611-TD-605-001

EOSDIS Core System Project

M&O Procedures: Section 18—Data Distribution

Interim Update

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Raytheon Company
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Preface

This document is an interim update to the Mission Operations Procedures Manual for the ECS Project, document number 611-CD-600-001. This document has not been submitted to NASA for approval, and should be considered unofficial.

The document has been updated to add procedures related to checking the remote ftp host when distribution requests are suspended with errors, starting the Product Distribution System Interface Server (PDSIS) components, using the Product Distribution System (PDS) Cleanup Manager, and various aspects of troubleshooting PDS. In addition, modifications were made to numerous other procedures.

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18. Data Distribution

18.1 Data Distribution Process

Data Distribution is a process of retrieving archived data and providing the data to requesters in response to the orders they submit or subscriptions they have entered into the system. The requesters may be classified in either of the following two categories:

- External to ECS.
  - For example, scientists at Science Computing Facilities (SCFs) may have standing orders for the data products that are processed using their science software.
- Internal to ECS.
  - For example, the Data Processing Subsystem depends on Data Distribution to distribute copies of archived science software and input data in support of data processing.

Data retrieved from the archives can be distributed to requesters using any of the following three general methods:

- Electronic pull.
- Electronic push.
- Hard (physical) media distribution on disks or tape cartridges.

Hard (physical) media distribution is accomplished through the Product Distribution System (PDS), which supports the distribution of data on the following types of media:

- 8mm tape cartridges.
- Digital Linear Tape (DLT).
- Compact disk (CD).
- DVD (formerly “digital video disk” or “digital versatile disk” now referred to as just "DVD").

The method of data distribution is dictated by the nature of the data distribution request. (The requester specifies the distribution method when ordering or subscribing to the data.)

Data Distribution includes two general types of activities; i.e., Data Distribution (DDIST) operations and Product Distribution System (PDS) operations. The site M&O Distribution Technicians use the Data Distribution Operator graphical user interface (GUI) within the Data Server Subsystem to perform DDIST operations (i.e., electronic push or pull). They use Product Distribution System (PDS) tools to perform hard (physical) media operations (i.e., to distribute data on disks or tape cartridges).

Subsequent sections related to Data Distribution address the following topics:

- Section 18.2 An overview of the process for processing distribution requests through DDIST and step-by-step procedures for monitoring and controlling distribution requests.
- Section 18.3 An overview of the process for performing storage management server operations and step-by-step procedures for monitoring storage management server operations.
- Section 18.4 An overview of the process and step-by-step procedures for tuning DDIST system parameters related to DDIST operations.
- Section 18.5 An overview of the process and step-by-step procedures for troubleshooting DDIST problems.
- Section 18.6 An overview of the process and step-by-step procedures for starting up PDS.
- Section 18.7 An overview of the process and step-by-step procedures for shutting down PDS.
- Section 18.8 An overview of the process for product processing using PDS and step-by-step procedures for monitoring and controlling product processing using PDS.
- Section 18.9 An overview of the process for order processing using the Product Distribution System Interface Server (PDSIS) Operator Interface (OI) and step-by-step procedures for monitoring and controlling order processing using the PDSIS OI.
- Section 18.10 An overview of the process and step-by-step procedures for troubleshooting PDS problems.

18.2 Processing Distribution Requests through DDIST

The Distribution Technicians use the Data Distribution Operator GUI and the Storage Management Control GUI to monitor and control the retrieval of data from the archives and distribution to requesters using either of the following methods:

- Electronic pull.
- Electronic push.

The method of data distribution is dictated by the nature of the data distribution request. (The requester specifies the distribution method when ordering or subscribing to the data.)

If the requester specifies distribution in the electronic "pull" mode, data are retrieved from the archive and placed in the "pull area" on the data server staging disk. The requester is notified that the data are available for retrieval from that particular location for a set period of time. The requester initiates a file transfer procedure (ftp "get") to move the data electronically (over a communications network) to the requester's own system.

In response to a request for distribution in the electronic "push" mode, data are retrieved from the archive and placed on a data server staging disk. Then the retrieved data on the staging disk are transferred electronically (via ftp "put") to the requester's designated storage location

(specified in the distribution request) under the control of the data server. The requester is notified when the data push has been completed.

Each procedure outlined has an **Activity Checklist** table that provides an overview of the task to be completed. The outline of the **Activity Checklist** is as follows:

Column one - ***Order*** shows the order in which tasks could be accomplished.

Column two - ***Role*** lists the Role/Manager/Operator responsible for performing the task.

Column three -***Task*** provides a brief explanation of the task.

Column four - ***Section*** provides the Procedure (P) section number or Instruction (I) section number where details for performing the task can be found.

Column five - **Complete?** is used as a checklist to keep track of which task steps have been completed.

Table 18.2-1, below, provides an Activity Checklist for monitoring/controlling distribution requests.

Table 18.2-1. Monitoring/Controlling Distribution Requests - Activity Checklist

Order	Role	Task	Section	Complete?
1	Distribution Technician	Log in to ECS Hosts	(P) 18.2.1	
2	Distribution Technician	Launch the Data Distribution Operator and Storage Management Control GUIs	(P) 18.2.2	
3	Distribution Technician	Monitor/Control Data Distribution Requests	(P) 18.2.3	
4	Distribution Technician	Configure Data Distribution Polling	(P) 18.2.4	
5	Distribution Technician	Filter Data Distribution Requests	(P) 18.2.5	
6	Distribution Technician	Change the Priority of Data Distribution Requests	(P) 18.2.6	
7	Distribution Technician	Suspend/Resume Data Distribution Requests	(P) 18.2.7	
8	Distribution Technician	Cancel Data Distribution Requests	(P) 18.2.8	
9	Distribution Technician	Modify Preambles	(P) 18.2.9	

18.2.1 Log in to ECS Hosts

Logging in to ECS hosts is accomplished from a UNIX command line prompt. Table 18.2-2 presents (in a condensed format) the steps required to log in to ECS hosts. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 At the UNIX command line prompt enter:

setenv DISPLAY <client name>:0.0

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

2 If logging in to the PDS Server host, in the terminal window (at the command line prompt) start the log-in to the PDS Server by entering:

/tools/bin/ssh -l <PDS user ID> <PDS host name>

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- The **-l** option used with the ssh command allows logging in to the remote host (or the local host for that matter) with a different user ID (in this case the login ID is changed to a PDS user ID).
- **<PDS user ID>** refers the PDS user ID or PDSIS user ID.
  - The PDS user IDs **pds**, **pds_st**, and **pds_it** are used for PDS operations in the OPS, TS1, and TS2 modes respectively.
  - The PDSIS user IDs **pdsis**, **pdsis_ts1**, and **pdsis_ts2** are used for PDSIS operations in the OPS, TS1, and TS2 modes respectively.
- Depending on the set-up it may or may not be necessary to include the path (i.e., /tools/bin/) with the ssh command. Using ssh alone is often adequate. For example:

  ssh -l <PDS user ID> <hostname>

- If you receive the message, "Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?" enter **yes** ("y" alone will not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter passphrase for RSA key '<*user@localhost*>'** appears; continue with Step 3.
- If you have not previously set up a secure shell passphrase, go to Step 4.

3 If logging in to an ECS host other than the PDS Server host, in the terminal window (at the command line prompt) start the log-in to the appropriate host by entering:

/tools/bin/ssh <host name>

- The **-l** option can be used with the ssh command to allow logging in to the remote host (or the local host for that matter) with a different user ID. For example, to log in to x0dis02 as user cmops enter:

  /tools/bin/ssh -l cmops x0dis02

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

  ssh x0dis02

  - or -

  ssh -l cmops x0dis02

- Examples of Distribution Server host names include **e0dis02**, **g0dis02**, **l0dis02**, **n0dis02**.
- An example of a Working Storage host name is **e0wkg01**.
- Examples of SDSRV Server host names include **e0acs05**, **g0acs03**, **l0acs03**, **n0acs04**.
- Examples of Access/Process Coordinators (APC) Server host names include **e0acg11**, **g0acg01**, **l0acg02**, **n0acg01**.
- Examples of FSMS Server host names include **e0drg11**, **g0drg01**, **l0drg01**, **n0drg01**.
- Examples of Operations Workstation host names include **e0acs03**, **g0acs02**, **l0acs01**, **n0acs03**.
- If you receive the message, "Host key not found from the list of known hosts. Are you sure you want to continue connecting (yes/no)?" enter **yes** ("y" alone will not work).
- If you have previously set up a secure shell passphrase and executed **sshremote**, a prompt to **Enter *passphrase* for RSA key '<*user@localhost*>'** appears; continue with Step 4.
- If you have not previously set up a secure shell passphrase, go to Step 5.

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

<passphrase>

- If a command line prompt is displayed, log-in is complete.
- If the passphrase is unknown, press **Return/Enter**, which should cause a **<user@remotehost>'s password:** prompt to appear (after the second or third try if not after the first one), then go to Step 5.
- If the passphrase is entered improperly, a **<user@remotehost>'s password:** prompt should appear (after the second or third try if not after the first one); go to Step 5.

5 If a prompt for ***<user@remotehost>*'s password:** appears, enter:

<password>

- A command line prompt is displayed.
- Log-in is complete.

Table 18.2-2. Log in to ECS Hosts - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**setenv DISPLAY <client name>:0.0**	**enter text, press Enter**
2	**/tools/bin/ssh -l <pds user id> <pds host name>** or **/tools/bin/ssh <host name>** (as applicable)	**enter text, press Enter**
3	**<passphrase>** (if applicable)	**enter text, press Enter**
4	**<password>** (if applicable)	**enter text, press Enter**

18.2.2 Launch the Data Distribution Operator and Storage Management Control GUIs

The **Data Distribution Operator GUI** is intended to run continually to allow the monitoring and management of data distribution requests. The **Storage Management Control** GUI is intended to be run as it is needed; e.g., in support of Storage Management configuration parameter modifications.

The **Data Distribution Operator** and **Storage Management Control** GUIs are invoked from a UNIX command line prompt. Table 18.2-3 presents (in a condensed format) the steps required to launch the **Data Distribution Operator** and **Storage Management Control** GUIs. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the Operations Workstation.

- Examples of Operations Workstation host names include **e0acs03**, **g0acs02**, **l0acs01**, **n0acs03**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 In the terminal window, at the command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/utilities

- **<MODE>** is current mode of operation.
  - TS1 - Science Software Integration and Test (SSI&T)
  - TS2 - New Version Checkout
  - OPS - Normal Operations

- "utilities" is the directory containing the **Data Distribution Operator GUI** and **Storage Management Control** GUI start-up scripts (e.g., EcDsDdistGuiStart, EcDsStmgtGuiStart).

3 Start the **Data Distribution Operator GUI** by entering:

EcDsDdistGuiStart <MODE>

- The **Data Distribution Operator GUI** is launched.
- The **Data Distribution Operator GUI Distrib'n Requests** tab is displayed.

4 Start the **Storage Management Control** GUI by entering:

EcDsStmgtGuiStart <MODE>

- The **Storage Management Control** GUI is launched.
- The **Storage Management Control** GUI Storage **Config.** tab is displayed.

Table 18.2-3. Launch the Data Distribution Operator and Storage Management Control GUIs - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (Operations Workstation)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/utilities**	**enter text, press Enter**
3	**EcDsDdistGuiStart <MODE>**	**enter text, press Enter**
4	**EcDsStmgtGuiStart <MODE>**	**enter text, press Enter**

18.2.3 Monitor/Control Data Distribution Requests

The Distribution Technician monitors and manages data distribution requests primarily via the **Data Distribution - Track Activity** window of the **Distrib'n Requests** tab on the **Data Distribution Operator GUI**. From the **Data Distribution - Track Activity** window the DAAC Distribution Technician can perform the following functions:

- View data distribution requests.
- Change the priority of a selected distribution request.
- Cancel or suspend a request.
- Resume processing of a suspended request.
- Filter on all or specific requests by...
  - Request ID.
  - Requester.
  - All Requests.
  - Media Type.

– State (current status).

Table 18.2-4 presents (in a condensed format) the steps required to monitor/control data distribution requests. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If it is not already being displayed, launch the **Data Distribution Operator GUI** (refer to Section 18.2.2).
- The **Data Distribution Operator GUI** is displayed.

2 Configure Data Distribution polling (refer to Section 18.2.4).
- DDist Polling Rate is set.
- Error Retry Rate is set (if applicable).

3 Observe the distribution request information displayed on the **Distrib'n Requests** tab of the **Data Distribution Operator GUI**.
- By default all current distribution requests are shown in the **Data Distribution Requests** list of the **Data Distribution - Track Activity** window (**Distrib'n Requests** tab).
- Note that virtually all data retrieved from the archive is controlled by Data Distribution; consequently there may be a lot of activity on the **Data Distribution - Track Activity** screen, especially if data processing is operating at or near capacity.
  – Consequently, it may be useful to restrict the number of distribution requests displayed by filtering them as described in the next step of this procedure.
- Horizontal and vertical scroll bars allow viewing data that are not readily visible in the window.
- The **Find** button provides a means of performing a keyword search of the distribution requests.
- The **Operator Messages** field at the bottom of the GUI displays messages concerning events occurring in distribution operations.

4 If the list of data distribution requests shown in the **Data Distribution - Track Activity** window needs to be filtered, filter data distribution requests (refer to Section 18.2.5).
- Only requests that meet the specified filter criteria appear in the list in the **Data Distribution - Track Activity** window.

5 Observe the distribution request information displayed on the **Distrib'n Requests** tab of the **Data Distribution Operator GUI**.

6 If necessary, change the priority of a data distribution request (refer to Section 18.2.6).
- Priority of the request, as displayed in the **Priority** column of the **Data Distribution Requests** list, changes from its original value to the newly selected priority.

- A check mark is displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that the request has been changed.

7 If necessary, suspend data distribution request(s) (refer to Section 18.2.7).
- Status of request(s), as displayed in the **State** column of the **Data Distribution Requests** list, change(s) to the appropriate state(s).
- Check mark(s) is (are) displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that changes have been made to the request(s).

8 If necessary, resume processing of suspended request(s) (refer to Section 18.2.7).
- Status of request(s), as displayed in the **State** column of the **Data Distribution Requests** list, change(s) to the appropriate state(s).
- Check mark(s) is (are) displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that changes have been made to the request(s).

9 If necessary, cancel a data distribution request (refer to Section 18.2.8).
- Status of the request, as displayed in the **State** column of the **Data Distribution Requests** list, changes from its original value to "Canceled."
- A check mark is displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that the request has been changed.

10 If it is necessary to update the data displayed in the **Data Distribution - Track Activity** window, **single-click** on the **Refresh** button.
- Current data concerning data distribution requests is displayed in the **Data Distribution - Track Activity** window.

11 If it is necessary to check the status of the connection to the server, execute the following menu path from the pull-down menu:

Options → Verify Connection

- The status of the connection is displayed in the **Operator Messages** field at the bottom of the GUI.

12 If it is necessary to re-establish a connection with the server, execute the following menu path from the pull-down menu:

Options → Reconnect

- The status of the reconnection attempt is displayed in the **Operator Messages** field at the bottom of the GUI.

13 If it is necessary to access more detailed information concerning the status of a particular distribution request, first **single-click** on (highlight) the distribution request in the **Data Distribution - Track Activity** window.

14 To complete accessing more detailed information concerning the status of a particular distribution request execute the following menu path from the pull-down menu:

View→ Detailed

- Information is displayed in the **Operator Messages** field at the bottom of the GUI.

15 If there is a data distribution failure, perform the applicable procedure(s) in the **Troubleshooting DDIST Problems** section (Section 18.5).

16 Repeat Steps 4 through 15 as necessary to monitor data distribution requests.

17 If necessary, exit from the **Data Distribution Operator GUI** by executing the following menu path:

File → Exit

- The **Data Distribution Operator GUI** disappears.

Table 18.2-4. Monitor/Control Data Distribution Requests - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Launch the **Data Distribution Operator GUI** (if necessary)	Use procedure in Section 18.2.2
2	Configure Data Distribution polling	Use procedure in Section 18.2.4
3	Observe distribution request information	**read text**
4	Filter data distribution requests if necessary	Use procedure in Section 18.2.5
5	Observe distribution request information	**read text**
6	Change the priority of a data distribution request if necessary	Use procedure in Section 18.2.6
7	Suspend data distribution request(s) if necessary	Use procedure in Section 18.2.7
8	Resume processing of suspended request(s) if necessary	Use procedure in Section 18.2.7
9	Cancel a data distribution request if necessary	Use procedure in Section 18.2.8
10	**Refresh** button (as necessary)	**single-click**
11	**Options → Verify Connection** (as necessary)	**single-click**
12	**Options → Reconnect** (as necessary)	**single-click**
13	**<distribution request>** (in the **Data Distribution - Track Activity** window) (as necessary to access detailed information concerning request status)	**single-click**
14	**View→ Detailed** (as necessary to access detailed information concerning request status)	**single-click**

Table 18.2-4. Monitor/Control Data Distribution Requests - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
15	Repeat Steps 4 through 14 as necessary	
16	**File → Exit** (to exit from the **Data Distribution Operator GUI**)	**single-click**

18.2.4 Configure Data Distribution Polling

The procedure to **Configure Data Distribution Polling** is performed as part of the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3). The **Options** menu on the **Data Distribution Operator GUI** provides the Distribution Technician with a means of switching the Data Distribution database polling function on or off. In addition, there are two parameters that the technician can modify:

- DDist Polling Rate
  - How often (in seconds) the system updates the information displayed in the Data Distribution - Track Activity window.
- Error Retry Rate
  - Amount of time (in seconds) that the system waits before trying to poll the Data Server after a failed attempt.

Table 18.2-5 presents (in a condensed format) the steps required to configure Data Distribution polling. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path:

Options → System Settings

- The **Refresh Options** dialogue box is displayed.

2 If the DDist Polling state is to be changed (from off to on or vice versa), **single-click** on the **DDist Polling On** button.

- If the button does not have a check mark in it, clicking on it turns DDist Polling on.
- If the button already has a check mark in it, clicking on it turns DDist Polling off.

3 If the polling rate value is to be changed, in the **DDist Polling Rate** field enter:

<polling rate>

- The default value for polling rate is 30 seconds.

4 If an error retry rate value is to be specified, in the **Error Retry Rate** field enter:

<error retry rate>

- The value for error retry rate is specified as a number of seconds.

5 When the appropriate data have been entered in the **Refresh Options** dialogue box fields, **single-click** on the appropriate button from the following selections:

- **Ok** - to apply the selections and dismiss the **Refresh Options** dialogue box.
- **Cancel** - to dismiss the **Refresh Options** dialogue box without applying the selections.

6 Return to the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3).

Table 18.2-5. Configure Data Distribution Polling - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Options → System Settings**	**single-click**
2	**DDist Polling On** button (if applicable)	**single-click**
3	**<polling rate>** (if applicable)	**enter text**
4	**<error retry rate>** (if applicable)	**enter text**
5	**Ok** button	**single-click**
6	Return to the procedure to **Monitor/Control Data Distribution Requests**	Use procedure in Section 18.2.3

18.2.5 Filter Data Distribution Requests

The procedure to **Filter Data Distribution Requests** is performed as part of the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3). The **Data Distribution Operator GUI** provides the Distribution Technician with a means of filtering data distribution requests.

The distribution requests to be displayed in the **Data Distribution Requests** list (**Data Distribution - Track Activity** window) can be filtered using the **Distribution Filter Requests** dialogue box. The filtering can be done on the basis of the following criteria, either individually or in combination:

- Request ID.
- Requester.
- Media Type.
- State [of the request].

Table 18.2-6 presents (in a condensed format) the steps required to filter data distribution requests. If you are already familiar with the procedures, you may prefer to use the quick-step

table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path:

View → Filter

- The **Distribution Filter Requests** dialogue box is displayed.
- If data distribution requests are to be filtered on the basis of….
  - **Request ID**, perform Steps 2 and 3.
  - **Requester,** perform Steps 4 and 5.
  - **All Requests,** perform Step 6.
  - **Media Type,** perform Step 7.
  - **State,** perform Step 8.

2 If a specific distribution request is desired and the request ID is known, **single-click** on the **Request ID** radio button.

3 If a specific distribution request is desired and the request ID is known, in the text box adjacent to the **Request ID** radio button enter:

<request ID>

4 If data distribution requests submitted by a particular requester are desired, **single-click** on the **Requester** radio button.

5 If data distribution requests submitted by a particular requester are desired, in the text box adjacent to the **Requester** radio button enter:

<requester>

- In the text box the requester must be identified exactly as known to the Data Server Subsystem.

6 If all data distribution requests are to be displayed in the **Data Distribution Requests** list, **single-click** on the **All Requests** radio button.

- The **All Requests** button is particularly useful for restoring the **Data Distribution Requests** list after reviewing a previously filtered set of requests.
- Go to Step 9.

7 If a list of data distribution requests filtered by media type(s) is needed, in the **Media Type** section of the **Filter Requests** dialogue box **single-click** on the type(s) of media to be displayed in the **Data Distribution - Track Activity** window.

- Options are: **8 MM, CDROM, D3, DLT, FtpPull, FtpPush, All, None.**
  - **8 MM** (tape) is not relevant in Release 6A (handled through PDS not DDIST).

  - **CDROM** (Compact Disk – Read-Only Memory) is not relevant in Release 6A (handled through PDS not DDIST).
  - **D3** is not relevant in Release 6A.
  - **DLT** (Digital Linear Tape) is not relevant in Release 6A (handled through PDS not DDIST).
  - **FtpPull** is applicable in Release 6A.
  - **FtpPush** is applicable in Release 6A.
- One media type or several media types may be selected.
- If other filters (e.g., requester or state) are to be applied, it is possible to **single-click** on the **Apply** button to implement the media type filter and leave the **Filter Requests** dialogue box open.

8 If a list of data distribution requests filtered by state(s) is needed, **single-click** on the applicable button(s) in the **State** section of the **Filter Requests** dialogue box.

- Options are: **Pending, Active, Staging, Transferring, Cancelled, Suspended, Suspended with Errors, Waiting for Shipment, Shipped, Failed, All, None.**
- One button or several buttons may be selected.
- If other filters (e.g., requester or media type) are to be applied, it is possible to **single-click** on the **Apply** button to implement the state filter and leave the **Filter Requests** dialogue box open.

9 When all filter criteria have been selected, **single-click** on the appropriate button from the following selections:

- **OK** - to implement the selections and dismiss the **Distribution Filter Requests** dialogue box.
  - The **Data Distribution - Track Activity** window reappears; only requests that meet the specified filter criteria appear in the list.
- **Apply** - to implement the selections without dismissing the **Distribution Filter Requests** dialogue box.
  - The **Distribution Filter Requests** dialogue box remains open.
- **Cancel** - to dismiss the **Distribution Filter Requests** dialogue box without implementing the selections.
  - The previously available **Data Distribution Requests** list is shown in the **Data Distribution - Track Activity** window.

10 Return to the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3).

Table 18.2-6. Filter Data Distribution Requests - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**View → Filter**	**single-click**
2	**Request ID** radio button (if applicable)	**single-click**
3	**<request ID>** (in **Request ID** text box) (if applicable)	**enter text**
4	**Requester** radio button (if applicable)	**single-click**
5	**<requester>** (in **Requester** text box) (if applicable)	**enter text**
6	**All Requests** radio button (if applicable)	**single-click**
7	**<media types>** (in **Media Type** section) (if applicable)	**single-click**
8	**<state>** button(s) (in **State** section) (if applicable)	**single-click**
9	**OK** button	**single-click**
10	Return to the procedure to **Monitor/Control Data Distribution Requests**	Use procedure in Section 18.2.3

18.2.6 Change the Priority of Data Distribution Requests

The procedure to **Change the Priority of Data Distribution Requests** is performed as part of the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3). The **Change Priority** area of the **Data Distribution - Track Activity** window on the **Data Distribution Operator GUI** allows the Distribution Technician to change the priority of data distribution requests.

Table 18.2-7 presents (in a condensed format) the steps required to change the priority of data distribution requests. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the list of data distribution requests shown in the **Data Distribution - Track Activity** window of the **Data Distribution Operator GUI** needs to be filtered, filter data distribution requests (refer to Section 18.2.5).

- Only requests that meet the specified filter criteria appear in the list in the **Data Distribution - Track Activity** window.

2 In the **Data Distribution Requests** list **single-click** on (highlight) the row corresponding to the distribution request to be assigned a different priority.

- The selected data distribution request is highlighted.

