L).	Completed
ECS-L4-12115	S-DPL-00725 The Data Pool Ingest service shall, when the configured number of consecutive errors for the AIM Inventory Insert service is reached (where N is configurable on a global basis, see S-DPL-16482-L), raise an operator alert for the service.	Completed
ECS-L4-12116	S-DPL-00730 The Data Pool Ingest service shall, while there is an open alert on the AIM Inventory Insert service, suspend the submission of new requests to the service.	Completed
ECS-L4-12117	S-DPL-00735 The DataPool Ingest service shall, in the event that the AIM Inventory Insert service was suspended due to consecutive errors, automatically retry sending requests to the service using the alert retry time interval (which is configured on a global basis), and shall react as follows when a retry succeeds: 1. clear the corresponding alert condition and the alert as a whole if there are no other alert conditions for the service, 2. resume dispatching of the operations for that service that were suspended as a consequence of that alert condition.	Completed
ECS-L4-12118	S-DPL-00740 The DPL Ingest service shall, during the transition period when SDSRV inserts are configured on, send a request to the SDSRV to validate the ODL granule metadata file.	Completed
ECS-L4-12119	S-DPL-00745 The DPL Ingest service shall, during a transition period following initial transition to release 7.21, send a request to the SDSRV CI to insert granule metadata only if configured to do so.	Completed
ECS-L4-12120	S-DPL-00750 The DPL Ingest service shall, during a transition period following initial transition to release 7.21, suppress the request to the SDSRV CI to insert granule metadata if configured to do so.	Completed
ECS-L4-12123	S-DPL-00765 The DPL Ingest service shall, during the transition period when SDSRV inserts are configured on, mark the granule as deleted in the SDSRV database if the granule is cancelled, failed, or retried from start after the insertion of metadata to the SDSRV database.	Completed
ECS-L4-12125	S-DPL-00775 The DPL Ingest service shall, when processing a Browse, Production History, or QA granule, use the AIM Inventory database to convert LocalGranuleID of the referenced Science granule to the information needed to link the Browse, Production History, or QA granule to its associated Science granule(s).	Completed
ECS-L4-12126	S-DPL-00780 The DPL Ingest service shall, when processing a Browse, Production History, or QA granule containing Science granule linkage information, add the reference to the Browse, Production History, or QA granule to the science granule XML metadata file in located in the XML Archive; if the XML metadata file already contains linkage information for the type of granule being processed, the existing linkage information should be removed (bad browse replacement).	Completed

ID	Title	Status
ECS-L4-12127	S-DPL-00785 The DPL Ingest service shall, when processing an AST_L1B granule that is linked to an AST_L1A Browse (by the IIU), add the Browse reference to the XML metadata file in located in the XML Archive.	Completed
ECS-L4-12128	S-DPL-00790 The DPL Ingest service shall, when processing a Non-SIPS ingest request, retrieve the required MCF for the ESDT from a configured location.	Completed
ECS-L4-12129	S-DPL-00795 The DPL Ingest GUI shall show the current operational status of the AIM XML Validation Utility and the AIM Inventory Insert Utility.	Completed
ECS-L4-12130	S-DPL-00800 The DPL Ingest GUI shall, during a transition period following initial transition to release 7.21, allow for the insertion of granule metadata by the SDSRV CI to be configured.	Completed
ECS-L4-12131	S-DPL-00805 The Data Pool Ingest GUI shall permit authorized ingest tuning operators to configure (i.e., enter and edit) the following set of Data Pool Ingest configuration parameters for access to the AIM Inventory Insert service: 1. the maximum number of allowable concurrent requests that can be sent to the service, 2. the maximum amount of time to wait before considering an insert service request timed out.	Completed
ECS-L4-12132	S-DPL-00810 The Data Pool Ingest GUI shall permit authorized ingest tuning operators to configure (i.e., enter and edit) the following set of Data Pool Ingest configuration parameters for access to the AIM XML Validation service: 1. the maximum number of allowable concurrent requests that can be sent to the service, 2. the maximum amount of time to wait before considering an insert service request timed out.	Completed
ECS-L4-12133	S-DPL-00820 The DPL Ingest GUI shall allow the operator to configure the number of allowable concurrent requests that can be sent to the XML Validation service.	Completed
ECS-L4-12134	S-DPL-00825 The DPL Ingest service shall dynamically identify configuration changes (not cause a server reboot) for the number of allowable concurrent requests to the Inventory Insert service and shall limit future requests to the service according to the new value.	Completed
ECS-L4-12135	S-DPL-00830 The DPL Ingest service shall dynamically identify configuration changes (not cause a server reboot) for the number of allowable concurrent requests to the XML Validation service and shall limit future requests to the service according to the new value.	Completed
ECS-L4-12136	S-DPL-00835 The DPL Ingest service shall use the Volume Group information within the AIM Inventory database to determine the archive location for storing granule data files.	Completed
ECS-L4-12137	S-DPL-01010 The Data Pool FTP service shall provide the capability to verify science file checksums during data pool download using the checksum algorithms supported by the Release 7.0 ETE Checksum capability.	Completed
ECS-L4-12138	S-DPL-01020 The Data Pool FTP service shall maintain a DAAC-configurable parameter indicating the percentage of science files for which a checksum will be verified during data pool download, against the checksum computed during Data Pool insert, if available.	Completed
ECS-L4-12139	S-DPL-01030 The Data Pool FTP service shall provide the capability to configure separately for each instance of the FTP daemon, the DAAC configurable parameter indicating the percentage of science files to verify during download.	Completed

ID	Title	Status
ECS-L4-12246	S-DPL-06060 The Data Pool web application service data conversion service shall allow the user to specify allowable conversion options for each granule.	Completed
ECS-L4-12247	S-DPL-06070 The Data Pool web application service data conversion service shall allow the user to specify allowable conversion options that may be applied to multiple granules of the same data type.	Completed
ECS-L4-12248	S-DPL-06080 The Data Pool web application service data conversion service shall receive a mandatory user email address from the user to which the distribution notification will be sent.	Completed
ECS-L4-12249	S-DPL-06090 The Data Pool web application service data conversion service shall queue data conversion requests consisting of a user email address, a set of user selected conversion options, including associated granule identification information, for retrieval by the HEG front-end.	Completed
ECS-L4-12250	S-DPL-06100 [DESIRABLE] The Data Pool web application service shall log all data conversion requests handled, identifying: [logged information to be defined during design] Obsoleted by web access retirement.	Completed
ECS-L4-12251	S-DPL-06110 The Data Pool web application service shall return to the user the status of the placement of the request with the HEG front-end, including a meaningful message.	Completed
ECS-L4-12252	S-DPL-06114 The Data Pool web application service shall create and send an email message to the requesting user for each successful data conversion order indicating: a.) The order ID b.) time and date of the order c.) For each granule conversion in the order: 1. The request ID 2. the input granule ID for the request 3. The conversion actions requested by the user 4. URLs for the converted granule and [DESIRABLE]the XML metadata file of the input granule. 5. Expiration time for the granules	Completed
ECS-L4-12253	S-DPL-06116 The Data Pool web application service shall create and send an email message to a configured operations email address for each failed data conversion request indicating the input granule ID a.) Email address of the user placing the order b.) Order & request identifiers c.) the input granule ID d.) time and date of the request e.) The conversion actions requested by the user f.) The reason for the failure	Completed
ECS-L4-12254	S-DPL-06200 The Data Pool shall use secret names for the collection group and collection directories in the hidden directory structure that are derived from the corresponding public name by appending a random string of no less than eight (8) characters. [NOTE: The purpose of this requirement is to ensure that the directory names cannot be easily guessed and not easily produced even if the encryption algorithm and key are known. The method for deriving the secret directory names cannot be verified during integration testing, but must be verified during code inspection]	Completed
ECS-L4-12256	S-DPL-06220 When creating files or directories in the hidden directory structure, the Data Pool insert service shall apply the Unix permissions to these files and directories that are required to achieve the intended data hiding. [NOTE: As per design instructions, the required masks must be established during preliminary design.]	Completed

ID	Title	Status
ECS-L4-12258	S-DPL-06240 The Data Pool shall provide a utility which a DAAC can employ during Data Pool and OMS downtime to create new names for the hidden directories, save these names, rename the existing hidden directories, and update existing FTP Pull links that point to the previous hidden directories to point to the corresponding renamed directory. [NOTE: TBD during unit testing - Evidence must be provided during unit testing that the FTP Pull links can be renamed at a rate of no less than 10 links per second.]	Completed
ECS-L4-12259	S-DPL-06250 The Data Pool Maintenance GUI shall create a secret name for a collection and collection group when a new collection or collection group is defined.	Completed
ECS-L4-12261	S-DPL-06262 The Data Pool Insert Service shall generate links in the hidden directories when processing an insert of a granule for ordering purposes into the Data Pool for any granule files that are already in the public Data Pool.	Completed
ECS-L4-12263	S-DPL-06266 The Data Pool Most Recent Inserts Utility shall not list the science files of any granules belonging to collections whose public Data Pool inserts are restricted to metadata only even if these were inserted into the hidden directories for ordering purposes.	Completed
ECS-L4-12265	S-DPL-06280 The Data Pool Insert Service shall convert an order-only granule into a normal Data Pool granule in accordance with S-DPL-42480 in Ticket OD_S4_01, without restaging the granule files from the archive and without causing ftp pull operations for granules ordered for FTP Pull to fail. [NOTE: This will require some measures to maintain the integrity of the ftp pull links.]	Completed
ECS-L4-12266	S-DPL-06290 The Data Pool ftp service shall hide the names and contents of all hidden directories, with the possible exception of the top-level directory. [NOTE: The directory structures must be accessible via anonymous ftp, but their names and contents must not be returned to ftp clients, e.g., via ftp ls commands.]	Completed
ECS-L4-12268	S-DPL-06310 The Data Pool collection remap utility must also remap the hidden directory for a collection that is being remapped to a different collection group. [NOTE: The integrity of existing pathnames and links must be maintained, e.g., as used by OMS or FTP Pull.]	Completed
ECS-L4-12270	S-DPL-06400 The Data Pool web application service shall not permit a user to submit a shopping cart to the OMS when the number of granules in the shopping cart that require HEG processing exceeds the configured OMS limit for the number of granules in a subsetting request.	Completed
ECS-L4-12271	S-DPL-06405 The Data Pool web application service shall warn a user about the limit placed on the number of granules in a shopping cart for which HEG processing can be requested. [NOTE: Preferably, the warning is not displayed until the user starts to enter HEG processing instructions.]	Completed
ECS-L4-12272	S-DPL-06410 The Data Pool web application service shall submit requests that require HEG processing services to the OMS by saving them in the OMS database in accordance with the format specified by the DPL-OMS HEG request interface specification. [NOTE: Data Pool web application will submit the HEG processing instructions for each granule input file as a single processing instruction in XML format compatible the HEG Service interface specifications. Also note that currently, all granules that can be processed by the HEG have only one file.]	Completed
ECS-L4-12275	S-DPL-06440 The Data Pool web application service shall return to the user the status of the placement of a request with the OMS, including a meaningful message. [NOTE: This modifies S-DPL-06110 in WD_S3_01.]	Completed

ID	Title	Status
ECS-L4-12277	S-DPL-06460 Users shall be able to request the distribution of the results of a request involving HEG processing via any media type configured by DAAC operations for Data Pool Web orders. [NOTE: The configured media types are available for all orders submitted via the Data Pool web application. The default media type for distribution is FTP Pull.]	Completed
ECS-L4-12278	S-DPL-06470 The Data Pool web application service shall inform users when upon submitting a request involving HEG processing, the OMS returns a status indicating that submission of HEG requests is stopped.	Completed
ECS-L4-12279	S-DPL-06480 The Data Pool web application service shall display an optional DAAC provided announcement text of up to four lines of 30 characters on the Data Pool home page. [NOTE: The DAAC can use this to announce upcoming service outages, e.g., of HEG processing.]	Completed
ECS-L4-12281	S-DPL-07010 The Data Pool Insert Service shall support the insert of order-only granules into the Data Pool for all ECS collections, including: AP DAP FAILPGE PGEEEXE PH QA SSAPC [NOTE: These data types would currently be distributed in Synergy III mode and hence continue to require the PDS for physical media distribution.]	Completed
ECS-L4-12282	S-DPL-07110 In case of Data Pool insert requests queued by Data Pool subscriptions or the batch insert utility for granules that reside as order only in the Data Pool, the Data Pool insert service shall perform the additional insert processing steps necessary to make the granule fully visible to Data Pool users, including, if necessary, inserting any associated Browse that does not yet resides in the Data Pool. [NOTE: This replaces S-DPL-42480 in OD_S4_01, modifying the manner in which Browse is handled upon 'back-fill', removing one of the backfill situations. It does not change Data Pool Insert behavior otherwise, i.e., a separate test criterion is not needed.]	Completed
ECS-L4-12285	S-DPL-08030 The DPL CI shall not remove the ECS granules from the Data Pool whose cleanup is requested by OMS and which are part of the on-line archive as per S-DPL-08010. [NOTE: The requirement is included for clarification only, since S-DPL-08020 prohibits this already. It does apply also to Data Pool orphans and phantoms that prevent the OMS CI from fulfilling orders unless they are removed.]	Completed
ECS-L4-12286	S-DPL-08040 The Data Pool Ingest Service shall not trigger the cleanup of any ECS granules it has successfully ingested. [NOTE: This replaces requirement S-DPL-18455. The requirement is included for clarification only, since S-DPL-08020 prohibits this already.]	Completed
ECS-L4-12287	S-DPL-08050 The DPL CI shall not make granules public that are currently flagged as logically deleted (i.e., have a non-NULL deleteEffectiveDate), deleted from archive (i.e., DeleteFromArchive set to 'Y'), or hidden from normal users (i.e., DeleteFromArchive set to 'H') in the AIM CI inventory.	Completed
ECS-L4-12293	S-DPL-08110 When the Data Pool Insert Service fails the publication of an ECS granule that is part of the Data Pool On-line Archive as per S-DPL-08010, the Data Pool Insert Service shall leave the granule in the On-Line Archive, i.e., in the hidden Data Pool.	Completed
ECS-L4-12298	S-DPL-08160 The DPL CI shall provide an inventory validation function. [NOTE: This rewords and replaces S-DPL-60010.]	Completed
ECS-L4-12299	S-DPL-08170 DAAC staff shall be able to invoke Data Pool Inventory Validation via command line. [NOTE: This replaces S-DPL-60020, S-DPL-60042, S-DPL-60080, S-DPL-60090, and S-DPL-60240 which require that the validation function be invoked by the Data Pool Cleanup Utility.]	Completed

ID	Title	Status
ECS-L4-12303	S-DPL-08205 The Data Pool Inventory Validation shall include the checksum information of the corresponding granules in the DPL and AIM CI inventories when logging discrepancies as per S-DPL-08180h and i.	Completed
ECS-L4-12305	S-DPL-08220 The Data Pool Inventory Validation shall allow DAAC staff to specify the location of the output file(s) reporting the discrepancies between the DPL and AIM inventories.	Completed
ECS-L4-12306	S-DPL-08230 The Data Pool Inventory Validation shall check the syntax of the command line parameters. [NOTE: This replaces S-DPL-60030 which requires this to be performed by the Data Pool Cleanup Utility.]	Completed
ECS-L4-12307	S-DPL-08240 The Data Pool Inventory Validation shall display the error and the correct command line syntax if the command line parameters fail the syntax check. [NOTE: This replaces S-DPL-60035 which requires this to be performed by the Data Pool Cleanup Utility.]	Completed
ECS-L4-12308	S-DPL-08250 The Data Pool Inventory Validation shall accept an optional command line parameter that specifies that orphan checking shall be performed. [NOTE: This replaces S-DPL-60040 which requires the parameters to be accepted by the Data Pool Cleanup Utility. Orphan checking itself is an existing capability and this ticket only lists requirements that changed due to the On-Line Archive.]	Completed
ECS-L4-12309	S-DPL-08260 The Data Pool Inventory Validation shall accept an optional command line parameter that specifies the maximum orphan age in days of the files to be included in the orphan check. [NOTE: This replaces S-DPL-60050 which requires the parameters to be accepted by the Data Pool Cleanup Utility.]	Completed
ECS-L4-12310	S-DPL-08270 The Data Pool Inventory Validation shall verify that the maximum orphan age parameter specified on the command line is not less than three days. [NOTE: This replaces S-DPL-60055 which requires this to be performed by the Data Pool Cleanup Utility.]	Completed
ECS-L4-12311	S-DPL-08280 The Data Pool Inventory Validation shall accept an optional command line parameter that specifies that phantom checking shall be performed. [NOTE: This replaces S-DPL-60060 which requires the parameters to be accepted by the Data Pool Cleanup Utility. Phantom checking itself is an existing capability and this ticket only lists requirements that changed due to the On-Line Archive.]	Completed
ECS-L4-12312	S-DPL-08290 The Data Pool Inventory Validation shall accept an optional command line parameter via which the operator can specify up to ten (10) data pool collection groups to be included in the orphan and phantom check. [NOTE: This replaces S-DPL-60070 which requires the parameters to be accepted by the Data Pool Cleanup Utility. Note the exception for Link Checking in S-DPL-08415.]	Completed
ECS-L4-12313	S-DPL-08300 The Data Pool Inventory Validation shall verify that the collection groups specified on the command line are valid Data Pool collection groups. [NOTE: This replaces S-DPL-60075 which requires this to be performed by the Data Pool Cleanup Utility.]	Completed
ECS-L4-12314	S-DPL-08310 The Data Pool Inventory Validation shall report orphaned files but not remove them from the data pool disks automatically. [NOTE: This replaces S-DPL-60044, S-DPL-60130, S-DPL-60210 which provide for automatic removal of orphans except if 'nofix' is specified.]	Completed
ECS-L4-12316	S-DPL-08330 The Data Pool Inventory Validation shall allow DAAC staff to specify the location of the output file containing the list of orphaned Data Pool files.	Completed

ID	Title	Status
ECS-L4-12319	S-DPL-08360 The Data Pool Inventory Validation shall allow DAAC staff to specify the location of the output file containing the list of phantom Data Pool granules.	Completed
ECS-L4-12320	S-DPL-08370 The Data Pool Inventory Validation shall include the pathname of all orphaned files in the corresponding log entry.	Completed
ECS-L4-12321	S-DPL-08380 In the absence of concurrent workload, the Data Pool Inventory Validation shall be able to perform orphan and phantom checking at the rate of at least 1,000,000 files per hour. [NOTE: This replaces S-DPL-60250.]	Completed
ECS-L4-12322	S-DPL-08390 In the absence of concurrent workload, the Data Pool Inventory Validation shall be able to compare AIM and DPL inventories at the rate of at least 1,000,000 granules per hour.	Completed
ECS-L4-12323	S-DPL-08400 If Data Pool Inventory Validation is interrupted by a fault, it must be possible to restart it and resume the interrupted validation, doing so without producing duplicate entries in the output files. [NOTE: This replaces S-DPL-60260. It is desirable for Long-running utilities to be able to resume from a check-point to reduce the run time penalty of a restart, to the extent that this is possible without incurring significant performance penalties for a normal, non-interrupted run. It's acceptable for a restart to require the presence of a command line option requesting restart.]	Completed
ECS-L4-12324	S-DPL-08410 The Data Pool Inventory Validation shall accept an optional command line parameter that specifies that link verification (i.e., verification of links in the Data Pool area) shall be performed.	Completed
ECS-L4-12325	S-DPL-08415 The Data Pool Inventory Validation shall accept a command line parameter that specifies the public or hidden Data Pool directory tree for which link verification shall be performed. [NOTE: This overrides S-DPL-08290 for link checking.]	Completed
ECS-L4-12326	S-DPL-08420 When performing link verification, the Data Pool Inventory Validation shall identify invalid browse links and invalid links in the hidden Data Pool directories (i.e., links whose targets do not exist). [NOTE: This replaces S-DPL-14535 which specifies that hidden granules be ignored by Data Pool validation.]	Completed
ECS-L4-12327	S-DPL-08430 The Data Pool Inventory Validation shall report invalid links but not remove them from the data pool disks automatically.	Completed
ECS-L4-12328	S-DPL-08440 The Data Pool Inventory Validation shall report invalid links in an output file such that the file can be used as input to the Data Pool On-line Archive Repair Function.	Completed
ECS-L4-12329	S-DPL-08450 The Data Pool Inventory Validation shall allow DAAC staff to specify the location of the output file containing the list of invalid links. [NOTE: It is assumed that invalid links will be removed via normal Unix deletion by DAAC staff.]	Completed
ECS-L4-12330	S-DPL-08455 When allowing the specification of a location for the output file that reports the results of an inventory validation, the Data Pool Inventory Validation functions shall accept a pathname relative to the standard path for validation results. [NOTE: The path standard will be established and documented during the design.]	Completed
ECS-L4-12331	S-DPL-08460 The Data Pool Inventory Validation shall log invalid links.	Completed

ID	Title	Status
ECS-L4-12332	S-DPL-08465 The Data Pool Inventory Validation shall skip validation for collections that reside on file systems that are currently marked as unavailable or are suspended if the validation requires access to that file system, and log the collections that are skipped because of this. [NOTE: This extends current requirements S-DPL-45460, S-DPL-45470 to all Data Pool validation functions. Note that this requirement does not apply to repair functions.]	Completed
ECS-L4-12333	S-DPL-08470 In the absence of concurrent workload, the Data Pool Inventory Validation shall be able to validate links at a rate of no less than 180,000 links per hour.	Completed
ECS-L4-12341	S-DPL-08550 The Data Pool Cleanup service shall skip the cleanup of a granule that is currently in use by the OMS CI and automatically remove such granules on the next cleanup run that occurs after OMS relinquishes use of that granule.	Completed
ECS-L4-12343	S-DPL-08570 The Data Pool Cleanup shall log the temporary files whose age exceeds the maximum orphan age. [NOTE: This re-assigns this function to the Data Pool Cleanup utility, replacing S-DPL-60185.]	Completed
ECS-L4-12344	S-DPL-08580 The Data Pool Cleanup shall log at completion the total number of temporary files that exceeded the maximum orphan age. [NOTE: This updates an existing requirement to ensure that this function remains with the Data Pool Cleanup Utility, replacing S-DPL-60207.]	Completed
ECS-L4-12346	S-DPL-08600 The Data Pool Insert Service shall include the amount of space freed by the removal of temporary files in its determination as to whether to clear the file system full condition. [NOTE: This replaces S-DPL-13210 and S-DPL-60215, which allocates the responsibility to maintain the file system full condition to the Data Pool Cleanup Utility.]	Completed
ECS-L4-12347	S-DPL-08605 In the absence of concurrent workload, Data Pool Cleanup shall be able to remove at least 50,000 science granules per hour (including removal of their metadata files, data pool inventory metadata, browse links and removal of the related public browse granules).	Completed
ECS-L4-12348	S-DPL-08606 In the absence of concurrent workload, Data Pool shall be able to unpublish at least 50,000 science granules per hour (including removal of their metadata files, data pool inventory metadata, browse links and removal of the related public browse granules).	Completed
ECS-L4-12349	S-DPL-08610 The DPL CI shall provide Data Pool On-line Archive Recovery functions to restore the integrity of granules in the On-Line Archive.	Completed
ECS-L4-12350	S-DPL-08620 DAAC staff shall be able to invoke Data Pool On-line Archive Recovery functions via command line. [NOTE: The repair functions might be implemented by a collection of Data Pool utilities, or a single utility that prepares inputs for other utilities and invokes them.]	Completed
ECS-L4-12353	S-DPL-08645 When restoring files for science granules in the on-line archive that are public, the Data Pool On-line Archive Recovery function shall provide an option that allows DAAC staff to restore also any browse link(s) for that science granule.	Completed
ECS-L4-12354	S-DPL-08646 When restoring files for science granules in the on-line archive that are public and referenced by orders, the Data Pool On-line Archive Recovery function shall also restore any symbolic links required to support orders.	Completed
ECS-L4-12356	S-DPL-08651 The Data Pool On-line Archive Recovery function shall provide the capability to restore the integrity of HDF4 archive map granules in the data pool, provided that the granules are present in the AIM inventory.	Completed

ID	Title	Status
ECS-L4-12357	S-DPL-08652 ECS shall verify the checksums of HDF4 archive map files stored in the on-line archive.	Completed
ECS-L4-12358	S-DPL-08660 When restoring a granule that is missing from the Data Pool inventory, the Data Pool On-line Archive Repair shall attempt to make the granule public if it belongs to a collection configured for automatic granule publishing during ingest unless the granule is in-eligible for publication as per S-DPL-08050. [NOTE: The publishing attempt will fail if there is a collision with another public granule and granule replacement is turned off or fails because of other granule replacement conditions, such as the version of the granule that is public is more recent.]	Completed
ECS-L4-12359	S-DPL-08670 When restoring a public browse granule, the Data Pool On-line Archive Repair shall extract the browse images from the original granule file for insertion into the public Data Pool.	Completed
ECS-L4-12361	S-DPL-08690 The Data Pool On-line Archive Recovery shall recognize when it needs to stage a granule from a tape that is currently not resident in the tape archive, skip the recovery of that granule and log the reason for skipping the granule and the tape label as part of the error information it logs on this occasion. [NOTE: The precise error handling is TBD during design.]	Completed
ECS-L4-12362	S-DPL-08700 The Data Pool On-line Archive Recovery shall return an exit code indicating whether it encountered an error or not.	Completed
ECS-L4-12363	S-DPL-08710 The Data Pool On-line Archive Recovery shall be able to accept input files from which to read the ECS granule identifiers and/or file and path names and/or instructions needed to perform the repair.	Completed
ECS-L4-12364	S-DPL-08720 The Data Pool On-line Archive Recovery shall be able to accept the outputs created by Data Pool Inventory Validation as input.	Completed
ECS-L4-12366	S-DPL-08740 The Data Pool On-line Archive Recovery shall provide a capability to perform bulk repairs of the On-Line Archive, e.g., in the case of serious disk errors or loss of a Data Pool file system.	Completed
ECS-L4-12367	S-DPL-08750 During a bulk repair, the Data Pool On-line Archive Recovery shall be able to parallelize its operation for improved performance, including the ability to access multiple tape volumes in parallel, perform multiple checksumming and Data Pool disk operations in parallel, and cause concurrent Data Pool registration and publishing operations.	Completed
ECS-L4-12368	S-DPL-08760 During a bulk repair, the Data Pool On-line Archive Recovery shall access granules in the tape archive in sequence of tape volume and relative position on tape.	Completed
ECS-L4-12369	S-DPL-08770 During a bulk repair, the Data Pool On-line Archive Recovery shall allow DAAC staff to limit the number of tape volumes used by Data Pool On-line Archive Recovery concurrently.	Completed
ECS-L4-12370	S-DPL-08780 During a bulk repair, the Data Pool On-line Archive Recovery shall allow DAAC staff to limit the number of concurrent tape read operations the Data Pool On-line Archive Recovery will issue for the same tape.	Completed
ECS-L4-12371	S-DPL-08790 During a bulk repair, the Data Pool On-line Archive Recovery shall allow DAAC staff to identify the hosts on which it will perform checksumming operations and limit the number of concurrent checksumming operations it performs on each host.	Completed
ECS-L4-12372	S-DPL-08800 During a bulk repair, the Data Pool On-line Archive Recovery shall allow DAAC staff to control the number of Data Pool publications it requests. [NOTE: Details regarding the manner in which this will be accomplished are TBD during design.]	Completed

ID	Title	Status
ECS-L4-12373	S-DPL-08810 The DPL CI shall be able to perform bulk repairs of the Data Pool On-line Archive at a rate of no less than 150 MB/sec in the absence of concurrent workload.	Completed
ECS-L4-12374	S-DPL-08820 The DPL CI shall provide a utility that can cause granules that are currently public to be un-published, i.e., transfer granules that are currently public to the non-public state (IsOrderOnly = 'H' or 'Y'), including transferring its files into the non-public area of the Data Pool. [NOTE: The non-public state depends on whether the public granule is currently in use by orders (IsOrderOnly = 'B') or not (IsOrderOnly = NULL.)]	Completed
ECS-L4-12375	S-DPL-08830 DAAC staff shall be able to invoke the Data Pool utility for un-publishing granules via the command line.	Completed
ECS-L4-12376	S-DPL-08840 The Data Pool utility for un-publishing granules shall accept a list of granules to be un-published on the command line or via an input file.	Completed
ECS-L4-12377	S-DPL-08850 The Data Pool utility for un-publishing granules shall accept an input file in the format produced by Data Pool Inventory Validation.	Completed
ECS-L4-12378	S-DPL-08860 The Data Pool utility for un-publishing granules shall log the start and completion of its execution and any errors it encounters.	Completed
ECS-L4-12379	S-DPL-08870 The Data Pool utility for un-publishing granules shall log each un-publishing attempt.	Completed
ECS-L4-12380	S-DPL-08880 The Data Pool utility for un-publishing granules shall return an exit code indicating whether it encountered an error or not.	Completed
ECS-L4-12381	S-DPL-08890 The DPL CI shall provide a utility that can cause granules to be published that are currently in a hidden area of the Data Pool , i.e., transfer granules that are currently in a non-public state (IsOrderOnly = 'H' or 'Y') to the public state (i.e., IsOrderOnly = 'B' or NULL), including transferring its files into the public area of the Data Pool and leaving links in the hidden area as necessary. [NOTE: The public state depends on whether the non-public granule is currently in use by orders (IsOrderOnly = 'Y') or not (IsOrderOnly = 'H').]	Completed
ECS-L4-12382	S-DPL-08900 The Data Pool utility for publishing granules shall be able to trigger granule replacement, i.e., repair unprocessed granule replacement.	Completed
ECS-L4-12383	S-DPL-08910 DAAC staff shall be able to invoke the Data Pool utility for publishing granules via the command line.	Completed
ECS-L4-12384	S-DPL-08920 The Data Pool utility for publishing granules shall accept a list of granules to be published on the command line or via an input file.	Completed
ECS-L4-12385	S-DPL-08930 The Data Pool utility for publishing granules shall accept an input file in the format produced by the Data Pool inventory validation function.	Completed
ECS-L4-12386	S-DPL-08940 The Data Pool utility for publishing granules shall log the start and completion of its execution and any errors it encounters.	Completed
ECS-L4-12387	S-DPL-08950 The Data Pool utility for publishing granules shall log each successful publishing attempt.	Completed
ECS-L4-12388	S-DPL-08960 The Data Pool utility for publishing granules shall return an exit code indicating whether it encountered an error or not.	Completed
ECS-L4-12389	S-DPL-08970 The Data Pool utility for publishing granules shall allow DAAC staff to select all granules in a specified collection for publication.	Completed
ECS-L4-12390	S-DPL-08980 The Data Pool Update Expiration Utility shall not accept updates to the expiration date of an ECS granule if that would cause the granule to be removed from the on-line archive. [NOTE: ECS granules are part of the On-Line Archive and no longer expire. This extends requirements S-DPL-30010.]	Completed

ID	Title	Status
ECS-L4-12391	S-DPL-08990 In the absence of concurrent workload, the Data Pool Collection Move Utility shall be able to move granules as a rate of no less than 100,000 granules or 100 GB per hour, whichever is less.	Completed
ECS-L4-12392	S-DPL-09000 In the absence of concurrent workload, the Data Pool Collection-to-Group Remapping Utility shall be able to operate at the rate of no less than 350,000 granules per hour. [NOTE: This replaces requirement S-DPL-66105.]	Completed
ECS-L4-12393	S-DPL-09010 The DPL CI shall be able to perform collection remapping operations during preventive maintenance periods during which normal operation is down. [NOTE: This rewords and replaces S-DPL-66095. The requirement represents an operational consideration and is not subject to integration testing.]	Completed
ECS-L4-12394	S-DPL-09015 The DPL CI shall prevent granule inserts, deletions and state changes that interfere with the concurrent execution of a collection move operation. [NOTE: This augments S-OMS-13000. Utility functions that as per agreement with the DAACs will not be run concurrently with a collection move are exempted from this requirement for this release. These concurrency situations are not included in the criteria. The utilities are: Data Pool cleanup, link checking, orphan and phantom checking, and granule unpublishing.]	Completed
ECS-L4-12396	S-DPL-09030 The Data Pool Batch Insert Utility shall queue an ECS granule for Data Pool publication if the granule is in a collection that is configured for publication during ingest and the granule is not ineligible for publication as per S-DPL-08110, and for insertion into the hidden Data Pool otherwise. [NOTE: This replaces requirement S-DPL-40170.]	Completed
ECS-L4-12397	S-DPL-09040 The DPL CI shall ensure that any retention period or priority specified for an ECS granule in the insert request cannot prevent the retention of the granule in the Data Pool On-Line Archive until the granule is explicitly removed as per S-DPL-08530. [NOTE: Any retentions provided by OMS, the Data Pool Batch Insert Utility, or Data Pool insert actions queued by the Subscription Service or Data Pool Ingest must not conflict with the assured retention of ECS granules in the On-Line Archive. This augments requirements S-DPL-20100 and S-DPL-21500, which remain valid for non-ECS granules].	Completed
ECS-L4-12398	S-DPL-09050 The Data Pool Insert Service shall skip and log as an error the insert of an ECS granule into the Data Pool if the granule belongs to a collection that is not configured in the Data Pool. [NOTE: This rewords and replaces similar requirements S-DPL-40094 and S-DPL-20350.]	Completed
ECS-L4-12399	S-DPL-09060 The Data Pool Insert Service shall fail a request for staging a granule from a tape that is not resident in the tape archive.	Completed
ECS-L4-12400	S-DPL-09070 The Data Pool Insert Service shall include the reason for the staging error and the label of the required tape in the error details associated with the corresponding insert action when failing a request from a tape that is not resident in the tape archive.	Completed
ECS-L4-12401	S-DPL-09075 The Data Pool Insert Service shall allow the insertion of granules into the hidden Data Pool regardless of whether a collection is enabled for Data Pool publication or not, provided that the collection is defined to the Data Pool. [NOTE: This replaces requirement S-DPL-06260.]	Completed

ID	Title	Status
ECS-L4-12402	S-DPL-10100 The Data Pool Maintenance GUI shall allow operators to configure for a Data Pool collection whose granules are allowed to be inserted into the public Data Pool, whether to offer the distribution of and web/ftp access to associated QA granules and/or PH granules and/or Browse granules.[NOTE: Enabling a collection for QA and PH linkage will not cause those links to be established or the QA and PH URLs to be exported to ECHO. Conversely, disabling a collection for QA and PH linkage will not remove existing symbolic links from the public Data Pool and existing URLs from ECHO.]	Completed
ECS-L4-12403	S-DPL-10101 The Data Pool Maintenance GUI shall allow operators to configure for a Data Pool collection whose granules are allowed to be inserted into the public Data Pool, and whether to offer the distribution of and ftp access to associated HDF4 archive map granules. [NOTE: Assume that there are no code changes required for this, but the requirement needs to be updated to include the HDF4 archive maps]	Completed
ECS-L4-12404	S-DPL-10102 The Data Pool Maintenance GUI shall disallow the configuration of a collection for HDF4 archive map generation if the collection metadata indicates a data format other than HDF4. [NOTE: TBD by design]	Completed
ECS-L4-12408	S-DPL-10140 The Data Pool Web Application Service shall display for each granule in the shopping cart whether QA/PH/Browse distribution options are available for it. [NOTE: An option are available for a granule if it belongs to a collection configured to provide this distribution option and if the granule currently has the corresponding QA, PH, or Browse association.]	Completed
ECS-L4-12409	S-DPL-10150 The Data Pool Web Application Service shall allow users to select or change the QA and/or PH and/or Browse distribution options for a granule in the cart and apply that as follows: to this granule only. to all granules in the cart for which these options are available.	Completed
ECS-L4-12410	S-DPL-10160 The Data Pool Web Application Service shall identify for each granule in the shopping cart which and if any QA/PH/Browse distribution options were selected for it.	Completed
ECS-L4-12411	S-DPL-10170 The Data Pool Web Application Service shall include the QA and/or PH and/or Browse granules in accordance with the user selected distribution options when it submits an order to the OMS CI.	Completed
ECS-L4-12412	S-DPL-10180 The Data Pool Web Application Service shall include the granule level order options for distributing associated QA and/or PH and/or Browse granules when guarding against duplicate order submission. [NOTE: This extends but does not replace S-DPL-05906.]	Completed
ECS-L4-12413	S-DPL-10190 The Data Pool Ingest Service shall allow QA and PH collections to be configured for having their granules published automatically during ingest. [NOTE: This overrides the corresponding restriction in S-DPL-16450.]	Completed
ECS-L4-12414	S-DPL-10191 The Data Pool Ingest Service shall provide a collection level configurable parameter allowing HDF4 archive map granules to be published automatically during ingest.	Completed
ECS-L4-12415	S-DPL-10192 The Data Pool Ingest Service shall queue an HDF4 file content map generation event for science granules belonging to collections so configured.	Completed

ID	Title	Status
ECS-L4-12416	S-DPL-10200 The Data Pool Insert Service shall be able to place QA and PH granules into the public Data Pool. [NOTE: The same rules apply as for the Browse collection as to how to organize the QA and PH granules into directories and how to name those files. TBD during design whether the publication will trigger the creation of an XML file for the QA/PH granule.]	Completed
ECS-L4-12417	S-DPL-10201 The Data Pool Insert Service shall be able to place HDF4 archive map granules into the public Data Pool.	Completed
ECS-L4-12419	S-DPL-10211 The Data Pool Insert Service shall apply the granule replacement rules for the HDF4 archive map collection in the case of collisions in the public Data Pool, or fail the publication of an HDF4 archive map granule if there is a collision and granule replacement as not been enabled.	Completed
ECS-L4-12420	S-DPL-10215 The Data Pool Insert Service shall use the name of the target Browse file as the name for a symbolic Browse link. [NOTE: The naming convention for symbolic Browse links has not been established via a Level-4 requirement. This requirement does not change the naming conventions, but captures them for consistency with the naming conventions for QA and PH symbolic links that are part of this capability.]	Completed
ECS-L4-12421	S-DPL-10220 When publishing a science granule for a collection configured to offer web/ftp access to associated QA granules, the Data Pool Insert Service shall create a symbolic link to the QA granule if a corresponding association exists in AIM and the referenced QA granule is in the public Data Pool, assign the name of the QA granule file to the link, and place the link into the public directory for the science granule files, overwriting an existing link with the same name if necessary. [NOTE: Unlike with Browse, the Data Pool Insert Service is not supposed to trigger a DPL insert & publication for the QA granule if it is currently not in the public Data Pool.]	Completed
ECS-L4-12422	S-DPL-10230 When publishing a QA granule, the Data Pool Insert Service shall create a symbolic link to the QA granule for the science granule associated with the QA granule in AIM if that science granule is in the public Data Pool and belongs to a collection configured to offer web/ftp access to associated QA granules, assign the name of the QA granule file to the link, and place the link into the directory that contains the science granule file, replacing any existing QA link for that granule, overwriting an existing link with the same name if necessary. [NOTE: If the QA association of a public science granule is changed, this will not automatically update the symbolic QA link. However, the symbolic link will be replaced if the new QA granule to which the science granule is linked is published and replaces the previous QA granule.]	Completed
ECS-L4-12423	S-DPL-10240 When publishing a science granule for a collection configured to offer web/ftp access to associated PH granules, the Data Pool Insert Service shall create a symbolic link to the PH granule if a corresponding association exists in AIM and the referenced PH granule is in the public Data Pool, assign the name of the science PH file to the link, and place the link into the directory that contains the science granule file, overwriting an existing link with the same name if necessary. [NOTE: Unlike with Browse, the Data Pool Insert Service is not supposed to trigger a DPL insert & publication for the PH granule if it is currently not in the public Data Pool.]	Completed

ID	Title	Status
ECS-L4-12424	S-DPL-10241 When publishing a science granule for a collection configured to offer ftp access to associated HDF4 archive map granules, the Data Pool Insert Service shall create a symbolic link to the HDF4 archive map granule if a corresponding association exists in AIM and the referenced HDF4 archive map granule is in the public Data Pool, assign the name of the HDF4 archive map granule file to the link, and place the link into the public directory for the science granule files, overwriting an existing link with the same name if necessary.	Completed
ECS-L4-12425	S-DPL-10250 When publishing a PH granule, the Data Pool Insert Service shall create a symbolic link to the PH granule for the science granule associated with the PH granule in AIM if that science granule is in the public Data Pool and belongs to a collection configured to offer web/ftp access to associated PH granules, assign the name of the science PH file to the link, and place the link into the directory that contains the science granule file, replacing any existing PH link for that granule, overwriting an existing link with the same name if necessary. [NOTE: If the PH association of a public science granule is changed, this will not automatically update the symbolic PH link. However, the symbolic link will be replaced if the new PH granule to which the science granule is linked is published and replaces the previous PH granule.]	Completed
ECS-L4-12426	S-DPL-10251 When publishing an HDF4 archive map granule, the Data Pool Insert Service shall create a symbolic link to the HDF4 archive map granule for the science granule associated with the HDF4 archive map granule in AIM if that science granule is in the public Data Pool and belongs to a collection configured to offer ftp access to associated HDF4 archive map granules, assign the name of the HDF4 archive map granule file to the link, and place the link into the directory that contains the science granule file, replacing any existing HDF file content map granule link for that granule, overwriting an existing link with the same name if necessary.	Completed
ECS-L4-12427	S-DPL-10260 The DPL CI shall remove symbolic links to associated QA and PH granules when un-publishing a science granule.	Completed
ECS-L4-12428	S-DPL-10261 The DPL CI shall remove symbolic links to associated HDF4 archive map granules when un-publishing a science granule.	Completed
ECS-L4-12429	S-DPL-10270 The DPL CI shall remove symbolic links to a QA granule when un-publishing the QA granule.	Completed
ECS-L4-12430	S-DPL-10280 The DPL CI shall remove symbolic links to a PH granule when un-publishing the PH granule.	Completed
ECS-L4-12431	S-DPL-10281 The DPL CI shall remove symbolic links to an HDF4 archive map granule when un-publishing the HDF4 archive map granule.	Completed
ECS-L4-12433	S-DPL-10291 The Data Pool CI shall remove symbolic links to associated HDF4 archive map granules when removing a public science granule from the Data Pool.	Completed
ECS-L4-12436	S-DPL-10311 The Data Pool CI shall remove symbolic links to the HDF4 archive map granule when removing a public HDF4 archive map granule from the Data Pool.	Completed
ECS-L4-12437	S-DPL-10320 When performing link verification, the Data Pool Inventory Validation shall identify and report invalid symbolic QA and PH links (i.e., links whose targets do not exist). [NOTE: The default repair action in this case is to remove the invalid links.]	Completed

ID	Title	Status
ECS-L4-12438	S-DPL-10321 When performing link verification, the Data Pool CI shall identify and report invalid symbolic HDF4 archive map links (i.e., links whose targets do not exist). [NOTE: The default repair action in this case is to remove the invalid links.]	Completed
ECS-L4-12440	S-DPL-10331 When performing orphan checking, the Data Pool CI shall identify and report HDF4 archive map symbolic links in the Data Pool as orphans if they do not correspond to HDF4 archive map associations in the AIM inventory with public science granules that belong to collections enabled for ftp access to associated HDF4 archive map granules. [NOTE: The default repair action in this case is to remove the orphan links.]	Completed
ECS-L4-12441	S-DPL-10340 When performing phantom checking, the Data Pool Inventory Validation shall identify and report QA and PH associations for public QA respectively, PH granules in the AIM inventory as phantoms if the corresponding science granules are public and belong to collections enabled for web/ftp access to associated QA respectively, PH granules but no symbolic QA respectively, PH symbolic link exists in the Data Pool. [NOTE: The default repair action in this case is to unpublish and then re-publish the corresponding QA and PH granules.]	Completed
ECS-L4-12442	S-DPL-10341 When performing phantom checking, the Data Pool CI shall identify and report HDF4 archive map associations for public HDF4 archive map granules in the AIM inventory as phantoms if the corresponding science granules are public and belong to collections enabled for ftp access to associated HDF4 archive map granules but no symbolic link exists in the Data Pool. [NOTE: The default repair action in this case is to un-publish and then re-publish the corresponding HDF4 archive map granules. Alternatively, to avoid re-publishing which would result in BMGT event sent to ECHO, the restoreOLAfromTape utility can be run with the -restorelinks flag.]	Completed
ECS-L4-12443	S-DPL-10350 The Data Pool Inventory Validation shall meet the throughput requirements of S-DPL-08380 when including QA and PH phantom checking.	Completed
ECS-L4-12444	S-DPL-10351 The Data Pool CI shall meet the throughput requirements of S-DPL-08380 when including HDF4 archive map orphan and phantom checking.	Completed
ECS-L4-12445	S-DPL-10360 The Data Pool Inventory Validation shall meet the throughput requirements of S-DPL-08470 when including QA and PH links in link validation.	Completed
ECS-L4-12446	S-DPL-10361 The Data Pool CI shall meet the throughput requirements of S-DPL-08470 when including HDF4 archive map links in link validation.	Completed
ECS-L4-12447	S-DPL-10370 When restoring files for science granules in the on-line archive that are public and belong to collections enabled for web/ftp access to associated QA respectively, PH granules, the Data Pool On-line Archive Recovery function shall provide an option that allows DAAC staff to restore also any symbolic QA and PH link(s) for that science granule. [NOTE: This extends but does not replace S-DPL-08645 to QA and PH links. It is OK to provide a single option to repair any links including Browse, QA, and PH links.]	Completed
ECS-L4-12448	S-DPL-10380 The Data Pool Collection Move Utility shall include QA and PH symbolic links when moving the public granules in a science collection.	Completed
ECS-L4-12449	S-DPL-10381 The Data Pool Collection Move Utility shall include HDF4 archive map symbolic links when moving the public granules in a science collection.	Completed

ID	Title	Status
ECS-L4-12450	S-DPL-10390 The Data Pool Collection Move Utility shall reject the attempt to move the QA collection if any of the Data Pool collections is enabled for web/ftp access to associated QA granules. [NOTE: The utility would need to update existing QA symbolic links to point to the new location of the referenced QA granule files. The utility is currently not designed to do this.]	Completed
ECS-L4-12451	S-DPL-10400 The Data Pool Collection Move Utility shall reject the attempt to move the PH collection if any of the Data Pool collections is enabled for web/ftp access to associated PH granules. [NOTE: The utility would need to update existing PH symbolic links to point to the new location of the referenced PH granule files. The utility is currently not designed to do this.]	Completed
ECS-L4-12452	S-DPL-10401 The Data Pool Collection Move Utility shall reject the attempt to move the HDF4 archive map collection if any of the Data Pool collections is enabled for ftp access to associated HDF4 archive map granules.	Completed
ECS-L4-12453	S-DPL-10410 The Data Pool Collection Remap Utility shall reject the attempt to remap the QA collection if any of the Data Pool collections is enabled for web/ftp access to associated QA granules. [NOTE: The utility would need to update existing QA symbolic links to point to the new location of the referenced QA granule files. The utility is currently not designed to do this.]	Completed
ECS-L4-12454	S-DPL-10420 The Data Pool Collection Move Utility shall reject the attempt to remap the PH collection if any of the Data Pool collections is enabled for web/ftp access to associated PH granules. [NOTE: The utility would need to update existing PH symbolic links to point to the new location of the referenced PH granule files. The utility is currently not designed to do this.]	Completed
ECS-L4-12455	S-DPL-10421 The Data Pool Collection Remap Utility shall reject the attempt to remap the HDF4 archive map collection if any of the Data Pool collections is enabled for ftp access to associated HDF4 archive map granules.	Completed
ECS-L4-12457	S-DPL-10431 The DPL CI shall include changes to HDF4 archive map URLs when the BMGT requests the selection and identification of science granules based upon the time interval during they were updated.	Completed
ECS-L4-12459	S-DPL-10610 The Data Pool Inventory Validation shall allow DAAC staff to identify unprocessed granule publications. [NOTE: This replaces requirement S-DPL-08180g.] [Related NCR: 8049079.]	Completed
ECS-L4-12460	S-DPL-10620 The Data Pool Inventory Validation shall consider a granule to be an unprocessed granule publication if all the following conditions are met: The granule belongs to a public collection, i.e, a collection that is enabled for automatic granule publication during ingest. The granule is not flagged as logically deleted (i.e., deleteEffectiveDate is not Null) or deleted from archive (DeleteFromArchive set to 'Y') or hidden (DeleteFromArchive set to 'H') in the AIM inventory. If granule replacement for the collection is turned off, the granule does not collide with a public granule. If granule replacement for the collection is turned on, the granule does not qualify as a replacement for a more recently ingested public granule. The granule is not a QA or PH granule related to a science granule in a collection that is not public. [Related NCR: a-d: 8049079/8049234; e: 8049203.]	Completed

ID	Title	Status
ECS-L4-12461	S-DPL-10630 The Data Pool Inventory Validation shall report unprocessed publications in an output file such that the output can be used as input to the utility that can be used to repair the discrepancy. [Related NCR: 8049079.]	Completed
ECS-L4-12462	S-DPL-10640 The Data Pool Inventory Validation shall allow DAAC staff to specify the location of the output file containing the list of unprocessed publications. [Related NCR: 8049079.]	Completed
ECS-L4-12463	S-DPL-10650 The Data Pool Inventory Validation shall log unprocessed publications. [Related NCR: 8049079.]	Completed
ECS-L4-12464	S-DPL-10660 The Data Pool Inventory Validation shall compare the inventories maintained by the DPL and AIM CI for non-Browse granules if requested to do so via command line options, and identify the following discrepancies between the two inventories: Collections that are not defined in the Data Pool inventory and for which granules exist in the AIM maintained inventory. ECS Granules that are in the Data Pool inventory but not in the AIM maintained inventory. Granules in the AIM maintained inventory that do not belong to collections specified in condition a. and that are not present in the Data Pool inventory. If so requested explicitly via command line options, suppress reporting granules in the AIM inventory that are logically deleted (i.e., have a non-NULL deleteEffectiveDate) but are not present in the Data Pool inventory. If so requested explicitly via command line options, suppress reporting granules in the AIM inventory that are deleted from archive (i.e., DeleteFromArchive set to 'Y') but are not present in the Data Pool inventory. Granules that are public in the Data Pool but are not eligible to be public as per S-DPL-08050. ECS granules that are in public collections, are eligible to be public as per S-DPL-08050, and for which no more recent replacement granules are public, but that are currently in the hidden Data Pool area. Discrepancies in the checksum value for a granule where the granule has non-null checksum value in both inventories. Discrepancies in the checksum algorithm value for a granule where the granule has a non-null checksum algorithm value in both inventories. [This replaces S-DPL-08180, as per NCR: 8049079.]	Completed
ECS-L4-12465	S-DPL-10670 When inserting a replacement science granule, the AIM CI shall determine whether a Browse granule linked with the science granule being replaced should be re-linked with the newly inserted replacement science granule, based on which insert time is closer to the Browse insert time. [See NCR 8049147.]	Completed
ECS-L4-12466	S-DPL-10680 When inserting a replacement science granule, the AIM CI shall determine whether a Browse granule linked with the science granule being replaced should be re-linked with the newly inserted replacement science granule, based on which insert time is closer to the Browse insert time. [See NCR 8049147.]	Completed
ECS-L4-12467	S-DPL-10690 The Data Pool Inventory Validation shall offer command line parameters that allow DAAC staff to select a subset of the Data Pool XML files for verification. [See NCR 8049315]	Completed
ECS-L4-12468	S-DPL-10700 The Data Pool Inventory Validation shall be able to check at least 100,000 XML files per hour for corruption. [See NCR 8049315.]	Completed
ECS-L4-12469	S-DPL-10710 If Data Pool XML files cannot not be tested for corruption because of potential race conditions, the Data Pool Inventory Validation shall retry the check at a later point before reporting the file as corrupt or missing. [See NCR 8049315.]	Completed

ID	Title	Status
ECS-L4-12470	S-DPL-10720 The Data Pool Inventory Validation shall report XML files that are found to be corrupt or that cannot be located. [See NCR 8049315.]	Completed
ECS-L4-12471	S-DPL-10730 The Data Pool Inventory Validation shall maintain information that records the last time an XML file passed the check for corruption, the result of the most recent check (i.e., Pass/Fail), and whether the file was skipped and needs to be re-checked. [See NCR 8049315.]	Completed
ECS-L4-12472	S-DPL-10740 The On-Line Archive Recovery function shall allow DAAC staff to restore Data Pool XML files that were found missing or corrupt from the XML archive maintained by the AIM CI. [See NCR 8049315, NCR 8049447.]	Completed
ECS-L4-12473	S-DPL-10750 Data Pool Maintenance GUI shall support the following attributes for a theme: A unique name of up to 40 characters that must be compatible with ECS file naming standards (i.e., it must not contain any characters that are illegal as ECS file names); A description of up to 255 characters; Whether the theme is enabled for inserts or not (default is 'not enabled for insert'); Whether the theme is activated for web drill down or not (default is 'not activated for web drill down'). [See NCR: 8049647.]	Completed
ECS-L4-12474	S-DPL-10760 The Data Pool Maintenance GUI shall allow DAAC staff to specify for a collection the name of a PSA as the source for extracting a Theme association during Data Pool publication. [See NCR: 8049561, 8049560, 8049559.]	Completed
ECS-L4-12475	S-DPL-10770 The Data Pool Insert Service shall extract the name(s) of the Theme(s) with which a granule will be associated during publication from the granule PSA if the DAAC staff configured such a source PSA for that collection (see S-DPL-10760) and the PSA is present, non-NULL, and provides a valid Theme name enabled for Data Pool Insert. [NOTE: Since a PSA may occur more than once, it is conceivable that several Theme names are specified for a granule in this fashion. This type of association is independent of and in addition to any explicit Theme associations that may be requested explicitly via subscriptions or command line parameters.] [See NCR: 8049561, 8049560, 8049559.]	Completed
ECS-L4-12477	S-DPL-10790 The Data Pool Ingest GUI shall allow an operator to filter the list of volume groups by: collection short name and version ID volume group path [See NCR: 8048836.]	Completed
ECS-L4-12478	S-DPL-10800 When logging the start or completion of an operation that is executed on a service host, the Data Pool Ingest Service shall include the identification of the service in the log entries it generates. [See NCR: 8049061.]	Completed
ECS-L4-12479	S-DPL-10810 The Data Pool Inventory Validation shall not report granules as needing to be published whose restrictions indicate that they are not eligible to be public. [NOTE: This augments requirement S-DPL-08180. See NCR 8049622.]	Completed
ECS-L4-12480	S-DPL-10820 The Data Pool FTP Service shall allow verification of the size of a remote file it transferred after the transfer completes. [See NCR 7048115.]	Completed

ID	Title	Status
ECS-L4-12481	S-DPL-10920 The Data Pool Ingest Service shall raise an operator alert for an FTP host when an attempt to access a polling location on that host via ftp results in one of the following errors: connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), DELETED, DELETED, there are N consecutive time-outs while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16261 and S-DPL-16482). [NOTE: Given the small size of PDR files, it is acceptable to ignore the file size in time out calculations during polling, i.e., assume a file size of 0.] [NOTE: This requirement supersedes S-DPL-17440, adjusting error handling in line with NCR 8048508.]	Completed
ECS-L4-12482	S-DPL-10930 The Data Pool Ingest Service shall raise an operator alert for a polling location on an FTP host when an attempt to access the polling location results in one of the following errors: the polling location directory or file cannot be accessed, e.g., because it does not exist or because it is inaccessible due to permission problems, there are N consecutive errors other than time-outs while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16482)	Completed
ECS-L4-12483	S-DPL-10940 The Data Pool Ingest Service shall raise an operator alert for FTP host and provider when an attempt to access the polling location results in one of the following errors: the FTP login failed.	Completed
ECS-L4-12484	S-DPL-10950 The Data Pool Ingest Service shall raise an operator alert for an FTP host when an attempt to transfer files to be ingested via ftp results in one of the following errors: connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), DELETED, DELETED, d. the file transfer time exceeded its maximum allowed time as per configuration for that host (see S-DPL-16261) on file transfer attempts for N different files consecutively where N is configured on a global basis (see S-DPL-16482). [NOTE: This requirement supersedes S-DPL-17450, adjusting error handling in line with NCR 8048508.]	Completed
ECS-L4-12486	S-DPL-10970 The Data Pool Ingest Service shall raise an operator alert for an FTP host when an attempt to transfer PAN and PDRD notification files results via ftp to that host in one of the following errors: connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), DELETED, DELETED, the file transfer time exceeded it maximum allowed time as per configuration for that host (see S-DPL-16261) on file transfer attempts for N different files consecutively where N is configured on a global basis (see S-DPL-16482) [NOTE: Given the small size of PDRD and PAN files, it is acceptable to ignore the file size in the time out calculations for notifications, i.e., assume a file size of 0.] [NOTE: This requirement supersedes S-DPL-17455, adjusting error handling in line with NCR 8048508.]	Completed
ECS-L4-12489	S-DPL-11000 The Data Pool Ingest Service shall raise an operator alert for local transfers for a provider when an attempt to transfer files to be ingested for that provider via local transfer results in one of the following errors: file transfer attempts for N different files failed consecutively (other than due to time-out), where N is configurable on a global basis (see S-DPL-16482) the file transfer time exceeded it maximum allowed time as per configuration for that host (see S-DPL-16255) on file transfer attempts for N different files consecutively where N is configured on a global basis (see S-DPL-16482).	Completed

