

# 15. Distribution Concepts

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## 15.1 System Overview

Data distribution is accomplished at the Distributed Active Archive Centers (DAACs). The Order Manager Subsystem (OMS) manages all orders arriving via the EWOC [EOSDIS ClearingHouse (ECHO) Web Service Distribution Language (WSDL) Ordering Component (OC)]. All data requests received into the OMS subsystem are validated by the server. The OMS manages distribution of data electronically using FtpPush, SCP (Secure Copy) and FtpPull.

Ftp (file transfer protocol) Pull request links are created in an FtpPull directory indexed by the request id. The links point to the requested files in the Data Pool storage. FtpPush/SCP requests are delivered using the ECS ftp API based on libcurl and GSOAP. This library also used by Ingest and BMGT. Upon successful shipment, OMS sends a Distribution Notice (DN) to the end user.

An order is considered complete when it becomes "Shipped":

- FtpPull orders - The request status is updated to "Shipped" after the order is staged (order expires as configured by DAAC's FtpPull retention time) and file links are made in the Data Pool storage. The DN includes an ftp link to the files.
- FtpPush and SCP (Secure Copy Protocol) orders – The request status is "Shipped" after Order Manager Server finishes pushing all the order's associated data to its destination.

Special orders, such as DPL Data Access requested HEG (HDF-EOS to GeoTIFF) Conversion Tool and EWOC requested External Subsetter (EP) and ESI DataAccess (DA) orders require further processing by processing services:

- DataAccess requested HEG orders - The Order Manager creates HEG requests, per granule, based on the original HEG order processing instructions. It then submits order to the HEG Server through the HEG API (Application Program Interface). The HEG requests are processed and returns the final output to the Order Manager Server, which then distributes the final output to the end user.
- External Subsetter Orders - The External Subsetter creates output granules which are associated with the EPD Server order. The Order Manager Server will later distribute the output granules.
- DataAccess requested processing – Reverb forms can be created to allow users to specify ESI processing options when selecting granules from a collection. These are forwarded to OMS which will determine the Processing endpoint which can be used to process the granules as requested.

The context diagram (Figure 15.1-1) shows a generalized (high-level) view of the system. The Order Manager Subsystem (OMS) architecture diagram (Figure 15.1-2) illustrates the relationship of the Order Manager with the various subsystems on both the input (order-receiving) and output (order-dispatching) sides of order management.



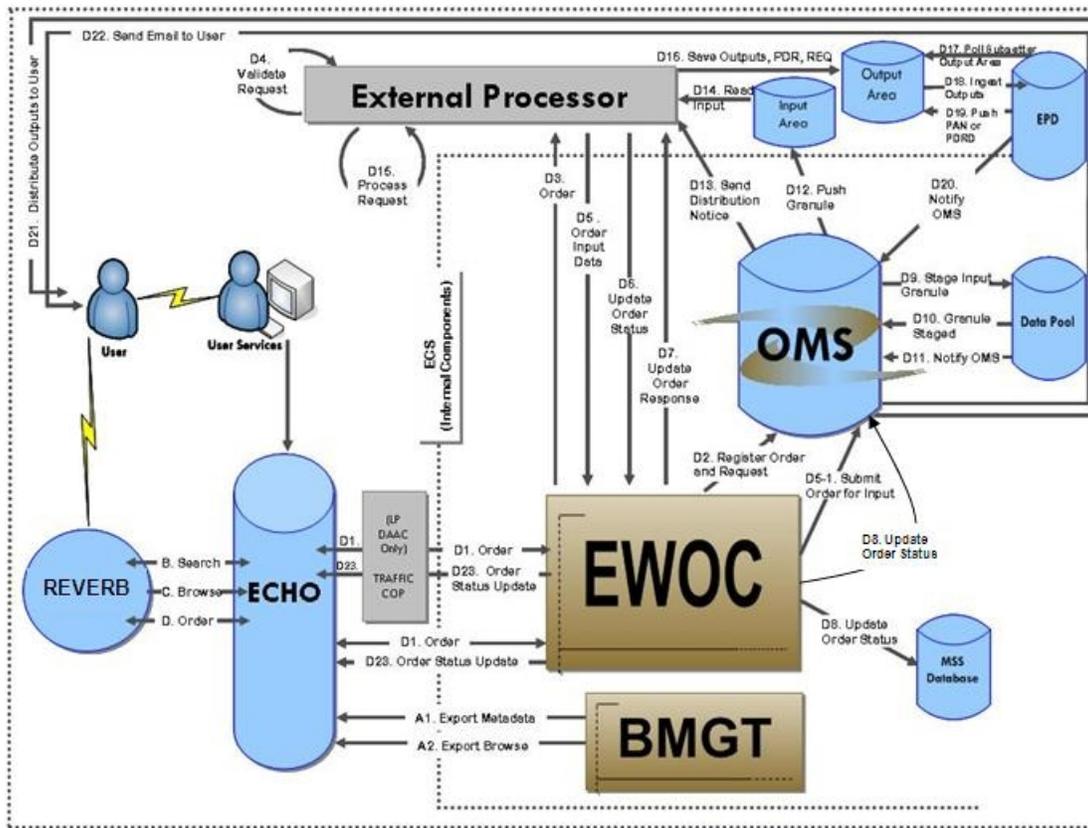


Figure 15.1-2. Order Manager Subsystem (OMS) Context Diagram for EP requests

## 15.2 Order Manager Subsystem (OMS)

The Order Manager Subsystem (OMS) performs the following functions:

- Manages all the orders arriving from Reverb, ECHO and the External Processor via the EWOC.
- Performs validation of the orders it receives before submitting the applicable requests to the order-fulfilling services.
- Queues processing requests and dispatches individual line items to processing services.
- OMS creates links for each ordered public granule in the hidden Data Pool (DPL) , creates links from the FtpPull directory in the Data Pool storage to the hidden DPL if the distribution type is FtpPull, and distributes the order to the appropriate host for FtpPush/SCP, then sends a Distribution Notice to the end user when the order is considered shipped.
- The OMS handles requests for Browse granules by extracting the browse cross-reference from the Inventory database and copying the Browse HDF files into the Data Pool.
  - The EP and DataAccess orders that arrive via the EWOC are those that have been submitted by Reverb, ECHO, or ASTER Ground Data System (GDS) users.
    - EWOC registers external processing orders with OMS.
    - EPD registers external processing outputs with OMS.
    - OMS distributes external processing and DataAccess outputs like any other data.
    - OMS displays external processing and DataAccess orders.

Order Manager Server has four major components:

1 - PostgreSQL Server:

- COTS software application that handles order management-related interactions (including insertion and retrieval of data) with the Order Management database.

2 - Order Manager (OM) GUI:

- GUI that allows operators to view and modify requests that the Order Manager Server has suspended that requires operator intervention.
- In addition, the GUI allows operators to suspend, resume, cancel, resubmit, or change the priority of requests.

### 15.3 OM GUI Operator Security

The OM GUI allows DAAC Operators to completely manage order distribution requests from a web browser. Operator GUI security offers two levels of permissions, Full and Limited Capability, for OM GUI operations. Table 15.3-1 Operator GUI Security Capabilities defines the allowable security level capabilities of the Operators within the OM GUI.

**Table 15.3-1. OM GUI Operator Security Capabilities**

ROLE	CAPABILITY
Full-Capability Operator (FC)	<ul style="list-style-type: none"> <li>• Ability to configure parameters and perform all other actions (i.e., resubmit, suspend, resume, cancel, stop distribution requests) that can be accomplished with the OM GUI.</li> <li>• Modify request parameter values associated with Operator interventions and PMD.</li> <li>• Configure, view and monitor OM server, database and HEG parameters and orders.</li> <li>• Configure PMD devices, printers, production modules and define each media type settings.</li> <li>• Performs PMD requests actions e.g., activate, fail, annotate, confirm/fail mount media; confirm/fail media collection; activate quality check (QC); mark shipped and confirm media dismounted; confirm/mark package assembled/not assembled; print output.</li> <li>• Suspend/Resume and monitor processing queue states, staging states, current status by media type or FtpPush/SCP destination.</li> <li>• Resume suspended, define and configure ftppush/scp destinations, as well as the "policies" for those destinations.</li> </ul>
Limited-Capability Operator (LC)	<ul style="list-style-type: none"> <li>• Can view most information; however some buttons and links have been disabled so it is impossible to perform certain actions or access certain pages. Capabilities are limited to basic functionality i.e., view the Distribution Request page, but can take no action.</li> <li>• View and monitor OM's server, database and HEG parameters.</li> <li>• Monitor current status, processing queue and staging states by media type or FtpPush/SCP destination.</li> </ul>
FC or LC Operators	<ul style="list-style-type: none"> <li>• View lists of all detailed distribution requests i.e., ftppush/scp distribution, staging distribution, or historical distribution requests and status (suspended, shipped, staged, not in terminal state, etc).</li> <li>• Filter distribution requests by combinations of available named data fields.</li> <li>• Monitor for interventions associated with HDF-EOS to GeoTIFF (HEG) Conversion Tool processing, pending HEG granules and order status.</li> <li>• Monitor operator alerts (i.e., ftppush operations, dpl file system errors, archive server or tape errors), monitor processing queue and staging states (including by media type or ftppush/scp destination).</li> <li>• Monitor current status, processing queue and staging states by media type or FtpPush/SCP destination.</li> <li>• Get general and context-based help for all OM GUI functions.</li> </ul>
Administrator	<ul style="list-style-type: none"> <li>• Administers and maintains FC or LC Operator's read (r) and/or read/write (rw) permissions for all fields on every page within the OM GUI.</li> </ul>

## 15.4 Order Manager GUI

There are several key features that describe the general functionality of the Order Manager (OM) Graphic User Interface (GUI):

- The GUI is accessed through a web browser.
- The GUI allows Operators to view and modify requests that have been placed on hold by the Order Manager Server because they require operator intervention, and resubmit requests or portions of a request that have failed.
- The GUI incorporates management of HEG orders.
- The OM GUI allows operators to configure ODL metadata users, external subsetter and SCP policy.

OM GUI is certified for use with any Mozilla5.0 based browser, e.g., Netscape 7+, Firefox 3.5+, generic "Mozilla" browsers for Linux or UNIX. The OMS GUI was not designed to work with MS Internet Explorer or older versions of Netscape. JavaScript is an integral part of the OM GUI, and as such it must be enabled in the client browser. The ability to create popup windows must be enabled. Table 15.4-1 shows the activity checklist for the Launch Order Manager GUI.

**Table 15.4-1. Launch Order Manager GUI - Activity Checklist**

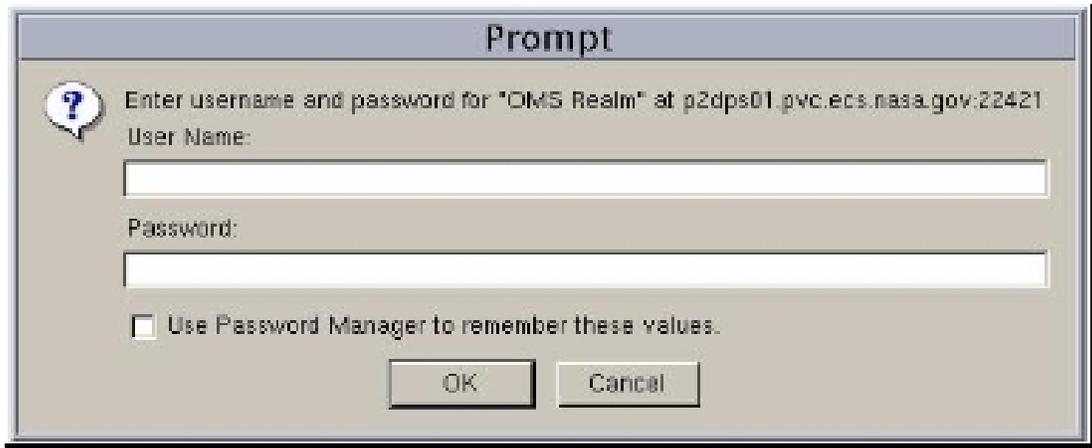
Order	Role	Task	Section	Complete?
1	Distribution Technician	Launching the Order Manager GUI	(P) 15.4.1	15.4.1

### 15.4.1 Launching the Order Manager GUI

1. To activate the OM GUI, access a terminal and logon to a host that has access to a recommended web browser:
  - Type <URL> and press <Enter>
  - Example URL: http://x4iil01.<DAAC\_extension>:<port>.

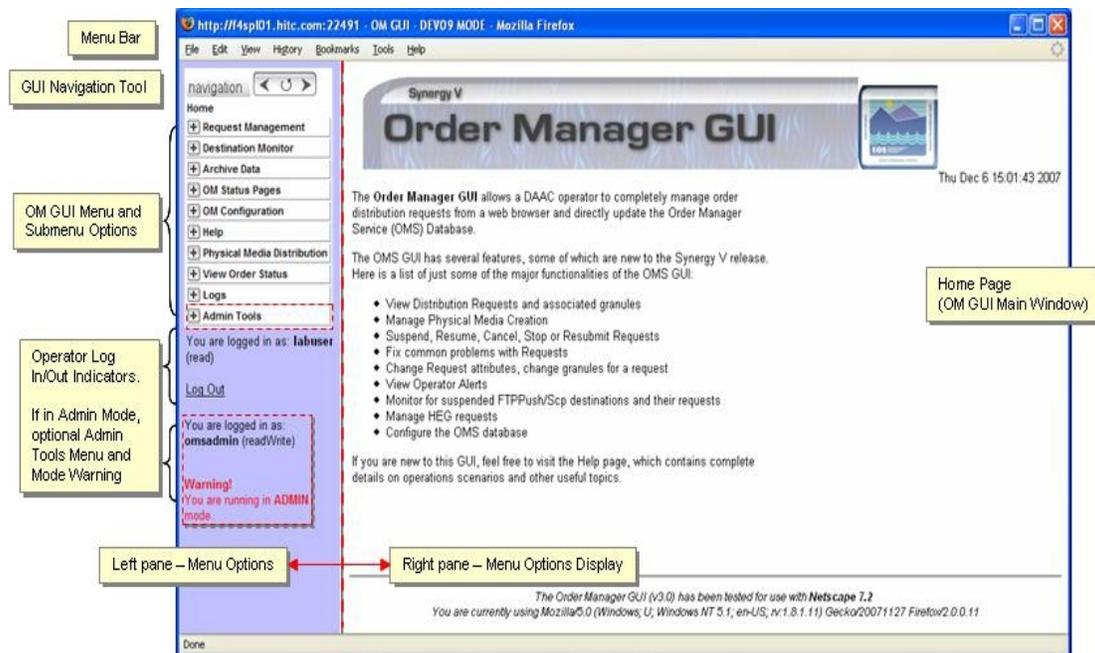
**NOTE:** There is no need to specify a cgi-bin directory or a specific HTML page. The GUI will open in a new window and will close the parent window. If run on a Windows or Linux platform, the parent window may not close.

2. Type the appropriate security information in the Security Login Prompt dialog box:
  - Type <User Name>, then **tab**
  - Type <Password>
  - The **security login Prompt** (Figure 15.4-1) dialog box displays.



**Figure 15.4-1. Security Login Prompt**

3. Select the appropriate button to continue/discontinue the login process:
  - Click **OK** - to complete the login and to dismiss the dialog box.
  - The **Order Manager GUI Home Page** (Figure 15.4-2) displays.
  - Click **Cancel** - to dismiss the dialog box without logging in.



**Figure 15.4-2. Order Manager Home Page**

## 15.5 Order Manager GUI Operations

Activities (Table 15.5-1 Operator GUI Security Capabilities) for Order Management are performed using the OM GUI.

**Table 15.5-1. Operator GUI Security Capabilities (1 of 2)**

ORDER MANAGER GUI MENUS		
Navigation Menu Options	Submenu Options	
<b>Request Management</b> – provide options to manage all validated requests; provide interventions capabilities; and process subsetting. It also allows Operators to fix common problems with requests within the OMS GUI.	<ul style="list-style-type: none"> <li>Open Interventions</li> <li>HEG Interventions</li> <li>Completed Actions &amp; Interventions</li> <li>Distribution Requests [filter]</li> </ul>	<ul style="list-style-type: none"> <li>Processing Service Requests [filter]</li> <li>FtpPush/SCP Requests [filter]</li> <li>Staging Requests [filter]</li> <li>Operator Alerts</li> </ul>
<b>Destination Monitor</b> – provides monitoring capability to suspend distributions and resume them.	<ul style="list-style-type: none"> <li>Suspended Destinations</li> </ul>	
<b>Archive Data</b> – is the repository for all historical distributed and processed requests.	<ul style="list-style-type: none"> <li>Historical Distribution Requests [filter]</li> </ul>	<ul style="list-style-type: none"> <li>Historical Processing Requests [filter]</li> </ul>
<b>OM Status Pages</b> – displays summary information of current states, i.e., suspended or active, for each media server or email. It also displays each archive server's staging status.	<ul style="list-style-type: none"> <li>OM Queue Status</li> <li>HEG Order Status</li> </ul> <p>Staging Status:</p> <ul style="list-style-type: none"> <li>Media Type</li> <li>FTP Push Destination</li> </ul>	<ul style="list-style-type: none"> <li>Pending HEG Granules</li> <li>SCP Destination</li> <li>DPL File System Status</li> </ul>
<b>OM Configuration</b> – allows Operator to configure aging rules for each priority level – Aging Parameters; to set database and server parameters, which affect the entire system – Server/Database Configuration; and to set and adjust media types attributes – Media Configuration. Provides checksum validation on files distributed by OMS and allow Users to perform validity tests against granules they receive.	<ul style="list-style-type: none"> <li>Aging Parameters</li> </ul> <p><b>Server/Database</b></p> <ul style="list-style-type: none"> <li>[All] [queue], [cleanup], [email] [media], [staging], [partition], [misc.], [HEG]</li> </ul>	<ul style="list-style-type: none"> <li>Media</li> <li>ODL Metadata Users</li> <li>Checksum Users</li> <li>External Processing</li> <li>DataAccess</li> <li>FtpPush/SCP Policy</li> </ul>
<b>Help</b> – provides guidelines to using the OMS GUI.	<ul style="list-style-type: none"> <li>About HelpOnDemand...</li> <li>Help</li> </ul>	
<b>View Order Status</b> – displays summary states information of current requests.	<ul style="list-style-type: none"> <li>OM GUI Order Status</li> </ul>	

**Table 15.5-1. Operator GUI Security Capabilities (2 of 2)**

ORDER MANAGER GUI MENUS		
Navigation Menu Options	Submenu Options	
<p><b>Logs</b> – A log viewer is a convenient diagnostic tool that displays all current activity in the OM GUI. Records of every running page and stored procedure are recorded in the log file located under «cgi-bin/logs» directory.</p>	<ul style="list-style-type: none"> <li>• OM GUI Log Viewer</li> </ul>	
<p><b>Admin Tools</b> – Controls the Operator profiles and configurations for all fields of every page within the OM GUI.</p>	<ul style="list-style-type: none"> <li>• Server/Database Parameters</li> <li>• Media Parameters</li> <li>• Aging Parameters</li> </ul>	<ul style="list-style-type: none"> <li>• FtpPush Policy</li> <li>• Action Pages</li> <li>• Profile Management</li> </ul>

## 15.6 OM GUI – Request Management

The Operator is provided with the options to manage, monitor and control open/completed interventions. Allowing the means to provide intervention capabilities help to ensure eligible requests from varying order sources are distributed or handled appropriately. The action to process subsetting is also available. Non-fatal errors and warnings related to data space/storage, ftppush/scp destination, and server warnings are functions handled within the OM GUI.

The Request Management submenu options will be examined using the following checklist shown in Table 15.6-1:

**Table 15.6-1. Request Management - Activity Checklist (1 of 2)**

Order	Role	Task	Section	Complete?
1	<b>Distribution Technician</b>	Setting Refresh Option	(P)15.6.1.1.1	
2	<b>Distribution Technician</b>	Viewing and Responding to Open Interventions: <ul style="list-style-type: none"> <li>• Assignment of Worker</li> <li>• Manual Fail of Granule</li> <li>• Specifying a Replacement Granule</li> <li>• Changing Granule Attributes</li> <li>• Changing Granule Media Type, Priority and Formats</li> <li>• Changing Request Disposition</li> <li>• Close Interventions</li> </ul>	(P) 15.6.1.2	

**Table 15.6-1. Request Management - Activity Checklist (2 of 2)**

Order	Role	Task	Section	Complete?
3	<b>Distribution Technician</b>	Viewing and Responding to Open HEG Interventions: <ul style="list-style-type: none"> <li>• Assign/Change Worker</li> <li>• Fail Action on Request</li> <li>• Fail Request</li> </ul>	(P) 15.6.2.1	
4	<b>Distribution Technician</b>	Filtering Data on Completed Actions and Interventions Page	(P) 15.6.3.1	
5	<b>Distribution Technician</b>	Filtering Data on Distribution Requests Page	(P) 15.6.4.1	
6	<b>Distribution Technician</b>	Filtering FtpPush/SCP Requests or Staging Distribution Requests Page	(P) 15.6.5.1	
7	<b>Distribution Technician</b>	Filtering Processing Service Requests Page	(P) 15.6.6.1	
8	<b>Distribution Technician</b>	Handling Operator Alerts	(P) 15.6.7.1	
9	<b>Distribution Technician</b>	Logging Out of OM GUI	(P) 15.6.8.1	

### 15.6.1 Request Management Submenu Page – Open Interventions

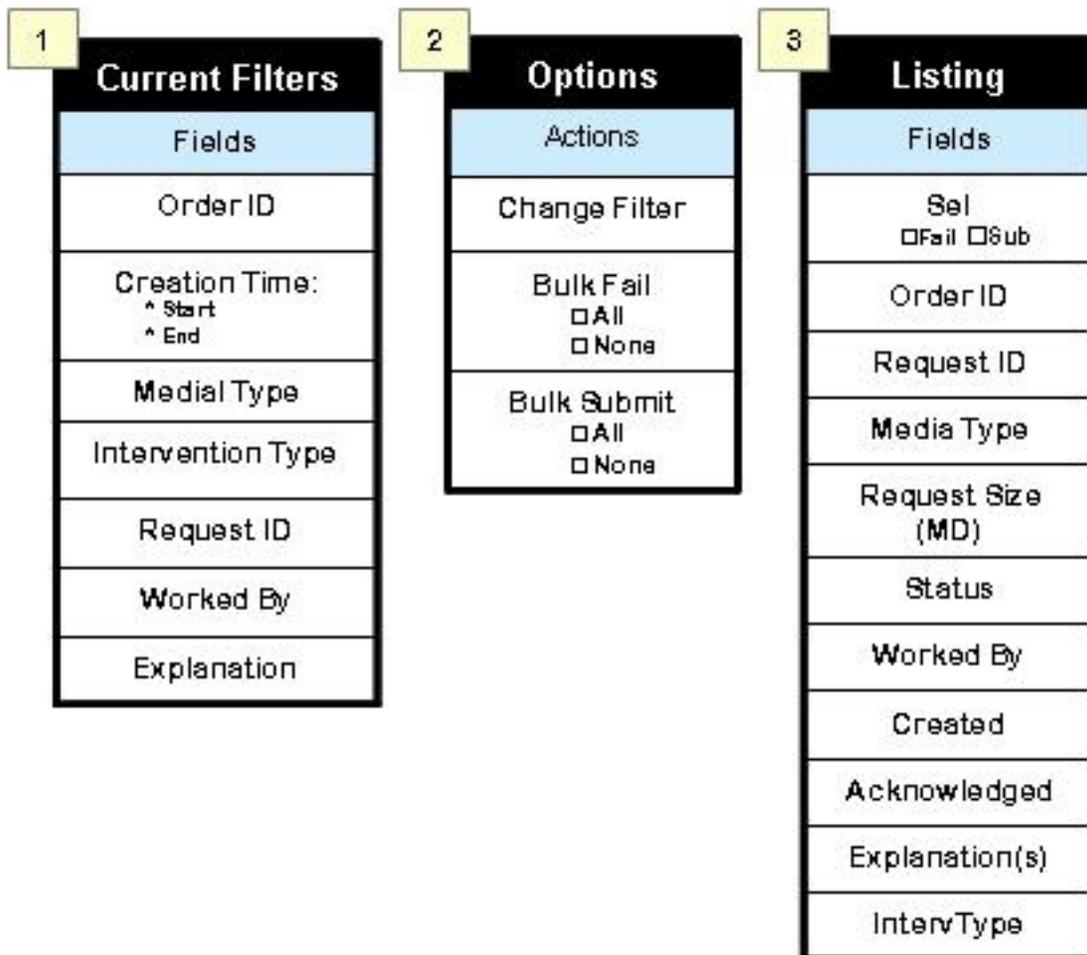
The **Open Interventions Page** (Figure 15.6-3) provides the full-capability Operator with a means of performing the following kinds of interventions (limited-capability operator can view, but cannot work on (respond to) open interventions.):

- Select a different granule to replace an unavailable granule.
- Fail selected granule(s).
- Disable limit checking.
- Change the distribution media for a request.
- Resubmit, Fail, or Partition (divide) a request.

The **Open Interventions** page has three working parts:

1. **Current Filters** – describes the set of pre-defined criteria (Figure 15.6-1, Frame 1) on which the list of distribution requests are to display.
2. **Options** – has several features (Figure 15.6-1, Frame 2) to allow operator to:
  - **Change Filter** – define or redefine the criteria for displaying the list of distribution request on a page.
  - **Bulk Fail** – provides capability to fail "All" or "None" (checkbox) of the eligible selected intervention(s) requests on a page.

- **Bulk Submit** – provides capability to submit "All" or "None" (checkbox) of the eligible selected intervention(s) requests on a page.
3. **Listing** – captures the requested distribution output (Figure 15.6-1, Frame 3) of what is being filter.
- The **Sel Fail Sub** column provides checkboxes to mark a single request to be submitted or failed.
  - It displays several underscored column headings that if clicked, will display additional information regarding the request.

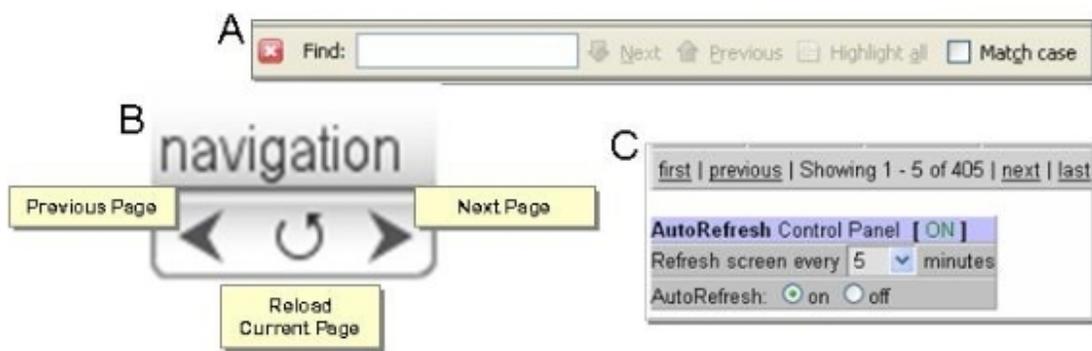


**Figure 15.6-1. Open Interventions Page – Fields and Options**

The procedure for viewing request management submenu pages information on the **OM GUI** starts with the following assumptions:

- The OM GUI has been launched.

- The browser menu option, **Edit, Find in this Page (Ctrl+F)** features a keyword search of the data within the current screen (page) display. When active, the Find tool (Figure 15.6-2 OM GUI Tools, Frame A) is accessible at the lower panel of page.



**Figure 15.6-2. Order Manager GUI Tools: Find (A), Navigation (B), and Refresh (C)**

### 15.6.1.1 Refresh Options on OM GUI Pages

The OM GUI pages data can be manually refreshed (updated) using the "refresh" icon on the OM GUI Navigation tool. Several OM GUI pages refreshes automatically, if "AutoRefresh" is set to the "ON" position, as often as specified by the "Refresh screen every <number> minutes" tool.

**NOTE:** This tool is found at the lower-left bottom of most OM GUI pages.

#### 15.6.1.1.1 Setting Refresh Option

1. Click **Request Management** menu option to expand its submenu.
2. Click **Open Interventions** submenu option to display its page (Figure 15.6-3). Locate the **AutoRefresh Control Panel** at bottom of **Open Interventions** page.
3. If applicable, click on appropriate option button of the **AutoRefresh Control Panel** to toggle control "on" or "off".
  - **on** – useful when working with current orders/requests with frequent changes in status and most current updates are desirable.
  - **off** – useful to suspend the refresh option when processing large volume of orders/requests and it is desirable to preserve the current screen's display.
4. Change the refresh rate (assuming **AutoRefresh** is **on**):
  - Click **Refresh screen every <number> minutes** option on list arrow to display minute option.
  - Click on the desired **refreshminutes** (range 1 – 45) from list.

### 15.6.1.2 Viewing and Responding to Open Interventions Page

1. Click **Request Management** menu option to expand its submenu.
2. Click **Open Interventions** submenu option to display its page (Figure 15.6-3).
3. Observe information displayed under the **Listing** section of the page.
4. To set the number of rows to display on the page, modify the **Show <number>** rows at a time option:
  - Select **20** to specify the number of rows to display.

The screenshot shows the 'Open Interventions' page. At the top, there are 'Current Filters' for Order ID, Request ID, Worked By, Creation Time, Start, End, Media Type, Intervention Type, and Explanation. Below this is an 'Options' section with buttons for 'Change Filter', 'Bulk Fail', and 'Bulk Submit', along with radio buttons for 'All' and 'None'. A 'Listing' section follows, with a 'Go directly to row' field, a 'Show' dropdown set to '50', and a 'rows at a time' label. The main table has 11 columns: Sel, Fail, Sub, Order ID, Request ID, Media Type, Request Size (MB), Status, Worked By, Created, Acknowledged, Explanation(s), and IntervType. The table contains 10 rows of data, each representing an intervention record.

Sel	Fail	Sub	Order ID	Request ID	Media Type	Request Size (MB)	Status	Worked By	Created	Acknowledged	Explanation(s)	IntervType
<input type="checkbox"/>	<input type="checkbox"/>		2000013584	2000013940	FtpPush	2	PENDING		Jan 9 2008 3:16PM		Failed transferring Request Canceled Transfer failed	Operator Intervention
<input type="checkbox"/>	<input type="checkbox"/>		2000013582	2000013938	FtpPush	2	PENDING		Jan 9 2008 12:14PM		Ftp Login Errors Request Canceled Transfer failed	Operator Intervention
<input type="checkbox"/>	<input type="checkbox"/>		2000013577	2000013933	FtpPush	< .5	IN-WORK	omsadmin	Jan 9 2008 11:22AM	Jan 9 2008 11:38AM	FtpPush Directory does not Exist or No Write Permission Transfer failed	Operator Intervention
<input type="checkbox"/>	<input type="checkbox"/>		2000013566	2000013922	FtpPush	154	PENDING		Dec 18 2007 12:48PM		Request Resubmitted	Operator Intervention
<input type="checkbox"/>	<input type="checkbox"/>		2000013464	2000013820	DLT	11	PENDING		Dec 18 2007 12:42PM		Media Creation Stopped	Media Creation Error
<input type="checkbox"/>	<input type="checkbox"/>		2000013581	2000013917	FtpPush	< .5	PENDING		Nov 27 2007 1:38PM		Ftp Login Errors Transfer failed	Operator Intervention
<input type="checkbox"/>	<input type="checkbox"/>		2000013580	2000013916	FtpPush	< .5	IN-WORK	omsadmin	Oct 18 2007 4:16PM	Oct 25 2007 12:06PM	Failed by Operator Transfer failed	Operator Intervention
<input type="checkbox"/>	<input type="checkbox"/>		2000013559	2000013915	FtpPush	< .5	PENDING		Oct 18 2007 4:11PM		Failed transferring Transfer failed	Operator Intervention
<input type="checkbox"/>	<input type="checkbox"/>		2000009817	2000010182	DVD	154	PENDING		Oct 16 2007 9:24AM		Media Creation Error	Media Creation Error

**Figure 15.6-3. Open Interventions Page**

5. Change the page display order by clicking on an underscored column heading (label):
  - Click **Created** to organize page by Creation Time, in ascending order.
  - Click a specific **Order ID** <number> to display more detailed data concerning that particular order number.
  - The **ECS Order** <number> details page (Figure 15.6-4) displays.
  - If a bundled order (where **Order Type** is **Bundled Order** or **BO**), the ECS Order Page includes a link to the Spatial Subscription Server GUI.

ECS ORDER 0300083268			
Request ID:	0300081491		
Order Type:	Regular	Start Date:	Not available
Order Source:	OmSrcCliDriver	User ID:	ECSGuest
Ext. RequestId	Not available	Status:	Pending
Receive Date:	Jan 16 2007 2:07PM	Ship Date:	Not available
Last Update:	Jan 19 2007 3:58PM	Order Home DAAC:	RBD
Description:	Not available		

**Figure 15.6-4. ECS Order <ID> Details Page**

- Click the navigation tool **Previous Page** button, to return to the **Open Interventions** page.
- Click **Request ID <number>** to view open **Interventions For Request <ID>** details page (Figure 15.6-5), which displays additional intervention related data for the request.

Intervention For Request 0300082129

Order ID: 0300083671  
 Request ID: 0300082129  
 Input Size: 119 estimated MB  
 Media Type: scp  
 Priority: VHIGH  
 Explanation(s): Transfer failed  
 Worked by: - no worker assigned - [ assign ]

User ID: labuser@eos.hite.com  
 Created: Apr 17 2007 11:04AM  
 Acknowledged:  
 Request Status: Operator Intervention  
 Metadata Format: XML

**Granule List**

Go directly to row  of 1 rows Show 20 rows at a time.

first | previous | Showing 1 - 1 of 1 | next | last

GranuleId	DPL ID	ESDT	Type	In Size (MB)	Out Size (MB)	Status	Explanation	Action
124268		157831	AST_L1B.003	SC	118.753	FAILED	scp Copy Server is down Manual fail required	Fail <input type="checkbox"/>

Select all

first | previous | Showing 1 - 1 of 1 | next | last

Request Attributes

Change Priority to:  
  
 Disable limit checking  
 Change XML to ODL  
 Update SCP Parameters

Request Level Disposition

Keep on hold  
 Submit  
 Fail Request  
 Partition [Interval:  day(s) and  hours]

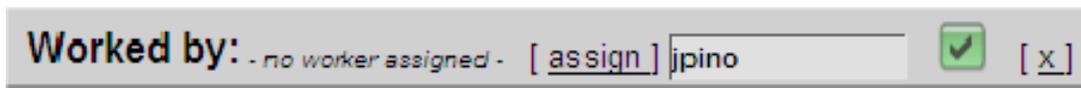
Operator Notes  
 0 of 255 max characters

**Figure 15.6-5. Open Intervention for Request <ID> Page**

6. The **Open Intervention For Request <ID>** page (Figure 15.6-5) has four working parts:
  - 1 - **Intervention For Request <number>** – provide details of the Request ID, its size, type, status, format, etc.
  - 2 - **Granule List** – details technical data of the requested granule, including its type of download (secure copy or ftp).
  - 3 - **Request Attributes** – available options to modify the characteristic of the granule being requested.
  - 4 - **Request Level Disposition** – available options to determine disposition of request.
7. To view the details of another Open Interventions page:
  - Select the **Request Management** submenu option, **Open Interventions**.
  - The **Open Interventions detail page** dismisses.
  - The **new Open Interventions page** displays.

Request ID: Assignment of Worker

8. Select the underscoredRequest ID <number> on the **Open Intervention** page.
  - The **Interventions For Request <ID>** page displays.
9. Observe the **Worked by** column information displayed in the **Open Intervention For Request <ID>** page (Figure15.6-5):
  - If User is currently working on the intervention, that userid appears in the **Worked by** field on the **Open Intervention For Request <ID>** page (Figure15.6-5).
  - In general, working on an intervention is the responsibility of the assigned worker, unless the change is coordinated with the assignee or the assignee is unavailable (e.g., due to illness or vacation).
  - If necessary (e.g., due to illness, vacation, or prior coordination), it is possible to override the assignment of an intervention.
10. To assign or change worker to the **Worked by** field (Figure 15.6-6, Worker Assignment) on the Intervention For Request <ID> page perform one of the following:



**Figure 15.6-6. Worker Assignment**

- If no worker is assigned, click the **assign** link (input box displays).
- To modify/change current worker, click the **change** link (input box displays).

- Enter worker's <employeeID> in the input box.
- Click the **green-checked button** to confirm entry (or to cancel input).

#### Granule List: Manual Fail of Granule

11. Observe information in the **Explanation** column of the **Granules List**. Locate a row that indicated that a **Manual fail required** by Operated is necessary. Several reasons for a fail request action may include:

- **Invalid UR/Granule Not Found** – Transfer Failed.
- **scp Copy Server is down** – Granule failed Staging.
- **Max Retry Reached** – Granule failed Staging.
- **FtpPush Directory does not Exist or No Write Permission** – FtpPush Transfer failed.

12. If a granule **Explanation** column indicates, "Manual fail required":

- Click the **Fail** checkbox (in **Action** column of the failed granule row) from the list.
- Click the **Submit Actions** button.
- A dialog box displays to confirm the change to the granule.

**NOTE:** "Failing" a granule is a permanent action that cannot be canceled after having been confirm action.

- Click **Ok** to confirm action.

#### Granule List: Specifying a Replacement Granule

13. If a granule is to be **replaced** (e.g., because of an "Invalid UR/Granule Not Found" entry in the **Explanation** column of the **Granule List**):

- Type replacement granule **Database ID (DBID)** in "**DBID**" text box

**NOTE:** Locate the replacement granule DBID.

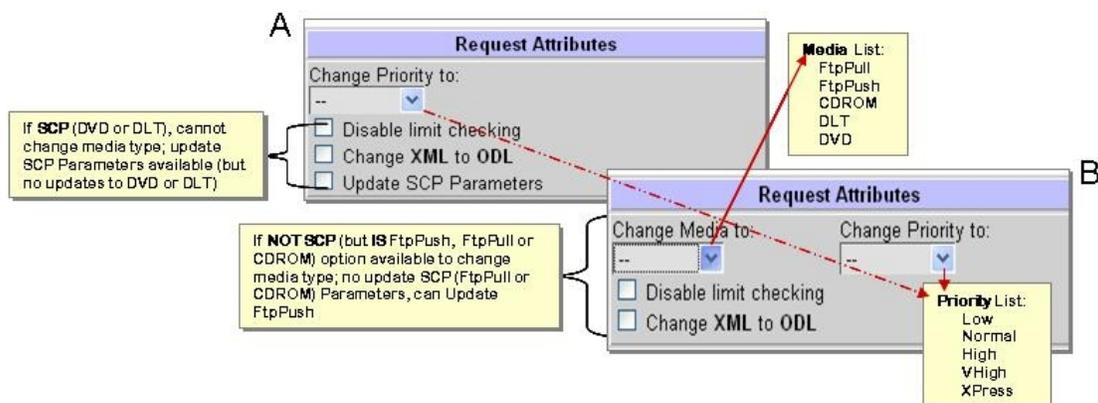
- Click the **Apply** button (associated with the DBID)
- A dialog box displays to confirm change to granule.
- Click **OK** to confirm change.