3 **Single-click** and **hold** the **Change Priority** option button to display a menu of priorities, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Options are: **Xpress, Vhigh, High, Normal, Low.**
- Selected code is displayed on the **Change Priority** option button when the mouse button is released.

4 To implement the priority change **single-click** on the **Apply** button to the right of the priority option button.

5 **Single-click** on the **Refresh** button to update the data displayed on the screen.

- Priority of the request, as displayed in the **Priority** column of the **Data Distribution Requests** list, changes from its original value to the newly selected priority.
- A check mark is displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that the request has been changed.

6 Repeat the preceding steps as necessary to change the priority of additional data distribution requests.

7 Return to the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3).

Table 18.2-7. Change the Priority of Data Distribution Requests - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Filter data distribution requests (if necessary)	Use procedure in Section 18.2.5
2	**<distribution request>** (in **Data Distribution Requests** list)	**single-click**
3	**<priority>** (**Change Priority** option button)	**single-click**
4	**Apply** button	**single-click**
5	**Refresh** button (if applicable)	**single-click**
6	Repeat the preceding steps as necessary	
7	Return to the procedure to **Monitor/Control Data Distribution Requests**	Use procedure in Section 18.2.3

18.2.7 Suspend/Resume Data Distribution Requests

Under certain circumstances it may be advisable to suspend the processing of a data distribution request and resume it at a later time. For example, if there is a very large request that is taking up resources and causing other requests to back up waiting (especially requests from data processing that must be filled to allow processing to proceed), the request should be suspended. Processing of the request might be resumed at a time when the demand on data distribution was relatively light. Another example is that of a request that has been suspended by the system due

to a system error. Processing of the request should be resumed after the conditions that caused the error have been corrected.

The procedure to **Suspend/Resume Data Distribution Requests** is performed as part of the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3). The **Data Distribution Operator GUI** provides the Distribution Technician with a means of suspending or resuming data distribution requests.

Table 18.2-8 presents (in a condensed format) the steps required to suspend/resume data distribution requests. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the list of data distribution requests shown in the **Data Distribution - Track Activity** window of the **Data Distribution Operator GUI** needs to be filtered, filter data distribution requests (refer to Section 18.2.5).

- Only requests that meet the specified filter criteria appear in the list in the **Data Distribution - Track Activity** window.
- If data distribution request are to be…
  - **Suspended,** perform Steps 2 through 6.
  - **Resumed,** perform Steps 7 through 11.

2 If all new requests displayed in the **Data Distribution Requests** list are to be suspended, click on the **Suspend New Requests** button.

- The data distribution requests are suspended.
- Go to Step 6.

3 If a single request displayed in the **Data Distribution Requests** list is to be suspended, in the **Data Distribution Requests** list **single-click** on (highlight) the row corresponding to the request.

- The selected data distribution request is highlighted.

4 If a single request displayed in the **Data Distribution Requests** list is to be suspended, **single-click** on the **Suspend** button.

- The selected data distribution request is suspended.

5 **Single-click** on the **Refresh** button to update the data displayed on the screen.

- Status of request(s), as displayed in the **State** column of the **Data Distribution Requests** list, change(s) from original value to "Suspended."
- Check mark(s) is (are) displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that changes have been made to the request(s).

6 If there are no suspended requests to be resumed at this time, return to the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3).

7 If processing of all new requests displayed in the **Data Distribution Requests** list is to be resumed, **single-click** on the **Resume New Requests** button.
- The data distribution requests resume processing.
- Go to Step 10.

8 If processing of a single request displayed in the **Data Distribution Requests** list is to be resumed, in the **Data Distribution Requests** list **single-click** on the row corresponding to the request.
- The selected data distribution request is highlighted.

9 If processing of a single request displayed in the **Data Distribution Requests** list is to be resumed, **single-click** on the **Resume** button.
- The selected data distribution request resumes processing.

10 **Single-click** on the **Refresh** button to update the data displayed on the screen.
- Status of request(s), as displayed in the **State** column of the **Data Distribution Requests** list, changes from "Suspended" to whatever state(s) is (are) appropriate for the continuation of request processing (depending on each request's status when it was suspended).
- Check mark(s) is (are) displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that changes have been made to the request(s).

11 Return to the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3).

Table 18.2-8. Suspend/Resume Data Distribution Requests - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Filter data distribution requests (if necessary)	Use procedure in Section 18.2.5
2	**Suspend New Requests** button (if applicable)	**single-click**
3	**<distribution request>** (in **Data Distribution Requests** list) (if applicable)	**single-click**
4	**Suspend** button (if applicable)	**single-click**
5	**Refresh** button (if applicable)	**single-click**
6	Return to the procedure to **Monitor/Control Data Distribution Requests** (if applicable)	Use procedure in Section 18.2.3
7	**Resume New Requests** button (if applicable)	**single-click**
8	**<distribution request>** (in **Data Distribution Requests** list) (if applicable)	**single-click**
9	**Resume** button (if applicable)	**single-click**

Table 18.2-8. Suspend/Resume Data Distribution Requests - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
10	**Refresh** button (if applicable)	**single-click**
11	Return to the procedure to **Monitor/Control Data Distribution Requests**	Use procedure in Section 18.2.3

18.2.8 Cancel Data Distribution Requests

The procedure to **Cancel Data Distribution Requests** is performed as part of the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3). The **Data Distribution Operator GUI** provides the Distribution Technician with a means of canceling data distribution requests.

Table 18.2-9 presents (in a condensed format) the steps required to cancel data distribution requests. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the list of data distribution requests shown in the **Data Distribution - Track Activity** window of the **Data Distribution Operator GUI** needs to be filtered, filter data distribution requests (refer to Section 18.2.5).
- Only requests that meet the specified filter criteria appear in the list in the **Data Distribution - Track Activity** window.

2 In the **Data Distribution Requests** list **single-click** on (highlight) the row corresponding to the distribution request to be canceled.
- The selected data distribution request is highlighted.

3 **Single-click** on the **Cancel** button near the bottom of the **Distrib'n Requests** tab.
- The selected data distribution request is canceled.

4 **Single-click** on the **Refresh** button to update the data displayed on the screen.
- Status of the request, as displayed in the **State** column of the **Data Distribution Requests** list, changes from its original value to "Canceled."
- A check mark is displayed in the **Mod** column of the **Data Distribution Requests** list to indicate that the request has been changed.

5 Return to the **Monitor/Control Data Distribution Requests** procedure (Section 18.2.3).

Table 18.2-9. Cancel Data Distribution Requests - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Filter data distribution requests (if necessary)	Use procedure in Section 18.2.5
2	**<distribution request>** (in **Data Distribution Requests** list)	**single-click**
3	**Cancel** button	**single-click**
4	**Refresh** button	**single-click**
5	Return to the procedure to **Monitor/Control Data Distribution Requests**	Use procedure in Section 18.2.3

18.2.9 Modify Preambles

The **Preamble Editor** tab on the **Data Distribution Operator GUI** allows the Distribution Technician to review and/or modify the text of preambles to the following types of documents:

- Packing list.
- Successful e-mail.
- Failed e-mail.

The preambles are accessible in the **/usr/ecs/*MODE*/CUSTOM/data/DSS** directory on the Distribution Server host. The directory contains preambles for the different types of distribution. For example, the file EcDsDdFtpPushEMSuccessPreamble.txt (in the /usr/ecs/*MODE*/CUSTOM/data/DSS directory) would be an "ftp push successful e-mail" preamble file.

The following two types of distribution only are relevant for Release 6A:

- Ftp pull.
- Ftp push.

Consequently, preambles for those types of distribution are the only preambles that are applicable in the Release 6A time frame.

Table 18.2-10 presents (in a condensed format) the steps required to modify preambles. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If necessary, launch the **Data Distribution Operator GUI** (refer to Section 18.2.2).
- The **Data Distribution Operator GUI** is displayed.

2 **Single-click** on the **Data Distribution Operator GUI Preamble Editor** tab.
- The **Preamble Editor** screen is displayed.

3 **Single-click** on (highlight) the media type for which the preamble is to be modified in the **Media Type** window.

- Options are: **8mm, D3, FtpPush, FtpPull, CDROM,** and **DLT.**
- The selected media type is highlighted.

4 **Single-click** and **hold** the **Preamble Type** option button to display a menu of types of preambles, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Options are: **Packing List, Successful Email,** and **Failed Email**.
- The selected preamble type is displayed on the **Preamble Type** option button.
- The selected preamble is displayed in the **Preamble Text** window.
  - If the **Preamble Text** window is blank, either there is no current preamble of the specified type or the preamble file is empty. Proceed to Step 5 and create a new preamble.

5 In the **Preamble Text** window enter:

<text>

- Enter modifications to the preamble text as necessary.
- The following editing functions are available from the **Edit** pull-down menu or by clicking on the right mouse button:
  - **Cut.**
  - **Copy.**
  - **Paste.**

6 **Single-click** on the appropriate button from the following selections:

- **Save** - to save the preamble text as modified.
- **Reset** - to discard any changes and revert to the original (unmodified) preamble text.
- **Clear** - to remove all text from the **Preamble Text** window.
  - When the **Clear** button has been selected, a **Preamble Save Confirmation Dialogue Box** is displayed.

7 If the **Preamble Save Confirmation Dialogue Box** is displayed, **single-click** on the appropriate button from the following selections:

- **Yes** - to save the preamble text as modified.
- **No** - to revert to the original (unmodified) preamble text.

Table 18.2-10. Modify Preambles - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Launch the **Data Distribution Operator GUI** (if necessary)	Use procedure in Section 18.2.2
2	**Preamble Editor** tab	**single-click**
3	**<media type>** (in **Media Type** window)	**single-click**
4	**<preamble type>** (**Preamble Type** option button)	**single-click**
5	**<text>** (in **Preamble Text** window)	**enter text**
6	**Save** button	**single-click**
7	**Yes** button (if applicable)	**single-click**

18.3 Monitoring Storage Management Server Operations

Distribution Technicians use the Storage Management Control GUI primarily to monitor Storage Management server operations. Configuring Storage Management polling and deleting files from cache are activities that are included in the overall process.

Table 18.3-1, below, provides an Activity Checklist for monitoring Storage Management server operations.

Table 18.3-1. Monitoring Storage Management Server Operations - Activity Checklist

Order	Role	Task	Section	Complete?
1	Distribution Technician	Configure Storage Management Polling	(P) 18.3.1	
2	Distribution Technician	Delete Files from Cache	(P) 18.3.2	
3	Distribution Technician	View Storage Management Event Log Information	(P) 18.3.3	
4	Distribution Technician	Monitor Storage Management Server Operations	(P) 18.3.4	

18.3.1 Configure Storage Management Polling

The **Storage Management Control** GUI **Options** menu provides the Distribution Technician with a means of switching the following two database polling functions on or off:

- **Operator Notification Timer** [e.g., polling for displaying Event Log data]**.**
- **Cache Statistics Timer** [polling for displaying cache statistics data]**.**

In addition, the technician can modify the following parameters that affect the **Operator Notification Timer**:

- Database Polling Rate.
  - How often (in seconds) the system updates the information displayed on the GUI.
- Error Retry Rate.
  - Amount of time (in seconds) that the system waits before trying to poll the database server after a failed attempt.

The technician can modify the following parameter relevant to the **Cache Statistics Timer**:

- Database Polling Rate.

Table 18.3-2 presents (in a condensed format) the steps required to configure Storage Management polling. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If necessary, launch the **Storage Management Control** GUI (refer to Section 18.2.2).

- The **Storage Management Control** GUI is displayed.

2 Execute the following menu path:

Options → System Settings

- The **Session Settings** dialogue box is displayed.

3 If it is necessary to change the **Operator Notification Timer** Polling state (from off to on or vice versa), **single-click** on the corresponding **Polling** button.

- If **OFF** is displayed in the **Polling** field , **single-clicking** on the adjacent button turns Polling on.
- If **ON** is displayed in the **Polling** field , **single-clicking** on the adjacent button turns Polling off.

4 If it is necessary to change either the **Cache Statistics Timer** Polling state (from off to on or vice versa), **single-click** on the corresponding **Polling** button.

- If **OFF** is displayed in the **Polling** field , **single-clicking** on the adjacent button turns Polling on.
- If **ON** is displayed in the **Polling** field , **single-clicking** on the adjacent button turns Polling off.

5 To change the database polling rate for the **Operator Notification Timer** in the corresponding **Database Polling Rate** field enter:

<value>

- **<value>** is expressed in seconds.

- The default value is 30 seconds.

6 To change the database polling rate for the **Cache Statistics Timer** in the corresponding **Database Polling Rate** field enter:

<value>

- **<value>** is expressed in seconds.
- The default value is 30 seconds.

7 To change the error retry rate for the **Operator Notification Timer**, in the **Error Retry Rate** field enter:

<value>

- **<value>** is expressed in seconds.

8 When the appropriate data have been entered in the **Session Settings** dialogue box fields, **single-click** on the appropriate button from the following selections:

- **Ok** - to apply the selections and dismiss the **Session Settings** dialogue box.
- **Apply** - to apply the selections without dismissing the **Session Settings** dialogue box.
- **Cancel** - to dismiss the **Session Settings** dialogue box without applying the selections.

Table 18.3-2. Configure Storage Management Polling - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Launch the **Storage Management Control** GUI (if necessary)	Use procedure in Section 18.2.2
2	**Options → System Settings**	**single-click**
3	Either **<on>** or **<off>** (**Operator Notification Timer: Polling** button) (as applicable)	**single-click**
4	Either **<on>** or **<off>** (**Cache Statistics Timer: Polling** button) (as applicable)	**single-click**
5	**<value>** (in **Operator Notification Timer: Database Polling Rate** field)	**enter text**
6	**<value>** (in **Cache Statistics Timer: Database Polling Rate** field)	**enter text**
7	**<value>** (in **Operator Notification Timer: Error Retry Rate** field)	**enter text**
8	**Ok** button	**single-click**

18.3.2 Delete Files from Cache

The **Storage Management Control** GUI's **Cache Stats.** tab displays all of the files that are in the cache areas, including the Pull Monitor and other staging areas. The data displayed on the **Cache Stats.** tab reports general statistics on the selected cache and allows the operator to manually delete expired files in cache areas.

In Release 6A a just-enough-cache cleanup strategy has been implemented. A principal effect of the new strategy is that caches (including the Pull Area) generally remain full because each cache manager (including the cache manager that is configured as the Pull Monitor or Pull Area Manager) automatically identifies and removes just enough old files to accommodate new ones. Consequently, it is likely that manual cache cleanup will not be performed very often. The procedure that follows is provided as a guide for those rare occasions when it is necessary to manually delete files from cache.

Table 18.3-3 presents (in a condensed format) the steps required to delete files from cache. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If necessary, launch the **Storage Management Control** GUI (refer to Section 18.2.2).
- The **Storage Management Control** GUI is displayed.

2 **Single-click** on the **Cache Stats.** tab.
- The **Cache Stats.** tab is displayed.

3 To view the contents of a particular cache (e.g., **Pull Monitor cache 1**) **single-click** and **hold** on the option button to the right of the **Cache Id** field, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.
- The selected cache is displayed in the **Cache Id** field of the **Cache Stats.** tab.
- The following cache statistics are displayed in the **Cache Statistics** area:
  - **Current Utilization.**
  - **Used Space (Blocks).**
  - **Free Space (Blocks).**
  - **Total Space (Blocks).**
  - **Number of Resident Files.**
  - **Maximum File Size (Blocks).**
  - **Minimum File Size (Blocks).**
  - **Average File Size (Blocks).**
- The following information concerning the files in the selected cache is listed in the **Cache Information** window:
  - **Filename.**
  - **File Size.**
  - **Last Accessed.**

- **Delete Flag** (displays either blank space or DELETE).
- **State.**

4 Observe cache statistics/information displayed on the **Cache Stats.** tab.

5 **Single-click** on (highlight) the row corresponding to a file to be deleted in the **Cache Information** window of the **Cache Stats.** tab.
- Multiple rows may be selected.

6 **Single-click** on the **Mark Delete** button near the bottom of the **Cache Stats.** tab.
- **Y** is displayed in the **Del. Flag** field for the row in the **Cache Information** window.

7 If any file that should be left in the cache has been inadvertently marked **Delete**, **single-click** on (highlight) the row corresponding to the file in the **Cache Information** window of the **Cache Stats.** tab.

8 If any file that should be left in the cache has been inadvertently marked **Delete**, **single-click** on the **Unmark Delete** button near the bottom of the **Cache Stats.** tab.
- **N** is displayed in the **Del. Flag** field for the row in the **Cache Information** window.

9 If it becomes necessary to exit from the **Storage Management Control** GUI execute the following menu path:

File → Exit

Table 18.3-3. Delete Files from Cache - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Launch the **Storage Management Control** GUI (if necessary)	Use procedure in Section 18.2.2
2	**Cache Stats.** tab	**single-click**
3	**<cache>** (in **Cache Id** field)	**single-click**
4	Observe cache statistics/information (**Cache Stats.** tab)	**read text**
5	**<file>** (to delete) (**Cache Information** window)	**single-click**
6	**Mark Delete** button	**single-click**
7	**<file>** (to preserve) (**Cache Information** window) (if applicable)	**single-click**
8	**Unmark Delete** button (if applicable)	**single-click**
9	**File → Exit** (when applicable)	**single-click**

18.3.3 View Storage Management Event Log Information

The **Storage Events** tab on the **Storage Management Control** GUI provides the Distribution Technician with the ability to search the Event Log and obtain reports on events that have occurred in Storage Management. It is possible to review the following information concerning any particular Storage Management event:

- Number.
- Date.
- Level.
- Type.
- Message.

The following search criteria can be used individually or in combination to view entries in the Event Log:

- Date Interval.
- Event Type.
- Event Level.
- Message.

Table 18.3-4 presents (in a condensed format) the steps required to view Storage Management Event Log information. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If necessary, launch the **Storage Management Control** GUI (refer to Section 18.2.2).
- The **Storage Management Control** GUI is displayed.

2 **Single-click** on the **Storage Events** tab.
- The **Storage Events** screen is displayed.
- If Event Log entries are to be displayed on the basis of a particular….
  - Time period, perform Step 3. (If no time period is specified, log entries for the current day will be displayed.)
  - Event type, perform Step 4.
  - Event level, perform Step 5.
  - Message, perform Step 6.
- Any of the preceding criteria (time period, event type, event level, or message) may be used individually or in combination to view entries in the Event Log.

3 To view Event Log entries for a particular time period, enter the desired data start date in the **Date Interval: Begin** field in the following format:

<MM/DD/YYYY>

- The **Tab** key may be pressed to move from field to field.

- Another method of changing date settings (other than typing the numbers) is to **single-click** in the **Date Interval: Begin** field and **single-click** on the up/down buttons adjacent to the **Date Interval: Begin** field until the correct date is indicated.

4 To view Event Log entries for a particular time period, enter the desired data ending date in the **Date Interval: End** field in the following format:

<MM/DD/YYYY>

- The **Tab** key may be pressed to move from field to field.
- Another method of changing date settings (other than typing the numbers) is to **single-click** in the **Date Interval: End** field and **single-click** on the up/down buttons adjacent to the **Date Interval: End** field until the correct date is indicated.

5 To view log entries for a particular **event type**, **single-click** and **hold** on the **Event Type** option button, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Options are: **Any, Device, Cache, Software, COTS, Sybase, Pulldisk, Unknown.**
- The selected event type is displayed on the **Event Type** option button.

6 To view log entries for a particular **event level**, **single-click** and **hold** on the **Event Level** option button, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Options are: **Any, Information, Warning, Error, Severe, Fatal, Unknown.**
- The selected event level is displayed on the **Event Level** option button.

7 To view log entries for a particular **message** in the **Message** field enter:

<message>

8 **Single-click** on the **Search** button to search the event log for events that meet the specified criteria.

- The search results are displayed in the **Event Log** window of the **Storage Management Control** GUI **Storage Events** tab.

9 Observe event information displayed in the **Event Log** window.

10 If it becomes necessary to clear entries in the Event Log Search Parameter fields, **single-click** on the **Clear Parameters** button.

- Entries in the Event Log Search Parameter fields are cleared.

11 If it becomes necessary to purge entries from the Event Log, **single-click** on (highlight) each row corresponding to an event to be deleted in the **Event Log** window.

- Multiple entries may be selected.

12 If it becomes necessary to purge entries from the Event Log, **single-click** on the **Purge Selected** button.

- Selected entries are deleted from the Event Log.

13 If a new Event Log search is to be performed on the basis of a particular….

- time period, return to Step 3.
- event type, return to Step 5.
- event level, return to Step 6.
- message, return to Step 7.

14 If it becomes necessary to exit from the **Storage Management Control** GUI execute the following menu path:

File → Exit

Table 18.3-4. View Storage Management Event Log Information - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Launch the **Storage Management Control** GUI (if necessary)	Use procedure in Section 18.2.2
2	**Storage Events** tab	**single-click**
3	**<MM/DD/YYYY>** (in **Date Interval: Begin** field) (if applicable)	**enter text**
4	**<MM/DD/YYYY>** (in **Date Interval: End** field) (if applicable)	**enter text**
5	**<event type>** (**Event Type** option button) (if applicable)	**single-click**
6	**<event level>** (**Event Level** option button) (if applicable)	**single-click**
7	**<message>** (in **Message** field)	**enter text**
8	**Search** button	**single-click**
9	Observe event information (**Event Log** window)	**read text**
10	**Clear Parameters** button (if applicable)	**single-click**
11	**<event>** (in **Event Log** window) (if applicable)	**single-click**
12	**Purge Selected** button (if applicable)	**single-click**
13	Return to applicable step to perform a new Event Log search	
14	**File → Exit** (when applicable)	**single-click**

18.3.4 Monitor Storage Management Server Operations

The **Request Status** tab on the **Storage Management Control** GUI provides the Distribution Technician with the ability to monitor processing activity in all of the storage management servers for a given mode. The **Request Status Information** table lists the requests that are currently being serviced by storage management servers and those that have been completed within the last 24 hours. It is possible to review the following information concerning any particular storage management request:

- Operation [type of operation represented by the request].
- Request ID.
- Progress [stage of processing on which the request is currently working (may include a numeric progress indication)].
- Status.
- Priority.
- When Submitted [time and date when the request was received by the Storage Management server that is responsible for the request].
- Last Updated [time and date when the status was last updated for the request].

Using the **Request Status** tab the Distribution Technician can detect stalled requests or servers that appear to be idle.

Table 18.3-5 presents (in a condensed format) the steps required to monitor storage management server operations. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If necessary, launch the **Storage Management Control** GUI (refer to Section 18.2.2).
- The **Storage Management Control** GUI is displayed.

2 **Single-click** on the **Storage Management Control** GUI **Request Status** tab.
- The **Request Status** tab is displayed.

3 Observe information displayed on the **Request Status** tab of the **Storage Management Control** GUI.
- The **Request Status Information** table displays the following information:
  - **Operation.**
  - **Request ID.**
  - **Progress.**
  - **Status.**
  - **Priority.**
  - **When Submitted.**
  - **Last Updated.**

- By default all storage management server requests for the last 24 hours are shown in the **Request Status Information** table of the **Request Status** tab.
- Note that virtually all data inserted into or retrieved from the archive is controlled by storage management servers; consequently there may be a lot of activity on the **Request Status** tab.
  - Consequently, it may be useful to restrict the number of requests displayed by filtering them as described in the next step of this procedure.
- **Single-clicking** on any of the column headers of the **Request Status Information** table causes the listed requests to be sorted in order by the column selected.
  - For example, **single-clicking** on the **Last Updated** column header causes the requests to be listed in order from the least recently updated to the most recently updated.
- The **Operator Messages** field at the bottom of the GUI displays messages concerning events occurring in storage management operations.

4 If the list of Storage Management requests shown in the **Request Status Information** table needs to be filtered, **single-click** and **hold** the **Filtering** pull-down menu to display a menu of filtering options, **move** the mouse cursor to the appropriate selection (highlighting it), then **release** the mouse button.