ID	Title	Status
ECS-L4-12490	S-DPL-11010 The Data Pool Ingest Service shall suspend all local file transfers for a provider while an alert is currently pending for local file transfers for that provider.	Completed
ECS-L4-12491	S-DPL-11020 The Data Pool Ingest Service shall raise an operator alert for an scp host when an attempt to access a polling location on that host via scp results in one of the following errors: connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), DELETED, DELETED, DELETED, DELETED, there are N consecutive time-outs while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16293 and S-DPL-16482). [NOTE: This requirement supersedes S-DPL-17490, adjusting error handling in line with NCR 8048508.]	Completed
ECS-L4-12492	S-DPL-11030 The Data Pool Ingest Service shall raise an operator alert for an scp host and provider when an attempt to access a polling location on that host via scp results in one of the following errors: scp login failed.	Completed
ECS-L4-12493	S-DPL-11040 The Data Pool Ingest Service shall raise an operator alert for an scp host when an attempt to transfer files to be ingested via scp from that host results in one of the following errors: connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), DELETED, DELETED, DELETED, DELETED, file copy attempts for N different files timed-out consecutively, where N is configurable on a global basis (see S-DPL-16293 and S-DPL-16482). [NOTE: This requirement supersedes S-DPL-17500, adjusting error handling in line with NCR 8048508.]	Completed
ECS-L4-12494	S-DPL-11050 The Data Pool Ingest Service shall raise an operator alert for an scp host and provider when an attempt to transfer files to be ingested via scp for that provider from that host results in one of the following errors: scp login failed, file copy attempts for N different files failed consecutively for reasons other than time-out, where N is configurable on a global basis (see S-DPL-16482) [NOTE: The inability to locate or access the source directory count as file copy failure in this case.]	Completed
ECS-L4-12495	S-DPL-11060 The Data Pool Ingest Service shall raise an operator alert for an scp host when an attempt to transfer PAN and PDRD notification files to that host results in one of the following errors: connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), DELETED, DELETED, DELETED, file transfer attempts for N different PAN or PDRD timed-out consecutively, where N is configurable on a global basis (see S-DPL-16293 and S-DPL-16482). [NOTE: This requirement supersedes S-DPL-17510, adjusting error handling in line with NCR 8048508.]	Completed
ECS-L4-12496	S-DPL-11070 The Data Pool Ingest Service shall raise an operator alert for an scp host and provider when an attempt to transfer PAN and PDRD notification files for that provider to that host results in one of the following errors: scp login failed, the target directory does not exist, the permission to write to the directory is denied, file transfer attempts for N different PAN or PDRD failed consecutively other than due to time-out, where N is configurable on a global basis (see S-DPL-16293 and S-DPL-16482).	Completed

ID	Title	Status
ECS-L4-12497	<p>S-DPL-11080 The Data Pool Ingest Service shall suspend dispatching the following scp polling and file transfer operations, including pulling files referenced in a PDR and transferring PAN or PDRD files, while an alert is currently pending if the nature of the error causing the alert would impede the intended operation: If the alert is due to an inability to connect with the scp host or N consecutive time-outs while reading from that host or writing to it, all polling, file transfers, and PDR/PAN transfers for that host shall be suspended. If the alert is due to a login failure during polling or file transfer, polling and file transfers from that host for that provider shall be suspended. If the alert was raised during file transfer because the source directory does not exist or the permission to access the source directory was denied, all file transfers for that host and provider shall be suspended as well as polling for that provider. If the alert was raised during PAN or PDRD transfer because of a login failure or non-existence of the target directory or lack of permission to write to the target directory, PAN and PDRD transfers for that provider shall be suspended. If the alert is due to N consecutive file transfer failures (including directory access errors), file transfer operations for the affected provider on the affected host shall be suspended. If the alert is due to N consecutive PAN or PDRD transfer failures, PAN and PDRD transfers for that provider shall be suspended. If the alert is due to N consecutive PDR transfer failures, polling for the affected polling locations shall be suspended. [NOTE: The requirement implies that there may be several alert conditions that have different consequences. As per S-DPL-17520, the alert conditions must be maintained to assure that the appropriate services are suspended and resumed as the conditions are detected or cleared. Though there is currently no such case, a host could support ftp and scp access. If so, suspensions due to alerts may or may not affect ftp and scp operations, subject to design considerations.] [NOTE: This requirement supersedes S-DPL-17530, adjusting error handling in line with NCR 8048508.]</p>	Completed
ECS-L4-12498	<p>S-DPL-11090 The Data Pool Ingest Service shall raise an operator alert for a polling location when an attempt to access a polling location via scp results in one of the following errors: the source directory does not exist, the permission to read the directory is denied, there are N consecutive errors other than time-outs while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16482). [NOTE: This requirement supersedes S-DPL-17545, adjusting error handling in line with NCR 8048508.]</p>	Completed
ECS-L4-12499	<p>S-DPL-11100 The Data Pool Ingest Service shall log Browse link replacements.</p>	Completed
ECS-L4-12501	<p>S-DPL-11120 The Data Pool Insert Service shall handle potential Browse file name collisions when inserting a replacement Browse granule into the public Data Pool. [NOTE: The manner in which this is done is left to the DPL CI. For example, the file of the existing or of the new Browse could be renamed; or if the old Browse granule will be unpublished as per S-DPL-11130, the DPL CI might perform the removal of the old Browse and insertion of the new one as a single operation, thereby preventing a file name conflict.]</p>	Completed

ID	Title	Status
ECS-L4-12503	S-DPL-11140 When translating pointers in linkage files associated with Browse, Production History (PH) and Quality Assurance (QA) granules in accordance with S-DPL-18055, the Data Pool Ingest Service shall be able to handle a situation where more than one science granule matches linkage information in one of the following ways, depending on operator configuration: treat this as a linkage error and suspend the granule with which the linkage file is associated, treat this as a linkage error and fail the ingest of granule with which the linkage file is associated, use the most recently inserted matching science granule to perform the linkage	Completed
ECS-L4-12504	S-DPL-11150 The Data Pool Ingest Service shall permit DAAC staff to configure one of the options in S-DPL-11140 as the method for handling the situation where more than one science granule matches linkage information.	Completed
ECS-L4-12505	S-DPL-11160 The Data Pool Ingest Service shall be able perform automatic volume group creation, that is, close the currently active volume group within an archive volume group history set and create a new active volume group in that set when the number of files in the current volume group exceeds an operator configured threshold.	Completed
ECS-L4-12506	S-DPL-11170 The Data Pool Ingest Service shall allow DAAC staff to enable a volume group history set for automatic volume group creation.	Completed
ECS-L4-12507	S-DPL-11180 The Data Pool Ingest Service shall allow DAAC staff to disable a volume group history set for automatic volume group creation.	Completed
ECS-L4-12508	S-DPL-11190 The Data Pool Ingest Service shall allow DAAC staff to configure a threshold in terms of number of files which shall trigger automatic volume group creation and that applies to all volume group history sets so enabled.	Completed
ECS-L4-12509	S-DPL-12000 The Data Pool Cleanup service shall skip the cleanup of an ECS granule that is currently in use by the OMS CI and automatically remove such granules on the next cleanup run that occurs after OMS relinquishes use of that granule. NOTE: This replaced requirement S-DPL-08550. Because of requirement S-AIM-xxx04, the situation which this requirement describes should never occur after Release 8.0, but the requirement is retained in case the situation occurs due to system or operational errors.]	Completed
ECS-L4-12510	S-DPL-12010 The Data Pool Cleanup service not remove a public ECS granule from the Data Pool, logging that fact including the reason.	Completed
ECS-L4-12511	S-DPL-12020 The Data Pool checksum verification service (CVS) shall allow DAAC staff to request a change in the DPL checksum type of a granule or list of granules.	Completed
ECS-L4-12512	S-DPL-12030 When changing a checksum origin whose current value is 'DataProvider', the Data Pool checksum verification service (CVS) shall record the fact that the original checksum was supplied by the Data Provider.	Completed
ECS-L4-12513	S-DPL-12040 The Data Pool Inventory Validation shall report Data Pool ECS collections that are no longer present in AIM and the granules in these collections.	Completed
ECS-L4-12514	S-DPL-12050 The Data Pool Inventory Validation shall report file size discrepancies between the DPL and AIM inventory databases.	Completed
ECS-L4-12515	S-DPL-12060 The Data Pool Inventory Validation shall report file size discrepancies between DPL DB and DPL file system.	Completed
ECS-L4-12516	S-DPL-12070 The Data Pool Ingest Service shall provide a checksum for all granules independent of checksum percentage.	Completed

ID	Title	Status
ECS-L4-12517	S-DPL-12080 The Data Pool Insert Service shall set only those temporal coverage attributes for a Data Pool granule (i.e., RangeBeginningDate, etc.) if the corresponding information is available in the granule metadata.	Completed
ECS-L4-12518	S-DPL-12090 The DPL CI shall not publish ECS granules that are associated with restriction information that indicates that the granule shall be hidden from public access in the On-Line Archive.	Completed
ECS-L4-12519	S-DPL-12100 The Data Pool Inventory Validation Function shall consider granule restriction information when deciding whether an ECS granule in the On-Line Archive should be public or hidden: A granule in a public collection should be public unless the granule is associated with restriction information that flags it as non-public or there is a more recent replacement granule that is public. A granule in a public collection should be not be public if unless the granule is associated with restriction information that flags it as non-public or there is a more recent replacement granule that is public. [NOTE: This is an extension of requirement S-DPL-08180.]	Completed
ECS-L4-12524	S-DPL-13020 Operators shall be able to run the Data Pool Cleanup Utility from the command line and in back ground.	Completed
ECS-L4-12525	S-DPL-13030 The Data Pool Cleanup Utility shall accept command line parameters specifying a date/time cut-off and a priority limit or the name of a granule ID file, and a no-prompt option.	Completed
ECS-L4-12526	S-DPL-13031 The Data Pool Cleanup Utility shall consider priority limit and date/time cut-off parameters as mutually exclusive to the granule ID file name parameter.	Completed
ECS-L4-12527	S-DPL-13032 The Data Pool Cleanup Utility shall validate the syntax of the command line parameters.	Completed
ECS-L4-12528	S-DPL-13034 If the command line parameters fail the syntax validation, the Data Pool Cleanup Utility shall display the error and the correct command line syntax.	Completed
ECS-L4-12529	S-DPL-13040 The Data Pool Cleanup Utility shall suppress all operator prompts if the no-prompt option is specified, assuming an affirmative response in these cases.	Completed
ECS-L4-12530	S-DPL-13042 The Data Pool Cleanup Utility shall suppress the display of all warning and error messages if the no-prompt option is specified but continue to log the errors and warnings to its log file.	Completed
ECS-L4-12531	S-DPL-13050 The Data Pool Cleanup Utility shall accept the date/time cut-off as an off-set from mid-night (24:00:00) of the previous day, expressed in hours.	Completed
ECS-L4-12532	S-DPL-13060 The Data Pool Cleanup Utility shall accept the cut-off hours as a positive or negative number, including 0.	Completed
ECS-L4-12533	S-DPL-13065 The Data Pool Cleanup Utility shall consider the date/time cut-off parameter optional with a default value of 0.	Completed
ECS-L4-12534	S-DPL-13070 The Data Pool Cleanup Utility shall add the cut-off hours to mid-night of the previous day, resulting in a date and time previous to that if the number of hours is negative, and in a date and time after that if the number is positive, including possibly a date and time in the future.	Completed
ECS-L4-12535	S-DPL-13080 The Data Pool Cleanup Utility shall prompt the operator for confirmation of the date/time cut-off if it is in the future.	Completed
ECS-L4-12536	S-DPL-13091 The Data Pool Cleanup Utility shall accept the priority limit as a positive number between 1 and 255.	Completed
ECS-L4-12537	S-DPL-13093 If a priority limit is not specified, the Data Pool Cleanup Utility shall assume a configurable default priority limit.	Completed

ID	Title	Status
ECS-L4-12538	S-DPL-13094 Data Pool Cleanup Utility shall accept a list of granule Ids of the granules to be cleaned up from the granule ID file specified in the granule ID file name parameter, formatted as one granule ID per line	Completed
ECS-L4-12539	S-DPL-13100 The Data Pool Cleanup Utility shall qualify a science granule for clean-up if its priority is less than or equal to the priority limit and its expiration date/time is less than or equal to the cut-off date/time; or if its ID is listed in the granule ID file specified in the granule ID file name parameter.	Completed
ECS-L4-12547	S-DPL-13160 If a clean-up is interrupted by a fault, it must be possible to restart the Data Pool Cleanup utility without affecting its ability to perform the remainder of the clean-up or its throughput.	Completed
ECS-L4-12548	S-DPL-13170 The Data Pool Cleanup Utility shall prevent concurrent executions of the utility if that could interfere with its error free and efficient operation. (For example, the developer might prevent all parallel executions of the utility; or design the utility such that conflicts never occur, in which case it is not necessary to prevent concurrent runs at all)	Completed
ECS-L4-12549	S-DPL-13180 The Data Pool Cleanup Utility must be able to operate concurrently with Data Pool web, ftp and any subscription distribution accesses and Data Pool insert operations.	Completed
ECS-L4-12550	S-DPL-13190 The Data Pool Cleanup Utility must not degrade concurrent Data Pool web and ftp access, distribution, inserts and distributions by more than 50% in terms of response time or throughput.	Completed
ECS-L4-12551	S-DPL-13200 The Data Pool Cleanup Utility must be able to cleanup at least 5,000 science and browse granules per hour (including clean-up of their metadata files and data pool inventory metadata) concurrent with the data pool insert and distribution loads specified in Tickets DP_SY_04 and DP_SY_01	Completed
ECS-L4-12552	S-DPL-13210 The Data Pool Cleanup Utility shall clear the 'NoFreeSpace' flag (that prevent Data Pool Inserts from dequeuing) if the amount of space it cleaned up exceeds an operator configurable limit.	Completed
ECS-L4-12553	S-DPL-13212 The Data Pool Cleanup Utility shall allow operators to configure the amount of space that - if freed up by a cleanup run - will cause the 'NoFreeSpace' flag to be cleared.	Completed
ECS-L4-12554	S-DPL-13220 The Data Pool Cleanup Utility shall log all cleanup attempts for a granule, including completion status to the cleanup log file.	Completed
ECS-L4-12555	S-DPL-13230 The Data Pool Cleanup Utility shall log the start of a cleanup run to the cleanup log file.	Completed
ECS-L4-12556	S-DPL-13240 The Data Pool Cleanup Utility shall log the completion of a cleanup run to the cleanup log file.	Completed
ECS-L4-12557	S-DPL-13260 The Data Pool Cleanup Utility shall log the total amount of space it cleaned up to the cleanup log file.	Completed
ECS-L4-12558	S-DPL-13270 The Data Pool Cleanup Utility log entries shall include the date and time of the cleanup log file entry (at least to the millisecond).	Completed
ECS-L4-12559	S-DPL-13290 Where a cleanup log file entry is specific to a granule or file, the Data Pool Cleanup Utility log entries shall include the granule id or the file path name respectively in the log entry.	Completed
ECS-L4-12560	S-DPL-13300 The Data Pool Cleanup Utility shall generate a default name for the cleanup log file.	Completed
ECS-L4-12561	S-DPL-13310 The Data Pool Cleanup Utility shall append output to the cleanup log file if it already exists.	Completed
ECS-L4-12562	S-DPL-13320 The Data Pool Cleanup Utility shall create the cleanup log file if it does not exist.	Completed

ID	Title	Status
ECS-L4-12563	S-DPL-13330 The Data Pool Cleanup Utility shall create the cleanup log file if it does not exist.	Completed
ECS-L4-12565	S-DPL-13520 The Data Pool Cleanup Utility shall retrieve from configuration data the latency time that is to be used to determine those files that have resided in distribution directories sufficiently long and should be deleted.	Completed
ECS-L4-12566	S-DPL-13600 The Data Pool Cleanup Utility shall invoke the EcOsBulkURL as part of its normal operation, with the -delete parameter.	Completed
ECS-L4-12567	S-DPL-13610 The Data Pool Cleanup Utility shall dump all necessary information on deletes into a flat file, path and filename of /usr/ecs/ /CUSTOM/data/DPL/bulkURLDel, if the EcOsBulkURL utility returns a failed status	Completed
ECS-L4-12572	S-DPL-13730 The Data Pool Cleanup Utility shall support a command line parameter to request that all cross-references between a specific theme and its granules be removed.	Completed
ECS-L4-12574	S-DPL-14010 The DPL Cleanup Utility shall accept a 'pre-delete' command line parameter.	Completed
ECS-L4-12575	S-DPL-14020 The DPL Cleanup Utility, when receiving a 'pre-delete' parameter, shall make the list of granules it plans to delete available to the Bulk URL Utility.	Completed
ECS-L4-12576	S-DPL-14030 The DPL Cleanup Utility, when receiving a 'pre-delete' parameter, shall not delete the granules from the Data Pool.	Completed
ECS-L4-12577	S-DPL-14040 The DPL Cleanup Utility, when receiving a 'pre-delete' parameter, shall call the Bulk URL Utility.	Completed
ECS-L4-12578	S-DPL-14050 The DPL Cleanup Utility shall accept a 'delete dpl only' command line parameter.	Completed
ECS-L4-12579	S-DPL-14060 The DPL Cleanup Utility, when receiving a 'delete dpl only' parameter, shall delete the appropriate granules from the Data Pool.	Completed
ECS-L4-12580	S-DPL-14070 The DPL Cleanup Utility, when receiving a 'delete dpl only' parameter, shall not call the Bulk URL Utility	Completed
ECS-L4-12581	S-DPL-14075 The DPL Cleanup Utility, when receiving a 'delete dpl only' parameter, shall delete the exact same set of granules that it previously made available to the Bulk URL Utility	Completed
ECS-L4-12582	S-DPL-14080 The DPL Cleanup Utility shall accept a 'delete all' command line parameter	Completed
ECS-L4-12583	S-DPL-14090 The DPL Cleanup Utility, when receiving a 'delete all' parameter, shall delete the appropriate granules from the Data Pool and call the Bulk URL Utility	Completed
ECS-L4-12584	S-DPL-14500 The Data Pool Cleanup Utility shall not remove granules from the data pool that are referenced by distribution requests that are not yet complete.	Completed
ECS-L4-12585	S-DPL-14505 The Data Pool Cleanup Utility shall remove information that tracks granules against the FTP Pull requests that inserted them when these granules are removed from the Data Pool.	Completed
ECS-L4-12586	S-DPL-14510 The Data Pool Cleanup Utility shall remove the links and directories that were created for FTP Pull orders, when these orders are expired.	Completed
ECS-L4-12587	S-DPL-14512 The Data Pool Cleanup Utility shall remove the browse granules that are in the Data Pool for order-only purposes when they are no longer referenced by a distribution request that is not active (i.e., not in a terminal state), or for FTP Push request that is not yet expired.	Completed

ID	Title	Status
ECS-L4-12590	S-DPL-14525 The Data Pool Cleanup Service shall be able to remove granules at an average rate of at least 15,000 granules per hour concurrent with normal Data Pool insert activity. [NOTE: verification is part of WL S4 01]	Completed
ECS-L4-12591	S-DPL-14530 The Data Pool Cleanup Service shall be able to remove at least 90,000 granules per day. [NOTE: verification is part of WL S4 01]	Completed
ECS-L4-12592	S-DPL-14535 The Data Pool Validation Function shall ignore order-only granules.	Completed
ECS-L4-12593	S-DPL-15010 The Data Pool Cleanup Utility shall include those granules in the Data Pool cleanup that are in the list of deleted or re-versioned granules maintained by the SDSRV CI and also reside in the Data Pool, unless the cleanup run obtains the list of granules to be deleted from an input file.	Completed
ECS-L4-12594	S-DPL-15020 The Data Pool Cleanup Utility shall provide a command line option to only include the granules in the SDSRV list of deleted or re-versioned granules in the cleanup.	Completed
ECS-L4-12595	S-DPL-15030 The Data Pool Cleanup Utility shall not process granules in the SDSRV list of deleted or re-versioned granules in its cleanup run again that were processed before by a cleanup run that completed successfully.	Completed
ECS-L4-12596	S-DPL-15040 The Data Pool Cleanup Utility shall write to the log a. The granule ID, short name, and version ID of each granule found in the SDSRV list of deleted or re-versioned granules that has been removed from the Data Pool b. The total number of those granules that were removed	Completed
ECS-L4-12597	S-DPL-15050 The Data Pool Cleanup Utility shall be able to cleanup the granules that are in the Data Pool and the SDSRV list of deleted or re-versioned granules table at the same rate as other granules; and shall not spend more than 1 minute in evaluating the ECS deleted granules table for every 5,000 granules it contains.	Completed
ECS-L4-12598	S-DPL-15060 The Data Pool Cleanup Utility shall be able to accept as input, the output of the SDSVR Granule Deletion Bulk Search Utility. (Note: The Data Pool Cleanup utility will cleanup any granules which are listed in that input and also reside in the Data Pool).	Completed
ECS-L4-12599	S-DPL-15080 The Data Pool Cleanup Utility shall skip the processing of granules it was requested to cleanup but cannot find in the Data Pool.	Completed
ECS-L4-12600	S-DPL-15090 The Data Pool Cleanup Utility shall log skipped granules and the reason for skipping, except for granules that were deleted in ECS and skipped because they do not reside in the Data Pool.	Completed
ECS-L4-12601	S-DPL-16010 The Data Pool Ingest GUI shall allow multiple operators to monitor and manage Data Pool ingest concurrently from different workstations.	Completed
ECS-L4-12602	S-DPL-16020 The Data Pool Ingest Service shall support concurrent operation in multiple modes on the same and different hosts.	Completed
ECS-L4-12603	S-DPL-16030 The Data Pool Ingest GUI shall support monitoring and managing concurrent Data Pool ingest in multiple modes on the same and different workstations. [NOTE: However, a single instance of the GUI will support one and only one mode.]	Completed
ECS-L4-12604	S-DPL-16040 The Data Pool Ingest GUI shall display the mode in which it is operating.	Completed
ECS-L4-12605	S-DPL-16050 The Data Pool Ingest GUI shall be compatible with the EMD baseline versions of web browsers and operating systems in accordance with Technical Document 910-TDA-042-Rev01, EMD Browsers Baseline.	Completed

ID	Title	Status
ECS-L4-12606	S-DPL-16060 It must be possible to protect Data Pool Ingest GUI against external access via appropriate configuration of the ECS firewall.	Completed
ECS-L4-12607	S-DPL-16070 The Data Pool Ingest GUI shall permit authorized operators ('security admin' operators) to define the authorizations for each operator that shall apply when that operator uses the Data Pool Ingest GUI.	Completed
ECS-L4-12608	S-DPL-16080 The Data Pool Ingest GUI shall support at a minimum, an authorization and login scheme which allows DAAC operations to distinguish between operators that have view only permissions ('view-only' operators), operators that can manage ingest requests, e.g., update them or disposition interventions ('ingest control' operators), those that can alter general configuration parameters ('ingest admin' operators), those that can alter tuning parameters ('ingest tuning' operators), and those that can maintain the security information ('security admin' operators). [NOTE: A map of the GUI capabilities to the authorization levels is part of the PDR materials and reflected in the Level 4 requirements. It is understood that wherever requirements do not mention a specific authorization requirement, any operator is authorized to perform the function, including 'view-only' operators]	Completed
ECS-L4-12609	S-DPL-16085 The Data Pool Ingest Service shall allow a DAAC to disable the authorization scheme, thereby making login optional and giving all operators full rights to view and manage requests and configuration information.	Completed
ECS-L4-12610	S-DPL-16090 The Data Pool CI shall include measures to prevent the access to temporary files located in the Data Pool by external users, e.g., via anonymous ftp.	Completed
ECS-L4-12611	S-DPL-16091 The Data Pool CI shall include measures to prevent the access to granules located in the non-public Data Pool directories by external users, e.g., via anonymous ftp, EDG, or ECHO. [NOTE: This includes making the corresponding directories inaccessible to anonymous ftp, preventing the export of granule URL, and not making these granules visible to Data Pool web users.]	Completed
ECS-L4-12612	S-DPL-16095 The Data Pool Ingest Service shall behave like the current ingest from an external system perspective, in terms of PDR validation, error checking, notifications of errors and successful ingest operations, and so forth. [NOTE: The requirement is not subject to direct integration testing. Rather, the requirements in this document formally capture this behavior and by integration testing those requirements, this requirement is tested indirectly. However, when there is a conflict between backwards compatible behavior at the external interface and the stated requirements, the former overrules any requirements and the offending requirement will need to be updated.]	Completed
ECS-L4-12613	S-DPL-16100 The Data Pool CI shall maintain configuration information, e.g., about data providers, that is also applicable to the INGEST CI such that changes made using the INGEST GUI or the DPL Ingest GUI can be used by both CI.	Completed

ID	Title	Status
ECS-L4-12614	S-DPL-16110 The Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to configure (i.e., enter and edit) data providers for Data Pool Ingest, including the following information: a. provider name, b. whether the provider must supply a checksum with each science file, c. the percentage of files from that provider whose checksum must be verified during ingest as an integer number between 0 and 100, d. a valid priority to be assigned to an ingest request from that provider by default, e. a valid notification method to be used to notify that provider of ingest errors and completed ingest operations, f. user name and password needed to perform polling and retrieve the files that need to be ingested, if access is via FTP or scp, g. whether to use active or passive mode in case ftp is used, or scp type and cipher in case of scp usage. [NOTE: It will not be possible to mix ftp/local copy with scp for a single provider. For example, if a provider is configured to use scp, it is assumed that polling and file transfers will use scp and that notifications will use scp or e-mail.] h. the maximum number of granules that may be active for the provider at the same time and the maximum amount of data these granules may contain [NOTE: these parameters match the corresponding provider thresholds, except that the provider threshold for the number of requests was replaced by one for the number of granules.]	Completed
ECS-L4-12615	S-DPL-16120 The Data Pool Ingest GUI shall not permit operators to enable a data provider for Data Pool ingest if the ingest type for which the provider is configured is incompatible with Data Pool ingest requirements (e.g., the provider uses polling without PDR).	Completed
ECS-L4-12616	S-DPL-16130 The Data Pool Ingest Service shall support a priority range from 0 to 255.	Completed
ECS-L4-12617	S-DPL-16140 The Data Pool Ingest Service shall provide a mapping of existing ECS priorities to numerical priorities, compatible with the mapping used by the Order Management Service.	Completed
ECS-L4-12619	S-DPL-16160 The Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to configure (i.e., enter and edit) for a provider that uses FTP notification, the related FTP information, i.e., either a reference to a previously defined FTP host or by now defining the FTP host parameters as per S-DPL-16260, the directory into which to place the notification, and the login information.	Completed
ECS-L4-12620	S-DPL-16170 The Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to configure (i.e., enter and edit) for a provider that uses e-mail notification, the e-mail address to which notifications shall be sent.	Completed
ECS-L4-12621	S-DPL-16180 The Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to configure (i.e., enter and edit) for a provider that uses secure copy notification, the related scp information, i.e., scp host, directory, and login information. [NOTE: scp type and cipher are defined only once per provider and their entry is covered in S-DPL-16110.].	Completed
ECS-L4-12622	S-DPL-16190 The Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to edit the information associated with a data provider.	Completed
ECS-L4-12623	S-DPL-16200 The Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to remove a data provider provided that the provider is no longer referenced by other configuration information (i.e., polling locations) nor by ingest requests or notifications that are not in a terminal state.	Completed

ID	Title	Status
ECS-L4-12624	S-DPL-16210 The Data Pool Ingest GUI shall prompt operators for confirmation before removing providers.	Completed
ECS-L4-12625	S-DPL-16220 The Data Pool Ingest GUI shall permit operators to list data providers and display the configuration information associated with them.	Completed
ECS-L4-12627	S-DPL-16240 The Data Pool Ingest GUI shall reject the definition of a duplicate polling location, i.e., polling location that uses the same name or the same host and directory as an existing one, including configuring the same host and directory for more than one provider.	Completed
ECS-L4-12628	S-DPL-16242 The Data Pool Ingest GUI shall prompt the operator to confirm any configuration definitions and changes for providers and polling locations before saving them.	Completed
ECS-L4-12629	S-DPL-16250 The Data Pool Ingest Service shall support the following polling methods: a. Accessing a remote polling location via FTP or scp, b. Accessing disk storage accessible locally or via nfs via a Unix copy operation.	Completed
ECS-L4-12630	S-DPL-16255 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the following set of Data Pool Ingest tuning configuration parameters for access to local hosts for polling and data transfer: a. the maximum number of concurrent file transfers involving local hosts (excluding polling and notifications), b. whether the local polling, file transfer and transfer of notifications will be timed out, c. if so, parameters used to time out these operations, consisting of the minimum expected throughput (in MB/second) plus an additional wait time in seconds, to be used to identify stuck operations [NOTE: That is, an operation is considered timed out if its duration exceeds (file size/expected throughput) + wait time], d. Whether local polling and file and notification transfers are subject to automated retry when suspended, and if so, the time interval (in minutes) between automatic retries.	Completed
ECS-L4-12637	S-DPL-16290 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to configure (i.e., enter and edit) for each host accessed by the Data Pool Ingest Service via secure copy the following set of scp host parameters: a. a label used by Data Pool Ingest GUI to identify the host, b. host name or ip address	Completed
ECS-L4-12638	S-DPL-16293 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) for each host accessed by the Data Pool Ingest Service via secure copy the following set of scp tuning parameters: a. the maximum number of concurrent scp operations allowed for that host, b. whether the scp operations for the host will be timed out, c. if so, parameters used to time out scp transfers, consisting of the minimum expected throughput (in MB/second) plus an additional wait time in seconds, to be used to identify stuck scp operations. NOTE: That is, a scp transfer is considered timed out if its duration exceeds (file size/expected throughput) + wait time.] d. Whether the host is subject to automated retry when suspended, and if so, the time interval (in minutes) between automatic retries.	Completed
ECS-L4-12639	S-DPL-16295 The Data Pool Ingest GUI shall reject the definition of a duplicate scp host, i.e., a host that uses the same label as another host or the same scp host name or ip address as an existing scp host.	Completed
ECS-L4-12640	S-DPL-16297 The Data Pool Ingest GUI shall prompt the operator to confirm any configuration definitions and changes for scp hosts.	Completed

ID	Title	Status
ECS-L4-12641	S-DPL-16300 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) a set of default values for scp tuning parameters to be used for scp hosts for which no host parameters were explicitly configured.	Completed
ECS-L4-12642	S-DPL-16310 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) the maximum number of concurrent scp operations that may be in progress for ingest purposes.	Completed
ECS-L4-12643	S-DPL-16320 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to edit the information associated with polling locations for data providers.	Completed
ECS-L4-12644	S-DPL-16330 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to edit the ftp host parameters associated with FTP hosts.	Completed
ECS-L4-12645	S-DPL-16335 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to edit tuning parameters associated with an FTP host.	Completed
ECS-L4-12646	S-DPL-16340 [DESIRABLE - TBD by PDR] The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to edit the scp host parameters associated with scp hosts.	Completed
ECS-L4-12647	S-DPL-16345 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to edit tuning parameters associated with an scp host.	Completed
ECS-L4-12648	S-DPL-16350 The Data Pool Ingest GUI shall prompt operators for confirmation before removing polling locations.	Completed
ECS-L4-12649	S-DPL-16360 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to remove polling locations for data providers if they are no longer referenced by ingest requests or notifications that are not in a terminal state.	Completed
ECS-L4-12651	S-DPL-16380 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to remove scp host definitions if they are no longer referenced by any existing configurations.	Completed
ECS-L4-12653	S-DPL-16385 The Data Pool Ingest Service shall be able to apply changes to provider, polling and host configuration and tuning information within one minute of them having been entered and saved via the DPL Ingest GUI and without requiring rebooting.	Completed
ECS-L4-12654	S-DPL-16390 The Data Pool Ingest Service shall not store passwords in the clear.	Completed
ECS-L4-12655	S-DPL-16400 The Data Pool Ingest Service shall not include passwords in its logs.	Completed
ECS-L4-12656	S-DPL-16410 [TBD by PDR whether this requirement is needed.] The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to specify for each data type to be ingested, the ECS server on which the file transfer operations for granules of this data type shall be executed. [NOTE: The original motive for this decision was to reduce the number of network hops for ingested data. With the ingested data being transferred into the SAN, this is no longer a consideration. Alternative approaches include making this decision automatically to balance workload.] [NOTE: The specification applies only to Data Pool ingest and thus cannot replace the 'IngestFtpKey' in the 'InDataTypeTemplate' table.]	Completed
ECS-L4-12657	S-DPL-16420 [TBD by PDR whether this requirement is needed.] The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to specify for each data type to be ingested, the ECS server on which the checksum for granules of this data type shall be verified. [NOTE: The motive for this requirement is to balance workload across available SAN-connected platforms. Alternative approaches include making this decision automatically to balance workload.]	Completed

ID	Title	Status
ECS-L4-12658	S-DPL-16425 [TBD by PDR whether this requirement is needed.] The Data Pool Ingest GUI shall warn operators if they specify for a data type the same ECS host for checksumming as for file transfer operations. [NOTE: Today, checksum verification is performed by re-reading the file from AMASS cache; with Data Pool ingest, checksum verification will re-read the file from the Data Pool file system. It is, therefore, desirable, to perform checksum verification on a different platform than the one used to transfer the granule into the SAN, to avoid reading the file from the file system cache rather than the file system itself.]	Completed
ECS-L4-12659	S-DPL-16430 [TBD by PDR whether this requirement is needed.] The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to specify for each data type to be ingested, the ECS server on which the granules of this data type shall be compressed. [NOTE: The motive for this decision was to balance workload across available SAN-connected platforms. Alternative approaches include making this decision automatically to balance workload.]	Completed
ECS-L4-12660	S-DPL-16440 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to configure (i.e., enter and edit) for each ECS data type (i.e., ESDT and version) other than Browse, QA and PH: a. whether its granules shall be archived in ECS during ingest (the default), or b. not at all. [NOTE: Whether Browse, QA, and PH granules are archived depends on whether the associated science granules are archived.]	Completed
ECS-L4-12661	S-DPL-16450 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to configure (i.e., enter and edit) for each data type other than Browse, QA, and PH that is enabled for Data Pool insert (i.e., ESDT and version): a. whether its granules shall be published in the public Data Pool following successful ingest or not, [NOTE: Whether Browse granules are published depends on whether the associated science granules are published, as per current Data Pool requirements. Note that currently, only associated Browse granules, but not QA and PH granules are published in the Data Pool. If this is changed via NCR, the NCR change must extend to Data Pool Ingest.] b. their default retention time and priority if configured to be published, c. a minimum retention time in the non-public Data Pool area for granules that are not published, plus a default value to be used if no explicit retention has been specified for a data type. [NOTE: Granules in the non-public area are eligible for cleanup when they complete ingest. The DAAC can elect to keep granules in the Data Pool for a minimum amount of time after ingest completed that is configurable by collection and applies even if the granules are hidden, i.e., are not inserted into the public Data Pool, to support ordering, e.g., by subscriptions.]	Completed
ECS-L4-12662	S-DPL-16452 The Data Pool Ingest GUI shall permit authorized ('ingest admin') operators to update the Data Pool ingest configuration parameters for a data type.	Completed
ECS-L4-12663	S-DPL-16454 The Data Pool Ingest GUI shall permit operators to list the data types for which ingest configuration parameters have been entered and view their configured parameters.	Completed
ECS-L4-12664	S-DPL-16456 The Data Pool Ingest GUI shall offer a method that permits operators to quickly select or scan for a subset of existing Data Pool collections in order to enter or view the related Data Pool ingest configuration parameters without having to enter the full ESDT name and version.	Completed

ID	Title	Status
ECS-L4-12665	S-DPL-16458 The Data Pool Ingest Service shall be able to apply changes to the Data Pool ingest parameters of data types within one minute of them having been entered and saved via the DPL Ingest GUI and without requiring rebooting.	Completed
ECS-L4-12666	S-DPL-16460 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the tuning configuration parameters for the Data Pool Ingest Service, to include: a. the maximum number of concurrent CPU-intensive operations such as checksumming, for each ECS host on which such operations are being executed by the Data Pool Ingest Service, b. parameters to calculate a time limit for checksumming operations for each host on which such operations are being executed by the Data Pool Ingest Service (Note that the time limits may need to be configured by checksum type.) c. the maximum number of concurrent file transfers that may be executed on an ECS Service host, by host (to exclude polling and PDRD/PAN notifications) [NOTE: The sum of these limits represents the overall maximum number of concurrent file transfers], and whether the host is enabled to perform scp transfers, d. the maximum number of granules that may be active at the same time and the maximum amount of data these granules may contain [NOTE: the parameters correspond to the totals of the corresponding InGran server thresholds.] e. the maximum number of concurrent archive write operations that may be executed on an ECS Service Host, by host [NOTE: The sum of these limits represents the overall maximum number of concurrent archive write operations], f. parameters to calculate a time limit for archive write operations before assuming that they are hung, consisting of a minimum expected throughput and a time constant reflecting the maximum expected fixed overhead, separate for each ECS Service Host, g. whether to continue to activate ingest requests and granules that require an archive that is currently suspended by the operator or due to an alert. [NOTE: In this case, the affected granules will be processed up to the point where they require the archive, and then they will accumulate in the archiving queue for the suspended archive, to be dispatched automatically after the archive was resumed.] [NOTE: DPL Insert use of ECS Service Hosts will be configured via the same screen – see Ticket DP 72 01.]	Completed
ECS-L4-12667	S-DPL-16465 The Data Pool Ingest Service shall be able to apply changes to the Data Pool Ingest tuning configuration parameters within one minute of them having been entered and saved via the DPL Ingest GUI and without requiring rebooting. [NOTE: This applies to S-DPL-16255 as well as S-DPL-16460.]	Completed
ECS-L4-12668	S-DPL-16470 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) the tuning configuration parameters for the Data Pool Insert Service, to include the maximum number of granules that the Data Pool Ingest Service will publish in the Data Pool in parallel. [NOTE: This requirement intends to cover inventory tables, data warehouse tables, and spatial tables. This is not intended to cover trivial transactions nor transactions initiated by the GUI.]	Completed
ECS-L4-12669	S-DPL-16475 The Data Pool Ingest Service shall be able to apply changes to the Data Pool Insert tuning configuration parameters within one minute of them having been entered and saved via the DPL Ingest GUI and without requiring rebooting	Completed

ID	Title	Status
ECS-L4-12670	S-DPL-16480 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) the general retry configuration parameters, that is, the default number of retries and default retry interval for retrievable errors.	Completed
ECS-L4-12671	S-DPL-16482 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) the following alert related configuration parameters: a. number of consecutive errors and time-outs that will trigger an alert, to be applied to attempts to transfer PDR files, b. number of consecutive file transfer errors for different files that will trigger an alert (to include PAN and PDRD files and time-outs), c. number of consecutive file system access errors for the same file system but for different granules or files that will trigger an alert for a file system, d. number of errors or time-outs returned by the SDSRV metadata validation or insert service consecutively for different granules or files that will trigger an alert for the SDSRV services, e. number of consecutive archiving or checksumming service request time outs for the same service (i.e., on the same host) but different files or granules that will raise an alert for a service, f. retry interval for attempts to clear an alert condition, to be used globally for all situations for which there are no specific retry intervals, g. DELETED, h. a cache warning threshold in terms of percent of consumed cache space which when reached will trigger an operator alert, individually by archive file system, i. a cache full threshold in terms of percent of consumed cache space which is higher than the cache warning threshold and when reached will trigger an operator alert and cause archiving for that archive to be suspended, individually by archive file system, j. a low watermark threshold in terms of percent of consumed cache space which when underrun will clear the cache warning alert referenced in h., individually by archive file system, k. a threshold in terms of percent of consumed cache space which when underrun will clear the cache full alert referenced in i, individually by archive file system, l. the number of consecutive errors not attributed to other resources (such as ftp or scp hosts or polling locations) that will raise an alert for a service on an ECS host when returned by the same service on the same host for different granules or files (an example are SAN file system access errors that are not attributed to the file system being down, which would eventually suspend all services on the host experiencing the problem). [NOTE: Entering values larger than 100% for the alert thresholds is permitted and disables that alert.]	Completed
ECS-L4-12672	S-DPL-16490 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the default number of retries and a default retry interval for UR translation errors.	Completed
ECS-L4-12673	S-DPL-16500 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the default number of retries for checksum verification errors.	Completed
ECS-L4-12674	S-DPL-16515 The Data Pool Ingest Service shall be able to apply changes to retry and alert related configuration parameters within one minute of them having been entered and saved via the DPL Ingest GUI and without requiring rebooting.	Completed
ECS-L4-12675	S-DPL-16540 The Data Pool Ingest GUI shall permit authorized ('ingest admin' and 'ingest tuning') operators to configure (i.e., enter and edit) the time interval (in minutes) that specifies when completed requests and closed interventions will be removed from the active tables.	Completed

ID	Title	Status
ECS-L4-12676	S-DPL-16542 The Data Pool Ingest Service shall allow authorized ('ingest admin' and 'ingest tuning') operators to configure (i.e., enter and edit) the retention time (in months) for keeping historic information for requests and system status and throughput (such as alerts and throughput statistics).	Completed
ECS-L4-12677	S-DPL-16545 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the time interval at which free space information for Data Pool file systems shall be obtained, the percent full condition that is to trigger an alert, and a smaller value than the percent full condition that is to clear the alert.	Completed
ECS-L4-12678	S-DPL-16546 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) the time interval for aggregating and saving throughput statistics.	Completed
ECS-L4-12679	S-DPL-16547 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) the time interval which determines the frequency at which archive cache information will be obtained.	Completed
ECS-L4-12680	S-DPL-16550 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the Data Pool configuration parameters currently maintained via the DPM GUI. [NOTE: The intent is to allow operators to view and maintain these parameters via both GUIs.]	Completed
ECS-L4-12681	S-DPL-16560 The Data Pool Ingest GUI shall permit all operators to view all Data Pool Ingest configuration parameters that can be maintained via the Data Pool Ingest GUI.	Completed
ECS-L4-12682	S-DPL-16570 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the available checksum types and related algorithms, as well as the default checksum type that will be used to calculate checksums for files for which no checksum was transmitted by the provider.	Completed
ECS-L4-12683	S-DPL-16575 The Data Pool Ingest GUI shall permit all operators to view the available checksum types and related algorithms.	Completed
ECS-L4-12684	S-DPL-16580 The Data Pool Ingest GUI shall permit authorized ('ingest tuning' and 'ingest admin') operators to configure (i.e., enter and edit) the ports for ECS services that are invoked via a host agent (e.g., QuickServer), by host on which the service is available.	Completed
ECS-L4-12685	S-DPL-16585 The Data Pool Ingest GUI shall permit all operators to view the configured ports for ECS services, by host on which the service is available.	Completed
ECS-L4-12686	S-DPL-16600 The Data Pool Ingest GUI shall permit operators to list ingest requests in the active database tables, i.e., not yet archived ingest requests that are or were managed by the Data Pool Ingest Service (i.e., it shall not display active ingest requests managed by the INGST CI). [NOTE: Requests that are managed by the INGST CI cannot be canceled, resumed, etc by the Data Pool Ingest GUI.]	Completed

ID	Title	Status
ECS-L4-12687	S-DPL-16610 The Data Pool Ingest GUI shall display the following information in the list of not yet archived ingest requests: a. request ID, b. data provider, c. request status and if the status reflects an error in at least one of its granules, the type of the error, indicative of the error cause [for classification of errors see S-DPL-17245], and indicating the existence of multiple errors when a single error type cannot be assigned, d. request priority, e. the last time the request status was updated, f. number of granules in the request, and completion status (e.g., number of granules completed processing), g. request size (i.e., data volume). [NOTE: The type of error reflects the error types of the suspended or failed granules. A request can thus have several error types.]	Completed
ECS-L4-12688	S-DPL-16620 The Data Pool Ingest GUI shall permit operators to sort a list of not yet archived ingest requests by a. request ID (descending), b. data provider (ascending), c. request status (ascending), d. time the request was queued (ascending or descending), e. time of last status change (ascending or descending).	Completed
ECS-L4-12689	S-DPL-16630 The Data Pool Ingest GUI shall permit operators to filter a list of not yet archived ingest requests by, a. request ID, b. data provider, c. one, several, or all request states, d. type of error, e. time range the request was queued (using the last hour as the default), f. time range of the last status update, g. one or several target archives, h. any combination of a. or (b. and (c. or d.) and (e. or f) and g). [NOTE: If the request has several suspended or failed granules, there may be several error types associated with the request. The request must be included in the filtered list if any of its failed or suspended granules matches the error type specified in the filter criterion. A request may contain granules for more than one archive; if so, the request qualifies under the archive filter if any of its granules are for that archive.]	Completed
ECS-L4-12690	S-DPL-16635 The Data Pool Ingest GUI shall allow an operator to save GUI filter settings across sessions that are tied to the specific login if GUI security is enabled. [NOTE: It is acceptable to save the last filter settings this particular operator used automatically, or alternatively, give the operator the capability to save filter settings explicitly.]	Completed
ECS-L4-12691	S-DPL-16636 The Data Pool Ingest GUI shall allow operators to save a single set of default GUI filter settings to apply to all GUI sessions if GUI security is not enabled. [NOTE: It is not acceptable to save automatically the last filter settings since this would be confusing if more than one operator is active at a time. In this particular case, the filter settings shall only be saved if the operator requests that explicitly.]	Completed
ECS-L4-12692	S-DPL-16640 The Data Pool Ingest GUI shall permit operators to manually refresh a list of not yet archived ingest requests, applying the currently selected sort and filter criteria.	Completed
ECS-L4-12693	S-DPL-16650 The Data Pool Ingest GUI shall permit operators to automatically refresh a list of not yet archived ingest requests at an operator selected refresh interval of no less than 20 seconds, applying the currently selected sort and filter criteria.	Completed
ECS-L4-12694	S-DPL-16660 The Data Pool Ingest GUI shall permit operators to select any ingest request in a not yet archived ingest request list for displaying request details.	Completed

ID	Title	Status
ECS-L4-12695	S-DPL-16670 The Data Pool Ingest GUI shall display all information associated with a request when displaying the details about a not yet archived ingest request, to include: a. request ID, b. DELETED, c. request status and time of last status change, d. request priority, e. data provider, f. mission, g. time the request was queued, h. time the request was activated, i. time the request completed (if the request is complete), j. expiration time and whether the request is considered expired, k. DELETED, l. data volume, number of granules and number of files, m. completion status, in terms of number of granules transferred, preprocessed, archived and inserted, n. PDR file and path name, o. a history of the request status changes, p. annotations, q. polling location from which the request was obtained. [NOTE: The list of status changes can take the form of a list, ordered by time, showing the time of status change and the new status.]	Completed
ECS-L4-12696	S-DPL-16680 The Data Pool Ingest GUI shall permit operators to display any currently open intervention for a not yet archived ingest request when viewing request details. [NOTE: There is at most one open intervention for a request.]	Completed
ECS-L4-12697	S-DPL-16690 The Data Pool Ingest GUI shall display the list of the granules associated with a not yet archived ingest request when displaying the request details, by default with suspended granules first and then in ascending order of their position in the PDR, and include the following information in the list: a. granule identification (i.e., sequence number in the PDR), b. data type name and version, c. granule status and if Failed or Suspended, the type of the error [for classification of errors see S-DPL-17245], d. time of last status change, e. granule size.	Completed
ECS-L4-12698	S-DPL-16700 The Data Pool Ingest GUI shall allow an operator to sort the list of the granules associated with a not yet archived ingest request by state in sequence or reverse sequence of progress as indicated by granule status, and with suspended granules shown first and failed granules shown last, with the default being to show suspended granules first, failed granule last, and the remaining granules ordered in sequence of progress (i.e., the completed ones at the end). [NOTE: See also DAAC feedback on RTR action #89.]	Completed
ECS-L4-12699	S-DPL-16702 The Data Pool Ingest GUI shall permit an operator to select any granule in the granule list of a not yet archived ingest request and display detailed granule information, to include: a. number of files, b. list of the path names of the associated files and their file types as per PDR, c. if the granule is suspended or failed, detailed error information when available, such as the specific link in the linkage file that failed or the error information returned by the SDSRV or the error details returned by the Data Pool Insert action.	Completed
ECS-L4-12700	S-DPL-16703 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to select in the granule list of a not yet archived ingest request that is not in a terminal state one or several or all granules and request that they be cancelled.	Completed
ECS-L4-12701	S-DPL-16704 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to select in the granule list of a not yet archived ingest request that is not in a terminal state one or several or all granules that are currently suspended (e.g., due to some error) and request that they be retried (i.e., resumed), giving the operator the option to request re-transferring the granule or retrying the last (i.e. failed) ingest step.	Completed

ID	Title	Status
ECS-L4-12702	S-DPL-16706 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to select in the granule list of a not yet archived ingest request that is not in a terminal state one or several or all granules that are currently suspended (e.g., due to some error) and request that they be failed non-retriably (i.e., such that they will be considered failed by the operator and will not cause a subsequent operator intervention).	Completed
ECS-L4-12703	S-DPL-16710 The Data Pool Ingest GUI shall permit authorized ('ingest control') operators to select one, several, or all Data Pool ingest requests in a list of not yet archived ingest requests for cancellation unless they are currently in a terminal state, and provide indication when they have been cancelled (e.g., via changes in the request status).	Completed
ECS-L4-12704	S-DPL-16720 The Data Pool Ingest GUI shall permit authorized ('ingest control') operators to select one, several, or all Data Pool ingest requests in a list of not yet archived ingest requests for suspension unless they are currently suspended or in operator intervention, or in a terminal state, and provide indication when they have been suspended (e.g., via changes in the request status).	Completed
ECS-L4-12705	S-DPL-16730 The Data Pool Ingest GUI shall permit authorized ('ingest control') operators to select one, several, or all Data Pool ingest requests in a list of not yet archived ingest requests for resumption if they are currently suspended, and provide indication when they have been resumed (e.g., via changes in the request status).	Completed
ECS-L4-12706	S-DPL-16740 The Data Pool Ingest GUI shall permit authorized ('ingest control') operators to select one or several Data Pool ingest requests in a request list to update their priority, unless they are in a terminal state, and provide indication when their priority has been changed (e.g., via displaying the updated priority).	Completed
ECS-L4-12707	S-DPL-16745 The Data Pool Ingest GUI shall prompt an operator who is cancelling or suspending an ingest request or changing its priority for the reason for the request modification.	Completed
ECS-L4-12708	S-DPL-16750 The Data Pool Ingest GUI shall permit operators to list historic (i.e., archived) ingest requests, regardless of whether they were processed by the Data Pool Ingest Service or the INGST CI.	Completed
ECS-L4-12709	S-DPL-16760 The Data Pool Ingest GUI shall display the following information in the list of historic ingest requests: a. request ID, b. data provider, c. request status and if the status reflects an error in at least one of its granules, the type of the error [for classification of errors see S-DPL-17245], and indicating the existence of multiple errors when a single error type cannot be assigned, d. request priority, e. time the request was queued, f. time the request started processing, g. time the request completed, h. number of granules in the request, and completion status (e.g., number of granules completed processing, or data volume completed processing, or percent complete), i. request size (i.e., data volume), j. whether the request was processed by Data Pool Ingest request or by the INGST CI. [NOTE: The historic request list does not simply show the time of last status change, but the time of the three key status changes.]	Completed
ECS-L4-12710	S-DPL-16770 The Data Pool Ingest GUI shall permit operators to sort a list of historic ingest requests by a. request ID (ascending), b. data provider (ascending), c. request status (ascending), d. time the request was queued (ascending or descending), e. time processing for the request was started (ascending or descending), f. time the request was completed (ascending or descending).	Completed

ID	Title	Status
ECS-L4-12711	S-DPL-16780 The Data Pool Ingest GUI shall permit operators to filter a list of historic ingest requests by a. request ID, b. data provider, c. type of data (i.e., ESDT) contained in the request , d. one, several, or any request states, e. time range the request was started (using the last 24 hours as the default), f. time range the request was completed, g. any combination of b., c., and d., optionally including one of e. or f. [NOTE: That is the operator can include in the filter at most one of the request times, but any combination of request states.]	Completed
ECS-L4-12712	S-DPL-16785 The Data Pool Ingest GUI shall permit operators to refresh the current list of historic ingest requests manually. [NOTE: Automatic refresh is not provided since this is not intended as a monitoring screen.]	Completed
ECS-L4-12713	S-DPL-16790 The Data Pool Ingest GUI shall permit operators to print the current list of historic ingest requests. [NOTE: This can be implemented via the print facility of the web browser, provided that the GUI provides the list to the web browser in a single screen.]	Completed
ECS-L4-12714	S-DPL-16800 The Data Pool Ingest GUI shall permit operators to save the current list of historic ingest requests to a file. [NOTE: This can be implemented via the save facility of the web browser, provided that the GUI provides the list to the web browser in a single screen.]	Completed
ECS-L4-12715	S-DPL-16810 The Data Pool Ingest GUI shall permit operators to select any ingest request in a historic ingest request list for displaying request details.	Completed
ECS-L4-12716	S-DPL-16820 The Data Pool Ingest GUI shall display the following information associated with a historic ingest request when displaying the request details: a. request ID, b. whether the request was ingested by the Data Pool Ingest Service or the INGST CI, c. DELETED, d. data provider, e. time the request was queued, f. processing start and end time, g. request priority, h. final request status, i. all request timings that are kept as per S-DPL-16890, with timings that are only applicable to Data Pool ingest requests being displayed as n/a for INGST CI requests, j. data volume, k. number of granules and number of files, l. number of successful granules, m. the history of status changes (only applicable to Data Pool ingest requests), n. annotations. [NOTE: With the exception of the status history, this represents information saved in the historic ingest request table. The list of status changes can take the form of a list, ordered by time, showing the time of status change and the new status.]	Completed
ECS-L4-12717	S-DPL-16830 The Data Pool Ingest GUI shall display the list of the granules associated with an historic ingest request when displaying the request details, sorted by default in the order in which they appeared in the PDR, and include the following information in this list: a. granule identification (e.g., sequence number in the PDR), b. ECS granule ID, if applicable, c. Data Pool granule ID, d. data type name and version, e. granule status, f. granule size and file count, g. processing start and end time, h. retry count, i. total processing time, j. DELETED, k. DELETED, l. DELETED, m. time to checksum.	Completed
ECS-L4-12718	S-DPL-16840 The Data Pool Ingest GUI shall allow operators to display an ingest request history summary report that contains information compatible with the current ingest request history summary report displayed by the INGST GUI, but adds the capability to differentiate between data ingested via Data Pool Ingest versus the INGST CI.	Completed