#### Request Attributes: Changing Granule Attributes

14. Changing attributes (Figure 15.6-7 Request Attributes) of a granule will alter its characterization or features. Several changes to a granule attributes includes:

- **Change Priority to** – Processing order of Low, High, VHigh (VeryHigh), XPress (Express or Expedite).
- **Change Media To** – This option allow for selection one of threemediatypes (Figure 15.6-7B Request Attributes).

- **Disable limit checking** – Disables/Overrides the standard media capability limits for a particular media type, specifically FTPPush, FTPPull and SCP). This option can bypass the request size checks if the request is too small or too large.
- **Change XML to ODL** – data type conversion; the Operator will receive metadata in XML format which is the default metadata format. If changed to ODL TO XML option, then conversion to ODL format is received.
- **Update <media type> Parameters** – option allows for editing of existing selected media type when the intervention is closed. This option varies according to type of media e.g., if media type is SCP or FtpPush, this option is available; otherwise no action to update media parameters can be performed or is displayed. Example displays variation in Frames A and B of Figure 15.6-7 Request Attributes.



**Figure 15.6-7. Request Attributes**

Request Attributes: Changing Granule Media Type, Priority and Formats

15. If the distribution medium/media should be changed for those distribution types that are types other than SCP (Secure Copy Protocol), a list of available media types (Figure 15.6-7B Request Attributes) will display under the "Request Attributes" section:

- Click the **Change Media to** listbox arrow to review those choices:
- **FtpPull** (File transfer protocol – Pull Technology)
- **FtpPush** (File transfer protocol – Push Technology)
- Select **<medium>** from list.

16. To change the priority of the request, a list of priorities is available in the "Change Priority to" listbox (Figure 15.6-7B):

- Click the **Change Priority to** listbox arrow to review choices.
- Select **Priority** from list.

17. To **Disable size limit** checking attribute:

- Click the Disable limit checking checkbox.

18. To **change the values** assigned to FtpPush parameters:

- Click the **Update FtpPush Parameters** checkbox.

**NOTE:** This option will only appear if SCP was the originally media type. When this option is checked, the operator will be prompted to change the existing SCP parameters on the next page.

#### Request Level Disposition: Changing Request Disposition

19. Changing a request disposition (Figure 15.6-8) will alter the queuing of its distribution or how it is handled. There are several options to change the level disposition:

- **Keep on hold** – Delays applying any intervention action (keeps open the intervention) and dismiss the "Open Intervention Detail" page. This action does not allow changes to the request's attributes, but saves Operator notes and allows intervention to open at a later time (essentially, the intervention is being "saved").
- **Submit** – Applies any actions or changes to the intervention specified in the "Granule List" and "Request Attributes" sections of the "Open Intervention Detail" page and then dismisses the page.
- **Fail Request** – Fails the entire request (including all associated granules) and dismiss the "Open Intervention Detail" page.
- **Partition** – This option will start the process of partitioning a request that exceeds maximum request size. The process will perform the distribution of granules in Intervals (days and hours) over a period of time (Figure 15.6-8 Request Level Disposition).



**Request Level Disposition**

Keep on hold

Submit

Fail Request

Partition [ Interval:  day(s) and  hours ]

**Figure 15.6-8. Request Level Disposition**

20. To **select a disposition**, click the option button from the list of dispositions.

- To Fail Request, click the **Fail Request** option button.
- Click the **Apply** button to commit change.

**NOTE:** The Apply and Reset buttons at bottom of the Open Intervention Detail page will commit change. The "Reset" button does not cancel any changes made to the request or changes made to the DBIDs (changed or failed). It simply resets the form's option buttons for the Request Level Disposition section to its original state.

- **Close Confirmation for Intervention** (Figure 15.6-9, Frame A) page displays.

Request Level Operator Notes: Close Interventions

**NOTE:** The Close Confirmation page displays varying actions to be taken; for example, the following types of actions may be displayed:

- **Disposition** [e.g., keep on hold, submit, fail, or partition]
- **Limit Checking Disabled** [yes, no, or blank]
- **New Media** [no, yes: (type), or blank]
- **New Priority** [no, yes: (type), or blank].

21. If the intervention involved **changing the medium to FtpPush/SCP or updating the values assigned to FtpPush/SCP parameters**, textboxes for the following FtpPush/SCP parameters are displayed on the Close Confirmation page:

- **Ftp or SCP node [Destination host name].**
- **Ftp Username.**
- **Password.**
- **Confirm Password.**
- **User String [message to be sent to the user].**
- **Destination Directory [full path].**

22. If a **failed request or granule(s) within a request's partition or to modify granules in a request**, the **Close Confirmation** page (Figure 15.6-10) includes two options:

- **To append additional text** to the default e-mail message sent to the requester:
- An **Additional e-mail text** textbox for appending text (if desired) to the standard (default notification of failure) e-mail text is displayed on the **Close Confirmation** page (shown in Figure 15.6-10).
- **To choose not to send an e-mail message** to the requester:
- A **Don't send e-mail** box to suppress the sending of an e-mail message indicating request/granule failure is displayed on the **Close Confirmation** page (Figure 15.6-9).
- Type **<appropriate values>** in the required text boxes for input/update to mailing/delivery label (Figure 15.6-10, Frame A close).

**CLOSE CONFIRMATION FOR INTERVENTION 9000257**

You are about to close this Intervention.

The following actions will be taken:

Disposition	Limit Checking Disabled	New Media	New Priority
fail			

---

**Note:** For this action, you have the option of sending out an e-mail to the user. Please add any useful comments in the box below that will be appended to the standard e-mail preamble.

You may also decline to send the email by checking the box below:

This e-mail will be sent to at .

Additional e-mail text

Don't send e-mail

---

**Are you sure you want to take the action(s) listed above?**  
(Clicking the Cancel button will bring you back to the Intervention Page for this intervention ID)

**Figure 15.6-9. Close Confirmation for Intervention <ID> with E-Mail**

23. To **Close the Intervention**, click on the appropriate button from the following selections:
- **OK** - to apply the specified intervention actions (if any) and dismiss the "Intervention Closed" dialogbox.
  - An **Intervention Closed** dialogbox (Figure15.6-10) displays.
  - **Cancel** - to dismiss the **Intervention Close** dialogbox, without applying the specified intervention actions.

**NOTE:** A warning dialog box is displayed with the message "WARNING: The disposition and actions you have taken for this intervention will be lost. Continue?"



**Figure 15.6-10. Intervention Closed**

24. If a warning dialog box is displayed with the message "**WARNING:** The disposition and actions you have taken for this intervention will be lost. Continue?"
  - **OK** - to dismiss the warning dialog box and the close confirmation.
  - The **Open Interventions** detail page returns.
25. To exit the **Intervention Closed** prompt and display the **Open Interventions** detail page:
  - Click the **OK** button.
26. On the OM GUI left pane menu options, click the **Home** link to return to the **Order Manager Home** page.
  - The **Order Manager Home** page (Figure15.4-2) displays.

### **15.6.2 Request Management Submenu Page – HEG Interventions**

**HEG Interventions** processing involve "line items" and associated detail links. Although a HEG order may contain a mix of granule types (i.e., those with and without line items), an additional column will show in the granule list containing the number of line items and its details link. The **Open HEG Interventions** page (Figure15.6-11) is a hard-coded display that provides the Operators (either full-capability or limited-capability) the option to only view HEG interventions. The **HEG Intervention For Request <ID>** page (Figure15.6-14) provides the full-capability operator with a means of performing the following kinds of interventions:

- Assign/Change Worker.
- Fail selected granule(s).
- Fail a request.

#### **15.6.2.1 Viewing and Responding to Open HEG Interventions**

1. Click **Request Management** menu option to expand its submenu.
2. Click **HEG Interventions** submenu option to display the **Open HEG Interventions** page (Figure 15.6-11).
  - The **Open HEG Interventions** page (Figure15.6-11) displays.

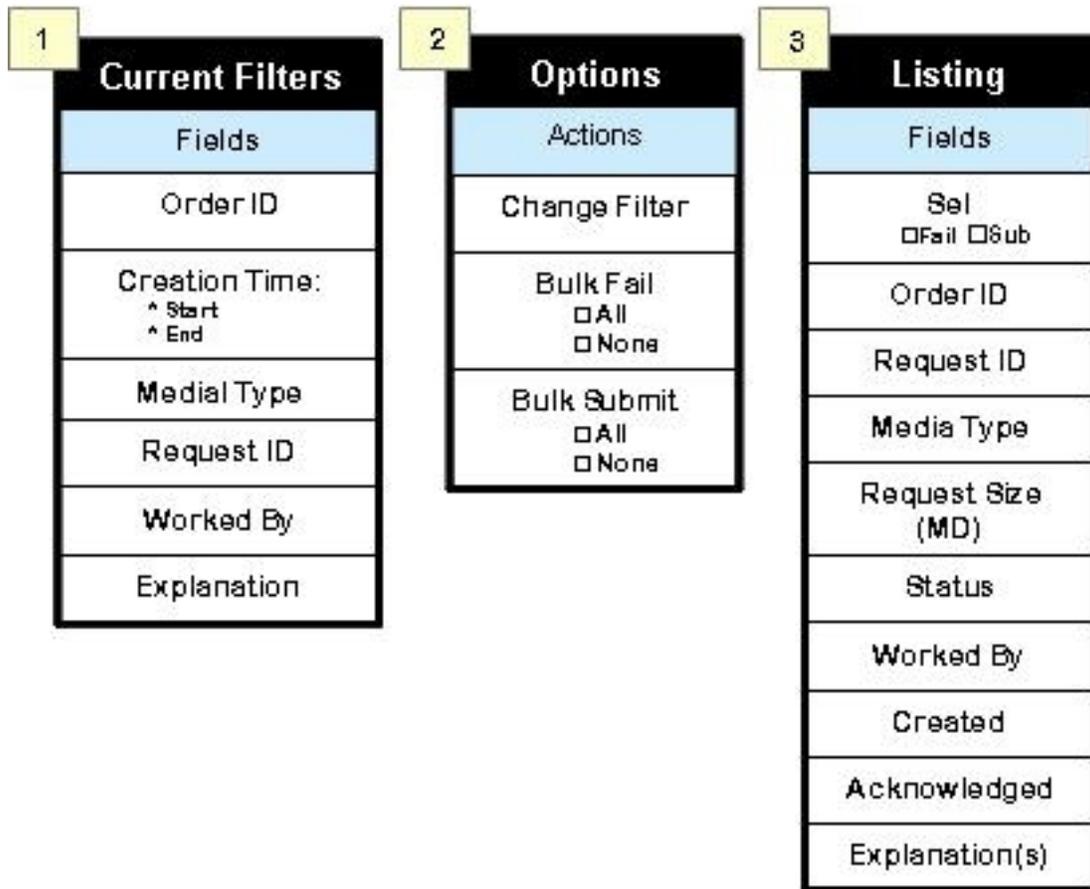


**Figure 15.6-11. Open HEG Interventions Page**

The **Open HEG Interventions** page has three working parts:

1. **Current Filters** – describes the set of pre-defined criteria (Figure15.6-12, Frame 1) on which the list of distribution requests are to display.
2. **Options** – has several features (Figure15.6-12, Frame 2) to allow Operator to:
  - **Change Filter** – define or redefine the criteria for displaying the list of distribution request on a page.
  - **Bulk Fail** – provides capability to fail "All" or "None" (checkbox) of the eligible selected intervention(s) requests on a page.
  - **Bulk Submit** – provides capability to submit "All" or "None" (checkbox) of the eligible selected intervention(s) requests on a page.
3. **Listing** – captures the requested distribution output (Figure15.6-12, Frame 3) of what is being filtered.
  - The **Sel Fail Sub** column provides checkboxes to mark request to be submitted or failed.
  - It displays several **underscored column headings** that if clicked, will display additional information regarding the request.

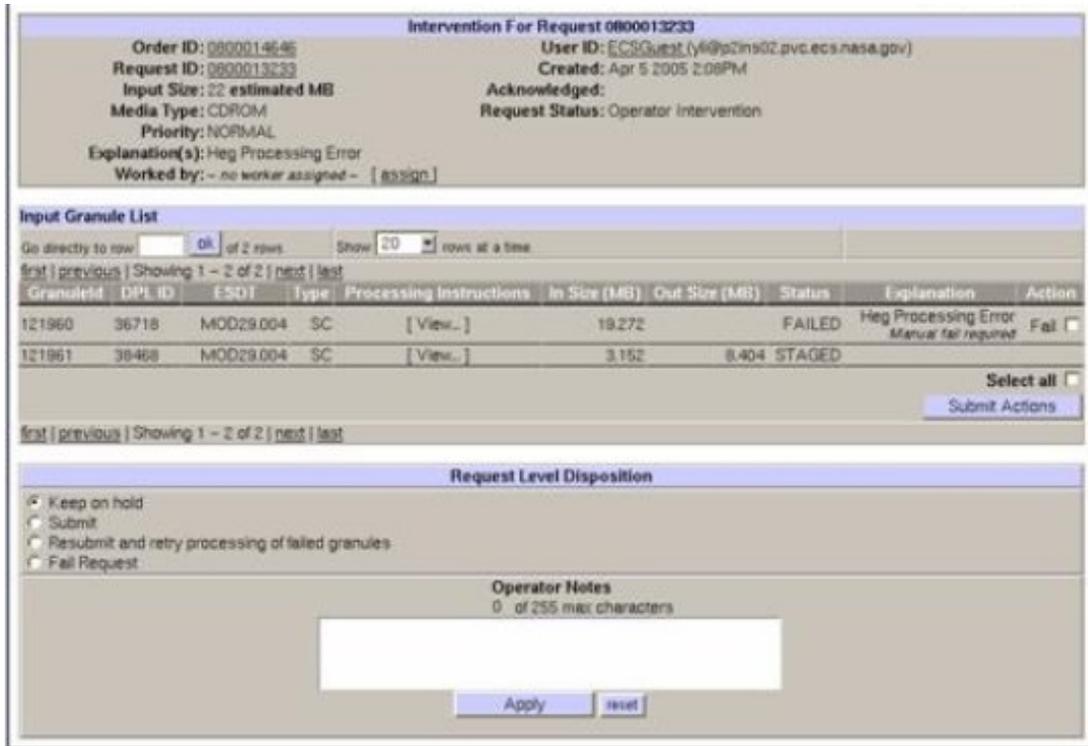
**NOTE:** It is important to check the filter settings when opening the Open HEG Interventions page to clear filter settings from one session to another.



**Figure 15.6-12. Open HEG Interventions – Fields and Options**

- Observe information in the **Listing** section of the **Open HEG Interventions** (Figure 15.6-12) page:
  - Set the **Show <number> rows at a time** to equal **20**.
  - If **AutoRefresh** is **ON**, the **Open HEG Interventions** page refreshes automatically as often as specified in the **Refresh screen every x minutes** window. Click on the  icon, on the **OM GUI** navigation tool, to manually refresh.
  - The Netscape browser **Edit** → **Find in Page** menu provides keyword searches of the currently displayed data.
  - Click on an **underscored column header** of the table to sort column's content.
  - Order ID** to sort data and line items in ascending order.

4. To observe detailed information for particular line item on the **Open HEG Interventions** page, click on the **associated detail link** under the column header:
  - **Order ID <number>** to display detailed data related to that particular order number.
  - **Request ID <number>** to display detailed data related to the intervention for that particular request.
  - The **OpenHEG Intervention For Request <ID>detail** page (Figure 15.6-13) displays.



**Figure 15.6-13. Open HEG Intervention For Request <ID> Detail Page**

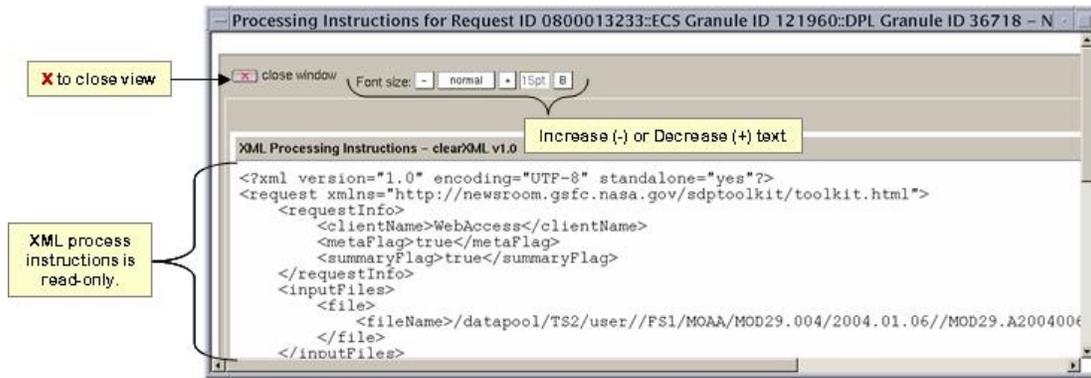
The **Interventions For Request <ID> detail** Page has three working parts:

1. **Intervention For Request <number>** – displays data (Figure15.6-14, Frame 1) that identify the attributes of the specified (filtered) request.
2. **Input Granule List** – features a read-only list of input granules (Figure15.6-14, Frame 2) which allows operator to submit action against on or more granules in list.
3. **Request Level Disposition** – provides several disposition options which include the collection of Operator notes and ability to set/reset disposition of granules (Figure15.6-14, Frame 3).

1	2	3
<b>Intervention For Request &lt;n&gt;</b>	<b>Input Granule List</b>	<b>Request Level Disposition</b>
Fields	Fields	Actions
Order ID	Granule ID	<input type="checkbox"/> Keep on hold
Request ID	DPL ID	<input type="checkbox"/> Submit
Input Size	ESDT	<input type="checkbox"/> Resubmit and retry processing of failed granules
Media Type	Type	<input type="checkbox"/> Fail Request
Priority	Processing Instructions [View...]	Operator Notes (input field)
Explanation(s)	In Size (MB)	Apply
Worked by [assign]	Status	reset
User ID	Explanation	
Created	Action <input type="checkbox"/> Fail <input type="checkbox"/> Select all	
Acknowledge	Submit Actions	
Submit Actions		

**Figure 15.6-14. Open HEG Interventions for Request <ID> Detail - Fields and Options**

5. From the OM GUI menu, click the **previous page icon** to return to the **Open HEG Interventions** page.
  - The **Open HEG Interventions** page (Figure15.6-12) displays.
6. To view processing instructions detailed data related to a particular granule ID:
  - Click **[View...]** link associated with the specific GranuleID, under the column heading "Processing Instructions" in the **Input Granule List** section of the **Open HEG Intervention Detail**page.
  - The **Processing Instructions for Request ID <number>** displays (Figure15.6-15).



**Figure 15.6-15. Processing Instructions Window**

- The Processing Instructions is read-only, using clearXML application.
- Operator can use the Font size tool to increase or decrease text size of the instructions. Although the text is not modifiable, Operator can highlight text, copy and paste into a software editor.
- To close the **Processing Instructions for Request ID <number>** window, click on the **close window** button.

7. Click the red **X** close window button to **close the processing instructions window** and return to the **Open HEG Interventions for Request <ID>** detail page.

#### Intervention For Request <number>: Assign/Change Worker

8. From the **Open Interventions** page, click on the desired **Request< ID>**:
- Observe the information displayed in **Worked by** input box, of the **OpenHEG Intervention For Request <ID>** detail page:
  - The userid of the user currently working on the intervention appears in the **Worked by** field of the **Open HEG Intervention for Request <ID>** detail page.
  - Ensure appropriate User is assigned to work on the intervention.
9. To assign or reassign user to work on the intervention:
- Click on the **assign** or **change** link of the **Worked by** (input box displays).
  - Click the **change** link, to modify/change current user (input box displays).
  - Enter **appropriate worker's id** in the input box.
  - Click the **green checked button** to confirm entry (or to cancel input).

#### Input Granule List: Fail Action on Request

10. The operator can fail intervention(s) using the **checkbox** options located under the **Action** column of the **Input Granule List** section. If "fail" and/or "accept" actions are to be taken,

with respect to one or more granules in the request (e.g., "fail" a granule because of an "Invalid UR" entry in the Explanation column of the Granule List). There are two possible checkbox options that can be implemented from this section:

- **Fail** – fails an individual granule in the specified row.
- **Select All** – fails all actions for granules with Accept/Fail options.

11. To implement one or all action(s) to fail intervention(s) on the **Open HEG Interventions For Request <ID>** page:

- Select the **Fail** checkbox, on the row of a specific granule, to fail "individual" granules.
- Select the **Select all** (bulk fail) checkbox to fail "all" interventions displayed on the page.

**NOTE:** Set options in the Request Level Disposition section before submitting action.  
Request Level Disposition: Fail Request

12. Select one or more of the following requests in the **Request Level Disposition** section:

- **Submit** - to apply any changes of failing granule(s), which are not reprocessed.
- **Keep on hold** – to delay applying any intervention action (retain as open).

**NOTE:** Placing an intervention on hold does not allow changing the request's attributes, but saves the operator notes and allows opening the intervention at a later time (essentially, the intervention is being "saved").

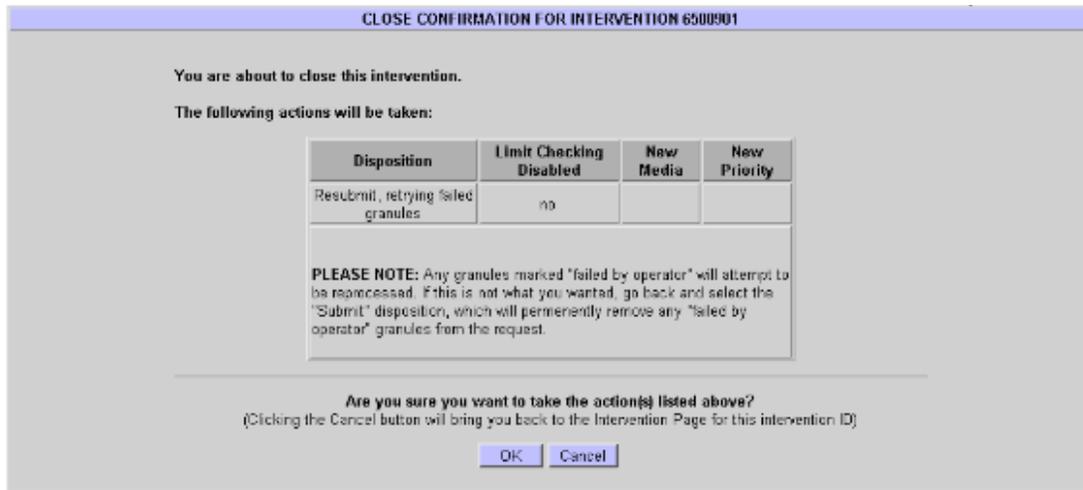
- **Resubmit and retry processing of failed granules** – to submit the request with any changes and retry HEG processing of failed granules.
- **Fail Request** – to fail the entire request (including all granules) and dismiss the Open HEG Intervention Detail page.

13. Enter **Operator Notes**, if more details should be communicated concerning the request (e.g., the reason for making a particular type of intervention).

14. Click **Apply** to commit/submit action.

**NOTE:** The reset button does not cancel any changes made to the request (changed or failed). It simply resets the form buttons for the Request Level Disposition section to their original states.

- The **Close Confirmation for Intervention <ID>** displays (Figure 15.6-16)



**Figure 15.6-16. Close Confirmation for Intervention <ID> Page**

15. Click **OK** to complete and confirm the process of failing intervention(s) or to take action(s) listed on the closed confirmation:

- **Intervention Closed confirmation displays.**

16. Click **OK** to acknowledge confirmation.

- **The Open HEG Interventions page is returned.**

**NOTE:** Granule replacement is not permitted for a HEG intervention.

### 15.6.3 Request Management Submenu Page – Completed Actions and Interventions Filter

The Completed Action and Interventions page displays all Operators (either full-capability or limited-capability) recently closed interventions, including those that have been resubmitted, partitioned, or failed.

The **Completed Action and Interventions** page (Figure 15.6-18) displays filter results of the Operator defined options and fields (Figure 15.6-17):

1	Filter	2	filter display
	Options		Fields
	Intervention Type: <input type="checkbox"/> All <input type="checkbox"/> None		Order Id
	Intervention Types : <input type="checkbox"/> Activate Media for QC <input type="checkbox"/> Activate Request <input type="checkbox"/> Assemble Package <input type="checkbox"/> Collect Media for QC <input type="checkbox"/> Dismount Media from Production <input type="checkbox"/> HEG Error <input type="checkbox"/> Media Creation Error <input type="checkbox"/> Mount Media for Production <input type="checkbox"/> Mount Media for QC <input type="checkbox"/> Operator Intervention <input type="checkbox"/> QC Failed		Request Id
	Worked By		User ID
	Completion Time: <input type="checkbox"/> Apply <input type="checkbox"/> Reset		Size (MB)
			Media
			Worked By
			Intervention Type
			Created
			Completed
			Disposition

**Figure 15.6-17. Completed Action and Interventions – Fields and Options (NOTE: Hard Media actions obsolete in 8.1)**

### 15.6.3.1 Filtering Data on Completed Actions and Interventions Page

1. Click **Request Management** menu option to expand its submenu.
2. Click **Completed Actions and Interventions** submenu option to display its page (Figure 15.6-18).
3. Define the **filter criteria** as follows:
  - Select one or more **Intervention Type** from the filter section list.
  - Select an available User or All Users from the **Worked By** listbox.
  - Define the **Completion Time**.

4. To apply the filter, click the **Apply** button.
  - The **Completed Operator Actions and Interventions** page refreshes with results.



**Figure 15.6-18. Completed Action and Interventions Page (NOTE: only two types of interventions exist post 8.1)**

#### 15.6.4 Request Management Submenu Page – Distribution Requests [Filter]

The Distribution Request page allows Operators (either full-capability or limited-capability) the ability to filter and view lists of all currently distributed requests processed through Order Manager from all order sources. The data distribution function will also allow the Operator to perform the following actions (on eligible requests):

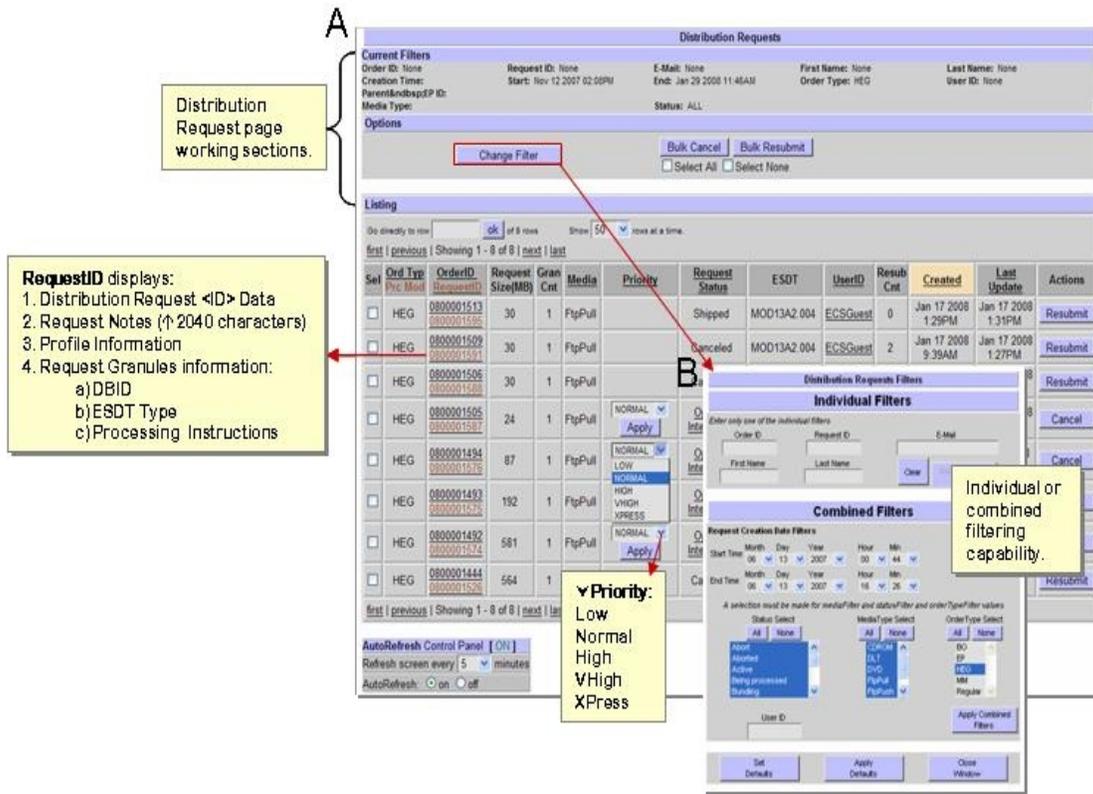
- suspend new request processing.
- suspend or cancel individual requests.
- and change the priority of any request.

In addition to these capabilities, the Operator can view extensive details of FtpPush distribution and staging requests by selecting column links of the order id or request id.

**NOTE:** Filter settings can persist from session to session when opening the Distribution Request page.

##### 15.6.4.1 Filtering Data on Distribution Requests Page

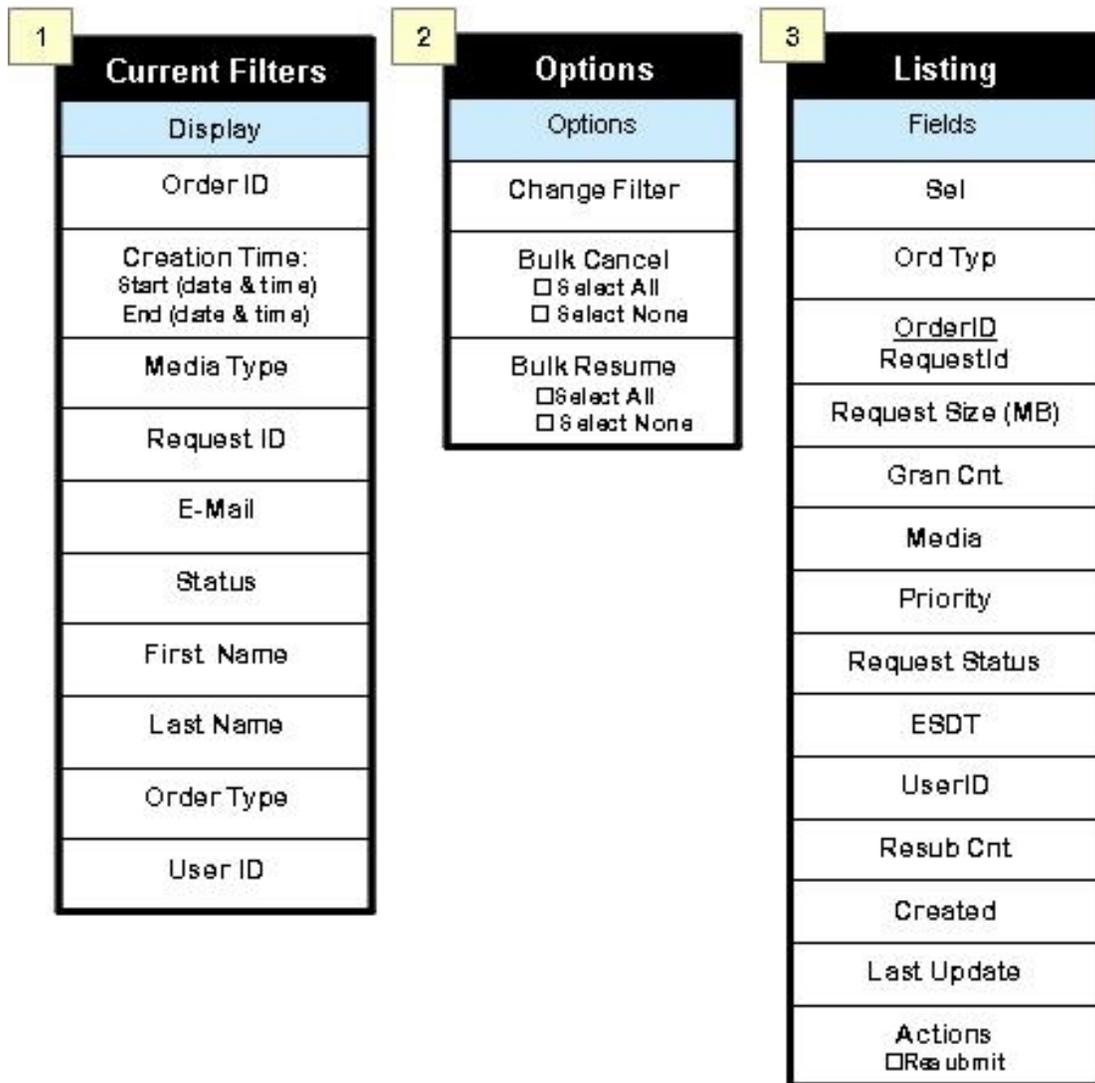
1. Click **Request Management** menu option to expand its submenu.
2. Click **Distribution Requests [filter]** submenu option to display its.
  - The **Distribution Requests [filter]** page (Figure15.6-19, Frame A) displays.



**Figure 15.6-19. Distribution Requests Page and Filter Window**

3. Observe the **Distribution Requests** page, which has three working parts:
  1. **Current Filters** – displays data (Figure15.6-20, Frame 1) by the set of pre-defined criteria specified (Figure 15.6-19, Frame B) by the Operator.
  2. **Options** – has three features (Figure15.6-20, Frame 2) to allow operator to:
    - **Change Filter** – define or redefine the criteria for displaying the list of distribution request on a page.
    - **Bulk Cancel** – provides capability to cancel "All" or "None" (checkbox) of the eligible selected requests on a page.
    - **Bulk Resume** – provides capability to submit "All" or "None" (checkbox) of the eligible selected requests on a page.
    - **Bulk Claim** – provides capability to claim "All" or "None" (checkbox) of the eligible selected intervention(s) requests on a page.
  3. **Listing** – captures the distribution requests filter output (Figure15.6-20, Frame 3):
    - The **Sel** column provides checkboxes to mark or select a single request (row) to be resubmitted, suspended or canceled.
    - **Ord Typ/Prc Mod** represents the Order Type or Processing Mode.

- Several underscored column headings, when clicked, displays additional information regarding the details of a request.
- The **Priority** column allows Operator to change a request priority using the options listed in the drop-down listbox on a row.
- The **Actions** checkbox permits Operator to resubmit, cancel, suspend or resume eligible request(s).



**Figure 15.6-20. Distribution Requests Page – Fields and Options**

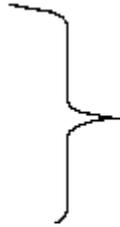
4. To define the filter criteria:

Click the **Change Filter** button, in the **Options** area (Figure 15.6-20, Frame A).

- **The Distribution Requests Filters window appears.**

5. Observe the **Distribution Request Filter** window, which has two working parts:
  1. **Individual Filters** – displays limited options (Figure 15.6-19, Frame B) to set a defined criterion specific to a request (Figure 15.6-19, Frame B). Those options are:

- **Order ID**
- **Request ID**
- **E-Mail**
- **First Name**
- **Last Name**



**NOTE:** Operator can apply only one option of the individual

2. **Combined Filters** – has several options (Figure 15.6-19, Frame B) to allow operator to combine multiple criteria to define the filter.
6. Create a **combined filter** by performing the following:
  - Select a **Start Time** (Month, Day, Year).
  - Select an **End Time** (Month, Day, Year) ensuring different that start time.
  - Depressing the <Ctrl> keep, make multiple **Status Select** selections: **Cancelled, Completed processing, Pending, Shipped.**
  - Select **All** for **Media Type Select** (can include FtpPull, FtpPush, SCP (Secure Copy Protocol)).
  - Select **HEG** for **Order Type Select** (can include Order types "Regular," "BO" (Bundled Order), DA (ESI DataAccess Processing) and "HEG" (HDF-EOS to GeoTIFF Conversion requested through DPL Web Access)).
  - Select All for the Order Source Select (can include Order Sources "DataPool," "Echo," "SCLI," "SSS").
  - Click **Apply Combined Filters** button to generate filter.
  - The **Distribution Requests Filters** window closes and the Distribution Requests window displays with the applied combined filter results.
7. Click the **request <ID>** under the **Request ID** column to view the distribution request profile information, request notes, addresses (mailing, shipping, billing) and granule information for the request.
  - The **Distribution Request <ID> Profile** appears displaying its multiple parts of information (Figure 15.6-22).

**RequestID** profiles specific information related to the request.

**Request Notes** displays notes up to 2040 characters.

**Addresses** displayed for mailing, shipping and billing information.

**Request Granules** displays attributes of the request granules.

DBID	ESOT Type	Input/Output	Size (MB)	Status	Processing Instructions
8983	M0029P10.086	N/A	6.000	SHIPPED	View...

**Figure 15.6-21. Distribution Requests <ID> Profile**

**NOTE:** The Profile For ECSSGuest can also be reviewed from this window by selecting the ECSSGuestID.

8. Click the **Home** link on the left pane of the OM GUI menu option to return to the **Order Manager Home** page.

- The **Order Manager Home** page (Figure 15.4-2) displays.

### 15.6.5 Request Management Submenu Page – FtpPush/SCP Requests Filters and Staging Requests Filters

The distribution requests filtering allow Operators (either full-capability or limited-capability) the ability to view extensive details of FtpPush/SCP and Staging distribution requests currently processed through Order Manager from all order sources. The limited-capability Operator is not allowed to edit FtpPush parameter values for distribution requests using the OM GUI.