- The **Filtering** pull-down menu offers the following options for filtering Storage Management requests:
- Options are: **Server**, **Operation**, **Processing State**, and **Submitter**.
  - **Server** controls what activity is displayed by limiting the list to the requests being/having been serviced by a specific server. Selecting **All** displays all requests throughout the Storage Management CSCI. Other selections include the individual archive servers, cache manager servers, ftp servers, request manager server, and staging disk servers.
  - **Operation** allows the Distribution Technician to focus on a specific type of operation. The list of operations is dynamically generated to reflect those operations for which requests are currently in queue, for example (among others): **All, CMLink, ArStore, FtpPull, FtpPush**.
  - **Processing State** allows the Distribution Technician to differentiate among requests that are being actively processed; have been completed, either successfully or to a retryable error state; or have been suspended and are awaiting the outcome of another event. The following selections are available: **All, Processing, Suspended, Completed**.
  - **Submitter** allows the Distribution Technician to see the status of requests submitted by a specific client process. The list of possible clients is dynamically generated to reflect the list of clients with outstanding requests for example (among others): **All, DSDD, SDSV, this,** individual ftp server, individual archive server, individual staging disk server.

5 Observe the Storage Management requests displayed in the **Request Status Information** table.

6 Repeat Steps 4 and 5 as necessary to monitor Storage Management requests.

7 If it becomes necessary to exit from the **Storage Management Control** GUI execute the following menu path:

File → Exit

Table 18.3-5. Monitor Storage Management Server Operations - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Launch the **Storage Management Control** GUI (if necessary)	Use procedure in Section 18.2.2
2	**Request Status** tab	**single-click**
3	Observe request status information (**Request Status Information** table)	**read text**
4	<filtering option> (**Filtering** pull-down menu) (If applicable)	**single-click**
5	Observe request status information (**Request Status Information** table)	**read text**
6	Repeat Steps 4 and 5 (as necessary)	
7	**File → Exit** (when applicable)	**single-click**

18.4 Tuning DDIST System Parameters

The values assigned to system parameters affect the functioning and performance of the system. When certain parameters are modified, the system operates differently. Changes to some other parameters may not appear to affect the system although there may in fact be subtle effects. In any case before system parameters are modified it is essential to understand what will happen to system functioning and performance.

Many system parameters may be subject to control by Configuration Management (CM). When making or requesting a change to system parameters, the CM process at the particular site must be followed (if applicable).

Values are assigned to Storage Management and Data Distribution parameters in the following databases:

- Configuration Registry database.
- Storage Management and Data Distribution database.

With respect to Storage Management servers the Registry contains database connectivity information only. All other configuration information is in the Storage Management and Data Distribution database and is typically entered or modified using the **Storage Management Control GUI**.

Table 18.4-1, below, provides an Activity Checklist for tuning DDIST system parameters.

Table 18.4-1. Tuning DDIST System Parameters - Activity Checklist

Order	Role	Task	Section	Complete?
1	Distribution Technician	Modify System Parameters in the Storage Management and Data Distribution Database Using the Storage Management Control GUI	(P) 18.4.1	
2	Distribution Technician	Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL	(P) 18.4.2	
3	Distribution Technician	Modify Parameters in the DsDdThreadPool Table Using ISQL	(P) 18.4.3	

Modifying System Parameters in the Configuration Registry Database

The Configuration Registry Server provides a single interface (via a Sybase server) for retrieving configuration attribute-value pairs for ECS servers from the Configuration Registry database. When ECS servers are started, they access the Configuration Registry Database to obtain needed configuration parameters.

The Database Administrator has access to a Configuration Registry GUI for viewing and editing configuration data in the database. Therefore, it is necessary to coordinate with the Database Administrator when changes to configuration parameters are needed. Also, as previously mentioned, changes to configuration-controlled parameters are subject to approval through the site CM process.

Default and adjusted values assigned to system parameters vary from site to site. For guidance concerning the assignment of values to parameters included in the Configuration Registry refer to document 910-TDA-022 rev 05, *Custom Code Configuration Parameters for ECS Release 6A.05*. The document is available at http://cmdm.east.hitc.com/baseline/ under "Technical Documents."

The following parameters are examples of parameters whose values may be modified to enhance system functioning or performance:

- AppLogSize [parameter applies to all servers].
  - Maximum size of the application log (ALOG) file for a particular application.

  - Recommended size varies considerably depending the nature of the application for which the file is being written.
- AppLogLevel [parameter applies to all servers].
  - Level of detail provided in the ALOG file for a particular application.
  - Acceptable values are 0, 1, 2, or 3.
  - A setting of “0” provides the most data.
- DebugLevel [parameter applies to all servers].
  - Level of detail provided in the debug log file for a particular application.
  - Normally acceptable values are 0, 1, 2, or 3.
  - A setting of "0" turns off logging; a setting of “3” provides a significant amount of data.
  - STMGT offers "enhanced" debugging based on bitmaps including Level 7 (the 4 bit), which provides detailed database debugging, and Level 15 (the 8 bit), which frequently dumps the in-memory request queue (in the Request Manager). [Both Level 7 and Level 15 quickly create enormous log files.]
- DBMaxConnections [EcDsDistributionServer and EcDsDdistGui parameter].
  - Maximum number of database open connections (e.g., 15) allowed a particular application.
  - Increasing the assigned value may prevent other applications from getting access to the database.
- FtpPushThreshold [EcDsDistributionServer parameter].
  - Maximum number of bytes (e.g., 15000000000) per ftp push request.
  - The FtpPushThreshold should always be greater than the size of the largest input granule used by the Planning and Data Processing Subsystems (PDPS) to ensure that PDPS distribution requests are processed without manual intervention.
  - When a distribution request exceeds a threshold (e.g., FtpPushThreshold or FtpPullThreshold), the request is suspended in DDIST.
- FtpPullThreshold [EcDsDistributionServer parameter].
  - Maximum number of bytes (e.g., 20000000000) per ftp pull request.
- RETRIEVAL_CHUNK_SIZE [EcDsDistributionServer parameter].
  - Number of per-request archived files (e.g., 40) to be retrieved from the archive server.
  - Must be greater than zero (0).
  - Should not be greater than half the number of service threads used by the STMGT cache managers for archive reading.
- SocketLimit [EcDsDistributionServer parameter].
  - Number of connections (e.g., 620) to a server through the Hubble Space Telescope (HST) sockets middleware.
  - Too low a number misses connections.
  - Too high a number may adversely affect the memory of the server's host.

When the value assigned to a parameter has been changed and saved in the Configuration Registry, the modified value does not take effect until the affected server has been restarted. For example, if the debug level for the Distribution Server log has been changed from "2" to "3" in the Configuration Registry, the modification does not affect the recording of data in the log until after a warm restart of the Distribution Server (at which time the server would read the parameters in the Configuration Registry).

Tuning System Parameters in the Storage Management and Data Distribution Database

Checksum Status

It is possible to have a CRC-32 checksum calculated for each file stored (inserted) in archive. In addition, there is an option for having a checksum computed for each file retrieved from the archive and validating it by comparing it with the checksum previously computed. In the DsStArchiveServer database table there are entries for each archive server (EcDsStArchiveServer) that control whether or not a checksum is calculated for each file inserted into or retrieved from the archive.

Checksums are calculated on retrieval only when the file is first moved from the archive to the read-only cache. As long as the file remains resident in the read-only cache, the checksum is not recalculated.

Checksum calculation is a highly time-consuming process and makes intensive use of central processing unit (CPU) resources. Consequently, enabling check-summing has significant negative effects on the performance of both archive and cache manager servers. For that reason check-summing is typically disabled during normal operations.

The status of check-summing (i.e., enabled or disabled) is determined by the values assigned to individual archive servers in the following two columns of the DsStArchiveServer table in the Storage Management and Data Distribution database:

- IsRetrieveCksumEnabled.
- IsStoreCksumEnabled.

The value in the IsRetrieveCksumEnabled column indicates whether check-summing is enabled for acquires. The value in the IsStoreCksumEnabled column indicates whether check-summing is enabled for inserts. The values are set (and can be checked) using the **Storage Config.** tab of the **Storage Management Control** GUI. [Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using the Storage Management Control GUI** procedure (Section 18.4.1).]

Staging Area Size and Read-Only Cache Size

Prior to Release 6A the TotalSpace column in the Storage Management and Data Distribution database indicated the total size of raid allocated to a cache manager and staging disk combined. Now cache and staging disk space requirements are defined in separate columns in different database tables.

- The TotalStagingSpace column in the DsStStagingDiskServer table contains the overall size of the space (in blocks) available for a staging disk.
  - It should reflect the available disk space in the file partition that is configured.
- The TotalCacheSpace column in the DsStCache table contains the overall size (in blocks) of a cache.
  - TotalCacheSpace is seen as "Original Cache Space" from the **Storage Management Control** GUI.
  - The value assigned to the cache manager that is configured as the Pull Monitor (Pull Area Manager) should be the size (in blocks) of the partition that houses the Pull Area.
  - If the value assigned to the Pull Monitor (Pull Area Manager) is changed while there are files in the Pull Area, the value should be higher than the cumulative size of files in the cache.

NOTE: In Release 6A Storage Management configurations capacity ("space") is consistently specified in blocks. File size is specified in bytes.

The change in the specification of staging disk/cache space is an effect of the way cache structure has been modified. Currently cache has its own path as shown in the following comparison of staging disk and cache paths:

- EcDsStCacheManagerServerACM1 cache path:
  - /usr/ecs/OPS/CUSTOM/apc/x0acg01/data/staging/cache (The cache area is no longer identified as "user1".)
- EcDsStStagingDiskServerACM1 root path:
  - /usr/ecs/OPS/CUSTOM/apc/x0acg01/data/staging//disks (Now each staging disk has a unique number (e.g., disk1132), even across servers.)

The cache and staging disk space parameters are modified using the **Storage Management Control** GUI. [Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using the Storage Management Control GUI** procedure (Section 18.4.1).]

Setting Expiration Thresholds for Cache Managers

In Release 6A a just-enough-cache cleanup strategy has been implemented. A principal effect of the new strategy is that caches (including the Pull Area) generally remain full because each cache manager (including the cache manager that is configured as the Pull Monitor or Pull Area Manager) identifies and removes just enough old files to accommodate new ones.

Prior to Release 6A the PullExpirationTime column in the Storage Management and Data Distribution database indicated the number of hours after which files could be considered for deletion. Now in the DsStCache table there is an ExpirationThreshold column that contains the number of hours it takes for files to expire in the cache area managed by each cache manager. The ExpirationThreshold for the cache manager that is configured as the Pull Monitor (i.e., EcDsStCacheManagerServerPULL) specifies the number of hours it takes for files to expire in the Pull Area.

When setting the ExpirationThreshold for each cache manager the following factors should be taken into consideration:

- ExpirationThreshold specifies the number of hours a lien will be held against a cached file.
- If a lien expires and space is required, the lien will be automatically removed unless the ConfirmDelete flag (for expired files) is set to "Yes."
- ExpirationThreshold entries are typically set at 72 (hours) but may be set at some other value (usually in the range of 24 - 72).
  - Too short a time limits the ability of users to get their data before it is deleted (if ConfirmDelete is set to "No").
  - Too long a time increases the chance of filling up the cache.
- The ConfirmDelete column in the DsStCache table is a flag that indicates whether to automatically delete upon reaching the ExpirationThreshold.
  - Typically set to "No" (do not require confirmation before deleting).
- In Release 6A files are pulled to the Pull Area by the Pull Monitor (Pull Area Manager); they are not pushed there by the ftp server.
- The Fault Level and Warning Level parameters are ignored.

Expiration thresholds and ConfirmDelete flags for expired files are modified using the **Storage Management Control** GUI. [Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using the Storage Management Control GUI** procedure (Section 18.4.1).]

Storage Management Service Thread Allocation

Service threads are not the same as listen threads. [Listen threads are specific to the Distributed Computing Environment (DCE).] Service threads process requests submitted to the applicable server (e.g., EcDsStRequestManagerServer, EcDsStArchiveServer, EcDsStCacheManager-Server, EcDsStStagingDiskServer, EcDsStFtpServer). The number of service threads assigned to a server should be set on the basis of the resources available and the server throughput.

The DsStServiceThreadConfig database table contains the number, types, and priorities of service threads for Storage Management servers.

- The following columns in the DsStServiceThreadConfig database table indicate the number of service threads assigned to each priority:
  - XpressThreads

  - VhighThreads
  - HighThreads
  - NormalThreads
  - LowThreads
- The PoolType column identifies the type of threads within a certain pool. (i.e., Service Threads, Read Threads, Write Threads) applicable to the server.
  - In Storage Management Read Threads and Write Threads apply to the archive servers only.
- The NumThreads column contains the number of threads in a particular pool.

Table 18.4-2 lists representative default values as listed in the DsStServiceThreadConfig database table. In the table ServerId 1 refers to EcDsStArchiveServerACM4 and ServerId 2 refers to EcDsStArchiveServerDRP3.

Table 18.4-2. Representative Default Values Listed in the DsStServiceThreadConfig Database Table

ServerId	PoolType	Num Threads	Xpress Threads	Vhigh Threads	High Threads	Normal Threads	Low Threads
1	ReadThreadPool	30	0	10	10	0	10
1	ThreadPool	30	0	10	10	0	10
1	WriteThreadPool	30	0	10	10	0	10
2	ReadThreadPool	10	0	0	0	0	10
2	ThreadPool	50	0	10	10	0	30
2	WriteThreadPool	100	0	20	70	0	10

Storage Management service thread-related values are modified using the **Storage Management Control** GUI. [Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using the Storage Management Control GUI** procedure (Section 18.4.1).]

Data Distribution Priority Thread Allocation

Data Distribution (DDIST) has been enhanced to support a DAAC-configurable number of thread pools with each pool having a separate thread limit. The pools are defined in a new DDIST database table called DsDdThreadPool. Each row in the table contains a unique pool identifier, a thread pool name, and the number of threads (thread limit) associated with the pool. Table 18.4-3 shows an example of DsDdThreadPool table contents.

Table 18.4-3. Example of DsDdThreadPool Table Contents

ThreadPoolId	ThreadPoolName	ThreadLimit
1	MODAPS	20
2	DLT_ORDERS	2
3	DEFAULT	30

The DsDdThreadPool table in the example (Table 18.4-3) defines the following three pools:

- MODAPS (20 threads maximum).
- DLT_ORDERS (two (2) threads maximum).
- DEFAULT (30 threads maximum).

There must always be a DEFAULT pool present in the DsDdThreadPool table because a distribution request that fails to match any of the other rules for assigning requests to thread pools is automatically assigned to the DEFAULT pool.

The rules for assigning requests to thread pools are specified in the DsDdAssignmentRule table. The rules are DAAC-configurable and are based on request attributes. The following attributes are used for establishing a thread pool assignment:

- ECSUserId.
- Priority.
- EsdtType.
- MediaType.

Each row in the DsDdAssignmentRule table defines an assignment rule. Table 18.4-4 shows an example of DsDdAssignmentRule table contents.

Table 18.4-4. Example of DsDdAssignmentRule Table Contents

SeqNum	EcsUserId	Priority	EsdtType	MediaType	ThreadPoolId
100	Robbie	ANY	ANY	FtpPush	1
200	ANY	ANY	ANY	DLT	2

For each new request, the rules (in the DsDdAssignmentRule table) are evaluated in order by SeqNum until a rule is found where all conditions evaluate to true, in which case the request is assigned to the pool specified in the ThreadPoolId column. A rule evaluates to true if the values of the request attributes (i.e., ECSUserId, Priority, EsdtType, and MediaType) match the values contained in the rule's row in the table. Note that a value of "ANY" automatically evaluates to true for that attribute. So, in the example, any FtpPush request with an ECSUserId of "Robbie" is allocated to the MODAPS thread pool and all DLT requests are allocated to the DLT_ORDERS thread pool. Any requests that fail to match the rules for either MODAPS or DLT_ORDERS are assigned to the DEFAULT thread pool.

When DDIST receives a request, a stored procedure executes to assign the request to the appropriate thread pool based on the rules contained in the DsDdAssignmentRule table.

- Once all threads in a given thread pool have been allocated, new requests assigned to that pool are put in a "pending" state until a thread becomes available.
- Requests are no longer automatically assigned to threads in other pools if there are no available threads in their assigned pool.
- Pending requests for each pool are activated in first-in-first-out order by request priority.

DAACs may adjust configurations by updating the DsDdThreadPool and DsDdAssignmentRule tables.

- Assignment rules may be added, deleted or updated at any time without warm-starting DDIST.
  - Changes to assignment rules take effect immediately upon being entered in the database.
  - All new requests entering DDIST are subject to the updated rules.
- The ThreadLimit attribute in the DsDdThreadPool table may be dynamically changed as well.
  - The DDIST server reloads thread limits every 90 seconds so thread limit changes take effect within 90 seconds after being entered.
  - New thread pools can be added by inserting rows in the DsDdThreadPool table.
  - However, they are not used until the DDIST server is warm-started.
  - A thread pool can be deleted as long as there are no rules in the DsDdAssignmentRule table that point to the thread pool and all requests that have been assigned to the thread pool have been completed and have migrated out of the DDIST database.

When DDIST is warm-started, all requests are reassigned to thread pools based on the current set of rules.

If necessary, it is possible to reassign requests after they have been assigned to a thread pool. The following process is used:

- Update the rules in the DsDdAssignmentRule table as necessary to ensure that the request will be assigned to the desired thread pool.
- Warm-start DDIST (EcDsDistributionServer).

There is no GUI support for making changes to the thread pool configuration. Thread pool configuration changes are made by a DAAC DBA using the isql interface to update the DsDdThreadPool and DsDdAssignmentRule tables in the database.

The following guidelines are provided for tuning DDIST priority thread allocation:

- In most cases, each FtpPush destination site should have its own thread pool.
- For each FtpPush destination, the DAAC should determine the number of concurrent file transfers it takes to fully utilize the available network bandwidth.
  - The number represents a parameter called "MaxTransfers."
- For subscription-based FtpPush distribution, the thread limit for the associated thread pool should be set to 130% of MaxTransfers (rounded up).
  - This should provide a sufficient number of threads to utilize the available network bandwidth plus allow for one or more threads to be concurrently staging data out of the AMASS cache.
- For non-subscription-based FtpPush distribution, the thread limit for the associated thread pool should be set to 200% of MaxTransfers (rounded up).
  - This should provide sufficient threads to utilize the available network bandwidth plus allow for staging of data from archive tapes.
- The total number of threads in DsDdThreadPool (i.e., sum of ThreadLimit for all rows) represents the maximum number of threads that can be active concurrently n DDIST.
  - The total must be less than the number of worker threads configured for DDIST.
  - The default number of worker threads configured for DDIST is 228.
- Although DDIST thread pools can be configured around request attributes other than priority, it is important to remember that STMGT CacheManager thread pools are organized by priority; consequently, it is important to ensure that STMGT thread pools are configured to optimally handle the likely mix of request priorities.
- During warm-start, it takes DDIST 0.83 second to recover each active or pending request; consequently, for a 2000-request backlog, it takes DDIST approximately 28 minutes to reach the end of start monitoring and begin accepting new requests.
  - However, note that DDIST immediately begins to work off its request backlog as requests are assigned to thread pools.

Methods for modifying thread pools and thread-pool-assignment rules are described in the **Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL** procedure (Section 18.4.2) and the **Modify Parameters in the DsDdThreadPool Table Using ISQL** procedure (Section 18.4.3).

18.4.1 Modify System Parameters in the Storage Management and Data Distribution Database Using the Storage Management Control GUI

The effects on system functioning and performance must be considered before modifying system parameters. In addition, when making or requesting a change to system parameters, the CM process at the particular site must be followed (if applicable). Depending on circumstances (e.g., operator permissions) at a particular site, it may be necessary to request that someone else make parameter modifications using the **Storage Management Control** GUI. The procedure that follows is provided to assist Distribution Technicians who have to make parameter modifications using the **Storage Management Control** GUI.

Table 18.4-5 presents (in a condensed format) the steps required to modify system parameters in the Storage Management and Data Distribution Database using the **Storage Management Control** GUI. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If necessary, launch the **Storage Management Control** GUI (refer to Section 18.2.2).
- The **Storage Management Control** GUI is displayed.

2 If necessary, **single-click** on the **Storage Config.** tab.

3 **Single-click** on the appropriate server type in the **Configuration Parameter Reporting** window on the **Storage Config.** tab.
- The selected server type is highlighted in the **Configuration Parameter Reporting** window on the **Storage Config.** tab.
- The following server types are listed in the **Configuration Parameter Reporting** window on the **Storage Config.** tab:
  - **8mm** (8mm Stacker Server).
  - **ARCHIVE** (Archive Server).
  - **CACHE MANAGER** (Cache Management Server).
  - **CDROM** (CDROM Device Server).
  - **D3** (D3 Device Server).
  - **DLT** (DLT Stacker Server).
  - **FTP** (FTP Server).
  - **REQUEST MANAGER** (Request Manager Server).
  - **STAGING DISK** (Staging Disk Server).
- Associated servers are listed in the server information window on the **Storage Config.** tab.

4 **Single-click** on the appropriate server in the server information window on the **Storage Config.** tab.
- The selected server is highlighted in the server information window on the **Storage Config.** tab.
- For example, if **CACHE MANAGER** were selected from the **Configuration Parameter Reporting** window on the **Storage Config.** tab, the following servers might be listed in the server information window:
  - EcDsStCacheManagerServerACM1.
  - EcDsStCacheManagerServerDRP3.
  - EcDsStCacheManagerServerPULL.
  - EcDsStCacheManagerServerWKS1.

5 **Single-click** on the **Modify Server/View Stackers** button.

- The applicable server configuration dialogue box is displayed.
- For example, if **CACHE MANAGER** had been selected, the **Cache Manager Server Configuration** dialogue box would be displayed. The **Cache Manager Server Configuration** dialogue box displays data in the following fields (as applicable):
  - **Server Name.**
  - **RPC** [remote procedure call] Tag.
  - **Original Cache Space (blocks).**
  - **Available Cache Space (blocks)** [cannot be modified from GUI].
  - **Allocation Block Size (bytes).**
  - **Description** [e.g., "Cache Manager"].
  - **Expiration Threshold (hours).**
  - **Expired Files Confirm Delete** [option button with Yes and No as the options].
  - **Disk Capacity: Fault Level** [currently ignored].
  - **Disk Capacity: Warning Level** [currently ignored].
  - **File I/O Block Size (bytes)** [typically set to 4194304 (4MB) in Release 6A].
  - **Retries** [typically set to 5 in Release 6A].
  - **Sleeptime (seconds)** [typically set to 2 in Release 6A (except D3 Server, which usually has a sleeptime of 20)].
  - **Service Threads** [number of worker threads that are allocated within the server instance to process requests - modified through the Allocate by Priority button].
  - **Pull Area Manager** [option button with Yes and No as the options].
  - **Cache Path.**
  - **User Request Directory.**
  - **FTP Notification File.**
  - **FTP Notification Freq (Sec).**
- Refer to the Installation Instructions for Release 6A to find recommended values for the Release 6A configuration of Storage Management servers.
  - Installation Instructions for Release 6A are available at http://cmdm.east.hitc.com/baseline/ under "Pre-Ship Reviews."

6 In the appropriate field(s) of the server configuration dialogue box enter:

<value>

7 If service-thread (or read-thread or write-thread) priority allocations are to be modified, **single-click** on the corresponding **Allocate by Priority** button.

- The appropriate **Allocate by Priority** window (e.g., the **Service Threads: Allocate by Priority** window) is displayed.

8 If thread priority allocations are being modified, in the appropriate field(s) of the **Allocate by Priority** window enter:

<value>

- When entering desired values in the appropriate fields of the **Allocate by Priority** window, start with the **Total** field.
- Lower-priority threads may be used to service higher priority requests, but never vice versa.
- By default all service threads are created as low priority service threads, since they may be pre-empted by any priority request.
- The number of low threads is automatically re-calculated whenever the number of any of the other thread types is changed.
  - Consequently, the total of the numbers in each of the five different thread type fields equals the number in the **Total** field.

9 If thread priority allocations are being modified, **single-click** on the appropriate button from the following selections:

- **OK** - to approve the new value(s) and dismiss the **Allocate by Priority** window.
  - The **Cache Manager Server Configuration** dialogue box is displayed.
- **Cancel** - to return to the **Cache Manager Server Configuration** dialogue box without saving the new value(s).
  - The **Cache Manager Server Configuration Dialogue Box** is displayed.

NOTE: Sometimes when a secondary window (such as Service Threads: Allocate by Priority Window) has been accessed to modify parameters (e.g., to configure service threads), changes that were previously made in the primary window (such as the Cache Manager Server Configuration Dialogue Box) are lost. Consequently, it is recommended that either values be changed in the secondary window first or that changes already made in the primary window be verified after the secondary window has been closed.