ID	Title	Status
ECS-L4-12719	S-DPL-16850 The Data Pool Ingest GUI shall allow operators to display an ingest request performance report that contains information compatible with the current ingest request performance report displayed by the INGST GUI, but adds the capability to differentiate between data ingested via Data Pool Ingest versus the INGST CI.	Completed
ECS-L4-12720	S-DPL-16860 The Data Pool Ingest GUI shall allow operators to display an ingest granule performance report that contains information compatible with the current ingest granule performance report displayed by the INGST GUI, but adds the capability to differentiate between data ingested via Data Pool Ingest versus the INGST CI.	Completed
ECS-L4-12721	S-DPL-16870 The Data Pool Ingest Service shall record ingest throughput in the database, as measured in terms of the number of granules and data volume per configured time interval (see S-DPL-16546): a. by provider b. by FTP or scp host	Completed
ECS-L4-12722	S-DPL-16880 The Data Pool Ingest Service shall record information about each ingest request it processes in an ingest historic request table that is backwards compatible with the INGST table 'InRequestSummaryHeader' modified as indicated where the meaning of a field is different in Data Pool Ingest, to include the following: a. RequestID, b. DANFileName, c. ExternalDataProvider, d. IngestType, e. Mission, f. ProcessingStartDateTime, g. ProcessingEndDateTime, h. RequestPriority, i. RequestStateKey, j. TimeToXfer, k. TimeToPreprocess, l. TimeToArchive m. TotalDataVolume, n. TotalFileCount, o. TotalGranuleCount, p. TotalSuccessfulGranules, q. (New) ProcessedBy: to indicate when a request was processed by DPL Ingest, r. (New) TimeToInsert: the Data Pool insert time, s. (New) TimeToChecksum, t. DELETED, u. DELETED, v. DELETED.	Completed
ECS-L4-12723	S-DPL-16890 The Data Pool Ingest Service shall record information about each granule it processes in an ingest historic granule data table that is backwards compatible with the INGST table 'InRequestSummaryData' modified as indicated where the meaning of a field is different in Data Pool Ingest,: a. RequestID, b. DataGranuleID, c. DataType, d. DataGranuleVolume, e. DataGranuleState, f. NodeName, g. ProcessingEndDateTime, h. ProcessingStartDateTime, i. RetryCount, j. TotalFileCount, k. TimeToArchive, l. TimeToPreprocess, m. TimeToXfer, n. (New) TimeToInsert, o. (New) TimeToChecksum, p. DELETED, q. DELETED, r. DELETED.	Completed
ECS-L4-12724	S-DPL-16900 The Data Pool Ingest GUI shall allow an operator to display the current status of Data Pool Ingest as part of a Data Pool Ingest Service status page, to include: a. the number of ingest requests currently queued and currently in processing, in total and by provider, b. the number of granules currently queued and currently in processing, in total and by provider, c. the amount of data currently queued and currently in processing, in total and by provider. d. whether each ingest server function (i.e., polling, processing, and notification) is currently active or not. [NOTE: The ingest status page is intended to provide a summary of the current ingest status to the extent that the GUI design does not already include more detailed status information as part of that page.]	Completed
ECS-L4-12726	S-DPL-16920 The Data Pool Ingest GUI shall display as part of the current status of Data Pool Ingest on the Data Pool ingest status page, whether Data Pool ingest is currently active or suspended. [NOTE: The ingest status page is intended to provide a summary of the current ingest status to the extent that the GUI design does not already include more detailed status information as part of that page.]	Completed

ID	Title	Status
ECS-L4-12727	S-DPL-16930 The Data Pool Ingest GUI shall display as part of the current status of Data Pool Ingest on the Data Pool Ingest Service status page, whether sending e-mail to data providers is currently active or suspended. [NOTE: The ingest status page is intended to provide a summary of the current ingest status to the extent that the GUI design does not already include more detailed status information as part of that page.]	Completed
ECS-L4-12728	S-DPL-16940 The Data Pool Ingest GUI shall allow an operator to display the current status of the Data Pool file systems, listing them and displaying for each: a. whether it is currently active or suspended, b. the number of granules currently queued and currently in processing for each target Data Pool file system, c. the amount of data currently queued and currently in processing for each target Data Pool file system, d. free space information maintained in operator configurable time intervals, to include the last time the information was updated. [NOTE: Since the lists of DPL file systems and archives are displayed on the same screen, it is desirable to make the contents of the lists consistent. The DPL file system list should include the alert thresholds (like the archive list does).]	Completed
ECS-L4-12729	S-DPL-16950 The Data Pool Ingest GUI shall allow an operator to display the current status of the archives, listing them and displaying for each a. whether it is currently active or suspended, b. the number of granules currently queued and currently in processing for each archive, c. the amount of data currently queued and currently in processing for each archive, d. the percent of consumed cache space and the corresponding alert thresholds. [NOTE: The term 'archive' refers to an archive cache file system.] [NOTE: Since the lists of DPL file systems and archives are displayed on the same screen, it is desirable to make the contents of the lists consistent. The archive list should include the last time the information was updated (like the file system list does).]	Completed
ECS-L4-12730	S-DPL-16960 The Data Pool Ingest GUI shall allow an operator to display the current status of other ECS services used by Data Pool Ingest, listing them and displaying for each whether it is currently active or suspended. [NOTE: Examples of other ECS services include the science data server and checksumming services on a specific host. Note that some ECS services are available on more than one platform, in which case the term 'ECS Service' is understood to refer to an instance of that ECS service on a given platform.]	Completed
ECS-L4-12731	S-DPL-16970 The Data Pool Ingest GUI shall display as part of the Data Pool Ingest Service status page, whether any Data Pool file systems, archives, and other ECS services are currently suspended. [NOTE: This is intended to provide an aggregate status of these resources if at the top status page level, unless the GUI design includes the status of each file system, archive, and ECS service in this page already.]	Completed
ECS-L4-12732	S-DPL-16980 The Data Pool Ingest GUI shall allow an operator to manually refresh the screen displaying the current status of Data Pool Ingest.	Completed
ECS-L4-12733	S-DPL-16990 The Data Pool Ingest GUI shall permit operators to automatically refresh the screen displaying the current status of Data Pool Ingest at an operator selected refresh interval of no less than 1 minute.	Completed
ECS-L4-12734	S-DPL-17000 The Data Pool Ingest GUI shall allow an operator to manually refresh the screen displaying the current status of the Data Pool file systems.	Completed

ID	Title	Status
ECS-L4-12735	S-DPL-17010 The Data Pool Ingest GUI shall permit operators to automatically refresh the screen displaying the current status of the Data Pool file systems at an operator selected refresh interval of no less than 1 minute.	Completed
ECS-L4-12736	S-DPL-17020 The Data Pool Ingest GUI shall allow an operator to manually refresh the screen displaying the current status of the archives.	Completed
ECS-L4-12737	S-DPL-17030 The Data Pool Ingest GUI shall permit operators to automatically refresh the screen displaying the current status of the archives at an operator selected refresh interval of no less than 1 minute.	Completed
ECS-L4-12738	S-DPL-17035 The Data Pool Ingest GUI shall permit operators to automatically refresh the screen displaying the current status of ECS Services at an operator selected refresh interval of no less than 1 minute.	Completed
ECS-L4-12739	S-DPL-17040 The Data Pool Ingest GUI shall permit authorized ('ingest control' and 'ingest tuning') operators to select one or several polling locations used for Data Pool ingest from the list of polling locations for suspension. [NOTE: Any current polling session is allowed to complete, but no new polling cycle for that location will be started.]	Completed
ECS-L4-12740	S-DPL-17050 The Data Pool Ingest GUI shall permit authorized ('ingest control' and 'ingest tuning') operators to select one or several polling locations used for Data Pool ingest from the list of polling locations for resumption if they are currently suspended.	Completed
ECS-L4-12743	S-DPL-17080 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to select one or several data providers from the list of data providers and suspend them. [NOTE: This suspends polling for all locations for that provider. Ingest requests for that provider will no longer be activated, but currently active requests will be completed, or if they encounter errors, will be processed until they suspend. Suspension of a provider has no impact on file transfers or PAN/PDRD delivery.]	Completed
ECS-L4-12744	S-DPL-17090 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to select one or several data providers from the list of data providers for resumption if they are currently suspended. [NOTE: This resumes polling for all locations for that provider. Ingest requests for that provider will be eligible for activation again.]	Completed
ECS-L4-12745	S-DPL-17091 The Data Pool Ingest GUI shall allow authorized ('ingest control') operators to suspend Data Pool archiving for an archive. [NOTE: Suspending an archive will not affect ingest requests that are already in progress (they will be allowed to complete), but it will prevent the activation of new ingest requests that include granules for that archive. However, the DAAC can alter this ingest behavior via configuration, see S-DPL-1646g. The purpose of suspending an archive is to permit operators to quiesce the operations for an archive, e.g., in preparation for maintenance. To terminate the archiving operations for an archive immediately, the operator would first suspend the archive and then suspend any ingest requests for that archive that are still active.]	Completed
ECS-L4-12746	S-DPL-17092 The Data Pool Ingest GUI shall allow authorized ('ingest control') operators to resume Data Pool archiving for an archive if it is currently suspended.	Completed

ID	Title	Status
ECS-L4-12747	S-DPL-17100 The Data Pool Ingest GUI shall permit authorized ('ingest control' and 'ingest tuning') operators to select one or several Data Pool file systems from the list of Data Pool file systems to suspend their use for Data Pool ingest and archiving. [NOTE: Currently active requests will be allowed to complete, but new requests that require the file system will no longer be activated, unless the operator indicates otherwise, see S-DPL-17112. In accordance with the resolution of RTR action #95, the suspension will be limited to Data Pool Ingest.]	Completed
ECS-L4-12748	S-DPL-17110 The Data Pool Ingest GUI shall permit authorized ('ingest control' and 'ingest tuning') operators to select one or several Data Pool file systems from the list of Data Pool file systems for resumption of Data Pool ingest and archiving if they are currently suspended.	Completed
ECS-L4-12749	S-DPL-17112 The Data Pool Ingest GUI shall allow an authorized ('ingest control') operator to indicate that a Data Pool file system that is currently suspended shall not prevent the activation of requests whose granules require that file system provided that the request also includes granules that do not require that file system (see also S-DPL-18272).	Completed
ECS-L4-12750	S-DPL-17120 The Data Pool Ingest GUI shall permit authorized ('ingest control' and 'ingest tuning') operators to select one or several archives from the list of archives to suspend their use for Data Pool ingest. [NOTE: The term 'archive' refers to a silo / archive file system. Archive suspension will be limited to Data Pool Ingest. Whether the requirement will impact activation of requests by Data Pool Ingest or merely impacts Data Pool archiving is TBD by DDR.]	Completed
ECS-L4-12751	S-DPL-17130 The Data Pool Ingest GUI shall permit authorized ('ingest control' and 'ingest tuning') operators to select one or several archives from the list of archives for resumption if they are currently suspended.	Completed
ECS-L4-12752	S-DPL-17140 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to select one or several ECS services (i.e., hosts that support checksumming or file transfer), or the SDSRV service from the list of services for suspension.	Completed
ECS-L4-12753	S-DPL-17150 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to select one or several ECS services (i.e., hosts that support checksumming or file transfer), or the SDSRV service from the list of services for resumption if they are currently suspended.	Completed
ECS-L4-12754	S-DPL-17160 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to suspend Data Pool ingest processing for new requests. [NOTE: This will cause all further polling to cease and no more requests will be activated. Currently active requests will continue until they are worked off and their provider notifications have been delivered.]	Completed
ECS-L4-12755	S-DPL-17170 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to resume Data Pool ingest processing for new requests if it is currently suspended.	Completed
ECS-L4-12756	S-DPL-17180 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to suspend sending e-mail notifications to data providers.	Completed
ECS-L4-12757	S-DPL-17190 The Data Pool Ingest GUI shall allow an authorized ('ingest control' and 'ingest tuning') operator to resume sending e-mail notifications to data providers if it is currently suspended.	Completed

ID	Title	Status
ECS-L4-12758	S-DPL-17200 The Data Pool Ingest Service shall archive and remove information about active requests on a regular basis, leaving only active request information for the last configured number of minutes in the database (see S-DPL-16540).	Completed
ECS-L4-12759	S-DPL-17215 The Data Pool Ingest Service shall remove closed interventions on a regular basis, leaving only closed interventions for the last configured number of minutes in the database (See S-DPL-16540).	Completed
ECS-L4-12760	S-DPL-17216 The Data Pool Ingest Service shall add the information associated with interventions (e.g., annotations, outcome) to the request annotation when the interventions are closed.	Completed
ECS-L4-12761	S-DPL-17220 The Data Pool Ingest Service shall remove historic information on a regular basis, leaving only requests for the last configured number of months in the database (see S-DPL-16542).	Completed
ECS-L4-12762	S-DPL-17225 The Data Pool Ingest Service shall remove any accumulated system monitoring information (e.g., alerts and throughput information) on a regular basis, leaving only system monitoring information for last configured number of months in the database (See S-DPL-16542).	Completed
ECS-L4-12763	S-DPL-17230 The Data Pool Ingest Service shall remove temporary information (e.g., files) created in support of processing an ingest request when no longer needed, at the latest when the request and provider notification completed.	Completed
ECS-L4-12764	S-DPL-17235 The Data Pool Ingest Service shall request an operator intervention whenever a Data Pool ingest request whose PDR was validated successfully encounters an error, except in those cases explicitly excepted by other requirements or when the error situation generates an operator alert. [NOTE: For an example of an exception, see requirement S-DPL-18050.]	Completed
ECS-L4-12765	S-DPL-17240 The Data Pool Ingest Service shall request an operator intervention for a Data Pool ingest request only after there are no more granules in the request to ingest, i.e., all granules have been either ingested successfully, failed during one of the ingest steps, or were previously failed by the operator.	Completed
ECS-L4-12766	S-DPL-17245 The Data Pool Ingest Service shall identify the granules that failed during ingest processing for a Data Pool ingest request, providing a classification for the failure reason according to the granule error states listed in S-DPL-18210, as well as detailed error information.	Completed
ECS-L4-12767	S-DPL-17250 The Data Pool Ingest GUI shall allow authorized operators ('ingest control' and 'ingest admin') to configure an optional e-mail address to which notifications about operator interventions shall be sent.	Completed
ECS-L4-12768	S-DPL-17255 The Data Pool Ingest Service shall include the following information in the notifications about operator interventions: a. provider, request ID, and nature of the error that caused the intervention in the subject line, b. intervention detail that would be displayed on the intervention detail screen as part of the e-mail body.	Completed
ECS-L4-12769	S-DPL-17260 The Data Pool Ingest GUI shall allow operators to monitor request for operator interventions by the Data Pool Ingest Service such that new interventions can be displayed within 20 seconds of them having been requested by the Data Pool Ingest Service, e.g., by allowing operators to list new and open interventions and allowing the operator to refresh that list manually, as well as via automatic refresh as often as every 20 seconds.	Completed

ID	Title	Status
ECS-L4-12770	S-DPL-17265 The Data Pool Ingest GUI shall show on the screen that operators use to monitor for operator intervention requests, the following information for each intervention: a. time the intervention request was created, b. data provider, c. request identification d. type of the error causing the intervention [for the list of error types see S-DPL-17245.] e. if available, the identification of the operator currently working the intervention f. if available, the time the intervention was acknowledged [NOTE: If a request has several suspended granules, they may have been suspended for different reasons. That is, multiple types of errors may be associated with that intervention.]	Completed
ECS-L4-12771	S-DPL-17270 The Data Pool Ingest GUI shall permit an operator to filter open operator intervention requests by a. data provider, b. type of intervention, c. target ECS archive, d. a combination of all three. [NOTE: The target archive would be only of interest as a filter condition if any of the interventions include granules that were suspended due to archiving errors.]	Completed
ECS-L4-12772	S-DPL-17275 The Data Pool Ingest GUI shall permit an operator to sort open operator intervention requests in ascending or descending order of creation time, with descending order (i.e., latest first) being the default.	Completed
ECS-L4-12773	S-DPL-17280 The Data Pool Ingest GUI shall permit an operator to select an open operator intervention request from the monitoring screen for viewing and disposition.	Completed
ECS-L4-12774	S-DPL-17282 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to select one, several, or all open operator intervention requests from the monitoring screen and resume them.	Completed
ECS-L4-12775	S-DPL-17284 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to select one, several, or all open operator intervention requests from the monitoring screen and cancel them.	Completed
ECS-L4-12776	S-DPL-17290 The Data Pool Ingest GUI shall permit an operator to select an open operator intervention request, acknowledge and annotate it. [NOTE: An intervention is considered acknowledged when it is viewed the first time. Thereafter, the intervention is considered open but not new.] [NOTE: The operator may annotate the intervention, for example, if s/he cannot resolve the problem and wants to leave a note for the next shift.]	Completed
ECS-L4-12777	S-DPL-17295 The Data Pool Ingest GUI shall permit an operator to select an open operator intervention and add an annotation.	Completed
ECS-L4-12778	S-DPL-17300 The Data Pool Ingest GUI shall prefix each operator annotation with a time stamp (date and time) and the operator identification if known.	Completed
ECS-L4-12779	S-DPL-17310 The Data Pool Ingest GUI shall permit an operator to select and view the Data Pool ingest request associated with an operator intervention request, as well as associated provider, polling location, and PDR file path name.	Completed
ECS-L4-12780	S-DPL-17320 The Data Pool Ingest GUI shall permit an operator to list the suspended granules that caused the intervention request. [NOTE: It is OK to list all the granules, however, when viewing an intervention, the granules whose suspension caused the intervention must be shown first.]	Completed
ECS-L4-12781	S-DPL-17330 The Data Pool Ingest GUI shall include the following information in the list of granules displayed when viewing intervention details: a. granule identification (e.g., sequence number in the PDR), b. data type name and version, c. granule status and if Failed or Suspended, the type of the error [for classification of errors see S-DPL-17245], d. granule size.	Completed

ID	Title	Status
ECS-L4-12782	S-DPL-17340 The Data Pool Ingest GUI shall permit an operator to view detailed information about a granule shown as part of the intervention details, to include: a. number of files b. the list of the pathnames associated with the granule and their file types as per PDR c. detailed error information when available, such as the specific link in the linkage file that failed or the error information returned by the SDSRV or the error details returned by the Data Pool Insert action or the specific target archive, location, and error information for granules suspended due to archiving errors.	Completed
ECS-L4-12783	S-DPL-17350 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to select one, several or all of the granules that caused the intervention request and indicate that they should be failed.	Completed
ECS-L4-12784	S-DPL-17360 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to disposition an intervention by requesting that the Data Pool Ingest Service retry processing all granules in a request that have not yet completed ingest nor were indicated as failed by the operator, allowing the operator to choose to resume the granule starting by re-transferring it or merely retrying the last (i.e. failed) ingest step.	Completed
ECS-L4-12785	S-DPL-17370 The Data Pool Ingest GUI shall close an intervention request once the operator has dispositioned it, recording the following information: a. date/time of closure, b. nature of the disposition (i.e., whether the request was resumed or failed), c. if available, the identification of the operator. [NOTE: Closed interventions are no longer displayed in the intervention monitoring screen. Since the outcome of closed intervention is recorded in the request as per S-DPL-17300, closing the intervention will actually cause this information to be included in the annotation that is added to the request.]	Completed
ECS-L4-12786	S-DPL-17375 The Data Pool Ingest GUI shall cause a Product Acceptance Notification (PAN) to be sent to the data provider in accordance with the applicable ICD when the operator closes an intervention failing all remaining granules, i.e., such that no more ingest processing for the request will take place.	Completed
ECS-L4-12787	S-DPL-17380 The Data Pool Ingest GUI shall add an annotation to a request whenever the operator changes an ingest request, e.g., cancels or resumes it, or changes its priority, and record: a. the date/time, b. nature of the status change, c. if available, the identification of the operator, d. an optional annotation (e.g., explaining the reason for the change) if provided by the operator. [NOTE: If there is currently an open intervention for that request, the requirement is to close it and record the resumption or cancellation; otherwise, to record the equivalent of an intervention, but place it immediately into the closed state.]	Completed
ECS-L4-12788	S-DPL-17390 The Data Pool Ingest GUI shall allow an operator to list closed operator interventions and include in that list the status of the related request (i.e., typically, the final request outcome). [NOTE: Since the outcome of closed intervention is recorded in the request as per S-DPL-17300, it is TBD during GUI PDR whether this is still needed.]	Completed
ECS-L4-12789	S-DPL-17400 The Data Pool Ingest GUI shall allow an operator to filter a list of closed operator interventions by creation time period (using today as the default). [NOTE: Since the outcome of closed intervention is recorded in the request as per S-DPL-17300, it is TBD during GUI PDR whether this is still needed.]	Completed

ID	Title	Status
ECS-L4-12790	S-DPL-17410 The Data Pool Ingest GUI shall allow an operator to sort a list of closed operator interventions by a. date/time when the intervention was requested, b. the type of intervention, c. provider, d. associated ingest request ID. [NOTE: Since the outcome of closed intervention is recorded in the request as per S-DPL-17300, it is TBD during GUI PDR whether this is still needed.]	Completed
ECS-L4-12791	S-DPL-17420 The Data Pool Ingest GUI shall allow an operator to select a closed operator intervention from the list of closed interventions and view it. [NOTE: Since the outcome of closed intervention is recorded in the request as per S-DPL-17300, it is TBD during GUI PDR whether this is still needed.]	Completed
ECS-L4-12792	S-DPL-17430 The Data Pool Ingest GUI shall allow an operator viewing ingest request details to access the list of interventions – open and closed - associated with the request. [NOTE: Since the outcome of closed intervention is recorded in the request as per S-DPL-17300, it is TBD during GUI PDR whether this is still needed.]	Completed
ECS-L4-12793	S-DPL-17440 The Data Pool Ingest Service shall raise an operator alert for an FTP host when an attempt to access a polling location via ftp results in one of the following errors: a. connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), b. FTP login failed, c. there are N consecutive errors while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16482), d. there are N consecutive time-outs while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16261 and S-DPL-16482). [NOTE: Given the small size of PDR files, it is acceptable to ignore the file size in time out calculations during polling, i.e., assume a file size of 0.]	Completed
ECS-L4-12794	S-DPL-17450 The Data Pool Ingest Service shall raise an operator alert for an FTP host when an attempt to transfer files to be ingested via ftp results in one of the following errors: a. connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), b. FTP login failed, c. file transfer attempts for N different files failed consecutively, where N is configurable on a global basis (see S-DPL-16482), d. the file transfer time exceeded it maximum allowed time as per configuration for that host (see S-DPL-16261) on file transfer attempts for N different files consecutively where N is configured on a global basis (see S-DPL-16482)	Completed
ECS-L4-12795	S-DPL-17455 The Data Pool Ingest Service shall raise an operator alert for an FTP host when an attempt to transfer PAN and PDRD notification files results in one of the following errors: a. connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), b. FTP login failed, c. file transfer attempts for N different PAN or PDRD failed consecutively, where N is configurable on a global basis (see S-DPL-16482), d. the file transfer time exceeded it maximum allowed time as per configuration for that host (see S-DPL-16261) on file transfer attempts for N different files consecutively where N is configured on a global basis (see S-DPL-16482) [NOTE: Given the small size of PDRD and PAN files, it is acceptable to ignore the file size in the time out calculations for notifications, i.e., assume a file size of 0.]	Completed

ID	Title	Status
ECS-L4-12798	S-DPL-17480 Unless the FTP host was suspended by the operator, the Data Pool Ingest Service shall automatically retry establishing connection, login, and performing another transfer for an FTP host that is currently suspended, if the FTP host is so configured, using the retry time interval configured for that host, and shall react as follows when a retry succeeds: a. clear the corresponding alert condition and the alert as a whole if there are no other alert conditions for that host, b. resume dispatching of the operations for that host that were suspended as a consequence of that alert condition.	Completed
ECS-L4-12800	S-DPL-17482 The Data Pool Ingest Service shall raise an operator alert for local polling location when an attempt to access it for polling purposes results in one of the following errors: a. the source directory does not exist, b. the permission to read the directory is denied. c. there are N consecutive errors while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16482), d. there are N consecutive time-outs while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16255 and S-DPL-16482).	Completed
ECS-L4-12801	S-DPL-17483 The Data Pool Ingest Service shall raise no more than one operator alert each for a given local polling location.	Completed
ECS-L4-12802	S-DPL-17484 The Data Pool Ingest Service shall raise no more than one operator alert each for local file transfers.	Completed
ECS-L4-12803	S-DPL-17485 The Data Pool Ingest Service shall suspend polling for a local polling location while an alert is currently pending for it.	Completed
ECS-L4-12805	S-DPL-17487 Unless a local polling location was suspended by the operator, the Data Pool Ingest Service shall automatically retry polling it while it is suspended, if local polling and transfers are so configured (see S-DPL-16255), using the retry time interval configured for local polling and tile transfers (see S-DPL-16255), and: a. clear the corresponding alert condition, b. resume polling for the polling location.	Completed
ECS-L4-12806	S-DPL-17488 Unless local file transfer was suspended by the operator, the Data Pool Ingest Service shall automatically retry performing local file transfers if local polling and transfers are so configured (see S-DPL-16255), using the retry time interval configured for local polling and tile transfers (see S-DPL-16255), and: a. clear the corresponding alert condition, b. resume local file transfers.	Completed
ECS-L4-12807	S-DPL-17490 The Data Pool Ingest Service shall raise an operator alert for an scp host when an attempt to access a polling location via scp results in one of the following errors: a. connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), b. scp login failed, c. DELETED, d. DELETED, e. there are N consecutive errors while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16482), f. there are N consecutive time-outs while attempting to transfer PDR files from the location, where N is configurable on a global basis (see S-DPL-16293 and S-DPL-16482).	Completed

ID	Title	Status
ECS-L4-12808	S-DPL-17500 The Data Pool Ingest Service shall raise an operator alert for an scp host when an attempt to transfer files to be ingested via scp results in one of the following errors: a. connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), b. scp login failed, c. the source directory does not exist, d. the permission to read the source directory is denied, e. file copy attempts for N different files failed consecutively, where N is configurable on a global basis (see S-DPL-16482), f. file copy attempts for N different files timed-out consecutively, where N is configurable on a global basis (see S-DPL-16293 and S-DPL-16482).	Completed
ECS-L4-12809	S-DPL-17510 The Data Pool Ingest Service shall raise an operator alert for an scp host when an attempt to transfer PAN and PDRD notification files results in one of the following errors: a. connection with the target host could not be established despite retrying for the number of times as configured for retrievable errors (see S-DPL-16480), b. scp login failed, c. the target directory does not exist, d. the permission to write to the directory is denied, c. file transfer attempts for N different PAN or PDRD failed or timed-out consecutively, where N is configurable on a global basis (see S-DPL-16293 and S-DPL-16482).	Completed
ECS-L4-12810	S-DPL-17520 The Data Pool Ingest Service shall raise no more than one operator alert each for polling, file transfers, and notification for a given scp host and separate for each provider where the alert affects only a specific one. [NOTE: That is, separate alerts may be raised for each type of activity to let DAAC operators know when an activity is impacted, and the alert may in addition be provider specific if the error is provider specific.]	Completed

ID	Title	Status
ECS-L4-12811	<p>S-DPL-17530 The Data Pool Ingest Service shall suspend dispatching polling and file transfers, including pulling files referenced in a PDR and transferring PAN or PDRD files, for an scp host while an alert is currently pending for it if the nature of the error causing the alert would impede the intended operation: a. If the alert is due to an inability to connect with the host, all polling and transfers for that host shall be suspended. b. If the alert is due to a login failure for file retrieval, polling and file transfers from that host for that provider shall be suspended; PAN and PDRD transfers shall continue. c. If the alert was raised during file transfer because the source directory does not exist or the permission to access the source directory was denied, all file transfers for that host and provider shall be suspended; polling and PAN and PDRD notifications shall continue. d. If the alert was raised during PAN or PDRD transfer because of a login failure or non-existence of the target directory or lack of permission to write to the target directory, PAN and PDRD transfers for that provider shall be suspended; polling and file transfer operations shall continue. e. If the alert is due to N consecutive file/PDR transfer failures or file/PDR transfer time-outs, polling respectively file transfer operations shall be suspended; PAN and PDRD transfers shall continue. f. If the alert is due to N consecutive PAN or PDRD transfer failures or time-outs, polling and file transfer operations shall continue; PAN and PDRD transfers for that provider shall be suspended. [NOTE: The requirement implies that there may be several alert conditions that have different consequences. As per S-DPL-17520, the alert conditions must be maintained to assure that the appropriate services are suspended and resumed as the conditions are detected or cleared. Though there is currently no such case, a host could support ftp and scp access. If so, suspensions due to alerts may or may not affect ftp and scp operations, subject to design considerations.]</p>	Completed
ECS-L4-12812	<p>S-DPL-17540 Unless the scp host was suspended by the operator, the Data Pool Ingest Service shall automatically retry establishing connection, login, and performing another transfer for an scp host that is currently suspended, if the scp host is so configured, using the retry time interval configured for that host, and shall react as follows when a retry succeeds: a. clear the corresponding alert condition and the alert as a whole if there are no other alert conditions for that host, b. resume dispatching of the operations for that host that were suspended as a consequence of that alert condition.</p>	Completed
ECS-L4-12813	<p>S-DPL-17545 The Data Pool Ingest Service shall raise an operator alert for a polling location when an attempt to access a polling location via scp results in one of the following errors: a. the source directory does not exist, b. the permission to read the directory is denied.</p>	Completed
ECS-L4-12814	<p>S-DPL-17546 The Data Pool Ingest Service shall suspend polling for a polling location while an alert is pending for it. [NOTE: The polling location alert for PDRs referencing data not valid for Data Pool Ingest will be removed as part of the extension of Data Pool Ingest to non-SIPS data.]</p>	Completed
ECS-L4-12815	<p>S-DPL-17547 Unless a polling location was suspended manually by an operator, the Data Pool Ingest Service shall automatically retry polling from a polling location while an alert is pending for it using the retry time interval configured for the corresponding host, and clear the corresponding alert condition and resume polling for that location if the retry succeeds.</p>	Completed

ID	Title	Status
ECS-L4-12816	S-DPL-17550 [DESIRABLE - TBD by PDR] The Data Pool Ingest Service shall automatically retry transfers for an scp destination that is currently suspended, if the corresponding scp host is so configured, using the retry time interval configured for that host, and clear the alert and resume dispatching operations for that scp destination when a retry succeeds, unless the scp destination was suspended by the operator.	Completed
ECS-L4-12817	S-DPL-17560 The Data Pool Ingest Service shall not automatically resume dispatching for data providers and polling locations that were manually suspended by the operator.	Completed
ECS-L4-12818	S-DPL-17563 The Data Pool Ingest Service shall raise an alert for an archive when one of the following situations occur: a. DELETED, b. DELETED, c. the target archive file system is down (i.e., is not mounted), d. DELETED, e. DELETED, f. the percentage of consumed disk space exceeds the configured cache warning threshold (this condition will not suspend the archive, see-S-DPL-16482), g. the percentage of consumed disk space exceeds the configured cache full threshold (this condition will suspend the archive, see-S-DPL-16482). [NOTE: Archiving operations are performed on ECS Service Hosts. Archiving errors can be caused by archive cache file system being down (see c. above), or by the host having SAN connectivity problems (which will lead to consecutive archive write errors or time-outs. In that case, the alert will be raised for the ECS Service Host rather than an archive.)]	Completed
ECS-L4-12819	S-DPL-17564 The Data Pool Ingest Service shall raise no more than one operator alert for a given archive.	Completed
ECS-L4-12820	S-DPL-17565 The Data Pool Ingest Service shall suspend dispatching archive write operations for an archive while an alert is pending for it.	Completed
ECS-L4-12821	S-DPL-17566 The Data Pool Ingest Service shall automatically retry archiving operations for an archive while an archive is suspended and an alert remains pending, using the retry time interval globally configured for alert situations (see S-DPL-16482), and clear the alert and resume dispatching operations for that archive when a retry succeeds, unless Data Pool archiving for the archive was suspended by the operator.	Completed
ECS-L4-12822	S-DPL-17567 The Data Pool Ingest Service shall clear the corresponding archive alert when it detects that the consumed cache space for an archive cache has fallen below the low watermark threshold for clearing the corresponding alert (see S-DPL-16482). [NOTE: If both thresholds were exceeded, the archive alert is only cleared after cache use dropped below the low watermark for the cache warning, however, the nature of the alert will change as the low watermark for the 'cache full' alert is underrun.]	Completed
ECS-L4-12823	S-DPL-17568 The Data Pool Ingest GUI shall close an alert for an archive after the operator manually suspended that archive. [NOTE: Operators can manually suspend an archive an alert is pending. If they do this, the alert is closed and the archive is considered manually suspended. Automatic retries will cease.]	Completed

ID	Title	Status
ECS-L4-12824	S-DPL-17570 The Data Pool Ingest Service shall raise an operator alert for a Data Pool file system when one of the following situations occurs: a. the file system is full, b. the file system is down (i.e., not mounted), c. attempts to access that file system failed for N different granules consecutively, where N is configurable on a global basis (i.e., one value for all file systems, see S-DPL-16482). [NOTE: File system errors encountered by an ECS Service Host that are not diagnosed as the file system being full or down will lead to N consecutive errors for that host rather than the file system, signaling that the host may have SAN connectivity problems. However, if the same situation occurs on the Ingest Server host, it will lead to a file system alert, signaling that the Ingest Server host has SAN access problems that may be a SAN or a host related error.]	Completed
ECS-L4-12825	S-DPL-17580 The Data Pool Ingest Service shall monitor the free space in Data Pool file system at an operator configurable time interval (see S-DPL-16545).	Completed
ECS-L4-12826	S-DPL-17590 The Data Pool Ingest Service shall raise an operator alert for a Data Pool file system when it is reported as more than N% full (i.e., 'nearly full' condition) without suspending ingest and insert operations for that file system and with N being configurable by the operator (see S-DPL-16545).	Completed
ECS-L4-12827	S-DPL-17600 The Data Pool Ingest Service shall clear any pending operator alert for a Data Pool file system being nearly full when it is reported as less than N% full, with N being configurable by the operator (see S-DPL-16545).	Completed
ECS-L4-12828	S-DPL-17610 The Data Pool Ingest Service shall raise no more than one operator alert for a given Data Pool file system.	Completed
ECS-L4-12829	S-DPL-17620 The Data Pool Ingest Service shall mark a Data Pool file system as full if it raises an alert because of that file system's full condition.	Completed
ECS-L4-12830	S-DPL-17630 The Data Pool Ingest Service shall suspend dispatching ingest operations that use a Data Pool file system while an alert is currently pending for it except if: a. dispatching of ingest operations shall not be suspended if the alert indicates a file system 'nearly full' condition, b. dispatching of archiving operations shall not be suspended if the alert indicates a file system 'full' condition. [NOTE: see S-DPL-17112, S-DPL-18270 and S-DPL-18272 for related requirements.]	Completed
ECS-L4-12831	S-DPL-17640 The Data Pool Ingest Service shall resume dispatching ingest operations that use a Data Pool file system for which it raised an alert because it was full when the file system full condition is cleared. [NOTE: The condition is currently cleared by Data Pool cleanup.]	Completed

ID	Title	Status
ECS-L4-12832	S-DPL-17650 The Data Pool Ingest Service shall raise an operator alert when an attempt to access any other ECS service on a particular host (such as the ECS Science Data Server, local file transfers, or agents that dispatch checksumming operations) results in one of the following errors: a. connection with the service cannot be established (e.g., the service, platform, or network are down), b. connection with the service is lost (e.g., the service or platform terminated abnormally and may be rebooted), c. a checksumming service request does not complete within an expected, configurable time frame (e.g., the checksumming operations take excessively long, see S-DPL-16460) for N different service requests consecutively (see S-DPL-16482), d. DELETED, e. the SDSRV metadata validation or insert service request times out or returns an error to N different granules consecutively, with N configurable by the DAAC (see S-DPL-16482), f. an ECS service returns errors for N consecutive granules or files, where the errors are not attributed to some other resource (e.g., a ftp or scp host).	Completed
ECS-L4-12833	S-DPL-17660 The Data Pool Ingest Service shall raise no more than one operator alert for a given ECS service.	Completed
ECS-L4-12834	S-DPL-17670 The Data Pool Ingest Service shall no longer dispatch operations for a given ECS service while an alert is currently pending for it.	Completed
ECS-L4-12835	S-DPL-17680 The Data Pool Ingest Service shall automatically retry connecting to or invoking an ECS service for which it suspended dispatching using a retry time interval that is globally configurable (i.e., that uses the same value for all ECS services, see S-DPL-16482), and clear the alert and resume dispatching operations for that service when a retry succeeds, unless the service was suspended by the operator. [NOTE: Local file transfers do allow for a separately configured retry interval as per S-DPL-16255.]	Completed
ECS-L4-12836	S-DPL-17690 The Data Pool Ingest GUI shall allow authorized ('ingest control' and 'ingest admin') operators to configure an optional e-mail address to which notifications about alerts shall be sent.	Completed
ECS-L4-12837	S-DPL-17700 The Data Pool Ingest Service shall include the following information in the notifications about operator alerts: a. the resource that caused the alert (e.g., ftp host, data pool file system, ECS service), b. the nature of the alert.	Completed
ECS-L4-12838	S-DPL-17702 The Data Pool Ingest Service shall automatically resume granules that are currently suspended and were suspended in the course of raising an alert because the error occurred for N granules consecutively (for example, due to file system access errors or time out of archive operations), and close any related operator intervention that is currently open if all suspended granules for a request are resumed in this fashion.	Completed
ECS-L4-12839	S-DPL-17710 The Data Pool Ingest GUI shall display on the Data Pool Ingest Service status page, whether there are any current alerts.	Completed
ECS-L4-12840	S-DPL-17720 The Data Pool Ingest GUI shall allow operators to monitor Data Pool Ingest Service alerts such that new alerts can be displayed within 20 seconds of them having been requested by the Data Pool Ingest Service, e.g., by allowing operators to list current alerts and allowing the operator to refresh that list manually, as well as via automatic refresh as often as every 20 seconds.	Completed
ECS-L4-12841	S-DPL-17730 The Data Pool Ingest GUI shall show on the screen that operators use to monitor alerts, the following information for each alert: a. time the alert was created, b. the resource that caused the alert, c. the type of the alert indicative of the cause for the alert.	Completed

ID	Title	Status
ECS-L4-12842	S-DPL-17740 The Data Pool Ingest GUI shall permit an operator to filter operator alerts by a. type of resource, b. type of alert, c. a combination of both.	Completed
ECS-L4-12843	S-DPL-17750 The Data Pool Ingest GUI shall permit an operator to sort alerts in ascending or descending order of creation time, with descending order (i.e., latest first) being the default.	Completed
ECS-L4-12844	S-DPL-17760 The Data Pool Ingest GUI shall permit an operator to select an alert from the monitoring screen to view detailed information about it, including detailed error information and associated alert conditions. [NOTE: For some alerts, Data Pool Ingest will need to differentiate between several alert conditions which may cause different functions to be suspended, see S-DPL-17470.]	Completed
ECS-L4-12845	S-DPL-17770 The Data Pool Ingest GUI shall permit an authorized ('ingest control') operator to select an alert from the monitoring screen to close it.	Completed
ECS-L4-12846	S-DPL-17780 The Data Pool Ingest GUI shall permit an operator to list the data providers affected by an archive or Data Pool file system alert, and the number of ingest requests, number of granules, and total amount of data currently queued or in processing that are affected by an alert. [NOTE: This overlaps with system monitoring requirements, see S-DPL-16900, S-DPL-16940, and S-DPL-16950.]	Completed
ECS-L4-12847	S-DPL-17790 The Data Pool Ingest Service shall check each polling location enabled for Data Pool ingest for Product Delivery Records (PDR) in accordance with the polling frequency and polling method configured for that polling location unless the polling for that location, host, or provider, or all Data Pool Ingest processing have been suspended. [NOTE: In case of automatic suspension, DPL Ingest will continue to retry at least the operation that caused the suspension.]	Completed
ECS-L4-12848	S-DPL-17795 The Data Pool Ingest Service and the INGST CI shall not poll the same polling locations.	Completed
ECS-L4-12849	S-DPL-17800 The Data Pool Ingest Service shall not process a PDR that already was processed by the INGST CI and shall process PDRs that were not processed by the INGST CI, and vice versa. [NOTE: This is intended to support transition from INGST to Data Pool Ingest and vice versa without processing a PDR more than once.]	Completed
ECS-L4-12850	S-DPL-17810 The Data Pool Ingest Service shall start the next polling cycle immediately upon completion for the previous one, if the previous one took longer than the configured polling frequency assumes.	Completed
ECS-L4-12851	S-DPL-17820 The Data Pool Ingest Service shall not queue an ingest request for the same PDR more than once.	Completed
ECS-L4-12852	S-DPL-17830 The Data Pool Ingest Service shall assign an initial priority to an ingest request as configured for the data provider.	Completed

ID	Title	Status
ECS-L4-12853	S-DPL-17840 During initial validation, the Data Pool Ingest Service shall verify the contents of the PDR against the specifications in ESDIS Document 423-41-57, Interface Control Document between the EOSDIS Core System (ECS) and the Science Investigator-led Processing Systems (SIPS), Volume 0, Interface Mechanisms, including verifications that are currently being performed: a. the syntax of the PDR conforms to ESDIS Document 423-41-57, e.g., the keywords and file types are valid, b. all mandatory information is present in the PDR, c. the checksum type is valid and if present, a checksum value is present as well and is syntactically correct (i.e., agrees with the type of checksum, e.g., for MD5 the value must be a 32-character hexadecimal string; for cksum it must be a 32-bit unsigned integer value, for ECS checksum a 64-bit integer value), d. the data type is valid, e. if the data type version is provided, that version of that type is configured for ingest, f. the file count is correct, g. DELETED.	Completed
ECS-L4-12854	S-DPL-17850 The Data Pool Ingest Service shall log a warning if an expiration date is provided that is incorrect or in the past.	Completed
ECS-L4-12855	S-DPL-17860 The Data Pool Ingest Service shall reject a granule and return a long PDRD error disposition if the checksum type and checksum value parameters are not present for each science file in a PDR from a SIPS provider for which the presence of these parameters has been made mandatory.	Completed
ECS-L4-12856	S-DPL-17870 The Data Pool Ingest Service shall reject a granule and return a long PDRD error disposition if the checksum type in the PDR from a SIPS provider is not on a list of ECS supported checksum algorithms.	Completed
ECS-L4-12857	S-DPL-17875 The Data Pool Ingest Service shall reject a granule and return a long PDRD error disposition if the checksum type parameter is present in the PDR from a SIPS provider and the checksum value parameter is not.	Completed
ECS-L4-12858	S-DPL-17880 The Data Pool Ingest Service shall reject a granule and return a long PDRD error disposition if the checksum value parameter is present in the PDR from a SIPS provider and the checksum type parameter is not.	Completed
ECS-L4-12859	S-DPL-17890 The Data Pool Ingest Service shall reject a granule and return a long PDRD error disposition if the checksum value parameter is present in the PDR from a SIPS provider and syntactically incorrect.	Completed
ECS-L4-12860	S-DPL-17895 The Data Pool Ingest Service shall ignore checksum type and checksum value parameters for all types of files other than science files.	Completed
ECS-L4-12861	S-DPL-17900 The Data Pool Ingest Service shall notify a SIPS provider via the configured notification method if an ingest request fails initial validation, collecting and reporting all detected errors using a short or long Product Delivery Record Discrepancy (PDRD) in accordance with SIPS ICD Volume 0, ESDIS Document 423-41-57. [NOTE: Errors in the expiration date are not considered validation failures; see S-DPL-17850.]	Completed
ECS-L4-12862	S-DPL-17910 The Data Pool Ingest Service shall use the most recent delivery information for a provider on any notification deliveries performed, including after the information was modified by the operator. [NOTE This is needed if the PAN/PDR deliveries fail, for example, due to a change in the login information.]	Completed

ID	Title	Status
ECS-L4-12863	S-DPL-17915 The Data Pool Ingest Service shall not deliver provider notifications while the delivery of notifications for the provider to that host is suspended. [NOTE: In case of an automatic suspension, Data Pool Ingest will continue to retry at least the operation that caused the suspension.]	Completed
ECS-L4-12864	S-DPL-17920 The Data Pool Ingest Service shall not deliver provider notifications via e-mail while the delivery of e-mail notifications is suspended. [NOTE: In case of an automatic suspension, Data Pool Ingest will continue to retry at least the operation that caused the suspension.]	Completed
ECS-L4-12865	S-DPL-17930 Inability to deliver a PDRD despite retries shall cause an operator alert [NOTE: The Data Pool Ingest Service shall never request an operator intervention for the failed PDRD. Delivery of PDRD shall be attempted indefinitely.]	Completed
ECS-L4-12866	S-DPL-17940 The Data Pool Maintenance GUI shall permit a DAAC operator to request the following actions in response to an operator intervention resulting from a failure to deliver a PDRD: a. request an attempt to redeliver the PDRD (e.g., after correcting whatever problem caused PDRD delivery to fail) b. fail the PDRD delivery (e.g., after sending the PDRD manually)	Completed
ECS-L4-12867	S-DPL-17945 The Data Pool Ingest Service shall restart its attempts to deliver a PDRD if the operator closed an operator intervention requesting PDRD re-delivery.	Completed
ECS-L4-12868	S-DPL-17950 The Data Pool Ingest Service shall verify that all data referenced by a PDR can be processed for Data Pool Ingest (e.g., do not require preprocessing, etc.).	Completed
ECS-L4-12869	S-DPL-17960 The Data Pool Ingest Service shall request an operator alert for a polling location and suspend polling for that location if a PDR retrieved from that polling location references data that is not valid for processing by the Data Pool Ingest Service. [NOTE: This could happen, for example, if a PDR that was retrieved from a polling location monitored by Data Pool ingest references data types that require processing. The operator response will depend on the cause of the error. For an example, see the operations concept.]	Completed
ECS-L4-12870	S-DPL-17970 The Data Pool Ingest Service shall transfer the files for each granule into a temporary Data Pool area that is located on the file system configured for the corresponding Data Pool collection, using the configured transfer method, unless the files already reside in the correct Data Pool location.	Completed
ECS-L4-12871	S-DPL-17980 The Data Pool Ingest Service shall perform file transfers on the ECS platforms configured for that purpose, subject to the limits of concurrent transfers that may be in progress on each platform (see S-DPL-16460). [NOTE: The intent is to balance the transfer loads across these platforms roughly proportional to the configured number of 'transfer slots'. Note that scp transfers will be performed only on platforms that are enabled for that purpose.]	Completed
ECS-L4-12872	S-DPL-17985 The Data Pool Ingest Service shall suspend a granule and request an operator intervention if the file transfer for a granule fails, unless the failure signals the need for an operator alert.	Completed
ECS-L4-12873	S-DPL-17990 The Data Pool Ingest Service shall verify the size of a file against its size stated in the PDR, and suspend the granule if the size verification fails.	Completed

ID	Title	Status
ECS-L4-12874	S-DPL-17995 The Data Pool Ingest Service shall randomly select science files for which checksums are provided for checksum verification such that on average, checksums are verified for a percentage of the files with checksums that corresponds to the checksum verification percentage configured for that provider.	Completed
ECS-L4-12875	S-DPL-18000 The Data Pool Ingest Service shall randomly select science files for which no checksums are provided for checksum calculation such that on average, checksums are calculated for a percentage of those files that corresponds to the checksum verification percentage configured for that provider. [NOTE: This was originally configured by archive and can now be configured by provider.]	Completed
ECS-L4-12876	S-DPL-18010 The Data Pool Ingest Service shall include the checksum for a file in the granule metadata, for inclusion in the SDSRV and DPL inventories and Data Pool XML file. [NOTE: The inclusion of checksum information in the SDSRV and Data Pool inventories and XML files is regulated by other, existing L4 requirements.]	Completed
ECS-L4-12877	S-DPL-18015 The Data Pool Ingest Service shall use the checksum algorithm configured for the checksum type of a file to verify that file.	Completed
ECS-L4-12878	S-DPL-18020 The Data Pool Ingest Service shall use the configured default checksum type to calculate the checksums of files for which no checksum is provided.	Completed
ECS-L4-12879	S-DPL-18025 The Data Pool Ingest Service shall perform checksum operations on the ECS platforms configured for that purpose, subject to the limits of concurrent CPU intensive operations that may be in progress on each platform (see S-DPL-16460). [NOTE: The intent is to balance the checksum workload across these platforms roughly proportional to the configured number of 'CPU slots'. As per S-DPL-16460, the limits for CPU-intensive operations apply to all such operations executed by the Data Pool CI, i.e., not just the Data Pool Ingest Service.]	Completed
ECS-L4-12880	S-DPL-18030 The Data Pool Ingest Service shall not checksum a file for the purpose of verifying a provider checksum on the platform that was used to execute its file transfer, unless no other platform has been configured for that purpose. [NOTE: Currently, the transfer and the checksum operation are usually both performed on the drg-host that is configured as the archive platform for this ESDT. Today, checksum verification is performed by re-reading the file from archive cache; with Data Pool ingest, checksum verification will re-read the file from the Data Pool file system. It is, therefore, desirable, to perform checksum verification on a different platform than the one used to transfer the granule into the SAN, to avoid reading the file from the file system cache rather than the file system itself.]	Completed
ECS-L4-12881	S-DPL-18040 The Data Pool Ingest Service shall set checksum origin to 'DataProvider' if the checksum value was received from a data provider, and to 'DPLIngst' when it calculates a checksum for a file for which no checksum was included by the data provider.	Completed
ECS-L4-12882	S-DPL-18045 The Data Pool Ingest Service shall move a file to a DAAC configurable holding directory if its checksum verification fails (unless the failure signals the need for an operator alert), appending a unique qualifier if this is necessary to prevent overwriting a file that already exists in that directory. [NOTE: The inclusion of checksum information in the SDSRV and Data Pool inventories and XML files is regulated by other, existing L4 requirements.]	Completed

ID	Title	Status
ECS-L4-12883	S-DPL-18050 Unless the granule files already were resident in the correct Data Pool file system and thus, no file transfer took place, the Data Pool Ingest Service shall retry the granule file transfer operations a DAAC-configurable number of times in the event that the granule fails checksum verification and fail the granule non-retriably (i.e., without requesting an operator intervention) if the retries do not succeed (see S-DPL-16500). [NOTE: This is modeled after the current INGST behavior which fails the granule rather than suspending it. This is considered a 'hard' failure that will result in a PAN reporting a checksum validation error. There will be no option for the operator to retry the granule. If this is the only type of failure in the ingest request, Data Pool ingest will not request an operator intervention.]	Completed
ECS-L4-12884	S-DPL-18055 The Data Pool Ingest Service shall translate pointers in linkage files associated with Browse, Production History (PH) and Quality Assurance (QA) granules in accordance with ESDIS Document 423-41-57, and include the resulting linkage information in the metadata for that granule. [NOTE: It is highly desirable that the pointer translation not use the SDSRV CI interfaces. The inclusion of linkage information in the SDSRV and Data Pool inventories and XML metadata is regulated by other, existing L4 requirements.]	Completed
ECS-L4-12885	S-DPL-18060 The Data Pool Ingest Service shall retry failed linkage translations for a granule up to a DAAC configurable number of times and at a DAAC configurable frequency before suspending it, unless the failure signals the need for an operator alert (see S-DPL-16490).	Completed
ECS-L4-12886	S-DPL-18065 The Data Pool Ingest Service shall convert metadata files it receives in .met format into XML format for insertion into the Data Pool.	Completed
ECS-L4-12888	S-DPL-18071 The Data Pool Ingest Service shall interface with the SDSRV CI to validate the metadata of granules that are to be archived.	Completed
ECS-L4-12889	S-DPL-18072 The Data Pool Ingest Service shall accept the metadata validation response from the SDSRV CI.	Completed
ECS-L4-12890	S-DPL-18073 The Data Pool Ingest Service shall suspend a granule that failed metadata validation, unless the nature of the response indicates the need to raise an alert as per S-DPL-17650. [NOTE: That is, an alert is raised and the granule is not suspended if the SDSRV is down or if this is the N-th consecutive error or time-out.]	Completed
ECS-L4-12891	S-DPL-18074 The Data Pool Ingest Service shall make any error details related to metadata validation available for display on the operator GUI as part of displaying the error details for the suspended granule or the alert.	Completed
ECS-L4-12892	S-DPL-18075 The Data Pool Ingest Service shall insert the granules it ingests into the hidden Data Pool directory structure.	Completed
ECS-L4-12893	S-DPL-18080 The Data Pool CI shall apply the requirements of the Data Pool Insert Service as expressed in this and other requirements tickets when inserting ingested granules into the Data Pool, except when explicitly noted otherwise in this ticket. [NOTE: This signals that the inserts of ingested granule into the Data Pool are subject to the requirements established for the Data Pool Insert Service in this and other tickets. This is not meant to imply that Data Pool Ingest and Insert Services need to be completely separated in the design. For example, this requirement implies that if a science granule is inserted into the public Data Pool during ingest, the same must occur for its related browse granules.]	Completed

ID	Title	Status
ECS-L4-12894	S-DPL-18081 The Data Pool Ingest Service shall not apply granule replacement logic and prevent file name collisions when inserting ingested granules into the hidden directory structure, such that granules that are ingested but not published will never overwrite another granule in the Data Pool, nor cause a file name collision with another granule in the Data Pool.	Completed
ECS-L4-12896	S-DPL-18083 The Data Pool Ingest Service shall not fail ingest of a granule if the band information extraction yields no bands or fails, in case of retrievable errors after the required number of retries. [NOTE: The general retry parameters in S-DPL-16480 apply.]	Completed
ECS-L4-12897	S-DPL-18084 The Data Pool Insert Service shall log the start and completion of band extraction, including the following information: a. granule identification, b. esdt, c. Outcome.	Completed
ECS-L4-12898	S-DPL-18085 The Data Pool Insert Service shall be able to insert ingested granules into the Data Pool for ECS collections.	Completed
ECS-L4-12899	S-DPL-18090 The Data Pool Insert Service shall be able to insert ingested granules into the Data Pool for non-ECS collections.	Completed
ECS-L4-12900	S-DPL-18095 The Data Pool Ingest Service shall assign the priority of the ingest request to the Data Pool insert actions it queues for the Data Pool Insert Service.	Completed
ECS-L4-12901	S-DPL-18100 The Data Pool Maintenance GUI shall allow operators to monitor the ongoing Data Pool insert requests for ingested granules, as well as their queue. [NOTE: Refer, for example, to requirements S-DPL-20740 and S-DPL-20750 in DP_SY_04 and S-DPL-41110 in DP_S3_02. The intent is to allow operators to separate out the information related to insert requests for ingested data.]	Completed
ECS-L4-12902	S-DPL-18105 The Data Pool Maintenance GUI shall allow DAAC staff to display whether a collection is enabled for URL export or not, but DAAC staff shall not be able to modify that setting via the GUI.	Completed
ECS-L4-12903	S-DPL-18110 The Data Pool Maintenance GUI shall include in its list of active and queued Data Pool inserts, information that allows an operator to identify insert requests initiated by the Data Pool Ingest Service and the related data provider, and the related ingest request.	Completed
ECS-L4-12904	S-DPL-18111 The Data Pool Maintenance GUI shall allow operators to filter the list of active and queued Data Pool inserts by: a. data source and if the data source is ingest, also by data provider, b. remaining filter criteria are TBD as per GUI PDR action list 1, item#32.	Completed
ECS-L4-12905	S-DPL-18112 The Data Pool Maintenance GUI shall allow operators to sort the list of active and queued Data Pool inserts by: a. data source and if the data source is ingest, also by data provider, b. remaining sort criteria are TBD as per GUI PDR action list 1, item#32.	Completed
ECS-L4-12906	S-DPL-18115 The Data Pool Insert Service shall insert ingested granules that belong to ECS collections by default into a Data Pool directory structure that is non-public. [NOTE: The granule files may be compressed during Data Pool insert, depending on configuration settings for its collection. If so, these files later will also be archived in compressed format.]	Completed
ECS-L4-12907	S-DPL-18120 The Data Pool Ingest Service shall place an action into the Data Pool Insert Service queue to insert ingested granules that belong to ECS collections into the public Data Pool if the corresponding Data Pool collection is so configured.	Completed

ID	Title	Status
ECS-L4-12908	S-DPL-18121 The Data Pool Insert Service shall insert an ingested Browse granule in jpeg format into the public Data Pool if any of its related science granules are in the public Data Pool. [NOTE: Though redundant with S-DPL-18080, it was deemed useful to make this requirement explicit. Note that associated Browse granules but not QA and PH granules are currently published in the Data Pool. If this is changed via NCR, the NCR change must extend to Data Pool Ingest. Also note that if the Browse granule was ingested first, the subsequent insert of the science granule into the public Data Pool will trigger the Browse granule insert, though that insert may no longer be from the hidden Data Pool directory structure if the Browse granule was already cleaned up after archiving.]	Completed
ECS-L4-12909	S-DPL-18130 The Data Pool Insert Service shall place an action into the Data Pool Insert Service queue to insert ingested granules that belong to non-ECS collections into the public Data Pool in accordance with Ticket DP_S3_02, unless the collection is configured otherwise.	Completed
ECS-L4-12910	S-DPL-18135 The Data Pool Insert Service shall insert ingested granules that belong to non-ECS collections into a Data Pool directory structure that is non-public if the corresponding Data Pool collection is so configured.	Completed
ECS-L4-12911	S-DPL-18136 The Data Pool Ingest Service shall suspend granules whose insert into the hidden Data Pool directory structure fails retrievably when the retry count exceeds the configured maximum. [NOTE: Granules that experience a non-retrievable Data Pool insert error are suspended immediately.]	Completed
ECS-L4-12912	S-DPL-18140 The Data Pool Ingest Service shall identify all granules in the Data Pool inventory as needing to be copied to the ECS archive until their archive operation has completed.	Completed
ECS-L4-12913	S-DPL-18141 The Data Pool Ingest Service shall identify Browse, QA or PH granules as needing to be copied to the ECS archive if any of the science granules with which they are cross-referenced are being archived in ECS.	Completed
ECS-L4-12914	S-DPL-18143 The Data Pool Ingest Service shall perform compression operations on the ECS platforms configured for use by CPU intensive operations, subject to the limits of concurrent CPU intensive operations that may be in progress on each platform (see S-DPL-16460). [NOTE: The intent is to balance the checksum and compression workload across these platforms roughly proportional to the configured number of 'CPU slots'.]	Completed
ECS-L4-12915	S-DPL-18145 The Data Pool Insert Service shall not re-compress granules that were archived or ingested in compressed format when inserting granules from the ECS archive, and identify such granules as compressed in the Data Pool inventory.	Completed
ECS-L4-12916	S-DPL-18150 The Data Pool Insert Service shall verify the checksums of granule files that were archived in compressed format against the checksums of the compressed files when inserting granules from the ECS archive.	Completed
ECS-L4-12917	S-DPL-18155 The Data Pool Insert Service shall preserve an ingested browse granule in its original format in the hidden directory structure if the browse granule needs to be archived. [NOTE: This applies, for example, to the case where the related science granule is inserted into the public Data Pool during ingest, or later on via a separate insert request. Note that until Browse granules are archived, they are only accessible via the Data Pool SAN. They may be inaccessible to the SDSRV, depending on how the issues surrounding the file entries in the SDSRV are resolved.]	Completed