The FtpPush/SCP and Staging distribution requests pages allows the Operator to:

- Change the priority of or suspend a distribution request while the requested granules are in a staged or pushed waiting state.
- Resume a request that was suspended by the OM GUI operator or while the processing of new requests by the OMS is suspended.

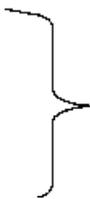
- Resubmit a request in a terminal state (e.g., aborted, cancelled, terminated, or shipped).
- Cancel a request that is not in a terminal state and while the requested granules are in a staged or pushed waiting state.

### 15.6.5.1 Filtering FtpPush/SCP Requests or Staging Requests Page

1. Click **Request Management** menu option to expand its submenu.
  2. Click **FtpPush/SCP Requests [filter]** submenu option to display its page.
    - The **FtpPush/SCP Distribution Requests** page (Figure 15.6-22) displays.

(Or to view **Staging Distribution Requests** page:

    - Click **Staging Requests [filter]** submenu option to display its page.
    - The **Staging Distribution Requests** page displays.)
  3. To define the **filter criteria**:
    - Click on the **Change Filter** button, from the Options section of the FtpPush/SCP (or Staging) Distribution Requests page.
    - The **FtpPush/SCP (or Staging) Distribution Requests Filters** window (Figure 15.6-22, Frame A (or Frame B) appears.
  4. Observe the **FtpPush/SCP (or Staging) Distribution Requests Filters** window, which has two working parts:
    1. **Individual Filters** – displays limited options (Figure 15.6-22, Frame A (or B) to set a defined criteria specific to a distribution request. Those options are:
      - **Order ID**
      - **Request ID**
      - **E-Mail**
      - **First Name**
      - **Last Name**



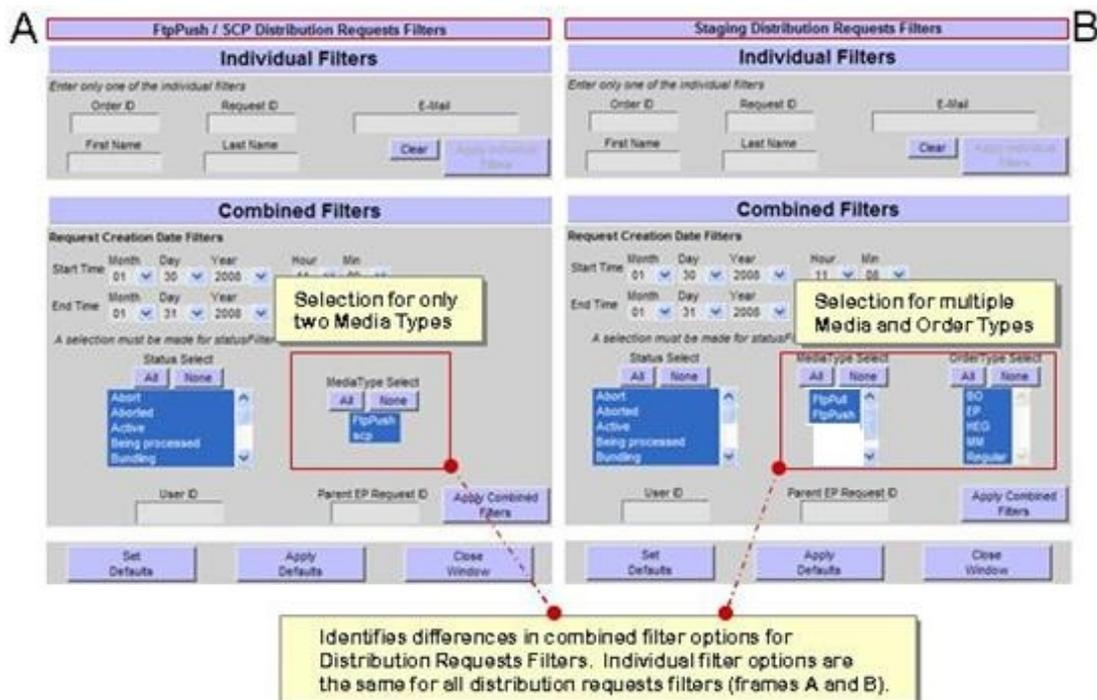
**NOTE:** Operator can apply only one option of the individual
    2. **Combined Filters** – has several options (Figure 15.6-22, Frame A (or B) to allow operator to combine multiple criteria to define the filter.
5. Create a **Combined Filter** by performing the following:
  - Select a **Start Time** (Month, Day, Year)
  - Select an **End Time** (Month, Day, Year) ensuring different that start time

- Depressing the <Ctrl> key, make multiple **Status Select** selections: **Cancelled, Completed processing, Pending, Shipped**
- Select **All** for **Media Type Select** option:
- For **FtpPush/SCP** distribution requests, media options include FtpPush or SCP (Secure Copy Protocol), Figure 15.6-22, Frame A
- For **Staging** distribution requests, media options include FtpPull, FtpPush, SCP (Secure Copy Protocol), Figure 15.6-22, Frame B.
- Select **HEG** for **Order Type Select** option:
- For **Staging** distribution requests, order type options include, "Regular," "BO" (Bundled Order), "EP" (Extended Play), "HEG" (HDF-EOS to GeoTIFF Conversion), Figure 15.6-22, Frame B.

**NOTE:** FtpPush/SCP distribution requests do not support Order Type options.

6. Click **Apply Combined Filters** button to generate filter.

- The **FtpPush/SCP (or Staging) Distribution Requests Filters** window closes and the **FtpPush/SCP (or Staging) Distribution Requests** page displays with the applied combined filter results.



**Figure 15.6-22. FtpPush/SCP (A) and Staging (B) Distribution Requests Filters**

## 15.6.6 Request Management Submenu Page – Processing Service Requests [filter]

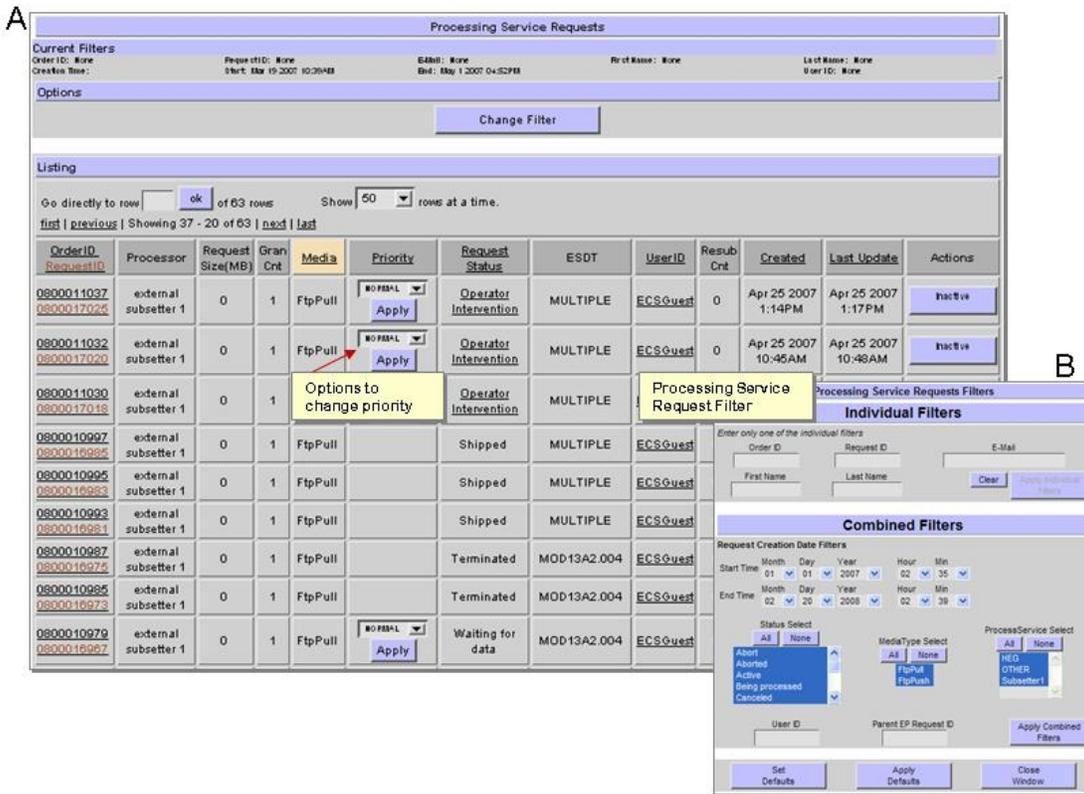
The Processing Service Requests [Filter] page (Figure 15.6-23, Frame A) allows an Operator to cancel or suspend the external processing requests while those requests are under OMS control. The external processing requests do not have any actions (cancel or suspend) while under the control of the external system. The processing services filter includes HEG, all external subsetter requests and a "Processor" column which indicates the processor name (which includes HEG). The Processing Service Request page does not include filter for media type and order type. It has a processing filter instead. The "Actions" column in the Listing section of the page displays an "InActive" button. For release 8.2 DataAccess processing requests are viewed through the regular distribution request screen with a filter of OrderType = "DA".

### 15.6.6.1 Filtering Processing Service Requests Page

The Processing Service Requests page now reflects options allowing the Operator to filter on external processing service or HEG in addition to the offered selections. The Operator can filter any selected external processing service or HEG.

To filter external processing service requests perform the following:

1. Click **Request Management** menu option to expand its submenu.
2. Click **Processing Service Requests [filter]** submenu option to display it's page (Figure 15.6-24, Frame A).
3. Observe the **Processing Service Request** page, which has three working parts:
  - **Current Filters** – describes the set of pre-defined criteria.
  - **Options** – has a "Change Filter" button to allow operator to define display criteria for the page (Figure 15.6-23, Frame B).
  - **Listing** – captures the requested output of what is being filtered.
4. To define the **filter criteria**:
  - Click the **Change Filter** button from the Options section of the page.
  - Under the **Combined Filter** section, change the **Request Creation Date** year to equal "**01 01 2007**".
  - Select **All** options from the listboxes:
    - Status.
    - Media Type.
    - Process Service.
5. To apply the combined filters, select the **Apply Combined Filters** button.
  - The **Processing Service Requests** page refreshes with results.



**Figure 15.6-23. Processing Services Requests Page and Filter**

### 15.6.7 Request Management Submenu Page – Operator Alerts

The Operator Alerts are valuable non-fatal warnings or errors concerning distribution resources and will not cause an Operator intervention. Once the error is corrected, the alert automatically clears the alerts page.

The Operator Alerts page (Figure 15.6-24) allows the Operator (full or limited capability) to view four alert types detected by the Order Manager Server:

1. **FtpPush/SCP Destination Alerts** – destination problems not sufficient to cause an Operator Intervention.
2. **Data Pool File System Alerts** – generated warnings regarding malfunctions of the DPL file system:
  - **Unavailability (down).**
  - **No free space.**

**NOTE:** The alerts clears automatically after system functions are up or space is freed.

**NOTE:** The alerts clears automatically after the quick server resumes functionally, but the achieve server must be manually resumed on the OM Queue Status page to clear alerts.

3. **ECS Server Alerts** (AIM database errors warnings) – detected warnings regarding the AIM malfunctions or OMS resources:

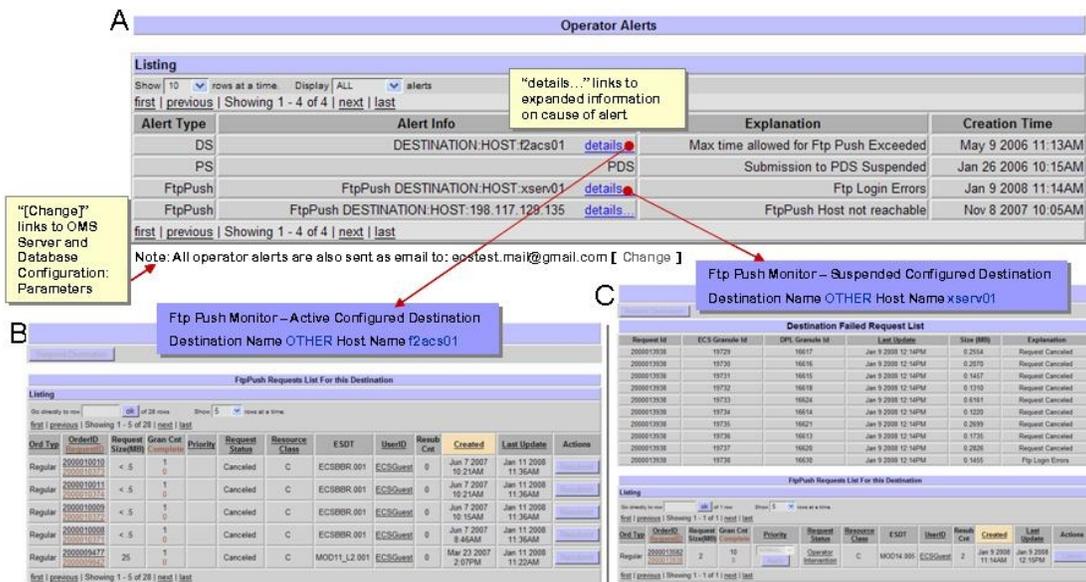
- **Unavailability (down).**

### 15.6.7.1 Handling Operator Alerts

1. Click **Request Management** menu option to expand its submenu.

2. Click **Operator Alerts** submenu option to display its page.

- The **Operator Alerts** page displays.



**Figure 15.6-24. Operator Alerts Page (A) and Alert Details Page (B-C)**

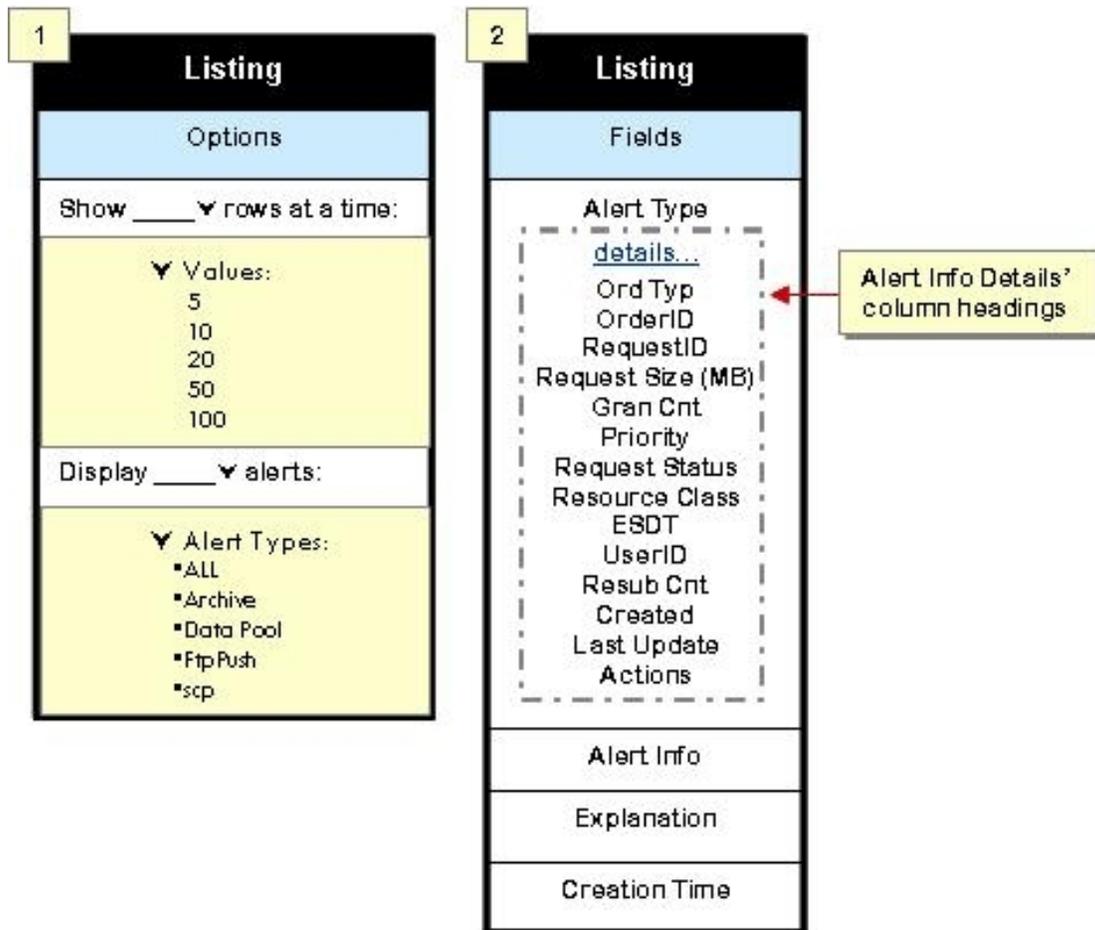
3. Observe the alerts listed on the **Operator Alerts** page (Figure15.6-24, Frame A). It displays the Order Manager Server's detected system malfunctions in the following fields (Figure15.6-24, Frame 1 Operator Alerts Page – Fields and Options) of the **Listing** section. This section has two display options:

1. **Show <number> rows at a time** – displays limited records (values 5 to 100) on the Operator Alerts Page.
2. **Display <list> alerts** – displays selection of several alerts types by groups.

4. At the bottom of the Operator Alerts Page, a note indicates, "All operator alerts are also sent as email to :<email address> [Change]" when an alert or intervention is generated. This email address is configured using the "OMS Server and Database Configuration: Email parameters" page, under the OMS Configuration submenu.

- Click **[Change]** to view the configured Operator Alert Email address.

- The **OMS Server and database Configuration: Email** parameters page displays.
- Click the navigation **Previous Page** button, to return to the **Operator Alerts Page**.



**Figure 15.6-25. Operator Alerts Page – Fields and Options**

5. Select **FtpPush** using from the **display <list> alerts** option to display all FtpPush Requests.

**NOTE:** Operator Alerts are displayed in ascending order by Creation Time. Operator can use the browser (Edit, Find in Page) menu option to perform keyword searches on displayed data on current page.

6. Select **details...** under the **Alert Info** column to display extended details affecting the request (Figure 15.6-24 Alert Details Page, Frame B-C).

**NOTE:** Unlike an Operator Intervention, no specific action can be taken to close an alert. The Order Manager Server automatically clears each alert when the condition(s) causing the infarction is satisfied or is in a satisfactory state.

### 15.6.8 Exiting the OM GUI

The procedure for closing Request Management submenu pages on the **OM GUI** will log-out the Operator. This is necessary for meeting security requirements. The Operator can still view the pages of the submenus, but will not be able to perform any actions. The Operator will use the log out option found in the left-panel of the menu to invoke the following:

- Operator is logged out from the OM GUI.

#### 15.6.8.1 Logging Out of OM GUI

1. To logout of the OM GUI, locate the **Log Out** link on the left-pane navigation frame:

- Click the **Log Out** link.
- A log-out dialog box message, "**Are you sure you want to log out?**" This will close your browser displays.
- Click **OK** - to dismiss the dialog box and to complete the log-out.
- Click **Cancel** – to dismiss the dialog box without logging out.

## 15.7 OM GUI – Destination Monitor

The OM GUI menu, Destination Monitor page provides the full-capability Operator with monitoring capability to suspend distributions.

The Destination Monitor submenu options will be examined using the following checklist in Table 15.7-1:

**Table 15.7-1. Destination Monitor - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Viewing and Responding to Suspended FtpPush Distribution Destinations	(P) 15.7.1.1	
2	Distribution Technician	Viewing and Responding to Destination Details	(P) 15.7.1.2	

### 15.7.1 Destination Monitor Submenu Page – Suspended Destinations

The "Suspended Destinations" (Monitor) page provides the full-capability operator with a means of viewing suspended FtpPush/SCP Destinations and performing several kinds of actions, with respect to suspended FtpPush/SCP Destinations:

- Resume suspended destinations.
- Suspend active destinations.
- View details of active or suspended destinations.

#### 15.7.1.1 Viewing and Responding to Suspended FtpPush Distribution Destinations

1. Click **Destination Monitor** menu option to expand its submenu.

2. Click **Suspended Destinations** submenu option to display its page.
3. Observe information displayed on the **Suspended Destination Monitor** page (Figure 15.7-1, Frame A).
  - The **Suspended Destinations** page has the following columns:
    - **Media Type.**
    - **Destination Name.**
    - **Host Name.**
    - **Time of Suspension** (if applicable, date and time when the destination was suspended).
    - **Granules Queued Count** (number of granules that are queued).
    - **Granules Queued Size MB** (total size in MB of all granules that are queued).
    - **Suspend Reason** (why the destination was suspended).
    - **Resume** (buttons for resuming the destination).

A

Suspended Destinations Monitor							
Media Type	Destination Name	Host Name	Time of Suspension	Granules Queued Count	Granules Queued Size MB	Suspend Reason	Resume
FtpPush	OTHER	xsen01	Jan 9 2008 11:15AM	10	2	Ftp Login Errors	Resume
FtpPush	OTHER	198.117.129.135	Nov 8 2007 10:05AM	0	0	FtpPush Host reachable	Resume option

<host name> link to Ftp Push Monitor

Destination Name  Configured name Host Name  The destination host name

Suspend option

B

Ftp Push Monitor - Suspended Configured Destination  
Destination Name OTHER Host Name xsen01

Destination Failed Request List						
Request Id	ECS Granule Id	DPL Granule Id	Last Update	Size (MB)	Explanation	
2000013938	19729	16617	Jan 9 2008 12:14PM	0.2554	Request Canceled	
2000013938	19730	16616	Jan 9 2008 12:14PM	0.2070	Request Canceled	
2000013938	19731	16615	Jan 9 2008 12:14PM	0.1457	Request Canceled	
2000013938	19732	16618	Jan 9 2008 12:14PM	0.1310	Request Canceled	
2000013938	19733	16624	Jan 9 2008 12:14PM	0.6161	Request Canceled	
2000013938	19734	16614	Jan 9 2008 12:14PM	0.1220	Request Canceled	
2000013938	19735	16621	Jan 9 2008 12:14PM	0.2699	Request Canceled	
2000013938	19736	16613	Jan 9 2008 12:14PM	0.1735	Request Canceled	
2000013938	19737	16620	Jan 9 2008 12:14PM	0.2826	Request Canceled	
2000013938	19738	16630	Jan 9 2008 12:14PM	0.1455	Ftp Login Errors	

FtpPush Requests List For this Destination

Listing

Go directly to row:  of 1 row Show: 50 rows at a time

first | previous | Showing 1 - 1 of 1 | next | last

Ord Typ	OrderID	Request Size(MB)	Gran Cnt	Complete	Priority	Request Status	Resource Class	ESDT	UserID	Resub Cnt	Created	Last Update	Actions
Regular	2000013582 2000013938	2	10	0	NORMAL	Operator Intervention	C	MOD14.005	ECSGuest	2	Jan 9 2008 11:14AM	Jan 9 2008 12:15PM	Apply button

Cancel option

**Figure 15.7-1. Suspended Destinations Monitor (A) and Ftp Push Monitor-Suspended Configured Destination (B) Pages**

4. To resume a **suspended destination**:
  - Click the **Resume** button in the destination's **Resume** column (if applicable).
  - The destination is resumed.
  - The **Suspended Destinations** page refreshes and the resumed destination is no longer on the list of suspended destinations.
  
5. To suspend an **active destination or view destination** details of an active or suspended destination:
  - In the **Active Destination** section of the screen, enter the **Destination Name** or the destination **Host Name (FTP Node)** in appropriate text field.
  - Click applicable button:
    - **Suspend** – to suspend an active destination and refresh the page. The suspended destination is included in the list of suspended destinations.
    - **View Requests** - to view ftp push requests associated with an active destination or a suspended destination.
      - The **FtpPush Requests List For this Destination** page (Figure 15.7-1, Frame B) displays.

**NOTE:** The data displayed in the Ftp Push Requests List For this Destination section are not in a terminal state.

The **Host Name Details** (Destination Details) page (Figure 15.7-1, Frame B) provides the full-capability Operator the ability to view detailed data of a particular destination and can perform the following actions:

- Suspend an active destination.
- Resume a suspended destination.
- Change the priority of a distribution request associated with the FtpPush destination while granules for the request still need to be staged or while granules for the request still need to be pushed.
- Suspend a request that still needs to be staged or while granules for the request still need to be pushed.
- Resume a request that was suspended by the **OM GUI** operator or while the processing of new requests by the OMS is suspended.
- Cancel a request that is not in a terminal state and while granules for the request still need to be staged or while granules for the request still need to be pushed.

#### 15.7.1.2 Viewing and Responding to Destination Details

1. Click the **Host Name link** on the **Suspended Destinations Monitor** page to display the Destination Details page (if not already being displayed).
  - The **Ftp Push Monitor-Suspended Configured Destination** page displays (Figure 15.7-1, Frame B).

2. Observe information displayed on the **Ftp Push Monitor-Suspended Configured Destination** page.
  - The page displays the **associated destination and host names** in its title.
  - The **Destination Failed Request List** section has the following columns:
    - **Request Id.**
    - **ECS Granule Id.**
    - **DPL Granule Id.**
    - **Last Update.**
    - **Size (MB).**
    - **Explanation.**
  - Click the underscored **column header** causes table contents to be sorted on that column.
    - For example, clicking on the **Last Update** link causes the table to be organized in numerical order by last date updated.
  - The **FtpPush Requests List For This Destination Listing** has the following:
    - The **Show <number> rows at a time** window to minimize or maximize number of data rows to be displayed at a time.
      - For example, if a **Show <number> row at a time** is being displayed, selecting **50** from the option button would result in the display of a page of data containing up to 50 rows of data.
    - The **Go directly to row...** window provides a means of displaying a page of data starting with a particular row of the table.
      - For example, if **Go directly to row <number> of 415 rows** is being displayed, typing **315** in the window and clicking on the **ok** button would result in the display of a page of data containing rows 315 through 364.
3. To **suspend an active destination** (if applicable), click on the **Suspend** button:
  - The destination is suspended.
  - The **Suspend Destination** button becomes a **Resume Destination** button.
4. To **resume a suspended destination**, click on the **Resume Destination** button:
  - The destination is resumed.
  - The **Resume Destination** button becomes a **Suspend Destination** button.
5. Click **Home** link on the OM GUI menu, to return to the home page.

## 15.8 OM GUI – Archive Data

The Operator (whether full-capability or limited capability) is provided with the option of viewing the repository for all historical distributed and processed requests on the OM GUI using filters.

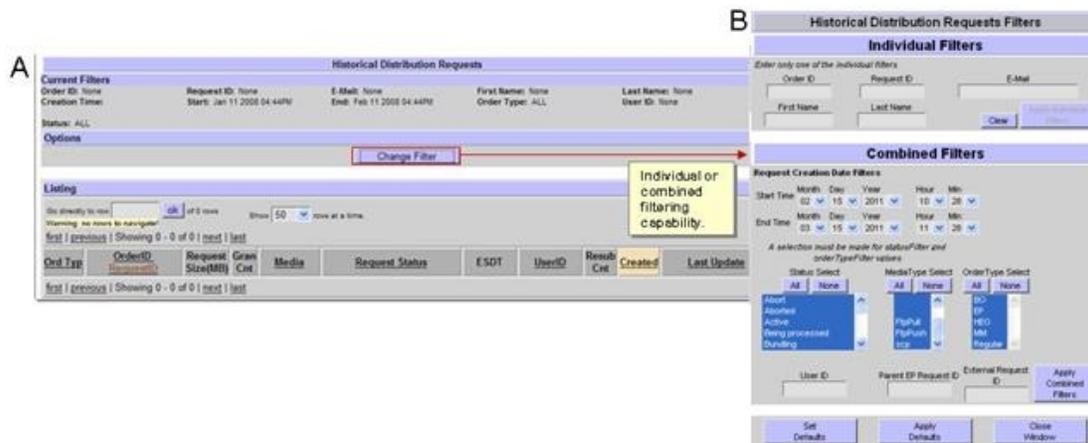
The Archive Data submenu options will be examined using to the following checklist in Table 15.8-1:

**Table 15.8-1. Archive Data - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Filtering Historical Distribution Requests	(P) 15.8.1.1	
2	Distribution Technician	Filtering Historical Processing Requests	(P) 15.8.2.1	

### 15.8.1 Archive Data Submenu Page – Historical Distribution Requests Filter

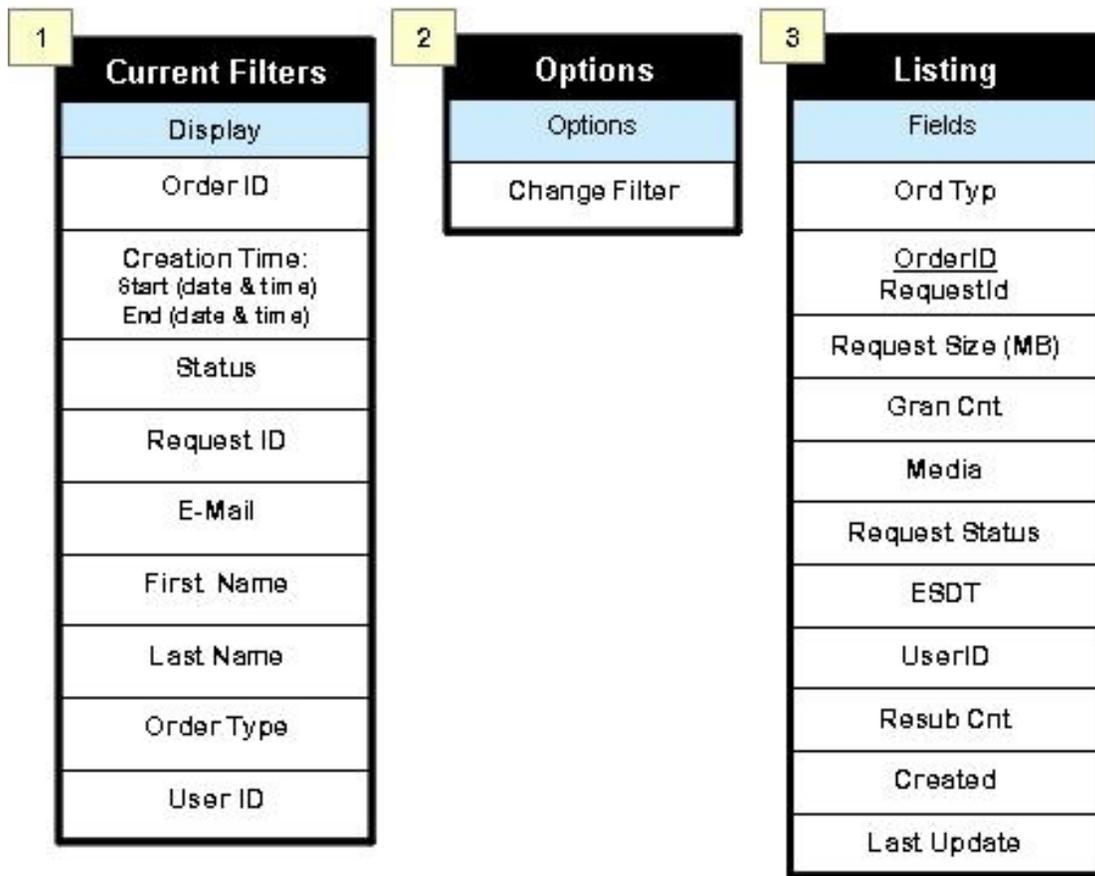
The Historical Distribution Requests page (Figure15.8-1, Frame A) provides the full-capability or limited capability operator the tool to view, by filtering (Figure15.8-1, Frame B), archived distributed requests information on the OM GUI.



**Figure 15.8-1. Historical Distribution Requests Page (A) and Filter (B)**

#### 15.8.1.1 Filtering Historical Distribution Requests

1. Click **Archive Data** menu option to expand its submenu.
2. Click **Historical Distribution Requests [filter]** submenu option to display the **Historical Distribution Requests** page (Figure 15.8-1, Frame A).
  - The **Historical Distribution Requests** page displays.
3. Observe the historical information displayed in the three working parts of the **Historical Distribution Requests** page (Figure15.8-2):



**Figure 15.8-2. Historical Distribution Requests Page – Fields and Options**

4. Click on an underscored **column header** to sort page by that column:
  - Click the **Request Status** to organize the table, alphabetically by the status of the requests in the list.
  - Click on a specific **Order ID** or **Request ID** to display more detailed data concerning that particular order or request on another page.
  
5. To filter the **Historical Distribution Requests Listing** to display details of a desired request(s), perform the following:
  - Click the **Change Filter** button, in the **Options** section of the page.
  - The **Historical Distribution Requests Filters** window (Figure 15.8-1, Frame B) displays.
  - Define **filter criteria**:
    - Enter search data for any one field of the **Individual Filter**.
    - Select multiple options for one or more fields of the **Combined Filter**.
  - Click **Apply Combined Filter** (or Apply Individual Filter) button to apply the filter criteria.

- The **Historical Distribution Requests** page displays.

6. Observe results of the filter change on the **Historical Distribution Requests** page.

## 15.8.2 Archive Data Submenu Page – Historical Processing Requests Filter

The **Historical Processing Requests** page (Figure 15.8-3, Frame A) provides the full-capability or limited capability operator the tool to identify the archived external processing requests, by filtering (Figure 15.8-3, Frame B), archived processing requests information on the OM GUI. The Operator can filter any specific external processing services or HEG through the historical processing services request filter.

**Historical Processing Requests**

**Current Filters**  
 Order ID: None Request ID: None E-Mail: None First Name: None Last Name: None  
 Creation Time: Start: Mar 9 2006 06:32PM End: Apr 17 2007 10:56PM User ID: None

**Options**  
 Change Filter

**Listing**  
 Go directly to row: [ ] of 14 rows Show: 20 rows at a time.  
 first | previous | Showing 1 - 14 of 14 | next | last

OrderID <small>RequestID</small>	Processor	Request Size(MB)	Gran Cut	Media	Request Status	ESDT	UserID	Recub Cnt	Created	Last Update
0300076633 0300074959	Subsetter1	< .5	1	FtpPush	Shipped	MOD11A1.004	ECSGuest	0	Sep 21 2006 4:29PM	Sep 21 2006 4:32PM
0300076626 0300074947	OTHER	6	1	FtpPull	Operator Intervention	MOD11A1.004	ECSGuest	0	Sep 21 2006 4:14PM	Sep 21 2006 4:21PM
0300076604 0300074973	OTHER	0	1	FtpPull	Aborted	MOD11A1.004	ECSGuest	0	Sep 21 2006 3:16PM	Sep 21 2006 3:41PM
0300076598 0300074917	OTHER	0	1	FtpPull	Abort	MOD11A1.004	ECSGuest	0	Sep 21 2006 1:27PM	Sep 21 2006 1:27PM
0300076209 0300074424	OTHER	< .5	1	FtpPull	Canceled	MOD11A1.004	ECSGuest	0	Sep 14 2006 10:30AM	Sep 14 2006 11:31AM
0300076202 0300074417	Subsetter1	0	1	FtpPull	Terminated	MOD11A1.004	ECSGuest	0	Sep 13 2006 2:39PM	Sep 13 2006 2:42PM
0300076200 0300074415	Subsetter1	< .5	1	FtpPull	Operator Intervention	MOD11A1.004	ECSGuest	0	Sep 13 2006 2:32PM	Sep 13 2006 2:34PM
0300076195 0300074410	Subsetter1	3	1	FtpPush	Operator Intervention	MOD11A1.004	dd7c88526a35ad	0	Sep 13 2006 2:26PM	Sep 13 2006 2:29PM

**Historical Processing Requests Filters**

**Individual Filters**  
 Enter only one of the individual filters  
 Order ID Request ID E-Mail  
 First Name Last Name Clear Apply Individual Filters

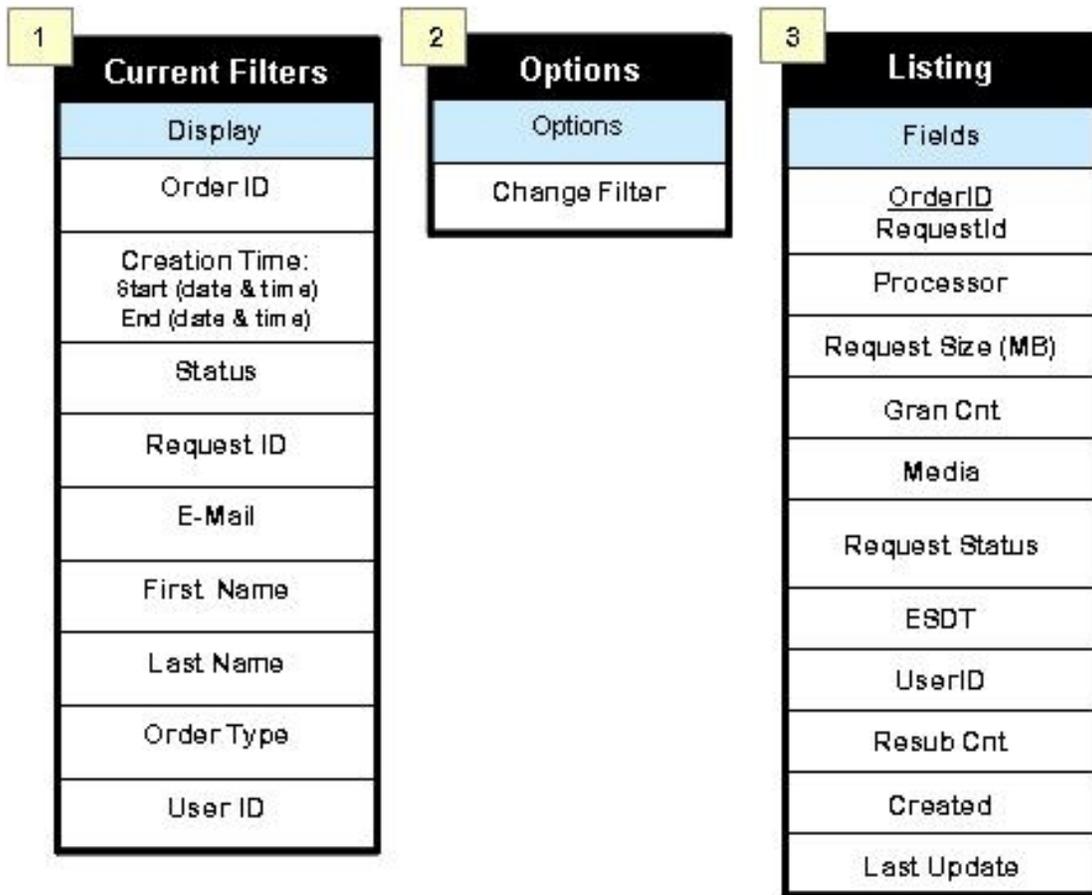
**Combined Filters**  
 Request Creation Date Filters  
 Start Time Month Day Year Hour Min  
 End Time Month Day Year Hour Min  
 Status Select: Abort, Aborted, Active, Being processed, Canceled  
 MediaType Select: All, None, FtpPush, FtpPull  
 ProcessService Select: All, None  
 User ID Parent EP Request ID Apply Combined Filters  
 Set Defaults Apply Defaults Close Window

Individual or combined filtering capability.

