

16. Ingest

16.1 Ingest Process

The DPL Ingest Subsystem is the part of the Science Data Processing component that the Ingest Technician uses when getting data from external data providers into the system. The Ingest Technician has access to Data Pool Ingest through the DPL Ingest GUI.

The Data Pool Ingest service is used for SIPS, S4P, Secure Copy and cross-DAAC ingest. This service supports the ingest protocol known as 'Polling with Delivery Record', and inserts the ingested data into the Data Pool SAN and archive.

Figure 16.1-1 provides an illustration of the Data Pool ingest and archiving processes and are described in the following steps:

1. SIPS providers place their data and Product Delivery Record (PDR) files into a polling directory. The directory can be local, e.g., accessible via a mount point; or remote, i.e., accessible via FTP or SCP.
2. The DPL Ingest Service will poll these directories as configured by the DAAC and retrieve all new PDR files in those directories.
3. The DPL Ingest Service queues ingest requests for all PDRs that it finds. To decide which validated PDR will be processed next, it checks available resources and DAAC configured priorities.
4. The granule files are copied into the Data Pool SAN, using hidden directories for that purpose unless the DAAC requested that the data be published on insert.
5. The granule metadata is inserted into the ECS inventory in the SDSRV database. Minimal granule metadata is inserted into the Data Pool database.
6. The granules are then copied over to the ECS archive. This may involve a copy to both a primary and backup archive depending on how the ESDT is configured for archiving.
7. The provider is notified of the outcome, which could be immediately via Product Delivery Discrepancy Report (PDRD) if PDR validation failed, or later via a short or long Product Acceptance Notification (PAN).
8. If the ESDT is configured for public Data Pool insert, additional granule metadata is populated in the Data Pool database warehouse tables.

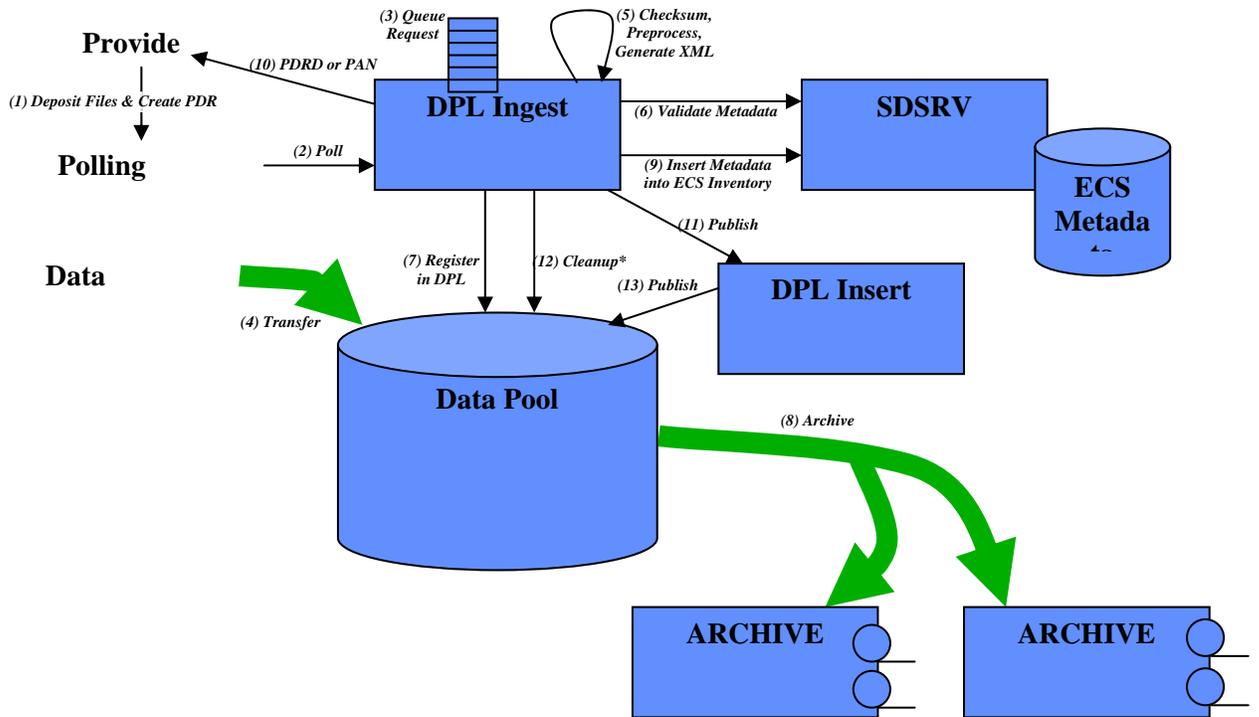


Figure 16.1-1. Data Pool Ingest High Level Architecture

The DPL Ingest Service is split into the three distinct, contiguous components. Polling (step 2) will be responsible for the provision of work to the service via transferring Product Delivery Records (PDRs) into the system and registering them.

Processing (steps 3, 4, and 5) will pick up registered PDRs and attempt to ingest the inventory they describe into the Data Pool, perform any additional processing required for specific inventory (for example inventory may relate to a pending order causing processing to inform the OMS), and archive the inventory. The processing component will update the status of a particular PDR on completion of various steps during processing, and queue a notification to be sent when all processing has completed (either successfully or unsuccessfully).

Notification (step 10) will detect the queued notification and notify the provider associated with that PDR with details of its completion state. Terminal states are Successful, Partially Failed and Failed. Terminal states are conveyed to the provider by means of a Product Acceptance Notification (PAN) or Product Delivery Discrepancy Report (PDRD).

Cross-DAAC or cross-mode ingest is launched via an order or a subscription for the desired data. In this scenario the primary (exporting) DAAC has placed an FTP Push subscription on the data that is needed by the importing DAAC. The exporting DAAC has removed the Synergy III exception for cross-DAAC distribution requests, such that they will be distributed in Synergy IV mode. The importing DAAC has configured DPL Ingest to poll the location where the pushed data and the PDR will be located.

The scenario describes the case where the data is ingested at the primary DAAC via DPL Ingest, distributed to the importing DAAC using Synergy 6 distribution capabilities, and is then ingested at the importing DAAC using DPL Ingest.

The Cross-DAAC steps are as follows:

- 1 The primary DAAC completes its Ingest Flow. The SDSRV inventory insert triggers subscription processing by the Spatial Subscription Service.
- 2 The FTP Push subscription causes an FTP Push order to be placed with the Primary DAAC OMS.
- 3 As part of the ingest flow, the DPL Ingest service inserted the granule into the Data Pool. Though the granule may be hidden from public Data Pool access, it is accessible to the OMS. As a result, the OMS at the primary DAAC fulfills the order directly from the Data Pool SAN in Synergy IV mode.
- 4 The OMS at the primary DAAC pushes the data, as well as the metadata in XML format from its Data Pool SAN to the target directory specified in the subscription.
- 5 The OMS at the primary DAAC sends an E-mail containing the product delivery notice (DN). The notice contains information about the data and metadata files transferred via the primary DAAC FTP Push service.
- 6 The Ingest E-mail Gateway monitors this FTP Push target directory. It finds the DN and uses it to generate a Product Delivery Record File (PDR) that is placed in an agreed upon polling directory.
- 7 The DPL Ingest Service at the importing DAAC uses the Polling with Delivery Record mechanism to read the PDR, validate it and queue an ingest request
- 8 The DPL Ingest Service at the importing DAAC then ingests the data specified in the PDR from the specified locations. As part of the ingest operation, it will convert the XML metadata file to .met file format for the insert into the SDSRV inventory.
- 9 The ingested data is archived, inserted into the hidden Data Pool and ECS, and (if necessary) also published in the Data Pool, as described earlier.
- 10 Alternate Scenario 1 - Primary DAAC uses Release 7.20, but importing DAAC uses Release 7.11: In this case, the primary DAAC configures the target e-mail address used for the DN as requiring .met files. OMS will then generate a .met file and include it in the distribution (see Synergy 6 Ticket OD_S6_01). Ingest via the INGST CI will then operate as today.
- 11 Alternate Scenario 2 - Primary DAAC uses Release 7.11, but importing DAAC uses Release 7.20: The primary DAAC will distribute a .met file. DPL Ingest at the importing DAAC will use that .met file when inserting the metadata into the ECS inventory, converting it to XML when registering the granule in the Data Pool.

Subsequent sections related to Ingest address the following topics:

- **Section 16.2** Contains procedures for logging in to Data Pool Ingest System Hosts.
- **Section 16.3** Contains procedures for Monitoring Data Pool Ingest System.
- **Section 16.4** Contains procedures for resolving ingest requests with open interventions and Data Pool System alerts.
- **Section 16.5** Contains procedures for modifying DPL Ingest configuration parameters.
- **Section 16.6** Contains procedures for reviewing and generating reports.
- **Section 16.7** Contains procedures accessing Help Pages.
- **Section 16.8** Contains procedures for monitoring Data Pool Collections from the Data Pool Maintenance GUI.

16.2 Logging in to System Hosts

The following procedure presents the steps required to log in to system hosts.

Table 16.2-1 contains the activity checklist for Login to the Systems Hosts.

Table 16.2-1. Login to System Hosts - Activity Checklist

Order	Role	Task	Section	Complete?
1	Ingest Technician	Log in to System Hosts	(P) 16.2.1	

16.2.1 Log in to System Hosts

- 1 At the UNIX command line prompt enter: **setenv DISPLAY <client name>:0.0**
 - Use either the X terminal/workstation IP address or the machine-name for the client name.
 - When using secure shell, the DISPLAY variable is set just once, before logging in to remote hosts. If it were to be reset after logging in to a remote host, the security features would be compromised.
- 2 In the terminal window (at the command line prompt) log-in to the appropriate host by entering:

ssh <host name>

- Examples of Data Pool Ingest Server host names include **e4dpl01, e4eil01, e4lil01, e4spl01** at the LP DAAC; **n4dpl01, n4eil01, n4lil01, n4spl01** at NSIDC; **l4dpl01, l4eil01, l4lil01, l4spl01** at ASDC
 - If you receive the message, “Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?” enter **yes** (“y” alone will not work).
 - If you have previously set up a secure shell passphrase and executed sshremote, a prompt to Enter passphrase for RSA key '`<user@localhost>`' appears; continue with Step 3.
 - If you have not previously set up a secure shell passphrase, go to Step 4.
- 3** If a prompt to **Enter passphrase for RSA key '`<user@localhost>`'** appears, enter:
<passphrase>
- If a command line prompt is displayed, log-in is complete.
 - If the passphrase is unknown, press **Return/Enter**, which should cause a **<user@remotehost>'s password:** prompt to appear (after the second or third try if not after the first one), then go to Step 4.
 - If the passphrase is entered improperly, a **<user@remotehost>'s password:** prompt should appear (after the second or third try if not after the first one); go to Step 4.
- 4** If a prompt for **<user@remotehost>'s password:** appears, enter:
<password>
- A command line prompt is displayed.
 - Log-in is complete.
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16.3 Monitoring the Ingest System

The central feature for monitoring the Ingest System is the DPL Ingest GUI. The DPL Ingest GUI is a web-based interface that allows operators to access and manipulate the DPL Ingest system. Using this GUI, an operator can monitor and fix Ingest requests, view system alerts, and see at a glance the status of the DPL Ingest system. The DPL Ingest GUI also allows in-depth configuration of the entire DPL Ingest system without having to touch a database. It provides a fast and secure way to easily manage the entire DPL Ingest system, complete with full operator permission configuration and management so that only authorized persons may perform actions or change configuration settings.

Data Pool Ingest servers are started by the following three scripts:

- EcDIInProcessingService
- EcDIInPollingService
- EcDIInNotificationService

Since the DPL Ingest GUI is a web-based interface, it can be accessed from virtually anywhere there is access to the internal network. No custom software installation is required – all that is needed is a web browser (Firefox is recommended and supported) running on a Windows 2000/XP PC or a compatible Linux OS (e.g., Red Hat) that can run Firefox.

16.3.1 DPL Ingest GUI

The DPL Ingest GUI is a new feature available with delivery of Release 7.20. The ECS Data Pool Ingest GUI, illustrated in Figure 16.3.1-1, has five major functional areas accessible through the Navigation Panel located in the left panel of the Home Page:

- Home - Displays General System Statistics, DPL Ingest Status, Email Service Status, Notification Service Status, Polling Service Status and Processing Service Status
- Monitoring - Allows operators to monitor currently active Ingest Requests, History of Ingest Request, Provider Status, File System Status, Transfer Host Status, and ECS Service Status
- Interventions & Alerts - Allows operator to review, resume, cancel and process ingests requests that have Open Interventions
- Configuration - Allows operator to alter configuration parameters for Data Providers, Data Types, Transfer Hosts, File Systems, ECS Service Hosts, Global Tuning, Volume Groups and Operators
- Reports - Displays information across several data providers or data types
- Help - Provides General help topics and Context Help Information

The navigation panel also contains a section below the menus that displays a synopsis of the current logged-in operator and provides some tools to the perform the following actions

- Log out
- Change your password
- Show all of your permissions

Operator GUI security standards require the following multiple levels of permissions to be assigned to each operator that has access to the DPL Ingest GUI:

- View Only
- Ingest Admin

- Ingest Control
- Security Admin
- Tuning Control

Full-capability operators have the ability to configure parameters and perform all other actions that can be accomplished with the **DPL Ingest GUI**. Limited-capability operators are able to view a lot of information; however, on the limited-capability GUI some buttons and links have been disabled so it is not possible to perform certain actions or access certain pages.

The DPL Ingest GUI is certified for use with any browser supporting the Mozilla Firefox 2.0 standard. Launching the DPL Ingest GUI starts with the assumption that the Ingest Technician has logged in to the system. Table 16.3-1 provides an activity Checklist for Monitoring DPL Ingest.

Table 16.3-1. Monitoring DPL Ingest

Order	Role	Task	Section
1	Ingest Technician	Launching the DPL Ingest GUI	(P) 16.3.1.1
2	Ingest Technician	Changing Ingest Requests Filters	(P) 16.3.2.1
3	Ingest Technician	Monitoring Request Status	(P) 16.3.2.2
4	Ingest Technician	Cancel, Suspend, Resume or Change Requests Priority	(P) 16.3.2.3
5	Ingest Technician	Changing Suspended Granules Status	(P) 16.3.2.4
6	Ingest Technician	Viewing Historical Requests	(P) 16.3.3.1
7	Ingest Technician	Viewing Provider Status	(P) 16.3.4.1
8	Ingest Technician	Suspend or Resume Data Providers	(P) 16.3.4.2
9	Ingest Technician	Suspend or Resume Data Individual Polling Locations	(P) 16.3.4.3
10	Ingest Technician	Viewing File System Status	(P) 16.3.5.1
11	Ingest Technician	Suspend or Resume File System	(P) 16.3.5.2
12	Ingest Technician	Viewing Transfer Host Status	(P) 16.3.6.1
13	Ingest Technician	Suspend or Resume Transfer Host	(P) 16.3.6.2
14	Ingest Technician	Viewing ECS Service Status	(P) 16.3.7.1
15	Ingest Technician	Suspend or Resume ECS Service(s)	(P) 16.3.7.2

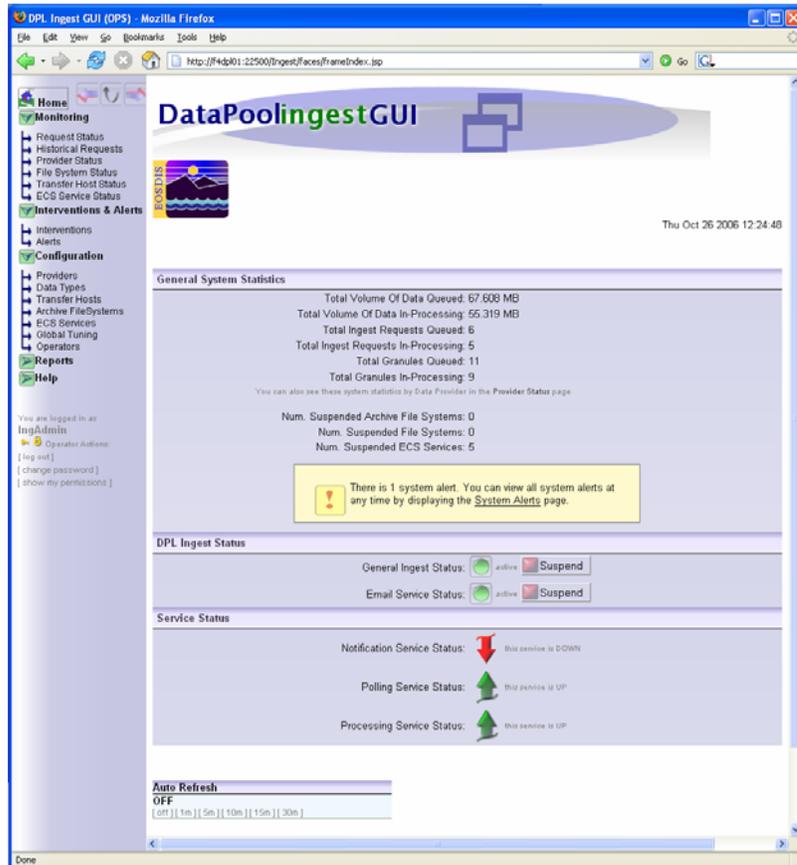


Figure 16.3-1. Data Pool Ingest GUI Intro Screen

The DPL Ingest GUI Home Page provides a general overview of the Data Pool Ingest system status. This page is divided into the following three sections.

- General system statistics.
- DPL Ingest Status
- Service Status

The **General System Statistics** section provides general information about current requests and granules in the system, as well as the various services and file systems used in processing.

Detail descriptions of the data found in this section is available in Table 16.3-2.

Table 16.3-2. Home Page Field Descriptions

Field Name	Description
Total Volume of Data Queued	Sum of the size of all files of all granules that have not yet been activated
Total Volume of Data In-Processing	Sum of the size of all files of all granules that are currently active, and not suspended or in a terminal state
Total Ingest Requests Queued	Total number of requests that have not yet been activated
Total Ingest Requests In-Processing	Total number of requests that are currently active, and not suspended or in a terminal state
Total Granules Queued	Sum of all granules in active or queued requests that have not yet been activated
Total Granules In-Processing	Sum of all granules in active or queued requests that are currently active, and not suspended or in a terminal state
Num Suspended Archive File Systems	Total archive file systems that have been suspended, either automatically by the server or manually by operator
Num Suspended Data Pool File Systems	Total data pool file systems that have been suspended, either automatically by the server or manually by operator
Num Suspended ECS Services	Total ECS service hosts that have been suspended, either automatically by the server or manually by operator

The **DPL Ingest Status** section consists of two buttons that enable the user to halt various actions throughout the data pool ingest system.

By pressing the **General Ingest Status** button, the operator is able to stop polling from all polling locations and prevent any new granules from being activated. Any granules that are already active will complete ingest. These actions can easily be resumed by pressing the **Resume** button.



Pressing the **Email Service Status** button will stop any further email notifications (i.e. completed, cancelled, failed, or terminated requests). Once the button is pressed again, email notifications will resume.



Service Status section provides status for three primary services that make up the Data Pool Ingest system. Ingest services cannot be started and stopped via the Data Pool Ingest GUI. Instead, they are managed using start and stop scripts found in the utilities directory of the given mode. For the status of these services to be accurate, the IngestServiceMonitor script must also be running. This script is installed in the utilities directory

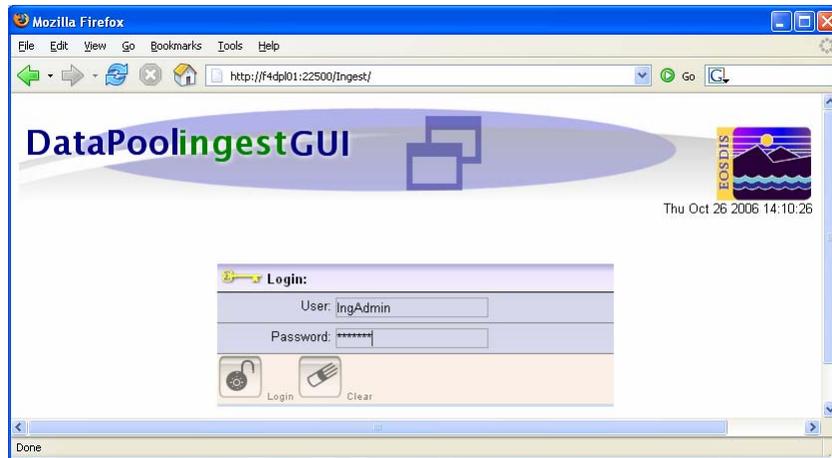
(ie, /usr/ecs/<MODE>/CUSTOM/utilities) of each mode and can be started with the command: EcDIIngestServiceMonitorStart [MODE].

The services are as follows:

- **Notification Service Status** - Indicates whether the notification service is active or suspended. If suspended, no notifications will be sent, but a queue of notifications will be collected and distributed once the service is restarted (not done via the DPL Ingest GUI).
- **Polling Service Status** - Indicates whether the polling service is active or suspended. If suspended, PDRs will not arrive from any configured polling location, but any PDRs that remain in the directories will be added once the service is restarted (not done via the DPL Ingest GUI).
- **Processing Service Status** - Indicates whether the processing service is active or suspended. If suspended, no actions on any requests or granules will start, continue, or complete. Granules will “hang” in whatever state they are in (not done via the DPL Ingest GUI).

16.3.1.1 Launching the DPL Ingest GUI

- 1** Access a terminal window logged in to a host (e.g., the Operations Workstation or Sun external server) that has access to the **Firefox** web browser.
 - Examples of Linux external server host names include e4spl01 or n4spl01.
- 2** Type **firefox &** then press **Return/Enter**.
 - It may be necessary to respond to dialogue boxes, especially if the browser is already being used by someone else who has logged in with the same user ID.
 - The Mozilla Firefox web browser is displayed.
- 3** If a bookmark has been created for the **DPL Ingest GUI**, select the appropriate bookmark from those listed on the browser’s Bookmarks pull-down window.
 - The **Login:** prompt is displayed.
- 4** If no bookmark has been created for the **DPL Ingest GUI**, type **http://host:port** in the browser’s **Location (Go To)** field then press **Return/Enter**.
 - For example: <http://n4dpl01.nsidc.ecs.nasa.gov:25000/Ingest>
 - For example: <http://p4dpl01.pvc.nasa.gov:25000/Ingest>.
 - For Example: http://f4dpl01.hitc.com:25010/Ingest_DEV01
 - The **Login:** prompt is displayed.



- 5 Type the appropriate user name in the **User** box of the security **Login** prompt.
- 6 Type the appropriate password in the **Password** box of the security **Login** prompt.
- 7 Click on the **Login** button:
 - The dialogue box is dismissed.
 - The **DPL Ingest GUI** [“Home” Page] is displayed.

16.3.2 Monitoring Requests Status

The DPL Ingest Request Status screen is used to check the status of current active ingest requests. Table 16.3-3 provides descriptions of the information available for each request. Table 16.3-4 lists actions allowed for different status types.

This page displays the current active ingest requests. The limited-capability operator can use the Request Status page to filter and view Ingest request information.

Table 16.3-3. Request Status Page Column Descriptions

Field Name	Description
Request ID	Unique ID for an ingest request
Status	Status of the request (see Table 16.3.4 for list of possible statuses)
Priority	The precedence which a request will have for activation and various processing actions (XPRESS, VHIGH, HIGH, LOW or NORMAL).
Provider Name	Name of the provider from which the request was obtained
Size [MB]	Sum of the size of all granules in the request
Granules	Total granules included in the request
Granules Completed Processing	Total granules that have reached a successful state
When Queued	Time the request was encountered by the polling service
Last Update	Time of the last change made by the ingest services to the status of the request or its granules

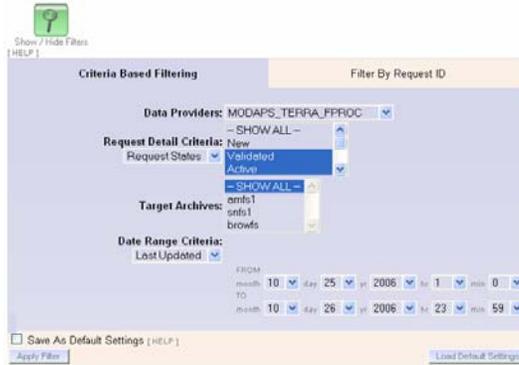
Table 16.3-4. Ingest Request Status Allowed Actions

Request Status	Request Actions			
	Suspend	Cancel / Change Priority	Resume	No Actions Allowed
New		X		
Validated		X		
Active	X	X		
Partially_Suspended		X		
Suspending / Suspended		X	X	
Resuming	X			
Failed				X
Partial_Failure				X
Canceling				X
Partially_Cancelled				X
Successful				X

Sometimes it may be desirable to change the filters for the **Ingest Requests** screen. This change will alter the contents of the Ingest Requests screen. Filter settings stay the same until they are changed again.

16.3.2.1 Changing Requests Status Filters

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Requests Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Request Status** page is displayed.
- 3 Click on the **Show/Hide Filters** button.
 - The **Active Ingest Request List Filter Panel** is displayed.

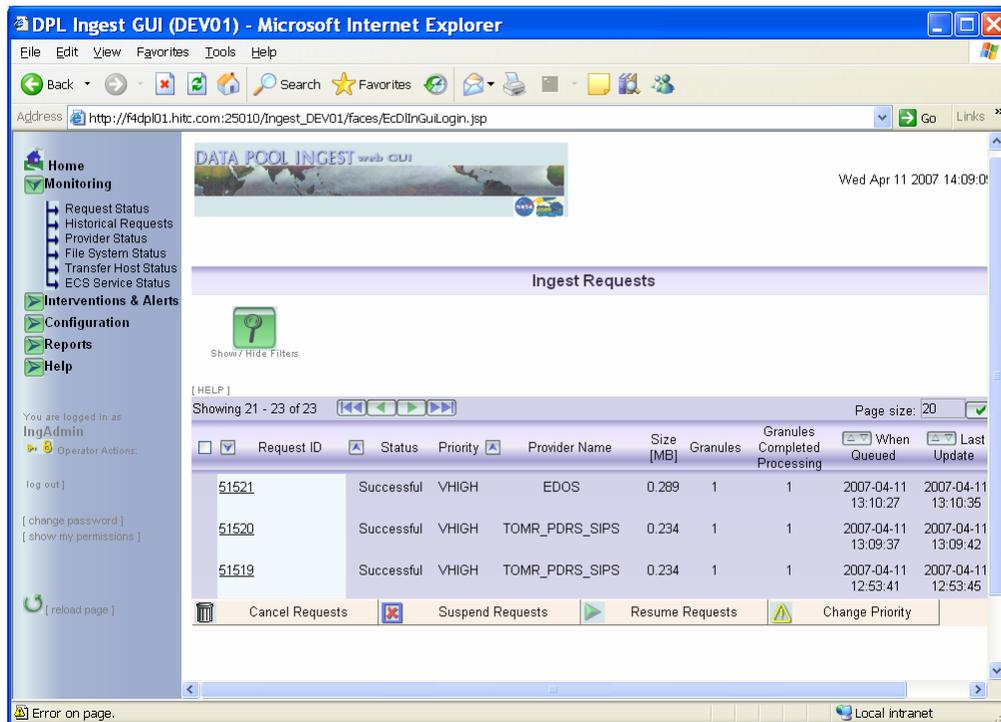


- 4 Click on the **Criteria Based Filtering** button.
 - This allows filtering the attributes of various requests.
 - If you want to filter a single granule ID select **Filter By Request ID**.
- 5 Select the desired **Data Provider** from the drop-down menu.
- 6 Select the **Request Detail** criteria.
 - **Error Type.**
 - Selection of this state forces the filter for the **Request Detail Criteria** to be error types.
 - **Request States.**
 - Selection of this state forces the filter for the **Request Detail Criteria** to be requests states.
- 7 Select the **Target Archives Criteria**.
- 8 Select the **Date Range Criteria**.
 - To view entries for a particular **Date/Time Criteria**, click and hold on the option button, move the mouse cursor to the desired selection (**SHOW ALL, Last Update, Queued, Queued Within Last Hour**), then release the mouse button.
 - If you selected **Last Update or Queued** select the appropriate **From** Date/Time range (Month, Day, Year, Hour, Minute) and **To** Date/Time range (Month, Day, Year, Hour, Minute),
 - Use the 24-hour format to designate the hour (e.g., type **14** to designate 2 p.m.) in the **hour** fields.
 - Use the **Tab** key to advance from one field to the next.
- 9 If the selected filters are to be the desired default filters, click in the box next to **Save As Default Settings**.
 - A checkmark is placed in the box.
- 10 Select the **Apply Filter** button.

- The **Ingest Requests** screen is displayed with the new filters.

16.3.2.2 Monitoring Requests Status

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Requests Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Ingest Requests** page is displayed.



- The **Ingest Requests** status page has the following columns:
 - **Request ID.**
 - Displays a unique ID for each ingest request.
 - **Status.**
 - Provides status of a request (i.e. **New, Validated, Active, Partially_Suspended, Suspended, Canceling, Resuming, Successful, Cancelled, Partially_Cancelled, Failed, Partial_Failure** or **Terminated**).
 - **Priority.**
 - The precedence which a request will have for activation and various processing actions (**XPRESS, VHIGH, HIGH, LOW** or **NORMAL**).

- **Provider Name.**
 - Name of provider from which the request was originated.
- **Size [MB].**
 - Sum of the size of all granules in the request.
- **Granules.**
 - Total Granules included in the request.
- **Granules Completed Processing.**
 - Total Granules that have reached a terminal state.
- **When Queued.**
 - Time the Request was encountered by the polling service.
- **Last Update.**
 - Time of the last change made by the ingest services to the status of the request or its granules.

3 To view the details of an ingest request, click on the desired **Request ID**.



- The **Ingest Request Detail** page is divided into three parts.
 - **Request Info.**
 - **Granule Statistics.**
 - **List of Granules.**
- The **Request Info** contains summarized data from the **Ingest Request** status page and is located at the top of the page. The following information highlights the fields that are found only on this page
 - **Request ID.**
 - **Status.**
 - **Priority.**
 - **Polling Location.**
 - Polling path.
 - **Mission.**
 - **Size [MB].**
 - **Data Provider.**
 - Name of provider from which the request was originated.
 - **Open Interventions link.**
 - Link to the Intervention Detail page.
 - **PDR Path and file name.**
 - Location of Request.
 - **Last Update.**
 - **When Queued.**
 - **When Activated.**
 - **When Completed.**
 - **Expiration Date/Time.**
- The **Granule Statistics** contains the following information for all the granules associated with this request:
 - **Total Granules.**
 - Total number of granules included in the request.

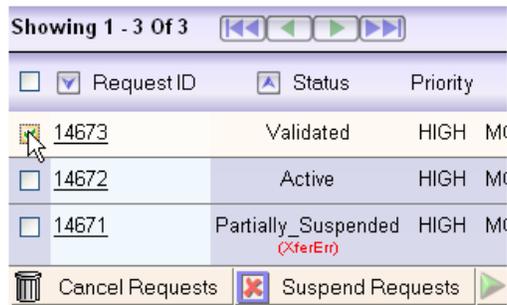
- **Granules PreProcessed.**
 - Percentage of granules that have moved from the preprocessing state to the archiving state.
- **Granules Inserted.**
 - Percentage of granules that have been inserted into the Science Data Server.
- **Granules Transferred.**
 - Percentage of granules transferred from the provider to the temp directories.
- **Granules Archived.**
 - Percentage of granules that have been inserted into the archive.
- **.No. Files.**
 - Total number of files included in the request.
- **Status Change History** is displayed for the selected Request ID.
- **Request Notes.**
 - Notes added by the operator.
- The **File Details** at the bottom of the screen contains a list of granules with the following associated status information;
 - **Seq Number.**
 - The order in which a granule was found in the PDR.
 - **Ingest Gran ID.**
 - Unique Identifier assigned to the granule.
 - **Data Type.**
 - Data Type found in the PDR describing the granule.
 - **Version.**
 - Version found in the PDR describing the granule.
 - **Status.**
 - Current granule status and detailed error information.
 - **Granule Size.**
 - Sum of the size of all files associated with the granule.