ID	Title	Status
ECS-L4-12918	S-DPL-18160 The Data Pool Insert Service shall not perform band extraction for granules that are not inserted into the public Data Pool. [NOTE: This fixes an existing behavior.]	Completed
ECS-L4-12920	S-DPL-18170 The Data Pool CI shall permit the successful distribution of granules once they have been ingested into the Data Pool successfully.	Completed
ECS-L4-12921	S-DPL-18175 The Data Pool CI shall not permit access to granules ingested into the non-public Data Pool directory structure.	Completed
ECS-L4-12922	S-DPL-18178 The Data Pool Ingest Service shall interface with the SDSRV CI to pre-assign an ECS granule ID to a granule that is being ingested after it has been successfully transferred, checksummed (if applicable), and preprocessed.	Completed
ECS-L4-12924	S-DPL-18180 The Data Pool Ingest Service shall accept the result of a metadata insertion request from the SDSRV CI.	Completed
ECS-L4-12925	S-DPL-18185 The Data Pool Ingest Service shall suspend a granule whose metadata insert failed, unless the failure indicates the need for an operator alert as per S-DPL-17650.	Completed
ECS-L4-12926	S-DPL-18190 The Data Pool Ingest Service shall suspend a granule if the SDSRV CI returns a response signaling a non-retriable error, unless the failure indicates the need for an operator alert.	Completed
ECS-L4-12928	S-DPL-18196 The Data Pool Ingest Service shall notify the provider using a short or long Product Acceptance Notification (PAN) constructed and formatted in accordance with the applicable ICD and using the configured notification method when all granules in an ingest request complete ingest (i.e., were archived and their metadata inserted into the ECS inventory) or reached some terminal error state. [NOTE: Data Pool publishing is not part of the ingest process. Granules that cannot be queued for Data Pool publication may show an error state indicating that fact, but will be reported as having completed ingest successfully. The Data Pool publishing step will occur asynchronously and decoupled from insert processing and will have no influence on the terminal state of the granule as recorded by Data Pool Ingest.]	Completed
ECS-L4-12929	S-DPL-18197 The Data Pool Ingest Service shall consider granules that need to be archived into ECS as successful from a PAN perspective if they completed the ECS insert successfully, i.e., reached a state of 'Inserted'. [NOTE: The requirement reflects the fact that granules may have been inserted into ECS but fail or are cancelled during Data Pool publishing while other granules in the request still are in earlier stages of the insert process.]	Completed

ID	Title	Status
ECS-L4-12930	S-DPL-18200 The Data Pool Ingest Service shall maintain the following request states: a. 'New' when a request is queued or re-queued for ingest, b. 'Active' when a request is activated, c. 'Partially_Suspended' when some but not all of the granules in a request are suspended, that is, some granules in the request are still being processed d. 'Suspended' when a request is suspended, requiring operator intervention to resume it; this includes the situation when all granules in a request are suspended, e. 'Cancelling' while a request is being cancelled, f. 'Resuming' while a request is being resumed, g. 'Successful' when a request completes successfully, h. 'Cancelled' when a request is cancelled by the operator and none of the granules have completed ingest successfully, i. 'Partially_Cancelled' when a request is cancelled by the operator when some of its granules had already completed ingest successfully j. 'Failed' when all granules in a request failed ingest, k. 'Partial_Failure' when some but not all granules in a request failed ingest. l. 'Terminated' when a new or active request is terminated as part of a cold start. m. 'Validated' after the ingest request (PDR) was validated successfully.	Completed
ECS-L4-12932	S-DPL-18220 The Data Pool CI shall recover after a fault such that: a. Ingest requests or granules will not be lost or skipped, nor ingested twice b. Notifications will not be lost or skipped, c. Notifications are not sent more than once, d. Product delivery records are not processed more than once, e. The state of requests and granules at the time of the fault is recovered such that expensive ingest steps that were completed at the time of the fault will not be started again, such as file transfers, and checksum operations, and no ingest steps will be omitted, f. No Data Pool ingest requests, nor any other ECS requests will fail or raise operator interventions just because of the fault recovery, g. Requests that were active at the time of the fault will be activated before any new work is started, h. Granule operations that were active at the time of the fault will be restarted before any new work is started, i. Granules that have not completed ingest at the time of the fault will not be visible to external users until their ingest is complete, j. The state of alerts and queues will be recovered, to the extent that they have not been changed by the operator during the outage caused by the fault, k. The state of operator interventions will be recovered to the extent that they have not been changed by the operator during the outage caused by the fault, l. The state of resources will be recovered to the extent that they have not been changed by the operator during the outage caused by the fault, m. No Data Pool insert actions are omitted and no granules are queued for Data Pool publication more than once.	Completed
ECS-L4-12933	S-DPL-18225 The Data Pool CI shall be able to complete recovery from a fault, including restarting ingest requests and granules that were active at the time of the fault in less than 15 minutes with at least 1,000 ingest requests and at least TBD granules currently queued or active at the time of the fault [TBD by Integration Test Plan Review.]	Completed
ECS-L4-12934	S-DPL-18230 The Data Pool Ingest Service shall limit the number of concurrent transfers (excluding PDRD, PAN and PDR files) to the maximum configured by the operator for that ftp respectively scp host, or to the configured default values if no specific values are configured for that ftp/scp host (see S-DPL-16460).	Completed
ECS-L4-12935	S-DPL-18235 The Data Pool Ingest Service shall limit the number of concurrent local file transfers (excluding PDRD, PAN and PDR files) to the maximum configured by the operator (see S-DPL-16255).	Completed

ID	Title	Status
ECS-L4-12936	S-DPL-18240 The Data Pool Ingest Service shall limit the number of concurrent checksum processes that it executes on an ECS host to a maximum configured by the operator for that host or to the default value if no specific value is configured for that host (see S-DPL-16460). [NOTE: That is, the limit applies regardless of which Data Pool service is requesting the checksum verification. The intent of the limit is to ensure checksum operations leave enough CPU resources for other activities which these hosts perform, and to prevent extreme variability in the amount of time it takes to execute these activities, i.e., make them more predictable.]	Completed
ECS-L4-12937	S-DPL-18250 The Data Pool CI shall limit the number of concurrent public Data Pool inserts performed for Data Pool Ingest as configured by the operator (see S-DPL-16470).	Completed
ECS-L4-12938	S-DPL-18260 The Data Pool Ingest Service shall assign managed resources (i.e., file transfer, archiving, and checksumming slots) to active granules by priority, and within the same priority on a first-in first-out basis based on the time the corresponding request was originally created, such that the configured limitations on these resources are observed.	Completed
ECS-L4-12939	S-DPL-18265 The Data Pool Ingest Service shall minimize the amount of time managed resources are held by an ingest operation, e.g., release resources as soon as they are no longer needed, e.g., when a request is suspended or can no longer proceed. [NOTE: This requirement cannot be verified through testing. It shall be verified during code inspection.]	Completed
ECS-L4-12940	S-DPL-18270 The Data Pool Ingest Service shall activate queued ingest requests for processing by priority, and within the same priority on a first-in first-out basis based on the time each request was originally created, provided the requests meet the following conditions: a. Ingest is not suspended, b. There is no active request whose granules could be activated at this point, c. The provider of that ingest request is not suspended, d. At least one granule in the request could be activated (see S-DPL-18275). [NOTE: For example, a request may be the next one in line to be activated, but if it requires file transfers from an FTP host whose queue is backed up (i.e., which is deemed not available), it may not be the next request that is actually activated.]	Completed
ECS-L4-12941	S-DPL-18272 The Data Pool Ingest Service shall not consider a queued ingest request eligible for activation if any of its granules requires a resource that is currently suspended by the operator or due to an alert, unless the operator explicitly relaxed this requirement (see S-DPL-17112 and S-DPL-16460). [NOTE: Such requests could not complete since some of their granules cannot be processed. Activating them nevertheless could result in a large number of active requests that cannot be completed at this time. However, if the granules that could be processed require a resource that is a bottleneck, then allowing them to be activated may be necessary to alleviate the bottleneck and speed up recovery. Note that as per requirement S-DPL-18265, such stuck requests may not block any resources, e.g., must not be counted against any system or provider limits.]	Completed

ID	Title	Status
ECS-L4-12942	S-DPL-18275 The Data Pool Ingest Service shall activate granules for active ingest requests by priority, and within the same priority on a first-in first-out basis based on the time each request was originally created, provided the following conditions are met: a. The number of active granules and their total size are below the configured (system) limits (see S-DPL-16460), b. The number of active granules for that provider and the total size of those granules are below the limit configured for that provider (see S-DPL-16110); or there are no other active or queued requests for other providers whose granules could be activated, c. if the granule is queued for retry, its retry delay has expired, d. the ingest request containing the granule is still active (e.g., not suspended or cancelled), e. the archive required by the granule is not suspended due to an alert, unless the DAAC configured Data Pool ingest to continue activation of granules in this situation (see S-DPL-16460g), f. the archive required by the granule is not suspended by the operator, unless the request was active at the time the archive was suspended by the operator (i.e., when the operator suspends an archive, currently active requests will be allowed to complete in any case) or the DAAC configured Data Pool ingest to continue activation of granules in this situation (see S-DPL-16460g) or, g. the Data Pool file system required by the granule is not suspended due to an alert, h. the Data Pool file system required by the granule is not suspended by the operator, unless the request was activated before the time the file system was suspended by the operator (i.e., when the operator suspends a file system, currently active requests will be allowed to complete in any case, but granules in newly activated requests – if any, see S-DPL-17112 – that require the file system will not be activated), i. None of the other resources required by the granule are suspended by the operator or due to an alert, j. If the granule requires transferring: there is a suitable transfer slot available which the granule can use immediately (i.e., do not activate a granule that requires transferring but cannot be transferred at this time)	Completed
ECS-L4-12943	S-DPL-18280 The Data Pool Ingest Service shall not assign resources that are currently suspended by the operator or due to an alert except where other requirements explicitly state differently. [NOTE: For example, if the operator suspends an archive, currently active requests will be allowed to complete, see S-DPL-16951, S-DPL-18275; and the operator/DAAC can elect to continue to activate ingest requests and granules that target a suspended archive, see S-DPL-16460. However, in the case of automatic suspension, the activity that caused the suspension will be retried.]	Completed
ECS-L4-12944	S-DPL-18285 The Data Pool Ingest Service shall create an application log whose format is compatible with ECS application logs.	Completed
ECS-L4-12945	S-DPL-18290 The Data Pool Ingest Service shall roll over application log files when they exceed a configured maximum size	Completed
ECS-L4-12946	S-DPL-18295 The Data Pool Ingest Service shall log Cancellation Requests, including the following information: a. success or failure b. if failure, the reason for the failure c. identification of the requester, if available	Completed
ECS-L4-12947	S-DPL-18296 The Data Pool Ingest Service shall log Requests for priority changes, including the following information: a. success or failure b. if failure, the reason for the failure c. identification of the requester, if available	Completed
ECS-L4-12948	S-DPL-18300 The Data Pool Ingest Service shall log Suspension Requests, including the following information: a. success or failure b. if failure, the reason for the failure, c. identification of the requester, if available.	Completed

ID	Title	Status
ECS-L4-12949	S-DPL-18310 The Data Pool Ingest Service shall log Resumption Requests, including the following information: a. success or failure b. if failure, the reason for the failure, c. identification of the requester, if available.	Completed
ECS-L4-12950	S-DPL-18320 The Data Pool Ingest Service shall log all errors, including the following: a. Request identification, if applicable, b. Granule Identification, if applicable, c. File information, if applicable, d. Error Type, Severity, and Explanation, e. Data provider, if applicable.	Completed
ECS-L4-12951	S-DPL-18330 The Data Pool Ingest Service shall log alerts that it raises, including the following: a. Identifying information for the resource, b. Type of alert and explanation.	Completed
ECS-L4-12952	S-DPL-18335 The Data Pool Ingest Service shall log operator interventions that it requests, including the following: a. Request identification, b. Type of intervention and explanation.	Completed
ECS-L4-12953	S-DPL-18340 The Data Pool Ingest Service shall log suspension and resumption of queues and resources, including the following: a. Identification of the queue or resource.	Completed
ECS-L4-12954	S-DPL-18345 The Data Pool Ingest Service shall log the start and completion of PDR validation, including the following information: a. Data provider, b. Polling location c. PDR file name, d. Request identification if available, e. Outcome.	Completed
ECS-L4-12955	S-DPL-18350 The Data Pool Ingest Service shall log the start and completion of file transfers, including the following information: a. Data provider, b. Source and Target locations c. File name, d. File size e. Request identification, f. Granule identification, g. Outcome.	Completed
ECS-L4-12956	S-DPL-18360 The Data Pool Ingest Service shall log the start and completion of checksum calculations, including the following information: a. Data provider, b. File path name, c. File size, d. Type of checksum, calculated checksum and – if applicable – original checksum e. Request identification, f. Granule identification, g. Outcome.	Completed
ECS-L4-12957	S-DPL-18362 The Data Pool Ingest Service shall log the start and completion of compression, including the following information: a. Data provider, b. File path name, c. File size, d. Type of compression, e. Request identification, f. Granule identification, g. Outcome.	Completed
ECS-L4-12958	S-DPL-18365 The Data Pool Ingest Service shall log the start and completion of preprocessing operations such as pointer translation, including the following information: a. Data provider, b. Request identification, c. Granule identification, d. Outcome.	Completed
ECS-L4-12959	S-DPL-18366 The Data Pool Ingest Service shall log the start and completion of archiving operations for granules, including the following information: a. Data provider, b. Request identification, c. ECS granule ID, d. archive, e. Outcome.	Completed
ECS-L4-12960	S-DPL-18367 The Data Pool Ingest Service shall log the start and completion of archiving operations for files, including the following information: a. Data provider, b. Request identification, c. ECS granule ID, d. Source and target file name, e. archive, f. Outcome.	Completed
ECS-L4-12961	S-DPL-18370 The Data Pool Ingest Service shall log the start and completion of SDSRV metadata inserts, including the following information: a. Data provider, b. Request identification, c. Granule identifications, including Data Pool granule ID, when available, d. Outcome.	Completed

ID	Title	Status
ECS-L4-12962	S-DPL-18375 The Data Pool Ingest Service shall log queuing Data Pool insert actions, including the following information: a. Data provider, b. Request identification, c. Granule identifications, including Data Pool granule ID, when available, d. Outcome.	Completed
ECS-L4-12963	S-DPL-18380 The Data Pool Ingest Service shall log the start and completion of ingest operations for a granule, including the following information: a. Data provider, b. Request identification, c. Granule identifications, including Data Pool and ECS granule ID, when available, d. Outcome.	Completed
ECS-L4-12964	S-DPL-18385 The Data Pool Ingest Service shall log the start and completion of ingest operations for a request, including the following information: a. Data provider, b. Request identification, c. Outcome.	Completed
ECS-L4-12965	S-DPL-18390 The Data Pool Ingest Service shall be able to generate a performance log compatible with the ECS performance log format to provide information about the frequency and duration of the following events: a. polling, separate by polling location b. file transfers, separate by source host c. PDR validation d. granule preprocessing e. granule metadata insert f. DELETED g. database transactions (e.g., stored procedure calls), separate by type of stored procedure h. mutex locks, separate by locked resource i. archive write operations, separate by archive j. ingest notification transfers, separate by target host	Completed
ECS-L4-12966	S-DPL-18400 The Data Pool CI shall be able to ingest data distributed by another DAAC for cross-DAAC ingest.	Completed
ECS-L4-12967	S-DPL-18410 The Data Pool CI shall be able to accept the metadata of data distributed by another DAAC for cross-DAAC ingest in .met as well as XML file formats.	Completed
ECS-L4-12968	S-DPL-18420 The Data Pool CI shall verify the checksums of data it ingests from another DAAC.	Completed
ECS-L4-12969	S-DPL-18430 The Data Pool Ingest Service shall be able to operate concurrently with the current INGST and STMGST CI.	Completed
ECS-L4-12970	S-DPL-18435 The Data Pool Ingest Service shall maintain request and granule states and information compatible with the INGST CI, except as required by S-DPL-18200 and S-DPL-18210.	Completed
ECS-L4-12971	S-DPL-18440 The Data Pool Ingest Service shall not include requests and granules in its throughput statistics that were ingested by the INGST CI.	Completed
ECS-L4-12972	S-DPL-18445 The Data Pool Ingest Service shall initialize any configuration information required by the Data Pool Ingest Service, such as provider information, polling locations, hosts to be used for file transfer and checksums, etc. based on current INGST CI configuration information. [NOTE: The information items that need to be transferred, and when and how the transfer will be effected, is TBD by PDR , once it as been decided which configuration information is shared between the INGST CI and DPL CI.]	Completed
ECS-L4-12973	S-DPL-18450 The DPL CI shall not remove ingested granules from the Data Pool until the corresponding ingest request completes. [NOTE: This includes cleanup request submitted by the OMS CI.]	Completed
ECS-L4-12975	S-DPL-18460 The DPL CI shall remove the original versions of browse granules from the Data Pool after their ingest request completes, unless they are still needed in fulfillment of orders, or their retention in the non-public area has not yet expired, even if their jpeg representations need to be left in the public Data Pool.	Completed
ECS-L4-12983	S-DPL-18600 The DPL CI shall not permit the ECSBBR collection to be enabled for insertion into the public Data Pool.	Completed

ID	Title	Status
ECS-L4-12985	S-DPL-18805 The Data Pool Insert Service shall archive Browse, QA or PH granules if any of the science granules with which they are cross-referenced are being archived.	Completed
ECS-L4-12987	S-DPL-18815 The Data Pool Ingest Service shall rename the files of a granule during archiving using the ECS granule ID that was pre-assigned to that granule and consistent with the SDSRV CI internal file naming convention. [NOTE: see S-DPL-18178 for the requirement for pre-assigning an ECS granule identifier.]	Completed
ECS-L4-12988	S-DPL-18820 The Data Pool Ingest Service shall execute the archive write operations on the ECS Service Hosts configured for that purpose (see S-DPL-16460).	Completed
ECS-L4-12989	S-DPL-18825 The Data Pool Ingest Service shall observe the configured limit on the number of concurrent archive write operations for an ECS Service Host (see S-DPL-16460).	Completed
ECS-L4-12990	S-DPL-18830 The Data Pool Ingest Service shall cancel an archive write operation if it does not complete within the time limit established in accordance with the configured time-out parameters, and retry the write operation until the configured number of maximum retries is exceeded, failing the archiving operation thereafter (see S-DPL-16460). [NOTE: Configuring the number of retries to zero would have the effect of failing the write operation without retry. Note that N consecutive failures or timeouts of all current archive operations will cause an alert, as per S-DPL-16482.]	Completed
ECS-L4-12991	S-DPL-18835 The Data Pool Ingest Service shall not dispatch archive write operations that require access to an archive that is suspended by the operator unless the corresponding ingest request was activated before the archive was suspended.	Completed
ECS-L4-12992	S-DPL-18840 The Data Pool Ingest Service shall suspend a granule whenever one of its write operations to one of its archive locations has encountered errors that could not be cleared by automatic retry, except when the error situation results in an operator alert.	Completed
ECS-L4-12993	S-DPL-18845 The Data Pool Ingest Service shall include the internal file information in the SDSRV metadata.	Completed
ECS-L4-12994	S-DPL-18850 The Data Pool Ingest Service shall record throughput statistics for archiving operations in the Data Pool Ingest database, as measured in terms of the number of granules and data volume per configured time interval (see S-DPL-16546): a. by archive, b. by Data Pool file system.	Completed
ECS-L4-12995	S-DPL-18855 The Data Pool Ingest Service shall obtain the cache status for archives in regular time intervals, as configured by the operator, and check the result against the configured alert thresholds.	Completed
ECS-L4-12996	S-DPL-20100 The Data Pool Insert Service shall allow configuration of a default retention period for all Data Pool Insert actions.	Completed
ECS-L4-12997	S-DPL-20150 The Data Pool Insert Service shall allow configuration of a default retention priority for all Data Pool Insert actions.	Completed
ECS-L4-12998	S-DPL-20200 The Data Pool Insert Service shall allow an operator to specify, as configuration items, the mapping of ESDTs to Data Pool Collection groups.	Completed
ECS-L4-12999	S-DPL-20350 The Data Pool Insert Service shall prevent the insertion of ineligible data types in the Data Pool.	Completed

ID	Title	Status
ECS-L4-13000	S-DPL-20400 The Data Pool Insert Service shall allow an operator to specify, as configuration items, the shortname/versionids of ECS data types which are eligible only to have metadata for qualifying granules inserted into the Data Pool.	Completed
ECS-L4-13001	S-DPL-20450 The Data Pool Insert Service shall prevent the insertion of science files into the Data Pool for data types which are configured as eligible for metadata insert only.	Completed
ECS-L4-13002	S-DPL-20500 The Data Pool Insert Service shall prevent duplicate insertion of an ECS granule into the Data Pool.	Completed
ECS-L4-13003	S-DPL-20600 The Data Pool Insert Service shall prevent the partial insertion of ECS granules into the Data Pool if there is insufficient free space remaining in the Data Pool.	Completed
ECS-L4-13004	S-DPL-20650 The Data Pool Insert Service shall allow an operator to suspend all Data Pool insert actions.	Completed
ECS-L4-13005	S-DPL-20660 The Data Pool Insert Service shall log the time (at least to the millisecond) at which Data Pool insert actions are suspended by the operator.	Completed
ECS-L4-13006	S-DPL-20670 The Data Pool Insert Service shall allow an operator to resume all Data Pool insert actions after they have been suspended.	Completed
ECS-L4-13007	S-DPL-20680 The Data Pool Insert Service shall log the time (at least to the millisecond) at which Data Pool insert actions are resumed by the operator.	Completed
ECS-L4-13008	S-DPL-20700 The Data Pool Insert Service shall allow the operator to control the number of insert processes (so that Data Pool insert throughput can be tuned to demand and platform capacity).	Completed
ECS-L4-13009	S-DPL-20740 The Data Pool Insert Service shall allow the operator to determine the number of insert processes running, and the status of each.	Completed
ECS-L4-13010	S-DPL-20750 The Data Pool Insert Service shall allow the operator to determine the number of pending Data Pool insert requests, and the subscription id, shortname/versionid, and dbid (granuleId or browseId) associated with each.	Completed
ECS-L4-13011	S-DPL-20760 The Data Pool Insert Service shall allow the operator to cancel a pending Data Pool insert request.	Completed
ECS-L4-13012	S-DPL-20770 The Data Pool Insert Service shall log the following information when the operator cancels a pending Data Pool insert request: a. The time (at least to the millisecond) at which the request was cancelled. b. The subscription id associated with the request c. The shortname/versionid associated with the request d. The dbid associated with the request.	Completed
ECS-L4-13013	S-DPL-20800 When a granule is inserted into ECS which qualifies for one or more Data Pool Insert subscriptions, the Data Pool Insert Service shall insert a metadata file into the Data Pool disks for that granule.	Completed
ECS-L4-13014	S-DPL-20900 The metadata file shall contain all ECS granule level metadata for that granule.	Completed
ECS-L4-13015	S-DPL-21000 The Data Pool Insert Service shall insert the metadata file into the Data Pool disk directory structure in the lowest level directory, based on Data Pool Collection Group, shortname/versionid, and data acquisition time of the corresponding ECS granule.	Completed
ECS-L4-13016	S-DPL-21050 The Data Pool Insert Service shall create the appropriate lowest level directory if it does not exist.	Completed

ID	Title	Status
ECS-L4-13017	S-DPL-21100 The Data Pool Insert Service shall insert the metadata file into the Data Pool disks in XML format, per the Granule-Level Metadata Document Type Definition (DTD) in Section A.3 of Appendix A, 'Bulk Metadata and Browse Export Capability for the ECS Project' (170-WP-023-011, 9/27/00).	Completed
ECS-L4-13018	S-DPL-21200 The Data Pool Insert Service shall insert the metadata file into the Data Pool disks with an .xml extension.	Completed
ECS-L4-13019	S-DPL-21300 The Data Pool Insert Service shall insert the metadata file into the Data Pool disks with the same external file name as the corresponding .met file in ECS.	Completed
ECS-L4-13021	S-DPL-21500 The Data Pool Insert Service shall calculate the expiration date/time of a granule by adding the longest retention period of all Data Pool Insert actions associated with the granule to the Data Pool insert date/time.	Completed
ECS-L4-13022	S-DPL-21600 The Data Pool Insert Service shall calculate the retention priority of a granule as the highest retention priority of all Data Pool Insert actions associated with the granule.	Completed
ECS-L4-13023	S-DPL-21700 When a granule is inserted into ECS which qualifies for one or more Data Pool Insert subscriptions, the Data Pool Insert Service shall insert all files containing science data for that granule into the Data Pool disks, unless the Insert Metadata Only option has been specified for all corresponding Data Pool Insert subscriptions.	Completed
ECS-L4-13024	S-DPL-21800 The Data Pool Insert Service shall insert the science data file(s) into the Data Pool disk directory structure in the lowest level directory, based on Data Pool collection group, shortname/versionid, and data acquisition time of the corresponding ECS granule.	Completed
ECS-L4-13025	S-DPL-21900 The Data Pool Insert Service shall insert the science data file(s) into the Data Pool disks in the original ECS format.	Completed
ECS-L4-13026	S-DPL-22000 The Data Pool Insert Service shall insert the science data file(s) into the Data Pool disks with the same external file name(s) as the corresponding file(s) in ECS.	Completed
ECS-L4-13027	S-DPL-22100 The Data Pool Insert Service shall insert the science data file(s) into the Data Pool disks with the same external file name extension(s) as the corresponding file(s) in ECS.	Completed
ECS-L4-13028	S-DPL-22200 The Data Pool Insert Service shall insert into the Data Pool all Browse images associated with science granules residing in the Data Pool .	Completed
ECS-L4-13029	S-DPL-22300 The Data Pool Insert Service shall insert the Browse image(s) into the Data Pool disk directory structure such that each Browse image is present only once on the Data Pool disks.	Completed
ECS-L4-13030	S-DPL-22350 The Data Pool Insert Service shall prevent the insertion of Browse images into the Data Pool if they are not associated with any Data Pool granules.	Completed
ECS-L4-13031	S-DPL-22400 The Data Pool Insert Service shall insert the Browse images into the Data Pool disks in jpeg format.	Completed
ECS-L4-13032	S-DPL-22500 The Data Pool Insert Service shall insert the Browse images into the Data Pool disks with a file name which includes the external file name of the corresponding Browse file in ECS, and which includes an image sequence number	Completed
ECS-L4-13033	S-DPL-22600 The Data Pool Insert Service shall insert the Browse images into the Data Pool disks with a .jpg file extension.	Completed

ID	Title	Status
ECS-L4-13034	S-DPL-22700 The Data Pool Insert Service shall store a link to each Data Pool Browse imagefile in each lowest level Data Pool directory containing at least one related science and/or metadata file.	Completed
ECS-L4-13036	S-DPL-22900 The concurrent insert action of a science granule and a related Browse granule into the Data Pool shall not result in incompatible Browse cross reference linkages.	Completed
ECS-L4-13037	S-DPL-23000 The Data Pool Insert Service shall log the following events as they occur to a Data Pool log file. a. start of Data Pool insert b. completion of Data Pool insert c. start of a file transfer from the ECS archive to the Data Pool d. completion of a file transfer from the ECS archive to the Data Pool e. retrievable errors f. non-retrievable errors	Completed
ECS-L4-13039	S-DPL-23250 The Data Pool Insert Service shall generate a default name for the insert log file.	Completed
ECS-L4-13040	S-DPL-23260 The Data Pool Insert Service shall append output to the insert log file if it already exists.	Completed
ECS-L4-13041	S-DPL-23270 The Data Pool Insert Service shall create the insert log file if it does not exist.	Completed
ECS-L4-13043	S-DPL-23350 The Data Pool Insert Service shall not start further Data Pool Insert actions if the 'No Free Space' flag is set.	Completed
ECS-L4-13044	S-DPL-23355 The Data Pool Insert Service shall automatically resume processing of Data Pool Insert actions when the 'No Free Space' flag is cleared.	Completed
ECS-L4-13045	S-DPL-23360 The Data Pool Insert Service shall allow the operator to determine whether the 'No Free Space' flag is set.	Completed
ECS-L4-13046	S-DPL-23370 The Data Pool Insert Service shall allow the operator to reset the 'No Free Space' flag.	Completed
ECS-L4-13048	S-DPL-23450 The Data Pool Insert Service shall return a fatal error for inserts which fail non-retrievably (e.g., when the granule to be inserted is not found in ECS.)	Completed
ECS-L4-13049	S-DPL-23500 The Data Pool Insert Service shall be able to operate in multiple modes concurrently.	Completed
ECS-L4-13055	S-DPL-23940 The Data Pool Band Transition utility shall be able to stop and restart without losing track of which granules have been already processed.	Completed
ECS-L4-13056	S-DPL-23950 The Data Pool Band Transition utility shall not take more than one second in processing time per granule.	Completed
ECS-L4-13057	S-DPL-25010 The Data Pool Archive GUI shall allow multiple operators to monitor and manage Data Pool archiving concurrently from different workstations.	Completed
ECS-L4-13058	S-DPL-25020 The Data Pool Archive Service shall support concurrent operation in multiple modes on the same and different hosts.	Completed
ECS-L4-13059	S-DPL-25030 The Data Pool Archive GUI shall support monitoring and managing Data Pool archiving in multiple modes concurrently on the same and different workstations. [NOTE: However, a single instance of the GUI will support one and only one mode.]	Completed
ECS-L4-13060	S-DPL-25040 The Data Pool Archive GUI shall display the mode in which it is operating.	Completed
ECS-L4-13061	S-DPL-25050 The Data Pool Archive GUI shall be accessible via the web browsers that support the Data Pool Ingest GUI.	Completed
ECS-L4-13062	S-DPL-25060 It must be possible to protect the Data Pool Archive GUI against external access via appropriate configuration of the ECS firewall.	Completed

ID	Title	Status
ECS-L4-13063	S-DPL-25080 The Data Pool Archive GUI shall use the same authorizations as the DPL Ingest GUI. [NOTE: This includes using a common login and applying the same authorization level for an operator to Data Pool archiving as to Data Pool ingest.]	Completed
ECS-L4-13064	S-DPL-25099 The Data Pool Archive GUI shall be integrated with the Data Pool Ingest GUI in the sense that operators perceive the two as parts of the same GUI, with archiving and ingest information sharing the same screen where appropriate. [NOTE: This requirement will be verified by inspection during GUI reviews.]	Completed
ECS-L4-13065	S-DPL-25100 The Data Pool Archive GUI shall allow authorized ('ingest and archive tuning') operators to configure (i.e., define and edit) the following archiving policy parameters, separate for each volume group, as well as defaults to be used if no configuration information specific for a volume group exists: a. A 'data volume threshold' for triggering archiving for the volume group in terms of data volume, b. A 'granule count threshold' for triggering archiving for the volume group in terms of number of granules, c. A 'time threshold' for triggering archiving for the volume group in terms of the time that expired since the last time the volume group was archived. [NOTE: That threshold will be ignored if the volume group has accumulated less data than the configured minimum data threshold, see clause d.] d. A 'minimum data threshold' for the minimum amount of data that must be waiting for archiving in a volume group before the volume group is considered eligible for archiving [NOTE: This will lead to a warning with request for confirmation if the operator attempts to activate the archiving of this volume group manually.] e. A 'maximum wait threshold' in terms of the time that expired since the last time the volume group was archived which when exceeded, will cause the configured minimum data threshold (see clause d.) to be ignored. [NOTE: The primary and backup volume groups and the date for separating forward and reprocessing volume groups are defined in the STMGT database for each collection. The definitions take the form of target directories located in an AMASS file system. DAAC operations will continue to use the STMGT GUI to maintain that information. The Data Pool Archive GUI is used only to provide additional configuration information. The mapping of the STMGT volume group directories to tape volume groups is defined in AMASS. Throughout the requirements, the term 'volume group' refers to tape volume groups unless explicitly specified otherwise.]	Completed

ID	Title	Status
ECS-L4-13066	<p>S-DPL-25110 The Data Pool Archive GUI shall allow authorized ('ingest and archive tuning') operators to configure (i.e., define and edit) the following resource management policy parameters to control the utilization of DAAC resources (the final set is TBD by DDR): a. Maximum number of volume groups that the Data Pool Archive Service may archive in parallel, separate for each archive [NOTE: This limit will be ignored but lead to a warning which the operator must acknowledge if the limit is exceeded by manual activation of volume groups], b. Maximum number of concurrent write operations to the archive cache per volume group, separately for each volume group, and a default value by archive to be used in the case that a separate value for a volume group has not been configured, c. The number of dirty cache blocks and the number of consumed F-nodes which when reached will trigger an operator alert, separate for each archive [feasibility is TBD by PDR], d. The number of dirty cache blocks and the number of consumed F-nodes which when reached will trigger an operator alert and cause archiving for that archive to be suspended, separate for each archive [feasibility is TBD by PDR], e. A threshold which when underrun will clear the alerts referenced in c. and d., in terms of percent of the original threshold [feasibility is TBD by PDR], f. Parameters to calculate a time limit for cache write operations before assuming that they are hung, consisting of a minimum expected throughput and a time constant reflecting maximum expected fixed delays, separate for each archive [necessity is TBD by DDR], g. The number of consecutive archiving errors or hung copy operations that shall trigger an archive alert, independent of archive. [NOTE: The term 'archive' refers to the silo, not the archive host. Currently, there are archive hosts with more than one silo, and the future hardware architecture will evolve in that direction. The archive hosts are defined in the STMGT database and DAAC operations will continue to use the STMGT GUI to maintain that information. The Data Pool Archive GUI is used only to provide additional configuration information]</p>	Completed
ECS-L4-13067	<p>S-DPL-25150 The Data Pool Archive GUI shall allow authorized ('ingest and archive tuning') operators to configure the following Data Pool Archive Service cleanup parameters: a. the amount of time (in days) for which to retain information about completed archiving requests in the active database tables, b. the amount of time (in hours) for which to retain information about closed archiving interventions in the active database, c. the amount of time (in months) for which to retain information about completed archiving requests in the historic database tables, d. the amount of time (in months) for which to retain system monitoring information, e. the frequencies with which to perform the various cleanup operations. [NOTE: The cleanup parameters are meant to be distinct from those used by the Data Pool Ingest Service to cleanup its active requests, etc.]</p>	Completed
ECS-L4-13068	<p>S-DPL-25160 The Data Pool Archive GUI shall allow authorized ('ingest and archive tuning) operators to configure (i.e., define and edit) retry parameters (retry interval and maximum number of retries) for: a. retrying archive accesses, b. retrying Data Pool file system accesses [NOTE: This retry parameter is the same as that used by the Data Pool Ingest Service], c. retrying volume group archiving requests when they cannot be activated.</p>	Completed

ID	Title	Status
ECS-L4-13069	S-DPL-25170 The Data Pool Archive GUI shall allow authorized ('ingest and archive tuning') operators to configure (i.e., define and edit) retry intervals for the following types of alert situations: a. an archive is suspended automatically and access to it needs to be retried, b. a Data Pool file system is suspended automatically and needs to be retried [NOTE: This retry parameter is the same as that used by the Data Pool Ingest Service.]	Completed
ECS-L4-13070	S-DPL-25180 The Data Pool Archive GUI shall allow authorized ('ingest and archive tuning') operators to configure (i.e., define and edit) the time interval for performing archive cache status checks.	Completed
ECS-L4-13071	S-DPL-25181 The Data Pool Archive GUI shall ask operators to confirm any changes to Data Pool archiving configuration parameters before saving them.	Completed
ECS-L4-13072	S-DPL-25185 The Data Pool Archive GUI shall allow all operators to view all Data Pool archiving configuration parameters.	Completed
ECS-L4-13073	S-DPL-25190 The Data Pool Archive Service shall make configuration changes effective within one minute after they were changed and saved via the Data Pool Archive GUI without requiring rebooting, with the exception of the following: a. A list of configuration parameters that require rebooting in order for their change to take effect is TBD by DDR .	Completed
ECS-L4-13074	S-DPL-25200 The Data Pool Archive GUI shall allow operators to list the archive volume groups and display for each volume group: a. volume group host and path name(s) [TBD by PDR whether there can be more than one volume group path name], b. the number of granules and the total data volume currently in the Data Pool for that volume group but not yet archived, as well as the corresponding thresholds, c. the last time the volume group was archived, the elapsed time since then and the corresponding age threshold, d. status of the volume group, such as whether it is currently queued for archiving, in the process of being archived, or suspended, e. any resource management policy parameters configured for the volume group.	Completed
ECS-L4-13075	S-DPL-25210 The Data Pool Archive GUI shall allow operators to filter the list of archive volume groups by the following criteria: a. archive, b. status, c. one or several ESDT allocated to the volume group.	Completed
ECS-L4-13076	S-DPL-25220 The Data Pool Archive GUI shall allow operators to sort the list of archive volume groups by the following criteria: a. archive, b. status.	Completed
ECS-L4-13077	S-DPL-25230 The Data Pool Archive GUI shall allow authorized ('ingest and archive control') operators to select one or several volume groups and suspend their archiving. [NOTE: Suspending a volume group will not affect archive cache write operations that are already in progress. It will prevent any archiving request for the volume group from being activated; and if an archiving request for the volume group is currently active, no new archive cache write operations for it will be dispatched once the granules complete that are currently archiving.]	Completed
ECS-L4-13078	S-DPL-25240 The Data Pool Archive GUI shall allow authorized ('ingest and archive control') operators to resume the archiving of a suspended volume group. [NOTE: This makes the volume group eligible for being activated for archiving again, and will allow its archive write operations to be dispatched.]	Completed

ID	Title	Status
ECS-L4-13079	S-DPL-25250 The Data Pool Archive GUI shall allow authorized ('ingest and archive control') operators to cancel an archiving request. [NOTE: This will cancel all write operations for the request that are already in progress and then terminate it. The granules whose write operations were canceled or were never dispatched will not be considered archived and will be archived the next time the corresponding volume group is dispatched. If any granules failed, an operator intervention will be generated so the operator can disposition those. In essence the request is interrupted and will appear as if the remaining granules (for which archiving was never attempted) had not been part of the request. Operations may employ this capability to halt archiving operations for a particular archive immediately (see also S-DPL-25400).]	Completed
ECS-L4-13080	S-DPL-25260 The Data Pool Archive GUI shall allow authorized ('ingest and archive control') operators to select one or several volume groups that are currently not queued for archiving and queue archiving request for them.	Completed
ECS-L4-13081	S-DPL-25270 The Data Pool Archive GUI shall allow authorized ('ingest and archive control') operators to select one or several volume groups for which there are currently no active archiving requests and activate archiving requests for them (whether currently queued or not), provided that there is currently data for that volume group in the Data Pool that needs archiving.	Completed
ECS-L4-13082	S-DPL-25280 The Data Pool Archive GUI shall warn operators when they queue or activate an archiving request for a volume group that has less data to be archived than the configured minimum archiving threshold, or if the activation of these volume groups will cause the limit of volume groups that can be archived in parallel to be exceeded, or if the corresponding archive is suspended.	Completed
ECS-L4-13083	S-DPL-25290 The Data Pool Archive GUI shall ask the operator to confirm the activation of archiving for a volume group after displaying any related warnings.	Completed
ECS-L4-13084	S-DPL-25292 The Data Pool Archive GUI shall not permit the operator to activate the archiving of volume groups requiring an archive or a file system that is currently suspended.	Completed
ECS-L4-13085	S-DPL-25300 The Data Pool Archive GUI shall allow operators to list the archiving requests that are currently queued or active, listing the active ones first and sorting both list by archive and the queued ones within archive by current queue position, and display the following information for each archiving request: a. archive name, b. volume group host and path name(s) and volume group status (e.g., whether suspended), c. request status, i.e., queued or active, d. the number of granules and the total data volume to be written, e. resource management policy parameters configured for the volume group, and if the request is currently active, also the following: f. the number of granules and data volume written so far and current copy throughput (the meaning of 'current' is TBD by DDR), g. whether at last check a drive was assigned to writing the volume group [feasibility is TBD by PDR].	Completed
ECS-L4-13086	S-DPL-25301 The Data Pool Archive GUI shall precede the list of active and queued volume groups with information for each archive,	Completed
ECS-L4-13087	S-DPL-25305 The Data Pool Archive GUI shall allow operators to filter the list of archive requests by: a. archive name, b. status (i.e., queued or active or both), c. any combination of a. or b.	Completed
ECS-L4-13088	S-DPL-25320 The Data Pool Archive GUI shall allow an operator to manually refresh the screen listing the archiving requests.	Completed

ID	Title	Status
ECS-L4-13089	S-DPL-25330 The Data Pool Archive GUI shall permit operators to automatically refresh the screen listing archiving requests at an operator selected refresh interval of no less than N minutes. [NOTE: The value for N is TBD by PDR . It needs to be short enough to permit effective monitoring; and long enough to avoid overloading the data base when multiple monitoring stations are used by a DAAC concurrently.]	Completed
ECS-L4-13090	S-DPL-25340 The Data Pool Archive GUI shall allow operators to display historic information about archiving requests performed by the DPL Archive Service, to: a. archive name, b. volume group host and path, c. start and completion date and time of the request, d. data volume in terms of amount of data and number of granules/files, e. final status, e.g., in terms of whether or not all granules were archived successfully, f. the number of granules not completed, g. average throughput achieved by that request [NOTE: Ideally, this would be the throughput achieved by its archive cache write operations and exclude 'dead time', e.g., while the request was suspended], h. indication whether the archiving request experienced suspension of resources, i. any operator annotations accumulated in interventions related to the volume group archiving request.	Completed
ECS-L4-13091	S-DPL-25345 The Data Pool Archive GUI shall allow operators to filter historic information about archiving requests performed by the DPL archive service by: a. archive, b. volume group, c. date/time period of start time or date/time period of completion time, d. final status, i.e., whether or not all granules were archived successfully, e. any combination of a. or b. with d. and e.	Completed
ECS-L4-13092	S-DPL-25350 The Data Pool Archive GUI shall allow operators to sort historic information about archiving requests performed by the DPL archive service by: a. start date/time, or b. completion date/time, or c. archive and volume group, or d. the number of granules that failed.	Completed
ECS-L4-13093	S-DPL-25360 The Data Pool Archive Service shall move information about completed archiving requests on a regular basis from the active to the historic database tables, leaving only information for the last configured number of days in the active database tables.	Completed
ECS-L4-13094	S-DPL-25362 The Data Pool Archive Service shall remove closed interventions on a regular basis, leaving only interventions for the last configured number of hours in the database.	Completed
ECS-L4-13095	S-DPL-25365 The Data Pool Archive Service shall remove historic information about completed archiving requests on a regular basis from the historic database tables, leaving only information for the last configured number of months in the database.	Completed
ECS-L4-13096	S-DPL-25370 The Data Pool Ingest Service shall remove any accumulated system monitoring information (e.g., alerts and throughput statistics) on a regular basis, leaving only system monitoring information for last configured number of months in the database.	Completed
ECS-L4-13097	S-DPL-25380 The Data Pool Archive GUI shall allow operators to display the Data Pool Archive Service status, to include: a. the list of archives in sequence of their name and status for each b. the list of Data Pool file systems in sequence of their name and status for each [NOTE: It is desirable to combine Data Pool Archive Service status with the corresponding archive / file system information displayed as part of the Data Pool Insert service status.]	Completed

ID	Title	Status
ECS-L4-13098	S-DPL-25390 The Data Pool Archive GUI shall include the following information as part of the archive status in the list of archives: a. archive name b. whether the archive is currently suspended, c. the number of Data Pool archive requests for it that are queued and active, d. the number of granules and the total data volume currently in the Data Pool destined for the archive but not yet archived e. number of dirty cache blocks, number of consumed F-nodes, as well as the corresponding thresholds [Feasibility is TBD by PDR], except if the archive is disk based.] [NOTE: The term 'archive' refers to a silo rather than archive host.]	Completed
ECS-L4-13099	S-DPL-25400 The Data Pool Archive GUI shall allow authorized ('ingest and archiving control') operators to suspend Data Pool archiving for an archive. [NOTE: Suspending an archive will not affect archiving requests that are already in progress (they will be allowed to complete), but it will prevent the activation of new archiving requests for that archive. The purpose of suspending an archive is to permit operators to quiesce the archiving operations for an archive, e.g., in preparation for maintenance. To terminate the archiving operations for an archive immediately, the operator would first suspend the archive and then cancel any archiving requests for the archive that are still active.]	Completed
ECS-L4-13100	S-DPL-25405 The Data Pool Archive GUI shall allow authorized ('ingest and archiving control') operators to resume Data Pool archiving for an archive.	Completed
ECS-L4-13101	S-DPL-25410 The Data Pool Archive GUI shall include the following information as part of the file system status in the list of Data Pool file systems: a. status of the file system, e.g., whether the file system is full or suspended, b. status of the archiving operations for the file system, i.e., whether archiving operations for the file system are enabled or suspended, and whether archiving requests for volume groups that have data on the file system are currently active, c. the number of granules and the total data volume currently in that file system that need archiving.	Completed
ECS-L4-13102	S-DPL-25430 The Data Pool Archive GUI shall allow an operator to manually refresh the screen displaying the current status of Data Pool Archiving.	Completed
ECS-L4-13103	S-DPL-25435 The Data Pool Archive GUI shall permit operators to automatically refresh the screen displaying the current status of Data Pool Archiving at an operator selected refresh interval of no less than N minutes. [NOTE: The value for N is TBD by PDR . It needs to be short enough to permit effective monitoring; and long enough to avoid overloading the data base when multiple monitoring stations are used by a DAAC concurrently.]	Completed
ECS-L4-13104	S-DPL-25440 The Data Pool Archive Service shall request an operator intervention for an archiving request whenever its archiving operation has encountered errors that could not be cleared by automatic retry, except in those cases explicitly excepted by other requirements or when the error situation generated an operator alert.	Completed
ECS-L4-13105	S-DPL-25445 The Data Pool Archive Service shall request an operator intervention for an archiving request if the archiving request terminates or was cancelled and at least one of the granules in the request for which archiving was attempted failed to archive despite retries.	Completed
ECS-L4-13106	S-DPL-25450 The Data Pool Archive Service shall not have more than one request for operator intervention for a given archiving request pending at the same time.	Completed

ID	Title	Status
ECS-L4-13107	S-DPL-25455 The Data Pool Archive Service shall identify the granules that failed during archiving of a volume group, as well as the reason for each failure in terms of an intervention type (preliminary classification of failure causes is TBD by PDR) and error details.	Completed
ECS-L4-13108	S-DPL-25460 The Data Pool Archive Service shall not include suspended or failed granules in a volume group archiving request. [NOTE: This prevents suspended granules from being retried before the operator had a chance to make a disposition; and it prevents failed granules from being retried over and over again once the operator decided that they cannot be archived due to some permanent error.]	Completed
ECS-L4-13109	S-DPL-25465 The Data Pool Archive Service shall include the following information in the notifications about operator interventions: a. volume group, number of suspended granules, and nature of the error (i.e., indicative of the type of error) that caused the intervention in the subject line, b. intervention detail that would be displayed on the intervention detail screen as part of the e-mail body, including a list of the failed granules and the cause for each failure. [NOTE: Refer to S-DPL-17255 in DP_S6_01.]	Completed
ECS-L4-13110	S-DPL-25470 The Data Pool Archive Service shall add the information associated with interventions (e.g., annotations, outcome) to the request annotation when the interventions are closed.	Completed
ECS-L4-13111	S-DPL-25475 The DPL Archive GUI shall allow authorized ('ingest and archiving admin') operators to configure an optional e-mail address to which notifications about operator interventions shall be sent. [NOTE: Refer to S-DPL-17250 in DP_S6_01.]	Completed
ECS-L4-13112	S-DPL-25480 The Data Pool Archive GUI shall allow operators to monitor for operator interventions requested by the Data Pool Archive Service such that new interventions can be displayed within 20 seconds of them having been requested by the Data Pool Archive Service, e.g., by allowing operators to list new and open interventions and allowing the operator to refresh that list manually, as well as via automatic refresh as often as every 20 seconds.	Completed
ECS-L4-13113	S-DPL-25490 The Data Pool Archive GUI shall show on the screen that operators use to monitor for operator intervention requests, the following information for each archiving error intervention: a. time the intervention request was created, b. archive and volume group, c. type of the error causing the intervention [NOTE: The list of error types is TBD by DDR .], d. if available, the identification of the operator currently working the intervention, e. if available, the time the intervention was acknowledged. [NOTE: If a request has several suspended granules, they may have failed for different reasons. That is, multiple types of errors may be associated with that intervention.]	Completed
ECS-L4-13114	S-DPL-25495 The Data Pool Archive GUI shall permit an operator to filter open operator intervention requests by a. archive, b. volume group, c. error type, d. any combination of (a. or b.) and c.	Completed
ECS-L4-13115	S-DPL-25500 The Data Pool Archive GUI shall permit an operator to sort open operator intervention requests in ascending or descending order of creation time, with descending order (i.e., latest first) being the default.	Completed
ECS-L4-13116	S-DPL-25510 The Data Pool Archive GUI shall permit an operator to select an open operator intervention request from the monitoring screen for viewing and disposition.	Completed

ID	Title	Status
ECS-L4-13117	S-DPL-25515 The Data Pool Archive GUI shall permit an operator to select an open operator intervention request, acknowledge and annotate it. [NOTE: An intervention is considered acknowledged when it is viewed for the first time. Thereafter, the intervention is considered open but not new.] [NOTE: The operator may annotate the intervention, for example, if s/he cannot resolve the problem and wants to leave a note for the next shift.]	Completed
ECS-L4-13118	S-DPL-25520 The Data Pool Archive GUI shall permit an operator to select an open operator intervention and add an annotation.	Completed
ECS-L4-13119	S-DPL-25525 The Data Pool Archive GUI shall prefix each operator annotation with a time stamp (date and time) and the operator identification if known.	Completed
ECS-L4-13120	S-DPL-25530 The Data Pool Archive GUI shall display the accumulated operator annotations when displaying the intervention details.	Completed
ECS-L4-13121	S-DPL-25545 The Data Pool Ingest GUI shall list the suspended and failed granules that caused the intervention request when displaying the intervention details. [NOTE: It is undesirable to include in the list granules that are not suspended or were not failed by the operator]	Completed
ECS-L4-13122	S-DPL-25550 The Data Pool Ingest GUI shall include the following information in the list of granules displayed when viewing intervention details: a. ECS granule ID, b. data type name and version, c. granule status and type of the error [classification of errors is TBD by DDR], d. granule size.	Completed
ECS-L4-13123	S-DPL-25555 The Data Pool Ingest GUI shall permit an operator to view detailed information about a suspended granule shown as part of the intervention details, to include: a. number of files, b. the list of the pathnames of the files associated with the granule, c. detailed error information when available.	Completed
ECS-L4-13124	S-DPL-25560 The Data Pool Archive GUI shall permit an authorized ('ingest and archiving control') operator to select one or several or all of the suspended granules shown as part of the intervention details and confirm the failure. [NOTE: The granules are considered failed by the operator thereafter.]	Completed
ECS-L4-13125	S-DPL-25565 The Data Pool Archive GUI shall remove granules whose archiving operation was failed by the operator from the Data Pool and ECS inventories, but retain their files in the Data Pool for future inspection, and do so in such a fashion that these files will not be considered orphans.	Completed
ECS-L4-13126	S-DPL-25570 The Data Pool Archive GUI shall permit an authorized ('ingest and archiving control') operator to request that the Data Pool Archive Service retry all suspended granules shown as part of the intervention details that were not failed by the operator. [NOTE: These granules will be included the next time the volume group is queued for archiving.]	Completed
ECS-L4-13127	S-DPL-25575 The Data Pool Archive GUI shall permit an authorized ('ingest and archiving control') operator to close an intervention once the operator failed or requested the retry of all suspended granules.	Completed
ECS-L4-13128	S-DPL-25580 The Data Pool Archive GUI shall record the following information when closing an operator intervention: a. date/time of closure, b. nature of the disposition (i.e., whether any granules were failed), c. if available, the identification of the operator. [NOTE: Closed interventions are no longer displayed in the intervention monitoring screen.]	Completed

ID	Title	Status
ECS-L4-13129	S-DPL-25585 The Data Pool Archive Service shall raise an alert for an archive when one of the following situations occur: a. the target archive host cannot be accessed, b. the agent on the archive host that performs the archiving operation cannot be contacted, c. the target archive file system cannot be accessed (i.e., is not mounted, indicating that the Archive COTS is not active), d. write operations to the archive cache for N different files failed consecutively on accessing the same archive, e. the write operations for N consecutive granules for the same archive were hung, f. the number of dirty cache blocks or the number of F-nodes exceeds a configured threshold (this condition will not suspend the archive), g. the number of dirty cache blocks or the number of F-nodes exceeds another configured threshold (this condition will suspend the archive). [NOTE: In some of the above cases, N-1 granules will already be suspended. The value of N is configurable by the DAAC, S-DPL-25110.] [NOTE: The final list of alert situations is TBD by DDR.]	Completed
ECS-L4-13130	S-DPL-25590 The DPL CI shall raise no more than one operator alert for a given archive. [NOTE: Archive alerts may also be raised by the DPL CI while inserting granules from the archive into the Data Pool.]	Completed
ECS-L4-13131	S-DPL-25600 The Data Pool Archive Service shall suspend Data Pool archiving for an archive while an alert is currently pending for it unless other requirements explicitly specify otherwise, i.e., not activate any additional archiving request and not dispatch any more archive write operations for it.	Completed
ECS-L4-13132	S-DPL-25610 The Data Pool Archive Service shall automatically retry the operation whose failure caused an archive alert (e.g., connecting to the host and archiving agent, or re-copying a failed file) while the alert remains pending, using a globally configured retry time interval, and clear the alert and resume dispatching operations for that archive when a retry succeeds, unless Data Pool archiving for the archive was suspended by the operator.	Completed
ECS-L4-13133	S-DPL-25615 The Data Pool Archive Service shall clear the corresponding archive alert when it detects that the number of dirty cache blocks or consumed F-nodes for an archive has fallen below N% of the original threshold that caused the alert to be raised, where N is configured by the operator. [NOTE: If both parameters exceeded their threshold during the alert, the alert is only cleared after both parameters dropped below that lower threshold.]	Completed
ECS-L4-13134	S-DPL-25620 The Data Pool Archive Service shall raise an operator alert if during an attempt to activate archiving for the volume group, it discovers that there is no tape space available in the archive for that volume group.	Completed
ECS-L4-13135	S-DPL-25625 The Data Pool Archive Service shall suspend Data Pool archiving for a volume group while an alert is pending for it, except where noted otherwise explicitly in S-DPL-25585.	Completed
ECS-L4-13136	S-DPL-25630 The Data Pool Archive Service shall automatically retry the check for available archive space for a volume group while the alert remains pending, using a globally configured retry time interval, and clear the alert and resume archiving for the volume group when a retried check succeeds, unless Data Pool archiving for the volume group was suspended by the operator.	Completed