**Figure 15.8-3. Historical Processing Requests Page (A) and Filter (B)**

### 15.8.2.1 Filtering Historical Processing Requests

1. Click **Historical Processing Requests [filter]** submenu option to display the **Historical Distribution Requests** page.
  - The **Historical Processing Requests** page (Figure 15.8-3, Frame A) displays.
2. Observe the historical information displayed in the three working parts of the **Historical Processing Requests** page and its options (Figure 15.8-4).



**Figure 15.8-4. Historical Processing Requests Page – Fields and Options**

3. Click on an underscored **column header** to sort page by that column.
4. To filter the **Historical Processing Requests Listing** to display details of a desired request(s), perform the following:
  - Click the **Change Filter** button, in the Options section of the page, to define the filter criteria.
    - The **Historical Processing Requests Filters** window (Figure 15.8-3, Frame B) displays.
  - Define **filter criteria**:
    - Enter search data for any one field of the **Individual Filter**.
    - Select multiple options for one or more fields of the **Combined Filter**.
  - Click **Apply Combined Filter** (or Apply Individual Filter) button to apply filter criteria.
    - The **Historical Processing Requests** page displays.
5. Observe results of the defined filter criteria on the **Historical Distribution Requests** page.

## 15.9 OM GUI – OM Status Pages

The Operator (full or limited capability) is provided summary information on current requests processing states, with the option of invoking queries to view the statuses on the on the OM Status pages. The parameters for these status pages are modifiable using the OM Configuration Server/Database submenu options.

**NOTE:** Use the Server/Database Configuration menu to set database and server parameters to "fine tune" the Order Manager Server and the database. These are general parameters that affect the entire system, but no particular media types.

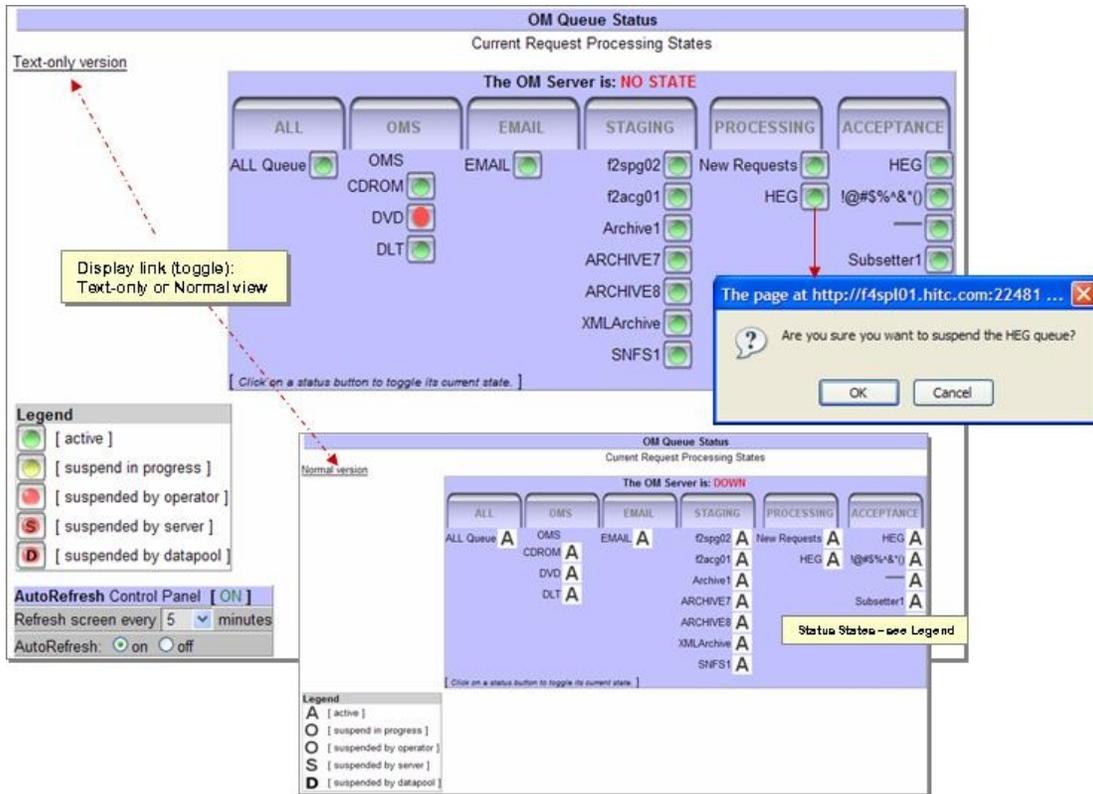
The OM Status Pages submenu options will be examined using to the following checklist in Table 15.9-1:

**Table 15.9-1. OM Status Pages - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Viewing/Modifying OM Queue Status	(P) 15.9.1.1	
2	Distribution Technician	Viewing HEG Order Status	(P) 15.9.2.1	
4	Distribution Technician	Viewing Pending HEG Granules	(P) 15.9.4.1	
5	Distributed Technician	Viewing Data Pool File System Status	(P) 15.9.5.1	

### 15.9.1 OM Status Pages Submenu Page – OM Queue Status

The **OM Queue Status** page (Figure 15.9-1) provides the full-capability operator with a means to monitor and modify the current status of request queues for all media as well as the request queues for OMS, e-mail, staging, and HEG. (The limited-capability operator can monitor but cannot change the status of queues.) In addition, the **OM Queue Status** page allows both full-capability and limited-capability Operators to determine the status ("up" or "down") of the Order Manager Server.



**Figure 15.9-1. OM Queue Status Page**

### 15.9.1.1 Viewing/Modifying OM Queue Status

1. Click **OM Status Pages** menu option to expand its submenu.
2. Click **OM Queue Status** submenu option to display its page (Figure15.9-1).
  - If the **OM Queue Status** page is not displayed within a minute, it is likely that the OM Server is not operating properly.
    - For example, it may have stalled while trying to process requests.
  - The **OM Queue Status** page displays in **Text-only version**.
3. Observe displayed information in **Text-only version** (default) of the page.
  - Click the **Text-only** link to toggle the view to Normal.

**NOTE:** The Text-only version was intended for visually impaired Operators.

4. Observe information displayed in the **Current Request Processing States** table.
  - The OM Server status is indicated by one of two states:
    1. **The OM Server is:** (green) **UP** [OM Server is currently operating].
    2. **The OM Server is:** (red) **DOWN** [OM Server is not currently operating].

The status indicators (legend colors or letters) on the **Current Request Processing States** page are labeled (by color circles or a letter, based on display version) to indicate the status of the request queues. If clicked, the Operator can toggle states from "activate" to "suspend" or vice versa. The Text-only versions indicators represents:

- **Green (no letter or A)** – the queue is active (or resumed). The queue is currently active or was resumed by either Operator or Server (automatic) intervention.
  - **Red (no letter or O)** – indicates that the queue was manually suspended by Operator or if yellow, that the queue is suspend in progress.
  - **Red (S)** – indicates that the queue was automatically suspended by OM Server. This is a non-Operator controlled event.
  - **Red (D)** – indicates that the queue has been suspended by Datapool.
5. To toggle the queue state, click on the **queue status indicator/button**:
    - A confirmation dialog box displays asking, **Are you sure you want to <state> the <queue type> queue?** (Figure 15.9-1)
    - Click **OK** to change the state of the queue and dismiss the dialog box.

### 15.9.2 OM Status Pages Submenu Page – HEG Order Status

The **HEG Order Status** page (Figure 15.9-2) allows the full-capability Operator to monitor the number of HEG requests and data volume currently in HEG processing. The information is displayed on the HEG Order Status page is as follows:

- **Total HEG Requests Queued.**
- **Total HEG Granules Queued.**
- **Total Input Data (MB).**

HEG Order Status		
Total HEG Requests Queued	Total HEG Granules Queued	Total Input Data (MB)
0	0	0.000

**Figure 15.9-2. HEG Order Status Page**

### 15.9.2.1 Viewing HEG Order Status

1. Click OM Status Pages menu option to expand its submenu.
2. Click **HEG Order Status** submenu option to display its page (Figure 15.9-2).
  - The **HEG Order Status** page displays.
3. Observe information displayed on the **HEG Order Status** page.
  - The **HEG Order Status** page has the following columns:
    - **Total HEG Requests Queued.**
    - **Total HEG Granules Queued.**
    - **Total Input Data (MB).**
  - If **AutoRefresh** is **ON**, the HEG Order Status page refreshes automatically as often as specified in the "Refresh screen every <number> minutes" window.

### 15.9.3 OM Status Pages Submenu Page – Staging Status (Media Type, FTP Push Destination and SCP Destination)

The **Staging Status** pages (three types), shown in Figure 15.9-3, allows the Operator (full or limited capability) to monitor the number of granules and data volume currently in staging states.

The screenshot displays three stacked tables, each titled "Granule Count and Volume".

- Table A: Staging Status by Media Type**

Media Type	DHWM	DLWM	Waiting for Staging	In Staging	Staged & NOT Shipped	Staged, Shipped & In DPL
CDROM	100	50	0 MB	0	0 MB	0
DLT	6000	50	0 MB	0	0 MB	0 MB
DVD	100	50	0 MB	0 MB	0	0
FtpPull	0		0 MB	0 MB	0	0 MB
- Table B: Staging Status by FTP Push Destination**

Destination Name	DHWM	DLWM	Waiting for Staging	In Staging	Staged & NOT Shipped	Staged, Shipped & In DPL
NoDiskSpace	100	2	0 MB	0	0 MB	0
OTHER	5	3	0 MB	0	0 MB	0
erad	100	2	0 MB	0	0 MB	0 MB
Dacg01	10	5	0 MB	0 MB	0	0 MB
- Table C: Staging Status by SCP Destination**

Destination Name	DHWM	DLWM	Waiting for Staging	In Staging	Staged & NOT Shipped	Staged, Shipped & In DPL
SCPtest	10	2	0	0 MB	0 MB	0
ncr	100	2	0 MB	0 MB	0 MB	0
omstestscp	100	2	0 MB	0 MB	0 MB	0
scp3	100	2	0 MB	0 MB	0 MB	0
scpDump	100		0	0	0	0

**SYSTEM TOTALS ?**

0	0	0	0 MB	0 MB	0 MB	0
---	---	---	------	------	------	---

**Legend (Fields):**

- Staging Type:
  - Media type
  - FTP Push destination
  - SCP destination
- DHWM
- DLWM
- Waiting for Staging
- In Staging
- Staged & NOT Shipped
- Staged, Shipped & In DPL

**System Totals:** System-wide totals for ALL granules in their various states, regardless of individual tallies. Shown in all staging views.

Figure 15.9-3. Staging Status Pages and Table (Fields)

Staging Status pages (Figures 15.9-3, Frames A, B, C) displays status in ALL or three ways:

1. **Media Type** (Figures 15.9-3, Frames A).
2. **FTP Push Destination** (Figures 15.9-3, Frames B)
3. **SCP Destination** (Figures 15.9-3, Frames C).

The granules staging information (Figure 15.9-3 Staging Status Pages and Table (Fields) is arranged in four categories:

1. Granules **Waiting for Staging**.
2. Granules **In Staging**.
3. Granules that have been **Staged and NOT Shipped**.
4. Granules that have been **Staged, Shipped and In DPL**.

### 15.9.3.1 Viewing Staging Status

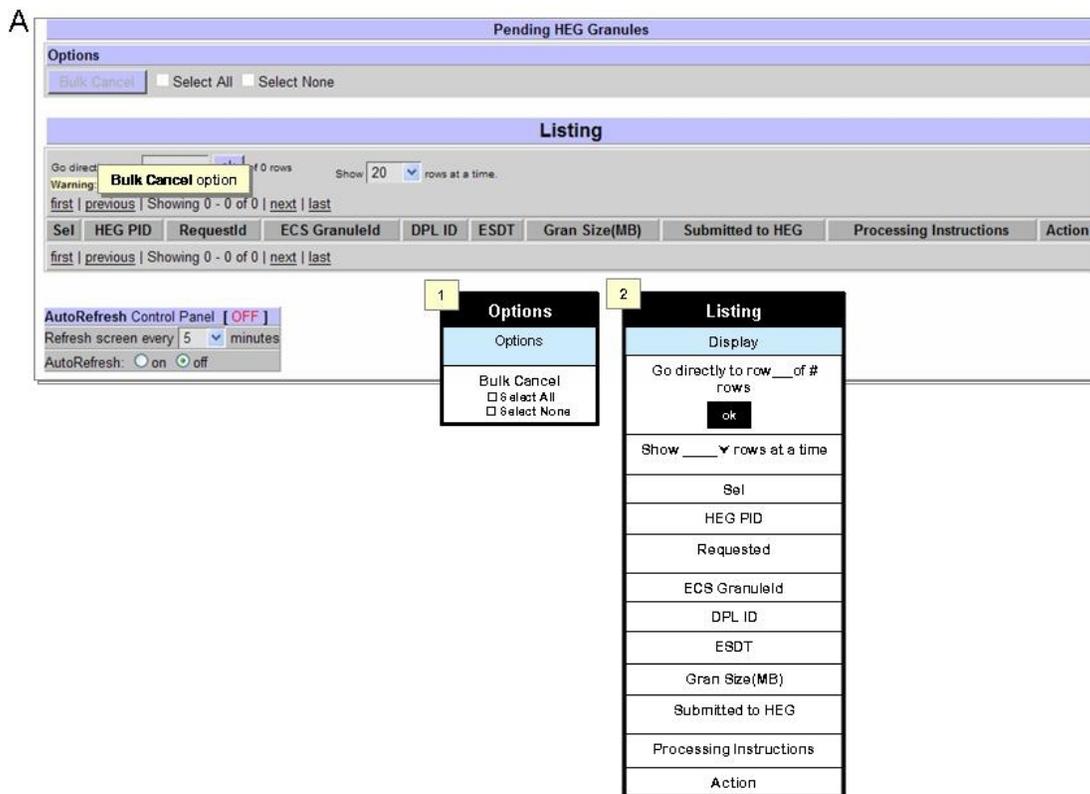
1. Click **OM Status Pages** menu option to expand its submenu.
2. Click **one of three Staging Status** submenu options (Media Type, FTP Push Destination or SCP Destination) to display its page (Figure 15.9-3: Frame A-Media Type; Frame B-FTP Push Destination; Frame C-SCP Destination).
  - The **Staging Status by <staging type>** status page displays.
3. To view another staging status page, select **staging type** from the list box on the currently displayed page.
4. Observe displayed information (Figure 15.9-3) of the Granule Count and Volume section on the **Staging Status** page as follows:
  - The **Staging Status** pages, each displays same information columns, except that data is either media or destination generated.
  - **The System Totals** are system-wide totals for ALL granules in their various states, regardless of individual tallies.
  - If **AutoRefresh** is **ON**, the **Staging Status by <staging type>** page refreshes automatically as often as specified in the **Refresh screen every <n> minutes**.

## 15.9.4 OM Status Pages Submenu Page – Pending HEG Granules

The **OM GUI** displays pending HEG granules. The **Pending HEG Granules** (Figure 15.9-4, Frame A) page provides Operator (with either full or limited capability) with a means of viewing pending HEG granules.

### 15.9.4.1 Viewing Pending HEG Granules

1. Click **OM Status Pages** menu option to expand its submenu.
2. Click **Pending HEG Granules** submenu option to display its page (Figure 15.9-4, Frame A).
  - The **Pending HEG Granules** page displays.



**Figure 15.9-4. Pending HEG Granules Page (Frame A) and Tables (Frames 1-2)**

3. Observe information displayed on the **Pending HEG Granules** page and its sections:
  - The **Options** section of the **Pending HEG Granules** page has the following button and selection boxes (Figure 15.9-4, Table 1):
    - **Bulk Cancel** button [for canceling selected pending HEG granule(s)].
    - **Select All** box [for selecting all eligible items for **Bulk Cancel**].
    - **Select None** box [for selecting none of the eligible items for **Bulk Cancel**].

4. Observe the information displayed in the **Listing** section (Figure 15.9-4, Table 2) of the **Pending HEG Granules** page:
  - Click on a specific **Request ID** in the Listing table of the **Pending HEG Granules** page to bring up a screen containing detailed data concerning that particular request.
  - To view the processing instructions for a particular granule, click on the **View...** link in the **Processing Instructions** column in the **Pending HEG Granules** page to bring up a **Processing Instructions** window to view the processing instructions for the line item.
  - Click the **Close Window** button to **close the Processing Instructions** window.
5. To **cancel pending** HEG granule(s):
  - In the **Options** section, select either the **Select All** check box (if all pending HEG granules are to be failed) or the individual check boxes in the **Sel** column associated with the specific pending HEG granules.
  - Click the **Bulk Cancel** button in the **Options** section of the **Pending HEG Granules** page, to complete the cancel pending HEG granule(s) process.
    - The specified pending HEG granules are failed.

### 15.9.5 OM Status Pages Submenu Page – DPL File System Status

The OM Status menu option provides Operator (full or limited capability) the ability to view-only the ongoing activities of the Data Pool (DPL) File System (Figure 15.9-5). This status page displays the Data Pool File System Status in two categories:

1. Data Pool File Systems
2. Archive File Systems

The sections display activity for data pool files' data space (free or used) usage/availability; cache threshold (alerts and suspended); granules file size and processing status.

**NOTE:** This status page is Read-Only.

#### 15.9.5.1 Viewing Data Pool File System Status

1. Click **OM Status Pages** menu option to expand its submenu.
2. Click **DPL file System Status** submenu option to display the **Data Pool File System Status** page (Figure 15.9-5).
  - The **DPL File System Status** page displays.

Read-Only view		Data Pool File System Status					
Data Pool File Systems							
Name	Status	Free Space	Used Space <small>(last checked)</small>	Cache Used Alert Threshold	Queued Granules	Granules Processing	
DEFAULT <small>(datapool/DEV09/user/FS1/)</small>	active	110 GB	69% <small>( Feb 14 2008 4:28PM )</small>	92%	0 <small>0.000 MB</small>	0 <small>0.000 MB</small>	
FS2 <small>(datapool/DEV09/user/FS2/)</small>	active	205 GB	44% <small>( Feb 14 2008 4:28PM )</small>	92%	0 <small>0.000 MB</small>	0 <small>0.000 MB</small>	
Archive File Systems							
Name	Status	Free Space	Used Space <small>(last checked)</small>	Cache Used Alert Threshold	Cache Used Suspend Threshold	Queued Granules	Granules Processing
AMFS1 <small>(stomext/ambf1/)</small>	active	62 GB	74% <small>( Feb 14 2008 4:24PM )</small>	95%	100%	MB	MB
BROWFS <small>(stomext/browfs/)</small>	active	199 GB	20% <small>( Feb 14 2008 4:24PM )</small>	95%	100%	MB	MB
SNFS1 <small>(stomext/snfs1/)</small>	active	60 GB	75% <small>( Feb 14 2008 4:24PM )</small>	80%	99%	MB	MB
XMLArchive <small>(stomext/smallfil/)</small>	active	49 GB	2% <small>( Feb 14 2008 4:24PM )</small>	95%	100%	MB	MB
	suspended						

Figure 15.9-5. Data Pool File System Status Page

3. Observe both sections of the **Data Pool file System Status** page, noting that the Archive File Systems section provides an additional "Suspend Threshold" display.
4. Set the **AutoRefresh** to **ON**, the **Data Pool file System Status** page refreshes automatically as often as specified in the **Refresh screen every x minutes** window.

## 15.10 OM GUI – OM Configuration

The OM Configuration menu option provides Operator (full or limited capability) the ability to configure the OM GUI parameters values.

The **OM Configuration** submenu pages provide the full-capability Operator with features to check and modify (if necessary) the values assigned to the following types of OM configuration parameters:

- **Aging Parameters.**
- **[All] OM Server/Database Parameters:**
  - Queue.
  - Cleanup.
  - Email.
  - Media.
  - Staging.
  - Partition.

- Misc.
- HEG.
- **Media Parameters.**
- **ODL Metadata Users**
- **External Processing**
- **FtpPush/SCP Policy**

The limited-capability Operator can use the **OM Configuration** page to view the values assigned to OM configuration parameters, but cannot change any parameter values.

The OM Configuration submenu options will be examined using to the following checklist in Table 15.10-1:

**Table 15.10-1. OM Configuration - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Checking/Modifying Assigned Values of Aging Parameters	(P) 15.10.1.1	
2	Distribution Technician	Checking/Modifying the Configuration of the Assigned Values of OMS Server and Database Parameters	(P) 15.10.2.1	
3	Distribution Technician	Checking/Modifying Assigned Values of Media Parameters	(P) 15.10.3.1	
4	Distribution Technician	Adding/Deleting User Email Address that will receive ODL Metadata File <ul style="list-style-type: none"> <li>● Adding User Email Address(es)</li> <li>● Deleting User Email Address(es)</li> </ul>	(P) 15.10.4.1	
5	Distribution Technician	Adding/Deleting User Email Address that will receive Checksum File <ul style="list-style-type: none"> <li>● Adding User Email Address(es)</li> <li>● Deleting User Email Address(es)</li> </ul>	(P) 15.10.5.1	
6	Distribution Technician	Checking/Modifying External Processing Services Configurations <ul style="list-style-type: none"> <li>● Add New (or Edit) External Processing Service</li> <li>● Delete an External Processing Service</li> </ul>	(P) 15.10.6.1	
7	Distribution Technician	Viewing/Modifying FTP Push/SCP Policy Configuration	(P) 15.10.7.1	

### 15.10.1 OM Configuration Submenu Page – Aging Parameters

The **Aging Parameters** submenu option allows the full-capability Operator to configure the aging parameter (rules) for each priority level using the **Aging Parameters Configuration** page (Figure 15.10-1).

Aging parameters affect how Distribution Requests are aged over time. There are three aging parameters, however only two are configurable for each ECS Priority Level (i.e., XPRESS, VHIGH, HIGH, NORMAL, or LOW):

1. **Age Step** – is the aging rate (range is 0-255, including decimal fractions) by which the effective priority of a request increases for every hour it has been waiting. If the parameter is set to zero (0), waiting requests never increase in priority. However, the priority will not exceed the "Maximum Priority".

For example, if the Age Step is set to 5.5 and a request with an initial priority of 100 waits 10 hours to be pushed, the request increases in priority by a factor of 5.5 every hour until it has been delivered:

Hour 0:	priority = 100
Hour 1:	priority = 105.5
Hour 2:	priority = 111
.	
.	
.	
Hour 10:	priority = 155

2. **Maximum Priority** – is the maximum priority a request can attain through the aging process. For example, if Maximum Priority were set to 130, once the request had reached a priority of 130, it would not go any higher [e.g., if a Maximum Priority of 130 were applied to the previous example, at Hour 6 the priority would become 130 and at every hour thereafter (if not delivered) it would still be 130].
3. **Starting Priority** – is a non-configurable arbitrary value that represents the priority.

Aging Parameter Configuration	
<b>XPRESS</b>	
Age Step ?	0
Maximum Priority ?	255
Starting Priority ?	255
<b>VHIGH</b>	
Age Step	0
Maximum Priority	235
Starting Priority	235
<b>HIGH</b>	
Age Step	0
Maximum Priority	220
Starting Priority	220
<b>NORMAL</b>	
Age Step	0
Maximum Priority	150
Starting Priority	150
<b>LOW</b>	
Age Step	0
Maximum Priority	60
Starting Priority	60

Each priority level has a non-configurable "Starting Priority" value:

- XPRESS = 255
- VHIGH = 235
- HIGH = 220
- NORMAL = 150
- LOW = 60

**Figure 15.10-1. Aging Parameters Page**

### 15.10.1.1 Checking/Modifying Assigned Values of Aging Parameters

1. Click **OM Configuration** menu option to expand its submenu.
2. Click **Aging Parameters** submenu option to display the **Aging Parameters Configuration** page (Figure 15.10-1).
  - The **Aging Parameters Configuration** page displays.
3. Observe the **Aging Parameters Configuration** page aging steps and priority levels values.
  - The table is divided into sections for the various distribution request priorities (e.g., XPRESS) and within each section there are rows that indicate the identity and value of each of the following parameters associated with the priority:
    - **Age Step.**
    - **Maximum Priority.**
    - **Starting Priority** (cannot be changed).

4. If aging parameter value(s) is modified (and is authorized):
  - Type the **new value(s)** in the text entry box(s) for the relevant parameter(s).
  - Click the appropriate button:
    - **Apply** - to apply the new value(s) to the parameter(s).
    - **Reset** - to clear the new value(s) from the text entry box(s) without changing the current value(s). The original value(s) is retained.

### 15.10.2 OM Configuration Submenu Page – Server/Database

The **OMS Server and Database Configuration** page (Figure 15.10-2) provides the full-capability operator with the capability to check and modify OMS server or database parameter values.

OMS server and database parameters affect functionality of the OM server and database. The parameters are dynamically loaded from the OMS database into the configuration pages on the OM GUI. If a configuration parameter is added to the database, it is subsequently displayed on the OM GUI when the applicable configuration page is requested. If a configuration parameter is deleted from the database, it is no longer displayed on the OM GUI. Consequently, the configuration parameters displayed on the OM GUI are variable.

OMS Server and Database Configuration: All parameters			
Parameter	Description	Units	Value
Num Of Allowed Email Submissions	Max Number of concurrent submissions to PDS		100
Child Process Time Limit	Amount of time to wait to kill child process before retrying action	seconds	30
Delete Complete Interventions After	Time in hours Completed Interventions are maintained	hours	1
Delete Complete Actions After	Time in hours Completed Actions are maintained	hours	1
Max Request Granules	Maximum number of granules a request may contain		2000
Max Subset Granules	Maximum number of granules a request may contain if it specifies subsetting		3
Delay Partition	Time delay in hours each successive partition is supposed to be dispatched	hours	24.0
Max Action Retries	Maximum number of times an action can be retried before the request is FAILED		20
Idle Sleep Time	Length of time between OM Server checks for config parameters	seconds	10
Action Retry Wait	Time in seconds the OnServer waits before attempting to re-dispatch an action	seconds	10
Num Of Allowed Validations	Number of threads the OMServer uses for performing request validations action	threads	100
Action Check Interval	Time in seconds the OnServer waits before checking on actions	seconds	30
Cleanup Check Interval	Time in seconds the OnServer waits before performing cleanup activities	seconds	300
Suspend Check Interval	Time in seconds the OnServer waits before performing checking suspended queues	seconds	30
Max Concurrent Requests Processed	Number of concurrent requests the Om Server will process at one time	integer	100
Notify User For Partition Requests	Whether or not user want to receive notification when partition happens yes or no	none	Y (Yes)
Global Staging Status	Synergy IV Staging Mode Status	none	A (Active)
Min Moderate Request	min number of tape mounts classified Moderate	number	300
Min Expensive Request	min number of tape mounts classified Expensive	number	10
Max Cheap Requests	Max number of Concurrent requests classified as Cheap that can be promoted	number	300
Max Moderate Requests	Max number of Concurrent requests classified as Moderate that can be promoted to staging	number	500
Max Expensive Requests	Max number of Concurrent requests classified as Expensive that can be promoted to staging	number	10
Max Failure Archive	Allowable number of failures prior to suspending Archive	number	50
Global Configured Email	Configured email account to send actions when an alert or intervention is generated		
Max Orphan Req Age	How long to keep an orphaned request in system before it is qualified for removal	hours	1
Cleanup Orphan Req Period	How often to cleanup orphaned requests	hours	1
Forward Dn Email	Configured email account for forwarded DN Email		
Unsuccess Req Ret Time	Amount of time in hours to keep unsuccessful requests/orders in MSS/OAS	Hours	1
Max Num Of Concurrent HEG Process	The maximum number of HEG Service requests that may be processed concurrently	number	5
Max Num Of Concur HEG Proc Per Req	The maximum number of HEG Service requests that may be processed concurrently for a single request	number	5
HEG Process Retry Interval	Retry interval for automatic retry in case the queue is suspended automatically	seconds	60
Cleanup Delay Interval	The delay time interval for cleanup granules	minutes	10
Due Date For Media Request	Number of hours from the time the request finished staging that request is due for distribution	Hours	1
Global Configured Operator Actions Email	Configured email account to send operator actions to		
Qc Timeout	The maximum time (minutes) QC is allowed to run before generating an intervention	Minutes	90
Production Timeout	The maximum time (minutes) Production is allowed to run before generating an intervention	Minutes	10
Media Prep Timeout	The maximum time (minutes) Media Preparation is allowed to run before generating an intervention	Minutes	10
Storage Order Pull Time	Configured maximum time interval in minutes within which an Storage order is expected to be pulled by	Minutes	60
Max Order History Days	Number of days users can search back for order history	Days	365
Luminex Timeout	maximum minutes which the PMI will wait for Luminex during a COVID media order	Minutes	10
Media Device Check Interval	Interval to recheck device on-line status and perform automatic assignment	Seconds	250
Staging Action Retries	No of Retries for Staging Action	number	10
Staging Action Retry Interval	Interval for Retry of Staging Actions	seconds	601
Fastat Interval	Minimum amount of time allowed between fastat calls	seconds	6
Fastat Timeout	The maximum time fastat is allowed to run before timing out	seconds	122
Max No Cost Requests	Max number of Concurrent requests classified as No Cost (All Granules in DataPool) that can be promo	number	10
Max No Cost Granules	Max number of concurrent datapool granules that can be promoted to staging	number	50
Max Concurrent Checksums	Max number of concurrent checksum operations	number	20
Enable Performance Logging	Turn on performance logging	boolean	N (No)

Figure 15.10-2. OMS Server and Database Configuration Page

#### 15.10.2.1 Checking/Modifying the Configuration of the Assigned Values of OMS Server and Database Parameters

1. Click **OM Configuration** menu option to expand its submenu.

2. Click **[All]** submenu option, listed under the **Server/Database** header, to display its page (Figure15.10-2). To view individual parameter's page click on its associated link:
  - To display the **OMS Server and Database Configuration: <name> parameters** page (Figure15.10-2), click on one of the links listed under the **Server/Database** header of the **OM Configuration** submenu (Example: **[All]**, **[queue parms]**, etc...)
  - Links under the **Server/Database** header in the navigation frame of the **OM Configuration** submenu includes the following categories of parameters:
    - **[All]**
    - **[queue parms]**
    - **[cleanup parms]**
    - **[email parms]**
    - **[media parms]**
    - **[staging parms]**
    - **[partition parms]**
    - **[misc. parms]**
    - **[HEG parms]**.

**NOTE:** OMS configuration parameters are dynamically loaded from the OMS database into the configuration pages on the OM GUI. If a configuration parameter is added to the database, it is subsequently displayed on the OM GUI when the applicable configuration page is requested. If a configuration parameter is deleted from the database, it is no longer displayed on the OM GUI. Consequently, the configuration parameters displayed on the OM GUI are variable.

3. Observe information displayed in the table on the **OMS Server and Database Configuration: <name> parameters** page:
  - The table on the **OMS Server and Database Configuration: <name> parameters** page has the following columns:
    - **Parameter**
    - **Description**
    - **Units**
    - **Value.**
  - The rows in the table indicate the parameter's current values (Figure15.10-3) and descriptions of the following types of parameters:

Parameters		Parameters (cont)		Parameters (cont)	
Params	Values	Params	Values	Params	Values
queue	Num Of Allowed Email Submissions	staging	Global Staging Status	misc.	Max Order History Days
queue	Child Process Time Limit	misc.	Max Failure Archive	staging	Staging Action Retries
cleanup	Delete Complete Interventions After	email	Global Configured Email	staging	Staging Action Retry Interval
cleanup	Delete Complete Actions After	cleanup	Max Orphan Req Age	staging	Fsstat Interval
partition	Max Request Granules	cleanup	Cleanup Orphan Req Period	staging	Fsstat Timeout
partition	Max Subset Granules	email	Forward Dn Email	staging	Max No Cost Request
partition	Delay Partition	cleanup	Unsuccess Req RetTime	staging	Max No Cost Granules
misc.	Max Action Retries	HEG	Max Num of Concurrent HEG Process	staging	Max Concurrent Checksums
misc.	Idle Sleep Time	HEG	Max Num of Concur HEG Proc Per Req	misc.	Enable Performance Logging
misc.	Action Retry Wait	HEG	HEG Process Retry Interval		
queue	Num of Allowed Validations	cleanup	Cleanup Delay Interval		
misc.	Action Check Interval	email	Global Configured Operator Actions Email		
misc.	Cleanup Check Interval				
misc.	Suspend Check Interval				
queue	Max Concurrent Requests Processed				
email	Notify User for Partition Request				

**Figure 15.10-3. OM Server/Database Configuration - Parameters**

- To manually update (refresh) the data on the screen, click on the **reload**  icon in the **OM GUI** navigation frame.
  - The Netscape browser **Edit** → **Find in Page** menu provides a means of performing a keyword search of the data currently being displayed on the screen.
4. If server or database parameter value(s) is (are) to be modified (and there is authorization to do so), type the **new value(s)** in the text entry box(es) for the relevant parameter(s).

**NOTE:** Server parameters cannot be set to 0 (zero).

5. Once all desired parameters are updated, click on the **Apply** button to apply new value(s) to the modified parameter(s):
- The **OMS Server and Database Configuration** page refreshes and displays the modified value(s).
  - To retain the original value, click the **Reset** button. The new value(s) from the text entry box(es) will be reset to the current value(s).

### 15.10.3 OM Configuration Submenu Page – Media

The **Media** submenu Media Configuration page option (Figure 15.10-4) provides the full-capability Operator the ability to check and modify media parameters.

Media parameters are specific to each kind of distribution medium and affect such things as limit checking against standard media capacity (e.g., minimum request size and maximum request size) and the partitioning of requests (e.g., partition size). The parameters are dynamically loaded from the OMS database into the configuration pages on the OM GUI. If a configuration parameter is added to the database, it is subsequently displayed on the OM GUI when the applicable configuration page is requested. If a configuration parameter is deleted from the database, it is no longer displayed on the OM GUI. Consequently, the configuration parameters displayed on the OM GUI are variables.

The screenshot displays the Media Configuration page with three configuration sections: FtpPull, scp, and FtpPush. Each section contains a table of parameters and their values, with input fields for each value. The FtpPush section has a red circle around its rule button, with a red arrow pointing to a JavaScript error dialog box at the bottom. The dialog box contains a warning icon and the text: "Rule for configuring media types: MaxRequestSize < PartitionSizeLimit > MediaCapacity. MaxRequestSize must be less than PartitionSizeLimit, which must be greater than MediaCapacity." Below the dialog box are "Apply" and "Reset" buttons, and two yellow boxes with text: "Submit Media Configuration Changes" and "Rest Media Configuration Changes".

Parameter Name	Value
<b>FtpPull</b> <input checked="" type="checkbox"/> [ rule ]	
MediaCapacity (GB)	40.0000
PartitionGranuleLimit	3000
PartitionSizeLimit (GB)	60.0000
MinDaysBetweenChecksum	1
MinRequestSize (GB)	0.0000
MaxRequestSize (GB)	90.0000
MinBundleSize (GB)	54.0000
Request High Water Mark	2
Data High Water Mark (MB)	2000
Pull Gran Dpl Time (days) [...]	1
Pull Gran Dpl Ret Pri (number) [...]	6
Min Pri To Preempt (number) [...]	256
<b>FtpPush</b> <input checked="" type="checkbox"/> [ rule ]	
MediaCapacity (GB)	150.0000
PartitionGranuleLimit	3
PartitionSizeLimit (GB)	400.0000
MinDaysBetweenChecksum	2
MinRequestSize (GB)	0.0000
MaxRequestSize (GB)	450.0000
MinBundleSize (GB)	40.0000

Parameter Name	Value
<b>scp</b> <input checked="" type="checkbox"/> [ rule ]	
MediaCapacity (GB)	50.0000
PartitionGranuleLimit	3000
PartitionSizeLimit (GB)	60.0000
MinDaysBetweenChecksum	3
MinRequestSize (GB)	0.0000
MaxRequestSize (GB)	65.0000
MinBundleSize (GB)	40.0000

Apply    Reset

Submit Media Configuration Changes    Rest Media Configuration Changes

Apply Changes to all parameters.    
 Reset this parameter back to its original value.    
 Rule for configuring media types. [ rule ]

[JavaScript Application]    
 Rule for configuring media types:   
 MaxRequestSize < PartitionSizeLimit > MediaCapacity   
 MaxRequestSize must be less than PartitionSizeLimit, which must be greater than MediaCapacity.

Figure 15.10-4. Media Configuration Page

### 15.10.3.1 Checking/Modifying Assigned Values of Media Parameters

1. Click **OM Configuration** menu option to expand its submenu.
2. Click **Media** submenu option to display its page (Figure15.10-4).

**NOTE:** OMS configuration parameters are dynamically loaded from the OMS database into the configuration pages on the **OM GUI**. If a configuration parameter is added to the database, it is subsequently displayed on the **OM GUI** when the applicable configuration page is requested. If a configuration parameter is deleted from the database, it is no longer displayed on the **OM GUI**. Consequently, the configuration parameters displayed on the **OM GUI** are variable.

3. Observe information displayed on the **Media Configuration** page.
  - The **Media Configuration** page has the following columns:
    - **Parameter Name.**
    - **Value.**
  - Each of the parameters applies to the following distribution media:
    - **FtpPull.**
    - **FtpPush.**
    - **scp.**
  - The rows in the table indicate the current assigned values to the following types of parameters for each type of distribution medium:
    - **PartitionGranuleLimit** – is the maximum number of granules that may be partitioned for the type of medium.
    - **PartitionSizeLimit (GB)** – should be the size (in GB) at which point partitioning of a request can occur.
    - **MinDaysBetweenChecksum** – the number of days, post-verification of checksum, as defined by Operator, in which the checksum process is again verified.
    - **MinBundleSize (GB)** – is the minimum number of gigabytes in a bundle for the type of medium.
    - **FtpPull (exclusive):**
      - **Request High Water Mark** – The Request High Watermark [RHWM] is the desired maximum number of requests that may be in the Staging state, or that have completed Staging but are not yet in a terminal state (e.g., Shipped).
      - **Data High Water Mark (MB)** – The Data High Watermark [DHWM] is the maximum volume (in MB) of data in staging or already staged but not yet shipped. If the data volume and number of requests is above the DHWM, it is assumed the media devices have plenty of work to keep them busy.