- **No. of Files.**
 - Number of files found associated with the granule in the PDR.
- **Last Status Change.**
 - Time the granule’s status was last updated.
- **Path.**
 - Location of the **Granule ID**.
- **Name.**
 - Name of the **Granule ID**.
- **Type.**
 - Type of the **Granule ID**.
- **Status.**
 - Status of the **Granule ID**.
- Any granule(s) encountering problems during any point in their processing are initially flagged as “suspended”. The following actions can be performed depending on the granule state:
 - **Retry Selected Granules.**
 - **Retry Selected Granules From Start.**
 - **Fail Selected Granules.**
 - **Cancel Selected Granules.**

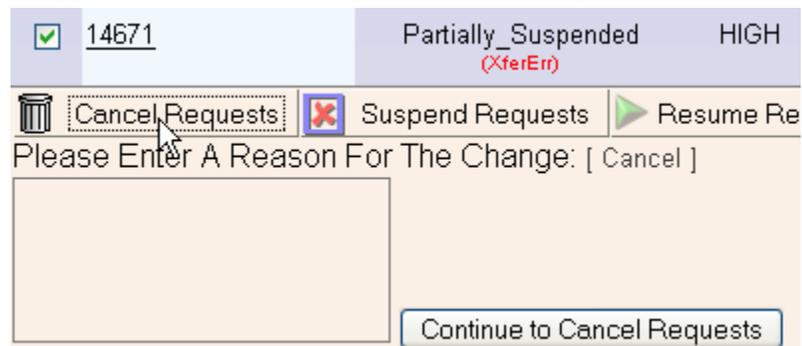
Sometimes it may be necessary to cancel, suspend or resume the processing of one or more ingest request. The procedure for canceling, suspending or resuming granule processing starts with the assumption that all applicable servers and the DPL Ingest GUI are currently running.

16.3.2.3 Cancel, Suspend, Resume or Change Requests Priority

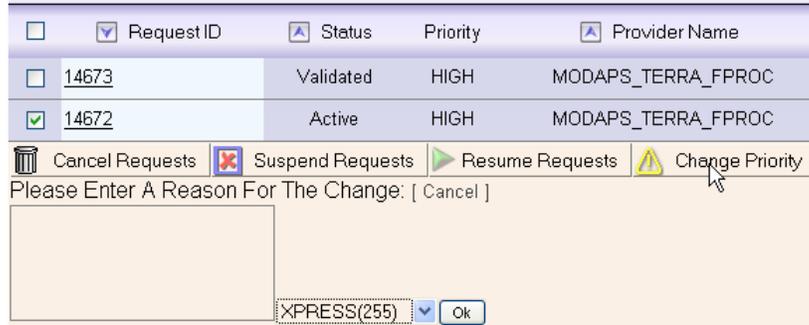
- 1** Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2** Click on the **Requests Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Ingest Requests** page is displayed.
- 3** To change one or more Request Statuses (cancel, suspend or resume), select the desired request(s) by checking the boxes on the left side of the request list.



- A checkmark is displayed in the box.
- Click on the desired action at the bottom of the list:
 - **Cancel**
 - This is an irreversible action, there is no way to ‘un-cancel’ a request.
 - **Suspend**
 - This action may be performed only if the selected request(s) are not already suspended or cancelled and is used to stop new granules from being activated. Active granules in suspended requests will continue through processing.
 - **Resume**
 - This action may be performed only if the selected requests are suspended.
 - **Change Priority**
 - To change the priority of an ingest request, select the desired requests and click on the Change Priority button at the bottom of the list. A dropdown lists appears to select the new priority.
- A box will appear to enter a reason for the status change.



or



- Enter the reason for the change in the **Reason For Change** box.
- To cancel this action click on the **Cancel** button.
- Select the **Continue to [Cancel or Resume]** button.
- Or, Select the **OK** button.

Any granule(s) encountering problems during any point in their processing are initially flagged as “suspended”. They are not failed until the operator explicitly takes an action to fail such granules. The following actions may be performed on granules that have been initially suspended:

- **Retry selected granules:** This applies only to granules that are currently suspended and retries them from the last known good state of processing.
- **Retry from START selected granules:** This applies only to granules that are currently suspended and retries them from the beginning of processing.
- **Fail selected granules:** This applies only to granules that are currently suspended and transitions the granule into the failed state, with the status indicating the type of error that originally caused the suspensions
- **Cancel selected granules:** This applies to granules that are in the New state, Active state, or Suspended state and can be cancelled by selecting this icon.. If the state is Successful, Failed or any Terminal state, the granule may not be cancelled. This action manually fails the granules, marking them ‘canceled.’

16.3.2.4 Changing Suspended Granules Status

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Requests Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Ingest Requests** page is displayed.
- 3 Click on the desired **Request ID**.

Showing 1 - 3 Of 3

<input type="checkbox"/>	Request ID	Status	Priority	
<input checked="" type="checkbox"/>	14673	Validated	HIGH	MO
<input type="checkbox"/>	14672	Active	HIGH	MO
<input type="checkbox"/>	14671	Partially_Suspended (XferErr)	HIGH	MO

Cancel Requests Suspend Requests

- **Request Detail Page** displayed for the selected Request ID.
- At the bottom of the **Request Detail Page**, granules for the selected request(s) are listed.






Showing 1 - 4 Of 4

<input type="checkbox"/>	File Detail	Seq. Number	Ingest Gran. ID	Data Type	Version	Status	Granule Size (MB)	No. Files	Last Status Change
<input type="checkbox"/>	[show/hide]	4	10000000008387	MOD29P1D	86	Successful	6.144	2	2006-10-27 11:37:52
<input type="checkbox"/>	[show/hide]	3	10000000008386	MOD29P1D	86	Cancelling	6.148	2	2006-10-27 11:42:17
<input type="checkbox"/>	[show/hide]	1	10000000008384	MOD29P1D	86	XferErr Error executing the following copy command: /usr/ecs/OPS/CUSTOM/bin/DPL/EcDICopyExec /home/cmshared/PPDRS/scripts/TEMP/OPS//Criteria_1420_MOD_r1.1161963070.11622.RGEN.hdf /datapool/OPS/user/FS1/Temp/ingest/14679/10000000008384/ 4096 3, Failed by Operator	6.148	2	2006-10-27 11:42:02
<input type="checkbox"/>	[show/hide]	2	10000000008385	MOD29P1D	86	Resuming	6.144	2	2006-10-27 11:42:39

- Any granule(s) that encountered problems during any point in their processing are initially flagged as “suspended”.
- 4 Click on the box next to the granule you want to change the status.
 - A checkmark is displayed.
 - 5 Select one of the following appropriate actions:
 - **Retry Selected Granules.**
 - This applies only to granules that are currently suspended and will retry them from the last known good state of processing.
 - **Retry Selected Granules From Start.**
 - This applies only to granules that are currently suspended and will retry them from the beginning of processing.
 - **Fail Selected Granules.**
 - This applies only to granules that are currently suspended and transitions the granule into the failed state, with the status indicating the type of error that originally caused the suspensions.
 - **Cancel Selected Granules.**

- This applies only to granules that are not yet in a terminal state. It manually fails the granules, marking them ‘canceled.’
 - A selected action is executed and status is updated.
-

16.3.3 Viewing Historical Requests

When an ingest transaction has been completed, several things happen:

- A notice is automatically sent to the data provider indicating the status of the ingested data.
- The data provider sends an acknowledgment of that notice.
- Receipt of the acknowledgment is logged by Ingest.
- The **Request ID** of that ingest request is removed from the list of active requests.
- The DPL Ingest History receives statistics on the completed transaction.

The DPL Ingest Historical Requests provides the following information:

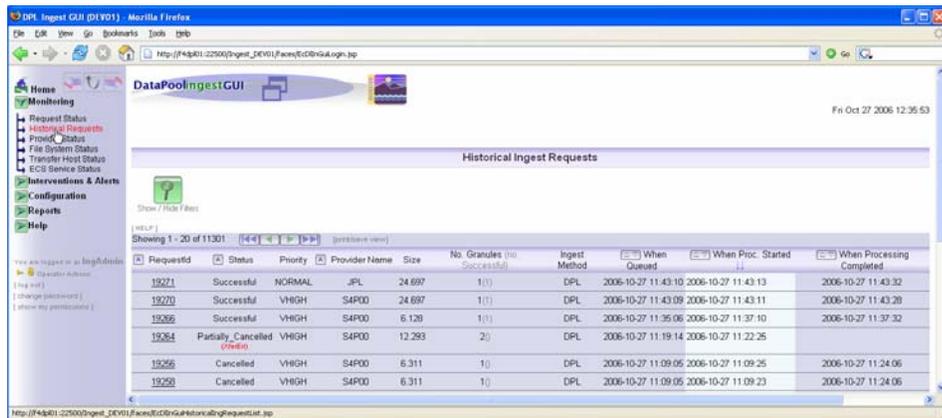
- A summary of ingest requests that have been processed.
- Historical Requests Detail gives detailed information about each completed ingest request.
- Request Timings provides ingest request processing statistics to include time required to perform Transfer, Checksum, Preprocess, DPL Insert and Archive.
- Granule List provides detailed information about each granule.

Since the Historical Requests are completed requests, no action can be processed from these pages.

16.3.3.1 Viewing Historical Requests

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Historical Request** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Historical Ingest Requests** page is displayed with the following fields.
 - **Request ID.**
 - Unique ID for an ingest request.
 - **Status.**
 - Terminal state reached by the request.

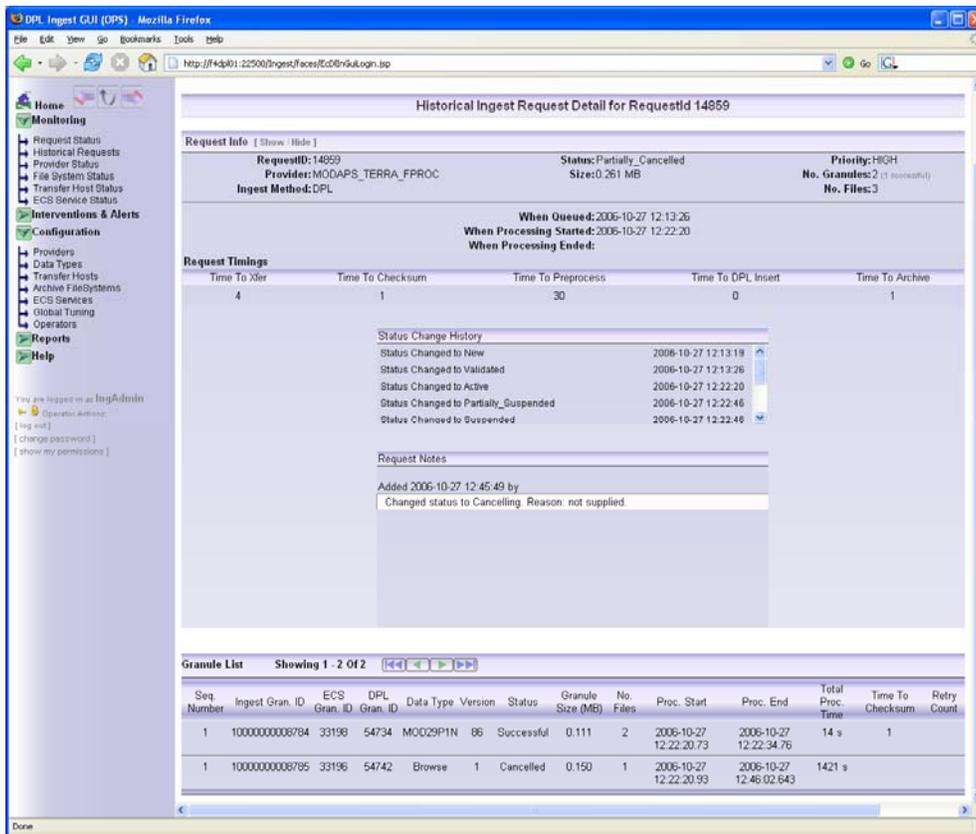
- **Priority.**
 - The final priority assigned to the request during processing.
- **Provider Name.**
 - Name of the provider from which the request was obtained.
- **Size [MB].**
 - Sum of the size of all granules in the request.
- **No. Granules.**
 - Total number of successful granules included in the request.
- **Ingest Method.**
 - Whether the request was processed by Classic Ingest, or the new DataPool Ingest system.
- **When Queued.**
 - Time the request was encountered by the polling service.
- **When Proc. Started.**
 - Time the request was activated by processing.
- **When Processing Completed.**
 - Time the request reached a terminal state.



3 Click on the **Show/Hide Filters** button.

- The following filters are displayed.
 - **Provider ID** (e.g., SHOW ALL, EDOS, ASTER, MODAPS).
 - **Request States** (SHOW ALL, Resuming, Successful, Cancelled, Partially_Cancelled, Failed, Partial_Failure, Terminated).

- **Date/Time Range Filter** (SHOW ALL, When Completed, When Queued, Queued Within 24 Hours, Start Date and Stop Date).
 - **Data Type** (e.g., SHOW ALL, AST_L1B, MOD021KM.003).
- 4** Select the desired **Provider** (e.g., **EDOS**) by highlighting the desired provider from the pull-down window.
- 5** Select the desired **Request State** (ie. **SHOW ALL, Resuming, Successful, Cancelled, Partially_Cancelled, Failed, Partial_Failure, Terminated**) by highlighting the desired request state from the window.
- 6** Select **Date/Time Range Filter** (ie, **When Completed, When Queued, Queued Within 24 Hours, Start Date and Stop Date**), by highlighting the desired Date/Time Range Filter from the pull-down window.
- If you selected **When Completed** or **When Queued** select the appropriate **From Date/Time Range (Month, Day, Year, Hour, Minute)** and **To Date/Time range (Month, Day, Year, Hour, Minute)**.
 - Use the 24-hour format to designate the hour (e.g., type **14** to designate 2 p.m.) in the **hour** fields.
- 7** Select a particular **Data Type** (e.g., AST_L1B) by highlighting the desired data type from the pull-down window.
- 8** Select the **Apply Filter** button.
- **The Historical Ingest Request** page is displayed with the new filters.
 - This page shows all of the ingest requests that have been processed. The DPL database keeps a persistent record of all requests that have undergone ingest processing and can thus be viewed on this page.
- 9** To view the **Historical Ingest Request Detail** for a given **Request ID** , click on the desired **Request ID**.
- The **Historical Ingest Request Detail** page is displayed.
 - The layout of the request detail page for historical requests consist of **Request Information** (top section), **Request Timings** and **Status Change History** (middle section) and **Granule List** (bottom section) and are very similar to the data contained on the **Active Ingest Request** page.
 - The details on this page pertain to historical data only and can not be changed.



- **Seq Number.**
 - The order in which a granule was found in the PDR.
- **Ingest Gran ID.**
 - Unique Identifier assigned to the granule by the DPL Ingest System.
- **ECS Gran ID.**
 - Unique Identifier assigned to the granule for insert in the SDSRV.
- **DPL Gran ID.**
 - Unique Identifier assigned to the granule for registration in the Data Pool.
- **Data Type.**
 - Data Type found in the PDR describing the granule.
- **Version.**
 - Version found in the PDR describing the granule.

- **Status.**
 - Terminal state reached by the granule.
 - **Granule Size (MB).**
 - Sum of the size of all files associated with the granule.
 - **No. Files.**
 - Number of files found associated with the granule in the PDR.
 - **Proc. Start.**
 - Time of granule activation.
 - **Proc. End.**
 - Time granule reached a terminal state.
 - **Total Proc. Time.**
 - Total seconds that lapsed in between granule activation and completion.
 - **Time to Checksum.**
 - Seconds that passed during granule checksum.
 - **Retry Count.**
 - Number of times the granule was resumed or retried from start.
-

16.3.4 Provider Status

The Provider Status link provides access to the status and information about each configured data provider in the ingest system. This page provides the following:

- List of all configured providers along with general statistics for each provider.
- Provides the status of the provider (i.e. Active, Suspended by Server, or Suspended by Operator). This is the only changeable field on this page. From this page a provider can be Resumed or Suspended.
- Provides individual status for polling locations (ie total number of active or suspended polling location).
- Provides access to detailed provider status that shows individual status of each polling location associated with a provider. From this page, an individual polling location can be suspended or resumed accordingly.

16.3.4.1 Viewing Provider Status

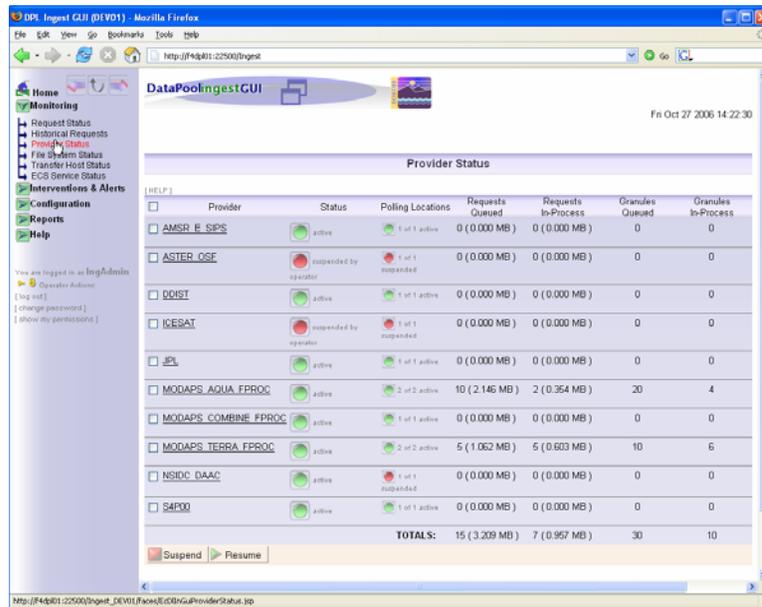
- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Provider Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Provider Status** page is displayed with the following fields.
 - **Provider.**
 - Provider name configured to identify an External Data Provider.
 - **Status.**
 - Whether the provider is **Active**, **Suspended by Server**, or **Suspended by Operator**.
 - **Polling Location.**
 - Total number of active polling locations on the provider, or the number of polling locations that are suspended out of the total number configured.
 - **Request Queued.**
 - Total Number and Volume of requests waiting for activation.
 - **Request In-Process.**
 - Total Number and Volume of requests that are active and not suspended.

– **Granules Queued.**

- Total number of granules waiting for activation in requests from the provider.

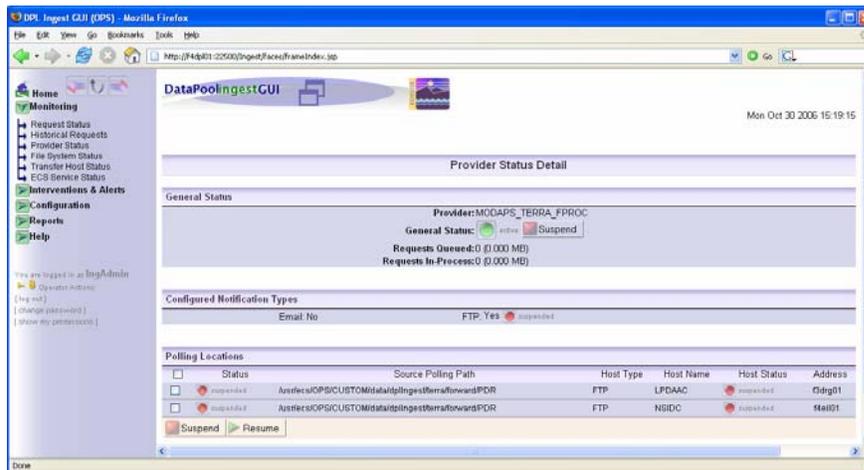
– **Granules In-Process.**

- Total number of granules waiting for activation in requests from the provider.



3 To view the individual status of each polling location associated with a given provider, Click on the desired **Provider** (ie ASTER.OSF, JPL etc.).

- The **Provider Status Detail** page is displayed.

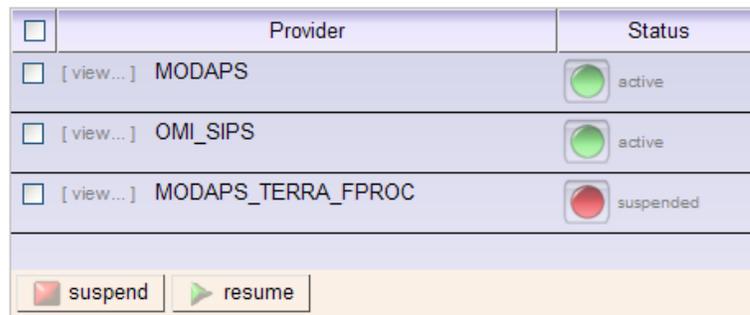


- Displays the following **General Status** for a given Provider:
 - **Provider:**
 - Identifies the selected provider.
 - **General Status:**
 - Identifies status of the provider (**Active** or **Suspend**).
 - **Request Queued.**
 - Total Number and Volume of requests waiting for activation.
 - **Request In-Process.**
 - Total Number and Volume of requests that are active and not suspended.
- **Configured Notification Types.**
 - Status of each notification method (i.e. **Email: No**, or **FTP: Yes**)
- **Polling Locations.**
 - **Status.**
 - Whether the polling location is **Active, Suspended by Server, or Suspended by Operator.**
 - **DPL Ingest Enabled.**
 - Whether or not Data Pool Ingest is Enabled (**Yes or No**).
 - **Source Polling Path.**
 - Directory being polled.
 - **Host Type.**
 - Method being used for polling – **Local, FTP, or SCP.**
 - **Host Name.**
 - Label assigned to the host on which the polling location is found.
 - **Host Status.**
 - Whether the host where the polling location is found is active or suspended.
 - **Address.**
 - Address where the polling directory can be found.

A provider may be suspended or resumed from the Provider Status page. Suspending a Data Provider will stop the activation of Ingest Requests from that Provider, but Ingest Requests that are already active will be completed. Ingest will also stop polling any of the Polling Locations associated with that Data Provider. This means that no new Requests from that suspended Data Provider will be queued except if a polling cycle is in progress, in which case the polling cycle will be completed.

16.3.4.2 Suspend or Resume Data Providers

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Provider Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Provider Status** page is displayed.
- 3 Select the desired provider(s) (ie ASTER.OSF, JPL etc.) by clicking in the box next to the name of the provider.
 - A checkmark is displayed.
- 4 Select either the **suspend** or **resume** button located at the bottom of the page.



- You will be prompted for confirmation before the action is carried out.
 - If you selected **Suspend**, the activation of Ingest Requests from that Provider will be stopped, but Ingest Requests that are already active will be completed. Ingest will also stop polling any of the Polling Locations associated with that Data Provider.
 - If you selected **Resume**, the activation of Ingest Requests from that Provider will be resumed.
 - The **Status** field will be updated accordingly when the requested action is completed.
-

Polling Locations for a provider may be suspended or resumed from the Provider Status Detail page. Each Data Provider has a list of associated Polling Locations, which are directories on FTP or local Hosts. Polling locations can be suspended or resumed in order to halt or resume

data to be sent through these providers, without impacting the status of the Host on which that polling location resides.

16.3.4.3 Suspend or Resume Individual Polling Locations

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Provider Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Provider Status** page is displayed.
- 3 Click on the desired **Provider** (ie ASTER.OSF, JPL etc.).
 - The **Provider Status Detail** page is displayed.
 - At the bottom of the **Provider Status Detail**, the **Polling Locations** of the selected provider are displayed.

Polling Locations						
<input type="checkbox"/>	Status	Source Polling Path	Host Type	Host Name	Host Status	Address
<input type="checkbox"/>	suspended	/usr/fecs/OPS/CUSTOM/data/dplIngest/terra/forward/PDR	FTP	LPDAAC	suspended	f3drg01
<input checked="" type="checkbox"/>	suspended	/usr/fecs/OPS/CUSTOM/data/dplIngest/terra/forward/PDR	FTP	NSIDC	suspended	f4eil01

Suspend Resume

- 4 Select the desired Polling Locations to be suspended or resumed by clicking in the box associated with the **Source Polling Path**.
 - A checkmark is displayed in the box.
- 5 Select either the **Suspend** or **Resume** button located at the bottom of the page.
 - You will be prompted for confirmation before the action is carried out.
 - If you selected **Suspend**, the Polling Path(s) will be stopped but Ingest Requests that are already active will be completed.
 - If you selected **Resume**, the activation of Ingest Requests from that polling location will be resumed.
 - The **Status** field will be updated accordingly when the requested action is completed.

16.3.5 File System Status

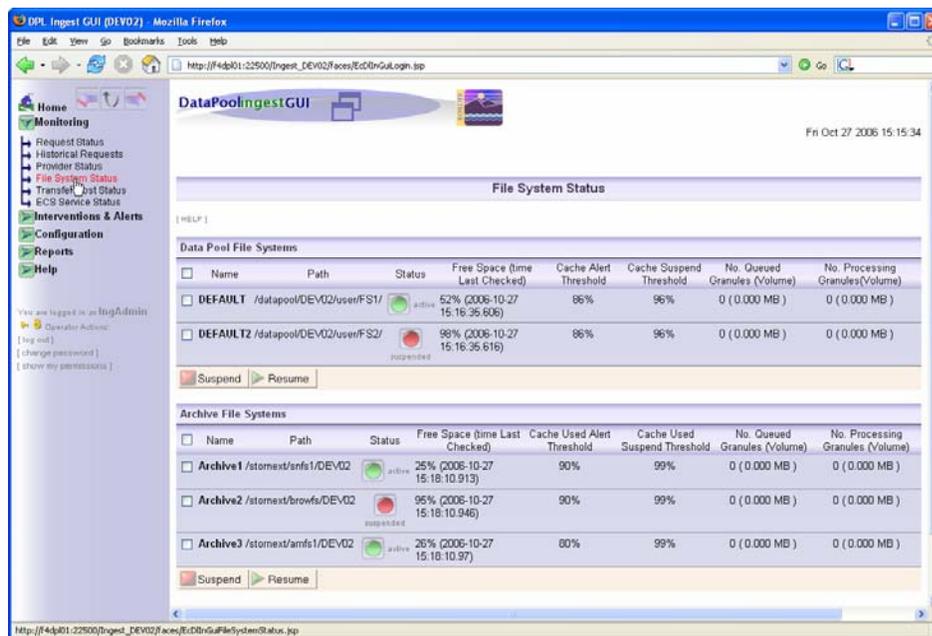
The **File System Status** page displays the following information on the Data Pool Archive File Systems and Data Pool File Systems:

- Name(s) and directory paths for **Archive** and **Data Pool File Systems**.
- Provides the statuses of the Archive and Data Pool File Systems (i.e. **Active**, **Suspended by Operator** or **Suspended by Server**). This is the only changeable field on this page. From this page Archive and Data Pool File Systems can be **Resumed** or **Suspended**.

- Provides File System space threshold metrics.

16.3.5.1 Viewing File System Status

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **File System Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **File System Status** page is displayed with the following fields.for **Data Pool** and **Archive File Systems**.



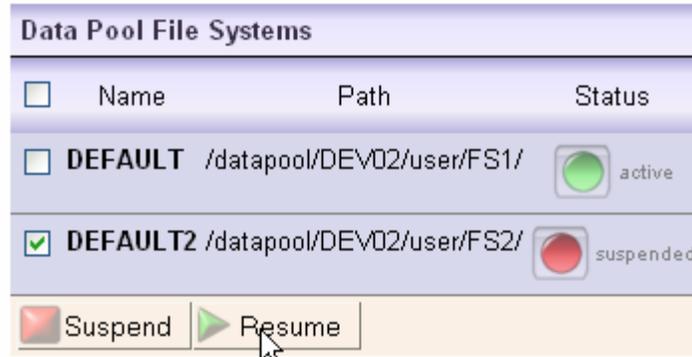
- **Name.**
 - Unique name assigned to the file system.
- **Status.**
 - Whether the file system is active, suspended by operator, or suspended by server.
- **Free Space.**
 - Space (GB) remaining on the file system.
- **Used Space.**
 - Percentage of used space and the time this information was gathered.

- **Cache Used Alert Threshold.**
 - The percentage of used space in the cache at which point an alert would be raised. For example, if the threshold was set to 80%, an alert would be raised as soon as more than 80% of the cache was available.
 - **Cache Used Suspend Threshold** (Archive File System only).
 - The percentage of used space in the cache at which point the Archive File System would be suspended. For example, if the threshold was set to 90%, the Archive File System would be suspended as soon as more than 90% of the cache was available.
 - **Queued Granules.**
 - Total granules waiting for activation set to ingest on the file system and the sum of the size (MB) of those granules.
 - **Granules Processing.**
 - Total granules active set to ingest on the file system and the sum of the size (MB) of those granules.
-

Each of these archives (Data Pool File System and Archive File System) can also be suspended or resumed from the File System Status page. Suspending a File System will prevent the occurrence of any activity on the selected File System. Conversely, resuming a File System will allow activity on a File System to resume.

16.3.5.2 Suspend or Resume File Systems

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **File System Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **File System Status** page is displayed.
- 3 Click on the box next to the desired Data Pool File System or Archive File System.
 - A checkmark is displayed in the box.
 - Multiple selections may be made.
- 4 Select either the **Suspend** or **Resume** button located at the bottom of the page.



- You will be prompted for confirmation.
- The page will reload with the status of the selected archives changed.
- The application will not allow the same action to be taken twice on an Archive File System. For example, an already active status can not be resumed. However, an Archive File system that was suspended by the server may be manually suspended by the operator.

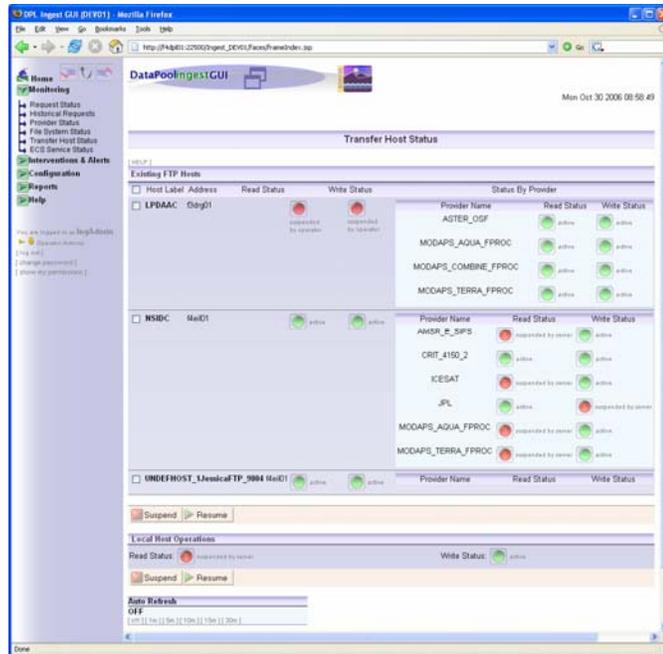
16.3.6 Transfer Host Status

The Transfer Host Status page shows the status of each configured FTP, SCP and Local transfer host. These hosts can be suspended or resumed manually, or by the Data Pool Ingest service

When an operator suspends a host, the Data Pool Ingest Service will complete any ongoing transfers, polling cycles, or notifications with that host, but not start any new ones. When an operator resumes a host, this will resume all traffic with that host. This includes polling for any previously suspended polling locations, that is, resuming a host will resume all polling locations on that host that may have been suspended.

16.3.6.1 Viewing Transfer Host Status

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **Transfer Host Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Transfer Host Status** page is displayed with the following fields for all **Existing FTP Hosts and Existing SCP Hosts**.