10 When new values have been entered in all fields to be modified, **single-click** on the appropriate button from the following selections:

- **OK** - to approve the new value(s) and dismiss the configuration dialogue box.
  - The **Storage Config.** screen is displayed.
- **Cancel** - to return to the **Storage Config.** screen without saving the new value(s).
  - The **Storage Config.** screen is displayed.

11 Repeat Steps 3 through 10 as necessary.

Table 18.4-5. Modify System Parameters in the Storage Management and Data Distribution Database Using the Storage Management Control GUI - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Launch the **Storage Management Control** GUI (if necessary)	Use procedure in Section 18.2.2
2	**Storage Config.** tab	**single-click**
3	**<server type>** (in **Configuration Parameter Reporting** window)	**single-click**
4	**<server name>** (in the server information window)	**single-click**
5	**Modify Server/View Stackers** button	**single-click**
6	**<value>** [in appropriate field(s) of the server configuration dialogue box]	**enter text**
7	**Allocate by Priority** button (if applicable)	**single-click**
8	**<value>** [in appropriate field(s) of the **Allocate by Priority** window]	**enter text**
9	**OK** (if applicable)	**single-click**
10	**OK**	**single-click**
11	Repeat Steps 3 through 10 (as necessary)	

18.4.2 Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL

The effects on system functioning and performance must be considered before modifying system parameters. In addition, when making or requesting a change to system parameters, the CM process at the particular site must be followed (if applicable). Depending on circumstances at a particular site it may be necessary to request that the Database Administrator modify parameters in the Storage Management and Data Distribution database. The procedures that follow are provided to assist Distribution Technicians who have to make the database modifications themselves.

The procedures vary somewhat depending on what database table is to be modified. For example:

- Modifications can be made to the DsDdAssignmentRule table at any time as described in the **Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL** procedure that follows.
  - If the Distribution Server is running when the table is updated, the changes will take effect immediately (i.e., any new distribution requests will be allocated to a thread pool using the updated rules).

  - Consequently, rule changes must be self-consistent and are typically made within the scope of a single Sybase transaction.
- Modifications to the DsDdThreadPool table must be made while the Distribution Server is idle, as described in the **Modify Parameters in the DsDdThreadPool Table Using ISQL** procedure (Section 18.4.3).

Table 18.4-6 presents (in a condensed format) the steps required to modify system parameters in the Storage Management and Data Distribution Database using isql. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: If modifications to the DsDdThreadPool table are to be made, go to the **Modify Parameters in the DsDdThreadPool Table Using ISQL** procedure (Section 18.4.3).

1 Access a terminal window logged in to the Access/Process Coordinators (APC) Server host.
- Examples of APC Server host names include **e0acg11**, **g0acg01**, **l0acg02, n0acg01**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

isql –U <user ID> -S <database server>

- **<user ID>** is the database user's identification; e.g., **stmgt_role**.
- **<database server>** is the database server; e.g., **x0acg01_srvr**.
- For example:

  isql –U stmgt_role –S x0acg01_srvr

3 At the **Password:** prompt enter:

<database password>

- **<database password>** is the password for logging in to the database using the specified **<user ID>**.
- A **1>** prompt is displayed, indicating that a connection has been made with the database.

4 At the **1>** prompt enter:

use <database name>

- The **<database name>** is likely to be one of the following names:
  - **stmgtdb1** [OPS mode].
  - **stmgtdb1_TS1** [TS1 mode].

- **stmgtdb1_TS2** [TS2 mode].
- A **2>** prompt is displayed.

5 At the **2>** prompt enter:

go

- A **1>** prompt is displayed.

6 At the **1>** prompt enter:

select * from <table name>

- For example:

  select * from DsDdAssignmentRule

- Alternatively, at the **1>** prompt enter:

  select <column name> from <table name>

  - For example:

    select ThreadPoolId from DsDdAssignmentRule

- Another alternative is to enter:

  select <column name 1>,<column name 2>[,<column name 3>,…] from <table name>

  - For example:

    select ThreadPoolId,Priority from DsDdAssignmentRule

- A **2>** prompt is displayed.

7 At the **2>** prompt enter:

go

- Table contents are displayed.
  - If * (wildcard) was specified, all entries in the table are displayed.
  - If specific columnNames were entered, the data associated with those columns only are displayed.
- For example:

```
1> select * from DsDdAssignmentRule
2> go
 SeqNum      ThreadPoolId ECSUserId
       Priority       EsdtType
       MediaType
 ----------- ------------ ----------------------------------------------
      ---------- ----------------------------------------
      ----------------------------------------
      800          1 ANY
      XPRESS         ANY
```

```
ANY
700         2 ANY
VHIGH         ANY
ANY
600         3 ANY
HIGH          ANY
ANY
400         4 ANY
NORMAL        ANY
ANY
500         5 ANY
LOW           ANY
ANY

(5 rows affected)
```

8 If updating a row in a database table, at the **1>** prompt enter:

update <table name> set <column name 1>=<value 1> where <column name 2>=<value 2>

- For example:

  update DsDdAssignmentRule set ECSUserId="$EcDpPrEM" where ThreadPoolId=1

  – The effect of the modification shown in the example would be to assign all distribution requests with an ECSUserId of "$EcDpPrEM" and a priority of "XPRESS" to ThreadPoolId 1.
  – Distribution requests with any other ECSUserId or "$EcDpPrEM" requests with any priority other than "XPRESS" would be assigned to one of the other ThreadPoolId categories.
  – Distribution requests with a priority of "XPRESS" and an ECSUserId other than "$EcDpPrEM" would be assigned to the DEFAULT thread pool.
- Go to Step 12.

9 If deleting a row in a database table, at the **1>** prompt enter:

delete <table name> where <column name 1>=<value 1>

- For example:

  1> delete DsDdAssignmentRule where ThreadPoolId=6

  – The effect of the modification shown in the example would be to delete any database row(s) with "6" in the ThreadPoolId column.

- Go to Step 12.

10 If adding a row in a database table, at the **1>** prompt enter:

insert <table name> (<column name 1>,<column name 2>,<column name 3>…)

- For example:

  1> insert DsDdAssignmentRule
  (SeqNum,ThreadPoolId,ECSUserId,Priority,EsdtType,MediaType)

11 If adding a row in a database table, at the **2>** prompt enter:

values (<value 1>,<value 2>,<value 3>…)

- For example:

  2> values (900,6,"MODAPS","HIGH","ANY","FtpPush")

12 At the **>** prompt (e.g., **2>** or **3>**) enter:

go

- The effect of the modification shown in the examples in Steps 10 and 11 would be to insert in the DsDdAssignmentRule database table a row containing the following values:
  - 900 (SeqNum column).
  - 6 (ThreadPoolId column).
  - MODAPS (ECSUserId column).
  - HIGH (Priority column).
  - ANY (EsdtType column).
  - FtpPush (MediaType column).
- If modifying the DsDdAssignmentRule table (as shown in the examples in this procedure) the following attributes must be specified for each row:
  - SeqNum.
  - ThreadPoolId.
  - ECSUserId.
  - Priority.
  - EsdtType.
  - MediaType.
- SeqNum.
  - Determines the order in which a rule is evaluated.
  - Integer whose value is greater than or equal to zero.
  - Each rule must have a unique sequence number.
  - Rules are evaluated in order from the lowest sequence number to the highest sequence number.

  - It is recommended that sequence numbers not be created consecutively (e.g., instead of numbering 1, 2, 3, use 100, 200, 300) so new rules can be inserted without having to renumber subsequent rules.
- ThreadPoolId.
  - Unique identifier of the thread pool to be assigned if the rule is the first one to evaluate to true.
  - Integer with a value greater than zero.
  - Must match one of the values in the ThreadPoolId column in the DsDdThreadPool table.
  - Multiple rules can assign the same ThreadPoolId.
- ECSUserId.
  - User identifier associated with a distribution request.
  - String of up to 24 characters in length.
  - If the user identifier of a distribution request matches the string, the attribute evaluates to true.
  - If the string is set to the reserve word "ANY," the attribute always evaluates to true.
  - String comparisons are case-sensitive.
- Priority.
  - Request priority associated with a distribution request.
  - String that must be set to one of the following six values: "XPRESS", "VHIGH", "HIGH", "NORMAL", "LOW", or "ANY".
  - If the priority of a distribution request matches the string then the attribute evaluates to true.
  - If the string is set to the reserved word "ANY," the attribute always evaluates to true.
  - String comparisons are case-sensitive.
- EsdtType.
  - Data type associated with a distribution request.
  - String of up to twelve (12) characters in length.
  - Must be set to a valid ESDT name and version number or the reserved words "MULTIPLE" or "ANY."
  - When an ESDT name and version number are specified, the string has the form "Name.Version" (e.g., "MOD021KM.003").
  - A distribution request has its EsdtType set to "MULTIPLE" if granules from more than one ESDT are being distributed. If the data type of a distribution request matches the string, the attribute evaluates to true.
  - If the string is set to the reserve word "ANY," the attribute always evaluates to true.
  - String comparisons are case-sensitive.

- MediaType.
  - Type of distribution medium to be used in fulfilling a distribution request.
  - String that must be set to one of the following six values: "FtpPush", "FtpPull", "8MM", "CDROM", "DLT", "ANY."
  - If the "media type" of a distribution request matches the string then the attribute evaluates to true.
  - If the string is set to the reserved word "ANY," the attribute always evaluates to true.
  - String comparisons are case-sensitive.
  - Currently “8MM”, “CDROM”, and “DLT” never appear in distribution requests because media requests are redirected to PDS.

13 To start verification of the update at the **1>** prompt enter:

select * from <table name>

- Alternatively, use one of the options described in Step 6.

14 At the **2>** prompt enter:

go

- Table contents are displayed.
- Specified value(s) should have been updated.
- For example:

```
1> select * from DsDdAssignmentRule
2> go
 SeqNum      ThreadPoolId ECSUserId
       Priority       EsdtType
       MediaType
 ----------- ------------ ----------------------------------------------
      -------------- ----------------------------------------------
      ----------------------------------------------
      800          1 $EcDpPrEM
      XPRESS         ANY
      ANY
      700          2 ANY
      VHIGH          ANY
      ANY
      600          3 ANY
      HIGH           ANY
      ANY
      400          4 ANY
      NORMAL         ANY
      ANY
      500          5 ANY
```

LOW ANY
ANY

(5 rows affected)

15 To exit from isql at the **1>** prompt enter:

quit

- The connection with the database is discontinued.
- A UNIX command line prompt is displayed.

Table 18.4-6. Modify PriorityThread Table Values in the Storage Management and Data Distribution Database Using the EcDsDdPTEdit.pl Script - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (APC Server)	**single-click** or use procedure in Section 18.2.1
2	**isql –U <user ID> -S <database server>**	**enter text, press Enter**
3	**<database password>**	**enter text, press Enter**
4	**select * from <table name> * from <table name>**	**enter text, press Enter**
5	**go**	**enter text, press Enter**
6	**select * from <table name>**	**enter text, press Enter**
7	**go**	**enter text, press Enter**
8	**update <table name> set <column name 1>=<value 1> where <column name 2>=<value 2>** (if applicable)	**enter text, press Enter**
9	**delete <table name> where <column name 1>=<value 1>** (if applicable)	**enter text, press Enter**
10	**insert <table name> (<column name 1>,<column name 2>,<column name 3>…)** (if applicable)	**enter text, press Enter**
11	**values (<value 1>,<value 2>,<value 3>…)** (if applicable)	**enter text, press Enter**
12	**go**	**enter text, press Enter**
13	**select * from <table name>**	**enter text, press Enter**
14	**go**	**enter text, press Enter**
15	**quit**	**enter text, press Enter**

18.4.3 Modify Parameters in the DsDdThreadPool Table Using ISQL

Modifications to the DsDdThreadPool table must be made while the Distribution Server is idle, as described in the procedure that follows.

Table 18.4-7 presents (in a condensed format) the steps required to modify parameters in the DsDdThreadPool table using isql. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If any rule in the DsDdAssignmentRule table references a thread pool that is going to be deleted from the DsDdThreadPool table, update the rules in the DsDdAssignmentRule table so that no additional requests will be assigned to the thread pool that is to be deleted.

- Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL** procedure (Section 18.4.2).
- Thread pool assignment rules are defined by the rows in the DsDdAssignmentRule table.
- A thread pool should not be deleted while any rule in the DsDdAssignmentRule table references that thread pool.

2 If any request in the DsDdRequest table references a thread pool that is to be deleted, wait until all requests that are currently assigned to the thread pool have been completed before continuing.

- A thread pool should not be deleted while there is a request in the DsDdRequest table that references the thread pool.

3 When there are no current requests assigned to any thread pool to be deleted (if any), make a request to the Operations Controller/System Administrator to bring down (stop) the Distribution Server (EcDsDistributionServer) in the appropriate mode.

- If a new pool is added to DsDdThreadPool and new rules are added to DsDdAssignmentRule while the Distribution Server is running and the new rules result in a request being assigned to the new pool, the request will be suspended with a DsEDdMissingPool error code.
  - The suspended request cannot be resumed until the Distribution Server is warm-started.

4 Wait until the Distribution Server has stopped.

5 If a thread pool is to be deleted, use isql to set the ThreadLimit in the DsDdThreadPool table to zero.

- Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL** procedure (Section 18.4.2).

6 If a thread pool is to be added to the DsDdThreadPool table or an existing thread pool is to modified, modify the DsDdThreadPool table using isql.

- Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL** procedure (Section 18.4.2).
- Each thread pool is defined by a row in the DsDdThreadPool table.
- The following attributes must be specified for each row in the DsDdThreadPool table:
  - ThreadPoolId.
  - ThreadPoolName.
  - ThreadLimit.
- ThreadPoolId.
  - Unique identifier for the thread pool.
  - Integer with a value greater than zero.
  - Each row in DsDdThreadPool must have a unique TheadPoolId.
- ThreadPoolName.
  - Name of the thread pool.
  - String with a length less than or equal to 24 characters.
  - Each row in DsDdThreadPool must have a unique ThreadPoolName.
- ThreadLimit.
  - Number of threads available for processing requests assigned to the thread pool.
  - Integer with a value greater than or equal to zero.
  - If the ThreadLimit for a given thread pool is zero, any requests that are assigned to the thread pool will remain in the pending state until the ThreadLimit is set to a value greater than zero.
  - If the ThreadLimit for a given thread pool is updated from a non-zero value to zero, no new requests assigned to the thread pool will be activated; however, any currently active requests will be allowed to complete.
  - The total of the thread limits for all thread pools must be less than the number of worker threads configured for DDIST.
  - The default worker thread configuration for DDIST is 228 threads.

7 When the appropriate modifications to the DsDdThreadPool table have been made using isql, make a request to the Operations Controller/System Administrator to perform a warm start of the Distribution Server (EcDsDistributionServer) in the appropriate mode.

8 If a thread pool is to be deleted (i.e., the ThreadLimit in the DsDdThreadPool table has been set to zero), wait until all completed requests that were assigned to the thread pool have been subject to garbage collection from the DsDdRequest table before continuing.

- A waiting time of 24 hours should be adequate.

9 If a thread pool is to be deleted (i.e., the ThreadLimit in the DsDdThreadPool table has been set to zero) and the waiting period has expired, use isql to delete the relevant row from DsDdThreadPool table.

- Refer to the **Modify System Parameters in the Storage Management and Data Distribution Database Using ISQL** procedure (Section 18.4.2).

Table 18.4-7. Modify Parameters in the DsDdThreadPool Table Using ISQL - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Update the rules in the DsDdAssignmentRule table so that no additional requests will be assigned to the thread pool that is to be deleted (if applicable)	Use procedure in Section 18.4.2
2	Wait until all requests that are currently assigned to the thread pool have been completed before continuing (if applicable)	**wait**
3	Make a request to the Operations Controller/System Administrator to bring down the Distribution Server in the appropriate mode (if applicable)	**contact Operations Controller**
4	Wait until the Distribution Server has stopped	**wait**
5	Use isql to set the ThreadLimit in the DsDdThreadPool table to zero (if applicable)	Use procedure in Section 18.4.2
6	Modify the DsDdThreadPool table using isql	Use procedure in Section 18.4.2
7	Make a request to the Operations Controller/System Administrator to perform a warm start of the Distribution Server in the appropriate mode (if applicable)	**contact Operations Controller**
8	Wait until all completed requests that were assigned to the thread pool have been subject to garbage collection from the DsDdRequest table (if applicable)	**wait**
9	Use isql to delete the relevant row from DsDdThreadPool table (if applicable)	Use procedure in Section 18.4.2

18.5 Troubleshooting DDIST Problems

Troubleshooting is a process of identifying the source of problems on the basis of observed trouble symptoms. Most problems with data distribution can be traced to some part of the Data Server Subsystem:

- Data Distribution.
- Science Data Server.
- Storage Management.

However, a common source of problems involves the reliance on messages or data from other subsystems. Like many other operational areas in ECS, data distribution has interfaces with other subsystems. Consequently, it is possible to trace some problems to another ECS subsystem, including (but not necessarily limited to) those in the following list:

- Communications Subsystem (CSS).
- System Management Subsystem (MSS).

The general process of troubleshooting involves the following activities:

- Review the trouble symptoms.
- Check the status of relevant hosts/servers (as necessary).
- Check log files (as necessary).
- Take action to correct the problem(s).

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 18.5-1, below, provides an Activity Checklist for troubleshooting DDIST problems.

Table 18.5-1. Troubleshooting DDIST Problems - Activity Checklist (1 of 2)

Order	Role	Task	Section	Complete?
1	Distribution Technician	Troubleshoot a Data Distribution Failure	(P) 18.5.1	
2	Distribution Technician	Check Connections to Hosts/Servers	(P) 18.5.1.1	
3	Distribution Technician	Check Log Files	(P) 18.5.1.2	
4	Distribution Technician	Recover from a Data Distribution Failure	(P) 18.5.2	
5	Distribution Technician	Respond to Requests that Exceed the Distribution Request Threshold	(P) 18.5.2.1	
6	Distribution Technician	Check the Connection to the Remote FTP Host	(P) 18.5.2.2	
7	Distribution Technician	Check the Request Manager Server Debug Log	(P) 18.5.2.3	
8	Distribution Technician	Check the Science Data Server Log Files	(P) 18.5.2.4	
9	Distribution Technician	Check the Archive Server Log Files	(P) 18.5.2.5	
10	Distribution Technician	Check the Staging Disk	(P) 18.5.2.6	
11	Distribution Technician	Check the Staging Disk ALOG File	(P) 18.5.2.7	

Table 18.5-1. Troubleshooting DDIST Problems - Activity Checklist (2 of 2)

Order	Role	Task	Section	Complete?
12	Distribution Technician	Check the Space Available in the Staging Area	(P) 18.5.2.8	
13	Distribution Technician	Check Database Connections	(P) 18.5.2.9	

18.5.1 Troubleshoot a Data Distribution Failure

1 If it is not possible to log in to the Distribution Server or any other host, ask the Operations Controller/System Administrator to verify that the host is "up."

- Examples of Distribution Server host names include **e0dis02**, **g0dis02**, **l0dis02,** **n0dis02**.

2 If the GUI (e.g., the **Data Distribution Operator GUI** or the **Storage Management Control** GUI) is not displayed when the start-up script has been properly invoked, ensure that the DISPLAY variable was set properly.

- For detailed instructions refer to the applicable procedure.
  - **Log in to ECS Hosts** (Section 18.2.1).
  - **Launch the Data Distribution Operator and Storage Management Control GUIs** (Section 18.2.2).

3 If an error message associated with the **Data Distribution Operator GUI** is received, refer to Table 18.5-2, Data Distribution Operator GUI User Messages.

- The table is adapted from the corresponding table in 609-CD-600-001, *Release 6A Operations Tools Manual for the ECS Project*).

4 If an error message associated with the **Storage Management Control** GUI is received, refer to Table 18.5-3, Storage Management User Messages.

- The table is adapted from DsShErrorMessages.txt and DsStErrorMessages.txt in the /usr/ecs/<MODE>/CUSTOM/data/DSS directory on the DSS hosts.

5 If the status of a request changes to "Suspended with Errors" (indicating a data distribution failure) and the suspended request is an FtpPush request to a remote host (e.g., ftp.averstar.com), ensure that it is possible to connect to the remote host.

- For detailed instructions refer to the **Check the Connection to the Remote FTP Host** procedure (Section 18.5.2.2).

6 If the status of a request changes to "Suspended with Errors," indicating a data distribution failure, ensure that it is possible to connect to the necessary hosts and servers.
- For detailed instructions refer to the **Check Connections to Hosts/Servers** procedure (Section 18.5.1.1).

7 If the status of a request changed to "Suspended with Errors" and if the necessary hosts/servers are all "up," notify the Operations Controller/System Administrator to have the STMGT servers bounced.
- Bouncing servers involves shutting down and immediately restarting the servers.

8 If the status of a request changed to "Suspended with Errors" and if the STMGT servers have been bounced, resume processing of the suspended request.
- For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).

9 If processing of a suspended request does not resume, go to the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

10 If some other type of problem is encountered, check the log files for error messages.
- Examples of log files include EcDsDdistGui.ALOG, EcDsDistributionServer.ALOG, EcDsStRequestManagerServer.ALOG, EcDsStStagingDiskServerDIP1.ALOG.
- Log files are located in the /usr/ecs/<MODE>/CUSTOM/logs directory.
- For detailed instructions refer to the **Check Log Files** procedure (Section 18.5.1.2).

11 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 18.5-2. Data Distribution Operator GUI User Messages (1 of 7)

Message Text	Impact	Cause and Corrective Action
Cannot create connection pool.	Attempt to create connection pool to database failed.	1. Refresh the GUI display (**single-click** on the **Refresh** button). 2. Check the database connections. [For detailed instructions refer to the **Check Database Connections** procedure (Section 18.5.2.8).] 3. Refresh the GUI display (**single-click** on the **Refresh** button). 4. If the problem recurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

Table 18.5-2. Data Distribution Operator GUI User Messages (2 of 7)

Message Text	Impact	Cause and Corrective Action
Cannot create the DsDdDistRequestList.	The Data Distribution Request List was not created.	1. Refresh the GUI display (**single-click** on the **Refresh** button). 2. Check the database connections. [For detailed instructions refer to the **Check Database Connections** procedure (Section 18.5.2.8).] 3. Refresh the GUI display (**single-click** on the **Refresh** button). 4. If the problem recurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
Cannot get a dbInterface connection pool.	Attempt to get a dbInterface from connection pool to database failed.	1. Refresh the GUI display (**single-click** on the **Refresh** button). 2. Check the database connections. [For detailed instructions refer to the **Check Database Connections** procedure (Section 18.5.2.8).] 3. Refresh the GUI display (**single-click** on the **Refresh** button). 4. If the problem recurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DDist Cancel Failure.	GUI received failure from server. Request was not canceled.	1. Check the current state of the distribution request (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Canceling the request may not be a valid operation in the current state (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the Distribution Server has gone down, notify the Operations Controller/System Administrator to have the server brought back up. 4. Refresh the GUI display (**single-click** on the **Refresh** button). 5. Try again to cancel the request. [For detailed instructions refer to the **Cancel Data Distribution Requests** procedure (Section 18.2.8).] 6. If repeated attempts to cancel the request fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DDist Mark Shipped Failure.	GUI received failure from server. Request was not marked "Shipped."	No Longer Applicable.