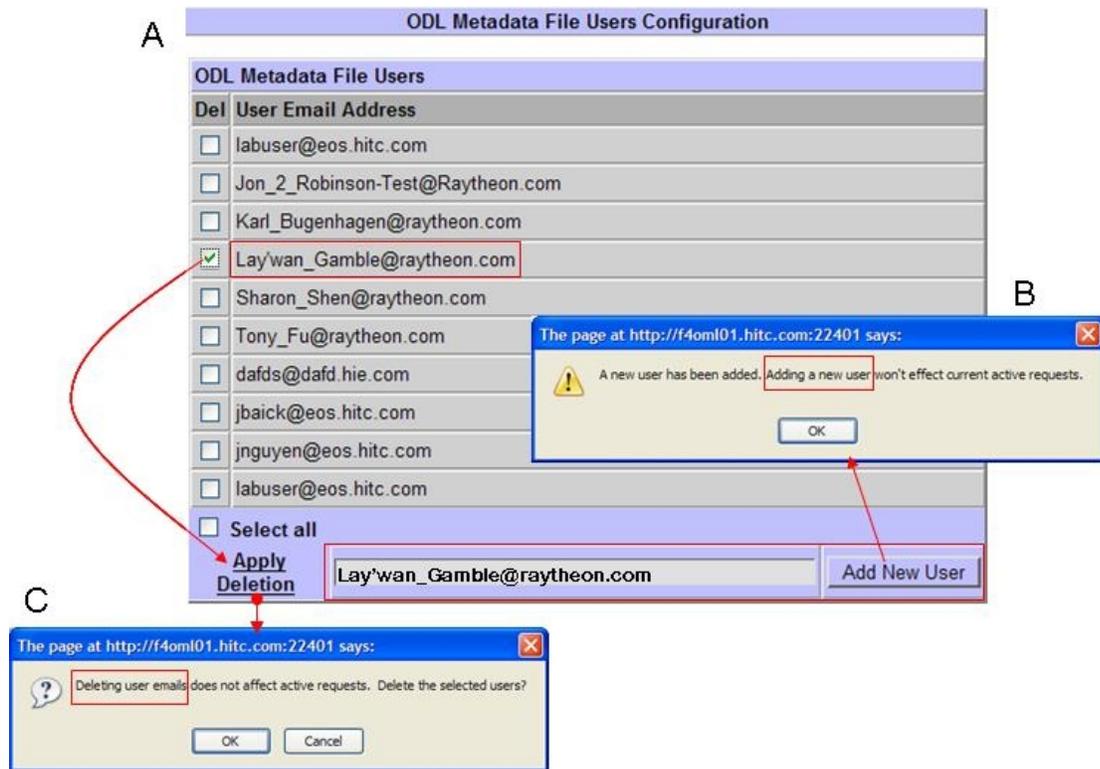
- **Pull Gran Dpl Time (days) [...]** – The pull granule Data Pool time is the number of days a granule for an FtpPull request would normally remain in the Data Pool.
  - **Pull Gran Dpl Ret Pri (number) [...]** – The pull granule Data Pool retention priority is the normal retention priority for a granule for an FtpPull request.
  - **Min Pri To Preempt (number) [...]** – The minimum priority to preempt applies to granules put in the Data Pool for an FtpPull request.
- To manually update (refresh) the data on the screen, click on the **reload**  icon on the **OM GUI** navigation frame.
  - The Netscape browser **Edit** → **Find in Page** menu provides a means of performing a keyword search of the data currently being displayed on the screen.
4. If media parameter value(s) is (are) to be modified, type the **new value(s)** in the text entry box(es) for the relevant parameter(s).
  5. After all desired parameters have been updated; select the **Apply** button to submit the media configuration changes.
    - Select the **Reset** button to clear the new value(s) from the text entry box(es) and reset the parameter(s) back to its original value(s).
      - The value(s) displayed in the text entry boxes return to the original value(s).

#### 15.10.4 OM Configuration Submenu Page – ODL Metadata Users

Limited-capability Operator is limited to viewing Metadata File Users configuration only. The Operator cannot add, or delete email addresses.

The **ODL Metadata File Users Configuration** page (Figure 15.10-5) allows the full-capability Operator to configure a list of Email addresses that signifies users that need to receive metadata in ODL .met file format.

**NOTE:** If the list is changed, currently active requests' metadata format will not change. For example, if a user's email address is deleted from the list; active requests issued for that user subsequent to the deletion will still distribute the metadata files in ODL format.



**Figure 15.10-5. ODL Metadata File Users Configuration Page**

#### 15.10.4.1 Adding/Deleting User Email Address that will receive ODL Metadata File

1. Click **OM Configuration** menu option to expand its submenu.
2. Click **ODL Metadata Users** submenu option to display the **ODL Metadata File Users Configuration** page (Figure 15.10-6, Frame A).
  - The **ODL Metadata File Users Configuration** page displays.

##### Adding User Email Address(es)

3. Enter the new user's **email address** to the **add new user textbox**.
4. Click the **Add New User** button to submit the change to the database.
  - The confirmation dialog box (Figure 15.10-6, Frame B) confirming the change displays.
5. Click **OK** to acknowledge the change.

## Deleting User Email Address(es)

- To delete User email address(es), click on the **Del** (or Select all) check box next to the user(s) to be deleted.
  - A green check mark displays in the box(es).
- Select the **Apply Deletion** link to submit change(s) to the database.
  - The confirmation dialog box (Figure 15.10-6, Frame C) confirming the change displays.
- Click **OK** acknowledge the deletion.

### 15.10.5 OM Configuration Submenu Page – Checksum Users

A **checksum** is a computed value associated with a data file, which can be used to verify data validity on files distributed by OMS. This will allow Users to perform data validity tests on the granule files they receive. Limited-capability Operator is limited to viewing Checksum Users configuration only. The Operator cannot add, or delete email addresses.

The **Checksum Users Configuration** page (Figure 15.10-6) allows the full-capability Operator to configure a list of email addresses of users that will receive a checksum in the form of a request. If the email address for a Distribution Notice (DN) contain one of these addresses, the distribution notice will contain checksum values for each of the distributed files.



**Figure 15.10-6. Checksum Notification Users Configuration Page**

#### 15.10.5.1 Adding/Deleting User Email Address that will receive Checksum File

- Click **OM Configuration** menu option to expand its submenu.
- Click **Checksum Users** submenu option to display the **Checksum Notification Users Configuration** page (Figure 15.10-6, Frame A).
  - The **Checksum Notification Users Configuration** page displays.

### Adding User Email Address(es)

3. Enter the new user's **email address** to the **add new user textbox**.
4. Click the **Add New User** button to submit the change to the database.
  - The new user email address (Figure 15.10-6, Frame B) displays on the page.

### Deleting User Email Address(es)

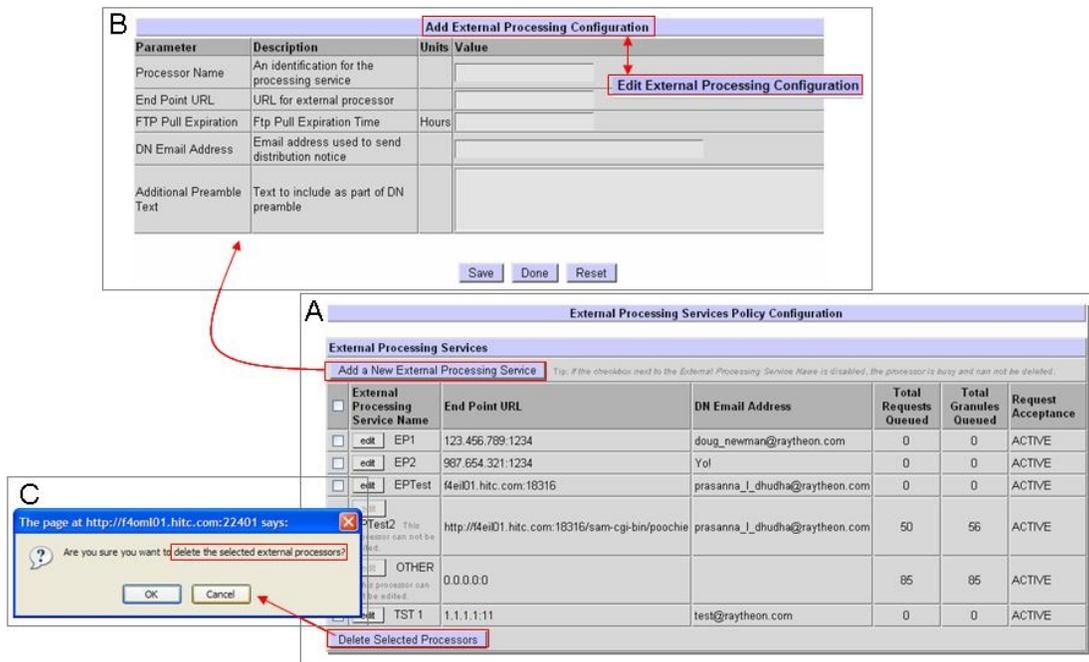
5. To delete User Email Address(es), click on the **Del** (or **Select all**) check box next to the User(s) Email Address(es) to be deleted.
  - A green check mark displays in the selected box(es).
6. Select the **Apply Deletion** link (Figure 15.10-6, Frame C) to make change(s) and remove the User Email Address(es).

### **15.10.6 OM Configuration Submenu Page – External Processing**

Limited-capability Operator is limited to only viewing External Processing Configuration. The Operator cannot edit, add, or delete destinations. This page allows the full-capability Operator to define and configure the parameters of an external processing service as follows:

- View the external processing services parameters.
- Delete a selected external processing service that has no pending requests for an external processing service.
- Add a new external processing service.
- Edit existing processing service configuration.

Special configuration parameters that control external processing requests are displayed on the **External Processing Services Policy Configuration** page (Figure 15.10-7, Frame A).



**Figure 15.10-7. External Processing Services Policy Configuration Page**

The descriptive listing for External Processing Services parameters are described in the following table (Table 15.10-2):

**Table 15.10-2. External Processing Services Parameters**

PARAMETER	DESCRIPTION
External Processor Service Name	A unique name for the external processing service.
End Point URL	Host URL address for external processing service as configured in the ECS registry.
DN Email Address	DN Email Address used by the external processing service.
Total Requests Queued	Total number of queued requests.
Total Granules Queued	Total number of queued granules.
Request Acceptance	The acceptance of the request.

### 15.10.6.1 Checking/Modifying External Processing Services Configurations

1. Click **OM Configuration** menu option to expand its submenu.
2. Click **External Processing** submenu option to display its **External Processing Services Policy Configuration** page (Figure 15.10-8, Frame A).

3. Observe the **External Processing Services Policy Configuration** page:

Add New (or Edit) External Processing Service

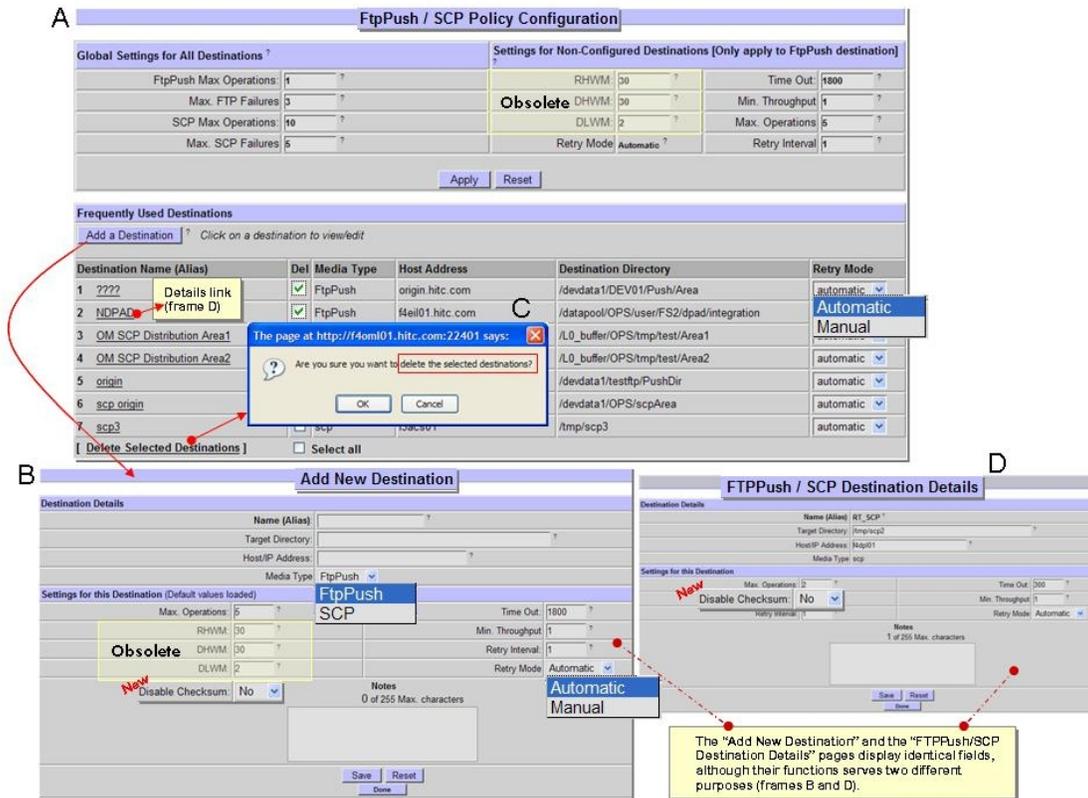
4. Select the **Add a New External Processing Service** button, (or if editing, select the **edit** button next to the processing service to be edited).
  - The **Add External Processing Configuration** page (Figure 15.10-8, Frame B) displays (if editing, the **Edit External Processing Configuration** page displays).
5. Add/Edit required data of the **External Processing Configuration parameters**, as needed.
6. Click **Save** to submit the input.
7. Click **Done** to return to the **External Processing Services Policy Configuration** page

Delete an External Processing Service

8. To delete an external processing service, select the **checkbox** of the **External Processing Service** to be deleted.
9. Click the **Delete Selected Processors** button at bottom of the page.
10. Click **OK** to confirm deletion, at the deletion prompt (Figure 15.10-8, Frame C) dialog box and to delete selected external processors.

**15.10.7 OM Configuration Submenu Page – FtpPush/SCP Policy**

The **FtpPush/SCP Policy Configuration** page (Figure 15.10-8, Frame A) provides the full-capability Operator the ability to define, configure and fine-tune parameter values of FtpPush/SCP destinations.



**Figure 15.10-8. FtpPush/SCP Policy Configuration Page**

Configuration parameters on the **FtpPush/SCP Policy Configuration** page are grouped in the following three working parts (Figure 15.10-9, Frames 1, 2, 3):

1. **Global Settings for All Destinations** (Figure 15.10-9, Frame 1).
2. **Non-Configured Destinations [Only apply to FtpPush destinations]** (Figure 15.10-9, Frame 2).
3. **Frequently Used Destinations** (Figure 15.10-9, Frame 3).

All FtpPush destinations belong to either the Frequently Used group or the Non-Configured (general) group. All FtpPush destinations not specifically defined as **Frequently Used Destinations** (Figure 15.10-9, Frame 3) are considered "non-configured". Non-configured groups use the parameter values in the **Settings for Non-Configured Destinations [Only apply to FtpPush destinations]** section (Figure 15.10-9, Frame 2). All "new" destinations use the Settings for Non-Configured Destinations [Only apply to FtpPush destinations] as their default values until other values are specifically assigned.

**Global Settings for All Destinations** (Figure 15.10-9, Frame 1) are parameters that apply to all destinations (both frequently used and non-configured), regardless of their individual settings.

1	2	3
<b>Global Settings for All Destinations?</b>	<b>Settings for Non-Configured Destinations [Only apply to FtpPush destination]</b>	<b>Frequently Used Destinations</b>
Fields	Fields	Fields
FtpPush Max Operations	Retry Mode: <input type="checkbox"/> Automatic <input type="checkbox"/> Manual	Destination Name (Alias)
Max. FTP Failures	Time Out	Del
SCP Max Operations	Min. Throughput	Media Type: <input type="checkbox"/> FtpPush <input type="checkbox"/> SCP
Max. SCP Failures	Max. Operations	Host Address
Options	Retry Interval	Destination Directory
Apply	Options	Retry Mode
Reset	Apply	Options
	Reset	Add a Destination
		Delete Selected Destinations
		Select all (Del)

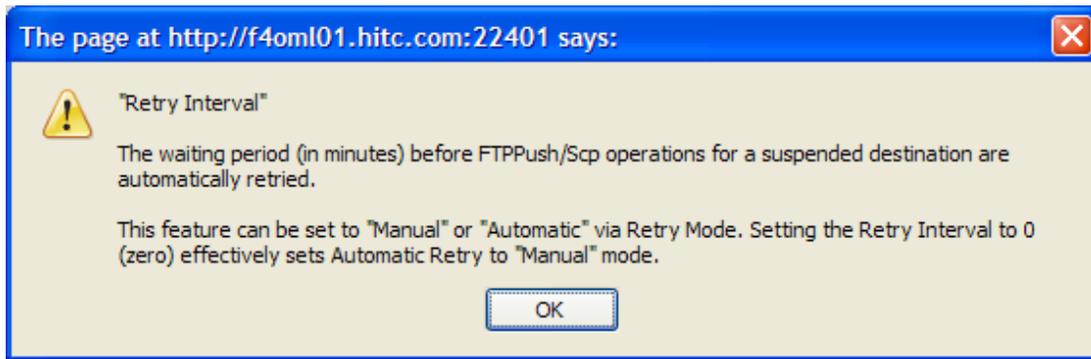
**Figure 15.10-9. FtpPush/SCP Policy Configuration Page – Fields and Options**

### 15.10.7.1 Viewing/Modifying FtpPush/SCP Policy Configuration

1. Click **OM Configuration** menu option to expand its submenu.
2. Click **FtpPush/SCP Policy** submenu option to display the **FtpPush/SCP Policy Configuration** page (Figure 15.10-9).
3. Observe/Modify settings displayed on the **FtpPush/SCP Policy Configuration** page:
  - If parameter value(s) in either the **Global Settings for All Destinations** section or **Settings for Non-Configured Destinations** section is (are) to be modified, click the **Apply** button to submit the change.
  - Click the **Reset** button to reset values back original entry.
  - If the retry mode for a destination in the **Frequently Used Destinations** section should be changed, click on the **option button** (in the **Retry Mode** column) associated with the destination to display a menu of retry modes, then click the **mode**:
    - **Automatic.**
    - **Manual.**
    - Selected mode displays in the **Retry Mode** column.

**NOTE:** The Retry Mode for the "OTHER" FTPPush Destination group is always "Automatic".

4. Click the **context-sensitive help** icon (?) of the **Retry Interval parameter** label, to review the information and description about the Retry Interval parameter.
  - The parameter description dialog box displays (Figure 15.10-10).



**Figure 15.10-10. Context-Sensitive Help for Retry Interval Parameter**

5. To review **details of a destination**, click the underscored **Destination Name (Alias)**.
  - The **FTPPush/SCP Destination Details** page displays (Figure 15.10-8, Frame D).
    - Observe the **Destination Details** section information of the selected alias.
    - Observe the **Settings for this Destination** section information of the selected alias.
    - To **Disable Checksum**, input **Yes** in the identified textbox.
    - Click the **Done** button to return to the **FTPPush/SCP Policy Configuration** page without saving any possible changes.
6. To **Delete (remove) destination(s)** from the **Frequently Used Destinations** section:
  - Click the **Del** checkbox next the destination(s) (or select the **Select all** destinations checkbox to select all listed destinations).
  - Click the **Delete Selected Destinations** link near the bottom of the **Frequently Used Destinations** section.
  - The **"Are you sure you want to delete the selected destinations?"** dialog box displays (Figure 15.10-8, Frame C).
  - Click **OK** to confirm deletion(s).

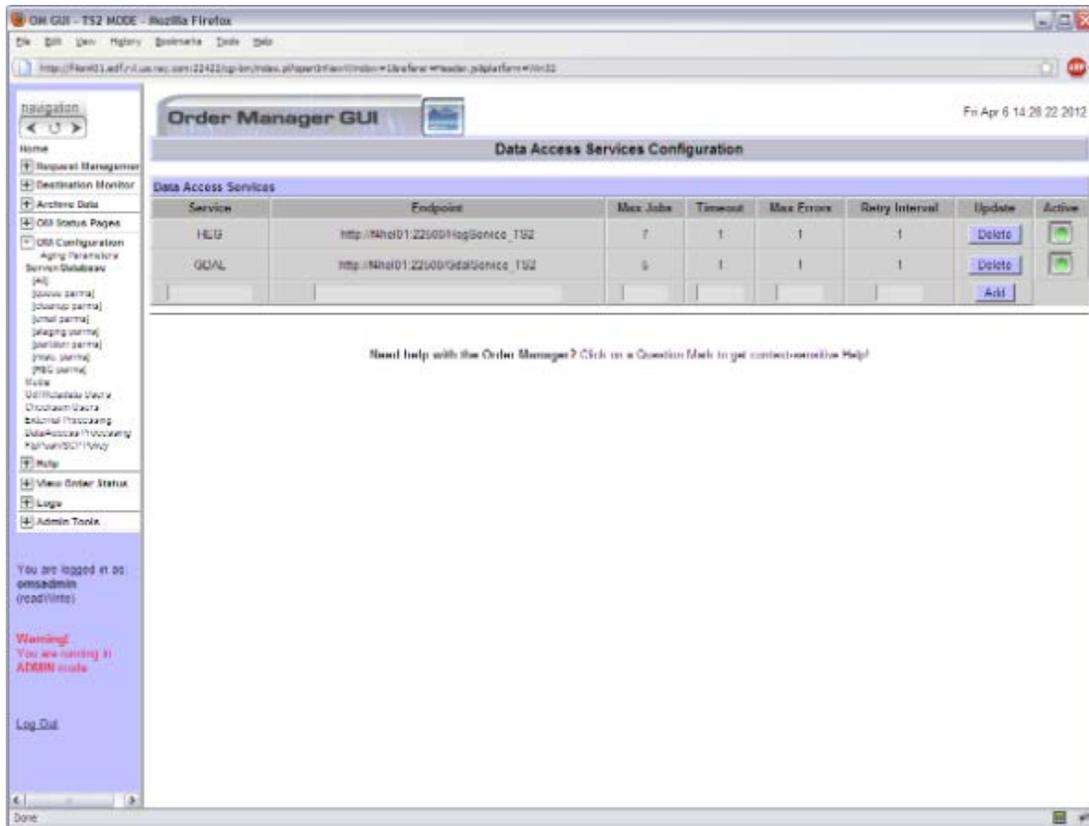
**NOTE:** Removing a destination from the Frequently Used Destinations section does not actually delete the destination; it moves the destination(s) to the non-configured group and erases its individual configuration parameter values.

7. To **Add a new destination** to the **Frequently Used Destinations** section:

- Click the **Add a Destination** button.
- The **Add New Destination** page displays (Figure 15.10-8, Frame B).
- Enter appropriate **values/data** to the fields/parameters (Figure 15.10-9, Frame 1, 2, 3) as follows:
- The **Destination Name (Alias)** is a unique descriptive name which easily identified the destination. For example: **Norford University**
- The **Target Directory** is the directory path of the remote host to which data is to be pushed by ftp. For example: **/sci/data/push**
- The **Host/IP Address** text box is the remote host machine name or IP address where data are to be pushed by ftp. For example: **dsc@nu.edu**.
- The **Max. Operations** value is the maximum number of concurrent FtpPush operations for a particular destination (exclusive of but subject to the global Max Operations). For example: **2**.
- The **Time Out** (extra time allotment (in minutes) is applied to the expected throughput; such expected throughput equals minimum throughput plus timeout. For example: **60**.
- The **Min. Throughput** value (megabytes per second) represents the minimum data throughput (in MB/sec) for a particular destination. For example: **100**.
- The **Retry Interval** value (in minutes) represents the waiting period before FtpPush operations for a suspended destination are automatically retried. For example: **60**.
- The **Notes** is general information about the destination (e.g., the justification for adding the new destination, etc.)
- Use the listboxes to select the available options for **Media Type** and **Retry Mode**.
- Click the **Save** button to submit the new destination and to **refresh the FTP Push/SCP Policy Configuration** page.
- The **new destination** displays on the FTP Push/SCP Policy Configuration page.

### 15.10.8 OM Configuration Submenu Page – DataAccess Processing

The **DataAccess Processing Configuration** page (Figure 15.10-11) provides the full-capability Operator the ability to define, configure and fine-tune parameter values of DataAccess services.



**Figure 15.10-11. Data Access Services Configuration**

Configuration parameters on the **Data Access Services Configuration** page are grouped by service (Figure 15.10-10).

To add a new service:

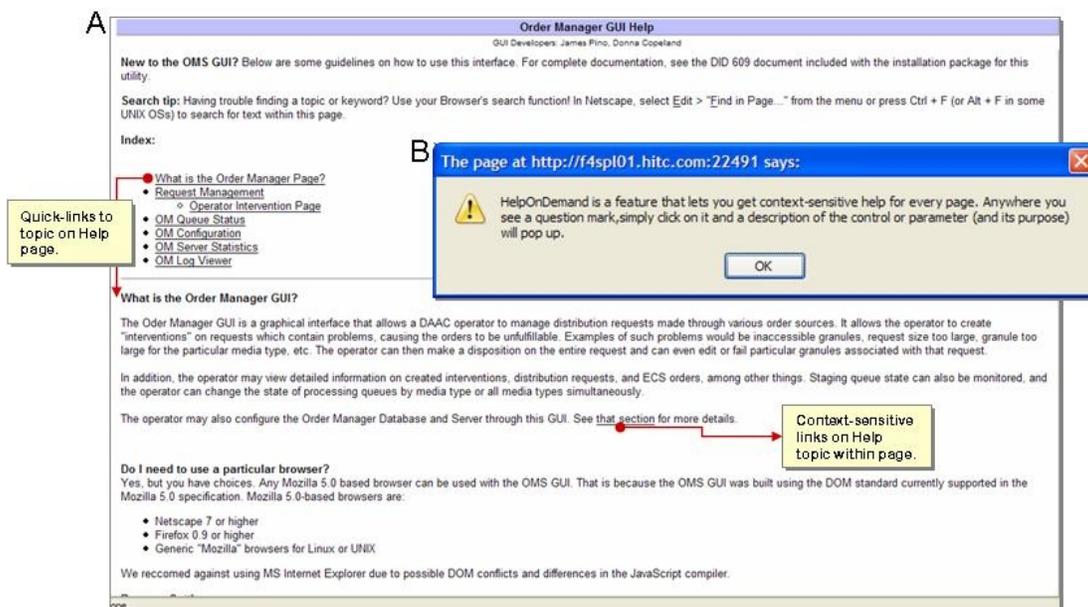
- Enter in the service name into the Service box. Examples include HEG, GDAL, etc.
- Enter the endpoint URL of the service that is being added into the box under the column labeled Endpoint.
- To set the maximum jobs allowed, enter in a value to the box under the column labeled Max Jobs.
- To set the timeout for communications between the configured service and OMS enter in a value (seconds) under the column labeled Timeout.
- To set the number of times to retry requests sent to the service, enter in a value under the column labeled Retry Interval.
- To finish, select the Add button on the far right side of the row.

In order to edit the values for service that is already configured, first delete the service then add a new service using the steps above using the desired configuration values.

## 15.11 OM GUI – Help

There are several ways to get access to help in using the **OM GUI**:

- **HelpOnDemand** – features context-sensitive help for each page, particularly for controls or parameters that may not be entirely self-descriptive. Depicted by a question mark (?) located next to a button or text field on an **OM GUI** page, whenever clicked, a dialog box (Figure 15.11-1, Frame B) opens that describes the item in question.
- **Help** – features help on various topics covering usage of the Order Manager GUI. The **Help** submenu option is access from the **OM GUI** menu home page. (Figure 15.11-1, Frame A) to be displayed.



**Figure 15.11-1. Help Page (A) and HelpOnDemand Example (B)**

### 15.11.1 Help Submenu Page – About HelpOnDemand...

The **About HelpOnDemand...** allow Operator to get context-sensitive help on every OM GUI page. Signified by a question mark (?), the Operator simply clicks the question mark to get descriptive context of the control or parameter in a pop-up window (Figure 15.11-1, Frame B).

### 15.11.2 Help Submenu Page – Help

The Order Manager GUI **Help** (Figure 15.11-1, Frame A) submenu feature provides Operator with several guidelines on how to use the OMS GUI. Complete documentation can be found in the DID 609 document which was included with the installation package for the OMS utility.

The submenu features active search function using the current browser (i.e., using Netscape, select Edit → "Find in Page..." from the menu or press Ctrl + F (or Alt + F in some UNIX OSs from within the OM GUI page).

The Help submenu (Figure 15.11-1, Figure A) hypertext-index features the following topics:

- **What is the Order Manager Page?**
- **Request Management**
  - Operator Intervention Page
  - **OM Queue Status**
  - **OM Configuration**
  - **OM Server Statistics**
  - **OM Log Viewer**

## 15.12 OM GUI – View Order Status

The OM GUI Order Status page, Get Order Status (Figure 15.12-1) allows the Operators (full-capacity or limited-capacity) the ability to monitor and/or view the status of orders submitted via the OM GUI.

The screenshot shows the 'Get Order Status' page with the following elements and callouts:

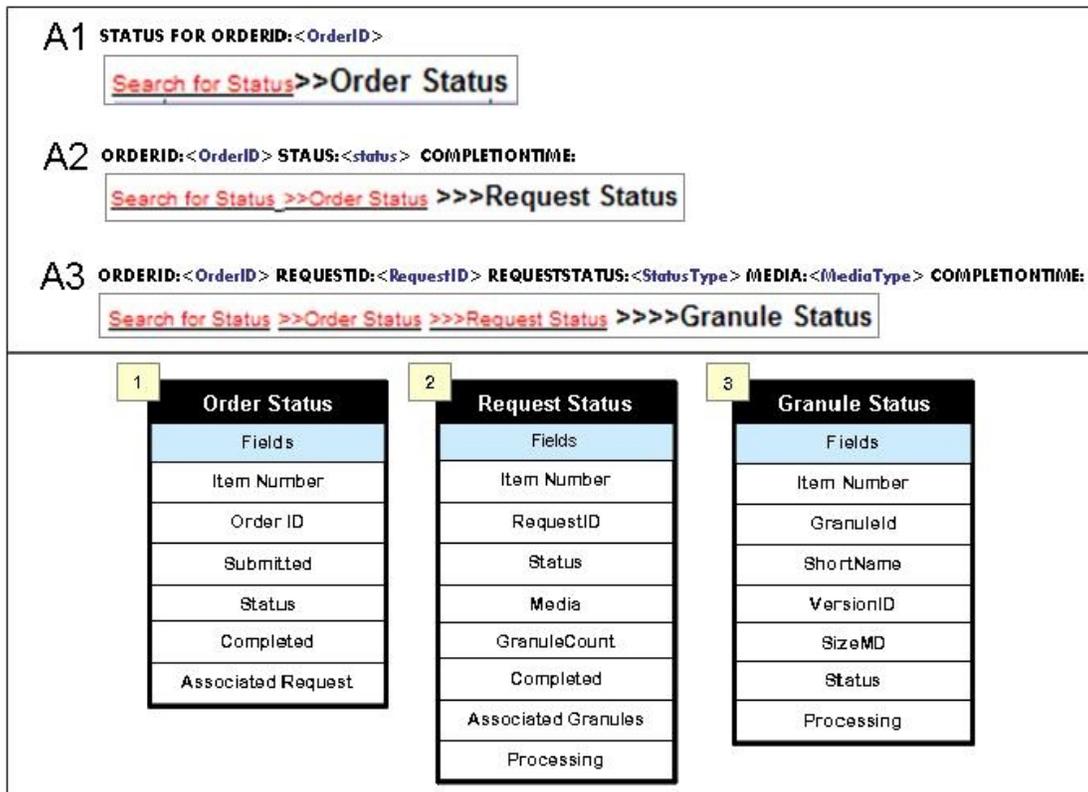
- Top Section:** 'Enter the Order ID' text box, 'GetOrderStatus' button, and 'Reset' button. A callout 'Clears entry/fields.' points to the Reset button. A larger callout on the right says 'Get current status of pending and/or current orders.'
- Text:** 'To get an order history (a listing of past orders with status), select either the number of days to look back (from today) OR select the date range'.
- Second Section:** 'Enter The Email Id' text box with a 'NOTE: Use email Id associated with order.' callout. A callout on the left says 'Generates search (of current or historical status) on specified field entry.' with arrows pointing to the text box and the 'GetRangeofOrderStatus' button.
- Third Section:** 'Number of Days' dropdown menu, '-- OR --', 'BeginningDate' text box (with '(MM/DD/YYYY)' placeholder), and 'EndDate' text box (with '(MM/DD/YYYY)' placeholder). A callout on the right says 'Get historical status of past and/or completed orders.'
- Bottom Section:** 'GetRangeofOrderStatus' button and 'Reset' button. A callout 'Clears entry/fields.' points to the Reset button.

**Figure 15.12-1. Get Order Status Page**

### 15.12.1 View Order Status Submenu Page – OM GUI Order Status

The **OM GUI Order Status** provides a visual display of viewing multiple levels of a particular order status. As the Operator search through to the lower levels of the order, the status path is capture as a navigation bar at top of each displayed status page (Figure 15.12-1, Figures A1-A3). The Operator can view the following details at these status levels:

- Order Status (Figure 15.12-1, Frame 1):
- Request Status (Figure 15.12-1, Frame 2)
- Granule Status (Figure 15.12-1, Frame 3).



**Figure 15.12-2. Get Order Status Pages Navigation Bars and Fields**

The OM GUI Order Status submenu options will be examined using to the following checklist in Table 15.12-1:

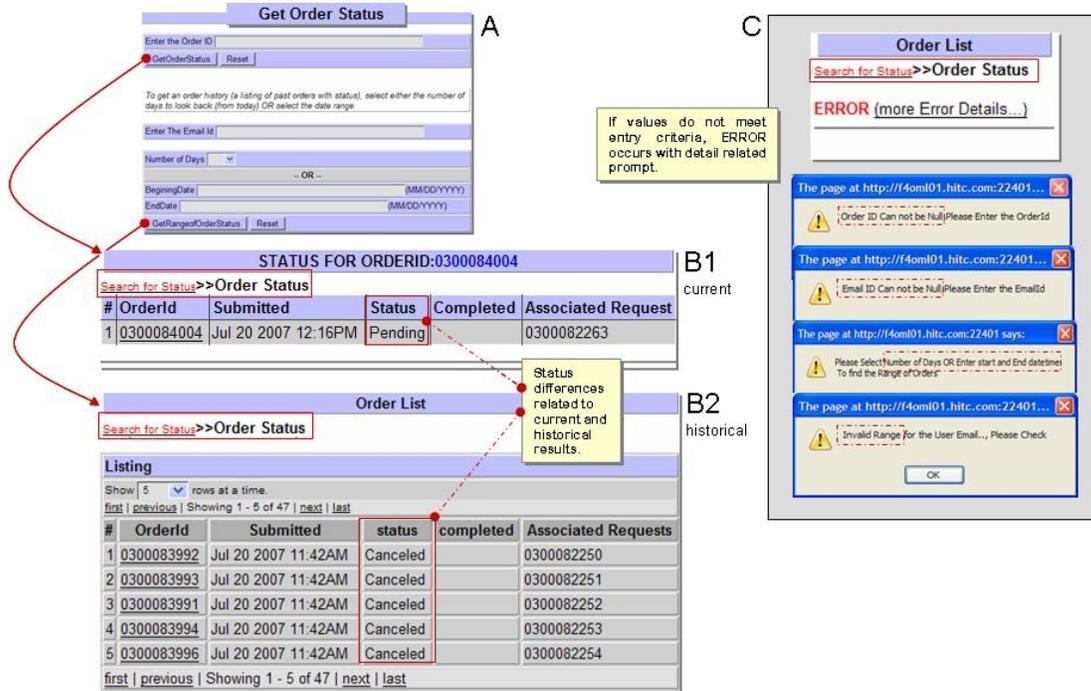
**Table 15.12-1. OM GUI Order Status - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Viewing Distribution Requests Order Status Pages.	(P) 15.12.1.1	

### 15.12.1.1 Viewing Distribution Requests Order Status Pages

1. Click **View Order Status** menu option to expand its submenu.
2. Click **OM GUI Order Status** submenu option to display its page.
  - **The Get Order Status (Figure 15.12-1) page displays.**
3. To retrieve the status of a current order:
  - **Enter the Order ID** number (the complete 10-digit order id).

- Click the **GetOrderStatus** button to retrieve the most current status.
- The **STATUS FOR ORDERID:<OrderID>** page displays. (Figure 15.12-3, Frame B1 current).