- **Host Label.**
 - Label assigned to the host on which the polling location is found.
- **Address.**
 - The IP address or the name and port number of the host.
- **Read Status.**
 - Whether or not read actions (such as polling location listings) are active, suspended by operator, or suspended by server on the host.
- **Write Status.**
 - Whether or not write actions (such as transferring notifications) are active or suspended on the host.
- **Status By Provider.**
 - Name of the provider.
 - Whether or not read actions are active or suspended for a specific provider.
 - Whether or not write actions are active or suspended for a specific provider.
- The **Transfer Host Status** page is displayed with the following fields for all **Local Host Operations**.
 - **Read Status.**

- Whether or not read actions (such as polling location listings) are active, suspended by operator, or suspended by server on the host.
 - **Write Status.**
 - Whether or not write actions (such as transferring notifications) are active or suspended on the host.
-

Each of the FTP hosts, as well as Local Host Operations, can be suspended or resumed. The status columns show a green (active) or red (suspended) icon and indicate which operation (read, write, or both) are suspended.

16.3.6.2 Suspend or Resume Transfer Host

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
 - 2 Click on the **Transfer Host Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Transfer Host Status** page is displayed.
 - 3 Click on the box next to the desired FTP or Local Host.
 - A checkmark is displayed in the box.
 - Multiple selections may be made.
 - 4 Select either the **Suspend** or **Resume** button located at the bottom of the page.
 - You will be prompted for a confirmation.
 - The page will reload with the status of the selected archives changed.
 - If the status is suspended, the GUI indicates whether it was suspended by an operator or automatically by the server.
 - If a PDR is sent through processing with a host configured in the PDR that does not show up on the GUI, a new host will automatically be added to the list of FTP Hosts with the name UNDEFHOST_[Provider]_[RequestID]. No provider status will be displayed until the operator manually configures a provider to use that host.
-

16.3.7 Viewing ECS Service Status

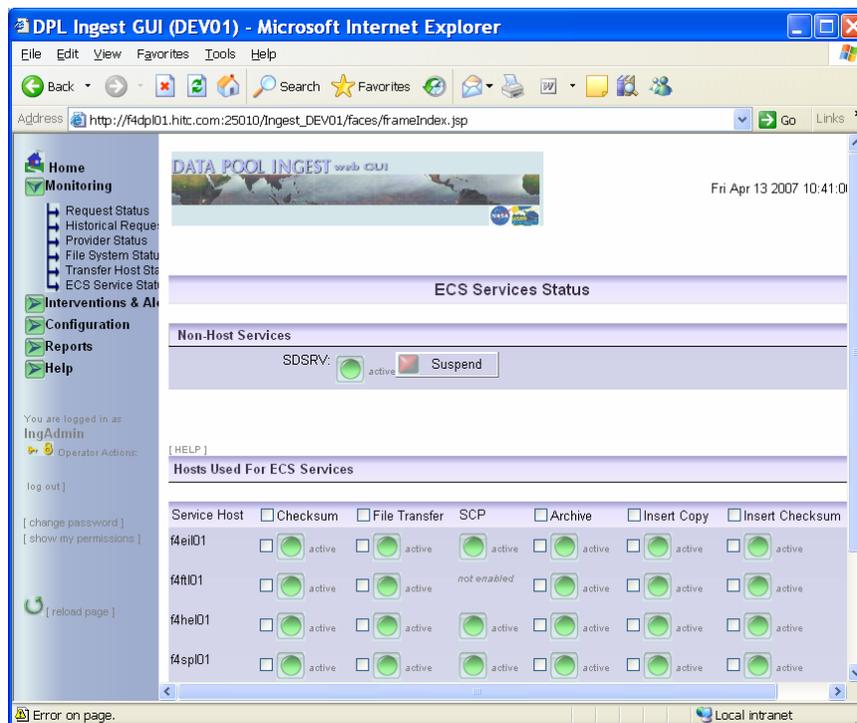
The ECS Service Status page shows the status of each of the various ECS Services. There are two types of ECS Services.

- Services that can run on any number of hosts that have been configured for that purpose. Examples are checksumming, archiving, and transfers.

- The service on each host is independent of the same type of service on the other hosts, in that its configuration and status is host specific. For example, checksumming on one host may be suspended but may be operating just fine on the other. As a result, the GUI shows the status information for that service separately for each host. These services are called *Host Specific Services*.
- The status columns show a green (active) or red (suspended) icon/
- Some services exist only once and run on the host on which they were installed. An example is the Science Data Server (SDSRV) Service.
 - The DPL Ingest GUI shows only one configuration and status entry for each of those services. These services are called *Non-Host Services*.

16.3.7.1 Viewing ECS Services Status

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **ECS Service Status** link in the navigation frame of the **DPL Ingest GUI**.



- The **ECS Service Status** page displays the status for all **Non-Host Services**.
 - **SDSRV**.
 - Status: **Active**, **Suspended by Server** or **Suspended by Operater**.

- The **Host Used For ECS Services** displays the following services that are tied to a specific host.
 - **Service Host.**
 - Label assigned to the host.
 - **Checksum.**
 - Status: **Active, Suspended by Server** or **Suspended by Operator.**
 - **File Transfer.**
 - Status: **Active, Suspended by Server** or **Suspended by Operator.**
 - **Archive.**
 - Status: **Active, Suspended by Server** or **Suspended by Operator.**
 - **Insert Copy.**
 - Status: **Active, Suspended by Server** or **Suspended by Operator.**
 - **Insert Checksum.**
 - Status: **Active, Suspended by Server** or **Suspended by Operator.**
-

Non-Host services are not tied to a particular host. These services can be suspended or resumed by simply clicking on the button next to the indicated service status.

Suspending a service on a host specific location, will let all service operations of that type that are currently executing on that host complete, but no new requests for that service will be dispatched to that host. For example, if the Checksum service is suspended for HOST_A, ongoing checksumming operations will complete, but then no more checksumming operations will be dispatched on that host (regardless of the type of checksum involved).

16.3.7.2 Suspend or Resume ECS Service(s)

- 1 Click on the **Monitoring** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Monitoring** menu is expanded.
- 2 Click on the **ECS Service Status** link in the navigation frame of the **DPL Ingest GUI**.
 - The **ECS Services** page is displayed.
- 3 In the **Non_Host Service**, click on the **Suspend** or **Resume** box next to the desired **Non_Host Service**.
 - The service will respond accordingly.
- 4 In the **Hosts Used For ECS Services**, click on the box next to the desired Service Host.
 - A checkmark is displayed in the box.

- Multiple selections may be made.
- 5 Select either the **Suspend** or **Resume** button located at the bottom of the page.
- The page will reload with the status of the selected Service Host changed.
-

16.4 Interventions & Alerts

The Interventions & Alerts link provides the operator access to **Ingest Requests** with open interventions. The operator may select any eligible request and either cancel the request(s) or resume the request(s). Additionally, the **Interventions & Alerts** link displays Data Pool System Alerts as they are raised in the DPL database. These warn the operator when the Ingest Service runs into a problem that it believes is associated with a resource or service it is using. After raising an alert, the Ingest Service will check in regular intervals whether the problem has been resolved and clear the alert if that is the case. An alert may also be cleared manually once the operator determined that the problem has been resolved. An operator might do that to avoid waiting until the next auto-retry of the resource. Table 16.4-1 provides an activity Checklist for Interventions & Alerts.

Table 16.4-1. Interventions & Alerts

Order	Role	Task	Section
1	Ingest Technician	Viewing Open Intervention Ingest Requests	(P) 16.4.1.1
2	Ingest Technician	Changing Request E-Mail Configuration	(P) 16.4.1.2
3	Ingest Technician	Changing Open Interventions Ingest Requests	(P) 16.4.1.3
4	Ingest Technician	Viewing Open Intervention Detail Page	(P) 16.4.1.4
5	Ingest Technician	Changing Suspended Granules Status	(P) 16.4.1.5
6	Ingest Technician	Viewing System Alerts	(P) 16.4.2.1
7	Ingest Technician	Changing E-Mail Recipient Configuration	(P) 16.4.2.2
8	Ingest Technician	Viewing Detailed System Alert Information	(P) 16.4.2.3
9	Ingest Technician	Clearing An Alert	(P) 16.4.2.4

16.4.1 Open Intervention

The **Interventions & Alerts** link provides the operator access to **Ingest Requests** with open interventions. The operator may select any eligible request and perform one of two actions:

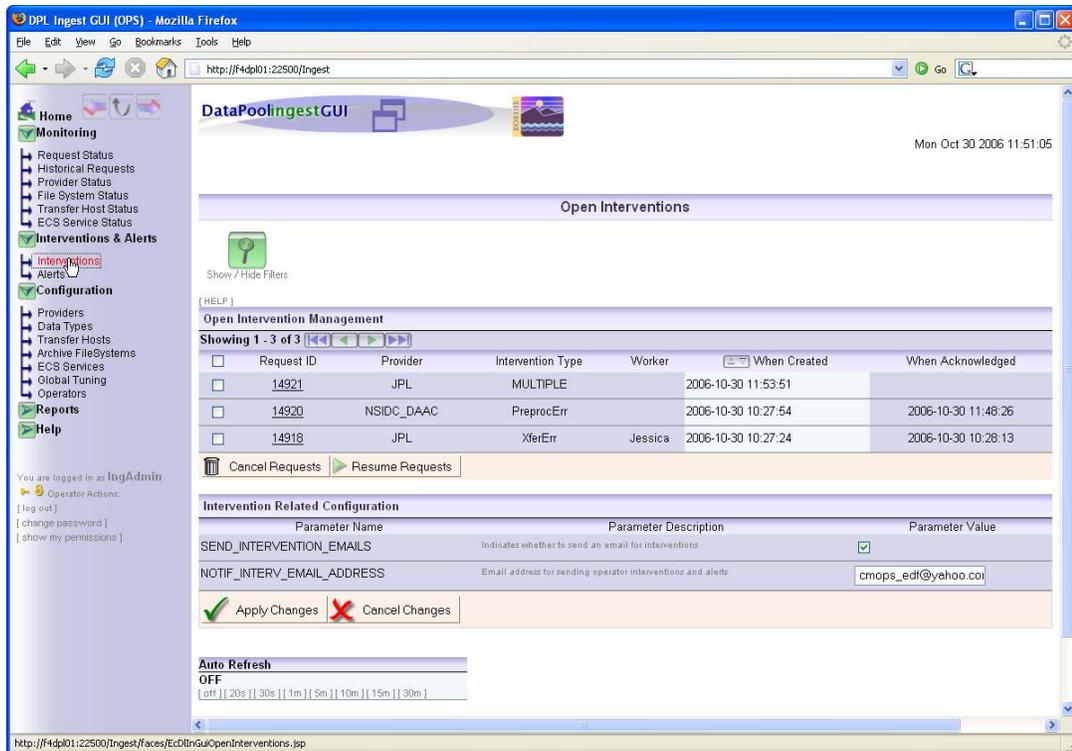
- Cancel the request(s) – This is an irreversible action, there is no way to ‘un-cancel’ a request. Processing for this ingest request will be terminated and any granules that

did not yet complete processing will be considered failed. A PAN will be sent to the provider that will report the failed granules and the failure reasons.

- Resume the request(s) – Used only if the selected requests are suspended or not cancelled. Resuming a request will resume processing for all granules that are currently suspended, restarting each from the last known good state. To disposition individual granules differently, the operator needs to access the intervention detail page.

16.4.1.1 Viewing Open Intervention Ingest Requests

- 1 Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
- 2 Click on the **Interventions** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Open Interventions** page is displayed and contains the following **Open Information Management** information for all interventions:



– Request ID.

- Unique Data Pool Ingest identifier assigned to the request in intervention.

- **Provider.**
 - Name of the provider from which the request was obtained.
 - **Intervention Type.**
 - Type of error encountered during processing of at least one of the request granules: (i.e. XferErr, ChecksumErr, PreProcErr, ArchErr, InsertErr, PubErr, InitErr, Multiple).
 - **Worker.**
 - Name of a worker assigned to address the intervention.
 - **When Created.**
 - Time the intervention was generated (which may have been after several retries after the error was first encountered).
 - **When Acknowledged.**
 - Time the intervention was first viewed by an operator.
 - The **Intervention Related Configuration** fields are as follows and can be changed:
 - **Parameter Name.**
 - **SEND_INTERVENTION_EMAIL.** Indicates whether to send an Email for Intervention.
 - **NOTIFY_INTERV_EMAIL_ADDRESS.** Email address for sending operator interventions and alerts.
 - **Parameter Description.**
 - Indicates whether to send an Email for Intervention.
 - Email address for sending operator interventions and alerts.
 - **Parameter Value.**
 - **SEND_INTERVENTION_EMAIL.** Contains a box to select this parameter.
 - **NOTIFY_INTERV_EMAIL_ADDRESS.** Contains a place to enter an Email address for sending operator interventions and alerts.
-

The **Interventions & Alerts** link provides the operator access to **Ingest Requests** with open interventions. The operator may change the e-mail recipient configuration from this page.

16.4.1.2 Changing E-Mail Recipient Configuration

- 1 Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
 - 2 Click on the **Interventions** link in the navigation frame of the **DPL Ingest GUI**.
 - Displays the **Open Interventions** page.
 - 3 In the **Intervention Related Configuration** section, enter an address next to the **NOTIFY_INTERV_EMAIL_ADDRESS** parameter field.
 - 4 Click on the box next to the **SEND_INTERVENTION_EMAIL** parameter field.
 - A checkmark is displayed in the box.
 - 5 Click on **Apply Changes** button displayed at the bottom of the **Intervention Related Configuration** section.
 - A confirmation window is displayed. To confirm, click on **OK**.
 - The page will reload with the new e-mail address.
-

When a request completes its processing, a review is made to determine the status of each granule. If at least one granule from a request is suspended because it ran into some error, the entire request is suspended and goes into Operator Intervention Status as Suspended.

From the **Open Intervention Ingest Requests** an operator can resume suspended requests regardless of the reason for a failure.

16.4.1.3 Changing Open Intervention Ingest Requests

- 1 Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
- 2 Click on the **Interventions** link in the navigation frame of the **DPL Ingest GUI**.
 - Displays the **Open Interventions** page.
- 3 In the **Open Intervention Management** section of the Open Intervention page, click on the box next to the desired **Request ID**.
 - A checkmark is displayed in the box.
 - Multiple selections may be made.
- 4 Select either the **Cancel Requests** or **Resume Requests** button located at the bottom of the page as appropriate.
 - Selecting **Cancel Requests** is an irreversible action. There is no way to ‘uncancel’ a request. Processing for this ingest request will be terminated and any

granules that did not yet complete processing will be considered failed. A PAN will be sent to the provider that will report the failed granules and the failure reasons.

- Selecting **Resume Requests** will resume a request if the selected requests are suspended or not cancelled. Resuming a request will resume processing for all granules that are currently suspended, restarting each from the last known good state. To disposition individual granules differently, the operator needs to access the intervention detail page.
 - The page will reload with the status of the selected Request ID changed.
-

The **Interventions Detail** page is the operator's link to taking action on specific granules that have been intervened. The Request information contained in the Open Intervention page is listed at the top of the page. A list of granule(s) along with detailed information is displayed at the bottom of the page.

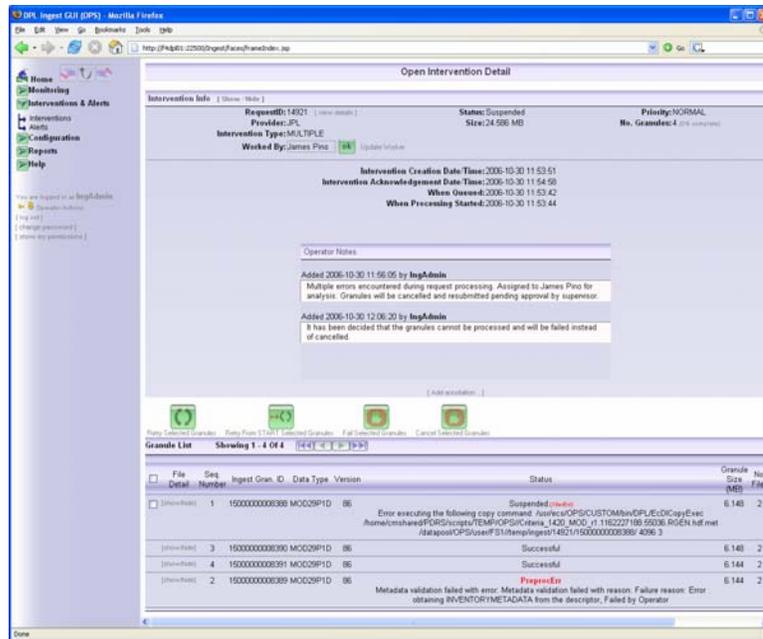
An Operator Intervention remains open as long as there are suspended granules. The operator can take one of several actions to 'close' the intervention (i.e., take the request out of suspension and allow the Ingest Request to be processed normally).

Once all granules issues have been resolved, the Operator Intervention status will automatically be removed. No explicit action on the part of the operator is required to do this.

If an Operator Intervention is not resolved after being viewed, it will remain in the intervention list and can be worked on at any time after navigating to a different page or even logging out of the session.

16.4.1.4 Viewing Open Intervention Detail Page

- 1** Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
- 2** Click on the **Interventions** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Open Interventions** page is displayed.
- 3** Click on the specific **Request ID**.
 - **The Open Intervention Detail** page is displayed.



- The following detailed **Intervention Info** is displayed:
 - **Request ID.**
 - Unique Data Pool Ingest identifier assigned to the request in intervention.
 - **Status.**
 - Provides status of a request (i.e. New, Validated, Active, Partially_Suspended, Suspended, Cancelling, Resuming, Successful, Cancelled, Partially_Cancelled, Failed, Partial_Failure or Terminated).
 - **Priority.**
 - The precedence which a request will have for activation and various processing actions (**XPRESS, VHIGH, HIGH, LOW** or **NORMAL**).
 - **Provider.**
 - Name of provider from which the request was originated.
 - **Size [MB].**
 - Sum of the size of all granules in the request.
 - **No. Granules.**
 - Total Granules included in the request.

- **Intervention Type.**
 - Type of error encountered during processing of at least one of the request granules: (i.e. XferErr, ChecksumErr, PreProcErr, ArchErr, InsertErr, PubErr, InitErr, Multiple).
- **Worker.**
 - Name of a worker assigned to address the intervention.
- **Intervention Creation Date/Time.**
 - Time the intervention was generated (which may have been after several retries after the error was first encountered).
- **Intervention Acknowledgement Date/Time.**
 - Time the intervention was first viewed by an operator.
- **When Queued.**
 - Time request was queued.
- **When Processing Started.**
 - Time when request processing started.
- **Operator Notes.**
 - Displays all notes along with the name of the operator who added the annotation.
- The **Granule List** contains the following information for all the granules associated with this request:
- **File Detail** contains the following detailed file information.
 - **Show/Hide.** A toggle button that displays the following Detail for a Granule:
 - **Path:** Directory identified in the PDR where the file can be found.
 - **Name.** Name of file.
 - **Type:** Type of file, as identified by the file extension (such as SCIENCE or METADATA).
 - **Status:** Last action performed on the file or the most recent, unresolved, error encountered while processing the file.
 - **Seq Number.**
 - The order in which a granule was found in the PDR.

- **Ingest Granule ID.**
 - Unique Identifier assigned to the granule.
- **Data Type.**
 - Data Type found in the PDR describing the granule.
- **Version.**
 - Version found in the PDR describing the granule.
- **Status.**
 - Current granule status (whether the granule is queued, its stage in processing, an error status, or its terminal state) and detailed error information.
- **Granule Size.**
 - Sum of the size of all files associated with the granule.
- **No. Files.**
 - Number of files found associated with the granule in the PDR.
- **Processing Start.**
 - Time the granule’s processing started.
- **Processing End.**
 - Time the granule’s processing ended.
- Any granule(s) encountering problems during any point in their processing are initially flagged as “suspended”. The following actions can be performed depending on the granule state:
 - **Fail Selected Granules.**
 - Suspended granules can be failed. This is a permanent action and cannot be reversed. The granule transitions into one of the ingest granule error states that indicates the type of error the granule encountered.
 - **Retry Selected Granules.**
 - The granule is retried from the last point of processing (For example: Checksum), at which point it was suspended. This is effective for most cases and requires the least amount of time to reprocess.
 - **Retry Selected Granules From Start.**
 - The granule is retried from the start of processing, no matter where in the processing chain it failed.

- **Cancel Selected Granules.**

- The granule is cancelled.
-

The **Interventions Detail** page is the operator's link to taking action on specific granules that have been intervened. The **Request** information contained in the Open Intervention page is listed at the top of the page. A list of granule(s) along with detailed information is displayed at the bottom of the page.

An Operator Intervention remains open as long as there are suspended granules. The operator can take one of several actions to 'close' the intervention (i.e., take the request out of suspension and allow the Ingest Request to be processed normally):

- The suspended granules can be failed. This is a permanent action and cannot be reversed. The granule transitions into one of the ingest granule error states that indicates the type of error the granule encountered.
- The suspended granules can be retried in one of two ways:
 - **Retry Selected Granules.**
 - The granule is retried from the last point of processing (For example: Checksum), at which point it was suspended. This is effective for most cases and requires the least amount of time to reprocess.
 - **Retry From Start.**
 - The granule is retried from the start of processing, no matter where in the processing chain it failed.

16.4.1.5 Changing Suspended Granules Status

- 1 Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
- 2 Click on the **Interventions** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Open Interventions** page is displayed.
- 3 Click on the specific **Request ID**.
 - **The Open Interventions Detail** page is displayed.
- 4 In **Granule List** section of the Open Intervention Detail page, click on the box next to the desired **Granule ID**.
 - A checkmark is displayed in the box.
 - Multiple selections may be made.

- 5 Any granule(s) encountering problems during any point in their processing are initially flagged as “suspended”. Click on one of the the appropriate button.
- **Fail Selected Granules.**
 - Suspended granules can be failed. This is a permanent action and cannot be reversed. The granule transitions into one of the ingest granule error states that indicates the type of error the granule encountered.
 - **Retry Selected Granules.**
 - This applies only to granules that are currently suspended. The granule is retried from the last point of processing (For example: Checksum), at which point it was suspended. This is effective for most cases and requires the least amount of time to reprocess.
 - **Retry Selected Granules From Start.**
 - This applies only to granules that are currently suspended. The granule is retried from the start of processing, no matter where in the processing chain it failed.
 - **Cancel Selected Granules.**
 - The granule is cancelled.
 - Once the suspended granule retry is successful, the system will automatically close the Operator Intervention.
-

16.4.2 Viewing System Alerts

The Ingest Operator is able to monitor Data Pool System Alerts as they are raised in the DPL database. These alerts warn the operator when the Ingest Service runs into a problem that it believes is associated with a resource or service it is using. Ingest Services checks in regular intervals whether the problem has been resolved and clear the alert if that is the case. An alert may also be cleared manually once the operator determines that the problem has been resolved.

16.4.2.1 Viewing System Alerts

1 If the **DPL Ingest GUI Home** page is displayed, and an alert has been generated, the General System Statistics section will contain a link to **System Alerts**. Clicking on this link will take you to the **Alerts** page.

- The Alerts page is displayed.

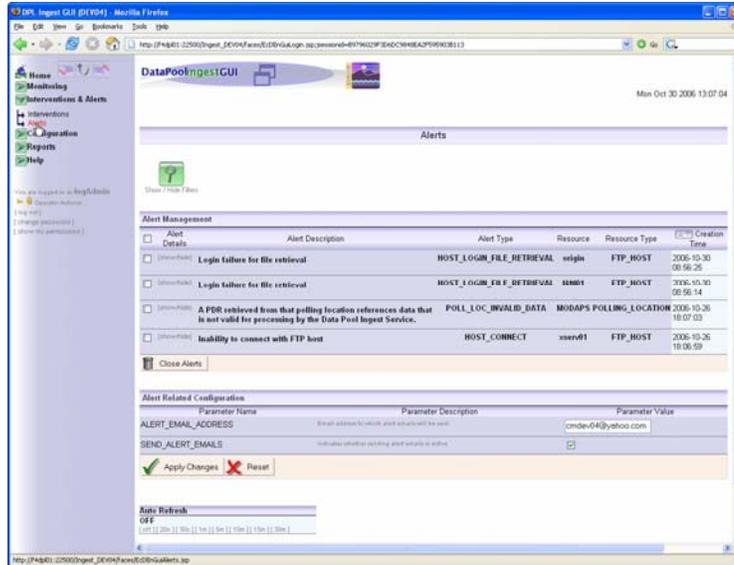
OR

2 Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.

- The **Interventions & Alerts** menu is expanded.

3 Click on the **Alerts** link in the navigation frame of the **DPL Ingest GUI**.

- The **Alerts** page containing the following **Alert Management** information for the Data Pool is displayed:



– **Alert Details.**

- Buttons for displaying detailed alert information.
- Selection of the **Show/Hide** button will display expanded detailed alert information to include **Symptom** and **Solutions** of the alert.

– **Alert Description.**

- Basic description of the error that generated the alert.

– **Alert Type.**

- Unique name for the type of error that was encountered.

– **Resource.**

- The name of the resource affected by the alert.

– **Resource Type.**

- The type of resource affected by the alert, such as SCO/FTP Host, Polling Location, or Archive.

– **Server Name.**

- .The name of the server affected by the alert.

– **Creation Time.**

- The time by the alert was generated.

- The **Alert Related Configuration** fields displayed as follows:

- **Parameter Name.**
 - **ALERT_EMAIL_ADDRESS.**
 - **SEND_ALERT_EMAIL**
- **Parameter Description.**
 - Email address to which alert emails will be sent.
 - Indicates whether sending alert emails is active.
- **Parameter Value.**
 - Contains a place to enter an Email address for sending alerts notification.
 - Contains a box to select this parameter.
 - Contains a place to enter an Email address for sending operator interventions and alerts.

In addition to being displayed on this page, alerts can also be sent as email to a specified address. Use the following procedure to set the email address and permit email notification.

16.4.4.2 Changing E-Mail Recipient Configuration

- 1 Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
- 2 Click on the **Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - Displays the **Alerts** page.
- 3 In the **Alert Related Configuration** section, enter an address in the **Parameter Value** field for the **ALERT_EMAIL_ADDRESS** parameter.

Alert Related Configuration		
Parameter Name	Parameter Description	Parameter Value
ALERT_EMAIL_ADDRESS	Email address to which alert emails will be sent	mdev14@raytheon.com
SEND_ALERT_EMAILS	Indicates whether sending alert emails is active	<input checked="" type="checkbox"/>

Apply Changes
 Reset

- 4 Click on the box in the **SEND_ALERTS_EMAIL** Parameter Value field parameter.
 - A checkmark is displayed in the box.
- 5 Click on **Apply Changes** button displayed at the bottom of the **Alert Related Configuration** section.
 - The page will reload with the new e-mail address.

The Ingest Operator is able to monitor Data Pool System Alerts as they are raised in the DPL database. Additional details can be viewed by using the Show/Hide button and will include **Symptoms** of the alert. If the **Resource Type** is an **archive** or **file system** the Alert Details will contain **Symptoms**, **Data Provider**, **Request Status** information. These alerts warn the operator when the Ingest Service runs into a problem that it believes is associated with a resource or service it is using. The Ingest Services check in regular intervals whether the problem has been resolved and clear the alert if that is the case. An alert may also be cleared manually once the operator determined that the problem has been resolved.

16.4.2.3 Viewing Detailed System Alert Information

- 1 Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
- 2 Click on the **Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Alerts** page is displayed.
- 3 In the **Alert Management** section of the screen, click on the **Show/Hide** button to display the following Detailed Alert information:

Alert Details	Alert Description	Alert Type	Resource	Resource Type	Creation Time
<input type="checkbox"/> [show/hide]	The file transfer time exceeded its maximum allowed time as per configuration for that host on file transfer attempts for too many different files consecutively Symptom : Failure to list files for directory : /usr/ecs/DPS/CUSTOM/data/dplIngest/terra/forward/PDR with filter : *.PDR	HOST_TOO_MANY_TIMEOUT	LPDAAC	FTP_HOST	2006-10-30 09:49:20
<input type="checkbox"/> [show/hide]	Login failure for file retrieval	HOST_LOGIN_FILE_RETRIEVAL	LPDAAC	FTP_HOST	2006-10-30

- **Symptom**
 - Information about the specific action or item that caused the alert.
- If the Resource Type is an Archive or File System, the following alert details are displayed:

Alert Details	Alert Description	Alert Type	Resource	Resource Type	Creation Time
<input type="checkbox"/> [show/hide]	The error response indicates that the file system is down Symptom : Error DPL file system: /datapool/DEV01/user/FS3/ is down. Impact : Data Providers affected : None Number of PDRs : 0 Number of granules : 0 Total amount of data queued : 0.000 MB Total amount of data processing : 0.000 MB	DPL_FS_DOWN	FS3	DPL_FILE_SYSTEM	2006-10-27 08:44:21

- **Data Providers affected:**
 - List of providers that will be suspended as a result of the alert.

- **Number of PDRs.**
 - Total number of PDRs “stuck” in a particular state as a result of the alert.
 - **Number of granules.**
 - Total number of granules “stuck” as a result of the alert.
 - **Total amount of data queued.**
 - Sum of the size of the files in the granules that require the file system and will not be activated while it is suspended.
 - **Total amount of data processing.**
 - Sum of the size of the files in the granules that require the file system, but will get “stuck” in an active state as a result of the alert.
-

An alert may be cleared manually once the operator determines that the problem has been resolved. In response, the Ingest Service will resume using that resource and all the associated resources. The Ingest Service may find that it is still unable to use the resource (e.g., still cannot connect), in which case the alert will be raised again.

It is not necessary for an operator to clear an alert manually. Normally, the Ingest Service will test in regular intervals whether the error situation has been resolved and if so, clear the alert automatically. However, it may be appropriate to clear an alert manually, for example, if the operator took some manual steps to resolve the reported problem (such as restarting an ECS Host) and then wants the Ingest Service to try using that resource immediately.

16.4.2.4 Clearing an Alert

- 1** Click on the **Interventions & Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Interventions & Alerts** menu is expanded.
- 2** Click on the **Alerts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Alerts** page is displayed.
- 3** In **Alert Management** section of the **Alerts** page, click on the box next to the Alert(s) to be cleared.
 - A checkmark is displayed in the box.
 - Multiple selections may be made.
- 4** After selecting all alerts to be cleared, click on the **Close Alert** button.
 - A confirmation prompt is displayed. Select **OK** or **Cancel**.

- If you selected **OK**, the page will be reloaded with the selected alerts no longer appearing on the list.

16.5 DPL Ingest Configuration

This section contains descriptions of how to modify DPL Ingest configuration values.

The DPL Ingest Configuration pages provide the full-capability operator with a means of modifying (if necessary) the values assigned to the following types of DPL Ingest configuration parameters:

- Providers.
- Data Types.
- Transfer Hosts.
- File Systems
- ECS Services
- Global Tuning
- Volume Groups.
- Operators

Table 16.5-1 provides an activity Checklist for Modifying DPL Ingest Configuration.