ID	Title	Status
ECS-L4-13137	S-DPL-25640 The Data Pool Archive Service shall raise an alert for a Data Pool file system when one of the following situations occur: a. the source Data Pool file system cannot be accessed (e.g., because it is not mounted), b. read operations for N different files failed consecutively on accessing the same source Data Pool file system, where N is configurable on a global basis (i.e., independent of source file system). [NOTE: In the latter case, the archiving of N-1 granules may already be considered failed.]	Completed
ECS-L4-13138	S-DPL-25650 The DPL CI shall raise no more than one operator alert for a given Data Pool file system for suspension of archiving operations for that file system. [NOTE: File system alerts may also be raised by the DPL CI while inserting granules into the Data Pool.]	Completed
ECS-L4-13139	S-DPL-25660 The Data Pool Archive Service shall suspend Data Pool archiving for a Data Pool file system while an alert is currently pending for it, except if the alert is due to the file system being full or nearly full.	Completed
ECS-L4-13140	S-DPL-25670 The Data Pool Archive Service shall automatically retry the operation whose failure caused a file system alert (e.g., re-copying a failed file) while that alert remains pending, using a globally configured retry time interval, and clear the alert and resume dispatching operations for that file system when a retry succeeds, unless Data Pool archiving for the file system was suspended by the operator.	Completed
ECS-L4-13141	S-DPL-25672 The Data Pool Archive Service shall automatically resume the granules that were suspended in the course of raising an alert because the error occurred for N granule consecutively (i.e., file system read error, archive write error, time out). [NOTE: However, this must not cause in infinite retry loop in case the same N granules experience the same problem again.]	Completed
ECS-L4-13142	S-DPL-25675 The Data Pool Archive Service shall include the following information in the notifications about operator alerts: a. the resource that caused the alert (e.g., ftp host, data pool file system, ECS service), b. the type of alert [NOTE: a preliminary classification of alerts is TBD by PDR]. [NOTE: Refer to S-DPL-17700.]	Completed
ECS-L4-13143	S-DPL-25680 The Data Pool Archive Service shall record the time an alert condition was closed as part of the information kept for the closed alert.	Completed
ECS-L4-13144	S-DPL-25685 The Data Pool GUI shall allow authorized ('ingest and archiving admin') operators to configure an optional e-mail address to which notifications about alerts shall be sent. [NOTE: Refer to S-DPL-17690.]	Completed
ECS-L4-13145	S-DPL-25690 The Data Pool Archive GUI shall display on the Data Pool Archive Service status page, whether there are any current alerts.	Completed
ECS-L4-13146	S-DPL-25695 The Data Pool Archive GUI shall allow operators to monitor for Data Pool Archive Service alerts such that new alerts can be displayed within 20 seconds of them having been requested by the Data Pool Archive Service, e.g., by allowing operators to list current alerts and allowing the operator to refresh that list manually, as well as via automatic refresh as often as every 20 seconds.	Completed
ECS-L4-13147	S-DPL-25700 The Data Pool Archive GUI shall show on the screen that operators use to monitor alerts, the following information for each alert: a. time the alert was created, b. the resource that caused the alert, c. the type of the alert indicative of the problem causing the alert [NOTE: A preliminary list of the types of alerts is TBD by PDR.]	Completed

ID	Title	Status
ECS-L4-13148	S-DPL-25710 The Data Pool Archive GUI shall permit an operator to filter operator alerts by a. resource, b. type of alert, c. a combination of both.	Completed
ECS-L4-13149	S-DPL-25715 The Data Pool Archive GUI shall permit an operator to sort alerts in ascending or descending order of creation time, with descending order (i.e., latest first) being the default.	Completed
ECS-L4-13150	S-DPL-25720 The Data Pool Archive GUI shall permit an operator to select an alert from the monitoring screen to view alert details, such as any detailed error information associated with it.	Completed
ECS-L4-13151	S-DPL-25725 The Data Pool Archive GUI shall permit an authorized ('ingest and archiving control') operator to select an alert from the monitoring screen to close it.	Completed
ECS-L4-13152	S-DPL-25730 The Data Pool Archive GUI shall close an alert for a file system or archive after the operator manually suspended that archive or file system. [NOTE: Operators can manually suspend an archive or file system while an alert is pending. If they do this, the alert is closed and the archive or file system is considered manually suspended. Automatic retries will cease.]	Completed
ECS-L4-13153	S-DPL-25735 The Data Pool Archive Service shall record the time an alert was closed.	Completed
ECS-L4-13154	S-DPL-25740 The Data Pool Archive Service shall queue an archiving request for volume group if the amount of data assigned to that volume group that is currently in the Data Pool exceeds the data volume or granule count threshold for that volume group.	Completed
ECS-L4-13155	S-DPL-25745 The Data Pool Archive Service shall queue an archiving request for volume group if the time that elapsed since the last time the volume group was archived exceeds the corresponding threshold.	Completed
ECS-L4-13156	S-DPL-25750 The Data Pool Archive Service shall queue an archiving request for a volume group if so requested by an operator via the Data Pool Archive GUI, as per S-DPL-25260.	Completed
ECS-L4-13157	S-DPL-25755 The Data Pool Archive Service shall not queue an archiving request for a volume group if that volume group is already queued for archiving or is currently being archived.	Completed
ECS-L4-13158	S-DPL-25760 The Data Pool Archive Service shall copy the granules of a volume group that require archiving to the appropriate path on the appropriate archive host, as configured in the database maintained by the STMG T CI.	Completed
ECS-L4-13159	S-DPL-25765 The Data Pool Archive Service shall copy the granules of a volume group to the ECS archive by ascending temporal coverage (beginning date time if different from ending date time), or Data Pool insert time if the granules do not have temporal coverage, except if the target archive is disk based.	Completed
ECS-L4-13160	S-DPL-25770 The Data Pool Archive Service shall rename the files of a granule during archiving, consistent with the SDSRV CI internal file naming convention.	Completed

ID	Title	Status
ECS-L4-13161	S-DPL-25780 The Data Pool Archive Service shall update the SDSRV CI database after the archive operations for the primary volume group of a granule completed successfully to include the internal file and path information and the insert time in the corresponding SDSRV CI inventory tables. [NOTE: The insert time needs to match the time the granule was archived to ensure that upon future retrieval, the appropriate volume group from the volume group history will be accessed. Additional information may have to be transferred to the ECS inventory file entries depending on what was originally stored in these tables during SDSRV metadata insert.]	Completed
ECS-L4-13162	S-DPL-25790 The Data Pool Archive Service shall update the Data Pool inventory to record when a granule was archived successfully and the time the archiving was completed, recording multiple archiving completion times if the granule is assigned to multiple volume groups. [NOTE: If a granule is also assigned to a back-up volume group, it cannot be considered archived until both primary and backup archiving have occurred.]	Completed
ECS-L4-13163	S-DPL-25800 The Data Pool Archive Service shall update the Data Pool ingest history to record the time that elapsed between the completion of the granule insertion into the Data Pool and ECS inventory and its archiving in the primary volume group as the TimeToArchive in the INGST table 'InRequestSummaryData'.	Completed
ECS-L4-13164	S-DPL-25810 The Data Pool Archive Service shall update the Data Pool ingest history table 'InRequestSummaryHeader' after the archiving operations for the primary volume group of all granules in a request complete to record as the TimeToArchive the time that elapsed since all granules completed their inserts into the Data Pool and ECS inventory.	Completed
ECS-L4-13165	S-DPL-25815 The Data Pool Archive Service shall record the following throughput statistics for archiving operations in the Data Pool database, as measured in terms of the number of granules and data volume per configured time interval: a. by archive, b. by Data Pool file system. [NOTE: The nature of the throughput statistics is TBD during RTR . Note that throughput statistics are kept as part of the history information for each archiving request.]	Completed
ECS-L4-13166	S-DPL-25820 The Data Pool Archive Service shall recover after a fault such that: a. archiving of a granule/file will not be skipped and granules will be copied to the archive in the correct sequence, b. granules that completed all archiving steps successfully will not be archived again, c. archive copy operations will not be performed more than once if they completed successfully [NOTE: In a fault situation, it may not be possible or feasible to verify that a copy operation that appeared to be in progress at the time of the fault completed successfully; in that case, the copy operation must be repeated in order to meet the requirement in clause a.], d. no volume group archiving requests fail or raise operator interventions just because of the fault recovery, e. the state of volume groups is recovered correctly, f. volume group archiving requests that were in progress at the time of the fault will be restarted before any new work is started, g. the state of alerts and archiving request queues will be recovered to the extent that they have not been changed by the operator during the outage caused by the fault, h. the state of operator interventions will be recovered to the extent that they have not been changed by the operator during the outage caused by the fault, j. the state of resources will be recovered to the extent that they have not been changed by the operator during the outage caused by the fault.	Completed

ID	Title	Status
ECS-L4-13167	S-DPL-25825 The Data Pool Archive Service shall be able to complete recovery from a fault, including restarting archiving operations that were active at the time of the fault in less than 15 minutes, with archiving operations for at least 8 volume groups being in progress at the time of the fault whose data volume to be archived encompasses the equivalent of at least 8,000 granules.	Completed
ECS-L4-13168	S-DPL-25830 The Data Pool Archive Service shall activate archiving requests for a volume group queued for the same archive in order of the time that elapsed since the last archiving for that volume group, followed by the amount of data in the Data Pool for that volume group and not yet archived (largest first), provided that the following conditions are met: a. archiving for the volume group is not suspended, b. the archive is not suspended for archiving purposes and the number of currently active archiving requests for the archive is below the configured limit, c. the data pool file systems that contain the data that need to be archived for the volume group are not suspended for archiving purposes (i.e., the nature of the suspension permits read access).	Completed
ECS-L4-13169	S-DPL-25835 The Data Pool Archive Service shall ignore the configured limit on the number of volume groups that are being archived concurrently when archiving requests are activated manually by the operator.	Completed
ECS-L4-13170	S-DPL-25840 The Data Pool Archive Service shall observe the configured limit on the number of concurrent archive cache write operations when dispatching copy operations writing to the archive cache.	Completed
ECS-L4-13171	S-DPL-25845 The Data Pool Archive Service shall verify that tape space is available for the volume group in the archive before activating it, unless the target archive is disk based. [NOTE: Failure of the verification will cause an alert and suspension of archiving for that volume group, see S-DPL-25620.]	Completed
ECS-L4-13172	S-DPL-25850 The Data Pool Archive Service shall not dispatch archive cache write operations for a volume group archiving request if the required resources are suspended. [NOTE: The volume group archiving request will remain active unless cancelled or suspended by the operator.]	Completed
ECS-L4-13173	S-DPL-25855 The Data Pool Archive Service shall obtain archive cache status and drive information in regular time intervals, as configured by the operator, and check the result against the configured alert thresholds (except for disk based archives). [NOTE: The checks will require access to AMASS information based on the AMASS volume group ID. The outcome of the checks may raise or clear corresponding alerts, see S-DPL-25585, S-DPL-25615.]	Completed
ECS-L4-13174	S-DPL-25860 The Data Pool Archive Service shall cancel an operation writing to the archive cache if it does not complete within the time limit established in accordance with the configured time-out parameters, and retry the write operation until the configured number of maximum retries is exceeded, failing the archiving operation thereafter. [NOTE: Configuring the number of retries to zero would have the effect of failing the write operation without retry. The requirement also assumes that timeouts will be due to QuickServer, archive host, or AMASS problems and never due to StorNext file system problems. Clarifying the assumptions and a reasonable setting for N is TBD by DDR via experiments in the PVC. Note that N consecutive failures or timeouts of all current archive operations will cause an alert, as per S-DPL-25585.]	Completed

ID	Title	Status
ECS-L4-13175	S-DPL-25865 The Data Pool Archive Service shall maintain the following states for archiving requests: a. 'Queued' when an archiving request was queued, b. 'Active' when a request was activated, c. 'Successful' when a request completes successfully, d. 'Suspended' when a request is suspended, requiring operator intervention to resume it; this includes the situation when all granules in a request are suspended, e. 'Partial_Failure' when some but not all granules in a request were failed by the operator, f. 'Failed' when all granules in a request were failed by the operator. [NOTE: An archive request is not created until it is queued, so 'Queued' is the first state of a new archiving request.]	Completed
ECS-L4-13176	S-DPL-25870 The Data Pool Archive Service shall maintain the following states for granules during archiving: a. 'Suspended' when archiving for a granule was suspended, pending operator intervention b. 'ArcErr' when archiving of the granule was failed by the operator [NOTE: Other granule states may be used but there are no specific requirements for their nomenclature. Note that granules are flagged in the Data Pool inventory when they still need archiving and after they completed archiving for their primary respectively back-up volume group.]	Completed
ECS-L4-13177	S-DPL-25880 The Data Pool Archive Service shall create an application log whose format is compatible with ECS application logs.	Completed
ECS-L4-13178	S-DPL-25885 The Data Pool Archive Service shall roll over application log files when they exceed a configured maximum size	Completed
ECS-L4-13179	S-DPL-25890 The Data Pool Archive Service shall log the following events in the application log: a. start and completion of a volume group archiving request, including size and number of granules archived, b. start and completion of archiving for a granule, including outcome and granule size and number of files, c. start and completion of archiving for a file, including outcome and file size, d. queuing of a volume group for archiving, e. errors, f. suspensions and resumptions of volume groups and archives, g. cancellations.	Completed
ECS-L4-13180	S-DPL-25895 The Data Pool Archive Service shall include the following information in application log entries when applicable: a. archive request ID, b. volume group, c. ES DT and version, d. granule identification, e. file name, f. archive name, g. DPL file system, h. error details.	Completed
ECS-L4-13181	S-DPL-25900 The Data Pool Archive Service shall be able to generate a performance log compatible with the ECS performance log format to allow the following information to be derived: a. frequency, duration and throughput of file copy operations by archive and volume group, b. frequency and duration of database transactions (e.g., stored procedure calls), by type of stored procedure, c. frequency and duration of mutex locks, by locked resource, d. frequency and duration of wait times, by type of event, e. frequency and duration of volume group sort operations.	Completed
ECS-L4-13182	S-DPL-25905 The Data Pool Archive Service shall be able to operate concurrently with the current STMG T CI.	Completed
ECS-L4-13185	S-DPL-30020 Operators shall be able to run the Data Pool Update Expiration utility from the command line and in the background.	Completed
ECS-L4-13186	S-DPL-30025 The Data Pool Update Expiration utility shall accept command line parameters specifying: a.either the name of a file containing a list of granule triplets, with each triplet consisting of the granule id (dbid), a new expiration date, and optionally a new cleanup priority; or a single triplet consisting of a granule id (dbid), a new expiration date, and optionally a new cleanup priority b.a no-prompt option c.a verbose confirmation option (available if the no-prompt option is not chosen)	Completed

ID	Title	Status
ECS-L4-13187	S-DPL-30030 The Data Pool Update Expiration utility shall accept the new expiration date as a date.	Completed
ECS-L4-13188	S-DPL-30032 The Data Pool Update Expiration utility shall accept the new cleanup priority as a positive integer between 1 and 255 inclusive.	Completed
ECS-L4-13189	S-DPL-30035 The Data Pool Update Expiration utility shall validate syntax (format of parameter values, range of parameter values, presence of required parameters, validity of parameter keywords) of the command line parameters	Completed
ECS-L4-13190	S-DPL-30040 If command line syntax validation fails, the Data Pool Update Expiration utility shall display an error message and the correct command line syntax, and shall not perform the requested update	Completed
ECS-L4-13191	S-DPL-30060 The Data Pool Update Expiration utility shall display to the operator, before performing the update, the following confirmation information: a. the number of granules which will be updated, and b. the total size of all granules which will be updated.	Completed
ECS-L4-13192	S-DPL-30065 If the operator requests verbose confirmation information, the Data Pool Update Expiration utility shall additionally display to the operator, before performing the update, the list of granules which will be updated. For each granule in the list, the following information will be displayed: a. shortname/versionid b. granule id (dbid), c. granule size, d. current expiration date, e. new expiration date, f. current cleanup priority, g. new cleanup priority (if applicable)	Completed
ECS-L4-13193	S-DPL-30070 The Data Pool Update Expiration utility shall, by default, prompt the operator for confirmation after displaying the confirmation information.	Completed
ECS-L4-13194	S-DPL-30082 The Data Pool Update Expiration utility shall suppress the display of all operator prompts and confirmation information if the no-prompt option is specified, assuming an affirmative response to all prompts.	Completed
ECS-L4-13195	S-DPL-30085 The Data Pool Update Expiration utility shall suppress the display of all warning and error messages if the no-prompt option is specified, but shall log the errors and warnings to its log file.	Completed
ECS-L4-13196	S-DPL-30090 The Data Pool Update Expiration utility shall perform the requested updates immediately after operator confirmation.	Completed
ECS-L4-13197	S-DPL-30110 The Data Pool Update Expiration utility shall display a warning message for any granule where the expiration date specified is less than or equal to today's date.	Completed
ECS-L4-13198	S-DPL-30115 If a warning message is displayed for any granule specified at the command line or in the input file, the Data Pool Update Expiration utility shall prompt the operator to confirm the entire update or exit. If confirmation prompts and warning messages have been suppressed, the Data Pool Update Expiration utility shall write the warning message to its log and proceed with the update.	Completed
ECS-L4-13199	S-DPL-30140 The Data Pool Update Expiration utility shall log all updates.	Completed
ECS-L4-13200	S-DPL-30142 The Data Pool Update Expiration utility log entries shall include the date and time of the log entry (at least to the millisecond).	Completed
ECS-L4-13201	S-DPL-30144 The Data Pool Update Expiration utility shall generate a default name for its log file.	Completed
ECS-L4-13202	S-DPL-30146 The Data Pool Update Expiration utility shall append output to its log file if it already exists.	Completed
ECS-L4-13203	S-DPL-30148 The Data Pool Update Expiration utility shall create its log file if it does not exist.	Completed

ID	Title	Status
ECS-L4-13204	S-DPL-30150 The Data Pool Update Expiration utility shall log for each selected granule: a.date and time b.Unix id of the operator c.shortname / versionid d.granule id (dbid) e.granule size f.old expiration date g.new expiration dateh. old cleanup priorityi. new cleanup priority (if cleanup priority was changed), or 'unchanged'	Completed
ECS-L4-13205	S-DPL-30160 The Data Pool Update Expiration utility shall log all update errors in the Update Expiration log file.	Completed
ECS-L4-13206	S-DPL-30170 The Data Pool Update Expiration utility shall log for each update error: a.date and time b.Unix id of the operator c.nature of the error d.granule id if the error is associated with a specific granule.	Completed
ECS-L4-13208	S-DPL-30185 The Data Pool Update Expiration utility shall handle situations where syntax errors are present on a line in the input file by logging the syntax error and continuing the request for the remaining triplets in the input file.	Completed
ECS-L4-13209	S-DPL-30190 The Data Pool Update Expiration utility shall perform update operations such that they can be restarted and completed successfully if interrupted by a fault.	Completed
ECS-L4-13210	S-DPL-30200 The Data Pool Update Expiration utility shall prevent database corruption due to conflicts with other Data Pool operations.	Completed
ECS-L4-13211	S-DPL-30210 The Data Pool Update Expiration utility shall be able to operate in multiple modes concurrently.	Completed
ECS-L4-13212	S-DPL-30400 The Data Pool Update Expiration Utility shall be able to update the expiration of non-ECS granules in the Data Pool just like that of ECS granules.	Completed
ECS-L4-13216	S-DPL-30480 The data Pool Expiration Utility shall log the number and total size of the granules expected to be updated prior to applying the update, as well as after the number and total size of the granules that actually were updated after performing the update. [Note: This requirement supercedes S-DPL-30140 and S-DPL-30150 from the Synergy II ticket DP SY 06.]	Completed
ECS-L4-13217	S-DPL-30490 The Data Pool Update Expiration utility shall display to the operator, before performing the update, the following confirmation information, ordered by collection name and version, and regardless of verbosity setting: a. the number of granules which will be updated for that collection, and b. the total size of all granules which will be updated for that collection. [Note: This requirement supercedes S-DPL-30060 and S-DPL-30065 from the Synergy II ticket DP SY 06.]	Completed
ECS-L4-13218	S-DPL-30500 The Data Pool Update Expiration utility shall ignore any command line parameter specifying verbose confirmation.	Completed

ID	Title	Status
ECS-L4-13222	S-DPL-32022 The DPL CI shall be able to apply the following granule duplicate detection rules in addition to checking for file name collisions when attempting to determine whether two granules are the same logical granule: If the LocalGranuleIds are the same the granules are considered duplicates. If the portion of the LocalGranuleId containing the acquisition date and time and the tile ID are the same the granules are considered duplicates. [NOTE: acquisition time and/or tile ID may not be present for granules belonging to certain collections.] If the RangeBeginningDate or CalendarDate AND the RangeBeginningTime or TimeOfDay (excluding the milliseconds) AND the RangeEndingDate AND the RangeEndingTime are the same then the granules are considered duplicates. If the portion of the LocalGranuleId preceding the product version and file format version, if present, is the same, the granules are considered duplicates. If the portion of the LocalGranuleId excluding the granule version number is the same, then the granules are considered duplicates. [NOTE: This replaces requirement S-DPL-23520.]	Completed
ECS-L4-13223	S-DPL-32023 The Data Pool Ingest GUI shall allow an 'ingest admin' operator to configure the granule duplicate detection rule for a collection unless excluded per S-DPL-32024 from one of the granule duplicate rules defined in S-DPL-32022, or designate to only consider file name collisions as duplicates.	Completed
ECS-L4-13224	S-DPL-32024 The Data Pool Ingest GUI shall not allow a granule duplicate detection rule to be configured for the QA, PH, Browse, or HDF4 Maps collections.	Completed
ECS-L4-13225	S-DPL-32025 When an operator changes the granule duplicate rule defined for a collection, the Data Pool Ingest GUI shall display a message to the operator indicating to recalculate the duplicate granules for a collection using the AIM duplicate granule reporting utility.	Completed
ECS-L4-13226	S-DPL-32026 When an operator changes the granule duplicate rule defined for a collection, the Data Pool Ingest GUI shall remove all duplicate information recorded in the AIM inventory catalog for the collection and original rule. NOTE: Any duplicates that were recorded due to file name collisions shall remain.	Completed
ECS-L4-13227	S-DPL-32027 When an operator changes the granule duplicate rule defined for a collection, the Data Pool Ingest GUI shall record the following information in the AIM inventory catalog: Short Name Version ID Originally configured rule Newly configured rule GUI username requesting the change	Completed
ECS-L4-13228	S-DPL-32028 The Data Pool Ingest GUI shall log the following information when changing the currently configured granule duplicate detection rule for a collection: Short Name Version ID Originally configured rule Newly configured rule GUI username requesting the change	Completed
ECS-L4-13229	S-DPL-32029 The DPL CI shall consider two granules to be the same logical granule if either of the following are true: A file for one granule would overwrite a file of the other granule in the public Data Pool. This can occur if the granules share the same short name, version ID, acquisition date and any of the filenames associated with the two granules are identical. NOTE: If a granule does not have an acquisition date the ECS insert date is instead used. The duplicate rules as configured per S-DPL-32023 identify one granule as a duplicate of the other.	Completed
ECS-L4-13230	S-DPL-32030 The DPASU shall be able to concurrently process the FTP Server log and the HTTP access log.	Completed

ID	Title	Status
ECS-L4-13231	S-DPL-32031 A granule shall be considered a replacement of another granule if the two granules are considered to be the same logical granule per S-DPL-32029, and the granule has a more recent production time than the other matching granule. If the production times are the same the granule shall be considered a replacement of the other granule if the ECS insert time is more recent.	Completed
ECS-L4-13232	S-DPL-32032 A granule shall be considered a duplicate of another granule if the two granules are considered to be the same logical granule per S-DPL-32029, and the granule has an earlier production time than the other matching granule. If the production times are the same the granule shall be considered a duplicate of the other granule if the ECS insert time is earlier than the other granule.	Completed
ECS-L4-13233	S-DPL-32033 The Data Pool Insert Service shall upon registration determine whether a granule being registered is the same logical granule as an existing granule per S-DPL-32029, and if so record the duplicate granule and the replacement granule in AIM per S-AIM-00731. Note: If there are multiple existing duplicates the Data Pool Insert service shall record the duplicate and the replacement granule information for each match.	Completed
ECS-L4-13234	S-DPL-32034 The Data Pool Ingest Service shall retry any errors encountered when attempting to identify or record duplicate granules upon ingest using the configured default number of retries and default retry interval for retrievable errors before placing the request into operator intervention.	Completed
ECS-L4-13235	S-DPL-32035 The Data Pool publication service shall not allow the publication of a duplicate granule as captured in the AIM inventory catalog per S-AIM-00731 if its replacement granule is already public.	Completed
ECS-L4-13236	S-DPL-32036 The Data Pool publication service shall record duplicate and replacement granule information in AIM per S-AIM-00731 upon detection of a file name collision when attempting to publish a granule.	Completed
ECS-L4-13237	S-DPL-32135 If the data center is configured for HTTP access, Users shall be able to request the distribution of the results of a request via HTTP pull for Data Pool Web orders.	Completed
ECS-L4-13238	S-DPL-32134 The Data Pool HTTP service shall log the following for each file transfer event. Time of access (Month, Day, and Time of day) Identity of the retrieved object (path & filename) File size (in bytes) Service (i.e. httpd) remote host identifier	Completed
ECS-L4-13239	S-DPL-32133 The Data Pool HTTP service shall provide an operator-configurable option for logging user events and errors.	Completed
ECS-L4-13240	S-DPL-32132 The Data Pool HTTP service shall prevent users from accessing any files or directories other than those included in the Data Pool.	Completed
ECS-L4-13241	S-DPL-32131 The Data Pool HTTP service shall prevent users from transferring a file into the Data Pool.	Completed
ECS-L4-13242	S-DPL-32130 The DPASU shall provide an operator capability to delete or clean out parsed information from the DPAL that falls within an operator specified start-date and stop-date range.	Completed
ECS-L4-13243	S-DPL-32129 The Data Pool HTTP service shall prevent users from modifying access privileges on any files or directories in the Data Pool.	Completed
ECS-L4-13244	S-DPL-32128 The Data Pool HTTP service shall prevent users from creating a new directory in the Data Pool.	Completed
ECS-L4-13245	S-DPL-32127 The Data Pool HTTP service shall prevent users from modifying any files or directories.	Completed

ID	Title	Status
ECS-L4-13246	S-DPL-32126 The Data Pool HTTP service shall prevent users from renaming any files or directories.	Completed
ECS-L4-13247	S-DPL-32125 The Data Pool HTTP service shall prevent users from deleting any files or directories.	Completed
ECS-L4-13248	S-DPL-32124 The Data Pool HTTP service shall allow users to traverse the publically visible Data Pool directory structure.	Completed
ECS-L4-13249	S-DPL-32123 In listing the directory content, the Data Pool HTTP service shall make the actual file path invisible to the user if it is associated with a file link.	Completed
ECS-L4-13250	S-DPL-32122 The Data Pool HTTP service shall allow users to view the content of publically accessible Data Pool directories.	Completed
ECS-L4-13251	S-DPL-32121 The Data Pool HTTP service shall allow the operator to specify the default HTTP home directory where all users are placed.	Completed
ECS-L4-13252	S-DPL-32120 The DPASU shall be able to access and read from input log files while they are opened and being used by the associated access utilities without causing errors or faults in those utilities.	Completed
ECS-L4-13253	S-DPL-32119 The Data Pool HTTP service shall be accessible via the Data Pool web service.	Completed
ECS-L4-13254	S-DPL-32118 The Data Pool shall provide HTTP service for accessing the Data Pool.	Completed
ECS-L4-13255	S-DPL-32117 While the processing options for a collection are disabled, access requests via the SDPS Web API that reference the processing options of this collection shall be rejected with an appropriate error indication in accordance with the ICD Between ESI and its Clients and Service Providers. [NOTE: Enabling and disabling a collection for processing by OMS is a separate function available via the OMS GUI.]	Completed
ECS-L4-13256	S-DPL-32116 The SDPS shall provide a capability to enable and disable all processing options for a collection.	Completed
ECS-L4-13257	S-DPL-32115 The SDPS shall provide capabilities (e.g., a GUI or an editing tool) that facilitate maintenance of the processing options for a collection by DAAC staff.	Completed
ECS-L4-13258	S-DPL-32114 The SDPS shall provide capabilities (e.g., a GUI or an editing tool) that facilitate updating the pre-populated processing options for a collection by DAAC staff.	Completed
ECS-L4-13259	S-DPL-32113 The SDPS shall allow DAAC staff to pre-populate the processing options for a collection using another collection as the model.	Completed
ECS-L4-13260	S-DPL-32112 When extracting information regarding processing options, the SDPS shall exclude or identify HDF-EOS objects and dimensions that should not be offered for HEG processing via the SDPS Web API.	Completed
ECS-L4-13261	S-DPL-32111 The SDPS shall provide a tool to extract information from SDPS collection and granule metadata to pre-populate processing options to the extent possible to simplify the configuration of processing options for a collection by DAAC staff, for example, by extracting the list of objects, fields, bands, etc. that could be offered for subsetting.	Completed
ECS-L4-13262	S-DPL-32110 The DPASU operator initiated access log processing capability shall accept operator input to identify input log files.	Completed
ECS-L4-13263	S-DPL-32109 The Data Pool Ingest CI shall validate metadata from a provider against the schema configured for a collection [Note that copies of the schemas are maintained in an SDPS0controlled repository to ensure performance and reliability.]	Completed
ECS-L4-13264	S-DPL-32108 The SDPS shall allow DAAC staff to limit the availability of processing options to asynchronous requests or to Order Manager order submission.	Completed

ID	Title	Status
ECS-L4-13265	<p>S-DPL-32107 The SDPS shall allow DAAC staff to identify for each collection for which it is mediating the access to processing services the nature of the processing services offered for the granules in the collection, such as:</p> <ul style="list-style-type: none"> a. spatial subsetting via bounding box b. temporal subsetting via one or a series of time intervals c. list of objects, fields, bands, etc. which can be extracted (if available in the specific granule that is the subject of a request) d. projections in which the output can be made available and the projection parameters that can be provided by the user e. formats in which the output can be delivered and any formatting parameters that can be provided by the user f. re-sampling options and any related parameters offered for the granules in this collection g. default choices among multiple options (e.g., output projection and format) or default values for input parameters 	Completed
ECS-L4-13266	S-DPL-32106 The SDPS shall allow DAAC staff to identify the collections for which processing services are made available to users via access mediated by SDPS.	Completed
ECS-L4-13267	S-DPL-32105 The SDPS-DAAC Internal On-demand Processing API shall allow a client to flag a processing request as a resubmission due to a fault. [NOTE: The purpose of this requirement is to aid in fault recovery, A client should only flag a request as a resubmission if it has not received a reply to the previous submission (e.g., due to a fault). The intent is to allow a processing service to accept and respond to such a request without executing the requested service again, e.g., if the requested processing is already in progress. There is no requirement for a DAAC processing service to honor this flag.]	Completed
ECS-L4-13268	S-DPL-32104 The SDPS Web API shall return appropriate error information in accordance with the ICD Between ESI and its Clients and Service Providers in response to a web access request that is rejected because required internal resources have become unavailable.	Completed
ECS-L4-13269	S-DPL-32103 The SDPS Web API shall determine when an access request cannot or could not be satisfied because required internal resources have become unavailable, for example, hosts used by on-demand processing capabilities or required databases or required file systems holding temporary or input data.	Completed
ECS-L4-13270	S-DPL-32102 The SDPS Inventory Web API shall provide access to the SDPS inventory information for local applications, i.e., applications that execute within the DAAC firewall perimeter, in accordance with the ICD Between ESI and its Clients and Service Providers.	Completed
ECS-L4-13271	S-DPL-32101 The SDPS shall provide an SDPS Inventory Web API that DAAC developed software can use to access SDPS inventory information.	Completed
ECS-L4-13272	S-DPL-32100 The DPASU automatic access log processing capability shall be able to locate input log files with configured directory and file names where filename and directory specifications may include wildcards to allow the processing of sequences of regularly named items.	Completed
ECS-L4-13273	S-DPL-32099 The 'HEG Tool Adapter' shall provide a processing history file which is compliant with the corresponding ISO 19115 metadata standard.	Completed

ID	Title	Status
ECS-L4-13274	S-DPL-32098 The SDPS shall include a "HEG Tool Adapter" that accepts requests for HEG processing from the OMS CI via SDPS-DAAC internal on-demand processing API, formats the HEG processing inputs, causes the corresponding execution of HEG executables, and returns the results in accordance with that API.	Completed
ECS-L4-13275	S-DPL-32097 The SDPS shall include a 'HEG Tool Adapter' that accepts requests for HEG processing from the SDPS web API via SDPS-DAAC internal on-demand processing API, formats the HEG processing inputs, causes the corresponding execution of HEG executables, and returns the results in accordance with that API.	Completed
ECS-L4-13276	S-DPL-32096 The SDPS-DAAC Internal On-Demand Processing API shall support SDPS modes.	Completed
ECS-L4-13277	S-DPL-32095 The SDPS-DAAC Internal On-Demand Processing API shall allow the concurrent execution of multiple requests in a single SDPS mode.	Completed
ECS-L4-13278	S-DPL-32094 The SDPS-DAAC Internal On-demand Processing API shall allow for different processing tools/services to reside on different platforms. [NOTE: The API does not need to accommodate dispatching requests to a processing tool/service (e.g., HEG) which operates on multiple platforms concurrently (i.e., load balancing).]	Completed
ECS-L4-13279	S-DPL-32093 The SDPS-DAAC Internal On-demand Processing API shall allow for the SDPS Web API and the processing tools/services to reside on different platforms.	Completed
ECS-L4-13280	S-DPL-32092 The SDPS-DAAC Internal On-demand Processing API shall allow the processing services to be provided via different API implementations, to include at least: interfacing with a tool adapter via a web service using a REST style interface interfacing with a tool adapter by invoking a command line	Completed
ECS-L4-13281	S-DPL-32091 The SDPS-DAAC Internal On-demand Processing API shall allow the processing capabilities for different collections to be provided by different implementations, for example, different tools.	Completed
ECS-L4-13282	S-DPL-32090 When the DPASU processes the Data Pool access logs, the absence or unavailability of any of the logs or of a time range within a single log shall not prevent the processing of any of the remaining logs.	Completed
ECS-L4-13283	S-DPL-32089 The SDPS-DAAC Internal On-demand Processing API shall allow the DAAC processing capabilities to be different for different collections.	Completed
ECS-L4-13284	S-DPL-32088 The SDPS-DAAC Internal On-demand Processing API shall include an XML schema specification for processing history that is compliant with the corresponding ISO 19115 metadata standard.	Completed
ECS-L4-13285	S-DPL-32087 The SDPS-DAAC Internal On-demand Processing API shall allow for the return of processing history information if one is created by a DAAC processing service.	Completed
ECS-L4-13286	S-DPL-32086 The SDPS-DAAC External On-demand Processing API shall allow for the cancellation of requests that are currently in execution by the on-demand processing services. [NOTE: This requirement refers only to the cancellation of an entire SDPS Web API request, not the individual items contained within. While it would be desirable to terminate processing of any currently processing items contained in the cancelled request, it would be acceptable for the web API to allow any currently processing granules to complete. If all items in a request have started or completed processing, it is acceptable for the cancellation attempt to fail with an appropriate message.]	Completed

ID	Title	Status
ECS-L4-13287	S-DPL-32085 The SDPS-DAAC Internal On-demand Processing API shall allow for DAAC processing services to categorize error responses in a standardized fashion to differentiate among different types of errors and identify the desired client behavior. [NOTE: The error categories are described in the ICD Between ESI and its Clients and Service Providers.]	Completed
ECS-L4-13288	S-DPL-32084 The Data Pool Ingest CI shall ingest SMAP data and metadata in accordance with the Interface Control Document between the Soil Moisture Active-Passive (SMAP) Science Data System (SDS) and the ASF and NSIDC DAACs.	Completed
ECS-L4-13289	S-DPL-32083 The OM GUI shall allow appropriately authorized operators to enter and maintain the configuration information associated with the SDPS-DAAC Internal On-demand Processing API as used by the Web API: a unique name for the processing service to be used in Operator GUIs to refer to that service any needed interface information (e.g., the interface method such as REST; end-point and other communication information; etc.) error and fault handling and recovery information (e.g., time out settings; etc.)	Completed
ECS-L4-13290	S-DPL-32082 The SDPS-DAAC Internal On-demand Processing API shall allow for the submission of subsetting, re-formatting, re-projection, and re-sampling requests by the OMS CI to the services that operate at the local DAAC and process such requests.	Completed
ECS-L4-13291	S-DPL-32081 The SDPS-DAAC Internal On-demand Processing API shall allow for the submission of subsetting, re-formatting, re-projection, and re-sampling requests by the SDPS Web API to the services that operate at the local DAAC and process such requests.	Completed
ECS-L4-13292	S-DPL-32080 The DPASU shall prevent parse processing from occurring for given 24 hour period until the end time for that period has passed.	Completed
ECS-L4-13293	S-DPL-32079 The SDPS shall include a SDPS-DAAC Internal On-demand Processing API whose schema, protocols, error responses, and other interface details shall be documented in the ICD Between ESI and its Clients and Service Providers.	Completed
ECS-L4-13294	S-DPL-32078 The SDPS shall support the export of metric information to ESDIS Metric System (EMS).	Completed
ECS-L4-13295	S-DPL-32077 The SDPS shall provide GUI functions that allow DAAC staff to suspend and resume the acceptance of requests by the Web API: completely for specific collections and list any current suspensions.	Completed
ECS-L4-13296	S-DPL-32076 The SDPS Web API shall be able to return a SDPS Processing Options Document in less than 500 milliseconds plus 100 milliseconds for each object referenced in that request, as measured from the arrival of the request to the start of the transmission of the response and including the creation of the document.	Completed
ECS-L4-13297	S-DPL-32075 The SDPS Web API shall be able to return the SDPS Web API Description in less than one second, as measured from the arrival of the request to the start of the transmission of the response.	Completed
ECS-L4-13298	S-DPL-32074 The SDPS Web API shall return appropriate error information in accordance with the ICD Between ESI and its Clients and Service Providers in response to an on demand web access request that is rejected because the requested capabilities are only available via OMS data orders.	Completed
ECS-L4-13299	S-DPL-32073 The SDPS Web API shall return appropriate error information in accordance with the ICD Between ESI and its Clients and Service Providers in response to a web access request that is rejected because of capacity limitations.	Completed

ID	Title	Status
ECS-L4-13300	S-DPL-32072 The SDPS Web API shall dispatch the requests it accepts for processing in the order in which they arrive.	Completed
ECS-L4-13301	S-DPL-32071 The SDPS shall provide GUI functions that allow DAAC staff to maintain and view the tuning parameters used by the SDPS Web API to limit the capacity demands imposed by web access requests.	Completed
ECS-L4-13302	S-DPL-32070 For operator initiated DPASU parse processing of the access logs, the operator shall be able to specify the date of the 24 hour period to be processed to produce parsed information, where the start time of that period is the same start time as is used for automatic parse processing.	Completed
ECS-L4-13303	S-DPL-32069 The SDPS Web API shall limit the capacity demands imposed by web access requests it received in accordance with tuning parameters that can be configured by the DAAC staff.	Completed
ECS-L4-13304	S-DPL-32068 The SDPS Web API shall use the SDPS-DAAC Internal On-demand Processing API to invoke the DAAC processing capability that implements the services needed to fulfill a web request and accept their outputs and other returned information.	Completed
ECS-L4-13305	S-DPL-32067 The SDPS Web API shall support multiple SDPS modes.	Completed
ECS-L4-13306	S-DPL-32066 The SDPS Web API shall be able to process multiple requests concurrently in the same mode.	Completed
ECS-L4-13307	S-DPL-32065 The SDPS Web API shall return an appropriate error in accordance with the ICD Between ESI and its Clients and Service Providers if the object of an on-demand processing request does not reside in the Data Pool, i.e., is not accessible in on-line storage.	Completed
ECS-L4-13308	S-DPL-32064 The SDPS Web API shall validate request against the capabilities available for the objects identified in the request and in case of an error return a response in accordance with the ICD Between ESI and its Clients and Service Providers. NOTE: The list of validations that must be performed before submitting a request to a back-end tool adapter needs to be agreed with the DAACs and shall be documented in the ICD Between ESI and its Clients and Service Providers.]	Completed
ECS-L4-13309	S-DPL-32063 The SDPS Web API shall validate requests against the API schema and in case of an error return a response in accordance with the ICD Between ESI and its Clients and Service Providers.	Completed
ECS-L4-13310	S-DPL-32062 The SDPS Web API shall support the following types of request interfaces and formats: a HTTP GET interface a HTTP POST interface	Completed
ECS-L4-13311	S-DPL-32061 The SDPS Web API shall be accessible by non-ECHO programs, that is, characteristics of the API must not inherently limit access to ECHO Reverb.	Completed
ECS-L4-13313	S-DPL-32059 The SDPS Web API schema, protocols, error responses, and other interface details shall be documented in and follow the ICD Between ESI and its Clients and Service Providers.	Completed
ECS-L4-13314	S-DPL-32058 The SDPS shall not offer HDF-EOS objects and dimensions that cannot be subsetted or processed by the HEG for HEG processing in the SDPS Processing Options Document'.	Completed
ECS-L4-13315	S-DPL-32057 The SDPS Web API shall allow remote and local retrieval of an XML document (called a 'SDPS Processing Options Document' in the requirements) that specifies the processing capabilities offered by a DAAC (including applicable default choices and input values) for the following: SDPS collections (identified in the request) that may include public granules	Completed

ID	Title	Status
ECS-L4-13316	S-DPL-32056 The SDPS Web API shall allow remote and local retrieval of a XML document (called 'SDPS Web API Description' in the requirements) that describes aspects of the Web API operating at a specific DAAC, for example: relevant API end points and general server characteristics and capabilities the list of the SDPS collections that are remotely accessible via the Web API, i.e., that include public granules operational information for this DAAC, such as contact, planned downtimes, that is configurable by the DAAC staff.	Completed
ECS-L4-13317	S-DPL-32055 The SDPS Web API shall be able to include in the returned information: any processing history information and any error responsesproduced in the course of processing a request.	Completed
ECS-L4-13318	S-DPL-32054 The Data Pool Inventory Validation shall verify the Data Pool and AIM inventory metadata for non-Browse granules if requested to do so via command line options, to identify the following errors: ECS granules that are in the Data Pool but are not present in the ECS archive. ECS granules that are not present in the Data Pool. If so requested explicitly via command line options, suppress reporting ECS granules that are logically deleted (i.e., have a non-NULL deleteEffectiveDate) but are not present in the Data Pool. If so requested explicitly via command line options, suppress reporting ECS granules that are deleted from archive (i.e., DeleteFromArchive set to 'Y') but are not present in the Data Pool. ECS granules that are public in the Data Pool but are not eligible to be public as per S-DPL-08050. ECS granules that are in public collections, are eligible to be public as per S-DPL-08050, and for which no more recent replacement granules are public, but that are currently in the hidden Data Pool area. Symbolic browse, QA, and PH links do not match the Browse, QA, and PH cross reference information in the inventory metadata. Flag indicating the granule state (e.g., public, hidden, used by order, etc.) is not consistent with the actual state of the granule, or the location of granule files in the Data Pool, or the symbolic links associated with the granule. The granule version identifier is not consistent with granule file or link names. Collections for which the granule duplicate detection rule has been changed, but the recalculation of duplicates has not yet completed. This information is recorded per S-DPL-32027. [NOTE: This replaces requirement S-DPL-71065.]	Completed
ECS-L4-13319	S-DPL-32053 When a request specifies e-mail notification, the SDPS Web API shall, in the case of accepting the request, return an acknowledgment of request acceptance and a request identification that will be included in the e-mail notifying the user of the completion of the request. [NOTE: Such requests are called asynchronous SDPS web access requests in the requirements. Such requests are not handed off to OMS but rather handled asynchronously by the SDPS Web API.]	Completed
ECS-L4-13320	S-DPL-32052 The SDPS Web API shall remove any files it creates to support access by the user to processing outputs such as for access via URL after an amount of time that is configurable by DAAC staff (in terms of days.) [NOTE: The response referenced in S-DPL-32049 should include an indication of the output retention time. The cleanup responsibilities shall be documented in the ICD Between ESI and its Clients and Service Providers.]	Completed
ECS-L4-13321	S-DPL-32051 The SDPS Web API shall remove any files it creates to support on-demand processing once they are no longer needed.	Completed
ECS-L4-13322	S-DPL-32050 When processing the Data Pool access logs, the DPASU shall produce parsed information sets from the as?yet?unprocessed data of the access logs, covering all of the specified period.	Completed

ID	Title	Status
ECS-L4-13323	S-DPL-32049 The SDPS Web API shall allow requests to specify the manner in which outputs shall be returned, to include: returning a list of URLs that provides access to the outputs and identifies the nature and type of each output including any format information in accordance with the ICD Between ESI and its Clients and Service Providers. DELETED sending an e-mail upon completion of the request to an address provided as part of the request containing instructions for accessing the output, e.g., via a set of URLs listed in the e-mail, at the option of the DAAC staff.	Completed
ECS-L4-13324	S-DPL-32048 The SDPS Web API shall allow the identification of the object of the access requests, namely: an SDPS granule a list of SDPS granules	Completed
ECS-L4-13325	S-DPL-32047 The SDPS Web API shall allow requests to include optional subsetting, re-sampling, reformatting, and reprojection instructions, to include the following: a. geographic subsetting b. temporal subsetting c. subsetting to retrieve only specific types of data contained in a granule (e.g., objects, fields, bands) of a granule d. specification of the format in which the output shall be delivered e. specification of the geographic projection in which the output shall be delivered f. specification of the pixel size (i.e., grid spacing) or subsampling ratio for the output g. a combination of the above h. no instructions at all (i.e., a request for the native granule) [NOTE: The actual processing capabilities available at a DAAC may vary by SDPS granule and collection and are configurable by DAAC staff, as specified in other requirements.]	Completed
ECS-L4-13326	S-DPL-32046 The SDPS shall provide a Web API that accepts local requests for granules that reside in the hidden Data Pool. [NOTE: This interface would support, for example, access to ASTER granules.]	Completed
ECS-L4-13327	S-DPL-32045 The SDPS shall provide a Web API that accepts remote requests for granules that reside in the public Data Pool. [NOTE: This release assumes that remote access to hidden data via this API is not permitted.]	Completed
ECS-L4-13328	S-DPL-32044 The DPL CI shall re-publish granules which the AIM CI identifies as undeleted or unhidden or as no longer deleted from archive as per S-AIM-00805 if the granules are not ineligible for publishing as per S-DPL-08050 and belong to a collection which is configured for automatic granule publishing during ingest. [NOTE: The publishing attempt will fail if the granule is a duplicate of another public granule and the version of the granule that is public is more recent. The method by which the re-publishing is accomplished is left to the design; however, it must be possible to process this AIM input either via cron or as an additional step in the operational sequence of AIM granule un-deletion steps. [NOTE: This replaces requirement S-DPL-71055]	Completed
ECS-L4-13329	S-DPL-32043 The Data Pool Insert Service shall apply the granule replacement rules for the QA, PH, and HDF4 Maps collections in the case of file collisions in the public Data Pool with the exception that the duplicate and replacement granules will not be stored in AIM inventory catalog. [NOTE: This replaces requirement S-DPL-10210.]	Completed

ID	Title	Status
ECS-L4-13330	S-DPL-32042 When the Data Pool Insert Service replaces an existing public ECS granule that is part of the Data Pool On-line Archive due to the replacement rules configured per S-DPL-32023 or a file name collision, the Data Pool Insert Service shall un-publish the granule (i.e., leave it in the hidden Data Pool and not simply remove it from the Data Pool). [NOTE: This replaces requirement S-DPL-08100.]	Completed
ECS-L4-13331	S-DPL-32041 Upon successful completion of recalculating duplicate granule information for a collection, the Data Pool Inventory Validation shall remove any references in the AIM inventory catalog that were previously recorded per S-DPL-32027 for that collection.	Completed
ECS-L4-13332	S-DPL-32040 The DPASU shall be configurable to permit automatic log processing, allowing the operator to specify: a. Time of day at which roll-up processing should be initiated automatically each day. b. Start time of the 24 hour period for which roll-up results should be produced, defaulting to start time of 0 hrs.	Completed
ECS-L4-13333	S-DPL-32039 The Data Pool Inventory Validation shall allow the operator via command line parameters to perform recalculation of collections for which a rule change has not been recorded in the AIM inventory catalog.	Completed
ECS-L4-13334	S-DPL-32038 The Data Pool Inventory Validation shall if requested via command line options recalculate the duplicate granule information per S-DPL-32029 and store in the AIM inventory catalog per S-AIM-00731 for any of the following: A specified collection A specified collection group All collections All collections for which the rule has changed as recorded in the AIM inventory catalog (default) Note: The Data Pool Inventory Validation shall reject recalculation attempts for collections which do not have a rule change recorded in the AIM inventory catalog unless explicitly overridden per S-DPL-32039.	Completed
ECS-L4-13335	S-DPL-32037 The Data Pool publication service shall consider any errors encountered during the attempt to identify or record duplicate granules upon publication fatal and fail the publication request with an error message indicative of the problem.	Completed
ECS-L4-13336	S-DPL-32136 The Data Pool HTTP service shall hide the names and contents of all hidden directories.	Completed
ECS-L4-13337	S-DPL-32137 The Data Pool HTTP log analyzer shall send an e-mail to a configured e-mail address when it detects direct accesses to hidden directories, i.e., external accesses that did not use the Pull links but hidden directory names in an HTTP protocol request, and include the following information in that e-mail for each unique combination of external address and directory: external address identification of the collection that was accessed number of accesses first time this access was detected in the log last time this access was detected in the log	Completed
ECS-L4-13338	S-DPL-32138 The Data Pool CI shall include measures to prevent external users from accessing temporary files located in the Data Pool.	Completed
ECS-L4-13339	S-DPL-32139 The Data Pool CI shall include measures to prevent the access to granules located in the non-public Data Pool directories by external users via HTTP [NOTE: This includes making the corresponding directories inaccessible to HTTP, preventing the export of granule URL, and not making these granules visible to Data Pool web users.]	Completed
ECS-L4-13340	S-DPL-32140 The DPASU shall provide an operator capability to copy all parsed information that falls within an operator specified start-date to stop-date range from the DPAL to an external file which may be stored or archived and subsequently restored to the DPAL as required.	Completed

ID	Title	Status
ECS-L4-13341	S-DPL-32141 The Data Pool HTTP service shall provide the capability to verify science file checksums during Data Pool download using the following checksum algorithms: Unix CKSUM ECS Checksum MD5 Checksum (based on RFC 1321)	Completed
ECS-L4-13342	S-DPL-32142 The Data Pool HTTP service shall maintain a DAAC-configurable parameter indicating the percentage of science files for which a checksum will be verified during Data Pool download, against the checksum stored during insert, if available.	Completed
ECS-L4-13343	S-DPL-32143 The Data Pool HTTP service shall provide the capability to configure separately for each instance of the service, the DAAC configurable parameter indicating the percentage of science files to verify during download.	Completed
ECS-L4-13344	S-DPL-32144 The Data Pool HTTP service shall verify the checksum for science files downloaded via HTTP, based on the DAAC-configurable parameter described in S-DPL-01020.	Completed
ECS-L4-13345	S-DPL-32145 The Data Pool HTTP service shall write an error message to the HTTP daemon log when checksum verification fails during Data Pool download.	Completed
ECS-L4-13346	S-DPL-32146 The Data Pool HTTP service shall write a message to the HTTP daemon log when checksum verification succeeds during Data Pool download, indicating the successful verification.	Completed
ECS-L4-13347	S-DPL-32147 The Data Pool HTTP service shall return a fatal error code back to the user when checksum verification fails during Data Pool download.	Completed
ECS-L4-13348	S-DPL-32148 In the event that there was no checksum stored during insert for a science file that has been selected for checksum verification during Data Pool download, the Data Pool HTTP service shall distribute the science file without computing a checksum.	Completed
ECS-L4-13349	S-DPL-32149 In the event that there was no checksum computed during Data Pool insert for a science file which has been selected for checksum verification during Data Pool download, the Data Pool HTTP service shall generate a log entry indicating the science file was distributed without verifying its checksum.	Completed
ECS-L4-13350	S-DPL-32150 The DPASU shall not include duplicate entries of parsed information into the DPAL.	Completed
ECS-L4-13352	S-DPL-32152 The Data Pool Maintenance GUI shall allow operators to configure for a Data Pool collection whose granules are allowed to be inserted into the public Data Pool, whether to offer the distribution of and HTTP access to associated QA granules and/or PH granules and/or Browse granules and/or HDF Map files.	Completed
ECS-L4-13353	S-DPL-32153 The Data Pool Ingest CI shall use the granule level Xpath files for an ISO-19115 collection to locate attributes in a provider's metadata file for insert into AIM.	Completed
ECS-L4-13354	S-DPL-32154 The Data Pool Ingest CI shall convert ISO-19115 conformant attribute types to ECS conformant attribute types in the event of type mismatches.	Completed
ECS-L4-13355	S-DPL-32160 The DPASU shall log to its error log when attempts are made to process previously processed time periods of the log files and add them to the DPAL.	Completed
ECS-L4-13356	S-DPL-32162 The DPASU shall issue a warning message to the operator in response to an operator command to process log files for a time period that has previously been processed.	Completed

ID	Title	Status
ECS-L4-13357	S-DPL-32164 The DPASU shall permit operator initiated processing of log files for previously processed time periods if the operator directs that this should be done after the DPASU issues a warning message concerning this.	Completed
ECS-L4-13358	S-DPL-32170 The DPASU shall provide the capability to process log files representing 50,000 accesses and store the resulting parsed information to the DPAL within 1 hour.	Completed
ECS-L4-13359	S-DPL-32180 If syntax validation fails for any command line parameter, the DPASU capability shall notify the operator of the failure and display the correct syntax	Completed
ECS-L4-13360	S-DPL-32190 The DPASU shall allow the operator to request suppression of confirmation prompts and warning/error messages via a command line parameter.	Completed
ECS-L4-13361	S-DPL-32200 If the operator requests that warning and error messages be suppressed, the DPASU shall write these messages to its error log.	Completed
ECS-L4-13362	S-DPL-32210 The DPASU shall log all errors.	Completed
ECS-L4-13364	S-DPL-32230 The DPASU shall record information in the DPAL sufficient to uniquely identify each granule access.	Completed
ECS-L4-13365	S-DPL-32500 The Data Pool Access Statistics Utility shall be able to include accesses to non-ECS granules in the Data Pool in its log extraction.	Completed
ECS-L4-13366	S-DPL-32805 The Data Pool FTP Log Parsing script shall extract all information required in Ticket DP_SY_08, Requirement S-DPL-32220 from the proxy firewall ftp log.	Completed
ECS-L4-13369	S-DPL-32820 The Data Pool FTP Log Parsing script shall filter out incomplete ftp transfers of Data Pool files from its access statistics.	Completed
ECS-L4-13372	S-DPL-32840 The Data Pool FTP Log Parsing script shall support the operational and user interface requirements defined in ticket DP_SY_08 (Compile and Examine Data Pool Access Statistics) when parsing the proxy firewall ftp log: S-DPL-32040, S-DPL-32050, S-DPL-32060, S-DPL-32070, S-DPL-32080, S-DPL-32090, S-DPL-32100, S-DPL-32110, S-DPL-32150, S-DPL-32160, S-DPL-32162, S-DPL-32164, S-DPL-32170, S-DPL-32180, S-DPL-32190, S-DPL-32200, S-DPL-32210.	Completed
ECS-L4-13373	S-DPL-34010 The DPL CI shall allow operators to specify datasets that are accessible via a WMS	Completed
ECS-L4-13374	S-DPL-34020 The DPL CI shall allow operators to specify datasets that are accessible via a WCS	Completed
ECS-L4-13376	S-DPL-40000 The Data Pool shall include a batch insert utility.	Completed
ECS-L4-13377	S-DPL-40010 The Data Pool Batch Insert Utility shall be able to accept an ECS Granule List, namely a file consisting of one granule identifier per line in any mix of the following formats as input: a) ECS UR b) ECS Local Granule ID c) ECS granule dbid d) format in which the granule ID's are saved by EDG	Completed
ECS-L4-13378	S-DPL-40020 The Data Pool Batch Insert Utility shall accept an optional command line parameter providing the Unix path name pointing to the input file.	Completed
ECS-L4-13379	S-DPL-40030 The Data Pool Batch Insert Utility shall assume that the input is provided via standard input if the input path name parameter is missing.	Completed
ECS-L4-13380	S-DPL-40040 The Data Pool Batch Insert Utility shall accept an optional command line parameter providing a batch label of up to 16 characters. [Note: use the first 16 characters if the string is too long. There is no requirement for the batch label to be unique].	Completed