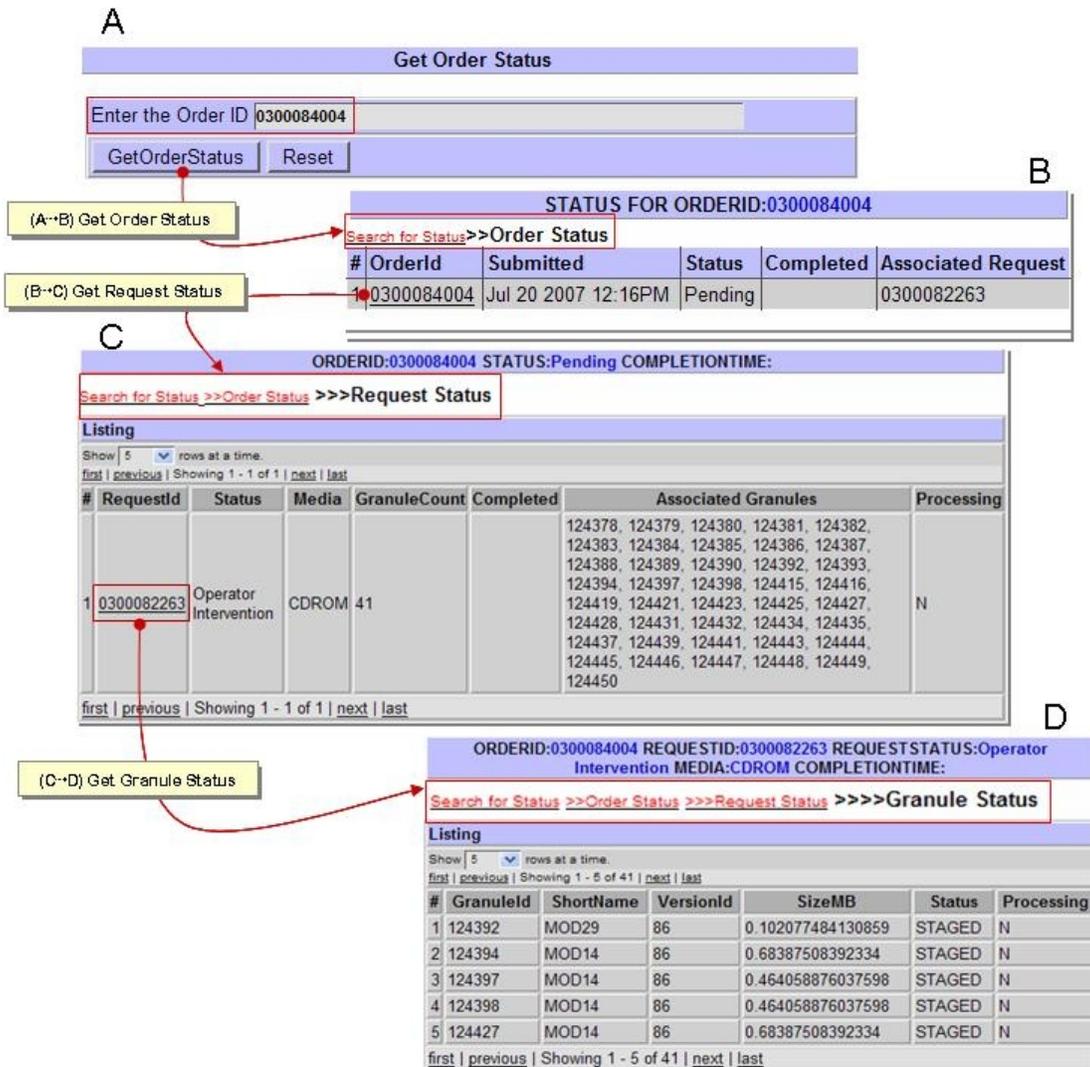
**Figure 15.12-3. Order Status Pages (A-B2) and Error Prompts (C)**

4. Observe the detailed information listed in Figure 15.12-3, Frame B1 current. The Status fields display the most current activity or status of the order.
5. Using the navigation bar, click the **Search for Status** link to return to the **Get Order Status** page (Figure 15.12-3, Frame A).
6. To retrieve the **status of a historical order**:
  - **Enter The Email Id** address (id must be associated with an historical order).
  - Select the **Number of Days** from the list box: **30**
  - Or enter a valid range using the **BeginningDate** (MM/DD/YYYY) and **EndDate** (MM/DD/YYYY) text fields.
  - Click the **GetRangeofOrderStatus** button to retrieve the most current status.
  - The Order List page displays a Listing of related historical status(es). (Figure 15.12-3, Frame B2 historical).

7. Using the navigation bar, click the **Search for Status** link to return to the **Get Order Status** page (Figure 15.12-3, Frame A).
8. To clear the input fields, click the **Reset** button.

**NOTE:** If the data criteria entered do not match any current or historical orders, an Order List, ERROR (more ERROR Details...) page will display (Figure 15.12-3, Frame C). Click on the **more ERROR Displays...** link to review any one of the following associated error prompts:

- Order ID Cannot be Null. Please Enter the Order Id.
  - Email ID Cannot be Null. Please Enter the Emailid.
  - Please Select Number of Days OR Enter start and End datetime. To find the Range of Orders.
  - Invalid Range for User Email..., Please Check.
9. To retrieve the **status of a current order details**:
    - From the **Get Order Status** page (Figure 15.12-4, Frame A), **Enter the Order ID** number (the complete 10-digit order id). Example: 03000084004 given.
    - Click the **GetOrderStatus** button to retrieve the most current **STATUS FOR ORDERID:<OrderID>** page (Figure 15.12-4, Frame B).
    - Click the **OrderId <number>** under the OrderId column of the page to display the **Listing** details of the **Request Status** (Figure 15.12-4, Frame C).
    - Click the **RequestId <number>** under the **RequestId** column to display the details of the **Granule Status** (Figure 15.12-4, Frame D).
  10. Using the navigation bar, click the **Search for Status** link to return to the **Get Order Status** page (Figure 15.12-4, Frame A) and to continue searching other order statuses.



**Figure 15.12-4. Order Status Details Pages (A-D)**

11. On the OM GUI left pane menu options, click the **Home** link to return to the **Order Manager Home** page.

- The **Order Manager Home** page (Figure 15.4-2) display.

### 15.13 OM GUI – Logs

The **OM GUI Log** keeps a record of every page that runs and every stored procedure that is called within those pages. It is proven helpful when encountering an error and can aid the System Administrator in fixing the problem.

- The actual log file (EcOmGui.log) is typically located in the /usr/ecs/MODE/CUSTOM/WWW/OMS/cgi-bin/logs directory on the Data Pool Server host (x0dps01) where the OM GUI is installed.

The **OM GUI Log Viewer** page (Figure 15.13-1, Frame A) provides the Operator the capability to view entries captured in the OM GUI log file.

### 15.13.1 Logs Submenu Page – OM GUI Log Viewer

The **OM GUI Log Viewer** log file is located under the "cgi-bin/logs" install directory of the OM GUI. It is neither the web server log nor SYSLOG, but a log specifically generated by/for the OM GUI. It works similar to the UNIX <tail> command. If preferred, the log file can be viewed with any UNIX editor or visualizing command (e.g., **pg, vi, view, more**).

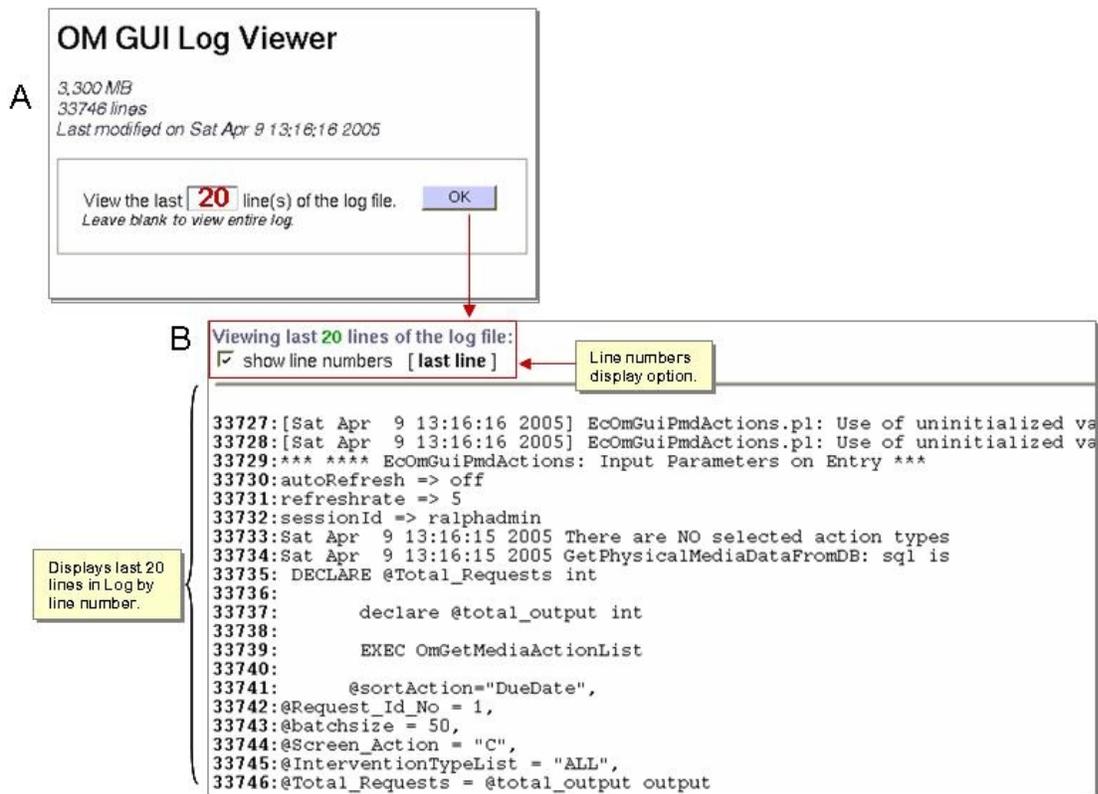
The OM GUI Log Viewer submenu options will be examined using to the following checklist in Table 15.13-1):

**Table 15.13-1. OM GUI Log Viewer - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Viewing the OM GUI Log	(P) 15.13.1.1	

#### 15.13.1.1 Viewing the OM GUI Log

1. Click **Logs** menu option to expand its submenu.
2. Click **OM GUI Log Viewer** submenu option to display its page.
  - The **OM GUI Log Viewer** (Figure 15.13-1, Frame A) page displays.



**Figure 15.13-1. OM GUI Log Viewer Page**

3. To view the log file:
  - Enter **20** in the **View the last \_\_\_ line(s) of the log file** text box.
  - Click **OK**.
  - The OM GUI Log Viewer 20 line "log file" (Figure 15.13-1, Frame B) displays.
  
4. Observe information displayed in the **Log File** such as:
  - Size (size of the log file).
  - Lines (number of lines in the log file).
  - Last Modified (when the log file was last modified).
  - Action Taken within the OM GUI.
  - The log viewer's functioning is similar to that of the UNIX "tail" command: to see a particular number of lines at the end of the log, specify the number of lines in the **View the last \_\_\_ line(s) of the log file** text box.
  - Entering 0 (zero) or leaving the text box blank indicates that the entire log file should be displayed.

- It is possible to specify a number that is equal to or greater than the total number of lines in the log file.
  - After long periods of usage, the log file may grow to considerable size and it may take some time to load the entire log into the **OM GUI Log Viewer** page.
    - In most cases, viewing the last 100 - 500 lines would be adequate to assess recent activity and would greatly decrease the amount of time to load the file.
5. On the OM GUI left pane menu options, click the **Home** link to return to the **Order Manager Home** page.
- The **Order Manager Home** page (Figure 15.4-2) display.

## 15.14 OM GUI – Admin Tools

The Admin (Administrator) Tools page controls Operators' profiles and configurations for every field, on every page that is generated within the OMS GUI. This tool is restricted for use by the site Administrator only, as it can substantially change the functionality of data generated within the OMS GUI.

The OM GUI Admin Tools submenu options will be examined using the following checklist in Table 15.14-1:

**Table 15.14-1. Admin Tools – Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Setting Permissions for OM GUI Action Pages	(P) 15.14.5.1	
2	Distribution Technician	Setting Operator Profile	(P) 15.14.6.1	
3	Distribution Technician	Preparing Input Files for Use with the OM Configuration CI	(P) 15.14.7.1	
4	Distribution Technician	Starting the OMS Configuration CI	(P) 15.14.7.2	
5	Distribution Technician	Configuring How Long Order-Tracking Information is Kept in the OMS Database	(P) 15.14.8.1	
6	Distribution Technician	Getting OMS Configuration CI Help	(P) 15.14.9.1	
7	Distribution Technician	Preparing Input Files for Use with the SCLI	(P) 15.14.10.1	
8	Distribution Technician	Run the OMS SCLI	(P) 15.14.10.2	

### 15.14.1 Admin Tools Submenu Page – Server/Database Parameters

Reference Section 15.10.2 OM Configuration Submenu Page – Server/Database to check and modify server/database parameters values.

### **15.14.2 Admin Tools Submenu Page – Media Parameters**

Reference Section 15.10.3 OM Configuration Submenu Page – Media to check and modify media parameters values.

### **15.14.3 Admin Tools Submenu Page – Aging Parameters**

Reference Section 15.10.1 OM Configuration Submenu Page – Aging Parameters to configure aging parameters (rules) values.

### **15.14.4 Admin Tools Submenu Page – FtpPush Policy**

Reference Section 15.10.8 OM Configuration Submenu Page – FtpPush/SCP Policy to set permissions for FTP Push Policy Configuration Pages. These Global Settings (for all destinations) includes Non-Configured Destinations and Actions for Frequently Used destinations.

### **15.14.5 Admin Tools Submenu Page – Action Pages**

Provides the Administrator with a set of predefined permissions to set, remove, suspend or resume any/all related actions and/or related configurations on any/all related OM GUI pages.

These predefined set of permissions for the OM GUI action pages are identified in Figure 15.14-1, OM GUI Admin Tools Action (Permissions) Pages.

Admin Tools: Set Permissions for Action Pages	
Set Operator Permissions for	--select-- <input type="button" value="Apply Changes"/> <input type="button" value="Reset"/>
	yes <input type="checkbox"/> no <input type="checkbox"/>
<b>Interventions</b>	
Operator can <b>Fail</b> or <b>Change</b> Granules	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Process</b> a Request (change Media Type/Priority, submit/fail a Request, etc.)	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Resume</b> or <b>Cancel</b> Interventions in bulk	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Change Volume</b> Statuses	yes <input type="checkbox"/> no <input type="checkbox"/>
<b>Media Creation Configuration</b>	
Operator can <b>configure</b> DispatchMode and MediaCreationType for any media type	yes <input type="checkbox"/> no <input type="checkbox"/>
<b>Distribution Request Actions</b>	
Operator can <b>Suspend</b> or <b>Resume</b> New Request Processing	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Change Priority</b> for a Distribution Request	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Cancel, Resubmit, Suspend, or Fail</b> Distribution Requests	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can edit <b>FTP Push parameters</b> for Distribution Requests	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Suspend</b> active destinations or <b>Resume</b> suspended destinations	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Stop Distribution Requests</b>	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Stop Volumes</b> in a Media Distribution Requests	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can edit <b>Address Information</b> for a Distribution Request	yes <input type="checkbox"/> no <input type="checkbox"/>
<b>Queue Actions</b>	
Operator can <b>Suspend/Resume</b> Queues	yes <input type="checkbox"/> no <input type="checkbox"/>
<b>Device/Printer/Production Module Configuration</b>	
Operator can <b>Add</b> or <b>Update</b> a device	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can set a device <b>on-line</b> or <b>off-line</b>	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Configure Printers</b>	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Configure Production Modules</b>	yes <input type="checkbox"/> no <input type="checkbox"/>
<b>Physical Media Actions</b>	
Operator can <b>Process Actions</b> for <b>Physical Media Distribution</b>	yes <input type="checkbox"/> no <input type="checkbox"/>
Operator can <b>Fail</b> a <b>Physical Media Distribution Request</b>	yes <input type="checkbox"/> no <input type="checkbox"/>

**Figure 15.14-1. OM GUI Admin Tools Action (Permissions) Pages**

### 15.14.5.1 Setting Permissions for OM GUI Action Pages

1. Click **Admin Tools** menu option to expand its submenu.
2. Click **Action Pages** submenu option to display its page.
  - The **OM GUI Admin Tools Action (Permissions) Pages** page displays.
3. Observe information displayed on the **Action Pages** page.
4. To **Set Operator Permissions** for a User, select the <Userid> from the list box:
  - Click the appropriate **checkboxes** (**yes** or **no**) to define the User's permissions.
  - Click the **Apply Changes** button (or the **Reset** button to cancel actions and reset to original).

### 15.14.6 Admin Tools Submenu Page – Profile Management

Provide the Administrator with the ability to manually remove an Operator's profile. The tool can automatically search and remove obsolete profiles and/or remove permission settings of profiles.

#### 15.14.6.1 Setting Operator Profile

1. Click **Admin Tools** menu option to expand its submenu.
2. Click **Profile Management** submenu option to display its page (Figure 15.14-2, OM GUI Admin Tools Profile Management Page).
  - The **OM GUI Admin Tools Profile Management** page displays.



**Figure 15.14-2. OM GUI Admin Tools Profile Management Page**

3. Observe information displayed on the **Profile Management** page.
4. To **Manually select an Operator Profile to remove:**
  - Select the <Userid> from the list box.
  - Click the **Remove Profile** button.
  - The profile is removed.
5. Click the **Cleanup All Profiles** button to automatically remove obsolete Operator IDs.
6. Click the **Remove All Profiles** button to completely remove all profiles from the configuration file, including related permission settings.
7. On the OM GUI left pane menu options, click the **Home** link to return to the **Order Manager Home** page.
  - The **Order Manager Home** page (Figure 15.4-2) display.

### 15.14.7 Science Command Line Interface (SCLI) in OMS

The Science Command Line Interface (OmSCLI) allows the operator to acquire products by sending orders to the Order Manager Server given an operator's file of granule identifiers and a file of media options. The operator can request products by FtpPush, FtpPull, and secure copies specified in the media parameter file. The OmSCLI will not generate Metadata Control Files (MCFs) since that functionality is performed by the ESDT Maintenance GUI.

The OmSCLI is installed on the same host as the Order Manager Server. It includes a wrapper script `acquire`, a perl module containing database connection functionality, and a C++ -based executable which interfaces with the OrderManager client. It has its own configuration file containing database environment parameters. It is invoked with arguments that are described in the following section.

There are four/five command line parameters and they are used in combination with each other. Table 15.14-2 describes these parameters.

**Table 15.14-2. Command Line Parameters of the SCLI Tool**

Parameter Name	Description
<code>mode</code>	The mode in which the tool runs (i.e. OPS, TS1)
<code>parameterfile</code>	A file containing all of the information required to acquire and distribute the request submitted.
<code>file</code>	A file that can contain up to 100 granules to be acquired.
<code>tag</code>	Unique request identification, used to track request in system.
<code>decrypt</code>	An optional flag to indicate that the password passed in is encrypted and needs to be decrypted in SCLI.

#### 15.14.7.1 Preparing Input Files for Use with the SCLI

1. Access a terminal window logged into the host where Order Manager is installed `x4oml01`.
2. Create the Parameter File using `vi` editor commands.
  - There are brackets (`[]`), and braces (`{ }`) around some of the lines and groups
  - Brackets indicate optional entries containing content that is subject to change.
  - Braces indicate entries that are required but the content is subject to change.

#### Sample Parameter File:

Example 1: `PullMediaParameterFile`:

```
ECSUSERPROFILE = ECSGuest
PRIORITY = NORMAL
DDISTMEDIATYPE = FtpPull
DDISTMEDIAFMT = FILEFORMAT
USERSTRING = JoeUser_PULL
DDISTNOTIFYTYPE = MAIL
NOTIFY = email@raytheon.com
```

Example 2: PushMediaParameterFile.input is:

```
ECSUSERPROFILE = labuser
FTPUSER = labuser
FTPPASSWORD = Feb7A02
FTPHOST = f4eil01
FTPPUSHDEST = /usr/ecs/formal/<MODE>/CUSTOM/scli/PushArea
PRIORITY = HIGH
DDISTMEDIATYPE = FtpPush
DDISTMEDIAFMT = FILEFORMAT
USERSTRING = TomRoegner_Push
DDISTNOTIFYTYPE = MAIL
NOTIFY = user@eos.hitc.com
```

Example 3: SCPMediaParameterFile.input is:

```
PRIORITY=VHIGH
DDISTMEDIATYPE=scp
DDISTNOTIFYTYPE=MAIL
DDISTMEDIAFMT=FILEFORMAT
ECSUSERPROFILE=labuser
FTPUSER=labuser
FTPHOST=f4spl01
USERSTRING=scp_Request_by_User_XXXX
FTPPUSHDEST=/home/labuser/tomr/scp
FTPPASSWORD=<password>
NOTIFY=email@raytheon.com
```

### 3. Type ZZ

- **vi** exits and the edited file is saved.
    - To exit **vi** without saving the new entries in the file type **:q!**
    - Press **Return/Enter**.
  - The UNIX command line prompt is displayed.
4. Create the Granule File using vi editor commands. This file can contain up to 100 granules and should adhere to the following format:
- **The ListOfGranules can be include one granule per line in the file. There are two types:**
    - 1) **geoid - a specific granule <data type>:<ShortName>.<VersionId>:<dbID>**
    - 2) **LocalGranuleId - looks like the file name of the data before it was ingested in ECS**

## Sample Granule File:

SC:MOD02HKM.002:2020633145 (a geoID)

MYD29P1N.A2007266.h10v08.005.2007267221028.hdf (a Local Granule Id)

Etc....

## 5. Type ZZ

- **vi** exits and the edited file is saved.
  - To exit **vi** without saving the new entries in the file type **:q!**
  - Press **Return/Enter**.

### 15.14.7.2 Run the OMS SCLI

1. Access a terminal window logged in a host.
2. Type **cd /usr/ecs/MODE/CUSTOM/utilities** then press **Return/Enter**.
  - The **MODE** will most likely be one of the following operating modes:
    - OPSTS1
    - TS2
3. Enter the following command:  
***acquire <mode> -p <parameterfile> -f <file>-t <tag> [-decrypt]***
  - The **-p** parameter file is the file containing media options.
  - The **-f <file>** is the file containing the granule identifiers.
  - The **-t <tag>** is the unique request identification to the Order Manager.

Note: For each LocalGranuleId listed in the file, the OmSCLI will invoke a search for that LocalGranuleId in the AIM inventory database (via a EcOmDb stored procedure) and return all rows in a format that is a geoID.

## 15.15 OMS Database Cleanup Guidelines

From the perspective of system performance it is very important to clean up the OMS database on a regular basis. Not cleaning up the database tables would have the following effects:

- Overall order-processing throughput would slow down due to the deterioration of OMS response times.
- Response time of the OMS GUI would increase.

If order information must be kept for extended periods of time (e.g., for reporting purposes), it is recommended that on a regular basis information be copied (via scripts or Sybase replication) from the operational tables to a separate set of historical tables. The OMS database itself is an operational database and is not suited for long-term retention of order information.

To assist with database cleanup, the OMS provides the following two levels of cleanup:

- Removal of completed OMS actions, interventions and notifications.
- Removal of order-tracking information for completed orders.
  - Order-tracking information for completed orders includes order, request, and granule information.

### 15.15.1 Removal of Completed OMS Actions, Interventions and Notifications

The removal of completed OMS actions, interventions and notifications is configured by setting the values of the following parameters on the **OM GUI**:

- **Delete Complete Interventions After.**
- **Delete Complete Actions After.**

Except for special circumstances when the DAAC needs to retain information for subsequent analysis by system support staff or DAAC performance engineers, the parameter settings should be as short as possible (e.g., two hours).

For detailed instructions on how to modify OMS parameter values using the **OM GUI** refer to the procedure for **Checking/Modifying Values Assigned to OMS Server or Database Parameters** (previous section of this lesson).

### 15.15.2 Removal of Order-Tracking Information for Completed Orders

The removal of order-tracking information for completed orders is configured using the **OMS GUI**. **There are two parameters that will cause the OMS archive scripts to move data from the OMS tables to the OMS Archive tables. Archive Reqeust Age is the maximum number of days that a completed requests will stay in the regular OMS table before being moved to the archive tables. Archive Incomplete Request Age is the maximum number of days a request will be left in the regular OMS table even if it was not appropriately completed.**

### 15.15.3 Fault Handling

Failure events are classified according to the following three severity levels:

- Fatal error.
  - Returned when a request cannot be serviced, even with operator intervention.
  - For example, if a request is made to distribute data via ftp to a non-existent host, the request is failed with a fatal error.
- Retry error.
  - Potentially recoverable error.
  - Normally, a retry error would be returned to the client only when the server cannot recover from the error automatically.
  - A retry error may require operator assistance during recovery.
- Warning.
  - Provided when operations can proceed without interruption, but an unexpected circumstance was detected.

- For example, if a client requests a file to be removed but the file does not exist, there is no error per se; however, a warning is generated to caution the client that the file to be removed did not exist in the first place.

Transient errors (such as network errors) are always retry errors.

- In general, clients and servers that experience transient retry errors first attempt to recover by retrying the operation automatically.
- One special case of this is "rebinding," which refers to the process by which a client automatically attempts to re-establish communication with a server in the event communication is disrupted.
  - The disruption may be caused by transient network failure, or by the server crashing or being brought down.
  - In any case, the client automatically attempts to reconnect to the server for a configurable period of time on a client-by-client basis.

System processes encountering an error or receiving an error from a server request can either pass the error back to a higher-level client or present it to the operator for operator intervention.

## 15.16 Troubleshooting a Order Manager GUI Failure

Table 15.16-1 contains the activity checklist for Troubleshooting the Order Manager. Actions to be taken in response to some common OM GUI problems are described in Table 15.16-2 Order Manager GUI User Messages.

If the problem cannot be identified and fixed without help within a reasonable period of time, the appropriate response is to call the help desk and submit a trouble ticket in accordance with site Problem Management policy. Table 15.16-1 shows the activity checklist for Troubleshooting Order Manager.

**Table 15.16-1. Troubleshooting Order Manager - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Distribution Technician	Checking Log Files	(P) 15.16.1.1	
2	Distribution Technician	Checking Database Connections	(P) 15.16.2.1	
3	Distribution Technician	Determining the Permissions for Creating an FTP Pull Subdirectory	(P) 15.16.4.1	
4	Distribution Technician	Troubleshooting a HEG Failure	(P) 15.16.5.1	
5	Distribution Technician	Checking HEG Server Log Files	(P) 15.16.6.1	
6	Distribution Technician	Checking Files in the HEG Tempfiles Directory	(P) 15.16.7.1	

**Table 15.16-2. Order Manager GUI User Messages (1 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>!!! ERROR: It appears that all granules have been failed. You cannot submit or partition a request with all FAILED granules. This request should be failed. To do this, Select "Fail Request" from the Request Disposition section and try again. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page. If all the granules in a request have been failed, the request can no longer be submitted or partitioned. The only corrective action is to fail the entire request or place it on hold. 1. Click on the <b>OK</b> button to dismiss the dialog box. 2. Either fail the entire request or place it on hold. [For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>All of the granules for this request have been failed. You cannot submit or partition the request because the submission will fail and another operator intervention will be created for it. This request should be failed. Return to the previous page and select "Fail Request" under the Request Disposition section.</p>	<p>Intervention cannot be resolved.</p>	<p>The operator failed all the granules for a particular request and tried to submit or partition it. Since there are no granules, there is nothing to submit or partition. The entire request should be failed. 1. Click on the icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail (Intervention for Request x)</b> page. 2. Fail the entire request. [For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>An error has occurred with the page you are requesting. Error Message: &lt;message&gt;</p>	<p>Various.</p>	<p>The message appears on the <b>Error</b> page and is displayed in response to a stored procedure or system fault. Although the previously attempted operation can be retried, in most cases the error is a fatal one (e.g., a binary was installed incorrectly or is missing). 1. If feasible, retry the operation that resulted in the error message. 2. If repeated attempts to perform the operation fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</p>
<p>An error message was not available. Please contact the system administrator for further assistance.</p>	<p>Various.</p>	<p>The message appears on the <b>Error</b> page when there is a problem with the Perl code or a stored procedure that did not give a specific reason as to why it failed. There is no operator-level corrective action to take in this case. Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</p>

**Table 15.16-2. Order Manager GUI User Messages (2 of 12)**

Message Text	Impact	Cause and Corrective Action
An undefined error occurred executing the stored procedure	Various.	<p>The problem is an internal error due to a bad database connection, incorrect stored procedure arguments, or a system fault. It is not due to operator error. The first possible solution is to resubmit the changes for the Intervention (essentially retrying the database connection).</p> <ol style="list-style-type: none"> <li>1. Resubmit the changes for the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p> <ol style="list-style-type: none"> <li>2. If resubmitting the changes for the intervention is not successful, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
Error executing SweeperStart: <message>	Server Statistics or Queue Status page does not display correct information, or the affected pages do not display at all.	<p>The message appears either on the <b>Error</b> page, <b>OM Queue Status</b> page, or <b>OM Server Statistics</b> page. <b>SweeperStart</b> is a shell script that runs the Sweeper binary, which tells the system whether or not certain servers are up and running. If either the shell script or the Sweeper binary is corrupt, missing, not executable, or has the wrong permissions, the error message is displayed. The <b>OM GUI</b> must be reinstalled or the binary or shell script must be manually copied to its proper location and given the proper permissions. Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</p>
Error: <VALUE> is an invalid number for this parameter." [Displayed in a dialog box]	A parameter value does not get modified.	<p>The error message can appear on the <b>Media Configuration</b> page or <b>Server Configuration</b> page. It is probably the result of trying to change a parameter value (which requires a number) to a value that either contains non-numeric characters, is outside the valid range for the parameter, or contains a decimal point when the value should be an integer.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Enter a valid value for the parameter.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Checking/Modifying OM Configuration Parameters</b> (previous section of this lesson).]</p>

**Table 15.16-2. Order Manager GUI User Messages (3 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>Error: A worker must be assigned to this intervention before any actions may be taken. [Displayed in a dialog box]</p>	<p>Actions cannot be taken on an intervention.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator attempted to take an action on an open intervention before assigning a name in the <b>Worked by:</b> text box. (No worker name is required to view the intervention without taking any action.) A real name or a user ID must be entered in the field. Numbers and spaces are allowed.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Enter a valid name in the <b>Worked by:</b> text entry box on the <b>Open Intervention Detail</b> page.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>ERROR: An [sic] database error was encountered: deadlock could not be resolved after &lt;NUMBER&gt; tries</p>	<p>An action requiring a call to a stored procedure or access to a database table is not taken.</p>	<p>The message appears on the <b>Error</b> page after a stored procedure could not be executed due to a database (or table) deadlock. The command is retried a number of times (depending on the DEADLOCK_RETRIES parameter in the configuration file) before the message is displayed. Retrying later may be successful. However, it may be that the OMS database is experiencing a heavy load or is corrupt in some way. If the problem cannot be quickly resolved, there might be a performance issue or the stored procedure may contain an error.</p> <ol style="list-style-type: none"> <li>1. At a later time retry the operation that resulted in the error message.</li> <li>2. If the operation fails again, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
<p>ERROR: Can't open session file: &lt;message&gt;</p>	<p>Requested page does not display.</p>	<p>This error message can occur on any page. The session file is like a cookie – it can expire or become corrupt. For this reason, bookmarks should not be saved for specific <b>OM GUI</b> pages. If a session is more than five (5) days old, and the GUI has not been restarted in that amount of time, the error is certain to occur.</p> <ol style="list-style-type: none"> <li>1. Reload the GUI by starting it from a bookmark or manually typing the base URL (without a session ID).</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Launching the Order Manager GUI</b> (previous section of this lesson).]</p>

**Table 15.16-2. Order Manager GUI User Messages (4 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>ERROR: Invalid name entered into Worked by field. You must enter a name into this field before proceeding. [Displayed in a dialog box]</p>	<p>Actions cannot be taken on an intervention.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page when the operator attempts to enter non-alphanumeric characters, nothing, or just white space into the <b>Worked by:</b> field. A real name or a user ID must be entered in the field. Numbers and spaces are allowed.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Enter a valid name in the <b>Worked by:</b> text entry box on the <b>Open Intervention Detail</b> page.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>ERROR: It appears that all granules have been failed. You cannot submit or partition a request with all FAILED granules. This request should be failed. To do this, Select "Fail Request" from the Request Disposition section and try again. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page.</p> <p>If all the granules in a request have been failed, the request can no longer be submitted or partitioned. The only corrective action is to fail the entire request or place it on hold.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Either fail the entire request or place it on hold.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>Error: Not that many rows or invalid row number. [Displayed in a dialog box]</p>	<p>The Operator is unable to navigate through rows (on various pages).</p>	<p>An invalid row number was entered in the navigation box at the top of a listing. The error can appear on any page with the navigation feature.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. In the navigation box type a row number within the range of rows displayed on the GUI screen.</li> <li>3. Click on the <b>ok</b> button.</li> </ol>

**Table 15.16-2. Order Manager GUI User Messages (5 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>ERROR: Partition days must be an integer. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator was partitioning the request and entered a fractional number (or some garbage characters) in the <b>days</b> field. The number of days should be entered as a whole number only.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Verify that the <b>Partition (current size is x MB)</b> button has been selected (click on the button if necessary).</li> <li>3. Type the appropriate value (as a whole number) in the <b>days</b> text box to specify the time period.</li> <li>4. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>ERROR: Partition hours must be an integer. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator was partitioning the request and entered a fractional number (or some garbage characters) in the <b>hours</b> field. The number of hours should be entered as a whole number only.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Verify that the <b>Partition (current size is x MB)</b> box has been selected (click on the box if necessary).</li> <li>3. Type the appropriate value (as a whole number) in the <b>hours</b> text box to specify the time period.</li> <li>4. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>

**Table 15.16-2. Order Manager GUI User Messages (6 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>ERROR: You cannot change the media type and update the FTP Push parameters. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page, probably due to inadvertently checking the <b>Update FtpPush Parameters</b> box. Either the button should be un-checked or the distribution medium should be changed the proper way.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. If the <b>Update FtpPush Parameters</b> box was inadvertently checked, click on the box to uncheck it.</li> <li>3. If the <b>Update FtpPush Parameters</b> box was checked on purpose, verify that the <b>Change Media to:</b> box is not checked. (Click on it if necessary).</li> <li>4. If the <b>Update FtpPush Parameters</b> box was checked on purpose, verify that the <b>New Medium</b> option button is displaying "- -". [If necessary, click and <b>hold</b> the <b>New Medium</b> option button to display a menu of media, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.]</li> <li>5. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>ERROR: You cannot change the media type from &lt;MEDIA&gt; to &lt;MEDIA&gt; - the media types are the same. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator tried to change the media type to whatever it already is. If the media type should not be changed, the <b>New Medium</b> option button should be set to "- -".</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Verify that the <b>Change Media to:</b> box is not checked. (Click on it if necessary).</li> <li>3. Verify that the <b>New Medium</b> option button is displaying "- -". [If necessary, click and <b>hold</b> the <b>New Medium</b> option button to display a menu of media, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.]</li> <li>4. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>

**Table 15.16-2. Order Manager GUI User Messages (7 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>ERROR: You cannot modify request-level attributes and place the intervention on hold. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator attempted to modify request-level attributes (e.g., change the media type, update ftp push parameters, or disable limit checking) and then tried to place the intervention on hold. If the selected request-level attribute(s) should be implemented, the request should either be submitted or partitioned. If the selected request-level attribute(s) should not be implemented, the intervention may be placed on hold.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. If the selected request-level attribute(s) should be implemented, either submit or partition the request.</li> <li>3. If the selected request-level attribute(s) should not be implemented, click on the <b>Reset</b> button, then place the intervention on hold.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>ERROR: You cannot modify request-level attributes if you are failing the request. [Displayed in a dialog box]</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator attempted to modify request-level attributes (e.g., change the media type, update ftp push parameters, or disable limit checking), then tried to fail the entire request. If the request should be failed, the request-level attribute changes should be deselected, then the request can be failed.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. If the selected request-level attribute(s) should be implemented, either submit or partition the request.</li> <li>3. If the request should be failed, first deselect the request-level attribute(s), then fail the request.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>ERROR: You must assign a worker to this intervention before proceeding. [Displayed in a dialog box]</p>	<p>Actions cannot be taken on an intervention.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator attempted to take an action on an open intervention before assigning a name in the <b>Worked by:</b> text box. (No worker name is required to view the intervention without taking any action.) A real name or a user ID must be entered in the field. Numbers and spaces are allowed.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Enter a valid name in the <b>Worked by:</b> text entry box on the <b>Open Intervention Detail</b> page.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>

**Table 15.16-2. Order Manager GUI User Messages (8 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>ERROR: You must enter a name into the Worked by field before proceeding. [Displayed in a dialog box]</p>	<p>Actions cannot be taken on an intervention.</p>	<p>The message appears on the <b>Open Intervention Detail</b> page if the operator attempted to take an action on an open intervention before assigning a name in the <b>Worked by:</b> text box. (No worker name is required to view the intervention without taking any action.) A real name or a user ID must be entered in the field. Numbers and spaces are allowed.</p> <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Enter a valid name in the <b>Worked by:</b> text entry box on the <b>Open Intervention Detail</b> page.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>INPUT ERROR: There was a problem with the input parameter for a User Profile. Please contact your system's administrator to fix this problem.</p>	<p>Information about a User profile is not displayed.</p>	<p>The error message is rare; it appears when the Userid parameter (usually embedded in the URL) is empty. It indicates that the page was probably accessed directly (i.e., the operator did not arrive at the page via a link). If the operator did arrive at the page through a link, there could be a serious database error or a problem with the Perl code, since the User ID associated with the order was not passed to the page.</p> <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the previous page.</li> <li>2. Attempt to access the desired page by clicking on the appropriate link.</li> <li>3. If the same error message is displayed again, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
<p>INPUT ERROR: There was a problem with the input parameter for ECS Order. Please contact your system's administrator to fix this problem.</p>	<p>Information about an ECS Order does not get displayed.</p>	<p>The error message is rare; it appears when the ecs_order parameter (usually embedded in the URL) is empty. It indicates that the page was accessed directly (i.e., the operator did not arrive at the page via a link). If the operator did arrive at that page through a link, there could be a serious database error or a problem with the Perl code, since the ECS Order ID was not passed to the page.</p> <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the previous page.</li> <li>2. Attempt to access the desired page by clicking on the appropriate link.</li> <li>3. If the same error message is displayed again, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-2. Order Manager GUI User Messages (9 of 12)**

Message Text	Impact	Cause and Corrective Action
Please hit your browser's Back button and enter a valid name into the "worked by" field and click on "Override Current Worker	Intervention cannot be resolved.	No name has been entered in the <b>Worked by:</b> field on the <b>Open Intervention Detail</b> page. Before any action on the intervention will be accepted, a name must be entered. <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail</b> page.</li> <li>2. Enter a valid name in the <b>Worked by:</b> text entry box on the <b>Open Intervention Detail</b> page.</li> </ol> [For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]
Please hit your browser's Back button and select a disposition.	Intervention cannot be resolved.	No disposition was selected on the <b>Open Intervention Detail</b> page. Go to the previous page and select a disposition. <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail</b> page.</li> <li>2. Select an appropriate disposition on the <b>Open Intervention Detail</b> page.</li> </ol> [For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]
Sweeper error: <message>	Server Statistics or Queue Status page does not display correct information, or the affected pages do not display at all.	The message appears either on the <b>Error</b> page, <b>Queue Status</b> page, or <b>OM Server Statistics</b> page. <b>SweeperStart</b> is a shell script that runs the Sweeper binary, which tells the system whether or not certain servers are up and running. If either the shell script or the Sweeper binary is corrupt, missing, not executable, or has the wrong permissions, the error message is displayed. The <b>OM GUI</b> must be reinstalled or the binary or shell script must be manually copied to its proper location and given the proper permissions. Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
The e-mail text box is empty – it should contain a message to the user if you want e-mail sent out. [Displayed in a dialog box]	Intervention resolution cannot be submitted.	The message appears if there is an e-mail text box on the <b>Close Confirmation</b> page and the operator did not enter any message text. Some text should be entered and the form should be resubmitted. <ol style="list-style-type: none"> <li>1. Click on the <b>OK</b> button to dismiss the dialog box.</li> <li>2. Enter appropriate text in the e-mail text box or click on the <b>Don't send e-mail</b> box (as applicable).</li> <li>3. Complete the intervention.</li> </ol> [For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]

**Table 15.16-2. Order Manager GUI User Messages (10 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>You cannot change the FTP Push parameters and change the media type at the same time. Please hit your browser's Back button and correct this</p>	<p>Intervention cannot be resolved.</p>	<p>The message appears if the media type for the request is ftp push. The operator probably elected to change the media type and checked the <b>Update FtpPush Parameters</b> box at the same time. The operator should go back to the previous page and uncheck the box.</p> <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail</b> page.</li> <li>2. Click on the <b>Update FtpPush Parameters</b> box to uncheck it.</li> <li>3. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>You cannot update the FTP Push parameters for this request because the media type is &lt;old media&gt;. Please hit your browser's Back button and correct this.</p>	<p>Intervention cannot be resolved.</p>	<p>This message appears if the operator inadvertently checked the <b>Update FtpPush Parameters</b> box, even though the media type for the request is not ftp push. The operator should go back and uncheck this box. The error message should be quite rare, because normally the <b>Update FtpPush Parameters</b> box does not appear if the media type is not ftp push.</p> <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail</b> page.</li> <li>2. Click on the <b>Update FtpPush Parameters</b> box to uncheck it.</li> <li>3. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>
<p>You have entered partitioning days/hours, but have not indicated that you want to spread the request over this time period! (you probably forgot to check the AND box). Hit your browser's Back button to correct this.</p>	<p>Intervention cannot be resolved.</p>	<p>The operator probably intended to partition the request but forgot to check the "and" box. The redundancy is intended to ensure that the correct action is taken.</p> <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail</b> page.</li> <li>2. Click on the box in front of <b>and spread request over</b>.</li> <li>3. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>

**Table 15.16-2. Order Manager GUI User Messages (11 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>You have indicated you want to change the media, but did not select the media type. Hit your browser's Back button to correct this.</p>	<p>Intervention cannot be resolved.</p>	<p>The operator checked the <b>Change Media to:</b> but did not select a different medium from the <b>New Medium</b> option button. The operator should go back to the previous page and either select a new medium or uncheck the <b>Change Media to:</b> box and ensure that the <b>New Medium</b> option button is set to "- -".</p> <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail</b> page.</li> <li>2. If a new distribution medium is being selected, verify that the <b>Change Media to:</b> box is checked. (Click on it if necessary).</li> <li>3. If a new distribution medium is being selected, verify that the <b>New Medium</b> option button is displaying the appropriate medium. [If necessary, click and <b>hold</b> the <b>New Medium</b> option button to display a menu of media, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.]</li> <li>4. If the old distribution medium is being retained, verify that the <b>Change Media to:</b> box is not checked. (Click on it if necessary).</li> <li>5. If the old distribution medium is being retained, verify that the <b>New Medium</b> option button is displaying "- -". [If necessary, click and <b>hold</b> the <b>New Medium</b> option button to display a menu of media, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.]</li> <li>6. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>

**Table 15.16-2. Order Manager GUI User Messages (12 of 12)**

Message Text	Impact	Cause and Corrective Action
<p>You have selected a new media type, but not did indicate you actually wanted the media changed. Hit your browser's Back button to correct this.</p>	<p>Intervention cannot be resolved.</p>	<p>The operator changed the distribution medium for the request on the <b>Open Intervention Detail</b> page but did not check the <b>Change Media to:</b> box. The redundancy is intended to ensure that the operator does indeed want to change the distribution medium. The operator should go back to the previous page and either check the <b>Change Media to:</b> box or ensure that the <b>New Medium</b> option button is set to "- -". (indicating no change).</p> <ol style="list-style-type: none"> <li>1. Click on the  icon in the <b>OM GUI</b> navigation frame to redisplay the <b>Open Intervention Detail</b> page.</li> <li>2. If a new distribution medium is being selected, verify that the <b>Change Media to:</b> box is checked. (Click on it if necessary).</li> <li>3. If a new distribution medium is being selected, verify that the <b>New Medium</b> option button is displaying the appropriate medium. [If necessary, click and <b>hold</b> the <b>New Medium</b> option button to display a menu of media, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.]</li> <li>4. If the old distribution medium is to be retained, verify that the <b>Change Media to:</b> box is not checked. (Click on it if necessary).</li> <li>5. If the old distribution medium is to be retained, verify that the <b>New Medium</b> option button is displaying "- -". [If necessary, click and <b>hold</b> the <b>New Medium</b> option button to display a menu of media, move the mouse cursor to the desired selection (highlighting it), then release the mouse button.]</li> <li>6. Complete the intervention.</li> </ol> <p>[For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</p>

### 15.16.1 Checking Log Files

Log files can provide indications of the following types of problems:

- Communication problems.
- Database problems.
- Lack of disk space.