Table 16.5-1. Modifying DPL Ingest Configuration (1 of 2)

Order	Role	Task	Section
1	Ingest Technician	Edit a Data Provider	(P) 16.5.1.1
2	Ingest Technician	Edit a Polling Location	(P) 16.5.1.2
3	Ingest Technician	Remove a Data Provider	(P) 16.5.1.3
4	Ingest Technician	Remove a Polling Location	(P) 16.5.1.4
5	Ingest Technician	Add a Data Provider	(P) 16.5.1.5
6	Ingest Technician	Changing Default Retention Times for Data Types	(P) 16.5.2.1
7	Ingest Technician	Changing Data Types Attributes	(P) 16.5.2.2
8	Ingest Technician	Remove FTP or SCPTransfer Host	(P) 16.5.3.1
9	Ingest Technician	Add FTP or SCP Transfer Host	(P) 16.5.3.2
10	Ingest Technician	Edit FTP or SCP Transfer Host	(P) 16.5.3.3
11	Ingest Technician	Edit Local and Default Host Configuration	(P) 16.5.3.4
12	Ingest Technician	Change File System Threshold	(P) 16.5.4.1
13	Ingest Technician	Remove Checksum Type	(P) 16.5.5.1

Table 16.5-1. Modifying DPL Ingest Configuration (2 of 2)

Order	Role	Task	Section
14	Ingest Technician	Add Checksum Type	(P) 16.5.5.2
15	Ingest Technician	Update Host For SDSVR Operations	(P) 16.5.5.3
16	Ingest Technician	Add an ECS Service Host Type	(P) 16.5.5.4
17	Ingest Technician	Edit an ECS Service Host Type	(P) 16.5.5.5
18	Ingest Technician	Change Global Tuning Parameters	(P) 16.5.6.1
19	Ingest Technician	Add a Volume Group For a New Versioned Data Type	(P) 16.5.7.1
20	Ingest Technician	Add a Volume Group For an Existing Versioned Data Type	(P) 16.5.7.2
21	Ingest Technician	Modify Volume Groups	(P) 16.5.7.3
22	Ingest Technician	Modify Operator Permission Settings	(P) 16.5.8.1
23	Ingest Technician	Add Operator Permissions	(P) 16.5.8.2
24	Ingest Technician	Remove Operator Permission Settings	(P) 16.5.8.3

16.5.1 Data Provider Configuration

The Provider Configuration page lists all of the Data Providers for the DPL Ingest System along with the following selected attributes for each Provider.

- **Checksum Mandatory.**
- **% Files To Checksun.**
- **Default Priority.**
- **Notification Method.**

By clicking on the Provider name, the operator can view/change configuration parameters for a data provider. Table 16.5.2 contains a list of changeable Data Provider parameters and their descriptions.

Table 16.5-2. Data Provider Configuration Parameter Descriptions (1 of 2)

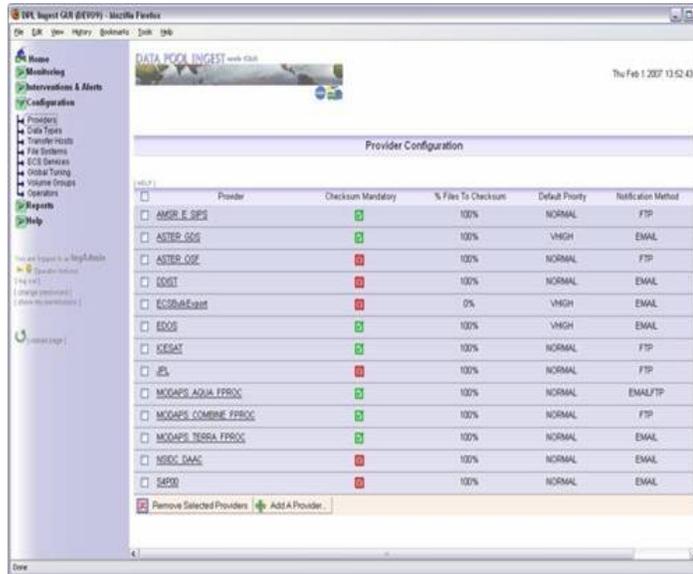
Field Name	Entry	Description
Name	Required	Name for an external data provider
EDOS	Optional	Indicates whether this provider is an EDOS Provider
Checksum Mandatory	Optional	Indicates whether or not checksum will be performed on 100% of requests for this provider
% of Checksum Files	Required	Percent of requests to checksum for this provider
Default Priority	Required	Default priority for ingest requests for this provider (VHIGH (235), HIGH (225), LOW (60), NORMAL (150), XPRESS (255))

Table 16.5-2. Data Provider Configuration Parameter Descriptions (2 of 2)

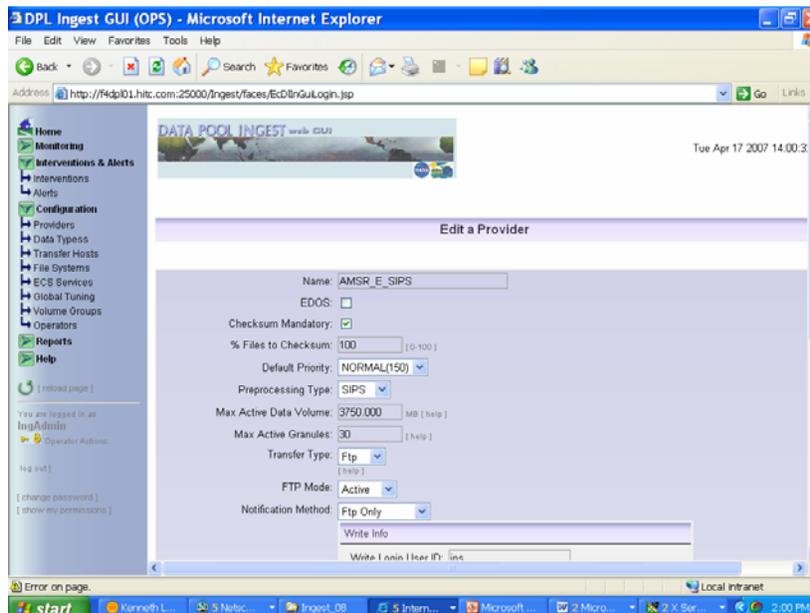
Field Name	Entry	Description
Preprocessing Type	Required	Type of ingest processing to occur (such as SIPS or DDIST)
Max Active Data Volume	Required	Maximum data volume that can be concurrently processed
Max Active Granules	Required	Maximum number of granules that that can be concurrently processed
Transfer Type	Required	Method used for obtaining files from the external data provider (Local or FTP)
FTP Mode	Required For FTP only	Whether the FTP host will be considered active or passive.
SSH Type/Cipher	Required For SCP only	The cryptographic cipher this host will use when connecting. This item does not appear on the form to add a FTP host.
Notification Method	Required	Method for providing notifications to the provider (email, SCP, FTP, or combination of SCP/FTP and email)
Email Address	Required if email is the notification method	Address to which to send notifications after a granule on the provider completes ingest
Write Login User ID	Required if FTP or SCP is the notification method	User Id for getting write permissions on the provider's notification directory
FTP Write Info: Password	Required if FTP is the notification method	Checkbox displays a password and verify password field that are used to provide access to the provider's notification directory
Path	Required if FTP is the notification method	Directory where notifications will be sent on the provider
Choose Host	Required	Host where the notification path can be found (list is generated from hosts configured on the Transfer Host Configuration page)
Read Login Id	Required if a polling location uses FTP	User Id for getting read permissions on the provider's polling directories
FTP Read Info: Edit Password	Required if a polling location uses FTP	Checkbox displays a password and verify password field that are used to provide access to the provider's polling directories

16.5.1.1 Edit a Data Provider

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Providers** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Provider Configuration** page is displayed.



- 3 Click on the provider to be modified.
 - The **Edit a Provider** page is displayed.



- 4 Select the fields to be modified.
 - Certain fields are required and must have an input entered or selected.
 - 5 When ready to accept changes, select the **Apply Changes** button.
 - A Confirmation prompt is displayed. Select **OK**
 - Changes are accepted.
-

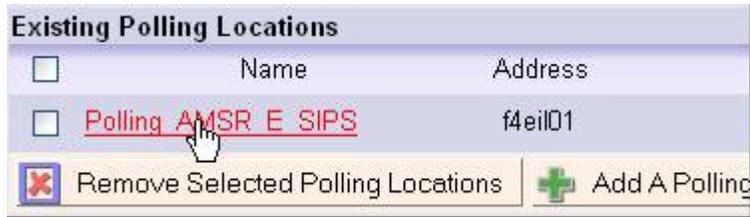
Table 16.5.1-2 describes the changeable Polling Location fields. The following procedure contains the steps required to Edit a polling location.

Table 16.5-3. Polling Location Detail Page Field Descriptions

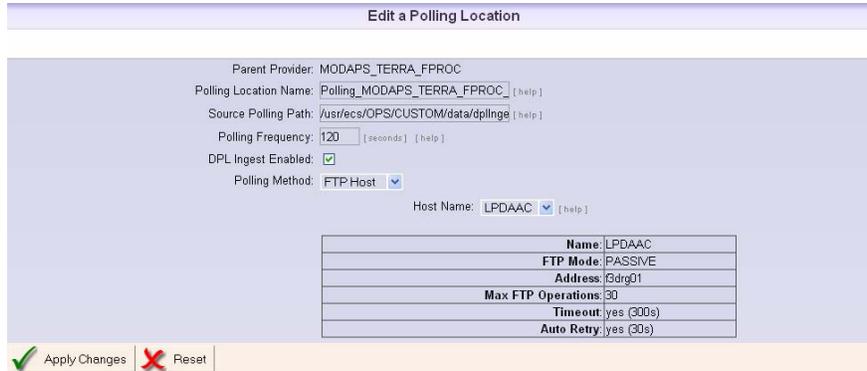
Field Name	Entry	Description
Parent Provider	Not Editable	Name of the provider with which this polling location is associated
Polling Location Name	Required	Name used to uniquely identify the polling location
Source Polling Path	Required	Source Directory where the PDRs are located.
Polling Frequency	Required	Number of seconds the ingest service will wait between scanning the polling path for new PDRs (must be greater than 120 seconds)
DPL Ingest Enabled	Optional	Indicates whether this polling location is enabled for ingest via DPL
Polling Method	Required	Transfer method used for obtaining PDRs from the polling location (Local Disk. Or Ftp Host)
Host Name	Required if using a remote transfer method	Host where the polling directory is found

16.5.1.2 Edit a Polling Location

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Providers** link in the navigation frame of the **DPL Ingest GUI**.
 - The Provider Configuration page is displayed.
- 3 Scroll down to the bottom of the information panel.
 - The Existing Polling Locations are displayed.



- 4 Select the polling location name.
 - The Edit a Polling Location page is displayed.



- 5 Enter the desired changes.
- 6 Select the **Apply Changes** button.
 - A Confirmation prompt is displayed. Select **OK**
 - Changes are accepted.

16.5.1.3 Remove a Data Provider

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Providers** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Provider Configuration** page is displayed.
- 3 Click on the box next to the provider to be removed.
 - A checkmark is placed in the box.
 - Multiple selections are accepted.
- 4 At the bottom of the screen, select the **Remove Selected Providers** button.
- 5 A Confirmation screen is displayed. Select **OK**
 - Changes are accepted.

16.5.1.4 Remove a Polling Location

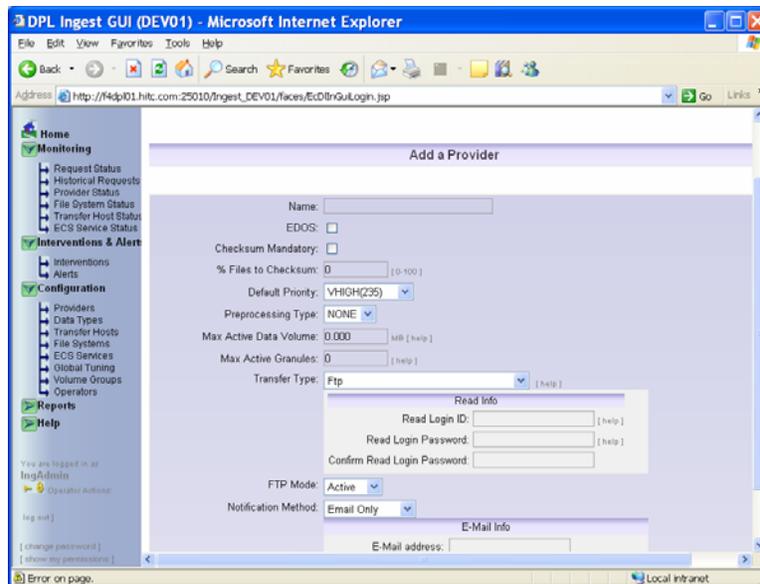
- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
 - 2 Click on the **Providers** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Provider Configuration** page is displayed.
 - 3 Click on the **Provider** name.
 - **The Edit a Provider** Configuration page is displayed.
 - 4 Scroll down to the bottom of the information panel.
 - The **Existing Polling Locations** are displayed.
 - 5 Click on the box next to the polling to be removed.
 - A checkmark is placed in the box.
 - Multiple selections are accepted.
 - 6 At the bottom of the screen, select the **Remove Selected Polling Locations** button.
 - 7 A Confirmation screen is displayed. Select **OK**
 - Changes are accepted
-

16.5.1.5 Add a Data Provider

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The Configuration menu is expanded.
- 2 Click on the **Providers** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Provider Configuration** page is displayed.
- 3 On the **Provider Configuration** page, click on the **Add Provider** button at the bottom of the existing provider list.



- The **Add a Provider** page is displayed.



- 4 In the **Name** field enter a unique name for this provider.
 - Already existing names will be rejected by the database.
- 5 If applicable, check the box for “EDOS”.
 - If you select **EDOS**, **Preprocessing Type** will become **NONE**, **Transfer Type** will become **FTP** and **Notification** method will become **FTP Only**. These options cannot be changed.
- 6 If applicable, check the box for **Checksum Mandatory**;
 - If this box is checked, the DPL Ingest System will perform **100% checksum** regardless of the “% of Checksum Files” entered.
 - If you would like to checksum at less than 100%, disable checksum mandatory and enter the desired percent.
- 7 Select one of the following default priorities from the **Default Priority** pull-down window.
 - **LOW (60), NORMAL (150), HIGH (220), VHIGH (235), XPRESS (255).**
- 8 Select **Preprocessing Type** from the pull-down window.
 - **NONE, SIPS, DDIST**
- 9 Enter the maximum active data volume in the **Max Active Data Volume** field that can be processed at the same time on this provider.
 - The Ingest Service uses the maximum data volume and number of granules to limit the amount of the work which it will activate for a provider.

- Ingest will activate a new granule for an active ingest request when the amount of work for the provider that is currently in progress reaches one of the configured limits.

- New granules will be activated as granules complete and slots are opened up.

10 Enter the maximum number of granules in the **Max Active Granules** field that can be processed at the same time.

- New granules will be activated as granules complete and slots are opened up.
- Note: There are overall limits on the total amount of work in progress, across all providers, which may further limit how much work is activated.

11 Select the **Transfer Type** from the pull-down window.

a. If data transfer will be **FTP**, the operator must enter “FTP Read Info” at the bottom of the page.

- If this information is not filled out, when a polling location is added, the operator will not be able to select ftp as the transfer method.

12 Select **FTP Mode** (FTP Host only) from the pull-down window.

- **Active** or **Passive**.

13 Select the **Notification Method** from the pull-down window. Depending on your selection, the appropriate boxes will appear below the drop-down list:

a. **Email Only:** enter a valid Email address in the **E-Mail Info** field.

- b For **FTP only** or **SCP only**: enter the login information (**Write Login User ID**, **Write Login Password**, **Write Login Password Confirmation**), the directory **Path** and the **Choose Host** information.

- c Pick an existing, pre-configured **FTP host** as defined in the FTP Host Configuration page from the pull-down window:

- When you select the desired host, an information box is displayed, showing the host's login information, IP address, and other details:

Name:	NSIDC
FTP Mode:	ACTIVE
Address:	f4ei01
Max FTP Operations:	30
Timeout:	yes (300s)
Auto Retry:	yes (30s)

- d. If you select **Local**: Enter the local disk directory.
- e. For **Email and FTP**, or **Email and SCP**: enter the E-Mail information and write login information (**Write Login User ID**, **Write Login Password** and **Write Login Password Confirmation**), the directory **Path** and the **Choose Host** information..

14 Add this provider by clicking the **Add This Provider** button at the bottom of the screen.



Note: Polling locations can not be added until the provider has been added.

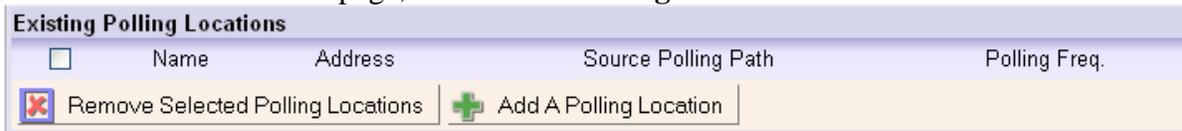
- A confirmation screen is displayed. Select **OK**

- Provider is added.
- The Provider Configuration page is displayed.

15 Select the new provider just entered.

- **Edit a Provider** detail page is displayed.

16 At the bottom of the page, click **Add a Polling Location** button.



Note: The provider will not become active until at least one polling location is added.

- **Add a Polling Location** page is displayed.

17 Enter a unique name for the location.

- Names that already exist for this polling location will be rejected by the database.

18 Enter the **Source Polling Path**.

- This is the pathname from which to transfer the PDR files.

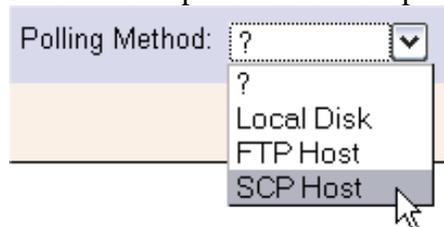
19 Enter the polling frequency in seconds.

- The minimum value is 120 seconds.

20 Select whether or not this Polling Location is DPL Ingest Enabled.

- A checkmark is placed in the box.

20 Choose the Polling Method from the pull-down list of pre-configured hosts.



- Selecting **FTP Host** or **SCP Host** will cause an information box to be displayed, showing the host's login information, IP address, and other details.

Polling Method:

Host Name: [help]

Name:	NSIDC
FTP Mode:	ACTIVE
Address:	f4ei101
Max FTP Operations:	30
Timeout:	yes (300s)
Auto Retry:	yes (30s)

- Selecting **Local Disk** will not require additional (the directory path is already provided at the top of the page).

21 Click the **Add Polling Location** button at the bottom of the screen.

- A polling location is added.

16.5.2 Data Type Configuration

Any DataPool (DPL) collection is eligible for DPL ingest. DPL collections are added via the **DataPool Maintenance GUI**. Default assumptions are given for each Data Type collection depending on whether or not it is an ECS data type. The default assumptions are:

- ECS collections are archived but not inserted into the public Data Pool upon ingest. The operator can change this so all granules are inserted into the public Data Pool as soon as they complete normal ingest processing for each data type. This would take the place of an unqualified subscription for Data Pool insert and is more efficient.
- The operator can configure a default public and hidden retention time for all datatypes. Adding a public retention period will guarantee that they remain in the Data Pool for ordering purposes after ingest for the specified time. Otherwise, they will be removed immediately after archiving completes. The operator can override the default retention for individual collections.

The Configuration Data Type link allows the DAAC users to change the default assumptions. Table 16.5-4 provides descriptions of the fields found on this page.

Table 16.5-4. Data Type Configuration Page Field Descriptions (1 of 2)

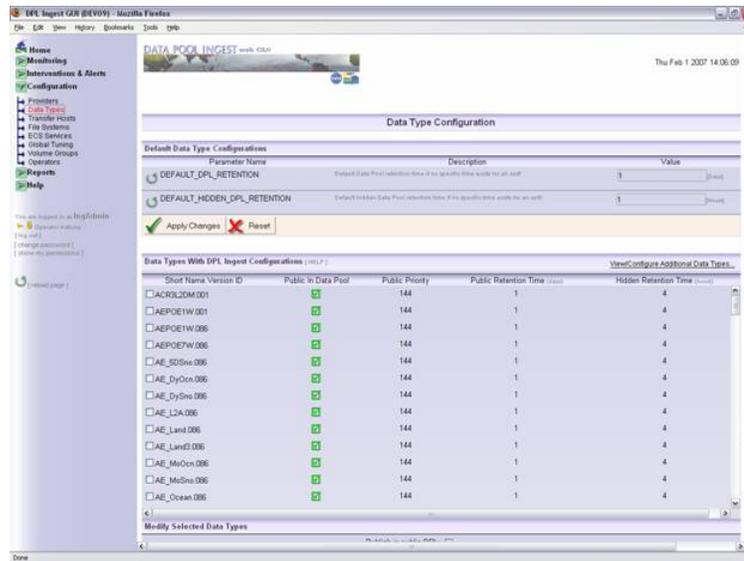
Field Name	Entry	Description
Short Name	Not Editable	Data Type identifier
Version ID	Not Editable	Version number of the data type
Public In Data Pool	Optional	Indicates whether or not to “publish data” for this data type in the public Data Pool following successful Ingest.

Table 16.5-4. Data Type Configuration Page Field Descriptions (2 of 2)

Field Name	Entry	Description
Public Retention Time	Required if set for publication	Days to keep granules of this data type in the public data pool. If no value is entered, a default value will be used.
Public Priority	Required if set for publication	The precedence which a data type will have for publication in the data pool. If no value is entered, a default value will be used.
Hidden Retention Time	Required	Days to keep granules of this data type in the hidden data pool

16.5.2.1 Changing Default Retention Times for Data Types

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Data Type** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Data Type Configuration** page is displayed.

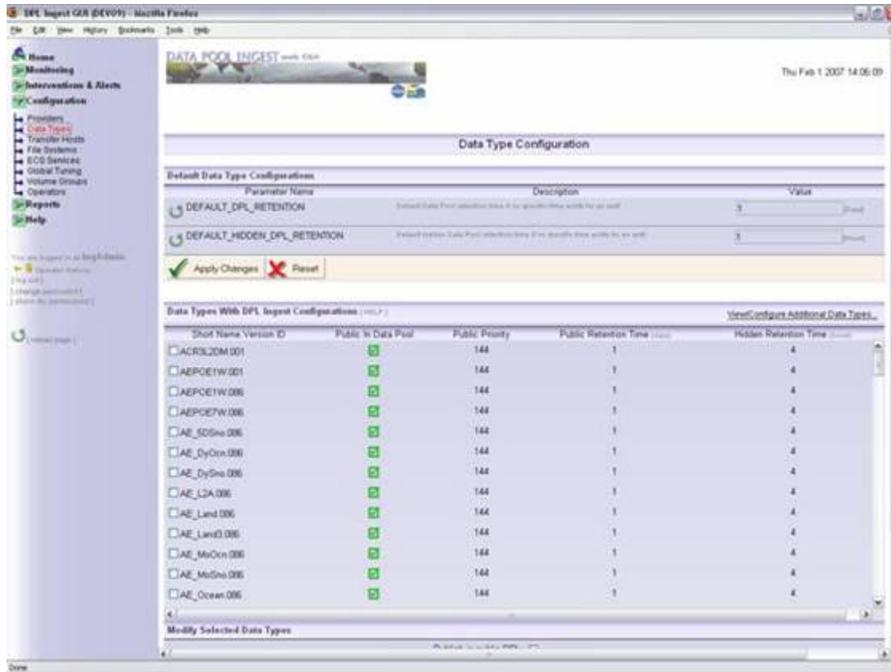


- Displays **Default Data Type Configurations** (top of page).
- Displays **Data Types With DPL Ingest Configurations** whose configurations have been altered to support non-default options (middle of page).

- 3 The **DEFAULT_DPL_RETENTION Value** for a public retention time can be changed. Adding a public retention period will guarantee that data types will remain in the Data Pool for ordering purposes after ingest for the specified time. Otherwise, they will be removed immediately after archiving completes. Click in the **Value** field and enter the desired number of **Days**.
- 4 The **DEFAULT_HIDDEN_DPL_RETENTION Value** for a hidden retention time can be changed. Adding a hidden retention period will guarantee that data types will remain in the Data Pool for ordering purposes after ingest for the specified time. Otherwise, they will be removed immediately after archiving completes. Click in the **Value** field and enter the desired number of **Hours**.
- 5 Click on the **Apply Changes** button.
 - A Confirmation prompt is displayed. Select **OK**
 - Retention default values will be change.

16.5.2.2 Changing Data Types Attributes

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Data Type** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Data Type Configuration** page is displayed.



- Displays **Default Data Type Configurations** (top of page).

- Displays **Data Types With DPL Ingest Configurations** whose configurations have been altered to support non-default options (middle of page).
 - If the **Data Type** you want to change is not listed, select the **View/Configure Additional Data Types** link. This will display the list of **Data Types without DPL Ingest Configurations**.
- 3 Select each **Data Type** by clicking on the box next to the **Short Name Version ID**.
 - A checkmark will appear in the box.
 - 4 Scroll to the bottom of the screen until the **Modify Selected Data Types** or the **Configure selected Data Types** section appears.
 - 5 **Make the desired changes for the following parameters.**
 - **Publish in Public DPL.** Indicates whether or not to “publish data” for this data type in the public Data Pool following successful Ingest. Place a checkmark to select this option by clicking on the box.
 - **Public Retention Time.** Determines number of days to keep granules of this data type in the public data pool. Enter a value in the box next to the field name.
 - **Public Priority.** The precedence which a data type will have for publication in the data pool. Enter a value in the box next to the field name.
 - **Hidden Retention Time.** Days to keep granules of this data type in the hidden data pool. Enter a value in the box next to the field name.
 - 6 Click on the **Apply Changes** button.
 - A Confirmation prompt is displayed. Select **OK**.
 - Parameters for the selected **Data Types** are changed to the new settings.
-

16.5.3 Transfer Host Configuration

The **Transfer Host** link allows the operator to manage SCP and FTP hosts for general use in the Data Pool Ingest system. These hosts can be referenced when defining polling locations or notification hosts. Table 16.5-5 provides a list of the parameters.

In addition, if the host ip-addresses are referenced within PDRs as the source locations for granule files, DPL Ingest will automatically refer to their definition to obtain time out and retry parameters.

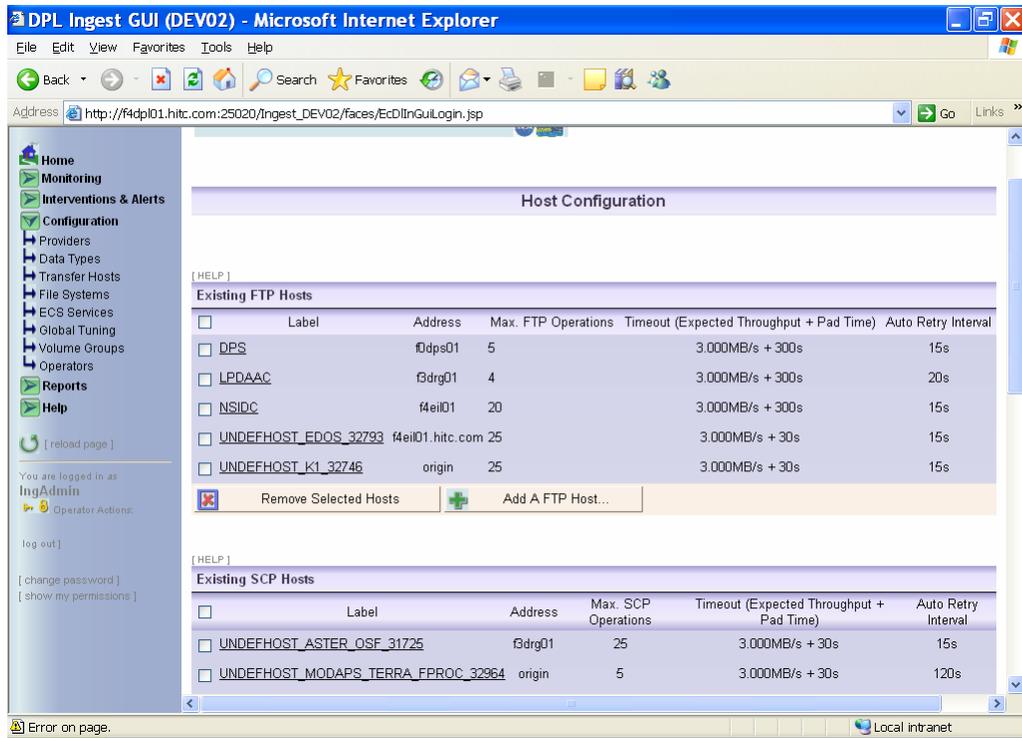
In cases where a host has not been explicitly defined, the ingest operator will be able to define default time-out and retry parameters for SCP or FTP hosts. If a request is sent through processing with a host configured in the PDR that does not show up on the GUI, a new host will automatically be added to the list of SCP/FTP Hosts with the name UNDEFHOST_[Provider]_[RequestID]. Default host configuration parameters will be applied to the new host until the operator chooses to modify them.

Table 16.5-5. SCP/FTP Host Page Field Descriptions

Field Name	Entry	Description
Label	Required	A unique identifier for the host
Address	Required	An IP address or the canonical name and port (if needed) of an FTP host
Max Operations	Required	Total number of operations that can occur simultaneously on the host. If this field is left empty a default value will be supplied.
Timeout	Optional	Whether or not to allow a host to timeout if operations of a particular size take too much time to complete
Expected Throughput	Required if timeout is flagged	Expected amount of MBs of a granule to be processed during the configured pad time. If this field is left empty a default value will be supplied.
Pad Time	Required if timeout is flagged	Time an configured chunk of data should be processed before raising a timeout alert. If this field is left empty a default value will be supplied.
Auto Retry	Optional	Whether or not to retry an action that failed or generated an error on the host
Retry Interval	Required if Auto Retry is flagged	Time in between retries on the host. If this field is left empty a default value will be supplied.

16.5.3.1 Remove FTP or SCP Transfer Hosts

- 1** Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2** Click on the **Transfer Hosts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Host Configuration** page is displayed.



- Displays **Existing FTP Hosts (first section)**.
- Displays **Existing SCP Hosts (second section)**.
- Displays **Default FTP Host Configurations (third section)**.
- Displays **Default SCP Host Configurations (forth section)**.
- Displays **Local Host Configurations (fifth section)**.

3 Click the box next to the host name of the existing FTP or SCP Host(s) to be removed (multiple selections are accepted).

- A checkmark is placed in the box.

5 Click on the **Remove Selected Hosts** button.

- A Confirmation prompt is displayed. Select **OK**
- The selected hosts are removed.

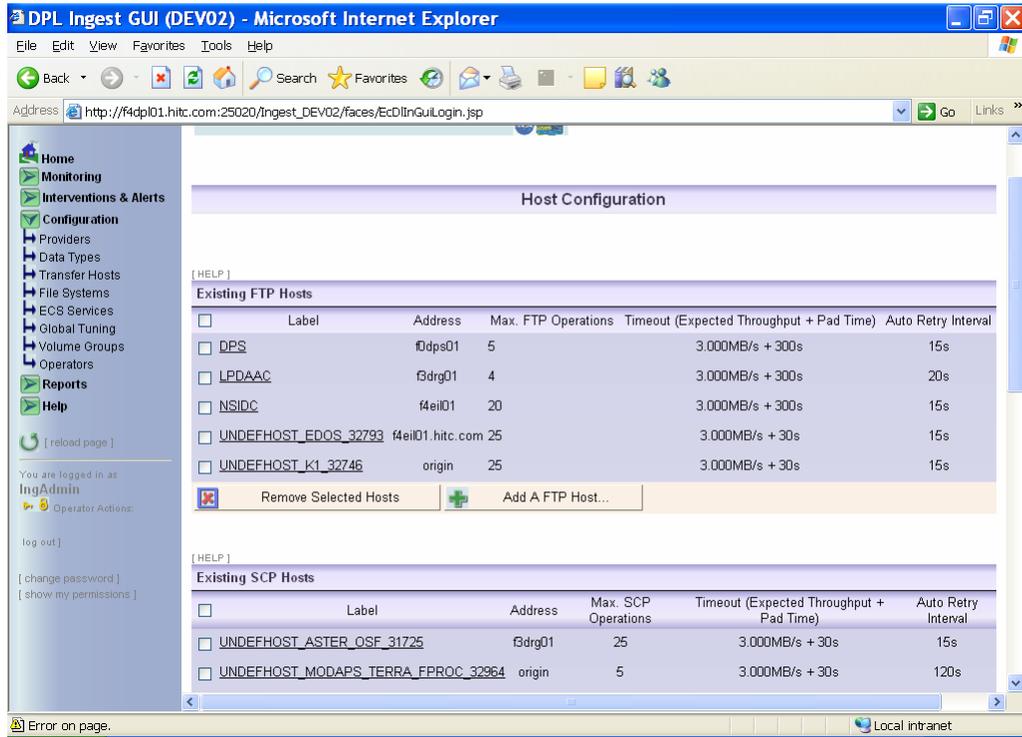
16.5.3.2 Add an FTP or SCP Transfer Host

1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.