ID	Title	Status
ECS-L4-13381	S-DPL-40050 The Data Pool Batch Insert Utility shall use the first 16 characters of the input file name (i.e., excluding directory names) as the batch label if the corresponding command line parameter is missing and the input file name parameter is present.	Completed
ECS-L4-13382	S-DPL-40055 The Data Pool Batch Insert Utility shall require that a batch label be provided if the granule list is provided via standard input.	Completed
ECS-L4-13383	S-DPL-40060 The Data Pool Batch Insert Utility shall accept an optional command line parameter specifying a valid retention priority.	Completed
ECS-L4-13384	S-DPL-40065 The Data Pool Batch Insert Utility shall use the configured default retention priority if none was specified in the command line parameters.	Completed
ECS-L4-13385	S-DPL-40070 The Data Pool Batch Insert Utility shall accept an optional command line parameter specifying a valid retention period.	Completed
ECS-L4-13386	S-DPL-40075 The Data Pool Batch Insert Utility shall use the configured default retention period if none was specified in the command line parameters.	Completed
ECS-L4-13387	S-DPL-40080 The Data Pool Batch Insert Utility shall accept an optional command line parameter specifying whether the granule insert shall include only the metadata file.	Completed
ECS-L4-13388	S-DPL-40090 The Data Pool Batch Insert Utility shall assume that both science and metadata files are to be inserted if the corresponding command line parameter is missing and the collection is enabled for science and metadata file insert.	Completed
ECS-L4-13389	S-DPL-40092 The Data Pool Batch Insert Utility shall assume that only metadata files are to be inserted if the corresponding command line parameter is missing and the collection is enabled for metadata file insert only.	Completed
ECS-L4-13390	S-DPL-40094 The Data Pool Batch Insert Utility shall skip a granule if the collection is not eligible for inserts	Completed
ECS-L4-13393	S-DPL-40110 The Data Pool Batch Insert Utility shall accept an optional parameter specifying an insert dispatch priority as an integer from 1 to 255.	Completed
ECS-L4-13394	S-DPL-40120 The Data Pool Batch Insert Utility shall assume the lowest possible value for the dispatch priority if no dispatch priority parameter is specified.	Completed
ECS-L4-13395	S-DPL-40130 The Data Pool Batch Insert Utility shall not perform the insert and return an error if any of the parameters have invalid values.	Completed
ECS-L4-13397	S-DPL-40145 The Data Pool Batch Insert Utility shall skip a granule, i.e., not queue it up for insert, if that granule is currently in the insert action queue with the same batch label and a status other than FAILED.	Completed
ECS-L4-13398	S-DPL-40150 The Data Pool Batch Insert Utility shall log the provided identifiers of any granules that it skips and the reason for skipping.	Completed
ECS-L4-13399	S-DPL-40160 The Data Pool Batch Insert Utility shall translate any granule identifier in the input file into an ECS dbid prior to inserting the granule into the Data Pool insert action queue.	Completed
ECS-L4-13400	S-DPL-40162 The Data Pool Batch Insert Utility shall skip any ECS Local Granule ID identifier in the input file if it does not identify an existing ECS granule or more than one ECS granule.	Completed
ECS-L4-13401	S-DPL-40164 The Data Pool Batch Insert Utility shall remove the duplicates if any input file contains or results in duplicate dbid.	Completed
ECS-L4-13403	S-DPL-40180 The Data Pool Batch Insert Utility shall populate the attributes of each insert action with the attributes from the command line parameters and the input file.	Completed

ID	Title	Status
ECS-L4-13404	S-DPL-40182 Different instances of the Data Pool Batch Insert Utility shall be able to operate in different modes concurrently.	Completed
ECS-L4-13405	S-DPL-40184 Multiple instances of the Data Pool Batch Insert Utility shall be able to operate in the same modes concurrently.	Completed
ECS-L4-13406	S-DPL-40200 The Data Pool Batch Insert Utility shall not place any restrictions on the number of granules contained in a single insert batch.	Completed
ECS-L4-13407	S-DPL-40210 The Data Pool Action Dispatcher (DPAD) shall dispatch insert actions that are flagged as not in cache and that include the insertion of science files by priority, and within the same priority grouped by predicted tape archive location using a combination of ESDT, granule insert time, and/or storage management volume group information for the granule. [Note: the precise approach is TBD during design.]	Completed
ECS-L4-13408	S-DPL-40220 The DPAD shall provide a mechanism that prevents a batch of granule inserts from seriously degrading subscription based data pool inserts, regardless of whether the batch includes science and metadata files, or metadata files only, even if subscription-based inserts refer to granules that are no longer in cache.	Completed
ECS-L4-13409	S-DPL-40300 The Data Pool Maintenance GUI shall be able to include status, batch label and insert dispatch priority in its action queue display.	Completed
ECS-L4-13410	S-DPL-40310 The Data Pool Maintenance GUI shall be able to filter the insert action queue by batch label and status individually and in combination.	Completed
ECS-L4-13411	S-DPL-40320 The Data Pool Maintenance GUI shall allow the operator to display for each batch label, a summary of the actions by status.	Completed
ECS-L4-13412	S-DPL-40410 The DPM GUI shall be able to support effective monitoring of at least 450 concurrently active Data Pool inserts.	Completed
ECS-L4-13413	S-DPL-40420 The DPM GUI shall allow a full capability operator to configure the maximum number of tape mounts that may be dispatched concurrently for a distribution request (see S-DPL-42340 on the use of this parameter).	Completed
ECS-L4-13416	S-DPL-40530 The Data Pool Maintenance GUI shall support the use of group ids of up to 12 characters when performing operations with groups (e.g., adding new groups, displaying group ids).	Completed
ECS-L4-13417	S-DPL-40535 The Data Pool Maintenance GUI shall support the following set of valid characters in group ids: A-Z (upper case only), 0-9, and underscore. (NOTE: This requirement replaces requirement S-DPL-41132 in Ticket DP_S3_02 (Accommodate NonECS Data in Data Pool), which states: 'The Data Pool Maintenance GUI shall verify that the name of a data collection group obeys the following rules and reject the definition if it does not: a. The name consists entirely of upper case letters. b. The name is no more than four characters in length.'	Completed
ECS-L4-13419	S-DPL-40545 The Data Pool Maintenance GUI shall support the following set of valid characters in display names: A-Z(upper case only), 0-9, underscore, and blank.	Completed
ECS-L4-13420	S-DPL-40550 The Data Pool Maintenance GUI shall allow full capability operators to update the 'display name' of a Data Pool group.	Completed
ECS-L4-13422	S-DPL-40600 The Data Pool publishing function shall accept an optional parameter providing a valid Theme name. [Note: This requirement supersedes S-DPL-40100.]	Completed
ECS-L4-13423	S-DPL-40610 The Data Pool Batch publishing function shall consider a Theme name invalid if the Theme does not exist or is not enabled for data pool insert. [Note: This requirement supersedes S-DPL-40105.]	Completed

ID	Title	Status
ECS-L4-13424	S-DPL-40620 If an ECS granule referenced by a publishing action already exists in the Data Pool, the Data Pool Insert Service shall add a cross reference between that granule and the theme associated with the insert action, assuming the theme is enabled for insert and is not already cross referenced with that granule. [Note: this allows operators to add existing granules to new themes. This requirement does not apply to non ECS granules since the situation would result in a complete replacement of the existing granule]. [Note: This requirement supersedes S-DPL-40152. This is an error. Should say S-DPL-42152.]	Completed
ECS-L4-13425	S-DPL-40630 The Data Pool Insert Service shall insert a cross reference between a granule and the theme whose name is specified by the publishing action if the theme is enabled for insert. [Note: This supports specifying a theme on batch insert.] [Note: This requirement supersedes S-DPL-42140.]	Completed
ECS-L4-13426	S-DPL-40640 The Data Pool Insert Service shall fail a granule publication that is associated only with a theme that is not enabled for insert. [Note: This means that if the granule is also associated with other themes or no theme, its insert will proceed.] [Note: This requirement supersedes S-DPL-42160.]	Completed
ECS-L4-13427	S-DPL-40650 The Data Pool shall remove the cross references between themes and a granule when the granule is unpublished or removed from the Data Pool. [Note: This requirement supersedes S-DPL-13700.]	Completed
ECS-L4-13428	S-DPL-40660 Data Pool Cleanup Utility shall support a command line parameter to restrict the cleanup of non-ECS granules to a specific theme. [Note: This requirement supersedes S-DPL-13710.]	Completed
ECS-L4-13429	S-DPL-40670 If the command line parameters restrict cleanup to a specific theme, the Data Pool Cleanup Utility shall clean up a non-ECS granule that would otherwise qualify for cleanup only if the granule is associated with that theme, and remove the granule entirely if it is not associated with any other theme, otherwise only remove its cross reference with that theme. [Note: This allows operators to cleanup themes selectively.] [Note: This requirement supersedes S-DPL-13710.]	Completed
ECS-L4-13430	S-DPL-41005 The Data Pool shall provide a command line utility for inserting non-ECS granules. [Note: the capability can be provided by the Batch Insert Utility for ECS granules defined in ticket DP_S3_01 or by a separate utility.]	Completed
ECS-L4-13431	S-DPL-41010 The Data Pool Batch Insert utility for non-ECS granules shall accept as input a Non-ECS Granule List containing one absolute path and file name per line. [Note: There is no need to accept an input file listing both ECS and non-ECS granules.]	Completed
ECS-L4-13432	S-DPL-41020 The Data Pool Batch Insert Utility shall not accept both a Non-ECS Insert List and an ECS Insert List.	Completed
ECS-L4-13433	S-DPL-41030 The Data Pool Batch Insert Utility for non-ECS granules shall verify that the file names in the Non-ECS Granule List have an XML extension.	Completed
ECS-L4-13434	S-DPL-41040 The Data Pool Batch Insert Utility for non-ECS granules shall support requirements S-DPL-40020 through S-DPL-40080, S-DPL-40100 through S-DPL-40130, S-DPL-40150, S-DPL-40182, S-DPL-40184 and S-DPL-40200 in ticket DP_S3_01 when processing a Non-ECS Granule List.	Completed
ECS-L4-13435	S-DPL-41045 The Data Pool Batch Insert Utility for non-ECS granules shall skip duplicate entries in the Non-ECS Granule List.	Completed

ID	Title	Status
ECS-L4-13436	S-DPL-41050 The Data Pool Batch Insert Utility for non-ECS granules shall skip granules in a Non-ECS Granule List, i.e., exclude them from the insert, if the path file name is invalid.	Completed
ECS-L4-13437	S-DPL-41054 The Data Pool Batch Insert Utility for non-ECS granules shall skip granules in a Non-ECS Granule List, i.e., exclude them from the insert, if an insert action referencing the same XML file is already queued up with a status other than FAILED.	Completed
ECS-L4-13438	S-DPL-41060 The Data Pool Batch Insert Utility for non-ECS granules shall queue a Data Pool insert action for each valid entry in the Non-ECS Granule List and mark this as an insert action for a non-ECS granule.	Completed
ECS-L4-13439	S-DPL-41070 The Data Pool Batch Insert Utility for non-ECS granules shall populate the attributes of each non-ECS insert action with the attributes from the command line parameters.	Completed
ECS-L4-13440	S-DPL-41080 The Data Pool Batch Insert Utility for non-ECS granules shall copy the absolute path and file name of the XML file from the Non ECS Granule List into the queued insert action.	Completed
ECS-L4-13441	S-DPL-41082 The Data Pool Batch Insert Utility for non-ECS granules shall populate the collection shortname and version in the queued insert action from the corresponding information in the XML file.	Completed
ECS-L4-13442	S-DPL-41084 The Data Pool Batch Insert Utility shall support requirements S-DPL-40090 to S-DPL-40094.	Completed
ECS-L4-13443	S-DPL-41086 The Data Pool Batch Insert Utility for non-ECS granules shall be able to queue Non ECS Granules for insert at a rate of not less than ten granules per minute.	Completed
ECS-L4-13444	S-DPL-41110 The Data Pool Monitoring GUI shall be able to display the XML file and path name for a non-ECS granule insert action. [Note: to save screen real estate when displaying a list of insert actions, this information does not have to be included in the list itself but may be displayed to the operator only upon request.]	Completed
ECS-L4-13445	S-DPL-41120 The Data Pool Maintenance GUI shall allow operators to define non-ECS data pool collections and collection groups and their mapping. [Note: By definition, collections belonging to non-ECS collection groups are considered non-ECS collections; and collections that belong to ECS collection groups are considered ECS collections].	Completed
ECS-L4-13446	S-DPL-41122 The Data Pool Maintenance GUI shall require operators to enter a spatial search type when defining a non-ECS collection.	Completed
ECS-L4-13447	S-DPL-41124 The Data Pool Maintenance GUI shall offer only the following valid ECS spatial search types for selection by the operator: a. GPolygon b. Rectangle (i.e., LLBOX) c. Not Supported (i.e., spatial coverage does not apply)	Completed
ECS-L4-13448	S-DPL-41126 The Data Pool Maintenance GUI shall not permit collections that belong to non-ECS collection groups to duplicate the name of an ESDT currently defined in ECS regardless of letter case. (I.e., checking for name duplication needs to be case insensitive - Aster01 and aster01 need to be considered duplicates).	Completed
ECS-L4-13449	S-DPL-41128 The Data Pool Maintenance GUI shall allow operators to update the spatial search type of a non-ECS Data Pool collection if and only if the collection is currently not enabled for insert and the Data Pool contains no granules belonging to that collection.	Completed
ECS-L4-13450	S-DPL-41129 The Data Pool Maintenance GUI shall allow operators to update the description of a non-ECS Data Pool collection.	Completed

ID	Title	Status
ECS-L4-13451	S-DPL-41130 The Data Pool Maintenance GUI shall verify that the name of a non-ECS data collection obeys the following rules and reject the definition if it does not: a. The name starts with a letter. b. The name does not contain any special characters except an underscore ('_'). c. The letters are all capitalized d. The name is no more than eight characters in length.	Completed
ECS-L4-13452	S-DPL-41132 The Data Pool Maintenance GUI shall verify that the name of a data collection group obeys the following rules and reject the definition if it does not: a. The name consists entirely of upper case letters. b. The name is no more than four characters in length.	Completed
ECS-L4-13453	S-DPL-41150 The Data Pool Maintenance GUI shall support S-DPL-40300 and S-DPL-40310 in ticket DP_S3_01 for ECS- and Non-ECS insert actions.	Completed
ECS-L4-13454	S-DPL-41160 The Data Pool Maintenance GUI shall support S-DPL-40320 in ticket DP_S3_01 for Non-ECS insert actions as well as for insert actions for ECS granules.	Completed
ECS-L4-13455	S-DPL-41170 The Data Pool Action Dispatcher (DPAD) shall dispatch insert actions that are flagged as non-ECS inserts in priority order, and within the same priority, on a first-in first-out basis.	Completed
ECS-L4-13456	S-DPL-41180 The DPAD shall support S-DPL-40220 in ticket DP_S3_01 regardless of whether a batch is for ECS or non-ECS granules.	Completed
ECS-L4-13457	S-DPL-41190 The Data Pool Insert Utility (DPIU) shall verify the accessibility of the XML file referenced by a non-ECS granule insert action, and return a fatal error if the file is not accessible.	Completed
ECS-L4-13458	S-DPL-41200 The DPIU shall parse the XML file, validate its correctness against the DTD, and return a fatal error if it fails validation.	Completed
ECS-L4-13459	S-DPL-41210 The Data Pool Insert Service shall generate a unique Data Pool internal granule identifier for non-ECS granules.	Completed
ECS-L4-13461	S-DPL-41230 The DPIU shall populate the Data Pool inventory and warehouse from the XML file.	Completed
ECS-L4-13462	S-DPL-41250 The DPIU shall return a fatal error if any mandatory metadata is missing.	Completed
ECS-L4-13463	S-DPL-41260 The DPIU shall return a fatal error if the data pool collection whose name and version provided in the XML metadata file does not exist, or is not enabled for the requested type of Data Pool insertion (i.e., metadata only v. metadata + granule), or does not represent a non-ECS collection.	Completed
ECS-L4-13464	S-DPL-41270 If an external non-ECS granule identifier (i.e., a LocalGranuleId) is provided, the DPIU shall replace any existing granule in the Data Pool with the same non-ECS granule identifier and XML file name [Note: this means that an existing granule can be replaced if non-ECS granule ID is the same. To be safe, we also check the XML file name as verification.]	Completed
ECS-L4-13466	S-DPL-41280 If an external non-ECS granule identifier (i.e., a LocalGranuleId) is provided, the DPIU shall return a fatal error if one of the files of the granule being inserted has the same name as that of a file of a different granule (i.e., with different or no external identifier) already existing in the target Data Pool directory. [Note: this prevents file overwrites among different granules].	Completed

ID	Title	Status
ECS-L4-13467	S-DPL-41290 If an external non-ECS granule identifier is not provided (i.e., if there is no LocalGranuleId), the DPIU shall replace any existing granule already residing in the same Data Pool target directory that uses the same XML file name. [Note: This means that a non-ECS granule can be replaced even if it does not use an external granule identifier as long as it uses the same XML file name. Two granules without external identifier are only assumed to be the same granules if they are allocated to the same target directory and have the same XML file name. Naturally, if one granule has an external identifier and the other does not or if one granule is an ECS granule and the other is a non-ECS granule, they would be considered different granules..]	Completed
ECS-L4-13468	S-DPL-41295 If an external non-ECS granule identifier is not provided (i.e., if there is no LocalGranuleId), the DPIU shall return a fatal error if one of the files of the granule being inserted has the same name as that of a different granule (i.e., with external identifier or same target directory but different XML file name) already residing in the same Data Pool target directory. [Note: this corresponds to the current data pool behavior: duplicate file names that would cause the files of another granule to be overwritten are not allowed.]	Completed
ECS-L4-13469	S-DPL-41300 The DPIU shall determine the data pool target directory for a non-ECS granule based on Data Pool Collection Group, collection name, versionid, and data acquisition date of the granule, or if no acquisition date is available, based on the date of the insert request.	Completed
ECS-L4-13470	S-DPL-41320 The DPIU shall copy the XML metadata file into the target data pool directory.	Completed
ECS-L4-13471	S-DPL-41330 The DPIU shall return a fatal error if the insert is not metadata only and no granule file names are specified in the XML file.	Completed
ECS-L4-13472	S-DPL-41340 Unless the insert is for metadata only, the DPIU shall copy the granule files from a location formed by the absolute path name of the XML file and the file names specified in the XML file into the target data pool directory.	Completed
ECS-L4-13474	S-DPL-41352 The Data Pool Insert Service shall insert each browse granule that is listed in the browse cross reference into the Data Pool, unless a Browse granule with the same LocalGranuleId already exist in the Data Pool.	Completed
ECS-L4-13476	S-DPL-41356 If a browse granule that is listed in the browse cross reference already exists in the Data Pool, the Data Pool Insert Service shall insert links to its files into the science granule target directory, unless the link already exists in that directory.	Completed
ECS-L4-13477	S-DPL-41360 For browse granules that are to be inserted into the Data Pool, the Data Pool Insert Service shall extract each jpeg image from the browse granules referenced in the browse cross reference into a jpeg file.	Completed
ECS-L4-13478	S-DPL-41362 The Data Pool Insert Service shall skip the insertion of browse granules that are not in HDF format or do not contain jpeg images.	Completed
ECS-L4-13479	S-DPL-41364 The Data Pool Insert Service shall log any skipped browse granules and the reason for skipping them.	Completed
ECS-L4-13480	S-DPL-41370 The Data Pool Insert Service shall copy the extracted jpeg files into the target browse directory and create the browse file link(s) in the granule target directory. [Note: The naming rules for non-ECS browse files and links are the same as for ECS browse files and links.]	Completed
ECS-L4-13482	S-DPL-41390 The Data Pool Insert Service shall be able to deal with race conditions that may arise if several non-ECS granules are inserted into the Data Pool concurrently and reference the same browse granule(s).	Completed

ID	Title	Status
ECS-L4-13483	S-DPL-41400 The Data Pool Insert Service shall log the fact that an insert is for a non-ECS granule when logging the queuing, start and completion of a Data Pool insert.	Completed
ECS-L4-13484	S-DPL-41410 The Data Pool Insert Service shall log the following additional events for non-ECS granule inserts: a. Start of file transfers from the source location to the target Data Pool directory b. Completion of file transfers from the source location to the target Data Pool directory	Completed
ECS-L4-13485	S-DPL-41420 The DPIU shall be able to complete the insertion of a non-ECS granule successfully even if an earlier insert failed due to a fault.	Completed
ECS-L4-13486	S-DPL-41430 The DPIU shall prevent the partial insertion of non-ECS granules into the Data Pool if a granule insert action cannot be completed due to insert errors and (as a design target) faults.	Completed
ECS-L4-13487	S-DPL-41440 The DPIU shall remove the granule, browse and metadata files from the source directory after the insert completes successfully, and leave the files in the source directory if the insert does not complete successfully.	Completed
ECS-L4-13488	S-DPL-41500 The DPL CI shall provide the capability to compute science file checksums on ECS granules during Data Pool insert, using any of the following checksum algorithms: a. Unix CKSUM b. ECS Checksum c. MD5 Checksum (based on RFC 1321) [Note: MD5 checksum is the new capability being added by this ticket.]	Completed
ECS-L4-13489	S-DPL-41505 The DPL CI shall accept and store the MD5 checksum value in the form of a 32-character lowercase hexadecimal string.	Completed
ECS-L4-13490	S-DPL-41510 The Data Pool FTP service shall provide the capability to verify science file checksums during Data Pool download using any of the following checksum algorithms: a. Unix CKSUM b. ECS Checksum c. MD5 Checksum (based on RFC 1321) [Note: MD5 checksum is the new capability being added by this ticket.]	Completed
ECS-L4-13491	S-DPL-42010 The Data Pool Maintenance GUI shall allow an Operator to define a theme.	Completed
ECS-L4-13493	S-DPL-42030 The Data Pool Maintenance GUI shall support the following attributes for a theme: a. A unique name of up to 40 characters that must start with a letter and must be compatible with ECS file naming standards (i.e., it must not contain any characters that are illegal as ECS file names) b. A description of up to 255 characters. c. Whether the theme is enabled for inserts or not (default is 'not enabled for insert') d. Whether the theme is activated for web drill down or not. (default is 'not activated for web drill down')	Completed
ECS-L4-13494	S-DPL-42040 The Data Pool Maintenance GUI shall reject the definition of a theme if its name duplicates the name of an existing data pool collection group or ECS collection, or that of another theme.	Completed
ECS-L4-13495	S-DPL-42050 The Data Pool Maintenance GUI shall allow an Operator to list the themes in alphabetic order.	Completed
ECS-L4-13496	S-DPL-42060 When listing themes, the Data Pool Maintenance GUI shall display their name, whether they are enabled for inserts or not, and whether they are active or not.	Completed
ECS-L4-13497	S-DPL-42070 The Data Pool Maintenance GUI shall allow an Operator to filter the list of themes by the beginning letters of their name, whether they are enabled for insert, and whether they are activated for drill down.	Completed
ECS-L4-13498	S-DPL-42080 The Data Pool Maintenance GUI shall allow an Operator to select a theme from the displayed list for deletion.	Completed
ECS-L4-13499	S-DPL-42090 The Data Pool Maintenance GUI shall require the Operator to confirm the deletion of a theme before actually deleting it.	Completed

ID	Title	Status
ECS-L4-13500	S-DPL-42100 The Data Pool Maintenance GUI shall not permit the Operator to delete a theme that is still cross-referenced with Data Pool granules or subscriptions. [Note: The operator must first run cleanup to remove the cross-references and also delete or edit the insert actions for that Theme].	Completed
ECS-L4-13501	S-DPL-42110 The Data Pool Maintenance GUI shall allow an Operator to select a theme from the displayed list for viewing.	Completed
ECS-L4-13502	S-DPL-42120 The Data Pool Maintenance GUI shall allow an Operator to select a theme from the displayed list for editing.	Completed
ECS-L4-13503	S-DPL-42130 The Data Pool Maintenance GUI shall allow an Operator to edit the description of a theme, as well as whether it is enabled for inserts or not, and whether it is activated for web drill down or not.	Completed
ECS-L4-13505	S-DPL-42150 The Data Pool Insert Service shall insert a cross reference between a granule and the themes associated with the insert actions of the subscriptions that triggered the granule insert if the theme is enabled for insert. [Note: this supports specifying a theme in subscriptions].	Completed
ECS-L4-13507	S-DPL-42154 If an ECS granule referenced by an insert action already exists in the Data Pool, the Data Pool Insert Service shall extend the expiration time and/or increase the retention priority based on the values in the insert action, if necessary. [Note: That is, if the insert action has a higher priority, then the priority is raised; and if the calculated expiration is later, the expiration is updated. This requirement does not apply to non ECS granules since the situation would result in a complete replacement of the existing granule].	Completed
ECS-L4-13509	S-DPL-42200 The Data Pool Insert Service must be able to operate correctly and without fault while an inventory validation is in progress.	Completed
ECS-L4-13510	S-DPL-42300 The Data Pool Insert Service shall not dispatch Data Pool inserts requested solely by the OMS if one of the following conditions is true: a. staging for OMS is suspended b. the sole reason for insert is distribution staging for a granule that was failed c. the sole reason for insert is a distribution request that is in a terminal state.	Completed
ECS-L4-13511	S-DPL-42310 The Data Pool Insert Service shall not dispatch Data Pool inserts that require access to an archive for which staging is suspended. [NOTE: a requirement for not dispatching inserts for a suspended volume group is specified in ticket OP_S4_06.]	Completed
ECS-L4-13513	S-DPL-42330 The DPL CI shall allow operators to configure the following request aging parameters for each ECS priority level: a. an aging rate indicating the amount by which the priority of a request shall increase for every hour that the request has been waiting, in the range of 0 to 100 (including decimal fractions in increments of 0.1). b. the maximum priority a request can attain through aging. [NOTE: Configuration can be via a DPL configuration script. If it is via GUI, the capability to change these values must be restricted to full capability operators. Note that these are the aging parameters for requests that are in the staging state and are waiting for tape mounts.]	Completed

ID	Title	Status
ECS-L4-13514	S-DPL-42340 The Data Pool Insert Service shall dispatch Data Pool inserts from tape according to the following policy: a. Tape mounts needed by distribution requests that are not in the Staging state or that reference resources that are currently suspended (such as media type or FTP destination) are not considered when deciding which archive tape to mount next. b. Tape mounts needed by distribution requests are not considered at all when the OMS suspended the queuing and dispatching of all distribution requests. c. Tape mounts are dispatched in queue order to the next available drive regardless of high or low water mark considerations, unless the tape mount is solely for a distribution request for which the configured maximum number of concurrent tape mounts has been reached. d. If a tape mount cannot be dispatched after rules a. and b. have been applied, tape mounts are dispatched in queue order regardless of other restrictions. e. The queue of requests for tape mounts is considered ordered by effective priority and within the same priority, by age (oldest first), where the effective priority is calculated in accordance with the configured request aging policy parameters.	Completed
ECS-L4-13516	S-DPL-42360 The Data Pool Insert Service shall notify the OMS of the completion of a Data Pool insert action originating from the OMS and provide its completion status (including status details).	Completed
ECS-L4-13518	S-DPL-42380 The Data Pool Insert Service shall notify the OMS if it suspends the Data Pool inserts from an archive	Completed
ECS-L4-13519	S-DPL-42390 The Data Pool Insert Service shall notify the OMS if it suspends the Data Pool inserts into a Data Pool file system	Completed
ECS-L4-13520	S-DPL-42400 The Data Pool Insert Service shall be able to insert at least 90,000 granules per day. [NOTE: verification is part of WL S4 01]	Completed
ECS-L4-13521	S-DPL-42410 The Data Pool Insert Service shall be able to achieve a peak Data Pool insert rate of at least 5,000 granules per hour. [NOTE: verification is part of WL S4 01]	Completed
ECS-L4-13522	S-DPL-42420 The Data Pool Insert Service shall be able to support at least 400 concurrently active inserts from tape.	Completed
ECS-L4-13524	S-DPL-42440 The Data Pool Insert Service shall flag granules inserted into the Data Pool solely for ordering purposes as order only granules.	Completed
ECS-L4-13526	S-DPL-42460 The Data Pool Insert Service shall skip browse insert processing for order only granules.	Completed
ECS-L4-13527	S-DPL-42465 The Data Pool Insert Service shall perform browse insert for order-only purposes to allow for the ordering of Browse granules, and do so even if there is no associated science granule in the Data Pool.	Completed
ECS-L4-13528	S-DPL-42470 The Data Pool insert service shall consider insert requests for order only granules as successfully completed without any further processing (other than what is necessary to track the completion of the insert) if that granule already resides in the Data Pool. [This guards against potential race conditions where the OMS or DPL Insert Service may fail to recognize that a granule is already in the Data Pool or already queued for insert.]	Completed
ECS-L4-13529	S-DPL-42480 In case of Data Pool insert requests queued by Data Pool subscriptions or batch for granules that reside as order only in the Data Pool, the Data Pool insert service shall perform the additional insert processing steps necessary to make the granule fully visible to Data Pool users, including, if necessary, converting any associated Browse that resides in the Data Pool for order-only purposes into a regular Data Pool Browse granule. [This guards against the possibility that an order only insert occurs first.]	Completed

ID	Title	Status
ECS-L4-13530	S-DPL-43000 The Data Pool Service shall support the capability to represent the granules in the MISBR ESDT as both science granules and browse granules with discrete expiration settings.	Completed
ECS-L4-13531	S-DPL-43010 The Data Pool Service shall support browse associations between jpeg image files of the MISBR ESDT and granules from a configurable list of MISR ESDTs, the default set of which is identified as Level 1 and Level 2 in Listing 1 of this ticket.	Completed
ECS-L4-13533	S-DPL-43030 The Data Pool Insert Service shall link a MISBR image file with a MISR Level 1 science granule based upon the following matching attributes, where such attributes exist: (a) Camera ID, Orbit ID and MISR product version.	Completed
ECS-L4-13534	S-DPL-43035 The Data Pool Insert Service shall use the MISR product version defined by the product specific attribute "SP_AM_MISR_ProductVersion" when linking a MISR image file with a MISR Level 1 science granule.	Completed
ECS-L4-13535	S-DPL-43040 The Data Pool Insert Service shall insert a MISR Level 1 science granule without a browse linkage, in the event that a MISBR granule with a matching Camera ID cannot be found.	Completed
ECS-L4-13536	S-DPL-43050 The Data Pool Insert Service shall link a MISBR image file with the most recently inserted MISR Level 2 science granule based upon the following matching attributes, where such attributes exist: (a) Camera ID = "AN"; and Orbit ID	Completed
ECS-L4-13537	S-DPL-43060 The Data Pool Insert Service shall insert a MISR Level 2 science granule without a browse linkage, in the event that a MISBR granule with Camera ID = "AN"; cannot be found.	Completed
ECS-L4-13538	S-DPL-45010 The DPM GUI shall allow full capability operators to define the file systems available for use by the Data Pool, including the root path information for the file system.	Completed
ECS-L4-13539	S-DPL-45020 The DPL CI shall install an entry for the existing Data Pool file system during transition.	Completed
ECS-L4-13540	S-DPL-45030 The DPM GUI shall allow full capability operators to select the file system to be used for a Data Pool collection from the list of available Data Pool file systems when they define a new collection.	Completed
ECS-L4-13541	S-DPL-45032 The DPM GUI shall use the single Data Pool file system as the default file system for a collection until more than one Data Pool file system has been defined.	Completed
ECS-L4-13542	S-DPL-45034 The DPL shall allocate existing collections to the existing Data Pool file system during transition.	Completed
ECS-L4-13543	S-DPL-45040 The DPM GUI shall allow full capability operators to update the file system to be used for a Data Pool collection as part of the screen used to update collection information if and only if the collection is empty and not enabled for insert. [Note: a separate utility is provided to allow operators to move an existing collection that is not empty].	Completed
ECS-L4-13544	S-DPL-45050 The DPM GUI shall display the file system to which a Data Pool collection is allocated on the screens operators use to view/update collection information.	Completed
ECS-L4-13545	S-DPL-45060 The DPM GUI shall allow operators to monitor the 'no free space' flag of each Data Pool file system.	Completed
ECS-L4-13546	S-DPL-45070 The DPM GUI shall allow full capability operators to change the 'no free space' flag for a specific Data Pool file system.	Completed
ECS-L4-13547	S-DPL-45080 The DPM GUI shall allow operators to list the Data Pool collections that are allocated to a specific Data Pool file system.	Completed

ID	Title	Status
ECS-L4-13548	S-DPL-45085 The DPM GUI shall allow operators to filter the list of queued Data Pool insert actions by file system.	Completed
ECS-L4-13549	S-DPL-45090 The DPM GUI shall allow full capability operators to configure the amount of space that must be freed to clear the free space flag separately for each file system. [Note: This extends S-DPL-13212 in DP_SY_03, which contains the equivalent requirement for a single file system].	Completed
ECS-L4-13550	S-DPL-45100 The DPM GUI shall allow full capability operators to mark an available file system as unavailable. [Note: Integration test cannot occur until Synergy V.]	Completed
ECS-L4-13551	S-DPL-45105 The DPM GUI shall allow full capability operators to mark an unavailable file system as available. [Note: Integration test cannot occur until Synergy V.]	Completed
ECS-L4-13552	S-DPL-45110 The Data Pool CI shall provide a utility that allows operators to move a Data Pool collection from one file system to another in a recoverable fashion[Development and integration test cannot occur until Synergy 5.]	Completed
ECS-L4-13553	S-DPL-45111 The Data Pool utility that moves a Data Pool collection from one file system to another shall allow an operator to not complete a previously interrupted move operation if at the time of interruption the original collection directory contents were still intact. [NOTE: This means, for example, that once files were deleted from the original directory, the move needs to be completed.	Completed
ECS-L4-13554	S-DPL-45112 The Data Pool utility that moves a Data Pool collection from one file system to another shall verify that the target file system has sufficient free space to hold the collection to be moved before performing the move operation.	Completed
ECS-L4-13555	S-DPL-45113 The Data Pool utility that moves a Data Pool collection from one file system to another shall prompt the operator for confirmation prior to a move when used in OPS mode.	Completed
ECS-L4-13556	S-DPL-45115 The Data Pool utility that moves a Data Pool collection from one file system to another shall create a link pointing from the old collection location to the new collection directory. [NOTE: This is a single link for a collection. DAACs can remove the link when they believe that it is no longer needed. Otherwise, the link will only be removed (by the Data Pool Cleanup Utility) if the collection becomes empty.	Completed
ECS-L4-13560	S-DPL-45310 The Data Pool Insert Service shall insert files into the configured file system in accordance with the root path configured for the file system on which the collection resides, but otherwise apply the existing Data Pool directory and file naming rules.	Completed
ECS-L4-13561	S-DPL-45320 The Data Pool Insert Service shall set the 'no free space flag' for a file system if insertion of a file into that Data Pool file system fails because of insufficient free space. [Note this extends S-DPL-23300 in DP_SY_04 to multiple file systems].	Completed
ECS-L4-13562	S-DPL-45330 The Data Pool Insert Service shall not start further Data Pool Insert actions targeted for a file system whose 'no free space' flag is set or that is marked 'unavailable'. [Note: this extends S-DPL-23350 in DP_SY_04 to multiple file systems.]	Completed

ID	Title	Status
ECS-L4-13563	S-DPL-45340 The Data Pool Insert Service shall automatically resume processing insert actions targeted for file system whose 'no free space' flag is updated to indicate that free space is available (unless it is marked as unavailable). [Note: this extends S-DPL-23355 in DP_SY_04 to multiple file systems.]	Completed
ECS-L4-13564	S-DPL-45350 The Data Pool Insert Service shall automatically resume processing insert actions targeted for file system whose 'unavailable' flag is updated to indicate that it is available again (unless its 'no free space flag' is set). [Note: this extends S-DPL-23355 in DP_SY_04 to multiple file systems. Integration test cannot occur until Synergy V.]	Completed
ECS-L4-13565	S-DPL-45410 The Data Pool Cleanup Utility shall clear the 'no free space' flag for a file system if the amount of space that was cleaned up exceeds the operator configured limit for that file system. [Note: This extends requirement S-DPL-13210 in DP_SY_03 to multiple file systems.]	Completed
ECS-L4-13566	S-DPL-45420 The Data Pool Cleanup Utility shall be able to support the fact that different Data Pool collections may reside on different file systems transparently to operators. [Note: Integration test cannot occur until Synergy V.]	Completed
ECS-L4-13567	S-DPL-45430 The Data Pool Cleanup Utility shall skip the cleanup of granules for collections that reside on a file system marked unavailable.	Completed
ECS-L4-13568	S-DPL-45440 The Data Pool Cleanup Utility shall log the collections skipped during cleanup because they reside on a file system marked unavailable.	Completed
ECS-L4-13570	S-DPL-45450 The Data Pool Validation Utility shall be able to support the fact that different Data Pool collections may reside on different file systems transparently to operators. [Note: Integration test cannot occur until Synergy V.]	Completed
ECS-L4-13571	S-DPL-45460 The Data Pool Validation Utility shall skip the validation of collections that reside on a file system marked unavailable.	Completed
ECS-L4-13572	S-DPL-45470 The Data Pool Validation Utility shall log the collections skipped during validation because they reside on a file system marked unavailable.	Completed
ECS-L4-13573	S-DPL-45610 The Data Pool FTP log analyzer shall be able to support the fact that different Data Pool collections may reside on different file systems transparently to operators. [Note: Testing cannot occur until Synergy V.]	Completed
ECS-L4-13574	S-DPL-45710 The Data Pool web log analyzer shall be able to support the fact that different Data Pool collections may reside on different file systems transparently to operators. [Note: Testing cannot occur until Synergy V.]	Completed
ECS-L4-13575	S-DPL-45810 The Data Pool FTP Service must provide anonymous FTP access to all public Data Pool directories, which may reside on several different File systems, but must not permit access to any other directories. [Development and integration test cannot occur until Synergy V.]	Completed
ECS-L4-13576	S-DPL-45820 [DESIRABLE] The Data Pool FTP Service shall offer to anonymous FTP users a directory structure that is backwards compatible with that of Synergy III. Note: This requirement has dependencies on the capability to extend the data pool collection group identifier to 12 characters: if it is decided that the DAACs would maintain links between the chosen long names and the actual collection group directories, then the DAACs would also need to take responsibility for maintaining the shadow directory links. [To be resolved by Synergy V DDR. Development and integration cannot occur until Synergy V.]	Completed

ID	Title	Status
ECS-L4-13577	S-DPL-46010 The DPL CI shall provide the capability to compute science file checksums on ECS granules during data pool insert, using any algorithm in the checksum type list.	Completed
ECS-L4-13579	S-DPL-46025 The DPL CI shall maintain a DAAC-configurable parameter indicating the percentage of ECS science files without a checksum type and checksum value for which an ECS checksum should be calculated and stored during data pool insert. [NOTE: It is acceptable for a server restart to be required in order to recognize parameter changes.]	Completed
ECS-L4-13583	S-DPL-46040 The DPL CI shall generate a retryable failure when a checksum mismatch occurs.	Completed
ECS-L4-13584	S-DPL-46042 The DPL CI shall generate an error and fail the Data Pool insert if the checksum type associated with a file is not among the checksum types supported by the DPL CI. [NOTE: Since the validity of the checksum type is verified during ingest, this error condition needs to be tested during unit testing. It is not testable during integration testing.	Completed
ECS-L4-13586	S-DPL-46060 The DPL CI shall include checksum type, checksum origin, and checksum value in the .xml files.	Completed
ECS-L4-13587	S-DPL-46110 Ingest of EDOS data shall comply with all L4 requirements in ticket DP_S6_01 that are not superseded by the L4 requirements specific to EDOS, that is, ticket DP_72_02.	Completed
ECS-L4-13588	S-DPL-46115 The Data Pool Ingest Service shall not provide a Product Delivery Record Discrepancy (PDRD) to EDOS.	Completed
ECS-L4-13589	S-DPL-46120 The Data Pool Ingest Service shall check each polling location enabled for EDOS Data Pool ingest for signal files named for Product Delivery Records in accordance with the polling frequency and polling method configured for that polling location unless the polling for that location, host, or provider, or all Data Pool Ingest processing have been suspended.	Completed
ECS-L4-13590	S-DPL-46122 The Data Pool Ingest Service shall not count transfers of signal files against the corresponding FTP or local file transfer limits. [NOTE: This extends the exclusions specified in S-DPL-18230 and S-DPL-18235 in Ticket DP_S6_01 and shall be verified by design inspection.]	Completed
ECS-L4-13591	S-DPL-46125 During initial validation, the Data Pool Ingest Service shall verify that the EDOS PDR conforms to specifications in ESDIS Document 423-ICD-EDOS/EGS.	Completed
ECS-L4-13592	S-DPL-46130 The Data Pool Ingest Service shall provide Product Acceptance Notifications (PANs) for EDOS production data sets (PDS) per ESDIS Document 423-ICD-EDOS/EGS when all granules in an ingest request that needed to be archived in ECS have reached a state of 'Inserted' or some terminal error state.	Completed
ECS-L4-13593	S-DPL-46135 The Data Pool Ingest Service shall place PANs in a DAAC directory for ftp access by EDOS.	Completed
ECS-L4-13594	S-DPL-46140 The Data Pool Ingest Service shall provide only PANs that report errors to EDOS. [EDOS does not want to receive successful PANs.]	Completed
ECS-L4-13595	S-DPL-46145 The Data Pool Ingest Service shall include the EDOS Ground Message Header in the PAN it provides to EDOS in accordance with ESDIS document 423-ICD-EDOS/EGS.	Completed
ECS-L4-13596	S-DPL-46150 The Data Pool Ingest Service shall use the Error Dispositions provided in the ESDIS document 423-ICD-EDOS/EGS in the PAN messages returned to EDOS.	Completed

ID	Title	Status
ECS-L4-13597	S-DPL-46153 The Data Pool Ingest Service shall recognize a retried EDOS PDR from the last modification time of the signal file for the PDR (as obtained by an ls -l command).	Completed
ECS-L4-13598	S-DPL-46155 If a PDR for an EDOS retried transfer is errored, the Data Pool Ingest Service shall indicate the retry status by incrementing the File Transfer Disposition in the PAN by 128, resulting in a Previous Resent Flag value of 1 per ESDIS document 423-ICD-EDOS/EGS.	Completed
ECS-L4-13599	S-DPL-46160 For EDOS, the Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to configure (i.e., enter and edit) for the DAAC to receive successful PANs in a DAAC-resident directory different from the directory used for PANs that report errors. [EDOS does not want to receive successful PANs.]	Completed
ECS-L4-13600	S-DPL-46165 The Data Pool Ingest Service shall reject an EDOS granule and return an error disposition of 3 in the PAN if the checksum type and checksum value parameters are not present in the signal file for an EDOS data file [The EDOS-EGS ICD requires that EDOS provide checksums.]	Completed
ECS-L4-13601	S-DPL-46170 The Data Pool Ingest Service shall reject an EDOS granule and return an error disposition of 3 in the PAN if the checksum type provided in a signal file is not on a list of ECS supported checksum algorithms.	Completed
ECS-L4-13602	S-DPL-46175 The Data Pool Ingest Service shall reject a granule and return an error disposition of 3 in the PAN if the checksum type parameter is present in the signal file for an EDOS data file and the checksum value parameter is not.	Completed
ECS-L4-13603	S-DPL-46180 The Data Pool Ingest Service shall reject a granule and return an error disposition of 3 in the PAN if the checksum value parameter is present in the signal file for an EDOS data file and the checksum type parameter is not.	Completed
ECS-L4-13604	S-DPL-46185 The Data Pool Ingest Service shall reject a granule and return an error disposition of 3 in the PAN if the checksum value parameter is present in the signal file for an EDOS data file and syntactically incorrect.	Completed
ECS-L4-13605	S-DPL-46190 The Data Pool Ingest Service shall make any error details related to preprocessing of ingested EDOS data (i.e., metadata extraction) available for display on the operator GUI as part of displaying the error details for the suspended granule or an alert.	Completed
ECS-L4-13606	S-DPL-46195 The Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to configure (i.e., enter and edit) a provider as an EDOS provider using the following information in addition to that listed in ticket DP_S6_01, S-DPL-16110: a. DELETED, b. indication that the provider is EDOS and requires special handling as per ESDIS document 423-ICD-EDOS/EGS, including, for example, a special notification protocol and format and special file naming conventions.	Completed
ECS-L4-13607	S-DPL-46200 The Data Pool Ingest Service shall extract the metadata from the EDOS granule files and place them into a Data Pool compliant XML metadata file.	Completed
ECS-L4-13608	S-DPL-46205 The Data Pool Ingest GUI shall permit authorized (i.e., 'ingest control') operators to configure (i.e., enter and edit) the maximum number of concurrent metadata extraction preprocessing operations:	Completed
ECS-L4-13609	S-DPL-46210 The Data Pool Ingest Service shall perform up to but not exceeding the configured maximum number of concurrent metadata extraction operations concurrently.	Completed

ID	Title	Status
ECS-L4-13610	S-DPL-46215 The Data Pool Ingest Service shall be able to include in its performance log information about the frequency and duration of metadata extraction steps.	Completed
ECS-L4-13611	S-DPL-46220 The Data Pool Ingest Service shall include in its application log information about the start and completion of metadata extraction steps.	Completed
ECS-L4-13612	S-DPL-46225 The Data Pool CI shall permit the configuration of ingest data type templates by development. NOTE: The expectation is that this information is configuration management and configured in the database. The configuration may be via database scripts employing SQL commands to add, modify and delete the corresponding information.]	Completed
ECS-L4-13613	S-DPL-46230 The Data Pool CI shall permit the configuration of ingest file type templates by development. [NOTE: The expectation is that this information is configuration management and configured in the database. The configuration may be via database scripts employing SQL commands to add, modify and delete the corresponding information.]	Completed
ECS-L4-13614	S-DPL-46235 The Data Pool CI shall permit the configuration of source MCF information by development. [NOTE: The expectation is that this information is configuration management and configured in the database. The configuration may be via database scripts employing SQL commands to add, modify and delete the corresponding information.]	Completed
ECS-L4-13615	S-DPL-46240 The Data Pool CI shall be able to use ingest data type templates configured in the INGST CI.	Completed
ECS-L4-13616	S-DPL-46245 The Data Pool CI shall be able to use ingest file type templates configured in the INGST CI.	Completed
ECS-L4-13617	S-DPL-46250 The Data Pool CI shall be able to use source MCF information configured in the INGST CI.	Completed
ECS-L4-13618	S-DPL-46410 Ingest of ASTER L1A and Browse data shall comply with all L4 requirements in ticket DP_S6_01 that are not superseded by the L4 requirements specific to the ASTER L1A interface, that is, ticket DP 72 03.	Completed
ECS-L4-13619	S-DPL-46420 During initial validation of an ASTER L1A PDR, the Data Pool Ingest Service shall verify the contents of the PDR against the specifications in version TBD of ESDIS Document 423-41-58, ICD between ECS and the LP DAAC.	Completed
ECS-L4-13620	S-DPL-46430 The Data Pool Ingest Service shall notify the ASTER L1A provider via the configured notification method if an ingest request fails initial validation, collecting and reporting all detected errors using a short or long Product Delivery Record Discrepancy (PDRD) in accordance with version TBD of ESDIS Document 423-41-58, ICD between ECS and the LP DAAC.	Completed
ECS-L4-13621	S-DPL-46440 The Data Pool Ingest Service shall notify the ASTER L1A provider using a short or long Product Acceptance Notification (PAN) constructed and formatted in accordance with version TBD of ESDIS document 423-41-58, ICD between ECS and the LP DAAC and using the configured notification method when all granules in an ingest request that needed to be archived in ECS have reached a state of 'Inserted' or some terminal error state.	Completed
ECS-L4-13622	S-DPL-46450 The Data Pool Ingest Service shall extract the granule metadata from the ASTER L1A PDR and granule files and place them into a Data Pool compliant XML metadata file. [NOTE: The information that must be extracted is specified by configuration information.]	Completed

ID	Title	Status
ECS-L4-13623	S-DPL-46460 The Data Pool Ingest Service shall include any metadata extracted from the PDR and granule file for ASTER in metadata validation and insert via the Science Data Server. [NOTE: The information that must be extracted is specified by configuration information.]	Completed
ECS-L4-13624	S-DPL-46470 The Data Pool Ingest GUI shall permit authorized (i.e., 'ingest tuning') operators to configure (i.e., enter and edit) the maximum number of concurrent metadata extraction preprocessing operations.	Completed
ECS-L4-13625	S-DPL-46480 The Data Pool Ingest Service shall make any error details related to preprocessing of ingested ASTER data (i.e., metadata extraction) available for display on the operator GUI as part of displaying the error details for the suspended granule or an alert.	Completed
ECS-L4-13626	S-DPL-46490 The Data Pool Ingest Service shall perform up to but not exceeding the configured maximum number of concurrent metadata extraction operations concurrently (see S-DPL-46470).	Completed
ECS-L4-13627	S-DPL-46500 The Data Pool Ingest Service shall be able to include in its performance log information about the frequency and duration of metadata extraction steps.	Completed
ECS-L4-13628	S-DPL-46510 The Data Pool Ingest Service shall include in its application log information about the start and completion of metadata extraction steps.	Completed
ECS-L4-13629	S-DPL-46520 The Data Pool CI shall permit the configuration of ingest data type template by development. [Note: The expectation is that this information is configuration management and configured in the database. The configuration may be via database scripts employing SQL commands to add, modify and delete the corresponding information.]	Completed
ECS-L4-13630	S-DPL-46530 The Data Pool CI shall permit the configuration of ingest file type templates by development. [Note: The expectation is that this information is configuration management and configured in the database. The configuration may be via database scripts employing SQL commands to add, modify and delete the corresponding information.]	Completed
ECS-L4-13631	S-DPL-46540 The Data Pool CI shall permit the configuration of source MCF information by development. [Note: The expectation is that this information is configuration management and configured in the database. The configuration may be via database scripts employing SQL commands to add, modify and delete the corresponding information.]	Completed
ECS-L4-13632	S-DPL-46550 The Data Pool CI shall be able to use ingest data type templates configured in the INGST CI.	Completed
ECS-L4-13633	S-DPL-46560 The Data Pool CI shall be able to use ingest file type templates configured in the INGST CI.	Completed
ECS-L4-13634	S-DPL-46570 The Data Pool CI shall be able to use source MCF information configured in the INGST CI.	Completed
ECS-L4-13635	S-DPL-46630 When ingesting EMOS Detailed Activity Schedule files, the Data Pool Ingest Service shall comply with all L4 requirements in ticket DP_S6_01 that are not superseded by the L4 requirements specific to the ECS-EMOS interface in Ticket DP_72_04.	Completed
ECS-L4-13636	S-DPL-46635 When ingesting EMOS detailed activity schedule files, the Data Pool Ingest Service shall comply with the polling without delivery record interface specifications in ICD 423-41-63, ICD between EMOS and the SDPS. [NOTE: No PDRD or PAN is supplied.]	Completed
ECS-L4-13637	S-DPL-46640 The Data Pool Ingest Service shall extract the granule metadata from the EMOS Detailed Activity Schedule and place it into a Data Pool compliant XML metadata file. [NOTE: The information that must be extracted is specified by configuration information.]	Completed

ID	Title	Status
ECS-L4-13638	S-DPL-46645 The Data Pool Ingest Service shall include any metadata extracted from the EMOS Detailed Activity Schedule in metadata validation and insert via the Science Data Server. [NOTE: The information that must be extracted is specified by configuration information.]	Completed
ECS-L4-13639	S-DPL-46660 The Data Pool Ingest Service shall make any error details related to preprocessing of ingested EMOS Detailed Activity Schedule files (i.e., metadata extraction) available for display on the operator GUI as part of displaying the error details for the suspended granule or an alert	Completed
ECS-L4-13640	S-DPL-46666 The Data Pool Ingest GUI shall permit authorized operators to configure (i.e., enter and edit) whether a data provider uses a polling with delivery record or polling without delivery record mechanism.	Completed
ECS-L4-13641	S-DPL-46669 The Data Pool Ingest GUI shall require that if the transfer type of a Polling without Delivery Record provider is ftp, the polling method for all polling locations for that provider is configured to ftp.	Completed
ECS-L4-13642	S-DPL-46671 If a data provider is configured to support polling without delivery record, the Data Pool Ingest GUI shall require authorized operators to configure the shortname and version id of the data type that will be ingested for that data provider using the polling without delivery record mechanism.	Completed
ECS-L4-13643	S-DPL-46676 The Data Pool Ingest GUI shall permit authorized operators to edit the shortname and version id of the data type that will be ingested for a data provider which uses the polling without delivery record mechanism.	Completed
ECS-L4-13644	S-DPL-46681 If a data provider is configured for polling without a delivery record, the Data Pool Ingest Service shall obtain the shortname and version id of the granules ingested from that provider from the data provider configuration information entered on the Data Pool Ingest GUI.	Completed
ECS-L4-13645	S-DPL-46686 The Data Pool Ingest GUI shall disable configuration of the following parameters for providers which use the polling without delivery record mechanism: a. whether the provider must supply a checksum with each science file, b. the percentage of files from that provider whose checksum must be verified during ingest as an integer number between 0 and 100, c. a valid notification method to be used to notify that provider of ingest errors and completed ingest operations,	Completed
ECS-L4-13646	S-DPL-46691 The Data Pool Ingest Service shall not process an EMOS data file that already was processed by the INGEST CI and shall process EMOS data files that were not processed by the INGEST CI, and vice versa. [NOTE: This is intended to support transition from INGEST to Data Pool Ingest and vice versa without processing an EMOS data file more than once.]	Completed
ECS-L4-13648	S-DPL-46810 The Data Pool Service shall support soft links in the Data Pool file system from the MISR Level 1 and Level 2 science granules storage area to the public Data Pool browse representation of the MISBR granules. The supported science ESDTs should be configurable; the default set is identified as Level 1 and Level 2 in Table 1, ticket DP 72 05.	Completed

ID	Title	Status
ECS-L4-13650	S-DPL-46830 The Data Pool Insert Service shall link the public DPL browse representation of a MISBR granule with public MISR Level 1 science granule(s) based upon the following matching attributes: SP_AM_MISR_ProductVersion product specific attribute value - granule temporal coverage (the interval between BeginningDateTime and EndingDateTime values for the associated MISR Level 1 science granules must intersect the BeginningDateTime and EndingDateTime interval for the MISBR granule) - if the MISBR granule has a cameraId of 'AN', it must be associated to all MISR Level 1 science granules that also have a cameraId of 'AN'. - if the MISBR granule has a cameraId that is not 'AN', it must be associated to all MISR Level 1 science granules that have a matching cameraId. Note: this requirement covers the situation when the MISBR granule is published after the publication of its associated MISR Level 1 granule(s) and it must be associated with the MISR Level 1 science granule(s) that are already in the public Data Pool.	Completed
ECS-L4-13651	S-DPL-46840 The Data Pool Insert Service shall link a public DPL MISR Level 1 science granule with the public browse representation of a MISBR granule based upon the following matching attributes: - SP_AM_MISR_ProductVersion product specific attribute value - granule temporal coverage (the interval between BeginningDateTime and EndingDateTime values for the associated MISBR must intersect the BeginningDateTime and EndingDateTime interval for the MISR Level 1 granule) - if the current MISR Level 1 granule has a cameraId, the linked MISBR browse must have the same cameraId - Note: this requirement covers the situation when the MISR Level 1 science granule is published after the publication of its associated MISBR granule. In this case the MISBR granule to which the links are established must be published as a Browse granule in the Data Pool.	Completed
ECS-L4-13652	S-DPL-46850 The Data Pool Insert Service shall insert a public DPL MISR Level 1 science granule without a browse linkage in the event that no matching MISBR granules can be identified by the above criteria.	Completed
ECS-L4-13653	S-DPL-46860 The Data Pool Insert Service shall link the public DPL browse representation of a MISBR granule with public MISR Level 2 science granule(s) based upon the following matching attributes: - granule temporal coverage (the interval between BeginningDateTime and EndingDateTime values for the associated MISR Level 2 granules must intersect the BeginningDateTime and EndingDateTime interval for the MISBR granule) - cameraId of 'AN' for the MISBR only (the cameraId for the correlated MISR Level 2 is irrelevant) Note: this requirement covers the situation when the MISBR granule is published after the publication of its associated MISR Level 2 granule(s) and it must be associated with the MISR Level 2 science granule(s) that are already in the public Data Pool.	Completed
ECS-L4-13654	S-DPL-46870 The Data Pool Insert Service shall link a public DPL MISR Level 2 science granule with the public DPL browse representation of a MISBR granule based upon the following matching attributes: - granule temporal coverage (the interval between BeginningDateTime and EndingDateTime values for the associated MISBR must intersect the BeginningDateTime and EndingDateTime interval for the MISR Level 2 granule) - the MISBR granule must have a cameraId of 'AN', regardless of the cameraId value of the current MISR Level 2 Note: this requirement covers the situation when the MISR Level 2 science granule is published after the publication of its associated MISBR granule. In this case the MISBR granule to which the links are established must be published as a Browse granule in the Data Pool.	Completed