The procedure for checking log files starts with the assumption that the operator has logged in to the system and the appropriate host.

### 15.16.1.1 Checking Log Files

1. Access a terminal window logged in to the appropriate host.
  - Linux internal server (e.g., x4oml01) host has the following data distribution and Order Manager ALOG files:
    - EcOmOrderManager.ALOG
  - Data Pool Server (e.g.,x4dpl01) host has the following Data Pool and Spatial Subscription Server log files:
    - EcDIActionDriver.ALOG.
    - EcDIInsertUtility.log.
    - EcDINewInsertUtiltiyDPAD.log.
    - EcDIDpmDataPoolGUI.log.
  - WebAccess (e.g., x4eil01) host has the following log files:
    - EcDIWebaccess.DEBUGLOG.
    - EcDIRollupWebLogs.log.
    - ECDmEwoc.debug.log
2. Type **cd /usr/ecs/MODE/CUSTOM/logs** then press **Return/Enter**.
3. Type **pg filename** then press **Return/Enter**.
  - *filename* refers to the data distribution, log file to be reviewed (e.g., EcDsDdistGui.ALOG, EcDsDistributionServer.ALOG).
  - The first page of the log file is displayed.
  - Although this procedure has been written for the **pg** command, any UNIX editor or visualizing command (e.g., **vi**, **view**, **more**) can be used to review the log file.
4. Review the log file to identify problems that have occurred.
5. Respond to problems as follows:
  - Communication problems.
    - Notify the Operations Controller/System Administrator of suspected communication problems.
  - Database problems.
    - Verify that relevant database servers are running.
    - Check for lack of (or corruption of) data in the database using either a database browser or isql commands.
    - Notify the Database Administrator of suspected database problems.
  - Lack of disk space.
    - Remove unnecessary files.

- Notify the Operations Controller/System Administrator of recurring disk space problems.

## 15.16.2 Checking Database Connections

The data distribution database is the repository of data concerning data distribution requests. If applications (including the Data Distribution Operator GUI) are unable to connect to the database, the data distribution request data cannot be retrieved or (in the case of the GUI) displayed. Consequently, if the GUI does not display data or if the display does not refresh, checking the database connections is a logical step in trying to isolate the problem.

The procedure for checking database connections starts with the assumption that the operator has logged in to the system.

### 15.16.2.1 Checking Database Connections

1. Submit a request to the Database Administrator to identify the values for the following parameters associated with the EcDsDistributionServer:
  - **DBName.**
  - **DBServer.**
  - **DBMaxConnections.**
2. Access a terminal window logged in to the APC Server host.
  - Examples of APC Server host names include **e4eil01**, **n4eil01**
  - For detailed instructions refer to the procedure for **Logging in to System Hosts** (preceding section of this lesson).
  - APC Server typically hosts Sybase for the data distribution shared database.
3. Type **isql -UserID -SDBServer** then press **Return/Enter**.
  - For example:  
  
**isql -Sx0oml01\_srvr**
4. At the **Password:** prompt type **dbpassword** then press **Return/Enter**.
  - The **dbpassword** is the password for logging in to the database using the specified **userID**.
5. Type **sp\_who** at the **1>** prompt then press **Return/Enter**.
6. Type **go** at the **2>** prompt then press **Return/Enter**.
7. Type **sp\_configure "user connections"** at the **1>** prompt then press **Return/Enter**.
8. Type **go** at the **2>** prompt then press **Return/Enter**.
9. Type **quit** at the **1>** prompt then press **Return/Enter**.

10. Compare the number of actual connections (results of **sp\_who**) with the number of connections for which the database has been configured (results of **sp\_configure "user connections"**).
11. If the number of actual connections is very close to the number of connections for which the database has been configured, notify the Database Administrator of the fact.
12. If the number of actual connections is **not** very close to the number of connections for which the database has been configured, compare the number of actual connections with the value for DBMaxConnections that the Database Administrator specified (Step 1).
13. If the number of actual connections is very close to the value for DBMaxConnections, notify the Database Administrator of the fact.
  - It may be advisable to increase the value assigned to the DBMaxConnections parameter in the Configuration Registry.

### 15.16.3 Recovering from Order Manager Failures

Actions to be taken when recovering from some common Order Manager problems are described in Table 15.16-3.

**Table 15.16-3. Recovering from Order Manager Failures (1 of 4)**

Symptom	Likely Cause(s)	Response
Request is hanging in Queued status	Global Staging Status parameter is set to "S."	On the <b>OMS Server and Database Configuration</b> page determine whether or not Global Staging Status is set to "S." [For detailed instructions refer to the procedure for <b>Checking/Modifying Values Assigned to OMS Server or Database Parameters</b> (previous section of this lesson).]
	Archive Server queue is suspended.	On the <b>OM Queue Status</b> page determine whether or not the archive server queue where the data comes from is suspended. [For detailed instructions refer to the procedure for <b>Checking/Modifying OM Queue Status</b> (previous section of this lesson).]
Request is hanging in Queued status (Cont.)	Media type specific staging parameter(s) set to 0.	1. For an ftp pull request, on the <b>Media Configuration</b> page check the two parameters under the media type of the request. (If either of the two sets to 0, the request cannot be promoted to "Staging.") 2. For an ftp push request, check the configuration on the <b>FTP Push/SCP Policy Configuration</b> page (If it is a request for the general group, check the configuration for the OTHER destination. If it is a request for a configured destination, click into that destination to check its configuration.)

**Table 15.16-3. Recovering from Order Manager Failures (2 of 4)**

Symptom	Likely Cause(s)	Response
	DPL file system is down/not available.	On the <b>Operator Alerts</b> page determine whether a specific file system alert has been generated. (If one of DPL file systems is down or not available, ESDTs that are configured for staging to that file system are suspended for staging in OMS.) [For detailed instructions refer to the procedure for <b>Viewing Operator Alerts on the OM GUI</b> (previous section of this lesson).]
	Queue is suspended.	On the <b>OM Queue Status</b> page determine whether or not the corresponding queue has been suspended. (If so, the request is not going to be worked off until the queue is reactivated.) [For detailed instructions refer to the procedure for <b>Checking/Modifying OM Queue Status</b> (previous section of this lesson).]
Request is hanging in Staging status (Cont.)	Granule(s) of the request is (are) stuck in "Staging."	<ol style="list-style-type: none"> <li>1. On the <b>Distribution Requests</b> page click on the request ID to bring up the <b>Distribution Request Detail</b> page. [For detailed instructions refer to the procedure for <b>Monitoring/Controlling Distribution Request Information on the OM GUI</b> (previous section of this lesson).]</li> <li>2. Check the status of each individual granule in the request. (If one of them stays in "Staging," the whole request will remain in "Staging" until the granule finishes staging.) [For detailed instructions refer to the procedure for <b>Monitoring/Controlling Distribution Request Information on the OM GUI</b> (previous section of this lesson).]</li> <li>3. If at least one of the granules in the request is still in "Staging," check the DPL DIActionDriver log and DIInsertUtility log to determine why the granule has not completed staging yet. [For detailed instructions refer to the procedure for <b>Checking Log Files</b> (previous section of this lesson).]</li> </ol>
	Global Staging Status Parameter flag is suspended while the request is in the middle of staging.	Check the Global Staging Status parameter. (If the flag is suspended while the request is in the middle of staging, the request will stay in "Staging" until the suspension is lifted.) [For detailed instructions refer to the procedure for <b>Checking/Modifying Values Assigned to OMS Server or Database Parameters</b> (previous section of this lesson).]

**Table 15.16-3. Recovering from Order Manager Failures (3 of 4)**

Symptom	Likely Cause(s)	Response
	Archive Sever queue is suspended while the request is in the middle of staging.	On the <b>OM Queue Status</b> page determine whether or not the Archive Server queue has been suspended. (If the archive is suspended while the request is in the middle of staging, the request will remain in that status until the suspension is lifted.) [For detailed instructions refer to the procedure for <b>Checking/Modifying OM Queue Status</b> (previous section of this lesson).]
Request goes to Operator Intervention from Staging	There is a bad granule in the request.	On the <b>Open Interventions Detail</b> page fail the bad granule (or replace it with a good one) then resubmit the request. [For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]
Request is hanging in Transferring status	A request usually stays in "Transferring" for one of the following reasons: <ul style="list-style-type: none"> <li>- Ftp Push login/password failure.</li> <li>- Destination host not reachable.</li> <li>- Destination disk space is full.</li> <li>- Ftp Push operation timed out.</li> <li>- Number consecutive failure for that destination exceeds configured maximum number.</li> </ul> If one of the preceding situations occurs, the destination of the request is suspended.	<ol style="list-style-type: none"> <li>1. On the <b>Operator Alerts</b> page or <b>Suspended Destinations</b> page get access to the detailed explanation for the alert associated with the FTP Push/SCP Destination name/target host. (Ftp push operations that caused the suspension of destination are listed.) [For detailed instructions refer to the procedure for <b>Viewing Operator Alerts on the OM GUI</b> (previous section of this lesson).]</li> <li>2. If there is a large ftp push load within a certain period of time and it seems that the request stays in "Transferring" for a very long time check the configuration on the <b>FTP Push/SCP Policy Configuration</b> page (The number of concurrent ftp push requests for the destination may be set too low.)</li> <li>3. If it is a request for a configured destination, first check Max Operations on the upper left corner. (If its value is 0, there is no ftp push operation allowed for the configured destination. If the value is too low, the workload will be worked off very slowly.)</li> <li>4. If it is a request for the general group, check the Max Operations.</li> </ol>
Request goes to Operator Intervention from Transferring status	A granule of the request failed ftp push for a reason other than those listed under "Request is hanging in Transferring status."	<ol style="list-style-type: none"> <li>1. On the <b>Open Interventions Detail</b> page fail the bad request (or replace it with a good one) then resubmit the request. [For detailed instructions refer to the procedure for <b>Responding to an Open Intervention</b> (previous section of this lesson).]</li> </ol>

**Table 15.16-3. Recovering from Order Manager Failures (4 of 4)**

Symptom	Likely Cause(s)	Response
Ftp pull request goes to Operator Intervention	Quick Server on the APC Server host (e.g., e0acg11, g0acg01, l0acg02, or n0acg01) is down.	On the APC Server host (e.g., x4oml01) determine the status (up or down) of the Quick Server. [For detailed instructions refer to the procedure for <b>Checking Connections to Hosts/Servers</b> (previous section of this lesson).]
Ftp pull request goes to Operator Intervention (Cont.)	Permission for creating a subdirectory is denied on the APC Server host.	On the APC Server host determine the permissions for creating an Ftp Pull subdirectory. [For detailed instructions refer to the procedure for <b>Determining the Permissions for Creating an FtpPull Subdirectory</b> (subsequent section of this lesson).]

#### 15.16.4 Determining the Permissions for Creating an Ftp Pull Subdirectory

One of the criteria for a successful Ftp Pull distribution is the creation of an Ftp Pull subdirectory for staging the data to be distributed. If permission for creating a subdirectory is denied on the host, the Ftp Pull distribution cannot be accomplished.

The procedure for determining the permissions for creating an Ftp Pull subdirectory starts with the assumption that the operator has logged in to the system.

##### 15.16.4.1 Determining the Permissions for Creating an Ftp Pull Subdirectory

1. Access a terminal window logged in to the appropriate host.
  - For example APC Server host names include **e4eil01**, **n4eil01**
  - For detailed instructions refer to the procedure for **Logging in to System Hosts** (preceding section of this lesson).

2. At the command line prompt type **cd path** then press **Return/Enter**.
  - **path** indicates the path to the directory with the permissions to be checked.
  - For example:

```
cd /usr/ecs/OPS/CUSTOM/acm/x0acg01/data/PullDisk/user
```

3. Type **ls -al** then press **Return/Enter**.
  - The following type of result is obtained:

```
total 32
drwxrwxr-x 30 cmops cmops 4096 Mar 21 2005 ./
drwxrwxr-x 4 cmops cmops 88 Nov 9 2002 ../
drwxr-xr-x 2 cmshared cmshared 135 Jun 7 2004 0800011693bFwLJA/
drwxr-xr-x 2 cmshared cmshared 135 Jul 7 2004 0800011693rPWeDb/
[...]
```

4. Observe the results of the **ls -al** command.

- In the example in Step3 the permissions for the current directory (represented by ./ at the end of the end of the line) allow user cmops and other members of the same group (including cmshared, cmsts1, and cmsts2) but no others to write to the directory. So cmshared could create a subdirectory in the current directory.
- In the example that follows the permissions for the current directory allow the owner (i.e., cmops) only to write to the directory. So cmshared could not create a subdirectory in the current directory.

```
total 960
drwxr-xr-x  5 cmops   4096 Jul 30  2004 .
drwxr-xr-x 37 cmops  28672 Oct  7 10:48 ..
-rw-r--r--  1 cmops   20210 Jul 30  2004
MISR_AM1_AS_AEROSOL_P015_O008407_F06_0013.hdf
-rw-r--r--  1 cmops   78009 Jul 30  2004
MISR_AM1_AS_AEROSOL_P015_O008407_F06_0013.hdf.met
[...]
```

### 15.16.5 HEG Failures

A common means of detecting a HEG failure is the appearance of an intervention on the **OM GUI** [refer to the procedure for **Viewing Open HEG Intervention Information on the OM GUI** (previous section of this lesson)]. Another means of detecting a HEG failure is receiving notification from a user (i.e., via User Services) that the order has not been shipped. In release 8.1 HEG request made through EWOC go through a separate path than those made through the DPL Web Access GUI. These requests are treated as regular requests (even though the Order Type is 'DA') and can be tracked through regular means. Any error results in a HEG Processing Error in the OMS GUI and the Order Manage Server or HegService log must be consulted to see the exact error.

#### 15.16.5.1 Troubleshooting a HEG Failure

1. View information concerning the pertinent open HEG intervention on the **OM GUI**.
  - For detailed instructions refer to the procedure for **Viewing Open HEG Intervention Information on the OM GUI** (previous section of this lesson).
  - On the **Open HEG Intervention Detail** page there is a link for viewing the HEG processing instructions (XML file).
    - The XML processing instructions may provide indications as to why the request could not be completed.
2. If review of the HEG information on the **OM GUI** indicates that there are no impediments to completing the HEG request, retry processing of the request.
  - For detailed instructions refer to the procedure for **Responding to an Open HEG Intervention** (previous section of this lesson).

3. If additional information is needed before taking action, check the log files for error codes.
  - Log files include the following files:
    - HEG Server operations log (HegServer.ops.log).
    - HEG Server debug log (HegServer.debug.log).
    - HEG Server performance log (HegServer.perf.log), if available (typically turned off in normal operations)
  - Log files are located in the /usr/ecs/*MODE*/CUSTOM/logs directory.
  - Error codes and the appropriate responses to them are described in Table 15.16-4.
  - For detailed instructions refer to the **Checking HEG Server Log Files** procedure (subsequent section of this lesson).
  
4. If further information is needed before taking action, check the files in the HEG tempfiles directory.
  - The tempfiles directory contains the following types of files:
    - Converter logs.
      - resample.log.
      - swtif.log.
      - gdtif.log.
    - Parameter file (.prm).
    - EcHgHEGConversion.log.
  - If debug is on (HegServer.application.debugFlag = true in the EcHgServerConfig.properties file in the /usr/ecs/*MODE*/CUSTOM/cfg directory), a tempfiles directory containing pertinent files is created at the configurable location ***tempDirRoot/MODE/tempDirTop/outputdirectory/tempfiles***.
    - ***tempDirRoot*** and ***tempDirTop*** are specified in the EcHgServerConfig.properties file in the /usr/ecs/*MODE*/CUSTOM/cfg directory.
    - ***outputdirectory*** is specified in the HEG request XML file.
  - For detailed instructions refer to the procedure for **Checking Files in the HEG Tempfiles Directory** (subsequent section of this lesson).
  
5. If the problem cannot be identified and fixed without help within a reasonable period of time, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

**Table 15.16-4. Troubleshooting HEG Problems (1 of 16)**

Error Code/String	Response
-3 ClientDown	Ensure that the client is up.
-2 Rejected	<p>1. Ensure that the MAX_NUM_OF_CONCURRENT_HEG_PROCESS value in the OMS Database OmConfigParameter table (Max Num of Concurrent HEG Process parameter as displayed on the <b>OM GUI</b>) is configured to be less than the configured value of HegServer.application.maxClientRequests in HEG server configuration file (/usr/ecs/MODE/CUSTOM/cfg/EcHgServerConfig.properties).                      [For detailed instructions refer to the procedure for <b>Checking Files in the HEG Tempfiles Directory</b> (subsequent section of this lesson) and the procedure for <b>Checking/Modifying Values Assigned to OMS Server or Database Parameters</b> (previous section of this lesson).]</p> <p>2. If the value assigned to the configuration parameter is correct and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</p>
-1 Cancelled	[No action necessary.]
0 HegConversionSuccessful	[No action necessary.]
200 InputXmlValidationErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
201 ErrCreateWorkingDirectory	<p>1. Verify that cmshd has write permission ("drwxrwxr-x") to the working directory (/datapool/MODE/user/FS#/HEGWorking).</p> <p>2. If the write permission is correct, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</p>
202 InvalidInputInBandContainerErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
203 CreateSummaryFileErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
204 MoveOutputErr	<p>1. Verify that there is enough space to move the TIF/HDF/MET files from the working directory (/datapool/MODE/user/FS#/HEGWorking) to the destination directory (/datapool/MODE/user/FS#.orderdata/OUTPUTSencrypted/HEGOUT.001encrypted/HEG/requestID.granuleID).</p> <p>2. Ensure that cmshd has write permission ("drwxrwxr-x") to the destination directory (/datapool/MODE/user/FS#.orderdata/OUTPUTSencrypted/HEGOUT.001encrypted/HEG/requestID.granuleID).</p> <p>3. If cmshd has write permission to the destination directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</p>

**Table 15.16-4. Troubleshooting HEG Problems (2 of 16)**

Error Code/String	Response
205 CreateTempFilesDirErr	<ol style="list-style-type: none"> <li>1. Verify that cmshd has write permission ("drwxrwxr-x") to the temp files directory (/datapool/MODE/user/FS#/HEGTemp/datapool/MODE/user/FS#.orderdata/OUTPUTSencrypted/HEGOUT.001encrypted/HEG/requestID.granuleID/tempfiles).</li> <li>2. If cmshd has write permission to the tempfiles directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
206 RunConverterExceptionErr	<ol style="list-style-type: none"> <li>1. Verify that the HEG converters and jar file (bandtool, swtif, gdtif, resample, hegtool, and HEG.jar) exist in the correct location (/usr/ecs/MODE/CUSTOM/bin/HEG).</li> <li>2. If the HEG converters and jar file are in the correct location and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
207 OutputDirIsNotADirErr	<ol style="list-style-type: none"> <li>1. Verify that the output directory (/datapool/MODE/user/FS#.orderdata/OUTPUTSencrypted/HEGOUT.001encrypted/HEG/requestID.granuleID) is a directory.</li> <li>2. If there is an appropriate output directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
208 OutputDirUnwritableErr	<ol style="list-style-type: none"> <li>1. Verify that cmshd has write permission ("drwxrwxr-x") to the output directory (/datapool/MODE/user/FS#.orderdata/OUTPUTSencrypted/HEGOUT.001encrypted/HEG/requestID.granuleID).</li> <li>2. If cmshd has write permission to the output directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
209 OutputDirCreateErr	<ol style="list-style-type: none"> <li>1. Verify that cmshd has permission ("drwxrwxr-x") to create the output directory (/datapool/MODE/user/FS#.orderdata/OUTPUTSencrypted/HEGOUT.001encrypted/HEG/requestID.granuleID).</li> <li>2. If cmshd has permission to create the output directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
210 WorkingDirIsNotADirErr	<ol style="list-style-type: none"> <li>1. Verify that the working directory (/datapool/MODE/user/FS#/HEGWorking) is a directory.</li> <li>2. If there is an appropriate working directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
211 WorkingDirUnwritableErr	<ol style="list-style-type: none"> <li>1. Verify that cmshd has write permission ("drwxrwxr-x") in the working directory (/datapool/MODE/user/FS#/HEGWorking).</li> <li>2. If cmshd has write permission in the working directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-4. Troubleshooting HEG Problems (3 of 16)**

Error Code/String	Response
212 ConversionLogCreate Err	<ol style="list-style-type: none"> <li>1. Verify that cmshared has permission ("drwxrwxr-x") to create/write the EcHgHEGConversion.log file in the working directory (/datapool/MODE/user/FS#/HEGWorking).</li> <li>2. If cmshared has permission to create/write the EcHgHEGConversion.log file in the working directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
213 InputHDFEOSFileNot ExistErr	<ol style="list-style-type: none"> <li>1. Verify that the hdfs file exists in the datapool.</li> <li>2. If the hdfs file exists in the datapool and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
214 ErrDeleteExistingWork ingDir	<ol style="list-style-type: none"> <li>1. Verify that cmshared has permission ("drwxrwxr-x") to delete the working directory (/datapool/MODE/user/FS#/HEGWorking).</li> <li>2. Determine whether the debug flag in the HEG Server cfg file (/usr/ecs/MODE/CUSTOM/cfg/EcHgServerConfig.properties) is set to false for the server to remove the working directory. (If the debug flag isn't set to false, this error won't occur because the working directory will be preserved.)</li> <li>3. If the debug flag is set to false, cmshared has delete permission, and an error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
500 CantRunHegtool	<ol style="list-style-type: none"> <li>1. Verify that the hegtool executable exists in the correct location (/usr/ecs/MODE/CUSTOM/bin/HEG).</li> <li>2. Check the /usr/ecs/MODE/CUSTOM/utilities/EcHgServerStart script to ensure that the environment variables MTDDATADIR, MRTDATADIR, PGSHOME are set correctly; i.e., MTDDATADIR=/usr/ecs/\$MODE/CUSTOM/data/HEG MRTDATADIR=/usr/ecs/\$MODE/CUSTOM/data/HEG PGSHOME=/usr/ecs/\$MODE/CUSTOM/data/HEG/TOOLKIT_MTD</li> <li>3. If the hegtool executable is present in the correct location, the environment variables are set correctly, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
501 ErrReadingProperties	<ol style="list-style-type: none"> <li>1. Verify that the HEG Server properties file exists in the correct location (/usr/ecs/MODE/CUSTOM/cfg/EcHgServerConfig.properties).</li> <li>2. If the HEG Server properties file is present in the correct location and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
502 ErrReadingHdfs	<ol style="list-style-type: none"> <li>1. Verify that the hdfs file exists in the datapool.</li> <li>2. If the hdfs file is present in the datapool and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
503 InputFileNotHdfs	<ol style="list-style-type: none"> <li>1. Verify that the input file is an hdfs file.</li> <li>2. If the input file is an hdfs file and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
504 ErrLoadingDataInArra y	<p>Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</p>

**Table 15.16-4. Troubleshooting HEG Problems (4 of 16)**

Error Code/String	Response
505 ErrWritingParameterFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
506 ConverterExecuteErr	<ol style="list-style-type: none"> <li>1. Verify that the HEG converters and HEG jar file (bandtool, hegtool, swtif, gdtif, resample, HEG.jar) exist in the correct location (/usr/ecs/MODE/CUSTOM/bin/HEG).</li> <li>2. If the HEG converters and HEG jar file are present in the correct location and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
508 NoParameterFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
509 ErrCopyCompressedFile	<ol style="list-style-type: none"> <li>1. Verify that the compressed file exists in the datapool.</li> <li>2. Verify that cmshared has write permission ("drwxrwxr-x") to the destination directory (/datapool/MODE/user/FS#.orderdata/OUTPUTSencrypted/HEGOUT.001encrypted/HEG/requestID.granuleID).</li> <li>3. If the compressed file is in the datapool, cmshared has write permission to the destination directory, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
510 ErrDecompressingFile	<ol style="list-style-type: none"> <li>1. Verify that the correct decompression utility is specified in the HEG Server cfg file (/usr/ecs/MODE/CUSTOM/cfg/EcHgServerConfig.properties) and that it exists in the operating system.</li> <li>2. Verify that the compressed file exists in the datapool.</li> <li>3. If the correct decompression utility is specified in the HEG Server cfg file, the compressed file is in the datapool, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
511 DecompressCommandFormatErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
512 SubsetAreaNotInMISRFile	<ol style="list-style-type: none"> <li>1. Verify that the geographic extent of the spatial subset area entered by the user intersects the granule.</li> <li>2. If the geographic extent of the spatial subset area intersects the granule and an error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
600 NO ERROR - SUCCESSFUL	[No action necessary.]
601 GeneralProcessingErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
602 AssertErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

**Table 15.16-4. Troubleshooting HEG Problems (5 of 16)**

Error Code/String	Response
603 EnvironmentVariableNotFound	1. Verify that the environment variables are set correctly (i.e., MTDDATADIR=/usr/ecs/\$MODE/CUSTOM/data/HEG MRTDATADIR=/usr/ecs/\$MODE/CUSTOM/data/HEG PGSHOME=/usr/ecs/\$MODE/CUSTOM/data/HEG/TOOLKIT_MTD) in the EcHgServerStart script, which is located at /usr/ecs/MODE/CUSTOM/utilities. 2. If the environment variables are set correctly and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
604 MemoryAllocationErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
605 ErrWaitingForThreadTermination	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
606 SemaphoreErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
607 MutexErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
608 ErrSpaceInName	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
609 ErrCommandLineUsage	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
610 ErrOpenInputParameterFile	1. Verify that the parameter file (.prm) exists in the working directory (/datapool/MODE/user/FS#/HEGWorking). 2. If the parameter file exists in the working directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
611 ErrReadInputParameterFile	1. Verify that the input parameter file (.prm) in the working directory (/datapool/MODE/user/FS#/HEGWorking) is a valid file. 2. If the input parameter file is a valid file and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
612 ErrOpenOutputParameterFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
613 ErrWriteOutputParameterFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
614 ErrOpenInputImageFile	1. Verify that the input image file (hdfeos file) exists in the datapool. 2. If the input image file is in the datapool and the error still occurs, submit a trouble ticket.
615 ErrReadInputImageFile	1. Verify that the input image file (hdfeos file) read in is valid. 2. If the input image file read in is valid and the error still occurs, submit a trouble ticket.

**Table 15.16-4. Troubleshooting HEG Problems (6 of 16)**

Error Code/String	Response
616 ErrOpenOutputImageFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
617 ErrWriteOutputImageFile	<ol style="list-style-type: none"> <li>1. Verify that cmshd has write permission ("drwxrwxr-x") in the working directory (/datapool/MODE/user/FS#/HEGWorking)</li> <li>2. Verify that there is enough space to write the output image file to the working directory.</li> <li>3. If cmshd has write permission, there is enough space to write the output image file to the working directory, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
618 ErrOpenInputHeaderFile	<ol style="list-style-type: none"> <li>1. Verify that the HegHdr.hdr file exists in the working directory (/datapool/MODE/user/FS#/HEGWorking).</li> <li>2. If HegHdr.hdr file is in the working directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
619 ErrReadInputHeaderFile	<ol style="list-style-type: none"> <li>1. Verify that the HegHdr.hdr file [in the working directory (/datapool/MODE/user/FS#/HEGWorking)] is a valid file.</li> <li>2. If the HegHdr.hdr file is a valid file and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
620 ErrOpenOutputHeaderFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
621 ErrWriteOutputHeaderFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
622 NoCommandLineArgument	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
623 MissingOrBadParameterFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
624 UnknownCommandLineArgument	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
625 BadOrMissingInputFileNameExtension	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the INPUT_FILENAME contains an hdf file with a .hdf extension.</li> <li>2. If the value assigned to INPUT_FILENAME contains a .hdf file and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
626 BadOrMissingOutputFileNameExtension	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the OUTPUT_FILENAME parameter contains a filename with either a .hdf or .tif extension.</li> <li>2. If the value assigned to OUTPUT_FILENAME contains a .hdf file or a .tif file and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-4. Troubleshooting HEG Problems (7 of 16)**

Error Code/String	Response
627 BadOrMissingResampleType	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the RESAMPLING_TYPE parameter is NN, BI, or CC.</li> <li>2. If the value assigned to RESAMPLING_TYPE is NN, BI, or CC and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
628 BadOrMissingProjectionType	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the OUTPUT_PROJECTION_TYPE parameter is one that works for that particular hdfs (granule) file.</li> <li>2. If the value assigned to OUTPUT_PROJECTION_TYPE is one that works for that particular hdfs (granule) file and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
629 BadOrMissingInputFileNameField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the INPUT_FILENAME parameter specifies an hdfs file from the datapool.</li> <li>2. If the value assigned to INPUT_FILENAME specifies an hdfs file from the datapool and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
630 BadOrMissingSpectralSubsetField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
631 BadOrMissingSpatialSubsetField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the values assigned to the SPATIAL_SUBSET_UL_CORNER and SPATIAL_SUBSET_LR_CORNER parameters are valid.</li> <li>2. If the values assigned to the SPATIAL_SUBSET_UL_CORNER and SPATIAL_SUBSET_LR_CORNER parameters are valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
632 BadOrMissingOutputFileNameField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the OUTPUT_FILENAME parameter has the correct file extension.</li> <li>2. If the value assigned to OUTPUT_FILENAME has the correct file extension and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-4. Troubleshooting HEG Problems (8 of 16)**

Error Code/String	Response
633 BadOrMissingResampleTypeField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the RESAMPLING_TYPE parameter is NN, BI, or CC.</li> <li>2. If the value assigned to RESAMPLING_TYPE is NN, BI, or CC and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
634 BadOrMissingOutputProjectionField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the OUTPUT_PROJECTION_TYPE parameter is one that works for that particular hdfs (granule) file.</li> <li>2. If the value assigned to OUTPUT_PROJECTION_TYPE is one that works for that particular hdfs (granule) file and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
635 BadOrMissingOutputProjectionParametersField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the values assigned to the OUTPUT_PROJECTION_PARAMETERS parameter are valid.</li> <li>2. If the values assigned to OUTPUT_PROJECTION_PARAMETERS are valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
636 BadOrMissingDataTypeField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
637 BadOrMissingProjectionParametersField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that each of the following parameters: INPUT_FILENAME, OBJECT_NAME, FIELD_NAME, BAND_NUMBER, OUTPUT_PIXEL_SIZE_X, OUTPUT_PIXEL_SIZE_Y, SPATIAL_SUBSET_UL_CORNER, SPATIAL_SUBSET_LR_CORNER, RESAMPLING_TYPE, OUTPUT_PROJECTION_TYPE, OUTPUT_PROJECTION_PARAMETERS, OUTPUT_FILENAME, and OUTPUT_TYPE is enclosed in a BEGIN and END block.</li> <li>2. Ensure that the first line of the parameter file has a value assigned to the NUM_RUNS parameter that is equal to the number of BEGIN and END blocks in the file.</li> <li>3. If the parameters are formatted properly, the NUM_RUNS parameter has a value that is equal to the number of BEGIN and END blocks in the file, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-4. Troubleshooting HEG Problems (9 of 16)**

Error Code/String	Response
638 BadOrMissingProjectionParametersValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that values assign to the following parameters: INPUT_FILENAME, OBJECT_NAME, FIELD_NAME, BAND_NUMBER, OUTPUT_PIXEL_SIZE_X, OUTPUT_PIXEL_SIZE_Y, SPATIAL_SUBSET_UL_CORNER, SPATIAL_SUBSET_LR_CORNER, RESAMPLING_TYPE, OUTPUT_PROJECTION_TYPE, OUTPUT_PROJECTION_PARAMETERS, OUTPUT_FILENAME, and OUTPUT_TYPE are valid.</li> <li>2. If the parameters are valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
639 BadOrMissingSpatialExtentsCorner	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the values assigned to the SPATIAL_SUBSET_UL_CORNER and SPATIAL_SUBSET_LR_CORNER parameters are valid.</li> <li>2. If the spatial subsetting values are valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
640 BadOrMissingNBANDSField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that there is a BAND_NUMBER parameter.</li> <li>2. If there is a BAND_NUMBER parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
641 BadOrMissingNBANDSValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the BAND_NUMBER parameter is valid.</li> <li>2. If the value assigned to the BAND_NUMBER parameter is valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
642 BadOrMissingBANDNAMESField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that there is a BANDNAMES parameter.</li> <li>2. If there is a BANDNAMES parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
643 BadOrMissingBANDNAMESValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the BANDNAMES parameter is valid.</li> <li>2. If the value assigned to the BANDNAMES parameter is valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-4. Troubleshooting HEG Problems (10 of 16)**