- The **Configuration** menu is expanded.

2 Click on the **Transfer Hosts** link in the navigation frame of the **DPL Ingest GUI**.

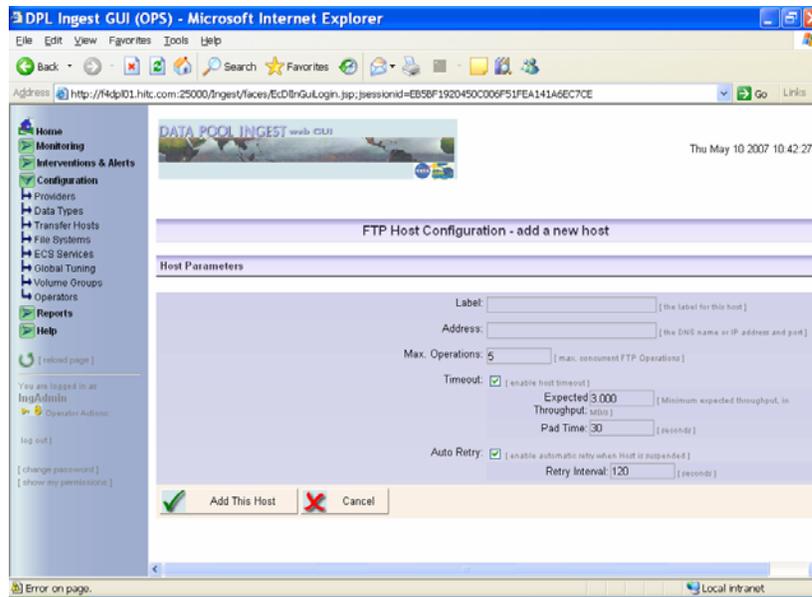
- **The Host Configuration page is displayed.**



- Displays **Existing FTP Hosts (first section)**.
- Displays **Existing SCP Hosts (second section)**.
- Displays **Default FTP Host Configurations (third section)**.
- Displays **Default SCP Host Configurations (forth section)**.
- Displays **Local Host Configurations (fifth section)**.

3 In the **Existing FTP Hosts** or **Existing SCP Hosts** sections, click on the **Add a FTP Host** or **Add a SCP Host** button.

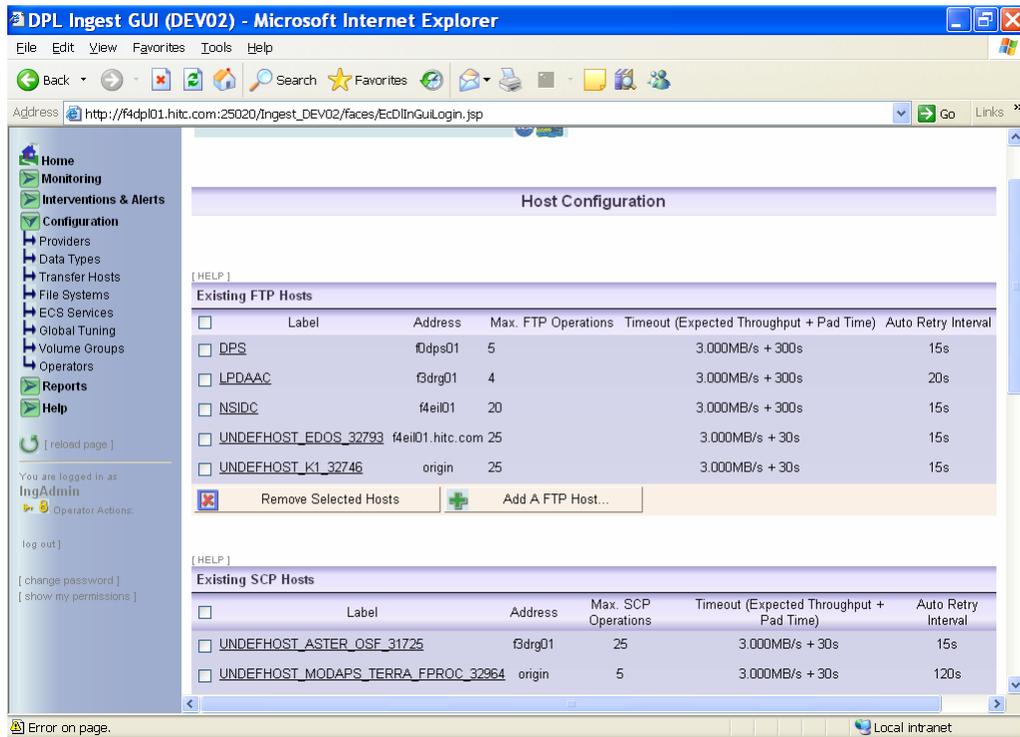
- The **FTP Host Configuration-add a new host** or **SCP Host Configuration-add a new host** screen is displayed.



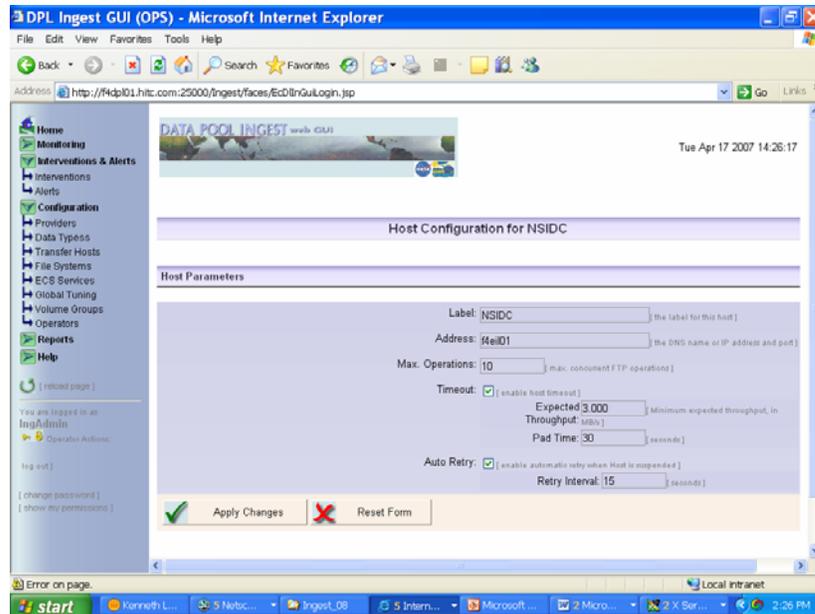
- FTP and SCP Hosts have similar (but slightly different fields).
- 4 Enter a unique name in the **Label** field.
 - Existing names will be rejected by the database.
 - 5 Enter the IP (e.g., 192.168.2.1) address or the canonical name (e.g., my.ftp.host) in the **Address** field. Place the port number on the same line, separated by a colon.
 - 6 Enter the **Max. Operations** parameter.
 - This value represents the maximum number of concurrent FTP or SCP operations this host may initiate.
 - 7 Click on the **Timeout** box (optional field).
 - If this box checked, text boxes will be displayed for the **Expected Throughput** (in mb/s) and **Fixed Overhead** (seconds) values: Enter these values.
 - 8 Click on the **Auto Retry** flag (optional field).
 - If this box checked, a textbox will be displayed to set the **Retry Interval** value (the number of minutes to wait between retries of this host if it becomes suspended by the server. Enter this value.
 - 9 Select the **Add This Host** button at the bottom of the screen.
 - The new entry will be displayed on the **FTP Host Configuration** page.
-

16.5.3.3 Edit an SCP or FTP Transfer Host

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Transfer Hosts** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Host Configuration** page is displayed.



- Displays **Existing FTP Hosts** (first section).
 - Displays **Existing SCP Hosts** (second section).
 - Displays **Default FTP Host Configurations** (third section).
 - Displays **Default SCP Host Configurations** (forth section).
 - Displays **Local Host Configurations** (fifth section).
- 3 In the **Existing FTP Hosts** or **Existing SCP Hosts** sections, click on the name of the desired host.
 - The **Host Configuration-for [XXXX]** screen is displayed.



- FTP and SCP Hosts have similar (but slightly different fields).
- 4 Edit the desired fields.
 - 5 Select the **Apply Changes** button at the bottom of the screen.
 - Changes will be implemented.
-

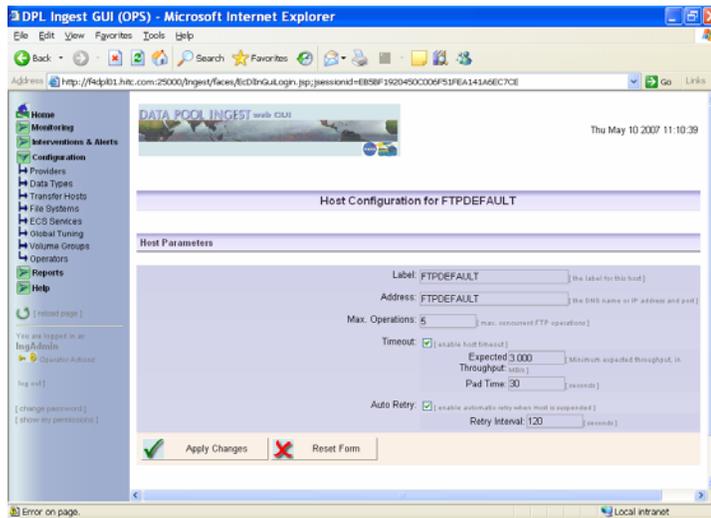
Local Host configuration parameters are used during any local transfer operations. The maximum Local operations limits how many local copies will occur concurrently. The timeout values apply to each individual local copy operation.

Default SCP and FTP Host configuration values are used to fill in default values whenever a new SCP or FTP host is added, or if a field is left empty when updating an existing SCP or FTP host.

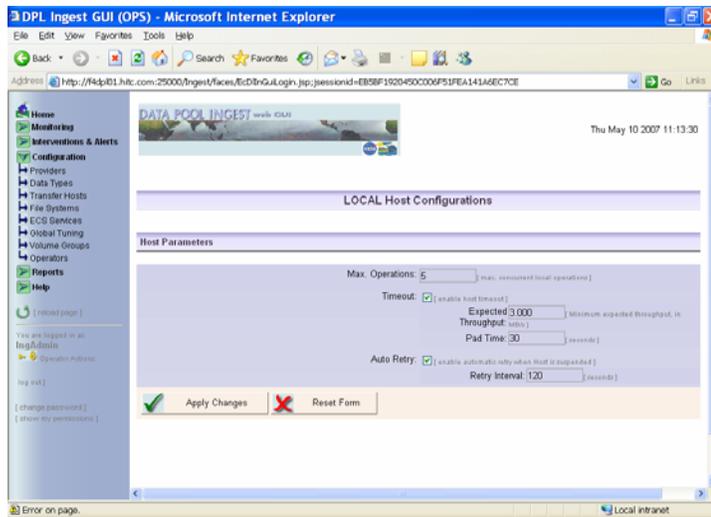
16.5.3.4 Edit Local and Default [FTP/SCP] Host Configuration

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Transfer Hosts** link in the navigation frame of the **DPL Ingest GUI**.
 - **The Host Configuration** page is displayed.
 - Displays **Existing FTP Hosts (first section)**.
 - Displays **Existing SCP Hosts (second section)**.
 - Displays **Default FTP Host Configurations (third section)**.
 - Displays **Default SCP Host Configurations (forth section)**.

- Displays **Local Host Configurations** (fifth section).
- 3 In the **Default FTP Host Configurations** (third section), **Default SCP Host Configurations** (forth section), or **Local Host Configurations** (fifth section) sections, click on the **Edit** button,
- The **Host Configuration for FTPDEFAULT** screen is displayed.



- FTP and SCP Hosts have similar screens.
- The **LOCAL Host Configuration** screen is displayed.



- 4 Edit the desired fields.
- 5 Select the **Apply Changes** button at the bottom of the screen.
- Changes will be implemented.

16.5.4 File System Configuration

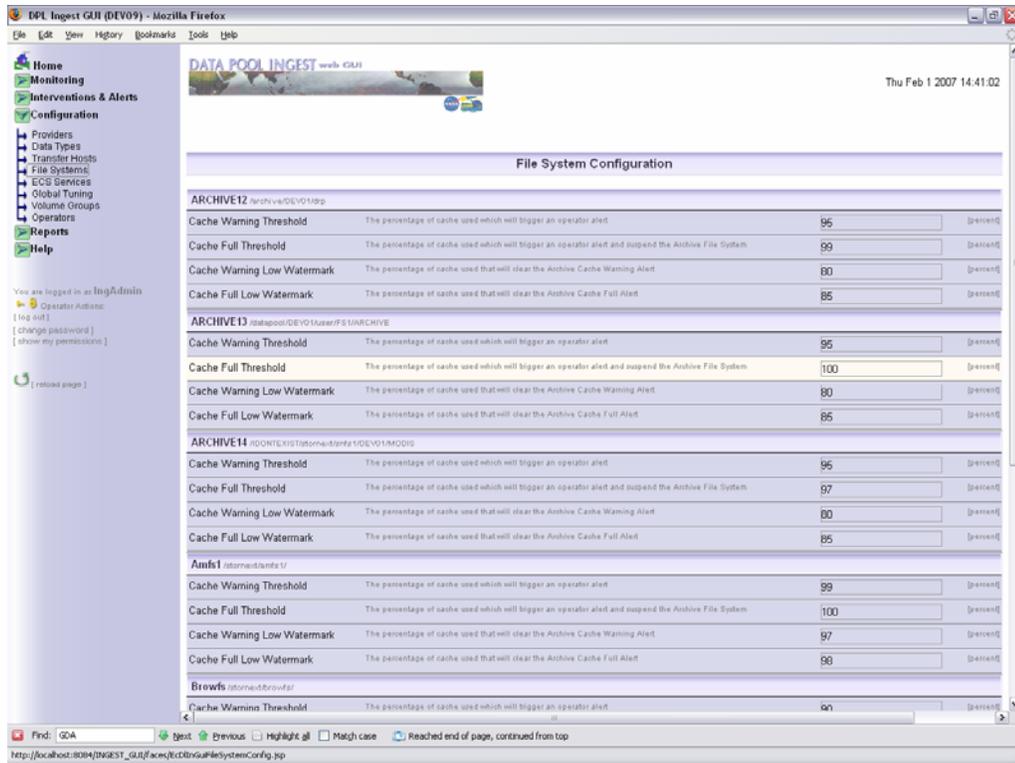
The File System Configuration page allows the operator to configure warning and suspension thresholds (see Table 16.5-6 for any configured regular file system or archive file systems.)

Table 16.5-6. Archive File Systems Configuration Page Field Descriptions

Field Name	Entry	Description
Cache Warning Threshold	Required	The percentage of cache used which will trigger an operator alert. This must be below the Cache Full Threshold and above the Cache Warning Low Watermark.
Cache Full Threshold	Required	The percentage of cache used which will trigger an operator alert and suspend the Archive File System. This must be above the other threshold and watermarks.
Cache Warning Low Watermark	Required	The percentage of cache used that will clear the Archive Cache Warning Alert. This must be below the Cache Warning Threshold and the Cache Full Low Watermark.
Cache Full Low Watermark	Required	The percentage of cache used that will clear the Archive Cache Full Alert. This must be below the other watermark and thresholds.

16.5.4.1 Change File System Threshold

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **File Systems** link in the navigation frame of the **DPL Ingest GUI**.
 - The **File System Configuration** page is displayed.



- Displays **Cache Warning Threshold** for each filesystem.
 - Displays **Cache Full Threshold** for each filesystem.
 - Displays **Cache Warning Low Watermark** for each filesystem.
 - Displays **Cache Full Low Watermark** for each filesystem.
- 3 Enter the desired changes in the configurable fields.
 - The change appears in the field.
 - 4 Select the **Update** button at the bottom of the screen.
 - The change is accepted.

16.5.5 ECS Service Configuration

This page allows the operator to configure the parameters of ECS services (see Tables 16.5-7 and 16.5-8) on a specific host. A default checksum type and algorithm can also be set for use by the checksumming service hosts. This page also allows the operator to select the host from which the Science Data Server will be run. This must be configured to ensure proper functionality of the DPL Ingest system.

Note: The **ECS Services Configuration** page is a listing page only. Modifications cannot be made from this page. The list shows which services are enabled for each host.

The **ECS Services Configuration** page contains the following three sections.

- **Checksum Types and Algorithm.** The operator can add, edit, and delete checksum types and their specific algorithms, and specify if the checksum type will be used as the default type.
- **Host Used For SDSRV Operations.** The operator can select a host on which Science Data Server operations will take place (such as metadata validation and SDSRV insert).
- **Host Used For ECS Services.** The operator can view and configure the attributes of the ECS Service host and can configure each of the services that run on that host.

Table 16.5-7. ECS Services Configuration Field Description

Field Name	Entry	Description
Name	n/a	The unique name given for this ECS Service Host
Address	n/a	The IP address and port of the host
Comments	n/a	Any descriptive comment text given for this host.
Max. Insert Checksum Operations	n/a	The maximum number of Insert Checksum Operations that will be performed by this host (checksum performed before archiving)
Max. Insert Copy Operations	n/a	The maximum Insert Copy operations that will be performed by this host.
The following are ECS Services		
Checksum	n/a	Each of these ECS Services are indicated as enabled (green checkmark) or disabled (red x) for each host.
File Transfer	n/a	
SCP	n/a	
Archive	n/a	

Table 16.5-8. ECS Services Configurable Field Descriptions (1 of 3)

Field Name	Entry	Description
Global Parameters		
Label	Required	A unique name for the ECS Service host, preferably based on the actual host name.
Address	Required	The IP address (e.g., 127.5.2.88) or canonical name (e.g., f4eil01.hitc.com) of the host.
Port	Required	The port number associated with this service. Hint: the port can be determined by looking at the Quickserver's configuration file.

Table 16.5-8. ECS Services Configurable Field Descriptions (2 of 3)

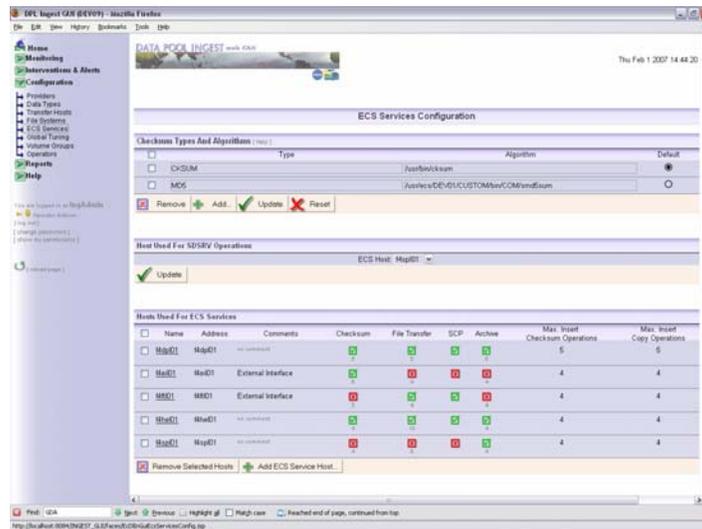
Field Name	Entry	Description
Max. CPU Operations	Required	The total maximum number of checksum operations that may be performed on this host.
Auto Retry	Optional	Whether or not to automatically retry processing of actions for all services enabled on this host.
Comment	Optional	The description of the host and its services.
Checksum		
Enable this service	Optional	Whether or not to use this service.
Max. Concurrent Checksum Operations	Required if enabled	The maximum number of concurrent checksum operations that may be performed on this host at any one time.
Expected Throughput	Required if enabled	The expected data throughput for checksum operations. This is to identify stuck operations,
Checksum Timeout Pad Time	Required if enabled	The additional delay for a checksum operation before it is considered timed-out.
File Transfer		
Enable this service	Optional	Whether or not to use this service.
Enable SCP	Optional	Whether or not to use SCP as the file transfer method.
Max. Concurrent File Transfers	Required if enabled	The maximum number of concurrent file transfers that may be executed on this host.
Archiving		
Enable this service	Optional	Whether or not to use this service.
Max. Concurrent Archive Operations	Required if enabled	The maximum number of concurrent archive operations that may be executed on this host.
Expected Throughput	Required if enabled	The expected data throughput for archive operations. This is to identify stuck operations.
Archive Timeout Pad Time	Required if enabled	The additional delay for an archive operation before it is considered timed-out.
Insert Checksum		
Max. Concurrent Insert Checksum Operations:	Optional	The maximum number of concurrent Insert Checksum operations that may be executed on this host.

Table 16.5-8. ECS Services Configurable Field Descriptions (3 of 3)

Field Name	Entry	Description
Insert Copy		
Max. Concurrent Insert Copy Operations	Required	The maximum number of concurrent Insert Copy operations that may be executed on this host.
Expected Throughput	Required	The expected data throughput for Insert Copy operations. This is to identify stuck operations.
Insert Timeout Pad Time	Required	The additional delay for an Insert Copy operation before it is considered timed-out.

16.5.5.1 Remove Checksum Type

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **ECS Services** link in the navigation frame of the **DPL Ingest GUI**.
 - The **ECS Services Configuration** page is displayed.

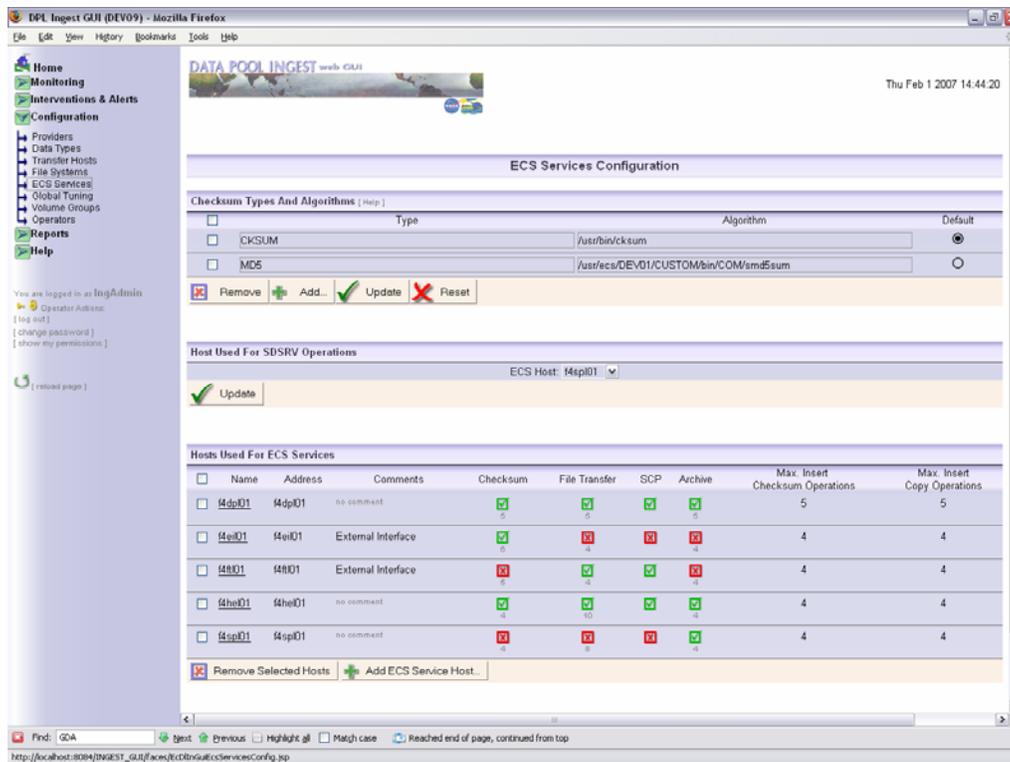


- The **ECS Services Configuration** page is a view only page. Individual settings cannot be entered using this page.
- 3 In the **Checksum Types and Algorithms** section, click the box next to the checksum type to be removed (multiple selections are accepted).
 - A checkmark is placed in the box.

- 4 Click on the **Remove** button.
 - A Confirmation prompt is displayed. Select **OK**
 - The selected checksums are removed.

16.5.5.2 Add Checksum Type

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **ECS Services** link in the navigation frame of the **DPL Ingest GUI**.
 - The **ECS Services Configuration** page is displayed.

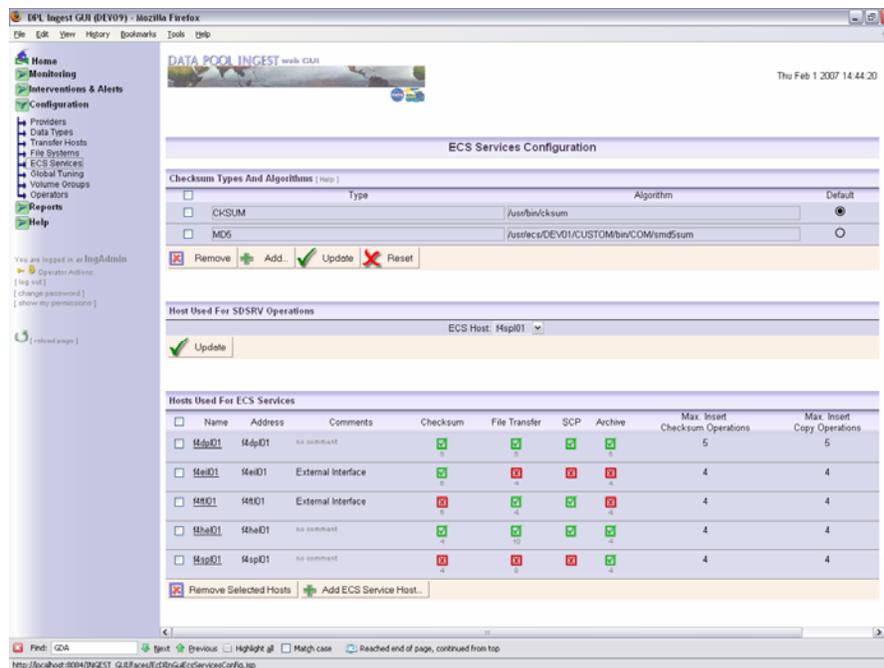


- The **ECS Services Configuration** page is a view only page. Individual settings cannot be entered using this page.
- 3 In the **Checksum Types and Algorithms** section, click on the **Add** button.
 - The **New Checksum Type Information** screen is displayed in the white space portion of the **Checksum Types and Algorithms** section. Two input boxes are provided to enter **Type** and **Algorithm** information.
 - 4 In the **Checksum Types and Algorithms** section, click in the in the input box next to **Type**. Enter the Checksum **Type** information.

- The checksum type entered will be displayed in the **Type** field.
- 5 In the **Checksum Types and Algorithms** section, click in the input box next to **Algorithm**. Enter the **Algorithm** information.
 - The Algorithm entered will be displayed in the **Algorithm** field.
 - 6 Click on the **ok** button.
 - The new checksum type and algorithm will be added to the **ECS Services Configuration** page.
 - 7 In the **Checksum Types and Algorithms** section of **ECS Services Configuration** page, review the default setting for the checksum. If the setting is not what you want, click on the desired **Checksum Default** button.
 - The desired default **Checksum Types and Algorithms** will be selected.

16.5.5.3 Update Host Used For SDSVR Operations

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **ECS Services** link in the navigation frame of the **DPL Ingest GUI**.
 - The **ECS Services Configuration** page is displayed.

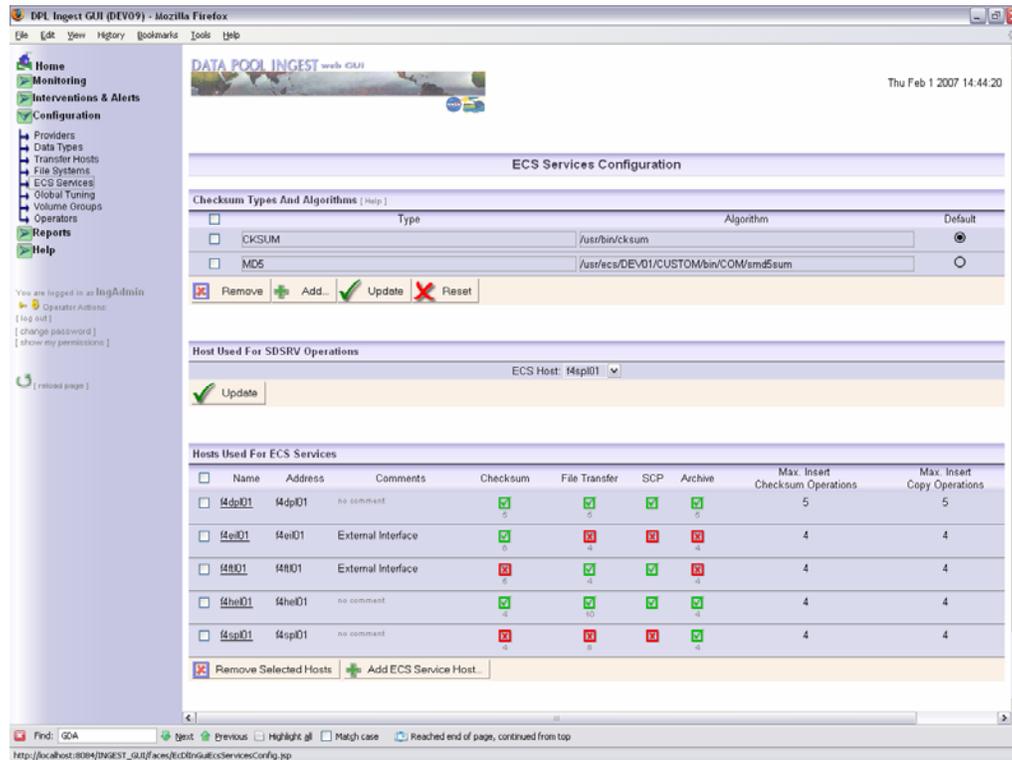


- The **ECS Services Configuration** page is a view only page. Individual settings cannot be entered using this page.

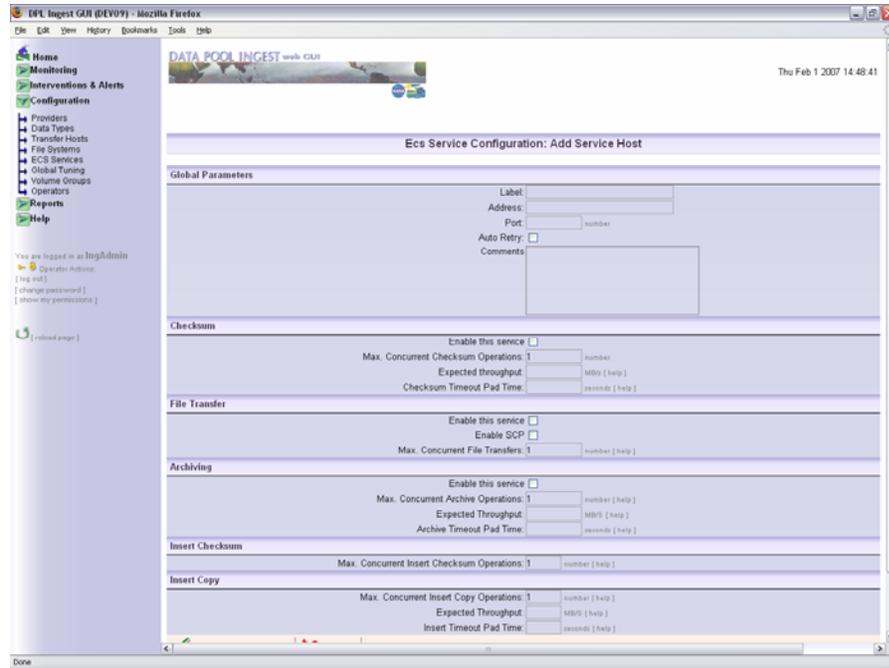
- 3 In the **Host Used For SDSVR Operations** section, select by highlighting the **ECS Host** from the pull-down window.
 - The selected **ECS Host** will be displayed in the ECS Host window.
- 4 In the **Host Used For SDSVR Operations** section, click on the **Update** button.
 - The new **ECS Host** will be displayed in the **ECS Host** window and will be added to the **ECS Services Configuration** page.