ID	Title	Status
ECS-L4-13655	S-DPL-46880 The Data Pool Insert Service shall insert a public DPL MISR Level 2 science granule without a browse linkage in the event that no matching MISBR granules can be identified by the above criteria.	Completed
ECS-L4-13656	S-DPL-46890 The Data Pool Insert Service shall link public DPL MISR Level 1 and Level 2 science granules with the most recently inserted MISBR granule in the event that multiple MISBR granules are identified using the specific linkage criteria defined for each type of MISR science granule. Note: if at the time a newer MISBR granule is published its associated MISR Level 1 and Level 2 granules are already in the public DPL and are linked to another MISBR browse granule representation, the old links will be preserved and NO new links will be added. If the new MISBR granule replaces an older MISBR granule, only the science representation is replaced, the old links are preserved and the new links are added.	Completed
ECS-L4-13658	S-DPL-47010 The Data Pool Ingest Service shall not process an EDOS Expedited request that already was processed by the INGST CI and shall process EDOS Expedited requests that were not processed by the INGST CI, and vice versa. [NOTE: This is intended to support transition from INGST to Data Pool Ingest and vice versa without processing an EDOS Expedited request more than once.]	Completed
ECS-L4-13659	S-DPL-47015 Ingest of EDOS Level 0 Expedited Data Sets shall comply with all L4 requirements in ticket DP_S6_01 that are not superseded by the L4 requirements specific to Expedited Data Sets, that is, in ticket DP_72_04	Completed
ECS-L4-13660	S-DPL-47020 The Data Pool Ingest Service shall check each polling location enabled for EDOS Data Pool ingest for signal files named for Expedited Data Set Delivery Records in accordance with the polling frequency and polling method configured for that polling location unless the polling for that location, host, or provider, or all Data Pool Ingest processing have been suspended. [Replaces S-DPL-46120 for expedited data sets.]	Completed
ECS-L4-13661	S-DPL-47025 During initial validation, the Data Pool Ingest Service shall verify that the EDOS EDS Delivery Record (EDR) conforms to specifications in ESDIS Document 423-ICD-EDOS/EGS TBD . [Replaces S-DPL-46125 for expedited data sets.]	Completed
ECS-L4-13662	S-DPL-47030 The Data Pool Ingest Service shall provide EDS Acceptance Notifications (EANs) for EDOS Expedited Data Sets (EDS) per ESDIS Document 423-ICD-EDOS/EGS TBD when all granules in an ingest request that needed to be archived in ECS have reached a state of 'Inserted' or some terminal error state. [Replaces S-DPL-46130 for expedited data sets.]	Completed
ECS-L4-13663	S-DPL-47035 The Data Pool Ingest Service shall place EANs in a DAAC directory for ftp access by EDOS. [Replaces S-DPL-46135 for expedited data sets.]	Completed
ECS-L4-13664	S-DPL-47040 The Data Pool Ingest Service shall provide only EANs that report errors to EDOS. [Replaces S-DPL-46140 for expedited data sets.]	Completed
ECS-L4-13665	S-DPL-47045 The Data Pool Ingest Service shall include the EDOS Ground Message Header in the EAN it provides to EDOS in accordance with ESDIS document 423-ICD-EDOS/EGS TBD . [Replaces S-DPL-46145 for expedited data sets.]	Completed
ECS-L4-13666	S-DPL-47050 The Data Pool Ingest Service shall use the Error Dispositions provided in the ESDIS document 423-ICD-EDOS/EGS (TBD) in the EAN messages returned to EDOS. [Replaces S-DPL-46150 for expedited data sets.]	Completed

ID	Title	Status
ECS-L4-13667	S-DPL-47055 The Data Pool Ingest Service shall recognize a retried EDOS EDR from the last modification time of the signal file for the EDR (as obtained by an ls -l command). [Replaces S-DPL-46153 for expedited data sets.]	Completed
ECS-L4-13668	S-DPL-47060 If an EDR for an EDOS retried transfer is errored, the Data Pool Ingest Service shall indicate the retry status by incrementing the File Transfer Disposition in the EAN by 128, resulting in a Previous Resent Flag value of 1 per ESDIS document 423-ICD-EDOS/EGS TBD . [Replaces S-DPL-46155 for expedited data sets.]	Completed
ECS-L4-13669	S-DPL-47065 The Data Pool Ingest Service shall place errored EANs for pickup by EDOS in the same directory as errored PANs in accordance with ESDIS document 423-ICD-EDOS/EGS TBD .	Completed
ECS-L4-13670	S-DPL-47070 For EDOS, the Data Pool Ingest GUI shall permit an authorized ('ingest admin') operator to configure (i.e., enter and edit) for the DAAC to receive successful EANs in a DAAC-resident directory different from the directory used for PANs and EANs that report errors. [Replaces S-DPL-46160 for expedited data sets.]	Completed
ECS-L4-13671	S-DPL-47075 The Data Pool Ingest Service shall reject an EDOS expedited granule and return an error disposition of 3 in the EAN if the checksum type and checksum value parameters are not present in the signal file for an EDOS data file [Replaces S-DPL-46165 for expedited data sets.]	Completed
ECS-L4-13672	S-DPL-47080 The Data Pool Ingest Service shall reject an EDOS expedited granule and return an error disposition of 3 in the EAN if the checksum type provided in a signal file is not on a list of ECS supported checksum algorithms. [Replaces S-DPL-46170 for expedited data sets.]	Completed
ECS-L4-13673	S-DPL-47085 The Data Pool Ingest Service shall reject an EDOS expedited granule and return an error disposition of 3 in the EAN if the checksum type parameter is present in the signal file for an EDOS expedited data file and the checksum value parameter is not. [Replaces S-DPL-46175 for expedited data.]	Completed
ECS-L4-13674	S-DPL-47090 The Data Pool Ingest Service shall reject an expedited granule and return an error disposition of 3 in the EAN if the checksum value parameter is present in the signal file for an EDOS expedited data file and the checksum type parameter is not. [Replaces S-DPL-46180 for expedited data.]	Completed
ECS-L4-13675	S-DPL-47095 The Data Pool Ingest Service shall reject an expedited granule and return an error disposition of 3 in the EAN if the checksum value parameter is present in the signal file for an EDOS expedited data file and syntactically incorrect. [Replaces S-DPL-46185 for expedited data.]	Completed
ECS-L4-13676	S-DPL-47100 The Data Pool Ingest Service shall assign the highest possible processing priority to ingest requests for EDOS expedited data, regardless of the default priority configured for the EDOS expedited data provider.	Completed
ECS-L4-13677	S-DPL-48010 The DPL CI shall retrieve a granule from the volume group history set for re-processing if the beginning date of the granule's temporal coverage is less than the selection date maintained by the STMGT CI [NOTE: The DPL CI shall behave as today if there is only a single volume group history set defined for the ESDT.].	Completed

ID	Title	Status
ECS-L4-13678	S-DPL-48020 The DPL CI shall retrieve a granule from the volume group history set for forward processing if the beginning date of the granule's temporal coverage is greater than or equal to the selection date maintained by the STMGT CI.	Completed
ECS-L4-13680	S-DPL-49020 The Data Pool Ingest Service shall use the configurable default checksum algorithm (type) of either cksum, or md5sum to checksum browse and ancillary data files provided without checksum.	Completed
ECS-L4-13681	S-DPL-49030 For each browse or ancillary file for which a checksum value has been calculated by DPL Ingest, the Data Pool Ingest Service shall store at a minimum the checksum algorithm used, the checksum value calculated and a checksum origin of "DPLIngst" in the Ingest database.	Completed
ECS-L4-13684	S-DPL-49060 The Data Pool Insert Service shall calculate the checksum of all browse and ancillary files retrieved from the archive and inserted into Data Pool. This checksum value shall be verified against the checksum value stored in the AIM Inventory database and the last checksum time shall be updated. If the browse or ancillary file does not have a checksum value in the AIM Inventory database this one will be stored in the AIM Inventory Database, specifying "DPAD" as the origin.	Completed
ECS-L4-13687	S-DPL-49090 Upon checksum verification failure, the Data Pool Insert Service shall log an error message including the following information for each affected file: Granule ID ESDT ShortName and Version ID Granule insert time Complete file name and path Checksum type Computed checksum Checksum value in database Last time checksum was verified Checksum status (Success or Failure)	Completed
ECS-L4-13689	S-DPL-49110 The DPL CI shall provide a stand-alone Data Pool Checksum Verification Utility (DPCV) to verify the integrity of files resident in the Data Pool.	Completed
ECS-L4-13691	S-DPL-49130 The DPCV shall be capable of being scheduled and run as a background process or being run on the command-line by the DAAC operator. Concurrent instances will be supported.	Completed
ECS-L4-13692	S-DPL-49140 The DPCV shall be able to verify checksum of files based on the following operator input options: The operational mode in which to run (e.g. OPS, TS1, TS2) Whether to calculate checksum values for files without checksum values. A single or multiple ESDTs specified using the short name and version id Granule that were inserted during a given date range The number of days since the checksum was last verified A list of Data Pool granule ids. Percentage of files satisfying above criteria to checksum	Completed
ECS-L4-13693	S-DPL-49150 The DPCV shall allow the DAAC operator to configure the number of milliseconds to sleep between verifying the checksum of each file. This will allow operator to throttle the utilization of system resources.	Completed
ECS-L4-13697	S-DPL-49190 The DPCV log shall include the following statistical summary information for each ESDT: Start and end time of run Run input parameters Number of files checked, organized by ESDT. Number of files that failed checksum verification, organized by ESDT Percentage of files that failed checksum verification organized by ESDT Total number of files attempted Total number of files that failed Total number of files whose computed checksum does not match Percentage of files that failed checksum verification.	Completed
ECS-L4-13698	S-DPL-49200 The DPCV shall output a file that contains granuleIds for which the associated files were not found on disk for use by the OLA repair utilities.	Completed

ID	Title	Status
ECS-L4-13699	S-DPL-60010 The Data Pool Service shall include a Data Pool inventory validation function.	Completed
ECS-L4-13713	S-DPL-60092 The Data Pool inventory validation function shall always execute in no prompt mode. [Note: To verify what the utility would clean up, the operator would run the utility specifying that discrepancies should only be logged but not fixed.]	Completed
ECS-L4-13714	S-DPL-60100 The Data Pool inventory validation function shall include only those files and browse links on disk in the orphan check whose age is equal to or larger than the value of the maximum orphan age specified on the command line.	Completed
ECS-L4-13715	S-DPL-60110 The Data Pool inventory validation function shall consider a file or browse link included in the orphan check to be an orphan if there is no corresponding entry in the data pool inventory. [Note: browse links are tracked by granule browse cross references in the inventory.]	Completed
ECS-L4-13716	S-DPL-60112 The Data Pool inventory validation function shall use an operator configurable default maximum orphan age if none is specified on the command line.	Completed
ECS-L4-13717	S-DPL-60120 Operators shall be able to configure the default maximum orphan age in days.	Completed
ECS-L4-13719	S-DPL-60140 The Data Pool inventory validation function shall log the orphaned files.	Completed
ECS-L4-13720	S-DPL-60150 The Data Pool inventory validation function shall consider a granule a phantom if any of its files listed in (or implied by) the corresponding entries in the Data Pool inventory are not on the Data Pool disks. [Note: for example, browse links are implied rather than explicitly listed]	Completed
ECS-L4-13722	S-DPL-60170 The Data Pool inventory validation function shall log the phantom granules.	Completed
ECS-L4-13723	S-DPL-60175 Log entries for phantom granules shall include the information that needs to be specified by the operator should operations decide to re-insert the granule from the archive into the Data Pool (e.g., expiration date, retention priority, and the names of any thematic collections with which the file was cross-referenced)	Completed
ECS-L4-13726	S-DPL-60190 The Data Pool inventory validation function shall log the start of a validation.	Completed
ECS-L4-13727	S-DPL-60192 The Data Pool inventory validation function shall include the validation settings in the log entry for the validation start.	Completed
ECS-L4-13728	S-DPL-60195 The Data Pool inventory validation function shall log the completion of a validation.	Completed
ECS-L4-13729	S-DPL-60200 The Data Pool inventory validation function shall log at completion the total number of orphans that were found if orphan checking was requested.	Completed
ECS-L4-13730	S-DPL-60203 When performing orphan checking, the DPL CI Cleanup Utility shall not consider metadata files created as per S-OMS-14030 to be orphans.	Completed
ECS-L4-13731	S-DPL-60205 The Data Pool inventory validation function shall log at completion the total number of phantoms that were found if phantom checking was requested.	Completed
ECS-L4-13734	S-DPL-60215 The Data Pool Cleanup Utility shall include the amount of space freed by the removal of orphans and phantoms in its determination as to whether to clear the 'NoFreeSpace' flag (that prevent Data Pool Inserts from dequeuing).	Completed

ID	Title	Status
ECS-L4-13735	S-DPL-60220 The Data Pool inventory validation function log entries shall include the date and time of the log entry (at least to the millisecond), and in case of parallel operation, an identification of each parallel execution.	Completed
ECS-L4-13736	S-DPL-60230 The Data Pool inventory validation function shall include the pathname of all removed files in the corresponding log entry.	Completed
ECS-L4-13739	S-DPL-60260 If validation is interrupted by a fault, it must be possible to restart the validation by re-running the cleanup command and without affecting its ability to perform validation.	Completed
ECS-L4-13740	S-DPL-60270 The Data Pool inventory validation function must be able to operate correctly when executing concurrently with Data Pool web and ftp accesses and Data Pool insert operations.	Completed
ECS-L4-13741	S-DPL-60280 The Data Pool Inventory Cleanup Utility must prevent concurrent operation of a cleanup with the validation function if this can cause incorrect or severely degraded operation.	Completed
ECS-L4-13742	S-DPL-60290 The Data Pool inventory validation function shall support multiple modes.	Completed
ECS-L4-13743	S-DPL-60300 Different instances of the Data Pool inventory validation function shall be able to execute concurrently in different modes.	Completed
ECS-L4-13744	S-DPL-60510 The Data Pool Ingest GUI shall permit authorized ('ingest tuning') operators to configure (i.e., enter and edit) the following tuning configuration parameters for the Data Pool Insert Service: a. the maximum number of concurrent checksumming operations which the Data Pool Insert Service may dispatch, for each ECS host on which such operations are being executed by the Data Pool Insert Service, b. the maximum number of concurrent archive read from cache operations that may be executed on an ECS Service Host, by host [NOTE: The sum of these limits represents the overall maximum number of concurrent archive read from cache operations], c. parameters to calculate a time limit for archive cache read operations before assuming that they are hung, consisting of a minimum expected throughput and a time constant reflecting the maximum expected fixed overhead, separate for each ECS Service Host [NOTE: This replaces the current InCacheTimeLimit,] [NOTE: Configuration of the new tuning parameters shall occur via the same GUI page that supports the configuration of the items in S-DPL-16460 in Ticket DP_S6_01.] [NOTE: The time-out value for read from tape operations is independent of ECS Host and allows for the time spent waiting for drive allocation and robot and tape operations. The time-out is host independent, exists already ('OnTapeTimeLimit'), and is configurable via the DPM GUI.]	Completed
ECS-L4-13745	S-DPL-60520 The DPL CI shall permit DAAC operators to limit the maximum number of concurrent checksumming operations that may be executing concurrently, separately for each ECS Service Host configured for that purpose and independent of the requesting service. [NOTE: This may be a configuration parameter associated with the QuickServer executing on the respective host.]	Completed
ECS-L4-13746	S-DPL-60530 The Data Pool Maintenance GUI shall permit full capability operators to configure (i.e., enter and edit) the following tuning parameters: a. The maximum number of concurrent Data Pool registration operations b. The maximum number of concurrent Data Pool publishing operations	Completed
ECS-L4-13747	S-DPL-60535 The Data Pool Maintenance GUI shall permit full capability operators to configure (i.e., enter and edit) the maximum number of concurrent tape read operations for a single tape.	Completed

ID	Title	Status
ECS-L4-13748	S-DPL-60540 The Data Pool Maintenance GUI shall permit full capability operators to configure (i.e., enter and edit) the following alert related configuration parameters: a. Deleted, b. the number of time-outs or errors not attributed to other resources that will raise an alert for a service on an ECS host when returned by the same host and service consecutively for different granules or files (examples are SAN file system access errors that are not attributed to the file system being down and checksumming time-outs). c. retry interval for attempts to clear an alert condition, to be used globally for all situations for which there are no specific retry intervals, [NOTE: The new configuration parameters are not specific to a host, file system, or archive and therefore, can be maintained via the DPM GUI configuration parameters screen.] [NOTE: Similar parameters are also configured for the Data Pool Ingest service as per S-DPL-16482; however, they are not shared and reside in different database tables.]	Completed
ECS-L4-13749	S-DPL-60550 The Data Pool Maintenance GUI shall permit operators to configure the retention time for closed alerts and the time interval at which expired alert information will be cleaned up.	Completed
ECS-L4-13750	S-DPL-60560 The Data Pool Maintenance GUI shall permit full capability operators to configure (i.e., enter and edit): a. a time interval between one and ten minutes at which the Data Pool Insert Service will check the status of Data Pool file systems and obtain free space information for them, and b. the percentage of free space which when exceeded or of consumed space which when underrun (compatible with the DPL Ingest GUI) will clear a Data Pool file system full condition. [NOTE: Operators can use the archive and file system monitoring page on the DPL Ingest GUI to monitor archives and file systems. However, as a new capability, the Data Pool Insert Service will also monitor the status of file systems. It will raise an alert when it discovers that a Data Pool file system is down and clear it when it detects that the file system is back up. In addition, it will clear the file system full condition when the file system free space has climbed above the configured threshold, i.e., different from today where it waits for Data Pool Cleanup to clear the condition.]	Completed
ECS-L4-13751	S-DPL-60570 The Data Pool Maintenance GUI shall display in the list of Data Pool file systems on the Data Pool Maintenance Home Page, for each file system that is currently not available, whether this is due to a manual or automatic suspension. [NOTE: The Data Pool file system information will be shared with the DPL Ingest Service.] [NOTE: Operators can mark a file system unavailable as per S-DPL-45100 in OP_S4_06; this is considered equivalent to manual suspension. Operators also can mark a file system as available again as per S-DPL-45105 in OP_S4_06; this is considered equivalent to resuming it. Manual suspension of a Data Pool file system will close any currently open Data Pool Insert Service alert for that file system. The suspension does not affect Data Pool Ingest or any Data Pool Ingest Service alerts.]	Completed
ECS-L4-13752	S-DPL-60580 The Data Pool Insert Service shall close a Data Pool Insert Service alert for a Data Pool file system when the operator suspends access to that file system by Data Pool inserts manually. [NOTE: Operators suspend a file system by marking it 'unavailable' on the DPM GUI. If they do this for a file system for which a Data Pool Insert Service alert is pending, the alert is closed, the file system is considered manually suspended, and automatic resumption will cease.]	Completed

ID	Title	Status
ECS-L4-13753	S-DPL-60585 The Data Pool Insert Service shall close a Data Pool Insert Service alert for a Data Pool file system when the operator resumes access to that file system by Data Pool inserts manually. [NOTE: Operators resume a file system by marking it 'available' on the DPM GUI. If they do this for a file system for which a Data Pool Insert Service alert is pending, the alert is closed, and the Data Pool Insert Service will start using it again.]	Completed
ECS-L4-13754	S-DPL-60590 [DESIRABLE, TBD BY PDR] The Data Pool Maintenance GUI shall display a list of archives on the Data Pool Maintenance Home Page and display for each: a. if it is currently suspended for reading, and b. if so, whether this is due to manual suspension by the operator or automatic suspension by the Data Pool Insert Service. [NOTE: Reading from and writing to an archive are suspended separately. The former affects Data Pool Insert, the latter affects Data Pool Ingest.] [NOTE: The archive information will be shared with the DPL Ingest Service. It is TBD by PDR how the archive information is populated.]	Completed
ECS-L4-13755	S-DPL-60600 [DESIRABLE, TBD BY PDR] The Data Pool Maintenance GUI shall allow full capability operators to suspend read access for an archive. [NOTE: The suspension does not affect Data Pool Ingest or any Data Pool Ingest Service alerts.]	Completed
ECS-L4-13756	S-DPL-60610 [DESIRABLE, TBD BY PDR] The Data Pool Maintenance GUI shall allow full capability operators to resume read access for an archive that is currently suspended. [NOTE: The resumption does not affect Data Pool Ingest or any Data Pool Ingest Service alerts.]	Completed
ECS-L4-13757	S-DPL-60620 [Depending on TBD by PDR] The Data Pool Insert Service shall close a Data Pool Insert Service alert for an archive when the operator suspends read access to that archive manually. [NOTE: Operators can manually suspend an archive for which an alert is pending. If they do this, the alert is closed, the archive is considered manually suspended, and automatic retries and resumption will cease.]	Completed
ECS-L4-13758	S-DPL-60625 [Depending on TBD by PDR] The Data Pool Insert Service shall close a Data Pool Insert Service alert for an archive when the operator resumes read access to that archive manually. [NOTE: Operators can manually resume an archive for which an alert is pending. If they do this, the alert is closed and the Data Pool Insert Service will resume reading from the archive again.]	Completed
ECS-L4-13759	S-DPL-60630 [DESIRABLE, TBD BY PDR] The Data Pool Maintenance GUI shall display a list of ECS hosts on the Data Pool Maintenance Home Page and display for each: a. whether use of host services by the Data Pool Insert Service is currently suspended on that platform, and b. if so, whether this is due to manual suspension by the operator or automatic suspension by the Data Pool Insert Service. [NOTE: The ECS Host information will be shared with the DPL Ingest Service.]	Completed
ECS-L4-13760	S-DPL-60640 [DESIRABLE, TBD BY PDR] The Data Pool Maintenance GUI shall allow full capability operators to suspend use of an ECS Host service by the Data Pool Insert Service. [NOTE: The suspension does not affect Data Pool Ingest or any Data Pool Ingest Service alerts.]	Completed
ECS-L4-13761	S-DPL-60650 [DESIRABLE, TBD BY PDR] The Data Pool Maintenance GUI shall allow full capability operators to resume use of an ECS Host service by the Data Pool Insert Service if it is currently suspended. [NOTE: The resumption does not affect Data Pool Ingest or any Data Pool Ingest Service alerts.]	Completed

ID	Title	Status
ECS-L4-13762	S-DPL-60660 [Depending on TBD by PDR] The Data Pool Insert Service shall close a Data Pool Insert Service alert for an ECS service when the operator suspends use of that service on the given host manually. [NOTE: Operators can manually suspend an ECS service for which an alert is pending. If they do this, the alert is closed, the service is considered manually suspended, and automatic resumption will cease.]	Completed
ECS-L4-13763	S-DPL-60665 [Depending on TBD by PDR] The Data Pool Insert Service shall close a Data Pool Insert Service alert for an ECS service when the operator resumes use of that service manually. [NOTE: Operators can manually resume an ECS service for which an alert is pending. If they do this, the alert is closed and the Data Pool Insert Service will start using that service on that host again.]	Completed
ECS-L4-13764	S-DPL-60670 The Data Pool Maintenance GUI shall allow full capability operators to configure an e-mail address to which notifications about alerts shall be sent. [NOTE: The Data Pool Maintenance GUI has no alert monitoring screen. If the DAAC does not configure such an e-mail address, operators will receive no notification about alerts.]	Completed
ECS-L4-13765	S-DPL-60680 The Data Pool Maintenance GUI shall allow full capability operators to configure an age (in hours) which determines when a granule lock should be considered stale.	Completed
ECS-L4-13767	S-DPL-60691 The Data Pool Maintenance GUI shall allow full capability operators to configure the percentage of science files without a checksum type and checksum value for which an ECS checksum should be calculated and stored during data pool insert. [NOTE: This replaces S-DPL-46025 in CK_70_01 and overrides any modifications by subsequent NCR.]	Completed
ECS-L4-13768	S-DPL-60710 The Data Pool Insert Service shall raise a Data Pool Insert Service alert for an archive when the target archive file system is down (i.e., is not mounted). [NOTE: Archive reads are performed on ECS Service Hosts. Errors can be caused by archive cache file system being down (see above), or by the host having SAN connectivity problems (which will lead to consecutive archive read errors or time-outs. In that case, the alert will be raised for the ECS Service Host rather than an archive.)] [NOTE: This requirement replaces S-DPL-42370 in OD_S4_01 which specifies the behavior for AMASS access and is no longer applicable.]	Completed
ECS-L4-13769	S-DPL-60720 The Data Pool Insert Service shall raise no more than one Data Pool Insert Service alert for a given archive (i.e., even if multiple archive read operations are in progress at that time.)	Completed
ECS-L4-13770	S-DPL-60730 The Data Pool Insert Service shall stop dispatching operations that read from an archive (tape or cache) while a Data Pool Insert Service alert is pending for it or while it is manually suspended. [NOTE: This requirement covers S-DPL-42310 in OD_S4_01.]	Completed
ECS-L4-13771	S-DPL-60740 The Data Pool Insert Service shall automatically retry archive access operations for an archive while a Data Pool Insert Service alert remains pending for it using the retry time interval globally configured for alert situations (see S-DPL-60540) and clear the alert when a retry succeeds. [NOTE: In lieu of retries, it is permissible to check the archive file system status at regular intervals and close the alert when one of those checks discovers that the archive is available again. In that case, the archive checks would have to be at a frequency of at least once every ten minutes.]	Completed
ECS-L4-13772	S-DPL-60750 The Data Pool Insert Service shall resume dispatching operations for an archive when closing a Data Pool Insert Service alert.	Completed

ID	Title	Status
ECS-L4-13773	S-DPL-60751 The Data Pool Insert Service shall notify OMS when it raises and closes archive alerts.	Completed
ECS-L4-13774	S-DPL-60752 The Data Pool Insert Service shall include information regarding the affected archive silo when it notifies OMS about raising and closing archive alerts.	Completed
ECS-L4-13775	S-DPL-60760 The Data Pool Insert Service shall raise a Data Pool Insert Service alert for a Data Pool file system when one of the following situations occurs: a. the file system is full, b. the file system is down (i.e., not mounted). [NOTE: File system errors encountered by an ECS Service Host that are not diagnosed as the file system being full or down will lead to consecutive errors for that host and a host service alert, signaling that the host may have SAN connectivity problems.] [NOTE: The file system full condition is detected in accordance with S-DPL-45320 in OP S4 06.]	Completed
ECS-L4-13776	S-DPL-60770 The Data Pool Insert Service shall raise no more than one Data Pool Insert Service alert for a given Data Pool file system.	Completed
ECS-L4-13777	S-DPL-60780 The Data Pool Insert Service shall stop dispatching archive read operations (from tape or cache) for Data Pool insert requests targeting a Data Pool file system for which a Data Pool Insert Service alert is pending or which is manually suspended. [NOTE: Data Pool insert will not start any new transfers from archive cache to that file system, nor start staging for any granules that target a suspended Data Pool file system. The latter ensures that staged granules that cannot be transferred to their target location do not accumulate needlessly in the archive cache. This requirement covers S-DPL-45330 in OP S4 06 and adds the file system down condition.]	Completed
ECS-L4-13778	S-DPL-60790 The Data Pool Insert Service shall stop dispatching operations requiring access to a Data Pool file system while a Data Pool Insert Service alert is pending for it. [NOTE: For example, a checksumming operation for a granule affected by a Data Pool file system alert will not be dispatched; however, if that Data Pool file system is suspended by the operator, the checksumming operation will be executed. This allows an operator to quiesce use of a file system, letting insert request complete whose files already reside in that file system. S-DPL-60780 ensures that no new insert request for that file system will be started and use of that file system, therefore, will quickly subside.]	Completed
ECS-L4-13779	S-DPL-60800 The Data Pool Insert Service shall check the free space in Data Pool file systems at an operator configurable time interval (see S-DPL-60560) in order to determine whether a pending file system alert can be closed. [NOTE: The Data Pool Insert Service will not use the free space information to raise alerts for nearly full file systems, and it will not save the free space information for display on the DPM GUI. Operators should use the DPL Ingest GUI to monitor archives and Data Pool file systems.]	Completed
ECS-L4-13780	S-DPL-60810 The Data Pool Insert Service shall close a Data Pool Insert Service alert for a full Data Pool file system if it finds during one of the Data Pool File system checks that the amount of free space available in that file system is above the operator configured threshold (see S-DPL-60560). [NOTE: This is in addition to file system full condition possibly being cleared by the Data Pool Cleanup Utility, as per S-DPL-45410 in OP S4 06.]	Completed
ECS-L4-13781	S-DPL-60820 The Data Pool Insert Service shall close a Data Pool Insert Service alert for a down Data Pool file system if it finds during one of the Pool File system checks that the file system is available again.	Completed

ID	Title	Status
ECS-L4-13782	S-DPL-60830 The Data Pool Insert Service shall resume dispatching operations for a Data Pool file system when closing a Data Pool Insert Service alert for it. [NOTE: This requirement extends S-DPL-45340 and S-DPL-45350 in OP_S4_06.]	Completed
ECS-L4-13783	S-DPL-60831 The Data Pool Insert Service shall notify OMS when it closes Data Pool file system alerts. NOTE: This augments S-DPL-42390 in Ticket OD_S4_01	Completed
ECS-L4-13784	S-DPL-60840 The Data Pool Insert Service shall raise an operator alert when an attempt to use an ECS service on a particular host (such as checksumming and archive read accesses) results in one of the following errors: a. connection with the service cannot be established (e.g., the service, platform, or network are down), b. connection with the service is lost (e.g., the service or platform terminated abnormally and may be rebooted), c. requests for that service do not complete within an expected, configurable time frame (e.g., checksumming operations take excessively long) or requests for that service return errors that are not attributed to some other resource (e.g., a Data Pool file system or archive being down) for N different service requests consecutively where N is configurable by DAAC operations (see S-DPL-60540), d. Deleted. [NOTE: as per S-DPL-60510, the time out parameters are shared with corresponding Data Pool Ingest time out parameters defined in Ticket DP_S6_01, S-DPL-16460.]	Completed
ECS-L4-13785	S-DPL-60850 The Data Pool Insert Service shall raise no more than one operator alert for a given ECS service on a given host.	Completed
ECS-L4-13786	S-DPL-60860 The Data Pool Insert Service shall no longer dispatch operations for a given ECS service on a given host while an alert is currently pending for it. [NOTE: The expectation is that the Data Pool Insert Service will use other hosts (if available), and re-dispatch any failed operations to these hosts.]	Completed
ECS-L4-13787	S-DPL-60870 The Data Pool Insert Service shall automatically retry connecting to or invoking an ECS service for which it suspended dispatching using the retry time interval globally configured for alert situations (see S-DPL-60540) and clear the alert for that service when a retry succeeds.	Completed
ECS-L4-13788	S-DPL-60880 The Data Pool Insert Service shall resume dispatching operations for an ECS Service on a given host when closing a Data Pool Insert Service alert for it.	Completed
ECS-L4-13789	S-DPL-60890 The Data Pool Insert Service shall send notifications when raising and closing alerts to the e-mail address configured for that purpose unless no such e-mail address was configured.	Completed
ECS-L4-13790	S-DPL-60900 The Data Pool Insert Service shall include the following information in the notifications about operator alerts: a. the resource that caused the alert (e.g., ECS host and service, data pool file system, archive), b. the nature of the alert, c. information regarding the error that caused the alert to be raised.	Completed
ECS-L4-13792	S-DPL-60920 When inserting granules into the public Data Pool that belong to collections enabled for HEG processing, the Data Pool Insert Service shall fail the publication of a granule if no band information is available for the granule. [NOTE: This replaces S-DPL-23910 in WD_S4_02.]	Completed

ID	Title	Status
ECS-L4-13793	S-DPL-60921 The Data Pool Insert Service shall not fail the insertion of a granule into the hidden Data Pool (e.g., as requested by OMS) if the band information extraction yields no bands or fails, in case of retrievable errors after the required number of retries. [NOTE: This replaces S-DPL-23910 in WD_S4_02.]	Completed
ECS-L4-13795	S-DPL-60925 The Data Pool Insert Service shall accept and process requests to insert ingested granules that reside in the hidden Data Pool into the public Data Pool and do so without access to the archive.	Completed
ECS-L4-13796	S-DPL-60930 The Data Pool Insert Service shall not apply granule replacement logic and prevent file name collisions when inserting granules into the hidden directory structure, such that granules that are ordered but not published will never overwrite another granule in the Data Pool, nor cause a file name collision with another granule in the Data Pool. [NOTE: This modifies earlier requirements regarding file naming for insertion into the non-public Data Pool.]	Completed
ECS-L4-13799	S-DPL-60960 [TBD as per RTR action #5] The Data Pool Insert Service shall not re-compress granules that were compressed during Data Pool ingest when inserting such granules from the ECS archive and identify such granules as compressed in the Data Pool inventory.	Completed
ECS-L4-13800	S-DPL-60970 [TBD as per RTR action #5] The Data Pool Insert Service shall verify the checksums of granule files that were compressed during Data Pool ingest against the checksums of the compressed files when inserting such granules from the ECS archive.	Completed
ECS-L4-13801	S-DPL-60980 When inserting a browse granule into the public Data Pool, the Data Pool Insert Service shall preserve an ingested browse granule in its original format in the hidden directory structure (this modifies S-DPL-06262 in OD_S5_06). [NOTE: This applies, for example, to the case where the related science granule is inserted into the public Data Pool during ingest, or later on via a separate insert request. Note that until Browse granules are archived, they are only accessible via the Data Pool SAN. They may be inaccessible to the SDSRV, depending on how the issues surrounding the file entries in the SDSRV are resolved.]	Completed
ECS-L4-13802	S-DPL-60990 When inserting a browse granule into the Data Pool for order-only purposes, the Data Pool Insert Service shall insert the original browse granule files, i.e., not perform jpeg extraction. [NOTE: This augments S-DPL-42465.]	Completed
ECS-L4-13803	S-DPL-61000 The Data Pool Insert Service shall use the ports for ECS host services that were configured via the Data Pool Ingest GUI, as per S-DPL-16580 in Ticket DP_S6_01.	Completed
ECS-L4-13804	S-DPL-61010 The Data Pool Insert Service shall perform checksum operations on the ECS platforms configured for that purpose.	Completed
ECS-L4-13805	S-DPL-61015 The Data Pool Insert Service shall not checksum a file for the purpose of verifying a checksum on the platform that was used to transfer it from the archive, unless no other platform has been configured for that purpose.	Completed
ECS-L4-13806	S-DPL-61020 [TBD as per RTR action #5] The Data Pool Insert Service shall perform compression operations on the ECS platforms configured for use by CPU-intensive operations	Completed

ID	Title	Status
ECS-L4-13808	S-DPL-61040 The Data Pool Insert Service shall limit the combined total number of concurrent checksumming operations that it dispatches to an ECS host to the maximum number of checksumming operations configured by the operator for that host (see S-DPL-60510). [NOTE: The intent is to balance the checksum workload across these platforms roughly proportional to the configured number of 'CPU slots'.]	Completed
ECS-L4-13809	S-DPL-61050 The Data Pool CI shall limit the number of concurrent CPU-intensive operations that it executes on an ECS host to a maximum number of checksumming operations configured by the operator for that host (see S-DPL-60520). [NOTE: The intent is to limit the number of checksumming operations regardless of the individual limits configured for each Data Pool Service. For example, if the maximum number of checksumming operations is configured to two for Data Pool Ingest and two for Data Pool Insert, each service may dispatch two checksumming operations concurrently. However, if the combined limit is set to two, only two of these operations will execute; the remainder will need to wait until other operations complete.]	Completed
ECS-L4-13810	S-DPL-61060 The Data Pool CI shall execute requested checksumming operations on a first-in first-out basis when the sum of the checksumming operations dispatched by Data Pool services exceeds the configured combined limit on the number of checksumming operations for that platform.	Completed
ECS-L4-13811	S-DPL-61070 The Data Pool Insert Service shall cancel a checksumming operation if it does not complete within the time limit established in accordance with the configured time-out parameters and retry the operation until the configured number of maximum retries is exceeded, failing the operation thereafter (see S-DPL-60510 and Ticket DP_S6_01, S-DPL-16460). [NOTE: The number of retries is an existing DPL configuration constant. Configuring the number of retries to zero would have the effect of failing the read operation without retry. Note that N consecutive failures or timeouts will cause an alert as per S-DPL-60840.]	Completed
ECS-L4-13812	S-DPL-61080 The Data Pool Insert Service shall perform archive read from cache operations on the ECS platforms configured for that purpose.	Completed
ECS-L4-13813	S-DPL-61090 The Data Pool Insert Service shall observe the configured limits on the number of concurrent archive read-from-cache operations for an ECS Service Host (S-DPL-60510.)	Completed
ECS-L4-13814	S-DPL-61100 Once a tape has been selected for mounting, the Data Pool Insert Service shall perform multiple file read operations from the same tape concurrently, subject to the configured limit on the number of concurrent archive tape read operations for a single tape (see S-DPL-60535). [NOTE: The requirement supersedes S-DPL-42350 which imposed an overall limit rather than a limit by tape. The requirement also aligns NCR 41475 with the new Data Pool Insert Service architecture.]	Completed
ECS-L4-13815	S-DPL-61110 The Data Pool Insert Service shall cancel an archive read-from-cache operation if it does not complete within the time limit established in accordance with the configured time-out parameters (S-DPL-60510), and retry the operation until the configured number of maximum retries is exceeded, failing the operation thereafter. [NOTE: The number of retries is an existing DPL configuration constant. Configuring the number of retries to zero would have the effect of failing the read operation without retry. Note that N consecutive failures or timeouts will cause an alert as per S-DPL-60840.]	Completed

ID	Title	Status
ECS-L4-13816	S-DPL-61120 The Data Pool Insert Service shall cancel an archive tape read operation if it does not complete within the time limit established in accordance with the configured time-out limit and retry the operation until the configured number of maximum retries is exceeded, failing the operation thereafter. [NOTE: The time limit and the number of retries is an existing DPL configuration constant. Configuring the number of retries to zero would have the effect of failing the read operation without retry. Note that N consecutive failures or timeouts will cause an alert as per S-DPL-60840.]	Completed
ECS-L4-13817	S-DPL-61130 The Data Pool Insert Service shall limit the number of concurrent Data Pool registration and Data Pool publishing operations to the limits configured by the operator (see -DPL-60530).	Completed
ECS-L4-13818	S-DPL-61150 The Data Pool Insert Service shall dispatch all operations for Data Pool insert requests on a first-in first-out basis with the sole exception of reading files from tape into archive cache, which shall be dispatched in accordance with existing requirements (see S-DPL-42330, S-DPL-42340 and NCR 41475). [NOTE: This retains existing requirements for dispatching Data Pool inserts from tape, but supersedes requirements S-DPL-42320 in OD_S4_01 in that inserts from archive cache will be processed in first-in first-out order. The same applies to publishing request queued by Data Pool Ingest, since they reference granules that are already in the Data Pool, i.e., do not require archive access at all.]	Completed
ECS-L4-13819	S-DPL-61160 The Data Pool Insert Service shall log raising and closing alerts, including the following: a. Identifying information for the resource or service, b. Type of alert and explanation.	Completed
ECS-L4-13820	S-DPL-61170 The Data Pool Insert Service shall log suspension and resumption of queues and resources, including the following: a. Identification of the queue or resource.	Completed
ECS-L4-13821	S-DPL-61180 The Data Pool Insert Service shall log the start and completion of archive read operations, including the following information: a. Source and target file and path names, b. File size, c. Deleted, d. Insert Request identification, e. Granule identification, f. Tape identification or indication that the read was from cache, g. Outcome.	Completed
ECS-L4-13822	S-DPL-61190 The Data Pool Insert Service shall log the start and completion of checksum calculations, including the following information: a. File path name, b. File size, c. Type of checksum, calculated checksum and – if applicable – original checksum d. Insert Request identification, e. Granule identification, f. Outcome.	Completed
ECS-L4-13823	S-DPL-61200 The Data Pool Ingest Service shall log the start and completion of compression, including the following information: a. File path name, b. File size, c. Type of compression and size of compressed file d. Insert Request identification, e. Granule identification, f. Outcome.	Completed
ECS-L4-13824	S-DPL-61210 The Data Pool Insert Service shall log the start and completion of band extraction, including the following information: a. granule identification, b. esdt, c. Outcome.	Completed
ECS-L4-13825	S-DPL-61215 The Data Pool Insert Service shall log the start and completion of Data Pool registrations and publishing operations, including the following information: a. granule identification, b. esdt, c. any parameters passed into the registration or publishing operation d. any returned outcome information.	Completed

ID	Title	Status
ECS-L4-13826	S-DPL-61216 The Data Pool Insert Service shall log the start and completion of its processing of a Data Pool insert request, including the following information: a. granule ID, b. esdt, c. request source, d. dispatch priority, e. other available action information. [NOTE: This replaces S-DPL-23000. The remaining events listed in S-DPL-23000 are covered by S-DPL-61180 and S-DPL-61217.]	Completed
ECS-L4-13827	S-DPL-61217 The Data Pool Insert Service shall log the occurrence of retrievable and non-retrievable errors, including the following information: a. granule identification b. type of error c. severity of errors, including whether retrievable or not d. description of the error, including relevant details [NOTE: This replaces S-DPL-23000.]	Completed
ECS-L4-13828	S-DPL-61218 The Data Pool Insert Service shall include the following information in its log entries: a. Unix Process ID b. type of event c. date and time of the event [NOTE: This replaces S-DPL-23200. Other applicable information requirements for each event are enumerated in the logging requirements for each type of event.]	Completed
ECS-L4-13829	S-DPL-61220 The Data Pool Insert Service shall be able to generate a performance log compatible with the ECS performance log format to provide information about the frequency and duration of the following events: a. Insert requests, separate by publish v. order-only and from tape v. from cache b. Archive access, separate by archive and cache v. tape c. Checksumming d. Deleted e. Band extraction f. Deleted g. DPIU execution h. database transactions (e.g., stored procedure calls), separate by type of stored procedure i. mutex locks, separate by locked resource	Completed
ECS-L4-13830	S-DPL-61230 The Data Pool Insert Service shall recover after a fault such that: a. Insert requests will not be processed twice or their processing skipped. b. The state of insert requests at the time of the fault is recovered such that expensive insert steps that were completed at the time of the fault will not be started again (such as archive reads and checksum calculation) and no insert steps will be omitted.[NOTE: This is a design goal that is met if the completion of expensive steps is checkpointed; the step is not considered complete until it was successfully checkpointed.] c. No insert requests will fail or have their retry count incremented just because of the fault recovery. d. Insert requests that were active at the time of the fault will be activated before new work is started. e. Granules that have not completed insertion at the time of the fault will not be visible to external users until their insert is complete. f. The state of alerts and queues will be recovered, to the extent that they have not been changed by the operator during the outage caused by the fault. g. The state of resources will be recovered to the extent that they have not been changed by the operator during the outage caused by the fault.	Completed
ECS-L4-13831	S-DPL-61240 The Data Pool Insert Service shall be able to complete recovery from a fault including restarting Data Pool insert requests that were active at the time of the fault in less than 15 minutes with at least 50,000 insert requests currently queued and at least 100 active at the time of the fault.	Completed
ECS-L4-13832	S-DPL-61250 The DPL CI shall provide a utility function which will remove stale granule locks (see S-DPL-60680) on a regular basis in time intervals no longer than the time after which such locks are considered stale. NOTE: That is, if a lock is considered stale after N hours, the frequency with which locks are checked must be at least every N hours.]	Completed
ECS-L4-13833	S-DPL-61260 The DPL CI shall log the removal of stale locks and include the lock information (i.e., granule IDs, owner, last update) in the log.	Completed

ID	Title	Status
ECS-L4-13834	S-DPL-65010 The Data Pool CI shall provide a QA Update Propagation Utility that is executable via a Unix command line.	Completed
ECS-L4-13835	S-DPL-65020 It shall be possible to combine the Data Pool QA Update Propagation Utility and the QAMUT utility into a single script that can be executed as a cron job.	Completed
ECS-L4-13836	S-DPL-65030 The Data Pool QA Update Propagation Utility shall accept as input information created by the QAMUT CI that identifies its ECS QA flag updates.	Completed
ECS-L4-13838	S-DPL-65050 The Data Pool QA Update Propagation Utility shall apply the ECS QA updates to the affected Data Pool metadata files at a rate of no less than 18,000 files per hour.	Completed
ECS-L4-13840	S-DPL-65070 The Data Pool QA Update Propagation Utility shall be able to recover from a failure such that the application of the QA updates can be completed without error (e.g., by restarting the corresponding Data Pool utility) and without incurring a performance penalty of more than 10 minutes.	Completed
ECS-L4-13841	S-DPL-65080 The Data Pool QA Update Propagation Utility shall be able to operate in multiple modes concurrently.	Completed
ECS-L4-13842	S-DPL-65090 The Data Pool QA Update Propagation Utility shall prevent multiple concurrent executions in the same mode.	Completed
ECS-L4-13843	S-DPL-65100 The Data Pool QA Update Propagation Utility shall log the following information. a. any command line parameters b. any errors.	Completed
ECS-L4-13844	S-DPL-65110 The Data Pool QA Update Propagation Utility shall skip the update of an XML file that proves inaccessible and continue the execution of the run, but log this event as an error.	Completed
ECS-L4-13845	S-DPL-65120 The Data Pool QA Update Propagation Utility shall retry in subsequent runs the propagation of a QA update that was skipped due to an error in an earlier run.	Completed
ECS-L4-13846	S-DPL-66005 The Data Pool Service shall provide a command-line Collection-to-Group Remapping utility that permits operators to re-assign an existing Data Pool collection to a different collection group, whether or not the collection is empty.	Completed
ECS-L4-13847	S-DPL-66010 The Collection-to-Group Remapping utility shall take as input: a. the name of the collection b. its current collection group id (for verification) c. the new collection group id	Completed
ECS-L4-13849	S-DPL-66020 The Collection-to-Group Remapping utility shall verify that the specified collection belongs to the collection group specified in the command line and shall exit with an error if it does not.	Completed
ECS-L4-13850	S-DPL-66025 The Collection-to-Group Remapping utility shall verify that the insertEnabledFlag is turned off for the specified collection, and, if not, shall exit with a message asking the operator to use the Data Pool Maintenance GUI to set the collection as 'invalid for data pool' for the duration of the remapping operation.	Completed
ECS-L4-13851	S-DPL-66030 The Collection-to-Group Remapping utility shall verify that no other copy of the utility is running in the same mode, and shall exit with an explanatory error message if so.	Completed
ECS-L4-13852	S-DPL-66035 The Collection-to-Group Remapping utility shall not allow remapping of any collection to the BRWS group. The utility shall exit with an explanatory error if an attempt is made to do so.	Completed
ECS-L4-13853	S-DPL-66040 The Collection-to-Group Remapping utility shall not allow the remapping of the Browse.001 collection to any group. The utility shall exit with an explanatory error if an attempt is made to do so. (Browse.001 is currently mapped to BRWS).	Completed

ID	Title	Status
ECS-L4-13856	S-DPL-66055 The Collection-to-Group Remapping utility shall determine whether a directory for the new group exists on the Data Pool file system, and if not, it shall create one.	Completed
ECS-L4-13857	S-DPL-66065 When remapping a populated collection to a new group, the Collection-to-Group Remapping utility shall relocate the collection directory (and its contents, including all subdirectories and any existing Most Recent Data Pool Inserts collection-level files) on Data Pool disk from the parent directory for the old group to the parent directory for the new group. This relocation shall not involve physical movement of files. (It is assumed that remapping a Data Pool collection to a new group never involves moving the collection to a new file system. If the operator wishes to move a collection to a new file system, the utility described in OP S4 06 shall be used.)	Completed
ECS-L4-13858	S-DPL-66070 The Collection-to-Group Remapping utility shall perform its remapping function in such a way as to preserve the validity of previously exported urls for Data Pool granules from the remapped collection. (e.g., urls exported to ECHO, EDG, Order Manager).	Completed
ECS-L4-13860	S-DPL-66080 The Collection-to-Group Remapping utility shall be able to detect and recover from an aborted utility run.	Completed
ECS-L4-13861	S-DPL-66085 The Data Pool Service shall ensure that the remapping of collections to new groups shall not result in fatal insert errors for granules in the remapped collection while the collection is being remapped.	Completed
ECS-L4-13863	S-DPL-66095 The Data Pool Service shall ensure that the remapping of collections to new groups shall not result in missed granule deletions by Data Pool utilities (i.e., Cleanup, EcDIGetGranIds) while the collection is being remapped.	Completed
ECS-L4-13864	S-DPL-66100 The Collection-to-Group Remapping utility shall write the following information to a log file: a. the name of the collection being remapped b. the old parent group c. the new parent group d. the time the utility was invoked f. the time the utility completed the remapping operation g. the fact that a new group level directory was created, if it was i. any errors encountered Log entries shall be timestamped to the millisecond.	Completed
ECS-L4-13866	S-DPL-70010 The Data Pool Most Recent Inserts Utility shall not include order only granules in the listings of recent Data Pool inserts.	Completed
ECS-L4-13867	S-DPL-70015 The Most Recent Data Pool Insert Utility shall create a file in the collection level anonymous FTP directory that contains a list of files inserted into the Data Pool on a specified date.	Completed
ECS-L4-13868	S-DPL-70017 The Most Recent Data Pool Insert Utility shall accept as a command line parameter the date specifying the date the file was inserted into the Data Pool. If a date is not provided, the previous day shall be used as a default with a time range of midnight to midnight	Completed
ECS-L4-13869	S-DPL-70019 The file created at the collection level by the Most Recent Data Pool Insert Utility shall contain the Short Name, Version Id and file name including the full directory path from the current level.	Completed
ECS-L4-13870	S-DPL-70021 The Most Recent Data Pool Insert Utility shall accept a date in the format YYYY/MM/DD as input where MM is the two-digit month, DD is the two-digit day and YYYY is the four-digit year.	Completed
ECS-L4-13871	S-DPL-70023 The Most Recent Data Pool Insert Utility shall log an error message if the date format is incorrect.	Completed
ECS-L4-13872	S-DPL-70025 The file created by the Most Recent Data Pool Insert Utility shall include only the files inserted on the day specified on the command line.	Completed

ID	Title	Status
ECS-L4-13873	S-DPL-70027 The Most Recent Data Pool Insert Utility shall create a file at the top level Data Pool directory that lists the unique Group Name, ShortName, and VersionID inserted on the day specified by the input date.	Completed
ECS-L4-13874	S-DPL-70029 The file created at the top level Data Pool directory shall be named DPRecentInserts_ <YYYYMMDD>;	Completed
ECS-L4-13875	S-DPL-70031 The Most Recent Data Pool Insert Utility shall create a file at each Data Pool collection level directory that lists all of the files inserted for the Short Name and Version ID represented by the collection level directory inserted on the day specified by the input date.	Completed
ECS-L4-13876	S-DPL-70033 The file created at each Data Pool collection level directory shall be named DPRecentInserts_ <ShortName>_ <VersionID>_ <YYYYMMDD>.	Completed
ECS-L4-13877	S-DPL-70035 The Most Recent Data Pool Insert Utility shall only permit one copy of itself to execute concurrently in a mode.	Completed
ECS-L4-13878	S-DPL-70037 The Most Recent Data Pool Insert Utility shall log an error message if there is an attempt to run more than one copy of the utility concurrently in a mode.	Completed
ECS-L4-13879	S-DPL-70039 The Most Recent Data Pool Insert Utility shall be able to execute concurrently in multiple modes.	Completed
ECS-L4-13880	S-DPL-70041 The Most Recent Data Pool Insert Utility shall overwrite a file if the file already exists.	Completed
ECS-L4-13881	S-DPL-70043 The Most Recent Data Pool Insert Utility shall be able to execute as part of a cron job.	Completed
ECS-L4-13882	S-DPL-70045 The files produced by the Most Recent Data Pool Insert Utility shall be produced within one hour while running under the workload specified in WL_S4_01_24-HR Data Pool Workload.	Completed
ECS-L4-13883	S-DPL-70047 The Data Pool Most Recent Inserts Utility shall not include order only granules in the listings of recent Data Pool inserts.	Completed
ECS-L4-13884	S-DPL-70049 The Data Pool Most Recent Inserts Utility shall log an error message if the file can not be written	Completed
ECS-L4-13885	S-DPL-70510 The DPM GUI shall distinguish between read-only and full capability operators in a secure fashion (e.g., using encrypted operator login protected and encrypted passwords).	Completed
ECS-L4-13886	S-DPL-70520 The DPL shall allow DAAC operations to maintain independently for each mode, the information that identifies which capability an individual DAAC operators has when using the DPM GUI, and allow DAAC operations to restrict who can maintain that information.	Completed
ECS-L4-13887	S-DPL-70530 The DPM GUI shall retain the capability level of an individual operator -once it has been established - for the duration of the GUI session.	Completed
ECS-L4-13888	S-DPL-70535 The DPM shall time out an operator session if the last activity in that session is a time out value that can be configured by DAAC operations. [NOTE: The time out value would be measured in minutes. It would be the same for all GUI session, i.e., not operator specific.]	Completed

ID	Title	Status
ECS-L4-13889	S-DPL-70540 The DPM GUI shall provide the following functionality only to full capability operators: a. On the DPM Home page, the ability to update the free space flag or suspend/resume Data Pool inserts; b. On the DPM List Insert Queue page, the ability to cancel an insert; c. On DPM Configuration page, the ability to change a configuration parameter; d. On the DPM Manage Collection Group page, the ability to add or modify a collection group; e. On the List of Collections pages, the ability to add or modify a collection; and f. On the Detailed List of Themes page, the ability to add or modify a theme.	Completed
ECS-L4-13890	S-DPL-70550 When used by read-only operators, the DPM GUI shall disable all screen elements that are related only to functionality that is not available to read-only operators. For example, the Manage Collection Group page shall disable the links that offer access to the add/modify capability (i.e., such that these links cannot be invoked).	Completed
ECS-L4-13891	S-DPL-70560 The DPM GUI shall make the following pages only accessible to full capability operators: a. Adding a collection group; b. Modifying a collection group; c. Adding an ECS collection; d. Adding a non-ECS collection; e. Modifying an ECS collection; f. Modifying a non-ECS collection g. Adding a Theme; and h. Modifying a Theme.	Completed
ECS-L4-13892	S-DPL-71000 The Data Pool Cleanup Service shall delete the files created by the Most Recent Data Pool Insert Utility that are older than 7 days. [NOTE: This replaces requirement S-DPL-00615.]	Completed
ECS-L4-13893	S-DPL-71005 The DPL Ingest service shall, after the metadata file and data files for a granule are successfully stored in the archive, update the archive status of the granule in the AIM Inventory Catalog. [NOTE: This replaces requirement S-DPL-00710.]	Completed
ECS-L4-13894	S-DPL-71010 The Data Pool Ingest Service shall provide the ECS granule identifier assigned to a granule to the AIM Inventory Insert Service. [NOTE: This replaces requirement S-DPL-00755.]	Completed
ECS-L4-13895	S-DPL-71015 The DPL Ingest service shall, when ingesting a granule for a collection with active subscriptions, queue an event for the Spatial Subscription Service. [NOTE: This replaces requirement S-DPL-00770.]	Completed
ECS-L4-13896	S-DPL-71020 The Data Pool Insert Service shall create new hidden directories when needed if these directories do not yet exist. [NOTE: This replaces requirement S-DPL-06270.]	Completed
ECS-L4-13897	S-DPL-71025 The DPL CI shall consider all ECS granules that reside in the Data Pool to be part of the Data Pool On-Line Archive, with the following exceptions: a. Browse granules shall not be considered part of the Data Pool On-line Archive. [NOTE: This replaces requirement S-DPL-08010.]	Completed
ECS-L4-13898	S-DPL-71030 The DPL CI shall not remove granules from the Data Pool that are part of the Data Pool On-Line Archive as per S-DPL-71025, except as needed in the context of On-Line Archive Repair Functions and when DAAC staff explicitly requests their removal via the Data Pool Cleanup (see S-DPL-71100). [NOTE: In essence, ECS granules other than Browse are normally deleted from the Data Pool via physical deletion using the AIM granule deletion utility. The exceptions refer to the case when a Data Pool On-Line Archive repair function needs to remove an existing granule in the course of replacing it with a fresh copy of the same granule; and to manual deletions by DAAC staff dealing with unforeseen problem situations. Data Pool Cleanup will remove the Data Pool specific metadata for a granule from the inventory, but will not remove AIM inventory metadata for that granule. This replaces requirement S-DPL-08020.]	Completed