Error Code/String	Response
644 BadOrMissingDATATYPEField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
645 BadOrMissingDATATYPEValue	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
646 BadOrMissingNLINESField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
647 BadOrMissingNLINESValue	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
648 BadOrMissingNSAMPLESField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
649 BadOrMissingNSAMPLESValue	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
650 BadOrMissingPIXEL_SIZEField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that there are OUTPUT_PIXEL_SIZE_X and OUTPUT_PIXEL_SIZE_Y parameters.</li> <li>2. If there are OUTPUT_PIXEL_SIZE_X and OUTPUT_PIXEL_SIZE_Y parameters and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
651 BadOrMissingPIXEL_SIZEValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the values assigned to the OUTPUT_PIXEL_SIZE_X and OUTPUT_PIXEL_SIZE_Y parameters are valid.</li> <li>2. Ensure that the correct units are specified for the parameters (either meters or degree decimal). [If Geographic projection is selected, the pixel sizes should be in degree decimal (DD) units. For all other projections, the pixel size should be in meters.]</li> <li>3. If the parameter values are valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
652 BadOrMissingMINVALUEField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
653 BadOrMissingMINVALUEValue	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
654 BadOrMissingMAXVALUEField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
655 BadOrMissingMAXVALUEValue	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
656 BadOrMissingBACKGROUND_FILLField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
657 BadOrMissingBACKGROUND_FILLValue	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

**Table 15.16-4. Troubleshooting HEG Problems (11 of 16)**

Error Code/String	Response
658 TotalBandsFoundInconsistentWithNB ANDS	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
659 NoBandsSelectedForOutput	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
660 BadOrMissingUTMZoneField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that there is a UTM_ZONE parameter.</li> <li>2. If there is a UTM_ZONE parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
661 BadOrMissingUTMZoneValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the UTM_ZONE parameter is valid.</li> <li>2. If the value assigned to the UTM_ZONE parameter is valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
662 BadOrMissingELLIPSOID_CODEField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that there is a ELLIPSOID_CODE parameter.</li> <li>2. If there is a ELLIPSOID_CODE parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
663 BadOrMissingELLIPSOID_CODEValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the ELLIPSOID_CODE parameter is valid.</li> <li>2. If the value assigned to the ELLIPSOID_CODE parameter is valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
664 MissingBoundingRectangularCoordinates	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

**Table 15.16-4. Troubleshooting HEG Problems (12 of 16)**

Error Code/String	Response
665 ErrPixelSizeLessThanMinimum	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the values assigned to the pixel size parameters (e.g., OUTPUT_PIXEL_SIZE_X and OUTPUT_PIXEL_SIZE_Y) are not less than the minimum value.</li> <li>2. Ensure that the correct units are specified for the parameters (either meters or degree decimal). [If Geographic projection is selected, the pixel sizes should be in degree decimal (DD) units. For all other projections, the pixel size should be in meters.]</li> <li>3. If the parameter values are not less than the minimum value, are expressed in the appropriate units, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
666 ErrPixelSizeGreaterThanMaximum	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the values assigned to the pixel size parameters (e.g., OUTPUT_PIXEL_SIZE_X and OUTPUT_PIXEL_SIZE_Y) are not greater than the maximum value.</li> <li>2. Ensure that the correct units are specified for the parameters (either meters or degree decimal). [If Geographic projection is selected, the pixel sizes should be in degree decimal (DD) units. For all other projections, the pixel size should be in meters.]</li> <li>3. If the parameter values are not greater than the maximum value, are expressed in the appropriate units, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
667 ErrCommandLineUsage	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
668 ErrOpenLogFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
669 ErrOpenGeoTemp	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
670 ProjectionProcessingErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
671 OpenDatumFileErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
672 OpenSpheroidFileErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
673 ProjectionMathErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
674 PointLiesInBreakErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

**Table 15.16-4. Troubleshooting HEG Problems (13 of 16)**

Error Code/String	Response
675 OutputFileNameNotSpecifiedErr	1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that a value is specified for the OUTPUT_FILENAME parameter. 2. If a value is specified for the OUTPUT_FILENAME parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
676 ProjectionTransformationFailed	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
677 FailedToConvergeAfterManyIterations	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
678 TooManyIterationsForInverseRobinson	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
679 TooManyIterationsInInverse	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
680 InputDataErr	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
681 IllegalDMSField	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
682 InconsistentUnitAndSystemCodesForInput	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
683 IllegalInputSystemCode	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
684 IllegalInputUnitCode	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
685 IllegalInputZoneCode	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
686 PointProjectsIntoInfinity	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
687 LatitudeFailedToConvergeAfterManyIterations	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
688 InconsistentUnitAndSystemCodesForOutput	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
689 IllegalOutputSystemCode	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
690 IllegalOutputUnitCode	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
691 IllegalOutputZoneCode	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

**Table 15.16-4. Troubleshooting HEG Problems (14 of 16)**

Error Code/String	Response
692 TransformationCantBeComputedAtThePoles	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
693 PointCantBeProjected	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
694 PointProjectsIntoACircleOfUnacceptableRadius	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
695 FiftyIterationsPerformedWithoutConversion	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
696 SpheroidCodeResetToDefault	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
697 EqualLatitudesForStdParallelsOnOppositeSidesOfEquator	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
698 IllegalZoneNumber	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
699 ErrOpenStatePlaneParameterFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
700 IllegalSourceOrTargetUnitCode	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
701 MissingProjectionParameters	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
702 InvalidCornerCoordinatesForInputImage	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
703 OutputWindowFallsOutsideMappingGrid	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
704 NUM_RUNSFieldIncorrect	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
705 ErrorWithBEGIN_ENDFields	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
706 BadOrMissingOBJECT_NAMEField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that a valid value is specified for the OBJECT_NAME parameter.</li> <li>2. If a valid value is specified for the OBJECT_NAME parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-4. Troubleshooting HEG Problems (15 of 16)**

Error Code/String	Response
707 BadOrMissingFIELD_NAMEField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that a valid value is specified for the FIELD_NAME parameter.</li> <li>2. If a valid value is specified for the FIELD_NAME parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
708 BadOrMissingOUTPUT_TYPEField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that there is an OUTPUT_TYPE parameter.</li> <li>2. If there is an OUTPUT_TYPE parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
709 BadOrMissingOUTPUT_TYPEValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the OUTPUT_TYPE parameter is valid.</li> <li>2. If the value assigned to the OUTPUT_TYPE parameter is valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
710 BadOrMissingBAND_NUMValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that a valid value is specified for the BAND_NUMBER parameter.</li> <li>2. If a valid value is specified for the BAND_NUMBER parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
711 SubsetAreaNotInFile	<ol style="list-style-type: none"> <li>1. Verify that the geographic extent of the spatial subset area entered by the user intersects the granule.</li> <li>2. If the geographic extent of the spatial subset area intersects the granule and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
712 BadOrMissingSTPZoneField	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that there is an STP_ZONE parameter.</li> <li>2. If there is an STP_ZONE parameter and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
713 BadOrMissingSTPZoneValue	<ol style="list-style-type: none"> <li>1. In the parameter file (.prm) that is located in the working directory (/datapool/MODE/user/FS#/HEGWorking) ensure that the value assigned to the STP_ZONE parameter is valid.</li> <li>2. If the value assigned to the STP_ZONE parameter is valid and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>

**Table 15.16-4. Troubleshooting HEG Problems (16 of 16)**

Error Code/String	Response
714 UnableToOpenSTPZoneFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
715 GranuleOutsideUSCantFindDefaultStatePlaneZone	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
716 ErrorGettingAlaskanSTPZone	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
720 ErrorOpenInputHDFFile	<ol style="list-style-type: none"> <li>1. Verify that the input hdf (granule) file exists in the datapool.</li> <li>2. Ensure that cmshared has read permission on the input hdf file.</li> <li>3. In the HEG Server debug log file (/usr/ecs/MODE/CUSTOM/logs/ HegServer.debug.log) verify that the hegtool is called correctly. [The hegtool call should look like this: /usr/ecs/MODE/CUSTOM/utilities/EcHgHEGStart MODE hegtool -h &lt;location of the hdf file in the datapool&gt;.] [For detailed instructions refer to the procedure for <b>Checking HEG Server Log Files</b> (subsequent section of this lesson).]</li> <li>4. If the input hdf file is in the datapool, cmshared has read permission on the input hdf file, the hegtool was called correctly, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
721 ErrorReadingInputHDFFile	<ol style="list-style-type: none"> <li>1. Verify that the input hdf (granule) file is in hdfs format.</li> <li>2. Ensure that cmshared has read permission on the input hdf file.</li> <li>3. In the HEG Server debug log file (/usr/ecs/MODE/CUSTOM/logs/ HegServer.debug.log) verify that the hegtool is called correctly. [The hegtool call should look like this: /usr/ecs/MODE/CUSTOM/utilities/EcHgHEGStart MODE hegtool -h &lt;location of the hdf file in the datapool&gt;.] [For detailed instructions refer to the procedure for <b>Checking HEG Server Log Files</b> (subsequent section of this lesson).]</li> <li>4. If the input hdf file is in hdfs format, cmshared has read permission on the input hdf file, the hegtool was called correctly, and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
722 UnableToOpenHeaderFile	<ol style="list-style-type: none"> <li>1. Verify that there is a HegHdr.hdr file in the working directory (/datapool/MODE/user/FS#/HEGWorking).</li> <li>2. If there is a HegHdr.hdr file in the working directory and the error still occurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.</li> </ol>
723 UnableToFindShortName	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
724 UnableToOpenGEOFile	Call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

### 15.16.6 Checking HEG Server Log Files

HEG server log files show the activities involved in processing each HEG request. The following types of HEG server log files can be generated:

- HEG Server operations log (HegServer.ops.log).
- HEG Server debug log (HegServer.debug.log).
- HEG Server performance log (HegServer.perf.log), if available (typically turned off in normal operations).

The amount of information provided in logs varies with the type of log being viewed and the level of logging configured for the type of log. In general most of the entries in the operations log are duplicated in the debug log. The HEG Server logs can be set to record data at any of the following levels of detail (listed from most-detailed to no logging):

- XVERBOSE.
- VERBOSE.
- INFORMATION.
- NONE.

In normal operation the HEG Server logs are typically set (in the `EcHgServerConfig.properties` file in the `/usr/ecs/MODE/CUSTOM/cfg` directory) to record data at the following levels of detail:

- HEG Server operations log (HegServer.ops.log) – INFORMATION.
- HEG Server debug log (HegServer.debug.log) – INFORMATION.
- HEG Server performance log (HegServer.perf.log) – NONE.

The HEG Server can manage several concurrent activities. This is accomplished through the use of threads. Information concerning HEG Server processing of requests (identified by thread) is recorded in the HEG Server logs (assuming some level of log recording is specified in the corresponding configuration file).

The procedure for checking HEG server log files starts with the assumption that the operator has logged in to the system and the appropriate host.

#### 15.16.6.1 Checking HEG Server Log Files

1. If the level of logging should be adjusted to assist in troubleshooting, notify the Operations Controller/System Administrator to have the adjustment made.
  - Detailed levels of logging may have negative effects on system performance.
2. Access a terminal window logged in to the appropriate host.
  - HEG Server (e.g., x4hel01) host has the following HEG server log files:
    - HegServer.ops.log.
    - HegServer.debug.log.

- For detailed instructions refer to the procedure for **Logging in to System Hosts** (preceding section of this lesson).
3. Type **cd /usr/ecs/MODE/CUSTOM/logs** then press **Return/Enter**.
    - Change directory to the directory containing the HEG server log files (e.g., HegServer.ops.log, HegServer.debug.log).
  4. Type **more filename** then press **Return/Enter**.
    - *filename* refers to the HEG log file to be reviewed (e.g., HegServer.ops.log, HegServer.debug.log).
    - The first page of the log file is displayed.
    - Although this procedure has been written for the **more** command, other UNIX visualizing commands (e.g., **view**) can be used to review the log file.
    - The following **more** commands (at the **--More--** prompt) are useful:
      - **Return/Enter** (go down one line).
      - **nReturn/Enter** (go down *n* number of lines).
      - **nSpace bar** (go down *n* number of lines).
      - **Space bar** (go down one screen).
      - **z** (go down one screen).
      - **nz** (go down *n* number of screens; *n* becomes the default for subsequent **z** commands).
      - **nb** (go back *n* number of screens).
      - **nCTRL-B** (go back *n* number of screens).
      - **nd** (go down *n* number of lines; *n* becomes the default for subsequent **d** commands).
      - **nCTRL-D** (go down *n* number of lines; *n* becomes the default for subsequent **d** commands).
      - **nf** (skip *n* screens full and then display a screen).
      - **ns** (skip *n* lines and then display a screen).
      - **h** (help - display a description of all the **more** commands).
      - **CTRL-L** (refresh the screen).
      - **n/pattern** (search forward for the *n*th occurrence of the *pattern* and display a screen starting two lines before the line that contains the specified pattern match).
      - **nn** (search for the *n*th occurrence of the last pattern entered).
      - **v** (drop into the **vi** editor at the current line of the current file).
      - **=** (display the current line number).
      - **:f** (display the name of the current file and the current line number).
      - **q** (exit from **more**).

- **Q** (exit from **more**).
- **!command** (invoke a shell to execute **command**).

5. At the **--More--** prompt type **/requestID** then press **Return/Enter**:

- **requestID** is the HEG Request ID from the **OM GUI** [refer to the procedure for **Viewing Pending HEG Granules** or the procedure for **Viewing Open HEG Intervention Information on the OM GUI** (previous sections of this lesson)].
  - The XML processing instructions for each HEG request are included in the HEG Server debug log if the `log.debug.level` is set to `XVERBOSE`.
- For example, type:

**/0403300996**

- The file is searched for the specified text.
- If the specified text is in the log file, the following type of response is displayed.

**...skipping**

**12.14.2005 14:22:19.667 : Thread ID [21161] : XVERBOSE : Monitor thread created.**

**12.14.2005 14:22:19.680 : Thread ID [21161] : VERBOSE : input xml validation succeeded for Request 10576**

**12.14.2005 14:22:19.680 : Thread ID [21161] : INFORMATION : Incoming request from client: OMS with uid: 0403300996.85000004172274.3312040939 is assigned serverRequestId: 10576**

**[...]**

**--More--(16%)**

- If the specified text is not in the log file, the following type of response is displayed.

**Pattern not found**

- The **Thread ID** (21161 in the preceding example) and **Server Request ID** (10576 in the preceding example) can be used to track entries concerning the specific request in the log file.

**NOTE:** Thread IDs are reused frequently. There may be multiple processes with the same thread ID in any particular log file. It is important to follow the correct instance of the thread (i.e., the one with the desired Server Request ID).

**NOTE:** It is likely that HEG would try again to process a failed request. Subsequent request processing may use the same thread ID or a different thread ID. However, it could be found through the Order Manager (OM GUI) Request ID.

6. If checking the operations log file, at the **--More--** prompt type **/: 0 for Request: ServerRequestID** then press **Return/Enter**:

- **ServerRequestID** is the Server Request ID discovered in Step5.

- For example, type:

**/: 0 for Request: 10576**

- The file is searched for the specified text.
- The following type of response is displayed.

**...skipping**

**12.14.2005 14:22:34.138 : Thread ID [21178] : XVERBOSE : poller thread terminated for request: 10582**

**12.14.2005 14:22:34.139 : Thread ID [21161] : VERBOSE : Move output successfully for Request 10576**

**12.14.2005 14:22:34.139 : Thread ID [21161] : java.lang.String : INFORMATION : HEGConvProcessor.convert() returned status code: 0 for Request: 10576**

**12.14.2005 14:22:34.139 : Thread ID [21179] : XVERBOSE : poller thread terminated for request: 10576**

**[...]**

**--More--(18%)**

- If the specified text is not in the log file, the following type of response is displayed.

#### **Pattern not found**

- If a status code of 0 (zero) or 600 for a particular Server Request ID is found in the log, HEG processing was successful. This statement should be in the both the operations log and debug log regardless of the level of detail specified in the configuration file (unless logging is turned off; i.e., log level is NONE for a particular type of log).
  - Of course, there could still be problems with the request; e.g., failure to move the output files to the output directory.
- If a status code of 0 (zero) or 600 for a particular Server Request ID is **not** found in the log, HEG processing was either unsuccessful or is incomplete.

7. If checking the debug log file, at the **--More--** prompt type **/: 0 for Request *ServerRequestID*** then press **Return/Enter**:

- ***ServerRequestID*** is the Server Request ID discovered in Step5.
- For example, type:

**/: 0 for Request 10576**

- The file is searched for the specified text.
- The following type of response is displayed.

**...skipping**

**12.14.2005 14:22:33.771 : Thread ID [21161] : XVERBOSE : Request 10576  
converter execution time: 10 seconds.**

**12.14.2005 14:22:33.771 : Thread ID [21167] : XVERBOSE : Request 10582  
converter execution time: 10 seconds.**

**12.14.2005 14:22:33.772 : Thread ID [21161] : INFORMATION : Conversion  
process returned status: 0 for Request 10576**

**12.14.2005 14:22:33.772 : Thread ID [21167] : INFORMATION : Conversion  
process returned status: 0 for Request 10582**

**[...]**

**--More--(32%)**

- If the specified text is not in the log file, the following type of response is displayed.

### **Pattern not found**

- If a status code of 0 (zero) or 600 for a particular Server Request ID is found in the log, HEG processing was successful. This statement should be in the both the operations log and debug log regardless of the level of detail specified in the configuration file (unless logging is turned off; i.e., log level is NONE for a particular type of log).
  - Of course, there could still be problems with the request; e.g., failure to move the output files to the output directory.
- If a status code of 0 (zero) or 600 for a particular Server Request ID is **not** found in the log, HEG processing was either unsuccessful or is incomplete.

8. Examine the contents of the log file(s) to determine whether there were errors in processing the HEG request.

- If a status code other than 0 (zero) or 600 for the particular Server Request ID is found in the log(s), go to Step9.
- A successful HEG request should result in the following types of entries being made in the operations log:

**12.14.2005 14:22:19.667 : Thread ID [21161] : XVERBOSE : Monitor thread  
created.**

**12.14.2005 14:22:19.680 : Thread ID [21161] : VERBOSE : input xml validation  
succeeded for Request 10576**

**12.14.2005 14:22:19.680 : Thread ID [21161] : INFORMATION : Incoming request  
from client: OMS with uid: 0403300996.85000004172274.3312040939 is assigned  
serverRequestId: 10576**

**12.14.2005 14:22:19.685 : Thread ID [21161] : VERBOSE : working directory:  
/datapool/OPS/user/FS1/HEGWorking/10576 created successfully for Request  
10576**

**12.14.2005 14:22:19.686 : Thread ID [21161] : VERBOSE : ConversionItem created  
successfully for Request 10576**

**12.14.2005 14:22:23.654 : Thread ID [21161] : XVERBOSE : Getting properties**

12.14.2005 14:22:23.673 : Thread ID [21161] : VERBOSE : parameter file created successfully for Request 10576

12.14.2005 14:22:23.884 : Thread ID [21161] : INFORMATION : Sent pid: 5542 back to client for Request 10576

12.14.2005 14:22:23.884 : Thread ID [21161] : INFORMATION : Heg converter is running with pid: 5542 for Request 10576

12.14.2005 14:22:33.772 : Thread ID [21161] : INFORMATION : Conversion process returned status: 0 for Request 10576

12.14.2005 14:22:33.772 : Thread ID [21161] : INFORMATION : Run heg converter executable successfully for Request 10576

12.14.2005 14:22:33.824 : Thread ID [21161] : VERBOSE : summary file created successfully for Request 10576

12.14.2005 14:22:33.931 : Thread ID [21161] : XVERBOSE : Create temp directory: /datapool/OPS/user/FS1/HEGTemp//datapool/OPS/user/FS1//.orderdata/OUTPUTS DDWmmfGD/HEGOUT.001hMEzIIJI//HEG/0403300996.85000004172274//tempfiles successfully for Request 10576

12.14.2005 14:22:34.139 : Thread ID [21161] : VERBOSE : Move output successfully for Request 10576

12.14.2005 14:22:34.139 : Thread ID [21161] : java.lang.String : INFORMATION : HEGConvProcessor.convert() returned status code: 0 for Request: 10576

- A successful HEG request should result in the following types of entries being made in the debug log:

12.14.2005 14:22:19.666 : Thread ID [21161] : XVERBOSE : Connection from /198.115.220.179

12.14.2005 14:22:19.666 : Thread ID [21161] : XVERBOSE : client processing mode is: 1

12.14.2005 14:22:19.666 : Thread ID [21161] : XVERBOSE : Start processing request: 10576

12.14.2005 14:22:19.667 : Thread ID [21161] : XVERBOSE : client input xml:  
 <?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
 <request xmlns="http://newsroom.gsfc.nasa.gov/sdptoolkit/toolkit.html">  
 <requestInfo>  
 <clientName>OMS</clientName>  
 <uId>0403300996.85000004172274.3312040939</uId>  
 <metaFlag>>false</metaFlag>  
 <summaryFlag>>true</summaryFlag>  
 </requestInfo>  
 <inputFiles>  
 <file>  
 <fileName>/datapool/OPS/user//FS1/MOGT/MOD02HKM.004/2002.01.01//labtest\_2017250970</fileName>  
 </file>  
 </inputFiles>  
 <outputData>

```

<outputPath>/datapool/OPS/user/FS1//.orderdata/OUTPUTSDDWmmfGD/HEGO
UT.001hMEzIJI//HEG/0403300996.85000004172274/</outputPath>
  <format>GEO</format>
  <projection>
    <projectionType>GEOGRAPHIC</projectionType>
  </projection>
  <spatialSubsetBoundingBox>
    <upperLeftCornerPoint>
      <latitude>10</latitude>
      <longitude>-50</longitude>
    </upperLeftCornerPoint>
    <lowerRightCornerPoint>
      <latitude>-10</latitude>
      <longitude>50</longitude>
    </lowerRightCornerPoint>
  </spatialSubsetBoundingBox>
  <bandContainer>
    <object>
      <objectName>MODIS_SWATH_Type_L1B</objectName>
      <field>
        <fieldName>EV_500_RefSB</fieldName>
        <dim3>
          <dim3Name>Band_500M</dim3Name>
          <dim3Number>1</dim3Number>
        </dim3>
      </field>
    </object>
  </bandContainer>
</outputData>
</request>

```

12.14.2005 14:22:19.667 : Thread ID [21161] : XVERBOSE : Monitor thread created.

12.14.2005 14:22:19.680 : Thread ID [21161] : VERBOSE : input xml validation succeeded for Request 10576

12.14.2005 14:22:19.680 : Thread ID [21161] : INFORMATION : Incoming request from client: OMS with uid: 0403300996.85000004172274.3312040939 is assigned serverRequestId: 10576

12.14.2005 14:22:19.680 : Thread ID [21161] : XVERBOSE : InputXml content: <?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<request xmlns="http://newsroom.gsfc.nasa.gov/sdptoolkit/toolkit.html">

<requestInfo>

<clientName>OMS</clientName>

<uId>0403300996.85000004172274.3312040939</uId>

<metaFlag>>false</metaFlag>

<summaryFlag>>true</summaryFlag>

```

</requestInfo>
<inputFiles>
  <file>

<fileName>/datapool/OPS/user//FS1/MOGT/MOD02HKM.004/2002.01.01//labtest_
2017250970</fileName>
  </file>
</inputFiles>
<outputData>

<outputPath>/datapool/OPS/user/FS1//.orderdata/OUTPUTSDDWmmfGD/HEGO
UT.001hMEzIJI//HEG/0403300996.85000004172274/</outputPath>
  <format>GEO</format>
  <projection>
    <projectionType>GEOGRAPHIC</projectionType>
  </projection>
  <spatialSubsetBoundingBox>
    <upperLeftCornerPoint>
      <latitude>10</latitude>
      <longitude>-50</longitude>
    </upperLeftCornerPoint>
    <lowerRightCornerPoint>
      <latitude>-10</latitude>
      <longitude>50</longitude>
    </lowerRightCornerPoint>
  </spatialSubsetBoundingBox>
  <bandContainer>
    <object>
      <objectName>MODIS_SWATH_Type_L1B</objectName>
      <field>
        <fieldName>EV_500_RefSB</fieldName>
        <dim3>
          <dim3Name>Band_500M</dim3Name>
          <dim3Number>1</dim3Number>
        </dim3>
      </field>
    </object>
  </bandContainer>
</outputData>
</request>

```

```

12.14.2005 14:22:19.680 : Thread ID [21161] : XVERBOSE :
currentClientRequestCount = 0, MaxClientRequestCount = 20
12.14.2005 14:22:19.680 : Thread ID [21161] : XVERBOSE : continue processing
the request.
12.14.2005 14:22:19.685 : Thread ID [21161] : VERBOSE : working directory:

```

/datapool/OPS/user/FS1/HEGWorking/10576 created successfully for Request 10576  
 12.14.2005 14:22:19.685 : Thread ID [21161] : XVERBOSE : metaFlag = false, summaryFlag = true for Request 10576  
 12.14.2005 14:22:19.685 : Thread ID [21161] : XVERBOSE : Request 10576 decompression command is: null  
 12.14.2005 14:22:19.686 : Thread ID [21161] : VERBOSE : ConversionItem created successfully for Request 10576  
 12.14.2005 14:22:19.686 : Thread ID [21161] : XVERBOSE : Startup hegtool: /usr/ecs/OPS/CUSTOM/utilities/EcHgHEGStart OPS hegtool -h /datapool/OPS/user//FS1/MOGT/MOD02HKM.004/2002.01.01/labtest\_2017250970  
 12.14.2005 14:22:19.686 : Thread ID [21161] : XVERBOSE : cwd is: /datapool/OPS/user/FS1/HEGWorking/10576  
 12.14.2005 14:22:23.654 : Thread ID [21161] : VERBOSE : hegtool ran OK  
 12.14.2005 14:22:23.657 : Thread ID [21161] : XVERBOSE : We have 1 swaths  
 12.14.2005 14:22:23.657 : Thread ID [21161] : XVERBOSE : Loading swath MODIS\_SWATH\_Type\_L1B into output info list  
 12.14.2005 14:22:23.663 : Thread ID [21161] : XVERBOSE : ParameterFileMaker: createAnOutFileName(): usefulInFileName = labtest\_2017250970  
 12.14.2005 14:22:23.663 : Thread ID [21161] : XVERBOSE : ParameterFileMaker: createAnOutFileName(): usefulInFileName = labtest\_2017250970  
 12.14.2005 14:22:23.664 : Thread ID [21161] : XVERBOSE : ParameterFileMaker: createAnOutFileName(): usefulInFileName = labtest\_2017250970  
 12.14.2005 14:22:23.669 : Thread ID [21161] : XVERBOSE : Preparing to write parameters to /datapool/OPS/user/FS1/HEGWorking/10576/labtest\_2017250970\_37282773432866 145\_swath.prm  
 12.14.2005 14:22:23.670 : Thread ID [21161] : XVERBOSE : Band #1: objectName = MODIS\_SWATH\_Type\_L1B, fieldName = EV\_500\_RefSB, dim3Name = Band\_500M, dim3Num = 1, dim4Name = null, dim4Num = -9, bandOutputFileName = null  
 12.14.2005 14:22:23.670 : Thread ID [21161] : XVERBOSE : within method loadARangeOfConversions().  
 12.14.2005 14:22:23.673 : Thread ID [21161] : VERBOSE : parameter file created successfully for Request 10576  
 12.14.2005 14:22:23.673 : Thread ID [21161] : VERBOSE : Request 10576 constructed conversion command: /usr/ecs/OPS/CUSTOM/utilities/EcHgHEGStart OPS swtif -p /datapool/OPS/user/FS1/HEGWorking/10576/labtest\_2017250970\_37282773432866 145\_swath.prm -d -noMetadata  
 12.14.2005 14:22:23.684 : Thread ID [21161] : XVERBOSE : About to start heg converter execution for Request 10576  
 12.14.2005 14:22:23.884 : Thread ID [21161] : INFORMATION : Sent pid: 5542 back to client for Request 10576  
 12.14.2005 14:22:23.884 : Thread ID [21161] : INFORMATION : Heg converter is running with pid: 5542 for Request 10576

12.14.2005 14:22:33.771 : Thread ID [21161] : XVERBOSE : heg converter execution finished for Request 10576

12.14.2005 14:22:33.771 : Thread ID [21161] : XVERBOSE : Request 10576 converter execution time: 10 seconds.

12.14.2005 14:22:33.772 : Thread ID [21161] : INFORMATION : Conversion process returned status: 0 for Request 10576

12.14.2005 14:22:33.772 : Thread ID [21161] : INFORMATION : Run heg converter executable successfully for Request 10576

12.14.2005 14:22:33.825 : Thread ID [21161] : VERBOSE : summary file created successfully for Request 10576

12.14.2005 14:22:33.931 : Thread ID [21161] : XVERBOSE : Create temp directory: /datapool/OPS/user/FS1/HEGTemp//datapool/OPS/user/FS1//.orderdata/OUTPUTSDDWmmfGD/HEGOUT.001hMEzIIJI//HEG/0403300996.85000004172274//tempfiles successfully for Request 10576

12.14.2005 14:22:34.139 : Thread ID [21161] : VERBOSE : Move output successfully for Request 10576

12.14.2005 14:22:34.139 : Thread ID [21161] : java.lang.String : INFORMATION : HEGConvProcessor.convert() returned  
/datapool/OPS/user//FS1/MOGT/MOD02HKM.004/2002.01.01//labtest\_2017250970|0|HegConversionSuccessful/datapool/OPS/user/FS1//.orderdata/OUTPUTSDDWmmfGD/HEGOUT.001hMEzIIJI//HEG/0403300996.85000004172274//labtest\_2017250970\_0403300996\_ConverterSynopsis.txt  
/datapool/OPS/user/FS1//.orderdata/OUTPUTSDDWmmfGD/HEGOUT.001hMEzIIJI//HEG/0403300996.85000004172274//labtest\_2017250970\_EV\_500\_RefSB\_\_1\_0403300996.tif for Request: 10576

12.14.2005 14:22:34.139 : Thread ID [21161] : XVERBOSE : About to send conversion result back to client.

12.14.2005 14:22:34.139 : Thread ID [21161] : INFORMATION : Finished sending conversion result back to client.

12.14.2005 14:22:34.139 : Thread ID [21161] : INFORMATION : Finish processing request: 10576

9. If a status code other than 0 (zero) or 600 for a particular Server Request ID is found in the log(s), take the appropriate action as indicated in Table12, Troubleshooting HEG Problems.
10. If HEG request processing of a particular request is suspected of being incomplete (rather than failed), at the shell prompt type `xterm -n 'HEG Server Log' -sl 5000 -sb &` then press **Return/Enter**.
  - A new xterm window is opened.
11. If HEG request processing of a particular request is suspected of being incomplete (rather than failed), at the shell prompt in the new xterm window type `tail -f filename | grep 'ServerRequestID'` then press **Return/Enter**.

- *filename* refers to the HEG log file to be reviewed (e.g., HegServer.ops.log, HegServer.debug.log).
- *ServerRequestID* is the Server Request ID discovered in Step5.
- For example:

**tail -f HegServer.ops.log | grep '10576'**

- If new entries with the particular Server Request ID are being posted to the log, the operation has not finished yet.
  - If the same entries continue to be repeated over and over, there could be a problem with the server/converter.
  - Notify the Operations Controller/System Administrator of suspected server problems.
- If it is necessary to exit from a tailed log, type **^c** [Ctrl c] then press **Return/Enter**.

12. If the operation has not finished yet, monitor the tailed log for a while.

- If a status code other than 0 (zero) or 600 for the particular Server Request ID is found in the log(s), go to Step9.
- If the operation does not seem to finish (i.e., if entries continue to be made to the tailed log) after a reasonable period of time (e.g., 30minutes), notify the Operations Controller/System Administrator of the problem.
- If it is necessary to exit from a tailed log, type **^c** [Ctrl c] then press **Return/Enter**.

13. If errors/problems with HEG request processing of a particular request were detected in the HEG Server log(s), check for a corresponding open HEG intervention (by HEG Request ID) on the **OM GUI**.

- Go to the procedure for **Viewing Open HEG Intervention Information on the OM GUI**. (previous section of this lesson).

### 15.16.7 Checking Files in the HEG Tempfiles Directory

The HEG Server and the HEG converters create temporary files in the HEG Server working directory while processing each HEG request. If the HEG Server debug flag is on (HegServer.application.debugFlag = true in the HEG Server cfg file), the temporary files are saved in a temporary file directory when the request completes.

The tempfiles directory contains the following types of files:

- Converter logs.
  - resample.log.
  - swtif.log.
  - gdtif.log

- Parameter file (.prm).
- EcHgHEGConversion.log.

The procedure for checking files in the HEG tempfiles directory starts with the assumption that the operator has logged in to the appropriate host.

### 15.16.7.1 Checking Files in the HEG Tempfiles Directory

1. Access a terminal window logged in to the appropriate host (e.g., x4hel01).
  - For detailed instructions refer to the procedure for **Logging in to System Hosts** (preceding section of this lesson).
2. Type **cd /usr/ecs/MODE/CUSTOM/cfg** then press **Return/Enter**.
  - Change directory to the directory containing the HEG configuration files (e.g., EcHgServerConfig.properties).
3. Type **more filename** then press **Return/Enter**.
  - *filename* refers to the HEG configuration file to be reviewed (e.g., EcHgServerConfig.properties).
  - The first page of the configuration file is displayed.
  - Although this procedure has been written for the **more** command, other UNIX visualizing commands (e.g., **view**) can be used to review the log file.
  - The following **more** commands (at the **--More--** prompt) are useful:
    - **Return/Enter** (go down one line).
    - **nReturn/Enter** (go down *n* number of lines).
    - **nSpace bar** (go down *n* number of lines).
    - **Space bar** (go down one screen).
    - **z** (go down one screen).
    - **nz** (go down *n* number of screens; *n* becomes the default for subsequent **z** commands).
    - **nb** (go back *n* number of screens).
    - **nCTRL-B** (go back *n* number of screens).
    - **nd** (go down *n* number of lines; *n* becomes the default for subsequent **d** commands).
    - **nCTRL-D** (go down *n* number of lines; *n* becomes the default for subsequent **d** commands).
    - **nf** (skip *n* screens full and then display a screen).
    - **ns** (skip *n* lines and then display a screen).
    - **h** (help - display a description of all the **more** commands).
    - **CTRL-L** (refresh the screen).

- *n/pattern* (search forward for the *n*th occurrence of the *pattern* and display a screen starting two lines before the line that contains the specified pattern match).
  - *nn* (search for the *n*th occurrence of the last pattern entered).
  - *v* (drop into the *vi* editor at the current line of the current file).
  - *=* (display the current line number).
  - *:f* (display the name of the current file and the current line number).
  - *q* (exit from **more**).
  - *Q* (exit from **more**).
  - *!command* (invoke a shell to execute *command*).
4. Record (e.g., write down) the values corresponding to the following parameters in the configuration file:

**HegServer.application.workDirRoot**  
**HegServer.application.workDirTop**  
**HegServer.application.tempDirRoot**  
**HegServer.application.tempDirTop**

- For example:

**HegServer.application.workDirRoot = /datapool**  
**HegServer.application.workDirTop = user/FS1/HEGWorking**  
**HegServer.application.tempDirRoot = /datapool**  
**HegServer.application.tempDirTop = user/FS1/HEGTemp**

5. Type **cd /path** then press **Return/Enter**.
- Change directory to the HEG tempfiles directory for the HEG request.
  - *path* refers to the path to the HEG tempfiles directory for the HEG request. The tempfiles directory is created at the following configurable location:

***tempDirRoot/MODE/tempDirTop/outputdirectory/tempfiles.***

- *tempDirRoot* and *tempDirTop* are specified in the EcHgServerConfig.properties file in the /usr/ecs/*MODE*/CUSTOM/cfg directory.
- *outputdirectory* is specified in the HEG request XML file.
- The HEG request XML file (processing instructions) can be viewed using the **OM GUI** [e.g., refer to the procedure for **Viewing Pending HEG Granules** or the procedure for **Viewing Open HEG Intervention Information on the OM GUI** (previous sections of this lesson)].
- If the HEG Server debug log level is set at XVERBOSE, the HEG request information (processing instructions) can be viewed in the log file.
  - In the following example:

**/datapool/OPS/user/FS1/HEGTemp/datapool/OPS/user/FS1/.orderdata/  
OUTPUTSDDWmmfGD/HEGOUT.001hMEzIIJI/HEG/**

**0403300996.85000004172274/tempfiles**

- **/datapool** is the *tempDirRoot*.
- **OPS/user/FS1/HEGTemp** is the *tempDirTop*.
- **datapool/OPS/user/FS1/.orderdata/OUTPUTSDDWmmfGD/**

**HEGOUT.001hMEzIIJI/HEG/0403300996.85000004172274** is the *outputdirectory*.

6. In the terminal window type **ls** then press **Return/Enter**.

- A listing of the directory is displayed, for example:

```
EcHgHEGConversion.log  
HegHdr.hdr  
labtest_2017250970_37282773432866145_swath.prm  
FileNameLog_0403300996.log  
hegtool.log
```

- OR -

```
EcHgHEGConversion.log  
HegHdr.hdr  
resample.log  
FileNameLog_0403398929.log  
hegtool.log  
filetable.temp_3698  
labtest_2017201550_2167927653420515_grid.prm
```

7. Review the contents of the HEG request's tempfile directory to determine whether the expected types of files are listed.

- The examples in the preceding step have the expected types of files.

8. Type **more filename** then press **Return/Enter**.

- *filename* refers to a file (in the HEG tempfile directory) to be reviewed (e.g., **FileNameLog\_0403300996.log**).
- The first page of the specified file is displayed.
- Although this procedure has been written for the **more** command, other UNIX visualizing commands (e.g., **view**) can be used to review the log file.
- The **FileNameLog...** contains the names of the output file and the input file; for example:

**OUTPUT FILE: labtest\_2017250970\_EV\_500\_RefSB\_\_1\_0403300996.tif**

**INPUT FILE: labtest\_2017250970**

- The parameter file (e.g., labtest\_2017250970\_37282773432866145\_swath.prm) contains the names of the output file and the input file (including the directory paths); for example:

**INPUT\_FILENAME =**

**/datapool/OPS/user//FS1/MOGT/MOD02HKM.004/2002.01.01//labtest\_2017250970**

**[...]**

**OUTPUT\_FILENAME =**

**/datapool/OPS/user/FS1/HEGWorking/10576/labtest\_2017250970\_EV\_500\_RefSB\_\_1\_0403300996.tif**

9. Examine the contents of the file to determine whether there were errors in processing the HEG request.
10. Repeat Steps 9 and 10 as necessary.

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