16.5.5.4 Add an ECS Service Host Type

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **ECS Services** link in the navigation frame of the **DPL Ingest GUI**.
 - The **ECS Services Configuration** page is displayed.



- The **ECS Services Configuration** page is a view only page. Individual settings cannot be entered using this page.
- 3 In the **Hosts Used For ECS Services**, Click on the **Add ECS Service Host** button.
 - The **ECS Services Configuration: Add Service Host** page is displayed



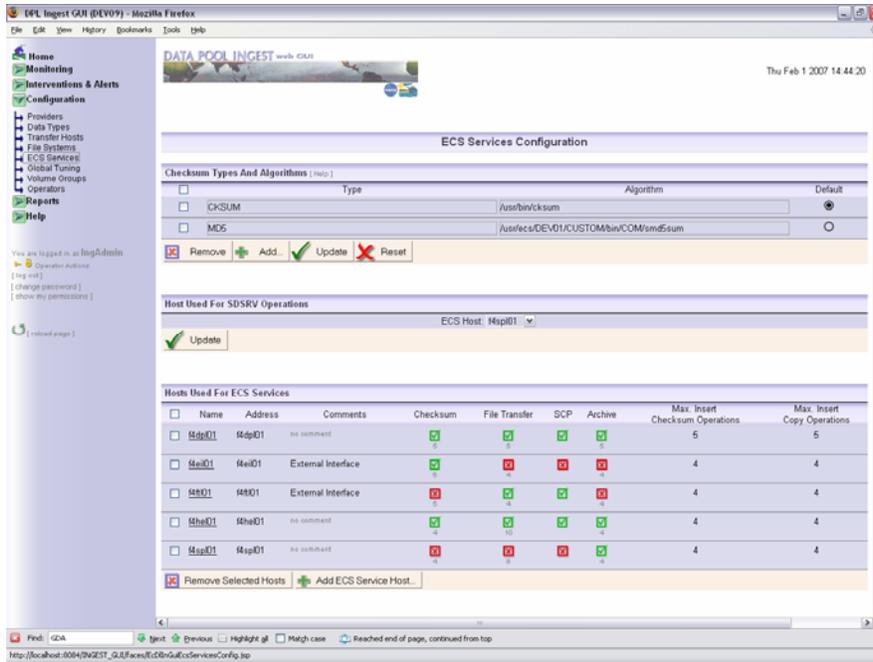
- 4 In the **Global Parameters** section, click in the **Label** field. Enter a unique name for the **ECS Service** host.
 - The name entered will be displayed in the **Label** field.
 - Existing names will be rejected by the database.
- 5 In the **Global Parameters** section, click in the **Address** field. Enter the IP Address or the name of the **ECS Service** host.
 - The address or name entered will be displayed in the Address field.
- 6 In the **Global Parameters** section, click in the **Port** field. Enter the port number associated with the service **ECS Service** host.
 - The address or name entered will be displayed in the Address field.
 - The port can be determined by looking at the quickserver's configuration file.
- 7 In the **Global Parameters** section, click in the **Auto Retry** (optional) field.
 - A checkmark is placed in the box.
 - All services enabled will automatically retry processing in the event of failure.
- 8 In the **Global Parameters** section, click in the **Comments** (optional) box. Enter a description of the host and its services.
 - Information is displayed in the box.
- 9 In the **Checksum** section, click in the box next to the **Enable this service (optional)** field.
 - A checkmark will be displayed in the box.

- 10 If **Checksum** is enabled, complete steps 11-13, otherwise, go to step 14.
- 11 In the **Checksum** section, click in the **Max. Concurrent Checksum Operations** field. Enter the maximum number of checksum operations that may be performed on this host at any one time.
 - A number will be displayed in the box.
- 12 In the **Checksum** section, click in the **Expected Throughput** field. Enter the expected data throughput (MBs) for checksum operations. This will help to identify stuck operations.
 - A number will be displayed in the box.
- 13 In the **Checksum** section, click in the **Checksum Timeout Pad Time** field. Enter additional delay for a checksum operation before it is considered timed-out.
 - A number will be displayed in the box.
- 14 In the **File Transfer** section, click in the box next to the **Enable this service** (optional) field.
 - A checkmark will be displayed in the box.
- 15 If **File Transfer** is enabled, complete steps 16-17, otherwise, go to step 18.
- 16 In the **File Transfer** section, click in the box next to the **Enable SCP** field.
 - A checkmark will be displayed in the box.
- 17 In the **File Transfer** section, click in the **Max. Concurrent File Transfers** field. Enter the maximum number of concurrent file transfers that may be executed on this host at any one time.
 - A number will be displayed in the box.
- 18 In the **Archiving** section, click in the box next to the **Enable this service** (optional) field.
 - A checkmark will be displayed in the box.
- 19 If **Archiving** is enabled, complete steps 20-22, otherwise, go to step 23.
- 20 In the **Archiving** section, click in the **Max. Concurrent Archive Operations** field. Enter the maximum number of archive operations that may be performed on this host at any one time.
 - A number will be displayed in the box.
- 21 In the **Archive** section, click in the **Expected Throughput** field. Enter the expected data throughput (MBs) for archive operations. This will help to identify stuck operations.
 - A number will be displayed in the box.
- 22 In the **Archive** section, click in the **Archive Timeout Pad Time** field. Enter additional delay for an archive operation before it is considered timed-out.
 - A number will be displayed in the box.

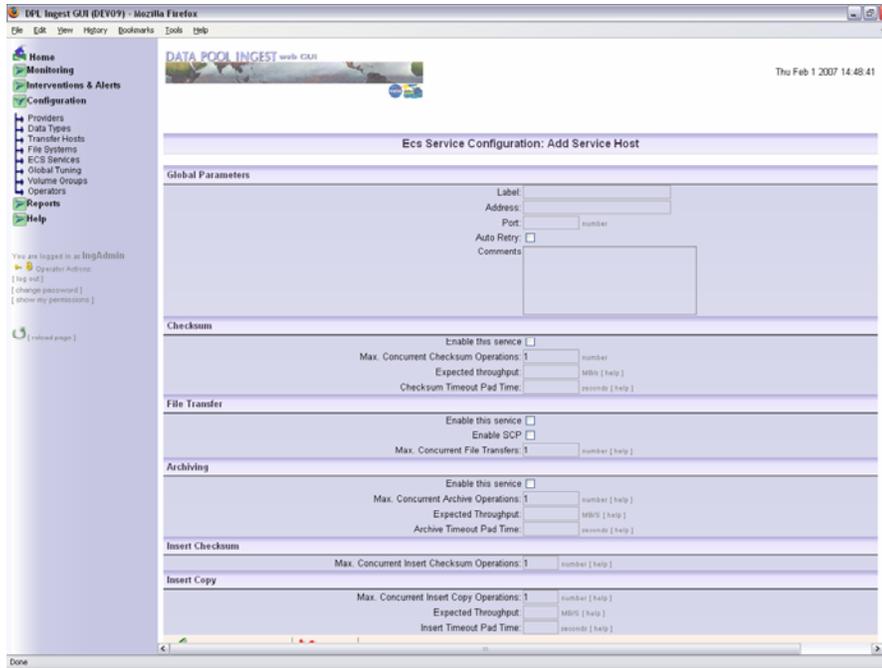
- 23 In the **Insert Checksum** section, click in the **Max. Concurrent Insert Checksum Operations** field. Enter the maximum number of concurrent checksum operations that may be executed on this host at any one time.
 - A number will be displayed in the box.
 - 24 In the **Insert Copy** section, click in the **Max. Concurrent Insert Copy Operations** field. Enter the maximum number of concurrent Insert copy Operations that may be performed on this host at any one time.
 - A number will be displayed in the box.
 - 25 In the **Insert Copy** section, click in the **Expected Throughput** field. Enter the expected data throughput (MBs) for Insert Copy operations. This will help to identify stuck operations.
 - A number will be displayed in the box.
 - 26 In the **Insert Copy** section, click in the **Insert Copy Timeout Pad Time** field. Enter additional delay for an Insert Copy operation before it is considered timed-out.
 - A number will be displayed in the box.
 - 27 Select the **Add This Service Host** button at the bottom of the screen.
 - A Confirmation prompt is displayed. Select **OK**.
 - The new entry will be displayed on the **ECS Service Configuration** page.
-

16.5.5.5 Edit an ECS Service Host Type

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **ECS Services** link in the navigation frame of the **DPL Ingest GUI**.
 - The **ECS Services Configuration** page is displayed.



- The **ECS Services Configuration** page is a view only page. Individual settings cannot be entered using this page.
- 3 In the **Hosts Used For ECS Services**, click on the name of the **ECS Service Host** to be edited.
- The **ECS Services Configuration: Service Host Detail [Name]** page is displayed.
 - Any or all parameters listed on the **ECS Services Configuration: Service Host Detail [Name]** page can be edited from this page.



- 4 In the **Global Parameters** section, enter the desired changes.
- 5 In the **Checksum** section, , enter the desired changes.
- 6 In the **File Transfer** section, enter the desired changes.
- 7 In the **Archiving** section, enter the desired changes.
- 8 In the **Insert Checksum** section, enter the desired changes.
- 9 In the **Insert Copy** section enter the desired changes..
- 10 Select the **Apply Changes** button at the bottom of the screen.
 - A Confirmation prompt is displayed. Select **OK**.
 - Edited changes will be implemented.

16.5.6 Global Tuning Configuration

The Global Tuning link allows the operator to configure the Parameter Name and Value of the global tuning parameters in the Data Pool Ingest database. The parameters are listed along with their descriptions in Table 16.5-9.

There are three sections of the Global Tuning page. The first section titled Global Admin Tuning Parameters, consists of tuning parameters that can be edited by an operator with Ingest Admin Tuning privileges. The second section titled Global Tuning Parameter Configuration requires Tuning privileges. The third section titled Database Connection Configuration requires Tuning privileges. If the logged in operator does not have permission to edit a section, the fields and buttons for that section will be disabled.

Dynamic parameters are those that are applied to the Ingest Service without having to restart the Ingest Service. The Ingest Service will automatically apply these parameters within 1 minute of having been set in the database. Static parameters are those that require the Ingest Service to be restarted. Both of these are clearly marked for each parameter, as shown in Figure 16.5-1.

The screenshot shows a configuration interface with a table of parameters. Two callout boxes are present: one on the left stating 'Static parameters have the same icon with a red exclamationation.' and one on the right stating 'Dynamic parameters have a green curled arrow.' The table lists four parameters: MAX_INGEST_DB_CONN (static), THROUGHPUT_STATS_INTERVAL (dynamic), IGNORE_ARCHIVE_ALERT (static), and IGNORE_DPL_FS_DOWN (dynamic). At the bottom, there are 'Apply Changes' and 'Reset' buttons.

Parameter Name	Description	Icon
MAX_INGEST_DB_CONN	Maximum allowed number of connections to INGEST Database for DPL Ingest	Red exclamation mark
THROUGHPUT_STATS_INTERVAL	Number of minutes at which throughput statistics will be recorded	Green curled arrow
IGNORE_ARCHIVE_ALERT	Still activate requests independent of archive status	Red exclamation mark
IGNORE_DPL_FS_DOWN	Indicates whether or not we activate requests that use a suspended file system	Green curled arrow

Apply Changes

Figure 16.5-1. Dynamic and Static Configuration Icons

Table 16.5-9. Global Tuning Parameter Descriptions (1 of 3)

Parameter Name	Dynamic/ Static	Description
Global Admin Tuning Parameters:		
ARCHIVE_CACHE_CHECK_INTERVAL	Dynamic	Number of seconds between checks on archive cache.
DEFAULT_ALERT_RETRY_SECS	Dynamic	Default number of seconds to wait in between retrying a situation that caused a suspension
ENABLE_NOTIFICATION_PERFORMANCE_LOG	Dynamic	Indicates whether notification performance log has been enabled
ENABLE_POLLING_PERFORMANCE_LOG	Dynamic	Indicates whether polling performance log has been enabled
ENABLE_PROCESSING_PERFORMANCE_LOG	Dynamic	Indicates whether processing performance log has been enabled
GET_DPL_SPACE_MINS	Dynamic	Number of minutes to wait in between refreshing DPL free space info
MAX_RETRY_CHECKSUM_VERIFY	Dynamic	Maximum number of allowable retries for a checksum verification error
MINS_TO_KEEP_COMPLETED_REQS	Dynamic	Number of minutes before a completed request qualifies for archival
MINS_TO_KEEP_COMPLETED_REQS	Dynamic	Number of minutes before a completed request qualifies for archival
MONTHS_TO_KEEP_HIST_STATS_ALERTS	Dynamic	The retention time in months for keeping historic information for requests, alerts and throughput statistics
NUM_RETRIES_UR_ERROR	Dynamic	Number of times to retry UR Translation due to an error
RETRY_SECS_UR_ERROR	Dynamic	Number of seconds to wait in between retrying UR Translation on error

Table 16.5-9. Global Tuning Parameter Descriptions (2 of 3)

Parameter Name	Dynamic/ Static	Description
Global Tuning Parameter Configuration:		
DEFAULT_NUM_RETRIES	Dynamic	Default number of retries for an error condition where no error-specific number exists
DEFAULT_RETRY_INTERVAL	Dynamic	Default retry interval (seconds) where no error-specific interval exists
EDOS_SUCCESSFUL_PAN_DIR	Dynamic	EDOS directory in which successful PANs are to be stored
FAILED_CHECKSUM_HOLDING_DIR	Dynamic	Location of files that failed checksum verification
IGNORE_ARCHIVE_ALERT	Dynamic	Still activate requests independent of archive status.
IGNORE_DPL_FS_DOWN	Dynamic	Indicates whether or not we activate requests that use a suspended file system
MAX_CONCURRENT_PREPROCESS	Dynamic	Maximum number of concurrent preprocessing operations
MAX_CONCUR_DPL_INSERT	Static	Maximum number of allowed concurrent DPL Insert processes for Ingest
MAX_CONCUR_SCP_OPS	Dynamic	Max number of concurrent SCP ops
MAX_CONSEC_FS_ERRORS	Dynamic	Maximum number of permissible file system access errors for different granules prior to raising an alert
MAX_CONSEC_SDSRV_ERRORS	Dynamic	Maximum number of permissible SDSRV errors of the same type for different granules prior to raising an alert
MAX_CONSEC_XFER_ERRORS	Dynamic	Maximum number of permissible transfer errors for different files (including PAN/PDRD) prior to raising an alert
MAX_CONSEC_XFER_ERRORS_PDR	Dynamic	Maximum number of permissible PDR transfer errors for different files prior to raising an alert

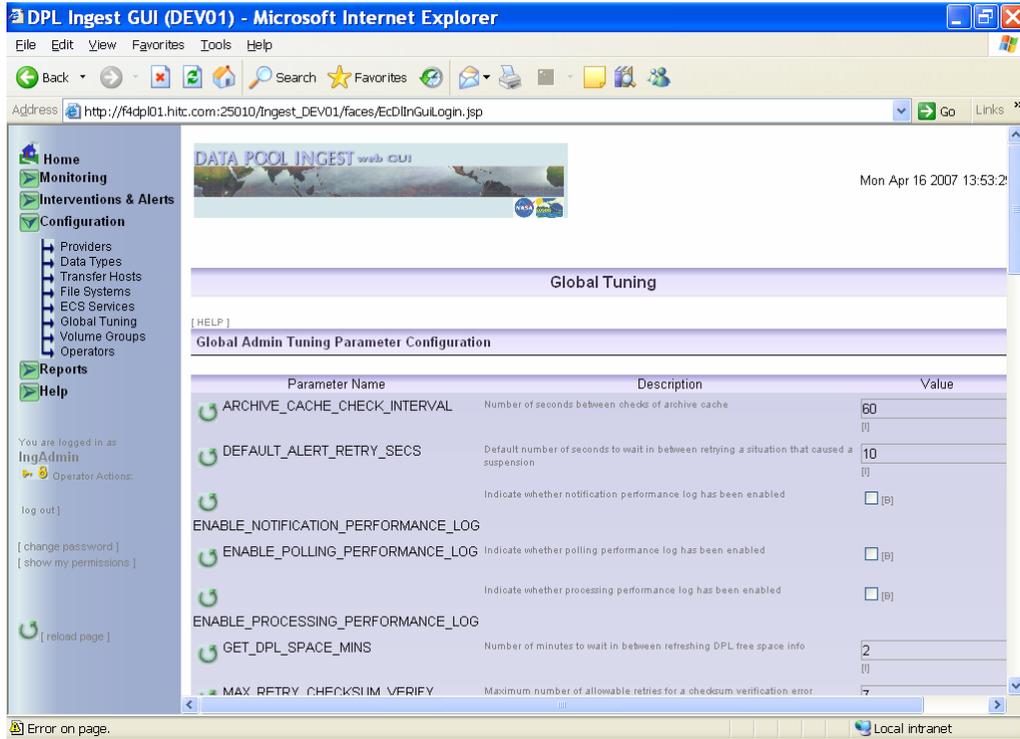
Table 16.5-9. Global Tuning Parameter Descriptions (3 of 3)

Parameter Name	Dynamic/Static	Description
MAX_GRANS_WITH_SERV_ERR	Dynamic	Maximum of allowable number of the same type of error for an ECS service for different granules prior to raising an alert for that ECS Service
PROCESSING_MAX_GRANS	Dynamic	Maximum number of granules that can be in processing at once
PROCESSING_MAX_VOLUME	Dynamic	Maximum amount of data in MB that can be in processing at once
SDSRV_TIMEOUT_VALUE	Dynamic	The amount of time the server will wait for a request to the ScienceDataServer before assuming the request is lost
THROUGHPUT_STATS_INTERVAL	Dynamic	Number of minutes at which throughput statistics will be recorded
Database Connection Configuration		
MAX_DPL_DB_CONN	Dynamic	Maximum database connection pool size for DPL DB
MAX_INGEST_DB_CONN	Dynamic	Maximum database connection pool size for Ingest DB
MAX_SDSRV_DB_CONN	Dynamic	Maximum database connection pool size for SDSRV DB
MAX_SSS_DB_CONN	Dynamic	Maximum database connection pool size for SSS DB
MIN_DPL_DB_CONN	Dynamic	Minimum database connection pool size for DPL DB
MIN_INGEST_DB_CONN	Dynamic	Minimum database connection pool size for Ingest DB
MIN_SDSRV_DB_CONN	Dynamic	Minimum database connection pool size for SDSRV DB
MIN_SSS_DB_CONN	Dynamic	Minimum database connection pool size for SSS DB

16.5.6.1 Change Global Parameters

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.

- 2 Click on the **Global Tuning** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Global Tuning** page is displayed.



- The **Global Tuning** page is displayed. You must have Ingest Admin or Tuning privileges to make changes on this page.
 - The **Global Tuning** page divided into the following three sections:
 - **Global Admin Tuning Parameters.**
 - **Global Tuning Parameter Configuration.**
 - **Database Connection Configuration.**
- 3 Click in the **Value** field and enter the desired change for the selected parameter.
 - The change is displayed as entered.
 - 4 Click on the **Apply Changes** button found in each section.
 - A Confirmation prompt is displayed. Select **OK**.
 - The new changes will be applied.

16.5.7 Configure Volume Groups

The Volume Group configuration in the DPL Ingest GUI is the same functionality that existed in the STMGIT GUI tab prior to release 7.20. The **Volume Groups Configuration** page (see Figure 16.5-2) displays the list of currently configured volume groups. This list is displayed all on one page and not broken into chunks. By default, the entries are listed alphabetically by Data Type Shortname. You can search for a desired data type by using the browser's built-in search function.

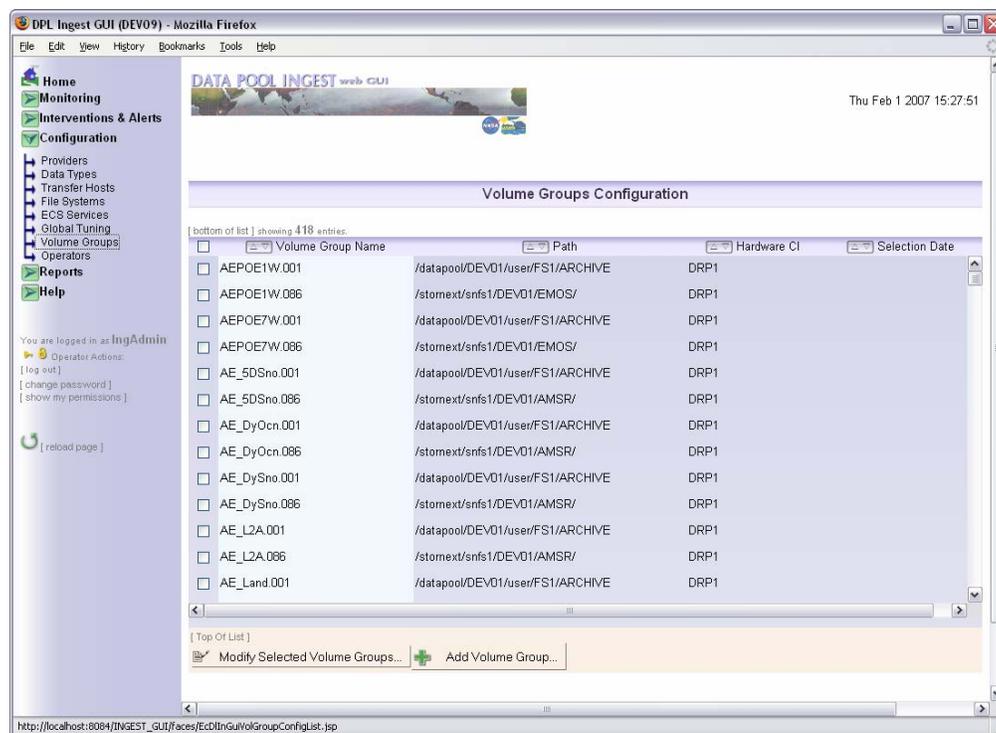


Figure 16.5-2. Volume Groups Configuration (listing page)

The **Volume Groups Configuration** page is divided into four distinct columns that provide important information about a particular **Volume Group**. The first column contains the **Volume Group** name. The second column shows the **Path**, the third column shows the **HWCI**, and the last column shows the **Selection Date** for that volume group, if applicable.

The bottom of the **Volume Groups Configuration** page has buttons to add a new volume group or to modify existing volume groups.

Table 16.5-10 contains a description of the fields contained on the **Volume Groups Configuration** page.

Table 16.5-10. Volume Groups Configuration Page Field Descriptions

Field Name	Entry	Description
Volume Group Name	System Generated	The name of the Volume Group based on a Data Type shortname with version identifier.
Path	System Generated	The fully qualified Unix path to where data is stored for the specified data type.
Hardware CI	System Generated	The label of the Archive silo group instance currently responsible for storing data of the specified data type.
Selection Date	System Generated	Non-NULL selection date defined for the ESDT version of which there are two volume group history sets defined for forward processing and reprocessing data respectively.
New Volume Group Path	Operator	A hidden field that is displayed when the operator clicks "Modify Selected Volume Groups".

An authorized Ingest Admin is authorized to add a Volume Group for a new Data Type version or add a Volume Group to an existing Data Type version. When adding a Volume Group for a new Data Type, the following rules apply:

- The Primary path information must be entered.
- The addition of **Backup Volume Group, Offsite Volume Group, or Alternative Volume Group History Set**, are optional and may be entered at a later time.

Table 16.5-11 provides a description of the fields contained on the **Volume Groups Configuration: Add a Volume Group** screen.

Table 16.5-11. Add Volume Group Page Field Description (1 of 3)

Field Name	Data Type	Size	Entry	Description
Data Type and Version ID	Character	16	Required	A Data Type short name and version identifier.
Alternative VG Options	Check box	N/A	Not Required	Allows operator to enter options for alternative Volume Groups. This can only be checked if an Alternative Volume Group was specified, otherwise, the checkbox is disabled.

Table 16.5-11. Add Volume Group Page Field Description (2 of 3)

Field Name	Data Type	Size	Entry	Description
Selection Date for Alternative Volume Groups	Character	8	Required if adding Alternative Volume Group History Set	When the Alternative VG check box is selected, the Selection Date section is enabled and is required to be filled out by the user. Selection Date is a separate date to guide Archive Server to select a appropriate Volume Group History set for storing / retrieving data. When acquisition date is not null and less than the Selection Date, Reprocessing Volume Group history set will be used, otherwise, forward processing Volume Group history set will be used.
Reprocessing, Forward Processing	Radio Buttons	N/A	Required if adding Alternative Volume Group History Set	Alternative volume groups can be configured either for Reprocessing or even for Forward Processing. Default is for Reprocessing. Although the flexibility to add a new alternative for forward processing is supported, it should be used with a great caution.
Primary Volume Group Path:	Character	Unlimited	Required	The fully-qualified Unix path to where data is currently being stored for the specified data type to the Primary Archive.
Backup Volume Group Path:	Character	Unlimited	Required if Backup enabled	The fully-qualified Unix path to where data is currently being stored for the specified data type to the Backup Archive.
Offsite Volume Group Path:	Character	Unlimited	Required if Offsite enabled	The fully-qualified Unix path to where data is currently being stored for the specified data type to the Offsite Archive.

Table 16.5-11. Add Volume Group Page Field Description (3 of 3)

Field Name	Data Type	Size	Entry	Description
Primary Alternative Volume Group Path:	Character	Unlimited	Required if Primary Alternative enabled	The fully-qualified Unix path to where reprocessing data is currently being stored for the specified data type to the Primary Alternative Archive.
Backup Alternative Volume Group Path:	Character	Unlimited	Required if Backup Alternative enabled	The fully-qualified Unix path to where data is currently being stored for the specified data type to the Backup Alternative Archive.
Offsite Alternative Volume Group Path:	Character	Unlimited	Required if Offsite Alternative enabled	The fully-qualified Unix path to where data is currently being stored for the specified data type to the Offsite Alternative Archive.

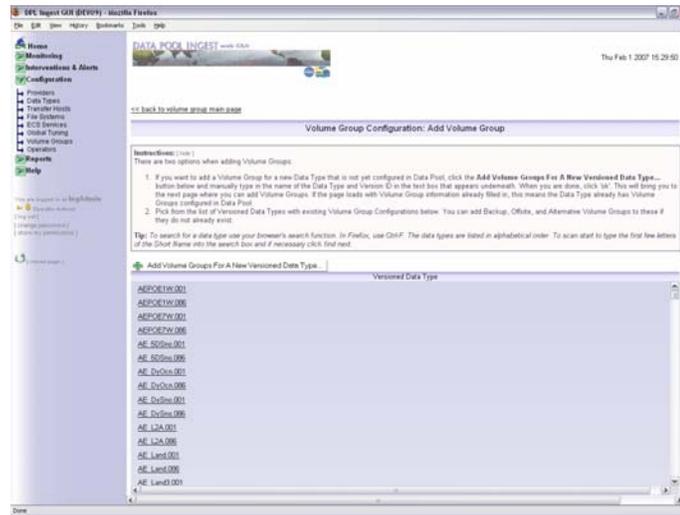
When a Volume Group is added, the name will be created based on the type of Volume Group that was added. There are six types, as explained in Table 16.5-12. Note that “R” indicates an alternative Volume Group for reprocessing. There is no explicit suffix for forward processing.

Table 16.5-12. Volume Group Naming

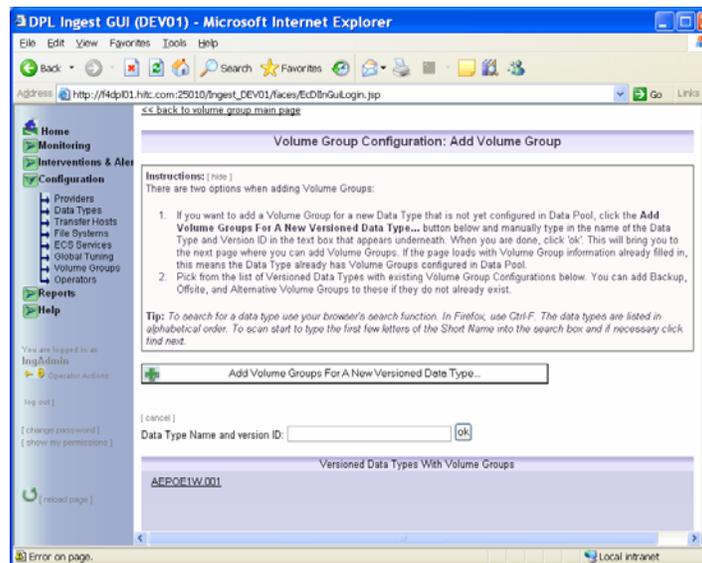
Volume Group Type	Extension	Example
Primary	none	AST_L1B.003
Primary Alternative	R	AST_L1B.003R
Backup	B	AST_L1B.003B
Backup Alternative	BR	AST_L1B.003BR
Offsite	O	AST_L1B.003O
Offsite Alternative	OR	AST_L1B.003OR

16.5.7.1 Add a Volume Group for a New Versioned Data Type

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Volume Groups** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Volume Groups Configuration** page is displayed.

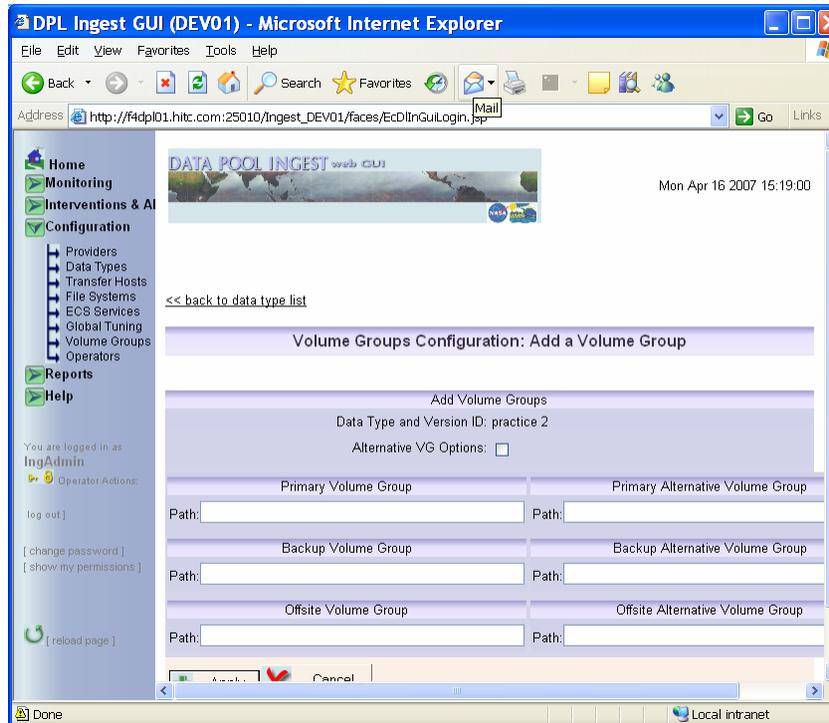


- 3 Scroll to the bottom of the page and select the **Add Volume Groups** button.
 - The **Volume Groups Configuration: Add Volume Group** page is displayed.



- 4 Click on the **Add Volume Groups For a New Versioned Data Type**.
 - The **Data Type and version ID** field is displayed.

- 5 Click in the **Data Type and version ID** field and enter the new **Data Type and Version ID**. Select **ok**.
 - The **Volume Group Configuration: Add a Volume Group** page is displayed.