Table 18.5-2. Data Distribution Operator GUI User Messages (3 of 7)

Message Text	Impact	Cause and Corrective Action
DDist Refresh Failure.	Data Distribution Refresh Error. Dialogue Message GUI was not able to get new request list from server.	1. Check the database connections. [For detailed instructions refer to the **Check Database Connections** procedure (Section 18.5.2.8).] 2. Refresh the GUI display (**single-click** on the **Refresh** button). 3. If the problem recurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DDist Resume All Failure.	GUI received failure from server. Requests were not resumed.	1. Check the current state of the distribution request(s) (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Resuming the request(s) may not be a valid operation in the current state(s) (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the Distribution Server has gone down, notify the Operations Controller/System Administrator to have the server brought back up. 4. Refresh the GUI display (**single-click** on the **Refresh** button). 5. Try again to resume the request(s). [For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).] 6. If repeated attempts to resume request processing fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DDist Resume Failure.	GUI received failure from server. Request was not resumed.	1. Check the current state of the distribution request (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Resuming the request may not be a valid operation in the current state (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the Distribution Server has gone down, notify the Operations Controller/System Administrator to have the server brought back up. 4. Refresh the GUI display (**single-click** on the **Refresh** button). 5. Try again to resume the request. [For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).] 6. If repeated attempts to resume request processing fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

Table 18.5-2. Data Distribution Operator GUI User Messages (4 of 7)

Message Text	Impact	Cause and Corrective Action
DDist Set Priority Failure.	GUI received failure from server. Request set priority failed.	1. Check the current state of the distribution request (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Setting priority may not be a valid operation in the current state (e.g., if the current state is "Shipped"). 2. Enter **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the server has gone down, notify the Operations Controller/System Administrator to have it brought back up. 4. Try again to set the priority of the selected distribution request. [For detailed instructions refer to the **Change the Priority of Data Distribution Requests** procedure (Section 18.2.6).] 5. If repeated attempts to set the request priority fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DDist Suspend All Failure.	GUI received failure from server. Requests will not be submitted in a SuspendAll state.	1. Check the current state of the distribution request(s) (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Suspending the request(s) may not be a valid operation in the current state(s) (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the Distribution Server has gone down, notify the Operations Controller/System Administrator to have the server brought back up. 4. Refresh the GUI display (**single-click** on the **Refresh** button). 5. Try again to suspend the request(s). [For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).] 6. If repeated attempts to suspend request processing fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

Table 18.5-2. Data Distribution Operator GUI User Messages (5 of 7)

Message Text	Impact	Cause and Corrective Action
DDist Suspend Failure.	GUI received failure from server. Request was not suspended.	1. Check the current state of the distribution request (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Suspending the request may not be a valid operation in the current state (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the Distribution Server has gone down, notify the Operations Controller/System Administrator to have the server brought back up. 4. Refresh the GUI display (**single-click** on the **Refresh** button). 5. Try again to suspend the request. [For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).] 6. If repeated attempts to suspend request processing fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DsDdRequestMgrC Cancel Failure.	GUI received failure from server. Request was not canceled.	1. Check the current state of the distribution request (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Canceling the request may not be a valid operation in the current state (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the Distribution Server has gone down, notify the Operations Controller/System Administrator to have the server brought back up. 4. Refresh the GUI display (**single-click** on the **Refresh** button). 5. Try again to cancel the request. [For detailed instructions refer to the **Cancel Data Distribution Requests** procedure (Section 18.2.8).] 6. If repeated attempts to cancel the request fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DsDdRequestMgrC create handle error.	Error cannot create Request Manager Handle to the Data Distribution Server.	1. **Single-click** on the **Refresh** button to try again. 2. Check the database connections. [For detailed instructions refer to the **Check Database Connections** procedure (Section 18.5.2.8).] 3. Refresh the GUI display (**single-click** on the **Refresh** button). 4. If the problem recurs, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

Table 18.5-2. Data Distribution Operator GUI User Messages (6 of 7)

Message Text	Impact	Cause and Corrective Action
DsDdRequestMgrC Mark Shipped Failure.	GUI received failure from server. Request was not marked "Shipped."	No Longer Applicable.
DsDdRequestMgrC Resume Failure.	GUI received failure from server. Request was not resumed.	1. Check the current state of the distribution request (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Resuming the request may not be a valid operation in the current state (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the Distribution Server has gone down, notify the Operations Controller/System Administrator to have the server brought back up. 4. Refresh the GUI display (**single-click** on the **Refresh** button). 5. Try again to resume the request. [For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).] 6. If repeated attempts to resume request processing fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
DsDdRequestMgrC Set Priority Failure.	GUI received failure from server. Request priority was not changed.	1. Check the current state of the distribution request (**State** column of the **Data Distribution Requests** list on the **Distrib'n Requests** tab). Setting priority may not be a valid operation in the current state (e.g., if the current state is "Shipped"). 2. Enter: **ps -ef | grep EcDsDistributionServer** (Ensure that the Distribution Server is "up.") 3. If the server has gone down, notify the Operations Controller/System Administrator to have it brought back up. 4. Try again to set the priority of the selected distribution request. [For detailed instructions refer to the **Change the Priority of Data Distribution Requests** procedure (Section 18.2.6).] 5. If repeated attempts to set the request priority fail, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
Invalid text field entry.	Invalid data was entered.	1. Enter valid data in the relevant field. 2. Retry the operation that led to the error message.

Table 18.5-2. Data Distribution Operator GUI User Messages (7 of 7)

Message Text	Impact	Cause and Corrective Action
No Ddist request selected. Please select one.	An operation was performed without first selecting a request from the scrolled list.	1. **Single-click** on (highlight) the appropriate request in the list. 2. Retry the operation that led to the error message.

Table 18.5-3. Storage Management User Messages (1 of 36)

Message Text	Impact	Cause and Corrective Action
.lib section in a.out corrupted	Standard system error.	
550 The file to be ftp pulled does not exist at the source location. Either the file never existed at the source location or the source locations file system or network is having problems.	Error returned by the FTP protocol.	Retry.
553 The destination for the file does not exist or the destination exist but the permissions are such on the directory that the file cannot be written or the file already exist and can not be overwritten.	Error returned by the FTP protocol.	Retry.
A command to remove a file failed	Error from DsStStagingMonitor.	
A component of the path prefix is not a directory.	Error from SCSI.	
A configuration parameter had a null or invalid value	Error from DsStStagingMonitor.	
A daemon process was cold restarted so your request has been cancelled	Error returned from DsStCacheManagerServer.	

Table 18.5-3. Storage Management User Messages (2 of 36)

Message Text	Impact	Cause and Corrective Action
A [sic] error occured [sic] using a class destructor [sic].	Error for Archive.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
A file name was not found as expected in the database	Error from DsStStagingMonitor.	
A file size was not the length expected.	Error for Archive.	Retry.
A [sic] interrupted signal was caught.	Error from SCSI.	Retry.
A network error has occurred	Staging disk error message.	Retry.
A request has completed all processing	Error from DsStStagingMonitor.	[No action necessary.]
A request has not completed all processing	Error from DsStStagingMonitor.	[No action necessary.]
A Restart Backup request has failed.	Error for Archive.	Retry.
A search for a file to be retrieved has exhausted all locations.	Error for Archive.	Retry.
A staging disk object was not created in GetLocation()	Error for Archive.	1. Note all possible details related to the error. 2. Report all possible details to the vendor. 3. Retry.
A Store request failed because the volume group is closed.	Error for Archive.	1. Modify the desired volume group location to the valid path. 2. Retry.
Accessing a corrupted shared library	Standard system error.	
Address already in use	Standard system error.	Specify a free port on the server or specify a different server.
Address family not supported by protocol family	Standard system error.	
Advertise error	Standard system error.	

Table 18.5-3. Storage Management User Messages (3 of 36)

Message Text	Impact	Cause and Corrective Action
After the directory was made, the directory could not be stat [sic]	Staging disk error message.	1. Check the SYSLOG for errors. 2. Retry.
All request slots are currently busy	Error returned from DsStCacheManagerServer.	Retry.
An attempt to delete a file failed.	Error for Archive.	1. Change the permissions on the file. 2. Retry the request.
An attempt to find a Cache Manager serverId has failed.	Error for Archive.	Retry.
An attempt to find a needed server has failed.	Error for Archive.	Retry.
An attempt to generate Restart Backup File requests failed.	Error for Archive.	Retry.
An attempt to generate Store File requests failed.	Error for Archive.	Retry.
An attempt to reserve space for a Retrieve request failed.	Error for Archive.	Retry.
An attempt to retrieve data values from the database failed.	Error from DsStStagingMonitor.	
An attempt to spawn a read thread failed.	Error for Archive.	Retry.
An attempt to spawn a service thread failed.	Error for Archive.	Retry.
An attempt to spawn a write thread failed.	Error for Archive.	Retry.
An attempt to submit a reserve file for a Retrieve request failed.	Error for Archive.	Retry.
An attempt to submit a reserve space for a Retrieve request failed.	Error for Archive.	Retry.

Table 18.5-3. Storage Management User Messages (4 of 36)

Message Text	Impact	Cause and Corrective Action
An error was encountered generating ArDeleteFile requests.	Error for Archive.	Retry.
An internal error has occurred while communicating with Sybase	Error from database.	1. Check the Sybase error log for Sybase communication errors. 2. Ensure that Sybase is up and running properly. 3. Bounce the STMGT server warm to clear any transient error that may have corrupted the connection to the database.
An unknown exception has occurred	DsSt error.	[This error is an internal error in STMGT. It should never happen.] Report the error to the ECS DAAC Help Desk immediately.
An unknown request checkpoint state was found in the database.	Error for Archive.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
An unknown request type has been submitted to this server	Error returned from DsStCacheManagerServer.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
Anode table overflow	Standard system error.	
Archive location does not contain requested file	Error for Archive.	Verify the spelling/path name of the requested file.
Archive location does not exist as defined in db tables	Error for Archive.	1. Check the spelling of the archive location that was entered. 2. If the spelling is correct, contact the System Administrator to determine whether the name should be made a new entry.
Archive location does not have adequate permissions	Error for Archive.	1. Ensure that the user ID used when logging in has the proper permissions. 2. If necessary, contact the Archive Administrator to have the permissions set properly.
Archive location does not have adequate permissions for files	Error for Archive.	1. Ensure that the user ID used when logging in has the proper permissions. 2. If necessary, contact the Archive Administrator to have the permissions set properly. 3. Retry.

Table 18.5-3. Storage Management User Messages (5 of 36)

Message Text	Impact	Cause and Corrective Action
Archive Store failed due to illegal file path	Error for Archive.	1. Verify that the file path given is a valid file path. 2. Retry.
Archive Store Failed EcUtFileCopy.Copy() failed	Error for Archive.	
Arg list too long	Standard system error.	
Attempting to link in more shared libraries than system limit	Standard system error.	
BackupOffsite() failed -- Offsite ID == DsCStEmptyString	Error for Archive.	1. Modify the ID of the desired offsite location. (The ID of the desired offsite location must be given and must not be an empty string.) 2. Retry
BackupOnlineLocation failed -- SP DsCStVGSelectHistory execute failed	Error for Archive.	Retry.
BackupTemporaryAndOffsite() failed -- Offsite ID == DsCStEmptyString	Error for Archive.	1. Modify the ID of the desired offsite location. (The ID of the desired offsite location must be given and must not be an empty string.) 2. Retry
Bad address	Standard system error.	If the error arose from a gethostname() call, check the name and namelen parameters.
Bad command sequence -- error in ftp #503	Error returned by the FTP protocol.	
Bad exchange descriptor	Standard system error.	
Bad file descriptor	Standard system error.	1. Check whether the file exists. 2. Check file permissions.
Bad font file format	Standard system error.	
Bad request code	Standard system error.	
Bad request descriptor	Standard system error.	
Bad XDR Stream	Error from DsStFileInfo.	Retry.
Block device required	Standard system error.	
Broken pipe	Standard system error.	

Table 18.5-3. Storage Management User Messages (6 of 36)

Message Text	Impact	Cause and Corrective Action
Cache file entry not in db	Error returned from DsStCacheManagerServer.	[No action necessary.]
calculate checksum is disabled	DsSt error.	[Not an error.]
calculated checksum not equal to specified	DsSt error.	
Cancelled by a STMGT client	STMGT restart code.	
Cancelled due to client restart	STMGT restart code.	
Cancelled due to STMGT server cold start	STMGT restart code.	[The STMGT server reporting the error was cold started while the submitted request was in queue.] Resubmit the request. (It will be re-processed as if it were a new request.)
Cannot access a needed shared library	Standard system error.	
Cannot assign requested address	Standard system error.	Specify a free port on the server.
Cannot delete from DsStBackup Table -- SP DsCStBDelete execute() failed	Error for Archive.	[No action necessary.]
Cannot delete from DsStRestore Table -- SP DsCStRDelete execute() failed	Error for Archive.	[No action necessary.]
Cannot exec a shared library directly	Standard system error.	
Cannot insert key -- file already exist [sic] in list	Error from DsStStagingDataList.	[No action necessary.]
Cannot open input file	Error from DsStPosixUtil.	Verify that the current user ID has read permission for the file.
Cannot open output file	Error from DsStPosixUtil.	1. Verify that the file is not already open for output. 2. Verify that the current user ID has write permission for the file.
Cannot send after socket shutdown	Standard system error.	
Can't open data connection -- error in ftp #425	Error returned by the FTP protocol.	
CDS path is null	Error for DsStArchiveProxy.	

Table 18.5-3. Storage Management User Messages (7 of 36)

Message Text	Impact	Cause and Corrective Action
Channel number out of range	Standard system error.	
Command not available -- error in ftp #502	Error returned by the FTP protocol.	
Command not implemented for that parameter -- error in ftp #504	Error returned by the FTP protocol.	
Communication error on send	Standard system error.	
Components of path require hopping to multiple remote machines and the file system does not allow it.	Error from SCSI.	
Connection closed, transfer aborted -- error in ftp #426	Error returned by the FTP protocol.	
Connection refused	Standard system error.	1. Verify that the target machine is connected. 2. Verify that the listening server is running.
Connection reset by peer	Standard system error.	
Connection timed out	Standard system error.	1. Check the condition of the network. 2. Retry.
could not close input file	Error from DsStPosixUtil.	[No action necessary.]
could not close output file	Error from DsStPosixUtil.	[No action necessary.]
could not create a pull monitor object	Error from DsStDistributionFtp.	Retry.
could not create a stagingdisk for inftp	Error from inftp.	Retry.
could not create global pointer	Error from DsStDistributionFtp.	
could not create pointer to config file	Error from DsStDistributionFtp.	
Could not determine file size of file.	Error for Archive.	Verify the spelling/path name of the requested file.
Could not remove the staging disk entry from the database	Staging disk error message.	1. Check whether the staging disk exists in the database. (Probable that the disk does not exist.) 2. Retry.

Table 18.5-3. Storage Management User Messages (8 of 36)

Message Text	Impact	Cause and Corrective Action
Could not stat [sic] the file, possible NFS problems or file does not exist	Staging disk error message.	1. Check whether the file exists in the file system. 2. If the file does exist, check the SYSLOG for NFS errors. 3. Retry.
Cross-device link	Standard system error.	Substitute a symbolic link.
DB Session unusable to previous error	Error from database.	[An attempt has been made to continue with a database operation when the previous operation failed. The previous failure has left the connection in a state that is unsuitable for continuing.] Retry.
DCE object not created	Error for DsStArchiveProxy.	Retry.
Deadlock situation detected/avoided	Standard system error.	
default	Error from DsStDistributionFtp.	
Denial of service -- error in ftp #702	Error returned by the FTP protocol.	
Destination address required	Standard system error.	
Device busy	Standard system error.	
Device is already open.	Error from SCSI.	
Device is not open.	Error from SCSI.	
Device Name should be specified to this device control operation	Media error message.	
Directory not empty	Standard system error.	
Drive element number in database does not match any of the physical drives.	Media error message.	
Eject tape Failed	Media error message.	
Empty archive location -- (myArchiveLocation == DsCStEmptyString)	Error for Archive.	[The name of the desired archive location must be given.]

Table 18.5-3. Storage Management User Messages (9 of 36)

Message Text	Impact	Cause and Corrective Action
empty archive location -- failed in SetBackupOnlineLocation()	Error for Archive.	Retry.
Empty file in move request not added to database	Error from DsStStagingMonitor.	
Empty Offline Location	Error for Archive.	[The name of the off-line location must be given.]
empty VG Key	Error for Archive.	
Empty Volume group error	Error for DsStArchiveProxy.	
Environmental variable POSIXUTILCONFIG not set	Error from DsStPosixUtil.	1. Determine an appropriate value for the variable. 2. Set the variable to the appropriate value. 3. Run the command.
Error : User | Password | Host | Source | RequestID are not entered	Error from inftp.	[Any one or more of the following have not been entered: User, Password, Host, Source, or RequestID.] Verify that non-empty strings have been provided for all fields.
Error 47	Standard system error.	
Error closing server	Error for DsStFtpUtility.	Retry.
Error encountered in stored procedure	Error for Archive.	[See the description from the stored procedure DsCStSPBSelectByName.] Retry.
Error encountered in stored procedure	Error from database.	[See the description from the stored procedure.] Retry.
Error in closing server	Error for DsStFtpUtility.	Retry.
Error in closing the server	Error for DsStFtpUtility.	Retry.
Error in closing the server	Error from DsStNetworkResource.	Retry.
Error in executing ftp Exec()	Error from DsStNetworkResource.	Retry.
Error in FTP Unable to open file to FTP	Error from DsStNetworkResource.	1. Verify that the file exists. 2. Retry.
Error in opening server	Error for DsStFtpUtility.	Retry.

Table 18.5-3. Storage Management User Messages (10 of 36)

Message Text	Impact	Cause and Corrective Action
Error in opening the server	Error from DsStNetworkResource.	Retry.
Error in Receiving files	Error for DsStFtpUtility.	Retry.
Error in receiving files	Error from DsStNetworkResource.	Retry.
Error in sending files	Error from DsStNetworkResource.	Retry.
Error in setting hostname	Error for DsStFtpUtility.	Retry.
Error in setting local directory	Error for DsStFtpUtility.	Retry.
Error in setting the local directory	Error from DsStNetworkResource.	Retry.
Error in setting the remote directory	Error from DsStNetworkResource.	Retry.
Error in setting user	Error for DsStFtpUtility.	Retry.
Error in setting user name	Error from DsStNetworkResource.	Retry.
Error in setting User Password	Error for DsStFtpUtility.	Retry.
Error opening the server	Error for DsStFtpUtility.	Retry.
Error receiving files	Error for DsStFtpUtility.	Retry.
Error Recieving [sic] file	Error for DsStFtpUtility.	Retry.
Error returned when distributes [sic] files from a staging disk to the tape media in tar format.	Error for tape.	
Error returned when ingests [sic] files from the tape media to a staging disk in tar format.	Error for tape.	

Table 18.5-3. Storage Management User Messages (11 of 36)

Message Text	Impact	Cause and Corrective Action
Error returned when verify [sic] the source file list.	Error for tape.	
Error selecting data from the database	Error for Archive.	[A stored procedure is returning a failed status code for a stored procedure.] 1. Set the debug level (for the relevant server) at 3 in the Registry database. 2. Reproduce the error.
Error setting hostname	Error for DsStFtpUtility.	Retry.
Error setting hostname -- host not exist [sic] or network error	Error from DsStNetworkResource.	Retry.
Error setting local directory	Error for DsStFtpUtility.	Retry.
Error setting remote directory	Error for DsStFtpUtility.	Retry.
Error setting server	Error for DsStFtpUtility.	Retry.
Error setting user	Error for DsStFtpUtility.	Retry.
Error setting user name	Error for DsStFtpUtility.	Retry.
Error setting user password	Error from DsStNetworkResource.	Retry.
Error setting user password function	Error for DsStFtpUtility.	Retry.
Error updating the initial RegMgrNotifiedFlag	Media error message.	[No action necessary.]
Error writing file in fast copy	Error from DsStPosixUtil.	Retry.
Exceeded maximum number of allowable connections to Sybase	Error from database.	1. Verify that the Sybase database configuration has been configured with an adequate number of connections. 2. Retry.
Exceeded storage allocation for current directory or dataset -- error in ftp #552	Error returned by the FTP protocol.	
Exec format error	Standard system error.	

Table 18.5-3. Storage Management User Messages (12 of 36)

Message Text	Impact	Cause and Corrective Action
execute() of Stored Procedure -- DsStGRInsert -- failed	Error from DsStDistributionFtp.	[No action necessary.]
Failed attempting to connect to Sybase server	Error from database.	1. Ensure that DBServer for the server has been set properly in the Registry database. 2. Ensure that DBName for the server has been set properly in the Registry database. 3. Retry.
Failed attempting to login to Sybase	Error from database.	1. Verify that the Application ID for the server has been properly set in the Registry database. 2. Verify that login accounts have been properly set up in the Sybase database. 3. Retry.
Failed in checking the slot status.	Media error message.	
Failed in checking the status of tape drive	Media error message.	
Failed in executing stored procedure to retrieve device info by stackerId.	Media error message.	
Failed in executing stored procedure to retrieve slot info by stackerId.	Media error message.	
Failed in executing stored procedure to retrieve stacker info by stackerId.	Media error message.	
Failed to allocate a tape device	Error from SCSI.	
failed to build the client object with parameters for the CDS path	Error for DsStArchiveProxy.	
Failed to deallocate a tape device	Error from SCSI.	
Failed to get necessary information from database	Error for Archive.	[No action necessary.]
Failed to get the cellname	Error for DsStArchiveProxy.	

Table 18.5-3. Storage Management User Messages (13 of 36)

Message Text	Impact	Cause and Corrective Action
Failed to get the client mode	Error for DsStArchiveProxy.	1. Ensure that a mode has been specified as an option on the command line or in the calling script. 2. If a mode has been entered, ensure that it is a valid mode and that all other required command-line options have been entered.
Failed to get the PF config File Pointer	Error for DsStArchiveProxy.	[This command requires a ConfigFile option, where the word ConfigFile is followed by a valid PF config file name.]
Failed to get the PF Global pointer	Error for DsStArchiveProxy.	
Failed to insert the file into the staging disk inventory	Staging disk error message.	(This error should not occur.) 1. Verify that the staging disk exists. 2 Retry.
Failed to load tape (time out).	Error from SCSI.	Retry.
Failed to rename the file in the file system	Staging disk error message.	1. Check the SYSLOG for errors. 2. Resubmit the request.
Failed to rename the file in the file system and could not reset the original file in the staging disk inventory	Staging disk error message.	Retry.
Failed to rename the file in the staging disk inventory	Staging disk error message.	1. Check the staging disk inventory for the file to be renamed. 2. Retry if the file exists. (If the file does not exist, the request should not be attempted again.)
Failed to stat [sic] the created staging disk directory and the staging disk entry could not be removed from the database	Staging disk error message.	1. Check NFS for errors. 2. The directory entry should be cleaned out of the database upon a warm or cold startup. 3. Retry.
Failed to stat [sic] the created staging disk directory.	Staging disk error message.	1. Check for NFS errors. 2. Retry. [If the directory does exist, the directory entry should be removed upon a warm or cold start of the server.]
Failed trying to make the directory entry in the file system.	Staging disk error message.	1. Check the SYSLOG for NFS errors. 2. Check the permissions of the rootpath. 3. Retry.
Failed trying to make the directory entry in the file system. The directory entry could not be removed from the Database.	Staging disk error message.	1. Check the SYSLOG for NFS errors. 2. Check the permissions on the rootpath. (The directory entry will be cleaned out of the database upon a warm start or cold start of the server.)

Table 18.5-3. Storage Management User Messages (14 of 36)

Message Text	Impact	Cause and Corrective Action
Failure in updating database table(s).	Media error message.	
Failure to close file -- not enough space to flush unwritten bytes	Error from DsStStream.	Retry.
Failure to close file in DsStStream	Error from DsStStream.	
Failure to establish a tcp connection	Error returned by the FTP protocol.	
Failure to open file in DsStStream	Error from DsStStream.	Verify that the file name is spelled correctly and the path is correct.
Fatal error returned by Data Distribution.	Error detected by Data Distribution.	
Fildes is not a valid open file descriptor.	Error from SCSI.	
Fildes is not associated with a device driver that accepts control functions.	Error from SCSI.	
File descriptor in bad state	Standard system error.	
File does not exist	Error from DsStUnixCompress.	Verify that the file name is spelled correctly and its path is correct.
File does not exist to copy	Error from DsStPosixUtil.	Verify the path and the spelling of the file name.
File exists	Standard system error.	
File locking deadlock	Standard system error.	
File name of type RWCString is null	Error from DsStFileCompress.	[The file to be compressed was not given a name.] Enter a non-empty string to indicate file name before attempting this operation.
File name too long	Standard system error.	
File not found	Error from DsStFileCompress.	
File table overflow	Standard system error.	
file to [sic] big for buffer -- cannot do fast copy	Error from DsStPosixUtil.	
file to [sic] big to read	Error from DsStPosixUtil.	

Table 18.5-3. Storage Management User Messages (15 of 36)

Message Text	Impact	Cause and Corrective Action
File too large	Standard system error.	
FTP file transfer failed without an FTP error code (unknown cause)	Error returned from DsStCacheManagerServer.	Retry.
Generic error returned by Data Distribution.	Error detected by Data Distribution.	
Get Location failed -- pathIndex > DsStNullIndex	Error for Archive.	
Get Sense Data failed.	Error from SCSI.	
GetVolGroupLocation failed -- SP DsCStVGSelectHistory execute failed	Error for Archive.	Retry.
Host is down	Standard system error.	
I/O error	Standard system error.	Retry.
ID not set	Error from DsStDistributionFtp.	[Could not find the parameter that indicates the request ID for this request (request parameter is currently an empty string).]
Identifier removed	Standard system error.	
If the file exist [sic] with enforced record locking enabled, record locks are on the file	Error from SCSI.	
Illegal byte sequence	Standard system error.	
Illegal seek	Standard system error.	
Inappropriate I/O control operation for device	Standard system error.	
Ingest starts	Media error message.	[No action necessary.]