ID	Title	Status
ECS-L4-13899	S-DPL-71035 The DPL CI shall provide an interface to accept a list of granules which the AIM CI flags as logically deleted or hidden from normal users or as not present in the archive (i.e., as deleted from archive) as per S-AIM-00800. [NOTE: The interface can be via a list of entries in a database table. This replaces requirement S-DPL-08060.]	Completed
ECS-L4-13900	S-DPL-71040 The DPL CI shall un-publish granules which the AIM CI identifies as logically deleted or hidden from normal users or as not present in the archive once the DAAC configured time interval after which such granules are eligible to be unpublished (see S-DPL-08072) has expired if these granules are currently public. [NOTE: The method by which unpublishing is accomplished is left to the design; however, this AIM output must either be processed automatically, or it must be possible to process this AIM output either via cron or as an additional step in the operational sequence of the corresponding AIM granule deletion steps. This replaces requirement S-DPL-08070.]	Completed
ECS-L4-13901	S-DPL-71045 The DPL CI shall permit DAAC staff to configure a time interval after which granules that were logically deleted, marked as deleted from the archive, or marked as hidden in the AIM inventory may be unpublished, with allowed values for the time interval ranging from a default of 0 to at least 24 hours.	Completed
ECS-L4-13902	S-DPL-71050 The DPL CI shall provide an interface to accept the list of granules which the AIM CI un-deletes or un-hides or stops considering as deleted from archive as per S-AIM-00805. [NOTE: The interface can be via a list of entries in a database table. This replaces requirement S-DPL-08080.]	Completed
ECS-L4-13904	S-DPL-71060 The DPL CI shall remove public Browse granules from the Data Pool if the last science granule that references it is unpublished or removed from the Data Pool entirely. [NOTE: This replaces requirement S-DPL-08140.]	Completed
ECS-L4-13906	S-DPL-71070 The Data Pool Inventory Validation shall log each identified inventory error. [NOTE: This replaces requirement S-DPL-08190.]	Completed
ECS-L4-13907	S-DPL-71075 The Data Pool Inventory Validation shall include the status of the corresponding granule (i.e., logically deleted, deleted from archive, hidden) and the time the granule was inserted into the ECS inventory when logging discrepancies as per S-DPL-71065 c, d, e, f, g, k and l. [NOTE: For example, the inventory validation may include the value for the DeleteFromArchive flag and the deleteEffectiveDate in the log. This replaces requirement S-DPL-08200.]	Completed
ECS-L4-13908	S-DPL-71080 The Data Pool Inventory Validation shall report the errors that it identifies in an output file such that the output can be used as input to the utilities needed for repair where such utilities are provided. [NOTE: The utilities may include, for example: Data Pool Cleanup (to repair condition b.), Data Pool Batch Insert (to repair condition c.), a Data Pool un-publish utility (to repair condition f.), and a Data Pool publishing function (which might be performed by the Data Pool batch Insert Utility) to repair condition g. Multiple output files may need to be generated if the utilities needed for the repair do not accept compatible input formats. This replaces requirement S-DPL-08210]	Completed

ID	Title	Status
ECS-L4-13909	S-DPL-71085 The Data Pool Inventory Validation shall report orphaned files found in the on-line archive in an output file such that the output can be used as input to the utility that can repair orphans. [NOTE: The utility is part of the Data Pool On-Line Archive Recovery function defined in other requirements. Orphaned files are repaired by re-establishing the Data Pool inventory metadata describing the granule and its files in the on-line archive. This replaces requirement S-DPL-08320.]	Completed
ECS-L4-13910	S-DPL-71090 The Data Pool Inventory Validation shall report phantom granules found in the on-line archive but not remove their Data Pool inventory metadata. [NOTE: These Data Pool metadata will be needed by the Data Pool On-line Archive Repair Function. This replaces requirement S-DPL-08340.]	Completed
ECS-L4-13911	S-DPL-71095 The Data Pool Inventory Validation shall report phantom granules found in the on-line archive in an output file such that the output can be used as input to the utility that can repair them. [NOTE: The utility is part of the Data Pool On-Line Archive Recovery function defined in other requirements. Phantom granules are repaired by restoring any missing files from the tape archive and re-creating any missing Browse links. This replaces requirement S-DPL-08350.]	Completed
ECS-L4-13912	S-DPL-71100 The Data Pool Cleanup Service shall not remove ECS granules from the Data Pool that belong to the on-line archive as per S-DPL-71025, except if the granules to be removed were individually identified on the command line or an input file as per requirement S-DPL-13094. [NOTE: un-deletion of these granules in the AIM inventory would not restore them to the Data Pool automatically. This replaces requirement S-DPL-08530.]	Completed
ECS-L4-13913	S-DPL-71105 The Data Pool Cleanup shall remove ECS and non-ECS granules from the Data Pool whose granule IDs are individually listed as per S-DPL-13094 regardless of whether these granules are currently public or not, and for ECS granules, regardless of whether they are in the ECS archive or not. [NOTE: This replaces requirement S-DPL-08540.]	Completed
ECS-L4-13914	S-DPL-71110 The Data Pool Cleanup Service shall remove all temporary files from the data pool disks whose age exceeds the maximum orphan age unless fixing discrepancies was suppressed. [NOTE: This replaces requirement S-DPL-08560.]	Completed
ECS-L4-13915	S-DPL-71115 The Data Pool Cleanup Service shall log the total amount of disk space that was freed up by the clean-up of temporary files. [NOTE: This replaces requirement S-DPL-08590.]	Completed
ECS-L4-13916	S-DPL-71120 The Data Pool shall provide an On-line Archive Recovery function that can restore the integrity of granules (including Browse granules) in the on-line archive that have files missing, including granules reported as phantoms, provided that the needed AIM and DPL inventory metadata for the granules are available and the granules are not flagged as deleted from archive (i.e., DeleteFromArchive is not set to 'Y'). [NOTE: The repair function may use the Data Pool Batch Insert utility to replace the entire granule or just copy missing files back into the Data Pool. The state of the granule – i.e., whether public or not – will be inferred on this occasion from the Data Pool inventory metadata. Note that phantom granules that are no longer in the AIM inventory will be reported but are no eligible for repair. This replaces requirement S-DPL-08630.]	Completed

ID	Title	Status
ECS-L4-13917	S-DPL-71125 The Data Pool shall provide an On-line Archive Recovery function that can restore the integrity of granules (including Browse granules) in the on-line archive that have files that are corrupt, provided that the needed AIM and DPL inventory metadata for the granules are available and the granules are not flagged as deleted from archive (i.e., DeleteFromArchive is not set to 'Y'). [NOTE: The repair function may use the Data Pool Batch Insert utility to replace the entire granule or just replace the corrupt files. The state of the granule – i.e., whether public or not – will be inferred on this occasion from the Data Pool inventory metadata. This replaces requirement S-DPL-08640.]	Completed
ECS-L4-13918	S-DPL-71130 The Data Pool shall provide an On-line Archive Recovery function that can restore the integrity of granules that are missing from the On-line Archive, provided that the granules are present in the ECS archive. [NOTE: The repair function may use the Data Pool Batch Insert utility to replace the entire granule or – if the files are present and only the Data Pool inventory metadata are missing - just re-create the missing Data Pool inventory database entries. This replaces requirement S-DPL-08650.]	Completed
ECS-L4-13919	S-DPL-71135 The DPL CI shall verify the checksums of any files copied into the Data Pool during On-Line Archive recovery if a checksum for the file is recorded in the AIM inventory metadata. [NOTE: This replaces requirement S-DPL-08680.]	Completed
ECS-L4-13920	S-DPL-71140 The DPL CI shall verify the checksums for the science files retrieved from the archive that have a checksum in the Inventory Catalog after transferring the files to the Data Pool file system. [Note: This replaces requirement S-DPL-60940.]	Completed
ECS-L4-13921	S-DPL-71145 The DPL CI shall, before copying a data file from the AIM archive that doesn't contain a checksum in the Inventory Catalog into the Data Pool, calculate a checksum using the configured default Ingest checksum type and update the AIM Inventory Catalog and AIM XML file with the new checksum information, using a checksum origin of 'DPLInsert'. [Note: this replaces requirement S-DPL-60950.]	Completed
ECS-L4-13922	S-DPL-71150 The Data Pool On-line Archive Recovery shall allow DAAC staff to restore granules whose Data Pool inventory metadata indicate that Data Pool granule files have failed checksum verification, clearing the indication if the restoration was successful. [NOTE: Though Data Pool Checksum Verification (DPCV) will provide an output file listing corrupt granules that can be used as input into Data Pool On-line Archive Recovery, there are other occasions on which Data Pool granule files may fail checksum verification, such as during distribution by OMS. This replaces requirement S-DPL-08730.]	Completed
ECS-L4-13923	S-DPL-71155 The Data Pool Batch Insert Utility shall skip ECS granules, i.e., exclude them from the insert operation, for which no AIM inventory metadata are available or which are flagged as deleted from archive (i.e., DeleteFromArchive set to 'Y'). [NOTE: This replaces requirement S-DPL-09020.]	Completed
ECS-L4-13924	S-DPL-71160 The Data Pool Cleanup Service shall remove symbolic links to associated QA and PH granules when removing a public science granule from the Data Pool. [NOTE: This replaces requirement S-DPL-10290.]	Completed
ECS-L4-13925	S-DPL-71165 The Data Pool Cleanup Service shall remove symbolic links to the QA granule when removing a public QA granule from the Data Pool. [NOTE: This replaces requirement S-DPL-10300.]	Completed
ECS-L4-13926	S-DPL-71170 The Data Pool Cleanup Service shall remove symbolic links to the PH granule when removing a public PH granule from the Data Pool. [NOTE: This replaces requirement S-DPL-10310.]	Completed

ID	Title	Status
ECS-L4-13927	S-DPL-71175 When performing orphan checking, the Data Pool Inventory Validation shall identify and report QA and PH symbolic links in the Data Pool as orphans if they do not correspond to QA respectively, PH associations in the inventory metadata with public science granules that belong to collections enabled for web/ftp access to associated QA respectively, PH granules. [NOTE: The default repair action in this case is to remove the orphan links. This replaces requirement S-DPL-10330.]	Completed
ECS-L4-13928	S-DPL-71180 When a Browse link for a public science granule is updated in the AIM inventory metadata, the Data Pool Insert Service shall ensure that the files for the newly referenced Browse granule are available in the Data Pool, inserting them if necessary, and update the symbolic link for the public science granule in the Data Pool to reflect the Browse link change in the AIM inventory metadata. [NOTE: This replaces requirement S-DPL-11110.]	Completed
ECS-L4-13929	S-DPL-71185 The DPL CI shall remove public Browse granules from the Data Pool if the last reference to the public Browse granule is removed in the course of updating a Data Pool Browse symbolic link. [NOTE: This replaces requirement S-DPL-11130.]	Completed
ECS-L4-13930	S-DPL-71190 The DPL CI shall include a Data Pool Cleanup Service for removing granules from the Data Pool. [NOTE: This replaces requirement S-DPL-13010.]	Completed
ECS-L4-13931	S-DPL-71195 The Data Pool Cleanup Service shall remove all science granules from the data pool disks that qualify for clean-up and update the data pool inventory metadata accordingly, except where this would interfere with concurrent user access to the very same granule. [NOTE: This replaces requirement S-DPL-13110.]	Completed
ECS-L4-13932	S-DPL-71200 The Data Pool Cleanup Service shall remove any directories associated with non-ECS granules that have been emptied of files and links by the clean-up without causing concurrent Data Pool inserts to fail. [NOTE: This replaces requirement S-DPL-13125.]	Completed
ECS-L4-13933	S-DPL-71205 The Data Pool Cleanup Service shall remove all public browse granules from the Data Pool disks that have been orphaned by the clean-up of science granules and update the data pool inventory metadata accordingly. [NOTE: This replaces requirement S-DPL-13130.]	Completed
ECS-L4-13934	S-DPL-71210 The Data Pool Cleanup Service shall remove any science/browse links from the Data Pool disks when removing the browse granule from the public Data Pool. [NOTE: This replaces requirement S-DPL-13144.]	Completed
ECS-L4-13935	S-DPL-71215 The Data Pool Cleanup Service shall be able to include non-ECS granules and their science, metadata, and browse files in the Data Pool in its cleanup activities. [NOTE: This replaces requirement S-DPL-13650.]	Completed
ECS-L4-13936	S-DPL-71220 If the command line parameters request the removal of all cross-references for a theme, the Data Pool Cleanup Service shall remove all these cross-references, i.e., regardless of any other cleanup constraints. [NOTE: This replaces requirement S-DPL-13740.]	Completed
ECS-L4-13937	S-DPL-71225 The Data Pool Cleanup Service shall log granules that are not removed because they are referenced by distribution requests that have not yet completed. [NOTE: This replaces requirement S-DPL-14515.]	Completed
ECS-L4-13938	S-DPL-71230 At the conclusion of a cleanup run, the Data Pool Cleanup Service shall log the total number of granules whose cleanup was skipped, as well as their total size. [NOTE: This replaces requirement S-DPL-14520.]	Completed

ID	Title	Status
ECS-L4-13939	S-DPL-71235 The Data Pool Ingest Service shall convert metadata files it receives in XML format into .met format. [NOTE: This capability is needed, for example, to process cross-DAAC ingest operations. This replaces requirement S-DPL-18070.]	Completed
ECS-L4-13940	S-DPL-71240 When inserting ingested granules into the hidden Data Pool that belong to collections enabled for HEG processing, the Data Pool Ingest Service shall obtain the band parameter information and make it available for insertion into the Data Pool inventory metadata, doing so without increasing the granule insert time by more than 5 seconds. [NOTE: This replaces requirement S-DPL-18082.]	Completed
ECS-L4-13941	S-DPL-71245 The Data Pool Insert Service shall transfer an ingested granule that resides in the Data Pool in a non-public location to the public Data Pool when processing a request for inserting that granule into the public Data Pool, to include the addition of any necessary Data Pool inventory and warehouse information and browse files and links. [NOTE: This replaces requirement S-DPL-18165.]	Completed
ECS-L4-13942	S-DPL-71250 When registering a granule, the Data Pool CI shall include the ECS granule identifier assigned to a granule by the AIM CI in the Data Pool inventory metadata and XML file. [NOTE: This includes ECS as well as non-ECS granules. This replaces requirement S-DPL-18195.]	Completed
ECS-L4-13943	S-DPL-71255 The Data Pool Ingest Service shall maintain the following granule states: a. 'InsertErr' when the granule metadata cannot be inserted into the AIM inventory successfully, b. 'Inserted' when the granule metadata was successfully inserted into the AIM inventory, c. 'Inserting' while the granule metadata are being inserted into the AIM inventory, d. 'Cancelled' when the granule is failed by the operator, e. 'Cancelling' while the granule is being cancelled, f. 'Checksumming' while the granule files are being checksummed g. 'Checksummed' after the granule completed checksumming successfully, h. 'ChecksumErr' when checksumming of a granule file fails i. 'InitErr' when a granule fails before it has started ingest processing, j. 'New' when the granule is queued or re-queued for ingest, k. 'Preprocessed' when the granule was successfully preprocessed, l. 'Preprocessing' while the granule is being preprocessed, m. 'PreprocErr' when a granule fails during preprocessing, n. 'Resuming' while a granule is being resumed, o. 'Successful' when a granule completed ingest successfully, p. 'Suspended' when further processing for a granule is suspended, pending operator intervention, q. DELETED r. 'Transferred' when the granule files were successfully transferred, s. 'Transferring' while the granule files are being transferred, t. 'XferErr' when a granule fails during transfer, u. 'Archiving' while the granule files are being copied to their archive location, v. 'Archived' when the granule files were copied to their archive location successfully, w. 'ArchErr' when the granule fails during archiving x. DELETED, y. 'Publishing' if the granule was successfully queued for publication in the Data Pool, z. 'PubErr' if queuing the action to publish the granule in the Data Pool failed [NOTE that the state is merely an indication that the granule failed to queue for Data Pool publication despite having completed ingest successfully and that any PAN sent to the provider will identify that granule as successful), aa. DELETED, ab. DELETED, ac. DELETED, ad. DELETED, ae. DELETED, af. DELETED. [NOTE: This replaces requirement S-DPL-18210.]	Completed
ECS-L4-13944	S-DPL-71260 The Data Pool (DPL) CI shall obtain the location of a browse granule in the ECS archive from the configured volume group history information. [NOTE: This replaces requirement S-DPL-18530.]	Completed

ID	Title	Status
ECS-L4-13945	S-DPL-71265 The Data Pool Insert Service shall archive all ingested granules in an ECS archive, doing so prior to changing the Inventory Catalog to indicate archiving is completed. [NOTE: This replaces requirement S-DPL-18800.]	Completed
ECS-L4-13946	S-DPL-71270 When publishing a granule, the Data Pool Insert Service shall insert or update the Data Pool inventory metadata to reflect the following information: a. any metadata required by Data Pool Web Access that are not already available in the inventory in the format needed by Data Pool Web Access (such as spatial and temporal coverage information, parameter and QA information, Day/Night information); b. Date/time of publication; c. Subscription id(s) of the Data Pool insert subscriptions that triggered the publication (if applicable); d. theme correlations; and e. the file information for the granule files to reflect their location in the public Data Pool. [NOTE: This replaces requirement S-DPL-21400.]	Completed
ECS-L4-13947	S-DPL-71275 When inserting a Browse granule into the public Data Pool, the Data Pool Insert Service shall maintain cross reference information between the Browse granule and its Browse image files. [NOTE: This replaces requirement S-DPL-22800.]	Completed
ECS-L4-13948	S-DPL-71280 The Data Pool Insert Service shall log the following information in the Data Pool log file for each event, as applicable: a. Unix Process ID b. type of event c. date and time of the event (at least to the millisecond) d. shortname and version id of the associated granule e. granule id f. associated subscription id(s) g. file path name(s) h. file size i. description of error j. fileincache status if obtainable from the archive COTS (desired) [NOTE: This replaces requirement S-DPL-23200.]	Completed
ECS-L4-13949	S-DPL-71285 The Data Pool Insert Service shall set a 'No Free Space' flag if insertion of a file into the Data Pool disks fails because of insufficient free space. [NOTE: This replaces requirement S-DPL-23300.]	Completed
ECS-L4-13950	S-DPL-71290 The Data Pool Insert Service shall, when encountering temporary error conditions (such as: insufficient free space available, Data Pool disk temporarily unavailable, Data Pool directory does not exist, inventory database not accessible) while processing a request, leave the request in a state that assures the request will be retried when the temporary error condition is fixed. [NOTE: This replaces requirement S-DPL-23400.]	Completed
ECS-L4-13951	S-DPL-71295 The Data Pool shall provide a utility to populate the Data Pool inventory metadata for the granules in a given set of collections with their HEG processing (i.e., band) information. [NOTE: This replaces requirement S-DPL-23930.]	Completed
ECS-L4-13952	S-DPL-71300 The Data Pool Service shall include a Data Pool Update Expiration Utility for updating the expiration date of individual science granules that belong to non-ECS collections in the Data Pool. [NOTE: This replaces requirement S-DPL-30010.]	Completed
ECS-L4-13953	S-DPL-71305 The Data Pool Update Expiration Utility shall permit an operator to optionally update the cleanup priority of individual science granules that belong to non-ECS collections in the Data Pool. [NOTE: This replaces requirement S-DPL-30015.]	Completed
ECS-L4-13954	S-DPL-71310 The Data Pool Update Expiration Utility shall handle situations where requested granules are not present in the Data Pool by logging an error and continuing the request for the remaining granule ids. [NOTE: This replaces requirement S-DPL-30180.]	Completed

ID	Title	Status
ECS-L4-13956	S-DPL-71320 The Data Pool Access Statistics Utility (DPASU) shall process the Data Pool FTP Server log, extract or parse information on data accesses events from the logs, combine it with inventory metadata, and write that summary information to the Data Pool Access Log (DPAL) for use in reporting. [NOTE: This replaces requirement S-DPL-32020.]	Completed
ECS-L4-13957	S-DPL-71325 The Data Pool Access Statistics Utility (DPASU) shall include the following information in the Data Pool Access Log (DPAL): a.Granule ID b.SubscriptionID that caused the granule to be inserted into the Data Pool (if applicable) c.File Type (METADATA, BROWSE, SCIENCE) d.Access size (bytes) e.Date & time of access f.Access Type (FTP, http) g.Age of granule at access (i.e., number of days that the granule had been in the Data Pool at the time of access) [NOTE: This replaces requirement S-DPL-32220.]	Completed
ECS-L4-13958	S-DPL-71330 The Data Pool FTP Log Parsing script shall extract the following additional information from the proxy firewall ftp log for each ftp access of a Data Pool file, and store it in a database for later access: a. Transfer time of the access (in seconds) b. The value of the special-action-flag(s) c. IP address of remote host. [NOTE: This replaces requirement S-DPL-32810.]	Completed
ECS-L4-13959	S-DPL-71335 For each ftp access of a Data Pool file, the Data Pool Access Statistics Utility shall derive the domain name of the remote host from the IP address of the remote host, and shall include the domain name as part of the statistical data it creates. [NOTE: This replaces requirement S-DPL-32815.]	Completed
ECS-L4-13960	S-DPL-71340 The Data Pool Access Statistics Utility shall extract the IP address of the external user from the http access log for each http access of a Data Pool metadata or browse file, and store this information with the http access statistics as part of the statistical data it creates. [NOTE: This is a specific instance of requirement S-DPL-71330 added for clarity and emphasis. This replaces requirement S-DPL-32835.]	Completed
ECS-L4-13961	S-DPL-71345 The Data Pool Batch Insert Utility shall skip granules, i.e., exclude them from the insert operation, whose identifier is invalid or that are flagged as deleted from archive or logically deleted in the ECS inventory. [NOTE: This replaces requirement S-DPL-40140.]	Completed
ECS-L4-13962	S-DPL-71350 The Data Pool shall support group ids of up to 12 characters. [NOTE: This replaces requirement S-DPL-40510.]	Completed
ECS-L4-13963	S-DPL-71355 The Data Pool shall support the association of a display name of up to 12 characters with each Data Pool group. [NOTE: This replaces requirement S-DPL-40520.]	Completed
ECS-L4-13964	S-DPL-71360 The Data Pool Maintenance GUI shall allow full capability operators to enter a unique 'display name' of up to 12 characters when creating a Data Pool group; and if no display name is entered, the group id shall be the display name. [NOTE: This replaces requirement S-DPL-40540.]	Completed
ECS-L4-13965	S-DPL-71365 Data Pool Cleanup Service shall support a command line parameter to restrict the cleanup of non-ECS granules to a specific theme. [Note: This requirement supersedes S-DPL-13710 and S-DPL-40660.]	Completed
ECS-L4-13966	S-DPL-71370 The Data Pool Insert Service shall retain any non-ECS granule identifier provided in the metadata via the Local Granule ID assigned to the granule in the Data Pool inventory metadata. [NOTE: This replaces requirement S-DPL-41220.]	Completed

ID	Title	Status
ECS-L4-13967	S-DPL-71375 If an external non-ECS granule identifier (i.e., a LocalGranuleId) is provided, the Data Pool Insert Service shall return a fatal error if a granule with the same identifier already exists in the Data Pool inventory, but the XML file names of the new granule and the existing granule are different. [Note: this means that an existing granule will not be replaced if the XML file of the 'replacement' granule has a different name. -This replaces requirement S-DPL-41275.]	Completed
ECS-L4-13968	S-DPL-71380 The Data Pool Maintenance GUI shall store the information associated with themes persistently. [NOTE: This replaces requirement S-DPL-42020.]	Completed
ECS-L4-13969	S-DPL-71385 The Data Pool Insert Service shall not populate the following Data Pool inventory metadata for non-public granules: a. Data Pool data warehouse information b. Spatial coverage and spatial coverage maps c. Measured parameter information. [NOTE: This replaces requirement S-DPL-42450.]	Completed
ECS-L4-13970	S-DPL-71390 Moving a Data Pool collection between file systems shall not involve mass updates to the Data Pool inventory metadata. [NOTE: To be verified by inspection during code and unit test review. This replaces requirement S-DPL-45120.]	Completed
ECS-L4-13971	S-DPL-71400 The Data Pool Cleanup Service shall remove any links established by the Data Pool Collection Move Utility when removing collection directories. [NOTE: This replaces requirement S-DPL-45445.]	Completed
ECS-L4-13972	S-DPL-71405 The Data Pool Insert Service shall maintain cross-reference information between each public Data Pool browse representation of a MISBR granule and all corresponding MISR Level 1 and Level 2 science granules in the Data Pool inventory metadata. [NOTE: This replaces requirement S-DPL-46820.]	Completed
ECS-L4-13973	S-DPL-71415 The Data Pool Ingest Service shall checksum all browse and ancillary files (PH, QA, and DAP) from a given provider. [NOTE: This replaces requirement S-DPL-49010.]	Completed
ECS-L4-13974	S-DPL-71420 The Data Pool Ingest Service shall provide checksum data for ancillary granule files to the Data Pool Insert Service. The data includes at a minimum the checksum value, the checksum type, and a checksum origin ("DPLIngst"). [NOTE: This replaces requirement S-DPL-49040.]	Completed
ECS-L4-13975	S-DPL-71425 The Data Pool Insert Service shall record the checksum type, value and origin in the inventory metadata for browse and ancillary data files with checksum information upon registration in the hidden Data Pool by the Data Pool Ingest Service. The last checksum verification date shall be recorded as the time of registration. The checksum origin shall be set to value of 'DPLIngst'. [NOTE: This replaces requirement S-DPL-49050.]	Completed
ECS-L4-13976	S-DPL-71430 The Data Pool Insert Service shall calculate the checksum of all browse and ancillary files retrieved from the archive and inserted into Data Pool. This checksum value shall be verified against the checksum value stored in the AIM Inventory Catalog and the last checksum time shall be updated. If the browse or ancillary file does not have a checksum value in the AIM Inventory Catalog then one will be added specifying 'DPAD' as the origin.	Completed
ECS-L4-13977	S-DPL-71435 The Data Pool Insert Service shall include the checksum for the ancillary and Browse files it stages from the archive in the DataPool xml file. [NOTE: This replaces requirement S-DPL-49070.]	Completed

ID	Title	Status
ECS-L4-13978	S-DPL-71440 Upon checksum verification failure, the DataPool Insert Service will update the checksum status in the Inventory metadata and fail staging with an operator intervention. [NOTE: This replaces requirement S-DPL-49080.]	Completed
ECS-L4-13979	S-DPL-71445 To clarify the method of storing checksum information in the inventory metadata the following specification is put forth: 1. All ECS Science, Browse (files in AIM), PH, QA, and DAP granules must contain a checksum value in the Inventory Catalog. 2. Ingest must provide a checksum for all Science, PH, QA, and DAP granules that are not supplied with a 'Data Provider' checksum. 3. The checksum value will contain the provided value or the first value calculated or NULL for any files that do not yet have a checksum. 4. The last checksum time will be 'NULL' for files without a checksum; in all other cases, it will initially be set to the time of granule ingest and will be set to the current time when the checksum is verified or recalculated for whatever reason thereafter. 5. The checksum verification status will be 'P' (Passed) if the last checksum operation on the file matches or 'F' (Failed) if the checksum of the file doesn't match the checksum value stored in the Inventory Catalog or NULL if the checksum of the file has never been verified against a provided or calculated checksum value. 6. The checksum origin can be one of the following: a. DataProvider b. DPLIngst c. DPLInsert d. DPCV e. ACVU f. Migration g. DAAC Operations h. STMGT j. 8.1 Migration [NOTE: This replaces requirement S-DPL-49100.]	Completed
ECS-L4-13980	S-DPL-71450 The DPCV shall verify a Data Pool file by comparing the checksum value in the inventory metadata with the checksum value calculated for the files on disk. The calculation of the checksum value will use the checksum type specified for the file in the inventory metadata. [NOTE: This replaces requirement S-DPL-49120.]	Completed
ECS-L4-13981	S-DPL-71455 The DPCV shall update the checksum verification time in the inventory metadata for each file whose checksum was successfully verified. [NOTE: This replaces requirement S-DPL-49160.]	Completed
ECS-L4-13982	S-DPL-71460 The DPCV shall record the checksum verification status in the inventory metadata for each file whose checksum failed verification. [NOTE: This replaces requirement S-DPL-49170.]	Completed
ECS-L4-13983	S-DPL-71465 Upon checksum verification failure after a configurable number of retry attempts, the DPCV shall write to a process specific log an error message including the following information for each affected file: 1. Granule ID 2. ESDT ShortName and Version ID 3. Granule insert time 4. Complete file name and path 5. Checksum type 6. Computed Checksum 7. Checksum value in the inventory metadata 8. Last time checksum was verified. [NOTE: This replaces requirement S-DPL-49180.]	Completed
ECS-L4-13984	S-DPL-71470 When inserting granules into the public Data Pool that belong to collections enabled for HEG processing, the Data Pool Insert Service shall obtain the band parameter information from the HDF-EOS file and insert it into the Data Pool inventory metadata without increasing the granule insert time by more than 5 seconds. [NOTE: Extraction of band information for such granules when they are inserted only into the hidden Data Pool is not required but acceptable. Band information is normally obtained and provided to the Data Pool Insert Service by the Data Pool Ingest Service (see S-DPL-71240). Thus, this requirement refers to Data Pool insertions not triggered by ingest. This replaces requirement S-DPL-60910.]	Completed

ID	Title	Status
ECS-L4-13985	S-DPL-71475 The Data Pool CI shall provide a mechanism which allows an operator to correct band tool errors that may have occurred when a granule was inserted into the hidden Data Pool and now prevent the granule from being published. [NOTE: For example, the Data Pool CI may provide a stand-alone tool for extracting the band information and adding it to the Data Pool inventory metadata and then queuing a publishing action for a list of currently hidden granules. This replaces requirement S-DPL-60922.]	Completed
ECS-L4-13986	S-DPL-71480 The Collection-to-Group Remapping utility shall verify that the collection and group names input on the command line are valid Data Pool collection and group names, and shall exit with an explanatory error if not. [NOTE: This replaces requirement S-DPL-66015.]	Completed
ECS-L4-13987	S-DPL-71485 The Collection-to-Group Remapping utility shall update the Data Pool collection-to-group mapping information to remap the collection to the new group. [NOTE: This replaces requirement S-DPL-66045.]	Completed
ECS-L4-13988	S-DPL-71490 The Collection-to-Group Remapping utility shall update the Data Pool file location information for all granules in the affected Data Pool collection to reflect the new parent directory. [NOTE: This replaces requirement S-DPL-66075.]	Completed
ECS-L4-13990	S-DPL-71505 The Data Pool Insert Service shall fail the insert of a granule whose spatial coverage is Orbit if the number of tiles in the list of granule tiles exceeds the design maximum. [NOTE: This replaces requirement S-DPL-72055.]	Completed
ECS-L4-13991	S-DPL-71510 The Data Pool Insert Service shall lower the tiling level for a non-Orbit collection if this becomes necessary to prevent the number of tiles in the list of granule tiles from exceeding the design maximum. [NOTE: This replaces requirement S-DPL-72060.]	Completed
ECS-L4-13992	S-DPL-71515 The Data Pool Insert Service shall record in the Data Pool inventory metadata together with the list of granule tiles the tiling level that was used to compute the list. [NOTE: This replaces requirement S-DPL-72065.]	Completed
ECS-L4-13993	S-DPL-71520 The Data Pool shall provide a 'Cloud Cover Transition' utility to populate the Data Pool inventory metadata for the granules in a given set of collections with their cloud cover information. [NOTE: This replaces requirement S-DPL-72170.]	Completed
ECS-L4-13994	S-DPL-71525 When replacing an ECS science granule in the public Data Pool, the Data Pool Insert Utility shall replace the public Data Pool inventory metadata for the currently public granule with those for the new granule. [NOTE: This replaces requirement S-DPL-75608.]	Completed
ECS-L4-13999	S-DPL-72025 The Data Pool Maintenance GUI shall disable spatial drill down for a newly defined ECS collection automatically if the search type for the collection is 'Not Supported' and not allow operators to enabled spatial drill down for such collections..	Completed
ECS-L4-14000	S-DPL-72030 The Data Pool Maintenance GUI shall initialize the tiling level for a new collection that is enabled for spatial drill down to 6 unless the spatial coverage of the collection is "Orbit"..	Completed
ECS-L4-14001	S-DPL-72035 The Data Pool Maintenance GUI shall initialize the tiling level for a new collection that is enabled for spatial drill down and whose spatial coverage is "Orbit" to the level recorded with the polygon-tile cross reference..	Completed

ID	Title	Status
ECS-L4-14002	S-DPL-72040 The Data Pool Insert Service shall skip the insertion of spatial coverage and the list of granule tiles if the search type for the collection is "Not Supported" or if the Locality Value for a granule is "Global".	Completed
ECS-L4-14003	S-DPL-72045 The Data Pool Insert Service shall skip the computation and insertion of the list of granule tiles for collections for which spatial drill down is not enabled.	Completed
ECS-L4-14004	S-DPL-72050 The Data Pool Insert Service shall fail the insert of a granule with Locality Value "Global" if the spatial drill down for its collection is enabled.	Completed
ECS-L4-14008	S-DPL-72070 The Data Pool Insert Service shall fail the insert of a granule that is "Nearly Global" if its collection is enabled for spatial drill down.	Completed
ECS-L4-14009	S-DPL-72075 The Data Pool Insert Service shall assume that a granule is "Nearly Global" if the number of tiles covered by the granule exceeds a configurable percentage of the tiles that make up the global grid. [For the percentage applies to all collection, i.e., this is not configurable at a collection level. The configuration parameter does not have to be settable by the DPM GUI - it is intended more for our use than for DAAC operations.]	Completed
ECS-L4-14010	S-DPL-72080 The Data Pool Insert Service shall fail the insert of a granule belonging to a collection whose spatial search type is something other than 'Orbit' or 'Not Supported' and which is not enabled for spatial drill down when the granule's Locality Value is not 'Global' and its granule coverage is not 'Nearly Global'.	Completed
ECS-L4-14011	S-DPL-72085 The Data Pool Insert Service shall insert the spatial coverage of ECS granules into the appropriate Data Pool table if its spatial coverage exists in ECS and the Locality Value is not 'Global', no matter whether the collection is enabled for spatial drill down or not.	Completed
ECS-L4-14019	S-DPL-72125 The Data Pool Maintenance GUI shall allow operators to configure for each Data Pool collection, the name of the source attribute which contains the cloud cover, the cloud source type ('PSA' or 'core metadata') as well as an optional description of the algorithm used to calculate the percent value. This description is to be used as reference information.	Completed
ECS-L4-14020	S-DPL-72130 The Data Pool Maintenance GUI shall allow operators to mark a Data Pool Collection as having 'global' spatial coverage, thus excluding it from spatial searches.	Completed
ECS-L4-14021	S-DPL-72135 The Data Pool Maintenance GUI shall allow operators to mark a Data Pool Collection as not having day/Night flag, thus excluding it from day/Night searches.	Completed
ECS-L4-14022	S-DPL-72140 The Data Pool Maintenance GUI shall allow operators to mark a Data Pool Collection as having 24 hour coverage, thus excluding it from time of day searches.	Completed
ECS-L4-14023	S-DPL-72145 The Data Pool configuration information shall default to 'no cloud cover available' for all collections for which the operator has not explicitly configured a source for the cloud cover information.	Completed
ECS-L4-14024	S-DPL-72150 The Data Pool configuration information shall default to set the dayNight flag to be applicable for all collections	Completed
ECS-L4-14025	S-DPL-72155 The Data Pool configuration information shall default to set the spatial coverage type not to be 'Global' for all collections for which spatial coverage is defined.	Completed

ID	Title	Status
ECS-L4-14026	S-DPL-72160 The Data Pool configuration information shall default to set the temporal coverage type not to be 24hr for all collections for which temporal coverage is defined.	Completed
ECS-L4-14027	S-DPL-72165 The Data Pool Insert Service shall retrieve the cloud cover information for each granule as configured for this collection and make it available for drill down.	Completed
ECS-L4-14029	S-DPL-72175 The Data Pool Cloud Cover transition utility shall be able to stop and restart without losing track of which granules have been already processed.	Completed
ECS-L4-14030	S-DPL-72180 The Data Pool Cloud Cover transition utility shall not take more than one second per granule in processing time	Completed
ECS-L4-14031	S-DPL-75010 The Data Pool Maintenance GUI shall allow full capability operators to maintain a list of compression algorithms which may be employed during Data Pool inserts.	Completed
ECS-L4-14032	S-DPL-75015 For each compression algorithm, the Data Pool Maintenance GUI shall require full capability operators to specify the following information: a. unix command line which runs the compression algorithm (must include sufficient path information to locate the compression algorithm on the x0dps01 host) b.optional default output file name extension c. unix command line which runs the corresponding decompression algorithm, or an indication that no decompression algorithm is necessary	Completed
ECS-L4-14033	S-DPL-75020 The Data Pool Maintenance GUI shall allow full capability operators to associate a compression algorithm with a Data Pool collection (both ECS and nonECS collections) by choosing the compression algorithm from a list of predefined compression algorithms.	Completed
ECS-L4-14034	S-DPL-75025 The Data Pool Maintenance GUI shall allow full capability operators to associate no more than one compression algorithm with a Data Pool collection.	Completed
ECS-L4-14035	S-DPL-75030 The Data Pool Maintenance GUI shall allow full capability operators to disassociate a compression algorithm from a Data Pool collection. This disassociation shall only affect future inserts of Data Pool granules in the collection; information about the compression algorithm (and corresponding decompression algorithm) associated with existing granules in the Data Pool shall be preserved.	Completed
ECS-L4-14036	S-DPL-75035 The Data Pool Maintenance GUI shall allow full capability operators to update information about a compression algorithm. If an operator chooses to update information about a compression algorithm, the Data Pool Maintenance GUI shall warn the operator that updates of the compression algorithm command line and the default output file name extension will only affect future inserts of Data Pool granules in collections associated with the compression algorithm, and that updates of the decompression algorithm command line will affect current Data Pool granules associated with the compression algorithm, as well as future inserts of Data Pool granules in collections associated with the compression algorithm.	Completed

ID	Title	Status
ECS-L4-14037	S-DPL-75040 The Data Pool Maintenance GUI shall allow full capability operators to remove a compression algorithm from the list of valid Data Pool compression algorithms. (Note: 'validcompression algorithm' refers to the complete corresponding command line sequence; i.e., '<gziptpath>/gzip -1 %infile' is a different valid compression algorithm than '<gziptpath>/gzip -3 %infile', even though both use gzip.) If any collections are associated with the compression algorithm to be removed, the Data Pool Maintenance GUI shall display the list of collections associated with the compression algorithm, and shall request the operator to confirm removal of the compression algorithm. If the operator confirms removal, the compression algorithm shall no longer be displayed on the list of valid compression algorithms, and all of its associations to Data Pool collections shall be removed. This disassociation shall only affect future inserts of Data Pool granules in the affected collections; information about the compression algorithm (and corresponding decompression algorithm) associated with existing granules in the Data Pool shall be preserved.	Completed
ECS-L4-14038	S-DPL-75045 The Data Pool Maintenance GUI shall allow full capability operators to turn compression ON and OFF. (NOTE: Turning compression OFF has no effect on existing compressed files in the Data Pool.)	Completed
ECS-L4-14039	S-DPL-75050 If compression is turned OFF, the Data Pool Insert Utility shall ignore any compression specifications associated with Data Pool inserts.	Completed
ECS-L4-14040	S-DPL-75055 If compression is turned ON, the Data Pool Insert Utility shall determine, prior to inserting a granule, whether a compression algorithm is specified for the collection to which the granule belongs. If so, the Data Pool Insert Utility shall invoke the compression algorithm's command line sequence when inserting each of the science files associated with the granule.	Completed
ECS-L4-14041	S-DPL-75060 When invoking a compression algorithm during insert, the Data Pool Insert Utility shall substitute the full path name of the file to be compressed for the input file command line parameter.	Completed
ECS-L4-14042	S-DPL-75065 When invoking a compression algorithm during insert, the Data Pool Insert Utility shall expect the compression algorithm to return the compressed file, with the correct compression extension appended to the original file name, in the same directory in which the Data Pool Insert Utility placed the original file to be compressed. If there is no compression extension on the compressed file, the Data Pool Insert Utility shall recognize that the original file has been overwritten by the compressed file.	Completed
ECS-L4-14043	S-DPL-75070 When invoking a compression algorithm during insert, the Data Pool Insert Utility shall insert the compressed file returned by the compression algorithm into the same permanent Data Pool directory as it would otherwise use if the files were to be inserted without compression.	Completed
ECS-L4-14044	S-DPL-75075 When invoking a compression algorithm during insert, the Data Pool Insert Utility shall remove the original file from the compression algorithm's input file directory after successful completion of the compression algorithm, unless the original file has been overwritten by the compression algorithm.	Completed

ID	Title	Status
ECS-L4-14045	S-DPL-75080 When invoking a compression algorithm during insert, the Data Pool Insert Utility shall enter the following information in the file table in the Data Pool database: a. name of the compressed file b. size of the compressed file c. size of the original uncompressed file d. unique identifier of compression algorithm used e. elapsed time required to compress the file, in seconds	Completed
ECS-L4-14046	S-DPL-75085 The Data Pool Insert Utility shall interpret a status code of 0 returned from the compression algorithm as success, and a non-zero status code returned from the compression algorithm as failure.	Completed
ECS-L4-14047	S-DPL-75090 The Data Pool Insert Utility shall fail non-retriablely the insert of a granule if the compression of any of its files returns a non-zero status code.	Completed
ECS-L4-14048	S-DPL-75095 The Data Pool Insert Utility shall fail retriablely the insert of a granule if it does not find the output file in the expected directory with the expected name.	Completed
ECS-L4-14049	S-DPL-75100 The Data Pool Insert Utility shall fail non-retriablely the insert of a granule if the compression command line sequence fails because the compression algorithm is not visible to the Data Pool Insert Utility.	Completed
ECS-L4-14050	S-DPL-75105 If the Data Pool Insert Utility performs checksumming for a file that is compressed on insert, the Data Pool Insert Utility shall compute the checksum of the compressed file and store the result in the Data Pool database.	Completed
ECS-L4-14051	S-DPL-75110 If the Data Pool Insert Utility performs checksumming for a file that is compressed on insert, the Data Pool Insert utility shall continue to compute the checksum of the uncompressed file, verify its checksum against the checksum of the input file, store the checksum of the uncompressed file, and report on any errors. (See NCRs 37304 and 36028)	Completed
ECS-L4-14052	S-DPL-75115 The Data Pool Insert Utility shall not invoke a compression algorithm when inserting metadata or browse files in the Data Pool, no matter whether compression is turned ON or OFF.	Completed
ECS-L4-14056	S-DPL-75135 The HEG Front End shall decompress files which were compressed at insert time before converting them, using the decompression algorithm provided by the DAAC. If no decompression algorithm is provided, the HEG Front End shall assume that decompression is not necessary.	Completed
ECS-L4-14057	S-DPL-75140 The Data Pool FTP Service shall allow downloading of Data Pool files which were compressed at Data Pool insert time.	Completed
ECS-L4-14058	S-DPL-75145 The Data Pool FTP Service shall not fail on-the-fly compression of Data Pool files regardless of whether the files were already compressed at Data Pool insert time.	Completed
ECS-L4-14059	S-DPL-75150 The background checksum utility (see NCR 37304) shall use the checksum of the 'as stored' file when comparing to the current checksum.	Completed

ID	Title	Status
ECS-L4-14060	S-DPL-75155 When invoking a compression algorithm during insert, the Data Pool Insert Utility shall log the following information: a. the time required to compress a file (in seconds) b. the time required to checksum the compressed file (in seconds), if checksumming is performed c. the compression algorithm command line used, including the name of the input file d. the directory path and filename of the compressed file returned by the compression algorithm e. the status code returned from the compression algorithm f. any errors encountered in running the compression algorithm	Completed
ECS-L4-14063	S-DPL-75604 When replacing an ECS science granule, the Data Pool Insert Utility shall remove any existing metadata and science files associated with the original granule, and then insert the appropriate science and metadata files associated with the replacement granule.	Completed
ECS-L4-14064	S-DPL-75606 When replacing an ECS science granule, the Data Pool Insert Utility shall remove all links between the original science granule and any existing browse file(s) associated with this granule in the Data Pool, and shall remove the associated browse file(s) themselves from the Data Pool if they are not associated with any other Data Pool granule. If the replacement granule has associated browse file(s) (in SDSRV), the Data Pool Insert Utility shall insert these file(s) if they are not yet in the Data Pool, and shall link them with the replacement granule.	Completed
ECS-L4-14066	S-DPL-75610 The Data Pool Insert Utility shall log the fact that it is replacing a science granule in the Data Pool. The log entry shall contain: a. the Data Pool granuleId of the original granule b. the ShortName and versionId of the replacement granule c. the AcquisitionDate of the replacement granule d. the ECS id of the replacement granule e. the reason for the replacement (e.g., same Data Pool file name; same RangeBeginningTime) f. the insert time g. the fact that associated browse file(s) were unlinked and/or removed	Completed

Appendix A Abbreviations and Acronyms

These are the abbreviations and acronyms used in the SDPS requirements Volumes 1-10. This section is replicated in all volumes.

ACL	access control list
ACVU	AIM checksum verification utility
ADC	Affiliated Data Center
ADEOS	Advanced Earth Observing Satellite
AIM	Archive Inventory Management
AIRS	Atmospheric Infrared Sounder
AMFS	Archival Management and Storage System File System
AMSR	Advanced Microwave Scanning Radiometer
ANSI	American National Standards Institute
API	Application Program Interface
APIDs	Application Process Identifiers
APIs	Application Program Interfaces?
ARP	Address Resolution Protocol
ASDC	Atmospheric Science Data Center
ASF	Alaska Satellite Facility
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
AST_L1A, AST_L1B	ASTER Level 1 A and Level 1 B data types
AVG	average
AVN	National Center for Environmental Prediction (NCEP) Aviation model, later renamed to Global Forecast System (GFS)
BGT	Bulk Metadata Generation Tool, also known as BMGT
BIL	Band Interleaved
BMGT	Bulk Metadata Generation Tool
BPI	Bits per inch
BRF	Browse Reference File
BRWS	Browse
BUFR	Binary Universal Form for the Representation of meteorological data
CCB	Configuration Control Board
CCR	Configuration Change Request
CCSDS	Consultative Committee for Space Data Systems
CD	Compact Disc

CFG	Configuration
CI	Configuration Item
CKSUM	refers to a particular algorithm or program to calculate a file checksum
CLS	Client Subsystem
CM	Configuration Management
CMO	Configuration Management Office
CMR	Common Metadata Repository
COTS	Commercial Off-The Shelf (hardware or software)
CPU	Central Processing Unit
CRON	A linux system utility to perform time scheduled executions
CS	Client Server
CSC	Computer Software Component
CSCI	Computer Software Configuration Item
CSDT	Computer Scient Data Type
CSH	C-Shell
CSMS	Communication and Systems Management Segment
CSS	Communications Subsystem
DAAC	Distributed Active Archive Center
DADS	Data Archive and Distribution System
DAR_ID	Data Acquisition Request Identifier
DB	Database
DBID	Database Identifier
DB	Database
DCLI	DDIST (Data Distribution) Command Line Interface
DD	Data Dictionary
DDIST	Data Distribution CSCI
DDR	Detailed Design Review
DEM	Digital Elevation Model
DESKT	Desktop (Computer Software Configuration Item)
DFA	Delete From Archive
DHWM	Data High Water Mark
DIF	Directory Interchange Format
DIPHW	Distribution and Ingest Peripheral HWCI
DMS	Data Management Subsystem
DN	Delivery Notification
DORRAN	Distributed Ordering, Researching, Reporting, and Accounting Network (at EDC)

DPAD	Data Pool Action Driver
DPCV	Data Pool Checksum Verification Utility
DPIU	Data Pool Insert Utility
DPL	Data Pool
DPLINGST	Data Pool Ingest
DPLINSERT	Data Pool Insert
DPM	Data Pool Maintenance
DRPHW	Data Repository HWCI
DSS	Data Server Subsystem
DTD	Document Type Definition (XML)
DTF	Sony Digital Tape Format Tape cartridge system
DTS	Defect Tracking Subsystem
EBNET	EOSDIS Backbone Network
ECHO	EOS Clearing House
ECI, ECR	Earth Centered Inertial, Earth Centered Rotating
ECNBDB	Spatial Subscription Server database
ECS	Earth Observing System Data and Information Core System
EDC	Earth Resource Observation System Data Center
EDOS	Earth Observing System (EOS) Data and Operations System
EDR	Expedited Data Set Request
EDS	Expedited Data Set
EED	EOSDIS Evolution and Development Project
EGS	EOSDIS Ground System
EMD	EOSDIS Maintenance and Development Project
EMOS	EOS Mission Operations System
EMS	ESDIS Metrics System
EOC	Earth Observation Center (Japan), EOS Operations Center
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
EPD	External Processor Dispatcher
EPSG	European Petroleum Survey Group
ESDIS	Earth Science Data and Information System
ESDT	Earth Science Data Type
ESG	Earth Science Gateway
ESI	EOSDIS Service Interface
ETE	End to End
EWOC	ECHO WSDL Order Component

FCAPS	Fault, Configuration, Accountability, Performance, and Security
F&PRS	Functional and Performance Requirements Specification
FDDI	Fiber Distributed Data Interface
FDF	Flight Dynamics Facility
FOS	Flight Operations Segment
FSMS	File and Storage Management System
FTP	File Transfer Protocol
FTPD	File Transfer Protocol Daemon
GB	Gigabyte or Gigabit
GBYTE	Gigabyte
GCMD	Global Change Master Directory
GDS	Ground Data System
GEOTIFF	Georeferenced Tagged Image File Format
GFE	Government Furnished Equipment
GIS	Geographical Information System
GLAS	Geoscience Laser Altimeter System
GPS	Global Positioning System
GRIB	Grid in Binary
GSFC	Goddard Space Flight Center
GUI	Graphical User Interface
GZIP	GNU zip
HDF	Hierarchical Data Format
HDF-EOS	an EOS proposed standard for a specialized HDF data format
HEG	HDF-EOS-To-Geotiff Conversion Tool
HIPPI	High Performance Parallel Interface
HIRDLS	High-Resolution Dynamics Limb Sounder
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HTTPD	Hypertext Transfer Protocol Daemon
HWCI	Hardware Configuration Item
I/O	Input/Output
I&T	Integration and Test
IAS	Image Assessment System
ICD	Interface Control Document
ICLHW	Ingest Client HWCI
ICMP	Internet Control Message Protocol

IDL	Interactive Data Language
ID	Identifier
IEEE	Institute of Electrical and Electronics Engineering
IGS	International Ground Station
IIU	Inventory Insert Utility
IMS	Information Management System
INCI	Internetworking Hardware HWCI
INHCI	Ingest Hardware (Configuration Item)
INHW	Ingest Hardware (Configuration Item)
INS	Ingest Subsystem
IP	Internet Protocol
IR-1	Initial Release 1
IRD	Interface Requirements Document
IRIX	Silicon Graphics version of Unix
ISS	Internetworking Subsystem
IV&V	Independent Verification and Validation
JDT	Java DAR (Data Acquisition Request) Tool
JPEG	Joint Photographic Experts Group image file format
JPG	JPEG file extension
JPL	Jet Propulsion Laboratory
KFTP	Kerberized File Transfer Protocol
LAN	Local Area Network
LARC	Langley Research Center
LAT/LON	Latitude and Longitude
LGID	Local Granule Identifier
LLBOX	Latitude/Longitude Box
LP-DAAC	Land Processes Distributed Active Archive Center
LPS	Landsat 7 Processing System
LSM	Local System Management (network)
LUNs	Logical Unit Numbers
M&O	Maintenance and Operations
MAN	Metropolitan Area Network
MAX	Maximum
MB	Megabyte (10 ⁶)
MB/sec	Megabytes per second
MBITS/SEC	Megabits per second
MBPS	Megabytes per second

MCF	Metadata Configuration File
MD5	Message Digest checksum algorithm number 5
MDT	Maximum Down Time
METC	refers to file containing Collection Metadata
MGS	Map Generation Subsystem
MGU	Map Generation Utility
MISBR	MISR Browse
MISR	Multi-Imaging SpectroRadiometer
MLCI	Management Logistics Configuration Item
MM	Millimeter
MM/DD/YYYY	date code representation for month, day, year
MODAPS	MODIS Adaptive Processing System
MODIS	Moderate Resolution Imaging SpectroRadiometer
MRTG	Multi Router Traffic Grapher
MSEC	Millisecond
MSM	Media Storage Manager (part of Stornext)
MSS	System Management Subsystem
MTMGW	Machine to Machine Gateway
MUTEX	Mutually Exclusive
N/A	Not Applicable/Not Available
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NBSRV	Spatial Subscription Server
NCEP	National Centers for Environmental Prediction
NCR	Non-conformance report
NESDIS	National Environmental Satellite, Data, and Information Service (NOAA)
NFS	Network File System
NIST	National Institute of Standards and Technology
NM	Name Server Subsystem
NMC	National Meteorological Center (NOAA)
NMF	Network Management Facility
NOAA	National Oceanic and Atmospheric Administration
NSBRV	Spatial Subscription Server
NSI	NASA Science Internet
NSIDC	National Snow and Ice Data Center
NTP	Network Transport Protocol

OBU	OWS Binding Utility
ODC	Other Data Center
ODL	Object Description Language
OGC	Open GIS Consortium
OLA	On-line Archive
OMS	Order Manager Subsystem
OPS	Operations
ORNL	Oak Ridge National Laboratory
OSI	Open Systems Interconnection
OSS	Operational Support Software
OWS	OGC Web Services Subsystem
PANs	Production Acceptance Notifications
PB	Petabyte (10 ¹⁵)
PC	Personal Computer
PDF	Portable Document Format
PDPS	Planning and Data Processing Subsystems
PDR	Product Delivery Record
PDRD	Product Delivery Record Discrepancy
PDSIS	Product Distribution System Information Server
PF	Process Framework
PGE	Product Generation Executable
PGEEXE	PGE executable tar file ESDT
PH	Production History
PID	Process Identifier
PO.DAAC	Physical Oceanography Distributed Active Archive Center
POSIX	Portable Operating System Interface
PREPROCERR	Preprocessing Error
PSA	Product-Specific Attribute
PTHREADS	Portable Operating System Interface (POSIX) threads
PUBERR	Publication Error
PVC	Performance Verification Center
PVL	Parameter Value Language
Q/A, QA	Quality Assurance
QAMUT	Quality Assurance Metadata Update Tool
QC	Quality Control
RARP	Reverse Address Resolution Protocol
RDBMS	Relational Database Management System

RFC	Request for Comments
RHWM	Request High Water Mark
RLWM	Request Low Water Mark
ROM	Read Only Memory
RPC	Remote Procedure Call
RPCID	Remote Procedure Call Identifier
RTR	Requirements Technical Review
SBSRV	Subscription Server
SCF	Science Computing Facility
SCI	science
SCP	Secure Copy
SDP	Science Data Processing
SDPF	Science Data Processing Facility
SDPS	Science Data Processing Segment
SDRSV	misspelled SDSRV
SDS	Scientific Dataset(HDF-EOS term), Science Data System
SDSRV, SDSVR	Science Data Server
SIPS	Science Investigator-led Processing System
SMAP	Soil Moisture Active Passive
SNAC	StorNext Archive Cache
SNFS	StorNext File System
SNMP	Simple Network Management Protocol
SOM	Space Oblique Mercator
SORCE	Solar Radiation and Climate Experiment
SQL	Structured Query Language
SRF	Server Request Framework
SS	two digit seconds field in a time string
SSH	Secure Shell (protocol)
SSI&T	Science System Integration and Test
SSM/I	Special Sensor for Microwave/Imager
SSS	Spatial Subscription Server Subsystem
STGMT	Storage Management Subsystem
TB	Terabyte
TBD	To Be Determined/To Be Defined
TBR	To Be Resolved
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol

TES	Trophospheric Emission Spectrometer
TKD	Toolkit for DAAC
TKS	Toolkit for Scientists
TOMS	Total Ozone Mapping Spectrometer
TSDIS	TRMM Science Data and Information System
TSM	Tertiary Storage Manager, component of StorNext
TTPro	TestTrack Pro
UDF	Universal Disk Format
UDP	User Datagram Protocol
UPS	Uninterruptible Power Supply
URL	Uniform Resource Locator
UR	Universal Reference, granule UR
UTC	Universal Time Coordinated/Universal Time Code
UTM	Universal Transverse Mercator
V0	Version 0, Refers to the Archive System and Protocols used in the predecessor to the ECS
VPN	Virtual Private Network
VS	versus (abbr)
W*S	refers to any member of the family of Open Geospatial Consortium (OGC) web services: WCS, WMS, WFS, WPS
WAN	Wide Area Network
WCS	Web Coverage Service
WGS84	World Geodetic System 1984
WKBCHCI	Workbench Configuration Item
WKSHW	Working Storage Hardware Configuration Item
WMS	Web Map Service
WRS	Worldwide Reference System, used by Landsat
WSDL	Web Service Definition Language
WU-FTP	Washington University File Transfer Protocol program
WWW	World Wide Web
XFR	Transfer (abbr)
XML	Extensible Markup Language
XSD	XML Schema Definition
XVU	XML Validation Utility