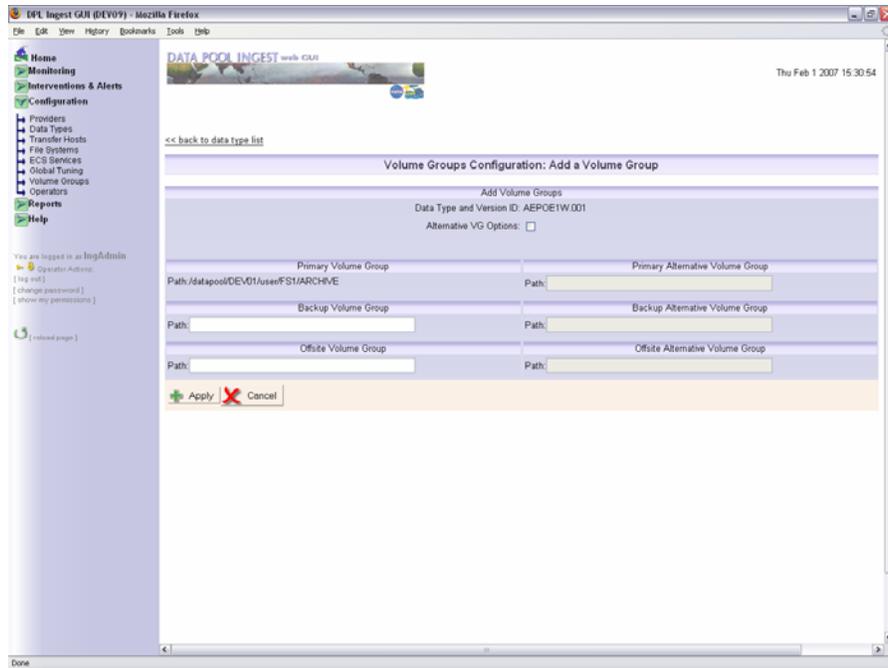


- 6 (Optional) Click on the **Alternate VG Options:** box.
 - A checkmark is displayed in the box.
- 7 (Optional) Click on the **Reprocessing** or **Forward Processing** button.
 - A mark is displayed in the selected button.
- 8 (Optional) If the **Alternate VG Options:** box is selected, you must enter the date in the provided **Selection Date for alternate Volume Groups** area.
 - A date is displayed in the selected area provided..
- 9 Click in the **Primary Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type to the Primary Archive.
 - Data is displayed in the edit window.
- 10 Click in the **Primary Alternative Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type. to the Primary Alternate Archive,
 - Data is displayed in the edit window.

- 11 Click in the **Backup Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type to the Backup Archive.
 - Data is displayed in the edit window.
 - 12 Click in the **Backup Alternative Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type. to the Backup Alternate Archive.
 - Data is displayed in the edit window.
 - 13 Click in the **Offsite Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type to the Offsite Archive.
 - Data is displayed in the edit window.
 - 14 Click in the **Offsite Alternative Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type. to the Offsite Alternate Archive.
 - Data is displayed in the edit window.
 - 15 Click in the **Apply** button.
 - A Confirmation prompt is displayed. Select **OK**
 - The changes are applied.
-

The following rules apply when adding Volume Groups to an existing Data Type version (e.g., Backup, Offsite, etc.):

- The **Volume Group** name will be selected from the **Primary Volume Groups** page. When the **Add Volume Group** page is loaded, the Volume Group name will appear at the top.
- Any previously added **Volume Group** will be displayed, but not editable. For example, if a **Backup Volume Group** has already been added, the **Volume Group** path will be shown, but the operator will not be able to edit this path.
- Similarly, if any **Alternative Volume Groups** have been specified, the **Alternative VG** options and **Volume Groups** will be displayed, but not editable.



- 6 (Optional) Click on the **Alternate VG Options:** box.
 - A checkmark is displayed in the box.
- 7 (Optional) Click on the Reprocessing or Forward Processing button.
 - A mark is displayed in the selected button.
- 8 (Optional) If the **Alternate VG Options:** box is selected, you must enter the date in the provided **Selection Date for alternate Volume Groups** area.
 - A date is displayed in the selected area provided..
- 9 Click in the **Primary Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type to the Primary Archive.
 - Data is displayed in the edit window.
- 10 Click in the **Primary Alternative Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type. to the Primary Alternate Archive,
 - Data is displayed in the edit window.
- 11 Click in the **Backup Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type to the Backup Archive.
 - Data is displayed in the edit window.

- 12 Click in the **Backup Alternative Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type. to the Backup Alternate Archive.
 - Data is displayed in the edit window.
 - 13 Click in the **Offsite Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type to the Offsite Archive.
 - Data is displayed in the edit window.
 - 14 Click in the **Offsite Alternative Volume Group Path** edit window and enter the fully-qualified Unix path to where data is currently being stored for the specified new data type. to the Offsite Alternate Archive.
 - Data is displayed in the edit window.
 - 15 Click in the **Apply** button.
 - A Confirmation prompt is displayed. Select **OK**
 - The changes are applied.
-

16.5.7.3 Modify Volume Groups

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Volume Groups** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Volume Groups Configuration** page is displayed.
 - All columns on the **Volume Groups Configuration** page can be sorted in ascending or descending order. To sort on a column, click on the up or down arrow at the top of the column.

<input type="checkbox"/>	Volume Group Name	Path	Hardware CI
<input type="checkbox"/>	/MOD28FD2.001	/test/path/	DRP1
<input type="checkbox"/>	/test/path/	/test/path/	DRP1
<input type="checkbox"/>	ACR3L0.001	/stornext/snfs1/DEV09/airs1	DRP1
<input type="checkbox"/>	ACR3L2DM.001	/stornext/snfs1/DEV09/airs1	DRP1
<input type="checkbox"/>	ACR3L2SC.001	/stornext/snfs1/DEV09/airs1	DRP1
<input type="checkbox"/>	AE_L2A.001	/test/path/	DRP1
<input type="checkbox"/>	AE_Land.086	/test/path/	DRP1

- 3 Click in the box next to the **Volume Group Name** of the desired volume group(s) to be change.
 - A checkmark is placed in the box.
 - Multiple selections may be made.
 - 4 Scroll to the bottom of the page and select the **Modify Selected Volume Groups** button.
 - A path input field appears at the bottom of the page.
 - 5 Enter the **New Volume Group Path** in the edit field and click the **ok** button.
 - A Confirmation prompt is displayed. Select **OK**
 - The changes to the Volume Group Path will be applied.
-

16.5.8 Operator Configuration

The Operator Configuration page (see Figure 16.5-3) consists of a list of operator names and their current permission settings. The security operator configures authorized users for the Data Pool Ingest GUI. and add, edit, or remove users.

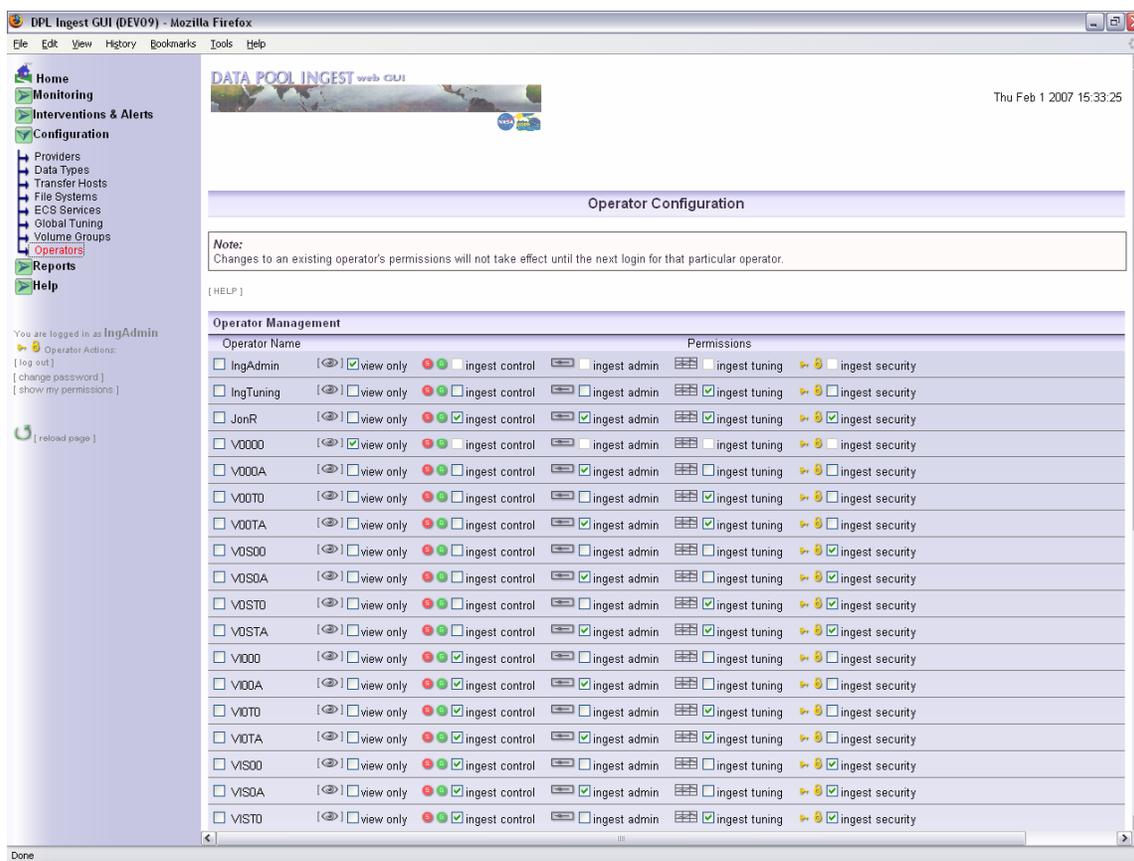


Figure 16.5-3. Operator Configuration Page

There are five different permission levels. An operator assigned the view only permission level, cannot be authorized additional permissions. The other 4 levels can be added together as they represent the ability to manage an exclusive set of properties associated with data pool ingest. An operator may be assigned multiple permissions other than view only. The following list reviews the five permission levels for the Data Pool Ingest GUI.

-  **View Only** – The operator cannot alter or modify anything on the GUI, nor can he/she take actions. All textboxes, checkboxes, drop-down lists, etc. are disabled.
-  **Ingest Control.** The operator can manage Ingest requests and interventions, i.e., he/she has the ability to suspend or resume requests, place on hold and close interventions, fail or resume granules, etc. This also implies that the operator may suspend and resume services, hosts, file systems, archives, etc.
-  **Ingest Admin.** The operator can alter general configuration parameters such as SCP/FTP Host configuration, providers, data types, etc. This level of operator cannot modify tuning parameters.

-  **Ingest Tuning.** The operator can alter global and host-specific tuning configuration parameters.
 -  **Security Admin.** The operator can maintain security-related information like passwords and operators.
-

16.5.8.1 Modify Operator Permission Settings

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
 - 2 Click on the **Operators** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Operator Configuration** page is displayed.
 - All Operators and their current Permission settings are displayed.
 - Changes to this page can only be made if you have **Security Admin** permissions.
 - 3 Click in the box next to the **Operator Name** of the desired operator to change permissions.
 - A checkmark is placed in the box.
 - Multiple selections may be made.
 - A checkmark must be visible before further changes can be made.
 - 4 Click in the box next to the desired permission.
 - A checkmark is placed in the box.
 - 5 Scroll to the bottom of the Operator Management screen and click on the **Update Operators** button.
 - A Confirmation prompt is displayed. Select **OK**.
 - Changes to an existing operator's permissions will not take effect until the next login by that particular operator.
-

16.5.8.2 Add Operator Permissions

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Operators** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Operator Configuration** page is displayed.
 - All Operators and their current Permission settings are displayed.

- Changes to this page can only be made if you have **Security Admin** permissions.
- 3 Scroll to the bottom of the **Operator Configuration** page until you see the **Add Operator** section of the page.

The screenshot shows the 'Add Operator' form. The 'Operator Name' field contains 'DavidH'. The 'Password' and 'Verify Password' fields are masked with asterisks. The permissions section includes: 'view only' (unchecked), 'ingest control' (checked), 'ingest admin' (unchecked), 'ingest tuning' (unchecked), and 'ingest security' (checked). A green plus icon and the text 'Add Operator' are visible at the bottom left of the form area.

- 4 Click in the **Operator Name** field and enter the name of the operator.
- The entered name is displayed.
- 5 Click in the **Password** field and enter the password.
- The **Password** field will be populated with stars.
- 6 Click in the **Verify Password** field and re-enter the password.
- The **Verify Password** field will be populated with stars.
- 7 Click in the box next to the desired permissions.
- A checkmark is displayed.
 - At least one permission level must be selected.
- 7 Select the **Add Operator** button.
- A Confirmation prompt is displayed. Select **OK**.
 - The new operator name will be added to the list of operators in the **Operator Management** section of the **Operator Configuration Page**.
-

16.5.8.3 Remove Operator Permission Settings

- 1 Click on the **Configuration** link in the navigation frame of the **DPL Ingest GUI**.
- The **Configuration** menu is expanded.
- 2 Click on the **Operators** link in the navigation frame of the **DPL Ingest GUI**.
- The **Operator Configuration** page is displayed.
 - All Operators and their current Permission settings are displayed.

- Changes to this page can only be made if you have **Security Admin** permissions.
- 3** Click in the box next to the **Operator Name** to be removed.
- A checkmark is placed in the box.
 - Multiple selections may be made.
 - A checkmark must be visible before further changes can be made.
- 4** Scroll to the bottom of the Operator Management screen and click on the **Remove Operators** button.
- A Confirmation prompt is displayed. Select **OK**
 - Changes to an existing operator's permissions will not take effect until the next login by that particular operator.
-

16.6 Reports

16.6.1 Reports

The reporting capability of the Ingest GUI offers the ability to view detailed reports on data providers and data types, as well as request summary and granule summary reports. The report pages are located under the **Reports** menu in the navigation pane.

The report pages (**Detailed**, **Request Summary** and **Granule Summary**) display the information across data providers or data types. An example of the **Report Setup** page is shown in Figure 16.6.1. As with all types of reports, the operator must select a date range (presets are provided for the last 24 and 48 hours), as well as criteria for the search. These include one or more **Data Providers**, one or more **Data Types**, and one or more **Final Request Statuses**. Additionally, **Ingest Method (DPL or NON-DPL)** can also be selected. All Data Criteria fields are optional, but at least one selection of one field must be made to generate the report. Due to the large volume of data that may be in the database, reports can sometimes take a while to process and be displayed.

Table 16.6-1 provides an activity Checklist for Reports.

Table 16.6-1. Reports

Order	Role	Task	Section
1	Ingest Technician	Generating a Report	(P) 16.6.1.1
2	Ingest Technician	Viewing Volume Group(s) History	(P) 16.6.2.1

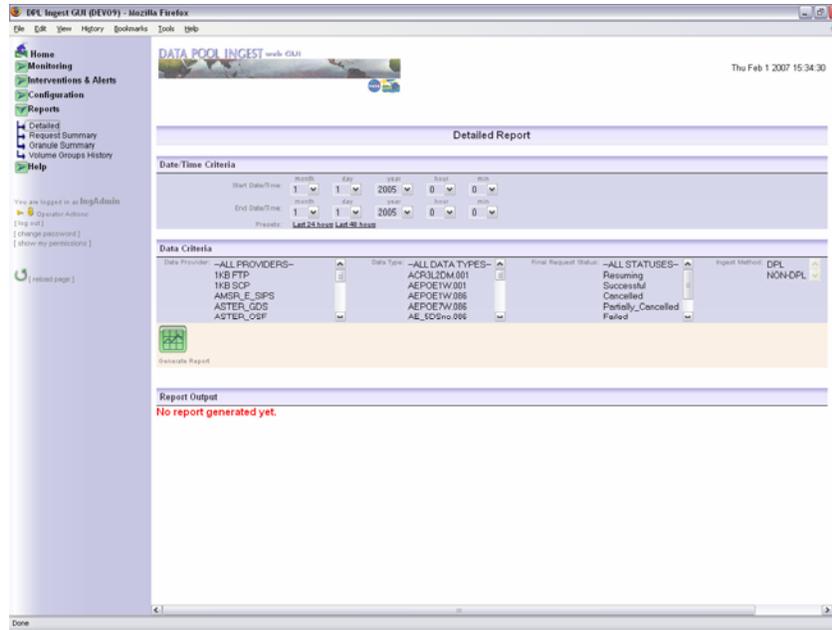


Figure 16.6-1. Report Setup Page

16.6.1.1 Generating a Detailed Report

- 1 Click on the **Reports** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Configuration** menu is expanded.
- 2 Click on the **Detailed Report**, **Request Summary** or **Granule Summary** in the navigation frame of the **DPL Ingest GUI**.
 - **The Detailed Report, Request Summary Report or Granule Summary Report** setup page is displayed.
- 3 In the **Date/Time Criteria** portion of the screen, select the desired **Start Date/Time** and **End Date/Time**.
 - The date and time information is displayed as selected.
- 4 In the **Data Criteria** portion of the screen, select one or more **Data Providers**, one or more **Data Types**, one or more **Final Request Statuses** and the **Ingest Method** (DPL or NON-DPL) by clicking on the the desired selections.
 - The desired selections are highlighted.
- 5 Click on the **Generate Report** button.
 - The **Processing Your Request** transitional screen is displayed.
 - Time to process your request will depend on factors such as time span, number of Data Providers, Data Types and Request Statuses selected.

- Eventually, one of the following report layouts will be displayed.
- Detailed Report Layout

Current Report Criteria:	
Data Provider(s): [ALL]	Data Type(s): [ALL]
Final Request Status: [ALL]	Start Date/Time: 1/11/2006 15:18
End Date/Time: 31/10/2006 15:18	

Report Output														
Req.ID	Data Provider	Ingest Type	Ingest Method	Start Date/Time	End Date/Time	Tot.# grans.	# Succ. grans.	Vol (MB)	File Count	Time to xfer (mins)	Time to preproc (min)	Time to Archive (min)	Priority	Restart Flag
21807	S4P00	Polling_wDR	DPL	2006-11-01 08:21:07	2006-11-01 08:21:19	1	1	6.311	2	0	8	0	VHIGH	
21808	S4P00	Polling_wDR	DPL		2006-11-01 08:29:06	1		6.245	2	0	0	0	VHIGH	
21809	ASTER_OSF	Polling_wDR	DPL	2006-11-01 10:03:09	2006-11-01 10:03:10	1		0.473	2	0	0	0	NORMAL	
21810	ASTER_OSF	Polling_wDR	DPL	2006-11-01 10:03:09	2006-11-01 10:03:10	1		0.473	2	0	0	0	NORMAL	
21811	ASTER_OSF	Polling_wDR	DPL	2006-11-01 10:03:09	2006-11-01 10:03:10	1		0.473	2	0	0	0	NORMAL	

- Request Summary Report Layout

Current Report Criteria:	
Data Type(s): [ALL]	Final Request Status: [ALL]
Start Date/Time: 1/11/2006 15:21	End Date/Time: 31/10/2006 15:21

Report Output															
Data Provider	Ingest Type	Ttl. Reqs	Ttl. Errors	Gran Avg	Gran Max	File Avg	File Max	Size Avg (MB)	Size Max (MB)	Xfer time Avg (mins)	Xfer time Max (mins)	Preproc time Avg (mins)	Preproc time Max (mins)	Archive Time Avg (mins)	Archive Time Max (mins)
ASTER_OSF		12	0	1	1	2	2	0.473	0.473	10	126	3	14	0	1
CRIT_4150_2		10	0	1	1	2	2	0.473	0.473	0	1	1	2	0	0
MODAPS_TERRA_FPROC		1	0	1	1	2	2	0.473	0.473	0	0	2	2	0	0
S4P00		57	0	1	1	2	3	16.157	71.236	0	2	2	8	0	1

- Granule Summary Report Layout

Current Report Criteria:	
Data Provider(s): [ALL]	Data Type(s): [ALL]
Final Request Status: [ALL]	Start Date/Time: 1/11/2006 15:21
End Date/Time: 30/10/2006 15:21	

Report Output														
Data Provider	Ingest Type	Data Type	Ttl. Grans	Ttl. Errors	File Avg	File Max	Size Avg (MB)	Size Max (MB)	Xfer time Avg (mins)	Xfer time Max (mins)	Preproc time Avg (mins)	Preproc time Max (mins)	Archive Time Avg (mins)	Archive Time Max (mins)
ALL_ESDTS		AEPOE1W	2	0	2	2	0.048	0.048	0	1	19	27	1	3
ALL_ESDTS		AEPOE7W	2	0	2	2	0.100	0.100	0	1	11	15	1	1
ALL_ESDTS		AE_5DSno	2	0	2	2	0.100	0.100	1	2	18	21	0	0
ALL_ESDTS		AE_DyOcn	4	0	2	2	0.100	0.100	1	3	16	28	0	1
ALL_ESDTS		AE_DySno	4	0	2	2	0.100	0.100	0	1	18	29	1	4
ALL_ESDTS		AE_L2A	29	0	2	2	0.103	0.103	2	5	16	30	1	4
ALL_ESDTS		AE_Land3	4	0	2	2	0.100	0.100	2	3	11	17	0	3
ALL_ESDTS		AE_MoOcn	3	0	2	2	0.100	0.100	2	3	12	24	0	0

16.6.2 Viewing the Volume Groups History Page

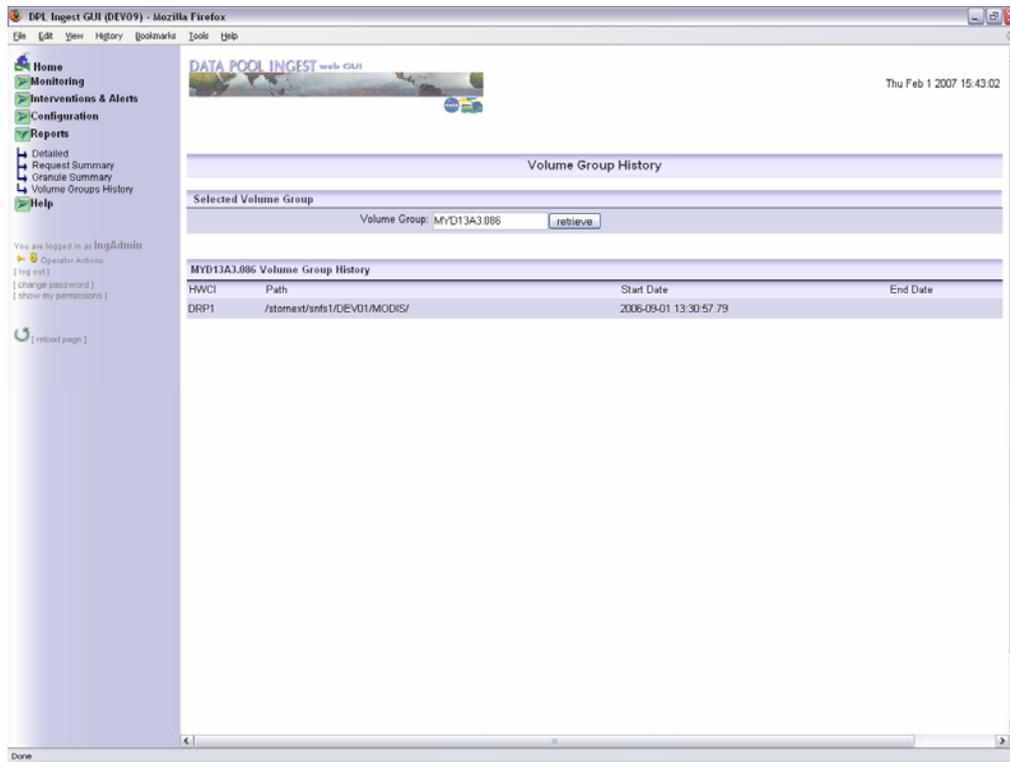
The **Volume Groups History** page displays the history of the configuration changes that have occurred to volume groups. Table 16.6-2. displays the information contained on the **Volume Groups History** page.

Table 16.6-2. Volume Groups History Page Field Description

Field Name	Data Type	Size	Entry	Description
Volume Group (Data Type, Version ID + Volume Group Type Suffix)	Character	16	Required	The name of a Volume Group.
Path History	Character	Unlimited	System Generated	In reverse chronological order, the fully qualified Unix paths to where data has been stored for the specified data type. The current path is listed first.
Hardware CI History	Character	16	System Generated	The label of the Archive silo group instance that was responsible for storing data of the specified data type.
Start Date	Date	16	System Generated	The date on which this configuration became active for the listed data type.
End Date	Date	16	System Generated	The date on which this configuration was superseded by new configuration information. If blank, this row reflects the current configuration for the volume group. If any row has a blank end date, the volume group is closed, and no further data is accepted for that volume group.

16.6.2.1 Viewing Volume Group(s) History

- 1 Click on the **Reports** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Reports** menu is expanded.
- 2 Click on the **Volume Group History** link in the navigation frame of the **DPL Ingest GUI**.
 - The **Volume Group History** page is displayed.



- 3 In the **Select Volume Group** section, click in the field next to the **Volume Group** and enter the name of the Volume Group to be reviewed.
 - The **Volume Group** name is displayed as entered.
 - 4 Select the **retrieve** button
 - The **HWCI**, **Path**, **Start Date** and **End Date**, are displayed in **[Name] Volume Group History** section.
-

16.7 Help Pages and Context Help

The **Help** section, contains information the operator can have readily available while operating the Data Pool Ingest GUI. Included in this section are three pages: General Topics, Context Help and About.

The **General Topics** page includes an index of topics that should be useful to the operator in understanding how the GUI and Data Pool Ingest system work (see Figure 16.7-1). The operator can press on the name of a section from the index in order to jump to the section text.

Index

Click on a topic title below to jump to that topic. You can also search for desired information by using your browser's built-in search function (Ctrl-F).

- Request State Transition
- Granule State Transition

Request State Transition

Requests go through various states as they are processed by the DPL Processing Service. Below are the paths that a request can take during its processing lifecycle. Some things to note:

- If a request is "stuck" and does not move to the next state after a reasonable amount of time, then the Processing Service may be down. This is normally, but not always, indicated on the GUI's home (Ingest Status) page under the Processing Service Status.
- If requests are being submitted and not being picked up, it is possible the Polling Service or Quick Server may be down or suspended.

Possible Request Paths:

Normal Transition	Cold Restart	Validation Failed
<ol style="list-style-type: none"> New validated - validation successful Active - dispatched Successful - all granules successful, PAN notif. created 	<ol style="list-style-type: none"> New validated - validation successful Terminated - cold restart 	<ol style="list-style-type: none"> New Failed - validation failed

Possible Request Paths (cont.):

Failed Granules	Suspended Granules	Operator Cancellation
<ol style="list-style-type: none"> New validated - validation successful Active - dispatched one of: <ul style="list-style-type: none"> Partial_Failure - not all granules failed Failed - all granules failed. 	<ol style="list-style-type: none"> New validated - validation successful Active - dispatched One of: <ul style="list-style-type: none"> Partially_Suspended - at least one granule suspended, one active Suspended - at least one suspended, none active Operator resumes granule from checkpoint, at which point the states would go to: <ul style="list-style-type: none"> Resuming - at least one granule suspended, one active 	<ol style="list-style-type: none"> New validated - validation successful Active - dispatched Cancelling - operator cancels request one of: <ul style="list-style-type: none"> Partially_Cancelled - not all granules cancelled Cancelled - all granules cancelled.

Granule State Transition

Granules also go through various states as they are processed by the DPL Processing Service. Below are the paths that a granules can take during its processing lifecycle.

Possible Granules Paths:

Normal Transition	Possible Error States
<ol style="list-style-type: none"> Processing (START) Transferring 	

Figure 16.7-1. Help – General Topics

The **Context** page explains another tool provided by the operator to assist him in effectively using the Data Pool Ingest GUI. Throughout most pages on the DPL GUI, you can get relevant, context-sensitive help by hovering your mouse (no need to click) over the [**help**] text. In many

cases this is to explain the significance of a parameter or to provide instructions on what to do on the page. A blue pop-over window will appear and disappears as soon as the mouse is moved.

16.8 Data Pool Maintenance GUI

The Data Pool Maintenance GUI is responsible for monitoring and maintaining the Data Pool. Data Pool Ingest requires the use of the Data Pool Maintenance (DPM) GUI to perform the following tasks:

- Monitoring Data Pool Active Insert Processes and Insert Actions
- Managing Data Pool File Systems
- Managing Data Pool Configuration Parameters and Data Pool Tuning
- Managing Data Pool Collection Groups
- Managing Data Pool Collections within Collection Groups

Table 16.8-1 provides an activity Checklist for Data Pool Maintenance.

Table 16.8-1. Data Pool Maintenance

Order	Role	Task	Section
1	Ingest Technician	Launching the DPM GUI	(P) 16.8.1.1
4	Ingest Technician	View Collection Groups	(P) 16.8.2.1
5	Ingest Technician	Modify a Collection Groups	(P) 16.8.2.2
6	Ingest Technician	Add a Collection Group	(P) 16.8.2.3
7	Ingest Technician	Add an ECS Collection to a Collection Group	(P) 16.8.2.4
8	Ingest Technician	Modify an ECS Collection	(P) 16.8.2.5

16.8.1 Data Pool Maintenance GUI

The **DPM GUI** is used for Data Pool maintenance tasks. Of course, the first thing to do is launch the GUI. The procedure for launching the GUI is provided separately here and is referenced in other procedures. It applies to both full-capability and limited-capability operators.

16.8.1.1 Launch the DPM GUI

-
- 1 At the UNIX command line prompt enter: **setenv DISPLAY <client name>:0.0**
setenv DISPLAY <client name>:0.0

- Use either the X terminal/workstation IP address or the machine-name for the client name.
- When using secure shell, the DISPLAY variable is set just once, before logging in to remote hosts. If it were to be reset after logging in to a remote host, the security features would be compromised.

2 In the terminal window (at the command line prompt) start the log-in to the appropriate host by entering:

/tools/bin/ssh <host name>

- The **-l** option can be used with the ssh command to allow logging in to the remote host (or the local host for that matter) with a different user ID. For example, to log in to x0acs03 as user cmops enter:

/tools/bin/ssh -l cmops x0acs03

- Depending on the set-up it may or may not be necessary to include the path (i.e., /tools/bin/) with the ssh command. Using ssh alone is often adequate. For example:

ssh x0acs03

- or -

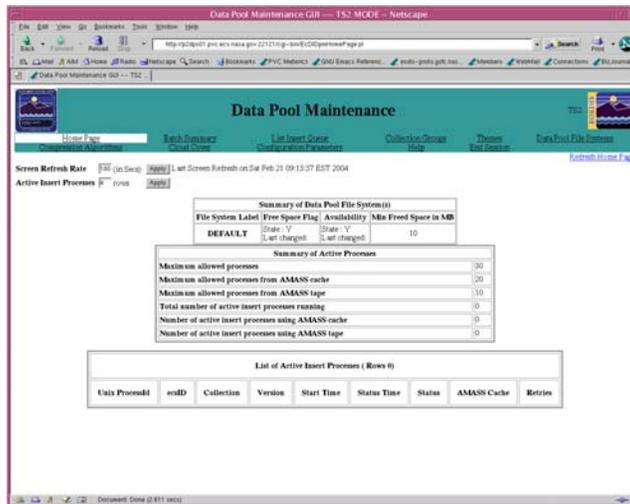
ssh -l cmops x0acs03

- Examples of Data Pool Maintenance GUI host names include **e40dpl0icg11, e4eilg0icg01, e4lil0110acg02, e4spl01** and **n0acg01** at the LP DAAC; **n4dpl01, n4eil01, n4lil01, n4spl01** at NSIDC; **l4dpl01, l4eil01, l4lil01, l4spl01** at ASDC.
- If you receive the message, “Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?” enter **yes** (“y” alone will not work).
- If you have previously set up a secure shell passphrase and executed sshremote, a prompt to Enter passphrase for RSA key '<user@localhost>' appears; continue with Step 3.
- If you have not previously set up a secure shell passphrase, go to Step 4.