Table 18.5-3. Storage Management User Messages (16 of 36)

Message Text	Impact	Cause and Corrective Action
InsertBackupTable() failed -- Unable to Insert into the DsStBackup table -- SP DsCStBInsert execute() failed	Error for Archive.	
InsertRestoreTable() failed - Unable to Insert into the DsStRestore table -- SP DsCStRInsert execute() failed	Error for Archive.	
Insufficient space to move file to the read only cache area	Error from DsStStagingMonitor.	Retry.
Insufficient storage -- error in ftp #452	Error returned by the FTP protocol.	
Interrupted system call, possibly during a select() call	Standard system error.	
Invalid Archive area specified for retrieve	Error for Archive.	
Invalid drive path.	Media error message.	
Invalid function argument.	Standard system error.	[If this occurred after the bind() command, the namelen parameter may indicate an incorrect size, or the indicated socket may already be bound.]
Invalid put method type	Error returned from DsStCacheManagerServer.	
Invalid slot	Standard system error.	
Invalid slot number.	Media error message.	
Invalid stacker path.	Media error message.	
Invalid Transfer stage returned from DB -- err in RestartBackup() or RestartRestore()	Error for Archive.	
Is a directory	Standard system error.	Either select a different file name, select a file under the specified directory, or delete the directory.
Level 2 halted	Standard system error.	
Level 2 not synchronized	Standard system error.	
Level 3 halted	Standard system error.	

Table 18.5-3. Storage Management User Messages (17 of 36)

Message Text	Impact	Cause and Corrective Action
Level 3 reset	Standard system error.	
Link exists	Error returned from DsStCacheManagerServer.	
Link has been severed	Standard system error.	
Link number out of range	Standard system error.	
Link of files failed	Staging disk error message.	1. Check the staging disk log to identify the reason for the symlink failure. 2. Retry.
Local error in processing -- error in ftp #451	Error returned by the FTP protocol.	
Machine is not on the network	Standard system error.	
Making space	Error returned from DsStCacheManagerServer.	[Space needed in cache.] Retry
Managed directory path is invalid	Error returned from DsStCacheManagerServer.	Check path and mount points.
Math argument out of domain of function	Standard system error.	
Message tables full	Standard system error.	
Message too long for message buffer	Standard system error.	
Missing request parameters	Media error message.	
MountTape Failed	Media error message.	
msg	Error for DsStArchiveProxy.	Retry.
Multihop attempted	Standard system error.	
Name not unique on network	Standard system error.	
Need account for storing files -- error in ftp #532	Error returned by the FTP protocol.	

Table 18.5-3. Storage Management User Messages (18 of 36)

Message Text	Impact	Cause and Corrective Action
Network dropped connection because of reset	Standard system error.	
Network is down	Standard system error.	Wait for the network to come back up.
Network is unreachable	Standard system error.	
No available drive.	Media error message.	
No buffer space available	Standard system error.	
No child processes	Standard system error.	
No CSI structure available	Standard system error.	
No data available	Standard system error.	
No disk space in pull monitor	Error from DsStDistributionFtp.	Retry.
No entries available to be deleted by Batch Delete function	Error for Archive.	[No action necessary.]
No entries in the queue	From DsStDiskRequestManager.	[No action necessary.]
No filename to delete from the amass cache	Error for DsStArchiveProxy.	Retry.
NO hwci	Error for DsStArchiveProxy.	1. Ensure that a Hardware Configuration Item (HWCI) has been specified as an option on the command line or in the calling script. 2. If an HWCI has been entered, ensure that it is valid and that all other required command-line options have been entered.
No hwci:volgrp error	Error for DsStArchiveProxy.	
No HWCI:volumegroup was passed	Error for Archive.	
No instance of queue exists	Error from DsStDiskRequestManager.	1. Note all circumstances related to the error. 2. Submit a trouble ticket.
No message of desired type	Standard system error.	
No online stacker.	Media error message.	

Table 18.5-3. Storage Management User Messages (19 of 36)

Message Text	Impact	Cause and Corrective Action
No record locks available	Standard system error.	
No records found in file to FTP	Error from DsStNetworkResource.	Check staging disk for file with list. Retry.
No requests have been cancelled for this server	Error returned from DsStCacheManagerServer.	[Not an error.] [The server is checking to see if any requests have been cancelled in order to process the cancellation. No requests have been cancelled. This error can be safely ignored as it is internal to STMGT.]
No resource (drive/slot) available for request	Error for tape.	1. Check stacker/drive status. 2. If appropriate, refill stacker. 3. Retry.
No route to host	Standard system error.	
NO SCSI device	Error from SCSI.	
No servers need to be awakened to service this request	Error returned from DsStCacheManagerServer.	[Not an error.] [The submitted request is a trivial request that can be fulfilled solely from the database. No servers will be notified as part of the request processing.]
No space left on device	Standard system error.	
No space left on device.	Error from SCSI.	
No such device	Standard system error.	
No such device or address; server exited before connection was complete	Standard system error.	
No such file or directory	Standard system error.	Verify the path name of the file or directory.
No such process	Standard system error.	
No such volume group	Error for Archive.	
No value for Capacity set in configuration file	Error from DsStFtpResourceConfig.	1. Ensure that the capacity has been queried on a valid device. 2. Ensure that the ftp resource config file exists. 3. Ensure that the ftp resource config file contains a value for CAPACITY.
Not a data message	Standard system error.	

Table 18.5-3. Storage Management User Messages (20 of 36)

Message Text	Impact	Cause and Corrective Action
Not a directory	Standard system error.	Verify the directory path.
Not a stream device	Standard system error.	
Not enough space	Standard system error.	1. Kill unnecessary processes. 2. Re-nice necessary processes if possible.
Not logged in - error in ftp #530 - username or password incorrect	Error returned by the FTP protocol.	
Not owner	Standard system error.	Either change the permissions or ownership of the file/executable, or run as a different user.
Null UserId or Password	Error for Archive.	[A valid UNIX userID must be entered and must contain at least one character.]
Number of symbolic links encountered during path name traversal exceeds MAXSYMLINKS	Standard system error.	[There are probably symbolic links pointing to each other.]
Object is remote	Standard system error.	
Online Backup Failed EcUtFileCopy.Copy() failed	Error for Archive.	[No action necessary.]
Operation already in progress	Standard system error.	Wait for an operation on the socket or other object to complete.
Operation not applicable/not implemented	Standard system error.	
Operation not supported on transport endpoint	Standard system error.	
Operation now in progress	Standard system error.	
Option not supported by protocol	Standard system error.	
Out of stream resources	Standard system error.	Wait for other processes to release resources.
Package not installed	Standard system error.	
Page type unknown -- error in ftp #551	Error returned by the FTP protocol.	

Table 18.5-3. Storage Management User Messages (21 of 36)

Message Text	Impact	Cause and Corrective Action
Parameter syntax error in FTP -- error in ftp #501	Error returned by the FTP protocol.	
Path points to a remote machine, and the link to that machine is no longer active.	Error from SCSI.	
Path points to an illegal address.	Error from SCSI.	
path to pull monitor not set	Error from DsStDistributionFtp.	[Could not find the parameter that indicates the effective root directory for the pull monitor.] Verify that a path is being supplied.
Pending write is greater than the allocated space	Error from DsStStream.	Temporarily write data to a disk with more free space.
Permission denied	Standard system error.	1. Execute as root. 2. If already root, choose another socket type or protocol.
Possible space limitation or the disk does not exist in the database	Staging disk error message.	1. Check whether the server has space available. 2. Retry when sufficient space exists. (If the disk does not exist in the database, the request should be failed.)
Process chosen as database deadlock victim	Error from database.	[Command is automatically re-run.]
Protocol driver not attached	Standard system error.	
Protocol error	Standard system error.	
Protocol family not supported	Standard system error.	
Protocol not supported	Standard system error.	Call socket() with a different protocol.
Protocol wrong type for socket	Standard system error.	[Source code needs to be checked; name struct passed to connect command must reflect the protocol type used to open the socket.]
Pull monitors [sic] pull directory is null	Error from DsStDistributionFtp.	[Could not find the parameter that indicates the pull directory for this ftp request.] Verify that a path is being supplied.
Read only cache location does not have adequate permissions	Error for Archive.	1. Ensure that the user ID used when logging in has the proper permissions. 2. If necessary, contact the Cache Manager Administrator to have the permissions set properly.

Table 18.5-3. Storage Management User Messages (22 of 36)

Message Text	Impact	Cause and Corrective Action
Read-only file system	Standard system error.	1. Determine whether it is possible to write to the destination directory (i.e., check permissions). 2. If it is possible to write to the destination directory, remount the device that contains the directory.
Remote address changed	Standard system error.	
Remote archive not created for BackupOnline or BackupOffline	Error for Archive.	Retry.
Request or arg is not valid for this device.	Error from SCSI.	
Request size exceeds Capacity or Threshold.	Error detected by Data Distribution.	Retry.
Requested file action not taken -- error in ftp #450	Error returned by the FTP protocol.	
Resource temporarily unavailable	Standard system error.	Either kill all unnecessary processes or wait for other processes to terminate.
RestartBackup() failed -- SP DsCStBSelectByNam e execute() failed	Error for Archive.	
RestartNotification function failed	Error for DsStArchiveProxy.	[No action necessary.]
RestartRestore() failed -- SP DsCStRSelectByNam e execute() failed	Error for Archive.	
Restore Offline failed	Error for Archive.	
Result too large	Standard system error.	
Retry error returned by Data Distribution.	Error detected by Data Distribution.	Retry.
SCSI device is busy	Error from SCSI.	Retry.
SCSI device is in check status	Error from SCSI.	Retry.
SCSI device is not accessible.	Error from SCSI.	
Server crashed	STMGT restart code.	1. Check the logs for the identified server to ascertain the cause of the crash. 2. Restart the server as soon as possible 3. Contact the ECS Help Desk for additional support.

Table 18.5-3. Storage Management User Messages (23 of 36)

Message Text	Impact	Cause and Corrective Action
Server crashed and is being automatically restarted (warm)	STMGT restart code.	Check the logs for the identified server to ascertain the cause of the crash.
Server is temporarily unavailable	STMGT restart code.	[The requested server is not running.} 1. If the server is expected to be running, check the logs to determine why the server is no longer running. 2. Restart the server. 3. Resubmit the request.
Service not available -- error in ftp #421	Error returned by the FTP protocol.	
Slot number in database does not match any of the physical slot numbers.	Media error message.	
Socket operation on non-socket	Standard system error.	[Source code needs to be checked; program should not attempt to perform socket operations on non-socket file descriptors.] Submit a trouble ticket.
Socket type not supported	Standard system error.	
Software caused connection abort	Standard system error.	
Some physical I/O error has occurred.	Error from SCSI.	
Source file for a retrieve request was not found	Error for Archive.	1. Verify the spelling and pathname of the file to be retrieved. 2. Retry.
Source file for link or delete not found	Staging disk error message.	Verify the spelling and pathname of the file to be deleted or linked.
source parameters are not set	Error from DsStDistributionFtp.	[Could not find the parameter that indicates the source for the ftp transfer (source parameter is currently an empty string).] Ensure that the source is being supplied.
Space has not been reserved in cache for this file	Error returned from DsStCacheManagerServer.	1. Check for server cold start. 2. Resubmit request.
space not available on staging disk for inftp	Error from inftp.	1. If the file is bigger than the space allocated for staging disk, modify the staging disk configuration. 2. If the file is not bigger, wait for other requests to complete so that space will be freed on the staging disk. 3. Retry.
Srmount error	Standard system error.	

Table 18.5-3. Storage Management User Messages (24 of 36)

Message Text	Impact	Cause and Corrective Action
StagingMonitor object was not created in GetStagingMonitor()	Error for Archive.	Retry.
Stale NFS file handle	Standard system error.	
Stored procedure not found or invalid	Error from database.	1. Check the database and/or contact the Database Administrator. 2. Retry.
Sybase does not recognize the specified login name	Error from database.	1. Ensure that, if the DBLoginName parameter has been set in the Registry database, it has been set to a login that actually exists in the Sybase database. 2. Retry.
system compress 'compress' function failed	Error from DsStUnixCompress.	[There may not be enough space on the partition for the compressed and uncompressed versions to exist simultaneously.] 1. Temporarily move the file to a partition with more space. 2. Compress the file in the temporary location. 3. Move the compressed file back to the original location.
System copy function failed	Error from DsStFileCompress.	
system move 'mv' failed	Error from DsStUnixCompress.	1. Verify that the current user ID has write permission for the file. 2. Verify that the current user ID has write permission in the target directory. 3. Verify that the destination file does not exist already.
system symlink failed to make a symbolic link from a source file to the target filename	Error from DsStUtility.C.	
system uncompress 'uncompress' failed	Error from DsStUnixCompress.	[There may not be enough space on the partition for the compressed and uncompressed versions to exist simultaneously.] 1. Temporarily move the file to a partition with more space. 2. Compress the file in the temporary location. 3. Move the compressed file back to the original location.
Temporary Backup Failed EcUtFileCopy.Copy() failed	Error for Archive.	[No action necessary.]
Text file busy	Standard system error.	

Table 18.5-3. Storage Management User Messages (25 of 36)

Message Text	Impact	Cause and Corrective Action
The named file does not exist.	Error from SCSI.	
The Cache Manager Copy Into Cache function failed	Error for Archive.	Retry.
The Cache Manager Reserve Space function failed	Error for Archive.	Retry.
The child of a daemon process servicing your request crashed	Error returned from DsStCacheManagerServer.	Retry.
The construction invoked is not valid for use.	Error for Archive.	
The database could not create a staging disk. Possible space limitations	Staging disk error message.	1. Check the available space of the staging disk server on the Storage Management Control GUI (Storage Config tab). 2. Retry.
The destination directory where the file is to be copied does not exist	Staging disk error message.	1. Check the SYSLOG for NFS errors. 2. If the destination is a staging disk, verify that the staging disk exists. 3. Retry.
The execute() failed in Commit Transaction	Error for Archive.	Retry.
The execute() failed in DsStCommonDBIF	Error for Archive.	Retry.
The file could not be removed from the staging disk database inventory and no attempt will be made to remove the file from the file system	Staging disk error message.	1. Check the staging disk logs for database errors concerning the removal of the file from the database. 2. Retry.
The file does not exist and write permission is denied by the parent directory of the file to be created.	Error from SCSI.	
The file to be deleted does not exist in the file system	Staging disk error message.	1. Check the SYSLOG for NFS errors. 2. Verify that the staging disk exists. 3. Retry.

Table 18.5-3. Storage Management User Messages (26 of 36)

Message Text	Impact	Cause and Corrective Action
The file was deleted from the staging disk database inventory but was unable to be removed from the file system.	Staging disk error message.	1. Verify that the file exists. 2. Check for NFS errors in the SYSLOG. 3. Retry.
The file was not found	DsSt error.	1. Verify that the file name is spelled correctly. 2. Verify that the path is correct. 3. Retry.
The host for ftp does not have a valid IP address and can not be connect to.	Media error message.	1. Verify the host name. 2. Retry.
The host for ftp exist [sic] but cannot be connected to. Check the FtpServers [sic] debug log for the errno.	Media error message.	1. Check the FtpServer debug log for the errno. 2. Respond to the error. 3. Retry.
The input path is neither a regular file nor a directory	Error from DsStUtility.C.	[It appears that a device-special file has been passed as a source path for a copy operation. This type of operation is not supported.] 1. Verify that the input path is correct. 2. Retry.
The length of the path argument exceeds {PATH_MAX}, or the length of a path component exceeds {NAME_MAX}.	Error from SCSI.	
The linked file created by the Cache Manger does not exist	Staging disk error message.	1. Check the SYSLOG for NFS errors. 2. Check the CacheManager logs for errors. 3. Retry.
The method to suspend a request to be deleted failed	Error for DsStArchiveProxy.	Retry.
the mode the client passed does not match the mode the client is running in -- backup mode should match primary mode	Error for Archive.	Retry.
the move request failed during the copy	Error from DsStStagingMonitor.	Retry.

Table 18.5-3. Storage Management User Messages (27 of 36)

Message Text	Impact	Cause and Corrective Action
The move request was failed because it is a dupe of a failed request	Error from DsStStagingMonitor.	Retry.
The named file exists	Error from SCSI.	
The named file is a character special or block special file, and the device associated with this special file does not exist.	Error from SCSI.	
The named file is a directory and flag is write or read/write	Error from SCSI.	
The named file resides on a read-only file system.	Error from SCSI.	
the passed MasterList must be same size as retrieve from DB in ResumeStoreRequest or ResumeRetrieveRequest	Error for Archive.	
The process has too many open files	Error from SCSI.	
The request has invalid input parameters	Error for Archive.	
The request has invalid input parameters	Error from DsStStagingMonitor.	
The request has not completed in the maximum amount of time allocated	Error from DsStStagingMonitor.	Retry.
The request is already being serviced	Error returned from DsStCacheManagerServer.	[This is an internal error detected by STMGT. A request that is already being serviced by a thread was identified by a manager thread as being available for servicing. The attempt to assign the request to a second thread has failed.]
The request was cancelled because of a failure earlier in the processing.	Error for Archive.	1. Check the error code of all sub-requests of the main request. 2. Retry.

Table 18.5-3. Storage Management User Messages (28 of 36)

Message Text	Impact	Cause and Corrective Action
The requested function cannot be performed due to the permission settings on the file/directory	Staging disk error message.	1. Change the permissions on the file. 2. Retry.
The server was unable to allocate a socket for listening	Error returned from DsStCacheManagerServer.	[A UNIX error has occurred preventing the allocation of a socket for listening purposes. This is an extremely unusual circumstance.] 1. Document the error. 2. Refer the error to the System Administrator for investigation.
The slot or drive returned from allocate is invalid	Error for tape.	1. Check stacker/drive status. 2. If appropriate, refill stacker. 3. Retry.
The source file for a link does not exist	Staging disk error message.	1. Check the file system for the source file. 2. If the source file exists in the file system, check the SYSLOG for NFS errors. 3. Retry.
The source file to be copied does not exist in the file system	Staging disk error message.	1. Check the SYSLOG for NFS error. 2. Retry.
The specified tape drive is empty.	Media error message.	
The specified tape drive is occupied.	Media error message.	
The Staging Disk no longer exist [sic] in the Database	Staging disk error message.	1. Check whether the Staging Disk was cold started, which would have destroyed the disks. 2. If the disk was a virtual disk, check whether the path still exists. 3. Check the SYSLOG for file system errors. 4. Retry if possible.
The Staging Monitor Move function failed	Error for Archive.	
The staging monitor request queue encountered an error retrieving or writing data.	Error from DsStStagingMonitor.	
The submission of a Cache Manager Copy Into Cache function failed	Error for Archive.	Retry.
The system file table is full.	Error from SCSI.	

Table 18.5-3. Storage Management User Messages (29 of 36)

Message Text	Impact	Cause and Corrective Action
The system is unable to allocate a send descriptor.	Error from SCSI.	
The system remove function failed in Delete()	Error for Archive.	[No action necessary.]
The thread pool is not configured for the server	Error returned from DsStCacheManagerServer.	1. Check the configuration of the server to be started (i.e., verify from the Storage Management Control GUI that the service thread pool has been defined.) 2. Retry.
This is not an error -- detailed portion is null	Error returned by the FTP protocol.	[Not an error.]
Timer expired	Standard system error.	
Too many links	Standard system error.	
Too many open files	Standard system error.	1. Direct the process to close some open files. 2. Retry.
Too many references: cannot splice	Standard system error.	
Too many symbolic links were encountered in translating path.	Error from SCSI.	
Too many users	Standard system error.	
Transport endpoint is already connected	Standard system error.	[It may not be necessary to attempt to establish a connection.] 1. If necessary, disconnect. 2. Retry.
Transport endpoint is not connected	Standard system error.	
Type mismatch in retreiving [sic] data from database	Error for Archive.	[A stored procedure is returning a different type of data than is expected by the code.] 1. Set the debug level (for the relevant server) at 3 in the Registry database. 2. Reproduce the error.
Type mismatch in retreiving [sic] data from database	Error from DsStDistributionFtp.	[A stored procedure is returning a different type of data than is expected by the code.] 1. Set the debug level (for the relevant server) at 3 in the Registry database. 2. Reproduce the error.
Unable to allocate a stream.	Error from SCSI.	

Table 18.5-3. Storage Management User Messages (30 of 36)

Message Text	Impact	Cause and Corrective Action
Unable to attach/stat [sic] to source location	Error returned from DsStCacheManagerServer.	1. Create/verify source path. 2. Retry.
Unable to checkpoint file -- SP DsCStSPCheckpointFile execute() failed	Error from DsStFileParameters.	[No action necessary.]
Unable to checkpoint inftp request as generic request -- SP DsCStSPCheckpointGenericRequest execute() failed	Error from inftp.	[No action necessary.]
Unable to checkpoint inftp request as inftp request	Error from inftp.	[No action necessary.]
Unable to checkpoint retrieve request as generic request	Error for Archive.	[No action necessary.]
Unable to checkpoint store request as generic request	Error for Archive.	[No action necessary.]
Unable to clean files from destination dir when cancelling a push	Error from DsStNetworkResource.	1. Check destination permissions. 2. Retry.
Unable to clean files from pull cache when cancelling a pull	Error from DsStNetworkResource.	1. Check pull cache permissions. 2. Retry.
Unable to create entry for link	Error returned from DsStCacheManagerServer.	1. Check the database for permissions/errors. 2. Verify that the entry exists. 3. Retry.
Unable to free sufficient space	Error returned from DsStCacheManagerServer.	1. Manually expire cache files to free more space. 2. Retry.
Unable to get the temporary directory from Backup -- SP DsCStBSelectTempDir execute() failed	Error for Archive.	
Unable to get the temporary directory from restore -- SP DsCStRSelectTempDir execute() failed	Error for Archive.	

Table 18.5-3. Storage Management User Messages (31 of 36)

Message Text	Impact	Cause and Corrective Action
Unable to insert BackupID -- BackupID is Null	Error from DsStFileParameters.	1. Modify the BackupID. (A valid BackupID is required. It must be a string with at least one character.) 2. Retry.
Unable to insert checkSum of file -- CheckSum = 0	Error from DsStFileParameters.	If possible, rerun the checksum on the file. (A checksum of 0 is meaningless.)
Unable to insert current position of a search of a volume group	Error from DsStFileParameters.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
Unable to insert file size of file -- file size = 0	Error from DsStFileParameters.	Try to get file size again. (File size of 0 represents a file containing no information.)
Unable to insert managed directory entry	Error returned from DsStCacheManagerServer.	1. Check the database for permissions/errors. 2. Verify that the entry exists. 3. Retry
Unable to insert OffsiteID -- OffsiteID is Null	Error from DsStFileParameters.	1. Modify the ArchiveID. (A valid ArchiveID is required. It must be a string with at least one character.) 2. Retry.
Unable to insert the archive unique name of file -- UniqueFileName is Null	Error from DsStFileParameters.	[A non-empty unique file name must be entered here.]
Unable to Insert the ArchiveID -- ArchiveID is Null	Error from DsStFileParameters.	1. Modify the ArchiveID. (A valid ArchiveID is required. It must be a string with at least one character.) 2. Retry.
Unable to insert the checkpoint state of the request -- CheckpointState is Null	Error from DsStFileParameters.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
Unable to insert the file index of the request -- EventMessage is Null	Error from DsStFileParameters.	
Unable to insert the file index of the request -- file index is less than 0	Error from DsStFileParameters.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)

Table 18.5-3. Storage Management User Messages (32 of 36)

Message Text	Impact	Cause and Corrective Action
Unable to insert the location of a source file.	Error from DsStFileParameters.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
Unable to insert the serverid of a remote archive server.	Error from DsStFileParameters.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
Unable to Insert the StagingID -- StagingID is Null	Error from DsStFileParameters.	1. Modify the ArchiveID. (A valid StagingID is required. It must be a string with at least one character.) 2. Retry.
Unable to insert the status of the file (success or failure) -- errorMsg is Null	Error from DsStFileParameters.	[No action necessary.]
Unable to insert the user(client) name of file -- UserFileName is Null	Error from DsStFileParameters.	1. Modify the path/filename. (The file name must have a full path or staging disk ID, and must be non-empty.) 2. Retry.
Unable to insert the VolumeGroupId.	Error from DsStFileParameters.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
Unable to insert type of search on a retrieve request.	Error from DsStFileParameters.	[This is an internal error in ECS.] 1. Note all circumstances associated with the error (including capturing the Debug.log and ALOGs for both the reporting server and the Request Manager). 2. Submit a high-priority trouble ticket against STMGT. (Send logs in support of the trouble ticket.)
Unable to make the directory	Staging disk error message.	1. Check the SYSLOG for errors. 2. Retry.
Unable to mark request as suspended	Error returned from DsStCacheManagerServer.	[The stored procedure used to mark a request as suspended (or internally pending) failed. The request cannot be marked as suspended. This may result in the request needlessly being processed repeatedly.] Retry.