3 If a prompt to **Enter passphrase for RSA key '<user@localhost>'** appears, enter: **<passphrase>**.

- If a command line prompt is displayed, log-in is complete.
 - If the passphrase is unknown, press **Return/Enter**, which should cause a **<user@remotehost>'s password:** prompt to appear (after the second or third try if not after the first one), then go to Step 4.
 - If the passphrase is entered improperly, a **<user@remotehost>'s password:** prompt should appear (after the second or third try if not after the first one); go to Step 4.
- 4** If a prompt for **<user@remotehost>'s password:** appears, enter:
<password>
- A command line prompt is displayed.
 - Log-in is complete.
- 5** Type **firefox &** then press **Return/Enter**.
- It may be necessary to respond to dialogue boxes, especially if the browser is already being used by someone else who has logged in with the same user ID.
 - The Mozilla Firefox web browser is displayed.
- 6** If a bookmark has been created for the **DPM GUI**, select the appropriate bookmark from those listed on the browser's Bookmarks pull-down window.
- The **Login:** prompt is displayed.
- 7** If no bookmark has been created for the **DPL Ingest GUI**, type **http://host:port** in the browser's **Location (Go To)** field then press **Return/Enter**.
- For example: `http://n4dpl01.nsidc.ecs.nasa.gov:22111/DataPool.html`
 - For example: `http://p4dpl01.pvc.nasa.gov:22111/DataPool.html`
 - For Example: `http://f4dpl01.hitc.com:22111/DataPool.html`
 - The **Login:** prompt is displayed.
- 8** Type the appropriate user name in the **User** box of the security **Login** prompt.
- 9** Type the appropriate password in the **Password** box of the security **Login** prompt.

- 10 Click on the **Login** button:
 - The dialogue box is dismissed.
 - The **DPM GUI** [“Home” Page] is displayed.



16.8.2 Managing Data Pool Collection Groups

The conceptual structure of the data pool is set up for each DAAC based on the collections and granules archived at the DAAC. Related collections are grouped in **Collection Groups** (e.g., ASTER collections and granules from the Terra mission, MODIS Oceans collections and granules from the Terra Mission, MISR collections and granules from the Terra mission, MODIS Snow and Ice collections and granules from the Terra mission). Each collection group initially consists of a number of collections that have been specified as valid for Data Pool insertion (i.e., granules of the data types in the collection may be inserted into the Data Pool).

The **Collection Groups** page of the **DPM GUI** allows both full-capability operators and limited-capability operators to view collection groups. It also provides access to pages for viewing collections within a collection group. In addition, the page has links that allow a full-capability operator to modify or add a collection group or collection in the Data Pool database.

Both full-capability operators and limited-capability operators can use the procedure that follows to display the list of collection groups that have collections specified as valid for Data Pool insertion and to view information about those collections.

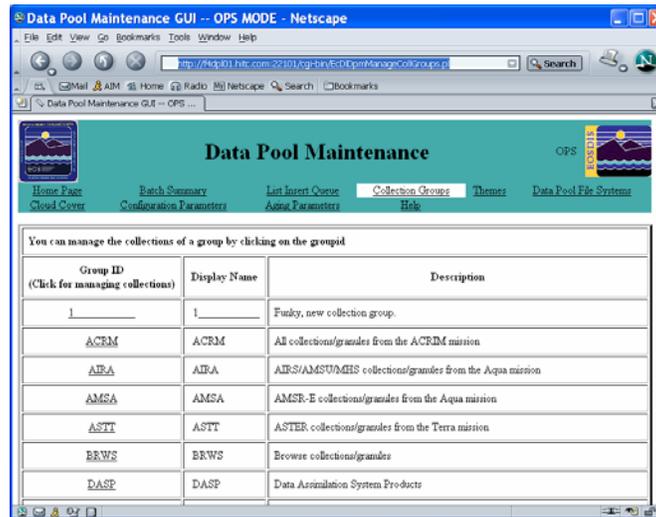
16.8.2.1 View Collection Groups

- 1 Launch the **DPM GUI**.
 - For detailed instructions refer to the **Launch the DPM GUI** procedure (previous section of this lesson).

- The **Home Page** is the default display, offering links for access to Data Pool maintenance function pages (i.e., **Data Pool File Systems, Cloud Cover, List Insert Queue, Batch Summary, Collection Groups, Themes, Configuration Parameters, Aging Parameters, and End Session**).

2 Click on the **Collection Groups** link.

- The **Collection Groups** page is displayed.

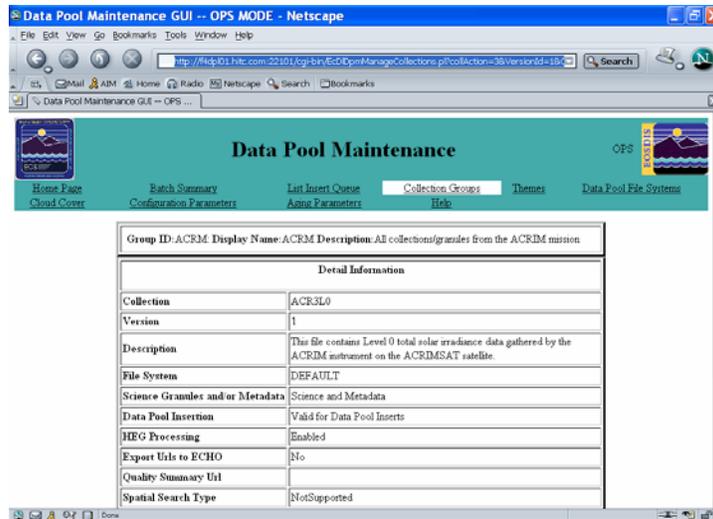


3 Observe data displayed on the **Collection Groups** page.

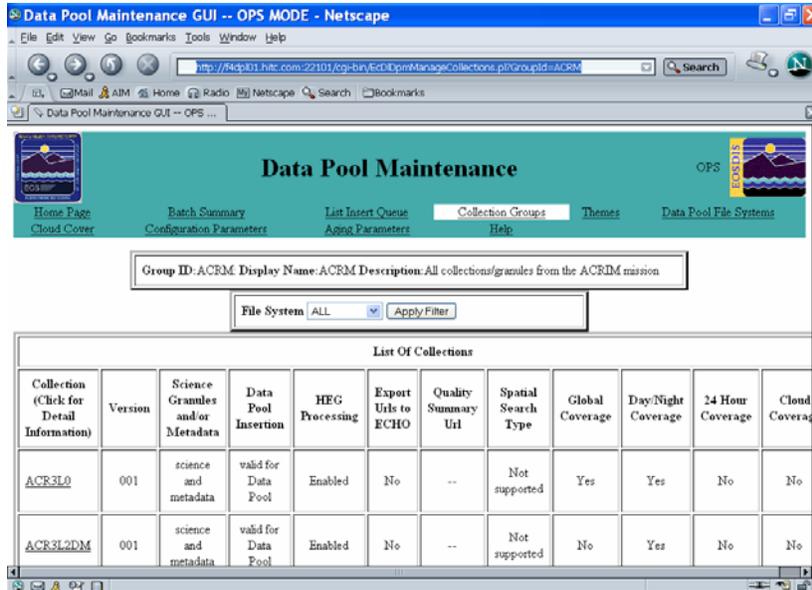
- The table on the **Collection Groups** page has columns containing the following types of collection group information:
 - **Group ID.**
 - **Display Name.**
 - **Description.**
- The following links are available on the **Collection Groups** page:
 - Each collection listed in the **Group ID** column links to a **Collection Group Detail** page.
 - **Add Collection Group.**
 - **Modify Collection Group.**

4 To obtain more information about the collections in one of the groups, click on its link in the **Group ID** column.

- The **Collection Group Detail** page is displayed.

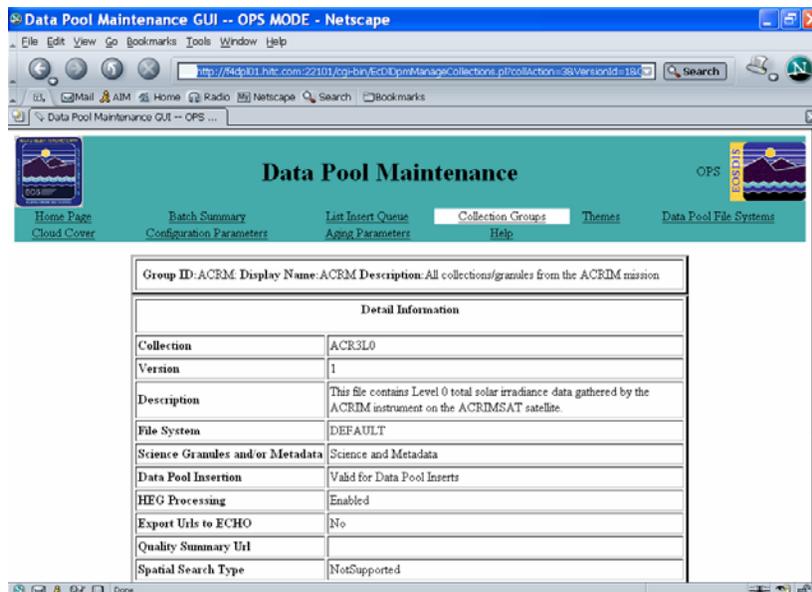


- 5 Observe data displayed on the **Collection Group Detail** page.
- Near the top of the **Collection Group Detail** page is the following basic collection group information:
 - **Group ID.**
 - **Display Name.**
 - **Description.**
 - There is a file system filter (and associated **Apply Filter** button) for displaying data on the **Collection Group Detail** page for all file systems or by individual file system.



- The table on the **Collection Group Detail** page has columns containing the following types of collection group information:
 - **Collection.**
 - **Version.**
 - **Science Granules and/or Metadata.**
 - **Data Pool Insertion.**
 - **HEG Processing.**
 - **Export Urls to ECHO.**
 - **Quality Summary Url.**
 - **Spatial Search Type.**
 - **Global Coverage.**
 - **Day/Night Coverage.**
 - **24 Hour Coverage.**
 - **Cloud Coverage.**
- The following links are available on the **Collection Group Detail** page:
 - Each collection listed in the **Collection** column links to a **Collection Detail** page.
 - **Add New Collection.**

- **Return to previous page.**
- 6 To filter data displayed on the **Collection Group Detail** page first click on the **File System** filter option button.
 - Options are displayed.
 - 7 To select a file system filter option click on the appropriate choice from the option list.
 - 8 To implement the filtering of data displayed on the **Collection Group Detail** page click on the **Apply Filter** button.
 - The **Collection Group Detail** page is displayed with the filtered collection group information.
 - 9 If data displayed on the **Collection Group Detail** page were filtered, observe data displayed on the **Collection Group Detail** page.



- 10 To obtain more information about one of the collections in the collection group, click on its link in the **Collection** column.
 - The Collection **Information Detail** page is displayed.
- 11 Observe data displayed on the Collection **Information Detail** page.
 - Near the top of the Collection **Information Detail** page is the following basic collection group information:
 - **Group ID.**
 - **Display Name.**
 - **Description.**
 - The table on the Collection **Information Detail** page has rows containing the following types of collection information:
 - **Collection.**

- **Version.**
 - **Description.**
 - **File System.**
 - **Science Granules and/or Metadata.**
 - **Data Pool Insertion.**
 - **HEG Processing.**
 - **Export Urls to ECHO.**
 - **Quality Summary Url.**
 - **Spatial Search Type.**
 - **Global Coverage.**
 - **Day/Night Coverage.**
 - **24 Hour Coverage.**
 - **Cloud Cover Type.**
 - **Cloud Cover Source.**
 - **Cloud Cover Description.**
- The following links are available on the Collection **Information Detail** page:
 - **Modify Collection.**
 - **Return to previous page.**
- 12** To view a description for another collection in the same group first click on the **Return to previous page** link.
- The **Collection Group Detail** page is displayed again.
- 13** To view a description for another collection in the same group return to Step 10.
- 14** To view a description for another collection in another group return to Step 2.
-

Rarely, it may be desirable to modify the description of one or more of the collection groups listed on the **Collection Groups** page. If there is a need to modify a collection group description, there is a link at the bottom of the list on that page providing access to a page that permits the descriptions to be modified. Full-capability operators (only) can use the following procedure to modify collection groups:

16.8.2.2 Modify Collection Groups

- 1** Launch the **DPM GUI**.
- For detailed instructions refer to the **Launch the DPM GUI** procedure (previous section of this lesson).

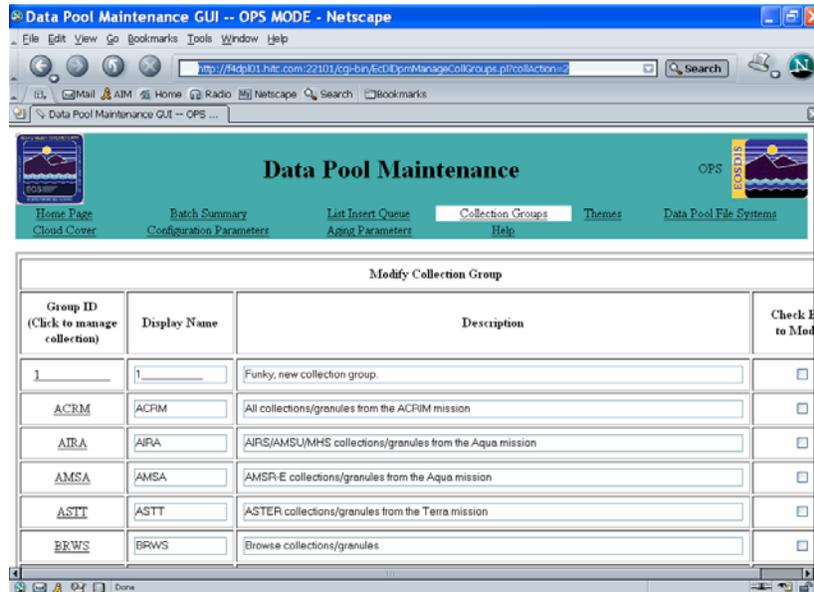
- The **Home Page** is the default display, offering links for access to Data Pool maintenance function pages (i.e., **Data Pool File Systems, Cloud Cover, List Insert Queue, Batch Summary, Collection Groups, Themes, Configuration Parameters, Aging Parameters, and End Session**).

2 Click on the **Collection Groups** link.

- The **Collection Groups** page is displayed, providing a table listing collection group information; i.e., **Group ID, Display Name, and Description**.
- The following links are available: **Add Collection Group, Modify Collection Group**, and each collection listed in the **Group ID** column links to a **Collection Group Detail** page.

3 Click on the **Modify Collection Group** link at the bottom of the page.

- The **Modify Collection Group** page is displayed, providing a table of collection group information showing five columns: **Group ID, Display Name, Description, and Check box to modify** (containing a check box to mark the collection group for change).



- There is an **Apply Change** button at the bottom of the page for implementing changes.

4 To change the display name for the collection group type the desired name in the **Display Name** field for the group ID.

- The **Display Name** may have no more than 12 characters.
 - Valid characters include A-Z, 0-9, underscore and space.

5 To change the description of the collection group type the desired description in the **Description** field for the group ID.

- The **Description** may have no more than 255 characters.

- 6 Click in the check box at the end of the row containing collection group information to be modified.
 - The selected collection group information is marked for modification.
 - 7 Repeat Steps 4 through 6 for any additional collection groups to be modified.
 - 8 Click on the **Apply Change** button.
 - The revised collection group information is entered in the Data Pool database.
 - The **Collection Groups** page is displayed with the modified collection group information.
-

From time to time, it may be necessary to add a collection group (e.g., if a DAAC begins archiving data from a new instrument). If a collection group is to be added to the list of collection groups, it is necessary to use the **Add Collection Group** link at the bottom of the **Manage Collection Groups** page. Full-capability operators (only) can use the procedure that follows to modify collection groups:

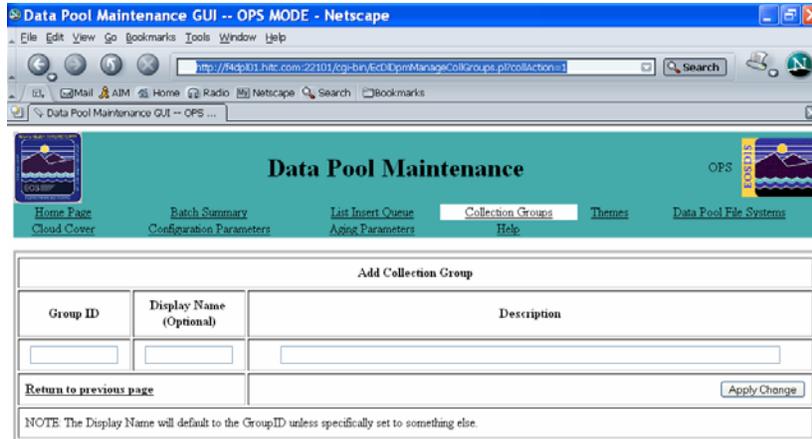
NOTE: Although the following procedure is applicable, most of the time new collection groups will be added only during releases of new software versions and you will not use this procedure often.

Caution

The Add Collection Group function is to be exercised judiciously because the **DPM GUI** does not provide any means of deleting collection groups.

16.8.2.3 Add a Collection Group

- 1 Launch the **DPM GUI**.
 - For detailed instructions refer to the **Launch the DPM GUI** procedure (previous section of this lesson).
 - The **Home Page** is the default display, offering links for access to Data Pool maintenance function pages (i.e., **Data Pool File Systems**, **Cloud Cover**, **List Insert Queue**, **Batch Summary**, **Collection Groups**, **Themes**, **Configuration Parameters**, **Aging Parameters**, and **End Session**).
- 2 Click on the **Collection Groups** link.
 - The **Collection Groups** page is displayed, providing a table listing collection group information; i.e., **Group ID**, **Display Name**, and **Description**.
 - The following links are available: **Add Collection Group**, **Modify Collection Group**, and each collection listed in the **Group ID** column links to a **Collection Group Detail** page.
- 3 Click on the **Add Collection Group** link at the bottom of the page.
 - The screen displays a page with three columns of text-entry fields, **Group ID**, **Display Name**, and **Description**.



- 4 Type a unique identifier for the new collection group in the **Group ID** field.
 - The **Group ID** may have no more than 12 characters.
 - Valid characters include A-Z, 0-9, and underscore.
 - The **Group ID** will be compared with the existing **Group IDs** to ensure that it is not a duplicate of another ID.
- 5 To provide a display name that is different from the **Group ID** type a name in the **Display Name** field.
 - The **Display Name** is the name for the collection as displayed on the **Data Pool Web Access GUI**.
 - If no **Display Name** is entered, the **Group ID** will be used as the **Display Name**.
 - The **Display Name** may have no more than 12 characters.
 - Valid characters include A-Z, 0-9, underscore and space.
- 6 Type the description for the new collection group in the **Description** field.
 - The **Description** may have no more than 255 characters.
- 7 Click on the **Apply Change** button.
 - The new collection group information is entered in the Data Pool database.
 - The **Collection Groups** page is displayed with the new collection group information.

Although an initial Data Pool structure is provided, not all collections are necessarily specified as eligible for Data Pool insertion. Based on experience, or on changes in demand, a DAAC may wish to add one or more collections to a data group. Full-capability operators (only) can use the following procedure to add an ECS collection to an existing collection group:

16.8.2.4 Add an ECS Collection to a Collection Group

- 1 Launch the **DPM GUI**.
 - For detailed instructions refer to the **Launch the DPM GUI** procedure (previous section of this lesson).
 - The **Home Page** is the default display, offering links for access to Data Pool maintenance function pages (i.e., **Data Pool File Systems, Cloud Cover, List Insert Queue, Batch Summary, Collection Groups, Themes, Configuration Parameters, Aging Parameters, and End Session**).
- 2 Click on the **Collection Groups** link.
 - The **Collection Groups** page is displayed, providing a table listing collection group information; i.e., **Source Type, Group ID, Display Name, and Description**.
 - The following links are available: **Add Collection Group, Modify Collection Group**, and each collection listed in the **Group ID** column links to a **Collection Group Detail** page.
- 3 Click on the **Group ID** link for the ECS collection group to which the collection is to be added.
 - The **Collection Group Detail (List of Collections)** page is displayed with the following basic collection group information near the top of the page: **Group ID, Display Name, and Description**.
 - There is a file system filter (and associated **Apply Filter** button) for displaying data on the **Collection Group Detail** page for all file systems or by individual file system.
 - The table on the **Collection Group Detail** page has 13 columns containing the following types of collection group information: **Collection, Version, Science Granules and/or Metadata, Data Pool Insertion, HEG Processing, Export Urls to ECHO, Quality Summary Url, Spatial Search Type, Global Coverage, Day/Night Coverage, 24 Hour Coverage, and Cloud Coverage**.
 - The following links are available: **Add New Collection, Return to previous page**, and each collection listed in the **Collection** column links to a **Collection Detail** page.
- 4 Click on the **Add New Collection** link at the bottom of the **Collection Group Detail (List of Collections)** page.
 - The **Collections Not in Data Pool** page is displayed with the following basic collection group information near the top of the page: **Data Source** (i.e., ECS), **Group ID, Display Name, and Description**.
 - The table on the **Collections Not in Data Pool** page has three columns containing the following types of collection group information: **Collection, Version, and Description**.
 - The following links are available: **Return to previous page** and each collection listed in the **Collection** column links to a **Collection Detail** page.

- 5 Click on the link (in the **Collection** column) of the collection to be added to the collection group.
- The **Add New Collection** page is displayed with the following basic collection group information near the top of the page: **Group ID, Display Name, and Description.**
 - The **Add New Collection** page has a table of collection information showing: **Collection, Version, Description, File System, Science Granules and/or Metadata, Data Pool Insertion, Export Urls to ECHO, Quality Summary Url, Spatial Search Type, Global Coverage, Day/Night Coverage, 24 Hour Coverage, and Cloud Cover Type & Source.**
 - There is an **Apply Change** button at the bottom of the page to implement the new collection in the collection group.

NOTE: On the ECS collection version of the **Add New Collection** page the **Collection, Version, Description, and Spatial Search Type** fields are already filled in using information from the Data Pool database.

- 6 To display file system options (if applicable) click on the **File System** option button.
- **File System** options are displayed (if there are multiple Data Pool file systems).
- 7 To select a file system option (if applicable) click on the appropriate choice from the **File System** option list.
- 8 To display science granules and/or metadata options click on the **Science Granules and/or Metadata** option button.
- **Science Granules and/or Metadata** options (i.e., **Science and Metadata** and **Metadata Only**) are displayed.
- 9 To select a science granules and/or metadata option click on the appropriate choice from the **Science Granules and/or Metadata** option list.
- **Science and Metadata** is the default option.
- 10 To display data pool insertion options click on the **Data Pool Insertion** option button.
- **Data Pool Insertion** options (i.e., **Invalid for Data Pool** and **Valid for Data Pool**) are displayed.
- 11 To select a data pool insertion option click on the appropriate choice from the **Data Pool Insertion** option list.
- **Invalid for Data Pool** is the default option.
 - **Valid for Data Pool** must be selected if the collection is to be eligible for insertion into the Data Pool.
- 12 To display ECHO export options click on the **Export Urls to ECHO** option button.
- ECHO export options (i.e., **Yes** and **No**) are displayed.
- 13 To select an ECHO export option click on the appropriate choice from the **Export Urls to ECHO** option list.
- **No** is the default option.

- **Yes** must be selected if collection URLs are to be eligible for export to ECHO.
- 14 If the collection is to be linked to a quality summary web site, enter the URL in the **Quality Summary** text entry field.
- Ensure that **http://** is included in the **Quality Summary** text entry field.
- 15 To display global coverage options click on the **Global Coverage** option button.
- **Global Coverage** options are displayed.
- 16 To select a global coverage option click on the appropriate choice from the **Global Coverage** option list.
- **Yes** indicates no spatial searches for the collection.
 - **No** indicates that spatial searches are allowed for the collection.
- 17 To display day/night coverage options click on the **Day/Night Coverage** option button.
- **Day/Night Coverage** options are displayed.
- 28 To select a day/night coverage option click on the appropriate choice from the **Day/Night Coverage** option list.
- **Yes** indicates that day/night searches are allowed for the collection.
 - **No** indicates that the collection is excluded from day/night searches.
- 19 To display 24-hour coverage options click on the **24 Hour Coverage** option button.
- **24 Hour Coverage** options are displayed.
- 20 To select a 24-hour coverage option click on the appropriate choice from the **24 Hour Coverage** option list.
- **Yes** indicates that the collection is excluded from time of day searches.
 - **No** indicates that time of day searches are allowed for the collection.
- 21 To display cloud cover type and source options click on the **Cloud Cover Type & Source** option button.
- **Cloud Cover Type & Source** options are displayed.
- 22 To select a cloud cover type and source option click on the appropriate choice from the **Cloud Cover Type & Source** option list.
- All cloud cover information in the Data Pool database is listed.
 - If the desired cloud cover type/source is not listed, it can be entered using the procedure **Add New Cloud Cover Information Using the DPM GUI** (previous section of this lesson).
- 23 To view details of cloud cover type and source click on the **View Details** link adjacent to the **Cloud Cover Type & Source** option list.
- 24 Click on the **Apply Change** button.
- The new collection information is entered in the Data Pool database.

- The **Collection Group Detail** page is displayed with the new collection information.
-

As part of managing the Data Pool storage and retention of data, making adjustments based on experience and/or changes in demand, it may be desirable to modify a collection. The modification may mean specifying that metadata only may continue to be inserted and science granules may no longer be inserted, or declaring the collection no longer valid for data pool insertion at all.

16.8.2.5 Modify an ECS Collection

- 1 Launch the **DPM GUI**.
 - For detailed instructions refer to the **Launch the DPM GUI** procedure (previous section of this lesson).
 - The **Home Page** is the default display, offering links for access to Data Pool maintenance function pages (i.e., **Data Pool File Systems, Cloud Cover, List Insert Queue, Batch Summary, Collection Groups, Themes, Configuration Parameters, Aging Parameters, and End Session**).
- 2 Click on the **Collection Groups** link.
 - The **Collection Groups** page is displayed, providing a table listing collection group information; i.e., **Source Type, Group ID, Display Name, and Description**.
 - The following links are available: **Add Collection Group, Modify Collection Group**, and each collection listed in the **Group ID** column links to a **Collection Group Detail** page.
- 3 Click on the **Group ID** link for the collection group containing the collection to be modified.
 - The **Collection Group Detail (List of Collections)** page is displayed with the following basic collection group information near the top of the page: **Group ID, Display Name, and Description**.
 - There is a **File System** filter (and associated **Apply Filter** button) for displaying data on the **Collection Group Detail** page for all file systems or by individual file system.
 - The **Add New Collection** page has a table of collection information showing: **Collection, Version, Description, File System, Science Granules and/or Metadata, Data Pool Insertion, Export Urls to ECHO, Quality Summary Url, Spatial Search Type, Global Coverage, Day/Night Coverage, 24 Hour Coverage, and Cloud Cover Type & Source**.
 - The following links are available: **Add New Collection, Return to previous page**, and each collection listed in the **Collection** column links to a **Collection Detail** page.
- 4 Click on the link (in the **Collection** column) of the collection to be modified.
 - The **Collection Detail** page is displayed with the following basic collection group information near the top of the page: **Group ID, Display Name, and Description**.

- The **Collection Detail** page has a table of collection information showing 17 rows: **Collection, Version, Description, File System, Science Granules and/or Metadata, Data Pool Insertion, HEG Processing, Export Urls to ECHO, Quality Summary Url, Spatial Search Type, Global Coverage, Day/Night Coverage, 24 Hour Coverage, Cloud Cover Type, Cloud Cover Source, and Cloud Cover Description.**
- There is a **Modify Collection** link and a **Return to previous page** link at the bottom of the page.

5 Click on the **Modify Collection** link.

- The **Modify Collection** page is displayed with the following basic collection group information near the top of the page: **Group ID, Display Name, and Description.**
- The **Modify Collection** page has a table of collection information showing 15 rows: **Collection, Version, Description, File System, Science Granules and/or Metadata, Data Pool Insertion, HEG Processing, Export Urls to ECHO, Quality Summary Url, Spatial Search Type, Global Coverage, Day/Night Coverage, 24 Hour Coverage, and Cloud Cover Type & Source.**
- There is an **Apply Change** button at the bottom of the page to implement the new collection in the collection group.

NOTE: On the ECS collection version of the **Modify Collection** page the **Collection, Version, Description, and Spatial Search Type** fields cannot be edited.

6 To display file system options (if applicable) click on the **File System** option button.

- **File System** options are displayed (if there are multiple Data Pool file systems).

7 To select a file system option (if applicable) click on the appropriate choice from the **File System** option list.

8 To display science granules and/or metadata options (if applicable) click on the **Science Granules and/or Metadata** option button.

- **Science Granules and/or Metadata** options (i.e., **Science and Metadata** and **Metadata Only**) are displayed.

9 To select a science granules and/or metadata option (if applicable) click on the appropriate choice from the **Science Granules and/or Metadata** option list.

- **Science and Metadata** is the default option.

10 To display data pool insertion options (if applicable) click on the **Data Pool Insertion** option button.

- **Data Pool Insertion** options (i.e., **Invalid for Data Pool** and **Valid for Data Pool**) are displayed.

11 To select a data pool insertion option (if applicable) click on the appropriate choice from the **Data Pool Insertion** option list.

- **Valid for Data Pool** must be selected if the collection is to be eligible for insertion into the Data Pool.

- 12 To display ECHO export options click on the **Export Urls to ECHO** option button.
 - ECHO export options (i.e., **Yes** and **No**) are displayed.
- 13 To select an ECHO export option click on the appropriate choice from the **Export Urls to ECHO** option list.
 - **No** is the default option.
 - **Yes** must be selected if collection URLs are to be eligible for export to ECHO.
- 14 If the collection is to be linked to a quality summary web site, enter the URL in the **Quality Summary** text entry field.
 - Ensure that **http://** is included in the **Quality Summary** text entry field.
- 15 To display global coverage options (if applicable) click on the **Global Coverage** option button.
 - **Global Coverage** options are displayed.
- 16 To select a global coverage option (if applicable) click on the appropriate choice from the **Global Coverage** option list.
 - **Yes** indicates no spatial searches for the collection.
 - **No** indicates that spatial searches are allowed for the collection.
- 17 To display day/night coverage options (if applicable) click on the **Day/Night Coverage** option button.
 - **Day/Night Coverage** options are displayed.
- 18 To select a day/night coverage option (if applicable) click on the appropriate choice from the **Day/Night Coverage** option list.
 - **Yes** indicates that day/night searches are allowed for the collection.
 - **No** indicates that the collection is excluded from day/night searches.
- 19 To display 24-hour coverage options (if applicable) click on the **24 Hour Coverage** option button.
 - **24 Hour Coverage** options are displayed.
- 20 To select a 24-hour coverage option (if applicable) click on the appropriate choice from the **24 Hour Coverage** option list.
 - **Yes** indicates that the collection is excluded from time of day searches.
 - **No** indicates that time of day searches are allowed for the collection.
- 21 To display cloud cover type and source options (if applicable) click on the **Cloud Cover Type & Source** option button.
 - **Cloud Cover Type & Source** options are displayed.
- 22 To select a cloud cover type and source option (if applicable) click on the appropriate choice from the **Cloud Cover Type & Source** option list.
 - All cloud cover information in the Data Pool database is listed.

- If the desired cloud cover type/source is not listed, it can be entered using the procedure **Add New Cloud Cover Information Using the DPM GUI** (previous section of this lesson).
- 23** To view details of cloud cover type and source (if applicable) click on the **View Details** link adjacent to the **Cloud Cover Type & Source** option list.
- 24** Click on the **Apply Change** button.
- The modified collection information is entered in the Data Pool database.
 - The **Collection Group Detail** page is displayed with the modified collection information.
-

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