Table 18.5-3. Storage Management User Messages (33 of 36)

Message Text	Impact	Cause and Corrective Action
Unable to mark server as up in the database	Error returned from DsStCacheManagerServer.	[The database could not be updated to reflect that the server is up.] 1. Check for previous errors that might indicate why the stored procedure could not be executed. 2. Correct the errors.
Unable to remove a stored file from the archive.	Error from DsStFileParameters.	1. Check the archive for permission errors. 2. Submit a request to the System Administrator to correct permission errors. 3. Retry when permission errors have been corrected.
Unable to remove link entry	Error returned from DsStCacheManagerServer.	1. Check the database for permissions/errors. 2. Verify that the entry exists. 3. Retry
Unable to remove managed directory entry	Error returned from DsStCacheManagerServer.	1. Check the database for permissions/errors. 2. Verify that the entry exists. 3. Retry
Unable to restore checkpointed IngestFtp request from DB	Error from inftp.	
Unable to restore checkpointed retrieve request from database	Error for Archive.	
Unable to restore checkpointed store request from database	Error for Archive.	
Unable to retrieve the base block size value from configuration file	Error from DsStFtpResourceConfig.	1. Ensure that the block size has been queried on a valid device. 2. Ensure that the ftp resource config file exists. 3. Ensure that the ftp resource config file contains a value for BLOCKSIZE.
Unable to retrieve the number of FTP retries from configuration file	Error from DsStFtpResourceConfig.	1. Ensure that the number of retries has been queried on a valid device. 2. Ensure that the ftp resource config file exists. 3. Ensure that the ftp resource config file contains a value for RETRIES.
Unable to retrieve the pause time from the resource configuration file	Error from DsStFtpResourceConfig.	1. Ensure that the sleep time has been queried on a valid device. 2. Ensure that the ftp resource config file exists. 3. Ensure that the ftp resource config file contains a value for SLEEPTIME.

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Message Text	Impact	Cause and Corrective Action
Unable to retrieve the value for Pullfile from the configuration file	Error from DsStFtpResourceConfig.	1. Ensure that the pullfile name has been queried on a valid device. 2. Ensure that the ftp resource config file exists. 3. Ensure that the ftp resource config file contains a value for PULLFILENAME.
Unable to update checkpoint state for checkpointed request	Error for Archive.	[No action necessary.]
Unable to update checkpoint state for checkpointed request	Error from inftp.	[No action necessary.]
Unable to update checkpoint state for file -- SP DsCStSPCheckpoint FileState execute() failed	Error from DsStFileParameters.	[No action necessary.]
Unable to update checkpoint status for checkpointed request	Error for Archive.	
Unable to update checksum for file -- SP DsCStSPCheckpoint Checksum execute() failed	Error from DsStFileParameters.	[A checksum is a way of validating a file. From this point, it may not be possible to verify the file's completeness and genuineness.] [No action necessary.]
Unable to update file index for checkpointed request	Error for Archive.	[No action necessary.]
Unable to update file size	Error returned from DsStCacheManagerServer.	1. Check the database for permissions/errors. 2. Verify that the entry exists. 3. Retry.
Unable to update file state	Error returned from DsStCacheManagerServer.	1. Check the database for permissions/errors. 2. Verify that the entry exists. 3. Retry
Unable to update fileSize for file -- SP DsStFUpdateFileSize execute() failed	Error from DsStFileParameters.	N/A
Unable to update physical location for file -- SP DsCStSPCheckpoint FileLoc execute() failed	Error from DsStFileParameters.	[No action necessary.]

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Message Text	Impact	Cause and Corrective Action
Unable to update stage and status in DsStBackup table -- SP DsCStBUpdStageAndStatus execute() failed	Error for Archive.	[No action necessary.]
Unable to update stage and status in DsStRestoreTable -- SP DsCStRUpdStageAndStatus execute() failed	Error for Archive.	[No action necessary.]
Unable to update staging disk tag for file -- SP DsCStSPCheckpointSDTag execute() failed	Error from DsStFileParameters.	[No action necessary.]
Unable to update status(failed) for file -- SP DsCStSPCheckpointFileFailure execute() failed	Error from DsStFileParameters.	
Unable to write a block of data. Check if the destination directory is full or if there are network errors	Error from DsStNetworkResource.	1. Check whether the destination directory has space available. 2. Check for network errors. 3. Retry when sufficient space exists or network errors have been corrected.
Unauthenicated kftp user -- error in ftp #705	Error returned by the FTP protocol.	
Unknown command -- error in ftp #500	Error returned by the FTP protocol.	
Unknown device error returned.	Error from SCSI.	
Unknown Error	Error returned by the FTP protocol.	
Unknown RPC failure	Staging disk error message.	Retry.
UnMountTape Failed	Media error message.	

Table 18.5-3. Storage Management User Messages (36 of 36)

Message Text	Impact	Cause and Corrective Action
Update of multiple row selects not supported	Error from database.	[This is an internal STMGT error.] 1. Note all circumstances associated with the error, including the identity of the server reporting the error. 2. Report the error to the ECS DAAC Help Desk as soon as possible.
Users [sic] quota full	Error from SCSI.	
Value too large for defined data type	Standard system error.	
Your request is still in process -- please be patient	Error returned from DsStCacheManagerServer.	1. Wait. 2. Retry if necessary.

18.5.1.1 Check Connections to Hosts/Servers

The procedure to **Check Connections to Hosts/Servers** is a part of the **Troubleshoot a Data Distribution Failure** procedure (Section 18.5.1). Table 18.5-4 presents (in a condensed format) the steps required to check connections to hosts/servers. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the Distribution Server host.

- Examples of Distribution Server host names include **e0dis02**, **g0dis02**, **l0dis02, n0dis02**.
- Most other ECS hosts are acceptable for checking connections.
- Log-in is described in the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/utilities

- Change directory to the directory containing the utility scripts.

3 At the command line prompt enter:

EcCsIdPingServers <MODE>

- The following type of response is displayed (only a few representative lines are shown):

  /usr/ecs/TS2/CUSTOM/bin/CSS/Sweeper -nsh x0icg01 -nsp 18202
  FoSwSweeper application started...
  We made a connection with EntryId =x0ins01:38709:23057 --- EcSrTransportSubServer
  We made a connection with EntryId =x0ins01:38712:23057 --- EcSrTransportSubEventServer
  We made a connection with EntryId =x0acs03:33379:17033 --- DsShQuitIDL

We made a connection with EntryId =x0wkg01:11959:41838305 --- EcDsHdfEosServer_3_G3
[…]

4 Observe the results displayed on the screen to determine whether connections can be made with the necessary hosts and servers.
- The necessary hosts and servers are listed in Table 18.5-5, Hosts, Servers, Clients and Other Software Relevant to Data Distribution.

5 If it is not possible to connect to any needed host(s)/server(s), notify the Operations Controller/System Administrator to check the hosts/servers and bring them back up if necessary.

6 Return to the procedure that recommended checking connections to hosts.

Table 18.5-4. Check Connections to Hosts/Servers - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (Distribution Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/utilities**	**enter text, press Enter**
3	**EcCsIdPingServers <MODE>**	**enter text, press Enter**
4	Identify hosts and servers with which connections cannot be made	**read text**
5	Notify the Operations Controller/System Administrator to bring hosts/servers back up (if applicable)	**contact Operations Controller**
6	Return to the procedure that recommended checking connections to hosts	

Table 18.5-5. Hosts, Servers, Clients and Other Software Relevant to Data Distribution (1 of 2)

HOST	SERVER/CLIENT/OTHER SOFTWARE
Distribution Server (e.g., x0dis02)	Distribution Server (EcDsDistribution Server) 8mm Server (EcDsSt8MMServer) D3 Server (EcDsStD3Server) Storage Management Request Manager (EcDsStRequestManagerServer) Staging Disk Server (EcDsStStagingDiskServer)

Table 18.5-5. Hosts, Servers, Clients and Other Software Relevant to Data Distribution (2 of 2)

HOST	SERVER/CLIENT/OTHER SOFTWARE
Operations Workstation (e.g., x0acs02)	Data Distribution Operator GUI (EcDsDdistGui) Storage Management Control GUI (EcDsStmgtGui) Science Data Server GUI (EcDsSdSrvGui)
Working Storage (e.g., x0wkg01)	HDF EOS Server (EcDsHdfEosServer) Archive Server (EcDsStArchiveServer) Cache Manager Server (EcDsStCacheManagerServer) FTP Server (EcDsStFtpServer) Staging Disk Server (EcDsStStagingDiskServer)
SDSRV Server (e.g., x0acs03)	Granule Deletion Process (EcDsGranuleDelete) Science Data Server (EcDsScienceDataServer) Science Data Server Client (EcDsScienceDataServerClient)
Access/Process Coordinators (APC) Server (e.g., x0acg01)	Archive Server (EcDsStArchiveServer) Cache Manager Servers (EcDsStCacheManagerServer) (including Pull Area Manager) FTP Server (EcDsStFtpServer) Staging Disk Server (EcDsStStagingDiskServer)
FSMS Server (e.g., x0drg01)	Archive Server (EcDsStArchiveServer) Cache Manager Server (EcDsStCacheManagerServer) FTP Server (EcDsStFtpServer) Staging Disk Server (EcDsStStagingDiskServer)
Ingest Server (e.g., x0icg01)	Name Server (EcCsIdNameServer) Registry Server (EcCsRegistry)
Interface Server 01 (e.g., x0ins02)	Subscription Server (EcSbSubServer)
Interface Server 02 (e.g., x0ins01)	Advertising Server (EcIoAdServer)

18.5.1.2 Check Log Files

The procedure to **Check Log Files** is a part of the **Troubleshoot a Data Distribution Failure** procedure (Section 18.5.1). Checking log files can provide indications of the following types of problems (among others):

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

Table 18.5-6 presents (in a condensed format) the steps required to check log files. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the appropriate host.

- Distribution Server (e.g., **e0dis02, g0dis02, l0dis02, n0dis02**) has the following data distribution and storage management log files:
  - EcDsDistributionServer.ALOG.
  - EcDsSt8MMServerNONE.ALOG.
  - EcDsStD3Server NONE.ALOG.
  - EcDsStRequestManagerServer.ALOG
  - EcDsStStagingDiskServerDIP1.ALOG.
- APC Server (e.g., **e0acg11, g0acg01, l0acg02, n0acg01**) has the following storage management ALOG files:
  - EcDsStArchiveServerACM1.ALOG.
  - EcDsStCacheManagerServerACM1.ALOG.
  - EcDsStFtpServerNONE.ALOG.
  - EcDsStStagingDiskServerACM1.ALOG.
- FSMS Server (e.g., **e0drg01, g0drg01, l0drg01, n0drg01**) has the following storage management ALOG files:
  - EcDsStArchiveServerDRP1.ALOG
  - EcDsStCacheManagerServerDRP1.ALOG.
  - EcDsStFtpServerDRP1.ALOG.
  - EcDsStStagingDiskServerDRP1.ALOG.
- Working Storage (e.g., **e0wkg01**) has the following storage management and science data server ALOG files:
  - EcDsStArchiveServerWKS1.ALOG
  - EcDsStCacheManagerServerWKS1.ALOG.
  - EcDsStFtpServerWKS1.ALOG.
  - EcDsStStagingDiskServerWKS1.ALOG.
  - EcDsHdfEosServer.ALOG.
- Operations Workstation (e.g., **e0acs03, g0acs02, l0acs01, n0acs03**) has the following science data server log files:
  - EcDsDdistGui.ALOG.
  - EcDsStmgtGui.ALOG.
  - EcDsSdSrvGui.ALOG.
- SDSRV Server (e.g., **e0acs05, g0acs03, l0acs03, n0acs04**) has the following science data server ALOG files:
  - EcDsGranuleDelete.ALOG.
  - EcDsScienceDataServer.ALOG.
  - EcDsScienceDataServerClient.ALOG.
  - EcDsSdSrvGui.ALOG.
- Interface Server 01 (e.g., **e0ins02, g0ins02, l0ins02, n0ins02**) has the following log files:
  - EcSbSubServer.ALOG file.

- Interface Server 02 (e.g., **e0ins01, g0ins01, l0ins01, n0ins01**) has the following log files:
  - EcIoAdServer.ALOG.
- In addition to the ALOG files mentioned the preceding hosts have corresponding debug log files.

2 At the command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/logs

- **<MODE>** is current mode of operation.
  - TS1 - Science Software Integration and Test (SSI&T)
  - TS2 - New Version Checkout
  - OPS - Normal Operations
- "**logs**" is the directory containing data distribution, science data server, or storage management log files (e.g., EcDsDdistGui.ALOG, EcDsDistributionServer.ALOG).

3 At the command line prompt enter:

pg <file name>

- **<file name>** refers to the 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., **more**, **vi**, **view**) can be used to review the log file.

4 Review the log file to identify problems that have occurred.

- To exit from **pg** at the **:** prompt enter:

  q
  - The command line prompt is displayed.

5 Respond to problems as follows:

- DDIST- or STMGT-related problems.
  - Perform the appropriate procedure(s) from those listed in Table 18.5-1, Troubleshooting DDIST Problems.
- 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 interactive structured query language (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.

Table 18.5-6. Check Log Files - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window logged in to appropriate host	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/logs**	**enter text, press Enter**
3	**pg <file name>**	**enter text, press Enter**
4	Identify problems indicated in the log file	**read text**
5	Respond to problems as necessary	

18.5.2 Recover from a Data Distribution Failure

The automated data distribution processes (push and pull) normally do not require intervention by the Distribution Technician. However, when a data distribution fault (error) occurs, there may be a requirement for action to recover from the error. For example, recovery actions may be made necessary by the failure of storage management to acquire granules from the archive so they can be distributed. When a fault (error) occurs, the request status on the **Distrib'n Requests** tab of the **Data Distribution Operator GUI** is likely to change to "Suspended with Errors."

The Distribution Technician may use the **Data Distribution Operator GUI Distrib'n Requests** tab and/or log files on various host machines to review the failure event.

Diagnosing an acquire failure involves examining the following system log files and directories involved in the process:

- Request Manager server debug log file (EcDsStRequestManagerServerDebug.log), if available.
- Science Data Server ALOG file (EcDsScienceDataServer.ALOG) and/or Science Data Server debug log file (EcDsScienceDataServerDebug.log).
- Archive Server ALOG file (EcDsStArchiveServer*HWCIn*.ALOG) and/or Archive Server debug log file (EcDsArchiveServerDebug.log).
  - *HWCIn* represents a particular hardware configuration item; for example, EcDsStArchiveServerACM1.ALOG would be located on the APC Server x0acg01.
- Staging Area.
  - Presence of the relevant file(s).
  - Staging disk log files (EcDsStStagingDiskServer*HWCIn*.ALOG, EcDsStagingDiskServerDebug.log) or cache manager log files

(EcDsStCacheManagerServer*HWCIn*.ALOG, EcDsCacheManagerServerDebug.log).

– Space available in the staging area.

Table 18.5-7 presents (in a condensed format) the steps required to respond to recover from a data distribution failure. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Observe the information displayed on the **Distrib'n Requests** tab of the **Data Distribution Operator GUI** to identify distribution requests with a status of "Suspended with Errors."

2 If a suspended request has the error mnemonic **DsEDdXLargeRequest** associated with it, perform the **Respond to Requests that Exceed the Distribution Request Threshold** procedure (Section 18.5.2.1).

3 Perform the appropriate procedure(s) for responding to an acquire failure:

- **Check the Connection to the Remote FTP Host** (Section 18.5.2.2).
- **Check the Request Manager Server Debug Log** (Section 18.5.2.3).
- **Check the Science Data Server Log Files** (Section 18.5.2.4).
- **Check the Archive Server Log Files** (Section 18.5.2.5).
- **Check the Staging Disk** (Section 18.5.2.6).
- **Check the Staging Disk ALOG File** (Section 18.5.2.7).
- **Check the Space Available in the Staging Area** (Section 18.5.2.8).

4 If additional information is needed, open and read the appropriate log file in the **/usr/ecs/*MODE*/CUSTOM/logs** directory on the appropriate host machine(s).

- Applicable host machines are listed in Table 18.5-5, Hosts, Servers, Clients and Other Software Relevant to Data Distribution.
- For detailed instructions refer to the **Check Log Files** procedure (Section 18.5.1.2).

5 If the problem could not be identified through any of the preceding steps, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

6 When the problem has been corrected, review the information displayed on the **Distrib'n Requests** tab of the **Data Distribution Operator GUI** to determine whether the distribution request resumed processing.

7 If the distribution request does not resume processing after the problem has been corrected, return to Step 3.

Table 18.5-7. Recover from a Data Distribution Failure - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Identify distribution requests with a status of "Suspended with Errors" (on the **Distrib'n Requests** tab of the **Data Distribution Operator GUI**)	**read text**
2	Respond to requests that exceed the distribution request threshold (if applicable)	Use procedure in Section 18.5.2.1
3	Respond to the acquire failure (if applicable)	Use applicable procedure(s) in Sections 18.5.2.2 through 18.5.2.8
4	Check log files (if applicable)	Use procedure in Section 18.5.1.2
5	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8
6	Determine whether the distribution request resumed processing (on the **Distrib'n Requests** tab of the **Data Distribution Operator GUI**)	**read text**
7	Return to Step 3 (if necessary)	

18.5.2.1 Respond to Requests that Exceed the Distribution Request Threshold

The procedure to **Respond to Requests that Exceed the Distribution Request Threshold** is a part of the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

When a distribution request exceeds the corresponding distribution request threshold (e.g., FtpPushThreshold or FtpPullThreshold), the request is suspended in DDIST with the following error mnemonic:

- DsEDdXLargeRequest

Table 18.5-8 presents (in a condensed format) the steps required to respond to requests that exceed the distribution request threshold. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Contact User Services to determine whether or not the user's request should be processed.
- User Services may contact the requester to verify whether or not the requester intended to order so much data.

2 If User Services responds that the request should be aborted, cancel the data distribution request.
- For detailed instructions refer to the **Cancel Data Distribution Requests** procedure (Section 18.2.8).

- An e-mail message is automatically sent to the requester indicating that the request was cancelled through operator intervention.
- User Services should follow up with an additional e-mail message to the requester explaining the rationale for not completing the request.

3 If User Services responds that the request should be completed, first determine whether the request should be resumed immediately or should be left suspended until an off-hours period when the system load is lower.
- Another alternative may be to submit a request to the Database Administrator to increase (at least temporarily) the corresponding threshold.

4 If the request should be completed, resume the data distribution request at the appropriate time.
- For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).

Table 18.5-8. Respond to Requests that Exceed the Distribution Request Threshold - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Determine whether or not the user's request should be processed	**contact User Services**
2	Cancel the data distribution request (if applicable)	Use procedure in Section 18.2.8
3	Determine whether the request should be resumed immediately or during off-hours when the system load is lower (if applicable)	
4	Resume the data distribution request (when applicable)	Use procedure in Section 18.2.7

18.5.2.2 Check the Connection to the Remote FTP Host

The problem is that a distribution request for FtpPush of data to a remote host (e.g., ftp.averstar.com) shows a status of "Suspended with Errors" and it is suspected that it may not be possible to connect to the remote host.

In order to check the connection to remote hosts the necessary script to support pinging (e.g., "st") must be available on ECS and the Distribution Technician must know its location. For example, at one DAAC the script "st" (written to support operations in the OPS mode) might be available in the home directory for the "train1" user.

Table 18.5-9 presents (in a condensed format) the steps required to check the connection to the remote ftp host. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the APC Server host.

- Examples of APC Server host names include **e0acg11**, **g0acg01**, **l0acg02, n0acg01**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd <path>

- **<path>** represents the directory path (e.g., /home/train1) to the directory containing the necessary script.
- The necessary script (e.g., "st") to support pinging the remote host through the firewall must be available and the Distribution Technician must know its location.

3 At the UNIX command line prompt enter:

./st -ping <remotehost>

- **<remotehost>** represents the remote host to be checked.
- For example:

  ./st -ping ftp.averstar.com

- The following type of response indicates successful pinging of the remote host:

  PING 192.5.114.4: (192.5.114.4): 56 data bytes
  64 bytes from 192.5.114.4: icmp_seq=0 ttl=247 time=26 ms
  64 bytes from 192.5.114.4: icmp_seq=1 ttl=247 time=23 ms
  64 bytes from 192.5.114.4: icmp_seq=2 ttl=247 time=23 ms
  64 bytes from 192.5.114.4: icmp_seq=3 ttl=247 time=28 ms
  64 bytes from 192.5.114.4: icmp_seq=4 ttl=247 time=25 ms

- If there is no such response within a few seconds (no more than 20 seconds), it is likely that pinging has failed and the remote host is not currently accessible.
- The same general syntax can be used to perform a trace; i.e., at the UNIX command line prompt enter:

  ./st -trace <remotehost>

4 To stop sending packets to the remote host at the UNIX command line prompt enter:

Ctrl-c

- The following type of response after entering **Ctrl-c** is another type of indication that pinging failed:

  ----ftp.averstar.com PING Statistics----
  43 packets transmitted, 0 packets received, 100.0% packet loss

5 If pinging the remote host failed, go to Step 12.

6 If pinging the remote host was successful, at the UNIX command line prompt enter:

ftp <firewall host>

- **<firewall host>** represents the firewall host.
  - The System Administrator can identify the firewall host if necessary.
- The following type of response should be displayed:

```
Connected to x0host0.daac.ecs.nasa.gov.
220-**********************************************************************
220-*
220-*  THIS U.S. GOVERNMENT COMPUTING SYSTEM IS FOR
AUTHORIZED USERS
220-*  ONLY.  ANYONE USING IT IS SUBJECT TO MONITORING AND
RECORDING
220-*  OF ALL KEYSTROKES WITHOUT FURTHER NOTICE.  THIS RECORD
MAY BE
220-*  PROVIDED AS EVIDENCE TO LAW ENFORCEMENT OFFICIALS.
220-*
220-**********************************************************************
220 [002-0018] x0host0.daac.ecs.nasa.gov FTP proxy 4.0.1 ready.
Name (x0host0:user1):
```

7 At the **Name (…):** prompt press the **Enter** key.

- The following type of response should be displayed:

```
230- user user1 logged in.
230 [002-0024] Specify Remote Destination with: quote site hostname
Remote system type is UNIX.
ftp>
```

8 At the **ftp>** prompt enter:

quote site <remotehost>

- **<remotehost>** represents the remote host to be checked.
- For example:

  quote site ftp.averstar.com

- The following type of response should be displayed:

```
220-(    [002-0059] Firewall connected to ftp.averstar.com (192.5.114.4).)
220-(220 ftp FTP server (Version wu-2.4(3) Thu Jan 9 12:48:46 EST 1997)
ready.)
220 [002-0060] login with: user name
ftp>
```

9 At the **ftp>** prompt enter:

user anonymous

- Log in to the remote host for anonymous ftp.
- The following type of response should be displayed:

  331 Guest login ok, send your complete e-mail address as password.
  Password:

10 At the **ftp>** prompt enter:

<password>

- Use a valid e-mail address as the password for anonymous ftp.
- The following type of response should be displayed:

  230 Guest login ok, access restrictions apply.
  ftp>

11 At the **ftp>** prompt enter:

ls

- The following type of response should be displayed:

  200 PORT command successful.
  150 Opening ASCII mode data connection for /bin/ls.
  total 16
  dr-xr-xr-x 6 root other 512 Feb 11 1997 .
  dr-xr-xr-x 6 root other 512 Feb 11 1997 ..
  -r-------- 1 root other 0 Feb 10 1997 .forward
  -r-------- 1 root other 0 Feb 10 1997 .rhosts
  lrwxrwxrwx 1 root other 7 Feb 7 1997 bin -> usr/bin
  dr-xr-xr-x 2 root other 512 Feb 7 1997 dev
  d--x--x--x 2 root other 512 Feb 7 1997 etc
  dr-xr-sr-x 57 root ftp 1536 Jan 8 2002 pub
  d--x--x--x 5 root other 512 Feb 7 1997 usr
  226 Transfer complete.
  ftp>

- The purpose of this step is to verify accessibility to directories on the remote host.

12 At the **ftp>** prompt enter:

quit

- The connection to the ftp host is terminated.

13 If a connection could not be made with the remote ftp server or if pinging was successful but the ftp could not be negotiated, notify the remote system's point of contact of the problem.

14 If the remote system's point of contact has been notified of a problem pinging or making an ftp connection, wait until the communication problem has been resolved.

15 When the communication problem has been resolved (or after waiting a reasonable period of time), return to Step 1.

- If necessary, the supervisor can provide guidance concerning what is a "reasonable" period of time to wait.

16 After a successful ftp test of the connection with the remote host, resume the affected distribution request(s).

- For detailed instructions refer to the **Suspend/Resume Data Distribution Requests** procedure (Section 18.2.7).

17 If the same distribution request(s) show(s) a status of "Suspended with Errors" again, recover from the data distribution failure using the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

Table 18.5-9. Check the Connection to the Remote FTP Host - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	UNIX window (APC Server)	**single-click** or use procedure in Section 18.2.1
2	**cd <path>**	**enter text, press Enter**
3	**./st -ping <remotehost>**	**enter text, press Enter**
4	**Ctrl-c**	**enter text**
5	Go to Step 12 (if pinging failed)	
6	**ftp <firewall host>**	**enter text, press Enter**
7	**Enter** key	**press**
8	**quote site <remotehost>**	**enter text, press Enter**
9	**user anonymous**	**enter text, press Enter**
10	**<password>**	**enter text, press Enter**
11	**ls**	**enter text, press Enter**
12	**quit**	**enter text, press Enter**
13	Notify the remote system's point of contact of the problem (if applicable)	**contact remote system's point of contact**
14	Wait until the communication problem has been resolved (if applicable)	**wait**
15	Return to Step 1 (if applicable)	

Table 18.5-9. Check the Connection to the Remote FTP Host - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
16	Resume the affected distribution request(s) (after successful ftp test)	Use procedure in Section 18.2.7
17	Go the **Recover from a Data Distribution Failure** procedure [if the same distribution request(s) is (are) suspended with errors again]	Use procedure in Section 18.5.2

18.5.2.3 Check the Request Manager Server Debug Log

The procedure to **Check the Request Manager Server Debug Log** is a part of the **Recover from a Data Distribution Failure** procedure (Section 18.5.2). It is performed in response to an acquire failure.

The Request Manager server processes requests from external clients (processes outside of Storage Management). Requests between Storage Management servers are passed directly from one server to another.

- Requests that require one of the Storage Management servers to perform processing are checkpointed (except requests that can be serviced solely through SQL).
  - Checkpointing involves recording the request's state (e.g., "checkpointed," "failed," "completed") in the database to assist in error recovery.
- Requests that can be serviced solely through SQL are considered "trivial" requests.
  - Trivial requests are not checkpointed.
  - Examples include attaching to a staging disk, getting capacity, and getting block size.
  - Trivial requests submitted from outside Storage Management are serviced by the Request Manager server.
  - Trivial requests originating within Storage Management are passed directly from the client to the database server.

The Request Manager server (like other Storage Management servers) can manage several concurrent activities. This is accomplished through the use of threads. There are several different kinds of threads:

- Manager thread.
  - One per Storage Management server.
  - Responsible for dequeuing requests and assigning them to service threads.
  - Checks for cancelled requests.
- Service thread.
  - Multiple threads per Storage Management server.
  - Responsible for the actual servicing of requests.
  - Logs all progress including all changes of request state.

  - Notifies submitter when request has been completed.
- Receptionist thread.
  - One per Storage Management server.
  - Registers the server as "up" in the database.
  - Sits on a socket, waiting for connections from other Storage Management servers.
  - Unregisters the server at shutdown.
- Inbound RPC thread.
  - Spawned by a request from a Storage Management client.
  - Hands off the request to the manager thread and waits for completion of the request.
- Housekeeper thread.
  - Watches for completed requests, which haven't previously been seen and processed.

Information concerning Request Manager server processing of requests (identified by thread) is recorded in the Request Manager server debug log (assuming some level of debug log recording is specified in the Registry database).

Trivial requests typically involve the following types of activities:

- Inbound RPC thread appears with a request.
- Manager thread dequeues the request and assigns it to a service thread.
- Service thread recognizes the thread as "trivial."
  - A "No checkpointing required -- going straight to responded" message is recorded in the Request Manager server debug log.
- Service thread executes the database transaction for results.
  - When the request is completed, a "Done servicing" message is recorded in the Request Manager server debug log.
  - If the request fails, an "Unable to service" message is recorded in the Request Manager server debug log.
- Service thread hands the results to the inbound RPC thread.
  - A "Notifying the client" message is recorded in the Request Manager server debug log.
- Inbound RPC thread silently returns to the client with the results.

Non-trivial requests are forwarded to the appropriate Storage Management server (e.g., EcDsStFtpServer, EcDsStStagingDiskServer, EcDsStArchiveServer) for processing.

- Some of the same types of entries are made in the Request Manager server debug log for non-trivial requests as for trivial requests. For example:
  - "Waking up service thread" (Request Manager is preparing to process the request).
  - "Done servicing" (request processing has been completed).
  - "Unable to service" (the request has failed).
- Although some trivial requests include "token" statements, tokens are characteristic of non-trivial requests.

- A token includes request information that varies with the type of operation to be performed.
- For example, a token for an ftp request might include the following types of data:
  - Stored procedure (e.g., DsStFRInsert) [other types of stored procedures include DsStSDRInsert and DsStGRMapLogicalArchiveId].
  - RPC ID (e.g., RPCId=1821_535_1109-1124464729_171062001_x0ins01.xdc.ecs.nasa.gov:SBSVSDSV1DSDD1DSDD4:).
  - Username.
  - Encrypted password.
  - Host.
  - Source path.
  - Destination path.
  - External request ID.
  - Server name (e.g., EcDsStFtpServerNONE) [other types of operations might involve the EcDsStStagingDiskServerDRP1 for example].
  - Type of operation (e.g., FtpPush) [other types of operations include ArRetrieve, SDAllocateDisk, SDLinkFile].
  - Submitter (e.g., DSDD) [other types of operations might involve SDSV].
  - Priority.
- The server to which the request was sent is identified by name (ServerName).
- Transaction ID is embedded in the RPC ID (the portion before the first colon in the RPC ID).

A "transaction" may involve multiple operations on a host or several hosts. Consequently, multiple threads may be used on each relevant host.

Table 18.5-10 presents (in a condensed format) the steps required to check the Request Manager Server debug log. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the Distribution Server host.
- Examples of Distribution Server host names include **e0dis02, g0dis02, l0dis02, n0dis02**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/logs

- **<MODE>** is current mode of operation.
- "**logs**" is the directory containing Request Manager Server debug log files (e.g., EcDsStRequestManagerServerDebug.log).

3 At the command line prompt enter:

pg <file name>

- **<file name>** refers to the appropriate Request Manager debug log file.
- For example:

  pg EcDsStRequestManagerServerDebug.log

- The content of the first page of the specified 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 At the **:** prompt enter:

/<date> <time>

- **<date> <time>** refers to the approximate date and time of the problem.
  - For example:

    06/18/01 12:17:31

- 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 forward
    06/18/01 12:17:31: Thread ID : 105 : DsShTSStorage: creating the MutexVec for this thread
    […]

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

    Pattern not found:

  - If the specified text is not in the log file, verify that the proper file was opened (Step 3) and that the date and time were entered correctly (Step 4).

5 At the **:** prompt enter:

/Unable to service

- **pg** searches the file for the specified text.
  - If the specified text is in the log file, the following type of response is displayed.

    ...skipping forward
    2:IngestRQ409GR1 Unable to service | Thread 52
    […]

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

    Pattern not found:

- If the specified text is in the file, go to Step 7.

- If the specified text is not in the file, go to Step 6.

6 Examine the contents of the log file to determine which thread is associated with the problem being investigated.

- The following **pg** commands (at the **:** prompt) are useful:
  - ***n*** then **Return/Enter** (go to Page *n*).
  - **Return/Enter** or **+1** then **Return/Enter** (go down to the next page).
  - **-1** then **Return/Enter** (go back to the preceding page).
  - **+*n*** then **Return/Enter** (go down *n* number of pages).
  - **-*n*** then **Return/Enter** (go back *n* number of pages).
  - **+*n*l** then **Return/Enter** (go down *n* number of lines).
  - **-*n*l** then **Return/Enter** (go back *n* number of lines).
  - **$** then **Return/Enter** [go to the last page (end of file)].
  - **q** then **Return/Enter** (exit from **pg**).

7 At the **:** prompt enter:

<search text>

- To search back toward the beginning of the file enter:

  ^Waking up service thread <number>^

- To search back toward the end of the file enter:

  /Waking up service thread <number>

- For example:

  ^Waking up service thread 52^

  - The file is searched back toward the beginning of the file for the specified text.

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

  ...skipping backward
  06/18/01 12:17:31: Thread ID : 102 : Waking up service thread 52 | Thread 102
  […]

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

  Pattern not found:

- The entries "Waking up service thread <number>" and "Unable to service | Thread <number>" bracket the thread servicing in which an error occurred.

NOTE: Thread IDs are reused frequently. There are likely to be many processes with the same thread ID in any particular log file. It is important to follow the correct instance of the thread.

NOTE: It is likely that the Request Manager would try again to process a failed request. Subsequent request processing may use the same thread ID or a different thread ID. However, it would involve the same transaction ID.

- A "No checkpointing required -- going straight to responded" entry associated with the thread ID indicates that the request is "trivial."

8 At the **:** prompt enter:

/SEARCHING

- 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 forward
    06/18/01 12:17:31: Thread ID : 52 : SEARCHING FOR: 30148 (Found) | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : SEARCHING FOR: 30148 (Found) | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : DsStStoredProcedures::Execute - ERROR: Could not execute stored procedure | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : Error encountered in stored procedure | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : DBIF:Execute: Ultimate SQL: ROLLBACK TRANSACTION OUTER_7077776 | Thread 52
    06/18/01 12:17:32: Thread ID : 52 : 1_4501810_1217-1124633447_169062001_x0icg01.xdc.ecs.nasa.gov:IPOBIPOB1INRM1IGSA15:IngestRQ409GR1 Done servicing | Thread 52
    06/18/01 12:17:32: Thread ID : 52 : 1_4501810_1217-1124633447_169062001_x0icg01.xdc.ecs.nasa.gov:IPOBIPOB1INRM1IGSA15:IngestRQ409GR1 Unable to service | Thread 52
    06/18/01 12:17:32: Thread ID : 52 : 1_4501810_1217-1124633447_169062001_x0icg01.xdc.ecs.nasa.gov:IPOBIPOB1INRM1IGSA15:IngestRQ409GR1 Marked as unassigned | Thread 52
    06/18/01 12:17:32: Thread ID : 52 : 1_4501810_1217-1124633447_169062001_x0icg01.xdc.ecs.nasa.gov:IPOBIPOB1INRM1IGSA15:IngestRQ409GR1 Notifying the client | Thread 52
    06/18/01 12:17:32: Thread ID : 52 : Waiting for work | Thread 52
    06/18/01 12:17:32: Thread ID : 52 : Waking up manager thread | Thread 52
    […]

  - In the example the expression **SEARCHING** is associated with Thread ID 52.

- The context of the SEARCHING statement indicates the type and source of the problem; in this case there appears to be a problem executing a stored procedure.
- If the specified text is not in the log file, the following type of response is displayed.

  Pattern not found:

9 If the expression **SEARCHING** is not associated with the specified thread in the lines displayed, repeat Step 8.

10 If necessary, at the **:** prompt enter:

-2l

- **pg** simulates scrolling the screen backward two lines (or any other number of lines that is typed at the prompt).
  - The file is redisplayed to include the two lines that preceded the page previously displayed.
  - For example:

    ...skipping backward
    06/18/01 12:17:31: Thread ID : 52 : DBIF:Execute: Ultimate SQL: exec DsStSDAttachDisk "/usr/ecs/TS2/CUSTOM/pdps/x0spg01/data/DpPrRm/x0spg01_disk", "SDSV", 0 | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : SEARCHING FOR: 30148 (Found) | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : SEARCHING FOR: 30148 (Found) | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : DsStStoredProcedures::Execute - ERROR: Could not execute stored procedure | Thread 52
    06/18/01 12:17:31: Thread ID : 52 : Error encountered in stored procedure | Thread 52
    […]

  - The additional lines preceding "SEARCHING FOR" in the example indicate that the stored procedure in which the error was encountered is DsStSDAttachDisk.

11 To quit the **pg** application at the **:** prompt enter:

q

- **pg** exits from the Request Manager server debug log file.

12 If the request is a trivial request, go to Step 22.

13 If the request is a non-trivial request, open a separate UNIX window.

- The results of related operations on the server involved in performing copy or ftp functions for the transaction are going to be checked in a separate UNIX window.

14 Access a terminal window logged in to the appropriate server host for the server involved in performing copy or ftp functions for the transaction.

- Examples of appropriate server host names include **e0drg11, g0drg01, l0drg01, n0drg01**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

15 At the shell prompt enter:

grep '<Transaction ID>' <file name> | grep 'LogProgress'

- For example:

  grep 'af610628-' EcDsStArchiveServerDebug.log | grep 'LogProgress'

- **<file name>** refers to the name of the log file for the process involved in performing copy or ftp functions for the transaction.
- **<Transaction ID>** refers to the Transaction ID associated with the applicable request.
- In this example af610628-1dd1-11b2-a047-af3a589fd88e is the relevant Transaction ID.
  - However, usually it is not necessary to use the entire Transaction ID in the command; a representative sample (e.g., af610628- from the example) should be sufficient.
  - References to other Transaction IDs and entries that do not contain the string "LogProgress" are filtered out so references to the specified Transaction ID that contain the string "LogProgress" are the only log entries displayed. (The string "LogProgress" is a filter for references to stored procedure DsStGRLogProgress.)
  - Progress is logged for copy and ftp input/output at each block.
  - The following type of response is displayed:

    06/26/01 12:46:00: Thread ID : 65674 : myTransactionList[1]: exec DsStGRLogProgress "af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732", 0, 1, "files" | Thread 65674
    06/26/01 12:46:00: Thread ID : 65674 : DBIF:Execute: Ultimate SQL: exec DsStGRLogProgress "af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732", 0, 1, "files" | Thread 65674
    06/26/01 12:46:43: Thread ID : 65674 : : 06/26/01 12:46:43: read ID : 2:46:43: myTransactionmyTransactionList[1]: exec DsStGRLogProgress "af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732", 60, 60, "MB"List[1]: exec DsStGRLogProgress "af610628-1dd1-11b2-a047-

af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732", 60, 60, "MB"65714read 65674 : 74
06/26/01 12:46:43: Thread ID : 65674 : DBIF:Execute: Ultimate SQL: exec DsStGRLogProgress "af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732", 60, 60, "MB"0DBIF:Execute: Ultimate SQL: exec DsStGRLogProgress "af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732", 60, 60, "MB"06/26/01 12:46:43: 6/26/01 12:46:43: | Thread : 65714read 65674 : 74

- If no progress is indicated, go to Step 22.

16 **Single-click** in the UNIX window for the Distribution Server host.

17 In the UNIX window for the Distribution Server host at the command line prompt enter:

/usr/ecs/<MODE>/CUSTOM/logs

- Change to the "logs" directory in the appropriate mode.

18 At the command line prompt enter:

grep '<Transaction ID>' <file name> | grep 'Done servicing'

- **<file name>** refers to the appropriate Request Manager debug log.
- For example:

  grep 'af610628-' EcDsStRequestManagerServerDebug.log | grep 'Done servicing'

- If the operation has been completed, the following type of response is displayed:

  06/26/01 12:46:00: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
  06/26/01 12:46:44: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD10DSDD1DSDD1:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
  06/26/01 12:46:45: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD2DSDD1DSDD3:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
  06/26/01 12:46:47: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD2DSDD1DSDD3:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52

06/26/01 12:46:47: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD2DSDD1DSDD7:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
06/26/01 12:46:50: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD2DSDD1DSDD7:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
06/26/01 12:46:51: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD4:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
06/26/01 12:46:56: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD4:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
06/26/01 12:46:56: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD8:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52
06/26/01 12:46:59: Thread ID : 52 : af610628-1dd1-11b2-a047-af3a589fd88e:PDPSSDSV1DSDD1DSDD8:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Done servicing | Thread 52

  - The statement "Done servicing" shows that the operation has been completed; however, it provides no indication as to whether the operation succeeded or failed.
  - If "Done servicing" is followed by "Unable to service," (as described in Step 19) the operation failed.

- If the operation has not been completed, no file entries are displayed (the UNIX prompt is displayed).
  - It may just be slow to complete.
- If the operation has been completed, go to Step 19.
- If the operation has not been completed, go to Step 20.

19 At the shell prompt enter:

grep '<Transaction ID>' <file name> | grep 'Unable to service'

- **<file name>** refers to the appropriate Request Manager debug log.
- For example:

  grep '2a7d4168-' EcDsStRequestManagerServerDebug.log | grep 'Unable to service'

- If the request has failed, the following type of response is displayed:

  06/26/01 12:56:22: Thread ID : 52 : 2a7d4168-1dd2-11b2-8c52-99d0f708dce5:PDPSSDSV1:MoPGE02#sy14182000TS2MOD02OBC Unable to service | Thread 52
  06/26/01 12:56:22: Thread ID : 52 : 2a7d4168-1dd2-11b2-8c52-

99d0f708dce5:PDPSSDSV4:MoPGE02#sy14182000TS2MOD02OBC Unable to service | Thread 52

  - If the operation has failed, return to Step 7.
- If the operation has not failed, no file entries are displayed (the UNIX prompt is displayed).

20 At the shell prompt enter:

tail -f <file name> | grep '<Transaction ID>'

- **<file name>** refers to the appropriate Request Manager debug log.
- **<Transaction ID>** refers to the Transaction ID associated with the applicable request.
- For example:

  tail -f EcDsStRequestManagerServerDebug.log | grep 'af610628-'
- If new entries 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.
  - Notify the Operations Controller/System Administrator of suspected server problems.
- If it is necessary to exit from a tailed log, enter:

  ^c [Ctrl c]

21 If the operation has not finished yet, monitor the tailed log for awhile.

- 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., 30 minutes), notify the Operations Controller/System Administrator of the problem.
- If it is necessary to exit from a tailed log, enter:

  ^c [Ctrl c]

22 If problems were detected in the Request Manager server debug log and/or the log file for the process involved in performing copy or ftp functions for the transaction, notify the Operations Controller/System Administrator of the problem.

23 If problems were detected and corrected in the preceding steps, return to the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

24 If no problems were detected in the Request Manager server debug log or the log file for the process involved in performing copy or ftp functions for the transaction, continue with the **Check the Science Data Server Log Files** procedure (Section 18.5.2.4).

Table 18.5-10. Check the Request Manager Server Debug Log - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (Distribution Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/logs**	**enter text, press Enter**
3	**pg <file name>** (Request Manager debug log)	**enter text, press Enter**
4	**/<date> <time>**	**enter text, press Enter**
5	**/Unable to service**	**enter text, press Enter**
6	Determine which thread is associated with the problem being investigated	**read text**
7	**<search text>** (Waking up service thread <number>)	**enter text, press Enter**
8	**/SEARCHING**	**enter text, press Enter**
9	Repeat the preceding step (if necessary)	
10	**-2l** (if necessary)	**enter text, press Enter**
11	**q** (when necessary)	**enter text, press Enter**
12	UNIX window (appropriate server host)	**single-click** or use procedure in Section 18.2.1
13	**grep '<Transaction ID>' <file name> | grep 'LogProgress'**	**enter text, press Enter**
14	UNIX window (Distribution Server)	**single-click**
15	**/usr/ecs/<MODE>/CUSTOM/logs**	**enter text, press Enter**
16	**grep '<Transaction ID>' <file name> | grep 'Done servicing'**	**enter text, press Enter**
17	**grep '<Transaction ID>' <file name> | grep 'Unable to service'**	**enter text, press Enter**
18	**tail -f <file name> | grep '<Transaction ID>'**	**enter text, press Enter**
19	Monitor the tailed log for awhile (if applicable)	**read text**
20	If problems were detected in the log files, notify the Operations Controller/System Administrator of the problem	**contact Operations Controller**
21	If problems were detected and corrected in preceding steps, return to the **Recover from a Data Distribution Failure** procedure	Use procedure in Section 18.5.2
22	If problems were detected, continue with the **Check the Science Data Server Log Files** procedure	Use procedure in Section 18.5.2.4

18.5.2.4 Check the Science Data Server Log Files

The procedure to **Check the Science Data Server Log Files** is a part of the **Recover from a Data Distribution Failure** procedure (Section 18.5.2). It is performed in response to an acquire failure.

Acquire requests are processed through the Science Data Server. Consequently, it may be useful to inspect the Science Data Server log files (e.g., EcDsScienceDataServer.ALOG) to check for error messages associated with the ShortName of the file type.

Table 18.5-11 presents (in a condensed format) the steps required to check the Science Data Server log files. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the SDSRV Server host.
- Examples of SDSRV Server host names include **e0acs05, g0acs03, l0acs03, n0acs04**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/logs

- **<MODE>** is current mode of operation.
- "**logs**" is the directory containing archive server log files (e.g., EcDsScienceDataServer.ALOG).

3 At the command line prompt enter:

view <file name>

- **<file name>** is the name of the applicable Science Data Server ALOG file.
- For example:

  view EcDsScienceDataServer.ALOG

- Although this procedure has been written for the **view** command, any UNIX editor or visualizing command (e.g., **vi**, **pg**, **more**) can be used to review the log file.

4 Review the log file to determine whether the relevant file(s) was (were) successfully acquired.
- The following **view** editor commands are useful:
  - **h** (move cursor left).
  - **j** (move cursor down).
  - **k** (move cursor up).
  - **l** (move cursor right).
  - **a** (append text).

  - **i** (insert text).
  - **x** (delete a character).
  - **u** (undo previous change).
  - **Esc** (switch to command mode).
- The EcDsScienceDataServer.ALOG file should contain entries identifying the file to be acquired by the ShortName of the corresponding ESDT.
- The EcDsScienceDataServer.ALOG file should contain entries regarding the acquire activity. The following types of messages should be included in the ALOG file:

  PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrWorkingCollectionDistributeOneDistributFile

  Msg: File 1 to be distributed: :SC:MOD03.001:55732:1.HDF-EOS, rpcID = 4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov:PDPS: MoPGE 02#sy14182000TS2SC:MOD03.001:55732 Priority: 0 Time : 06/18/01 17:27:47

  PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrWorkingCollectionDistributeOneDistributFile

  Msg: File 2 to be distributed: SCMOD03.00155732.met, rpcID = 4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov:PDPS:MoPGE02# sy14182000TS2SC:MOD03.001:55732 Priority: 0 Time : 06/18/01 17:27:47

  PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrWorkingCollectionDoDitributeCreateDsDdRequestMgrC

  Msg: Calling routine to execute DsDdRequestMgrC::Create, ddistRpcID=4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov: PDPSSDSV1:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Priority: 0 Time : 06/18/01 17:27:47

  PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrWorkingCollectionDoDitributeSubmitAcquireToDDist

  Msg: Calling routine to execute DsDdRequestMgrC::Submit(), ddistRpcID=4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov: PDPSSDSV1:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Priority: 0 Time : 06/18/01 17:27:47

  PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrWorkingCollectionDDISTSubmitDDistSubmitReturned

  Msg: Calling routine to execute DsDdRequestMgrC::Submit, DDistRpcID=4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov: PDPSSDSV1:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Priority: 0 Time : 06/18/01 17:27:47

PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrWorkingCollectionDDISTSubmitDDistSubmitReturned

Msg: Returned from DsDdRequestMgrC::Submit(), DDistRpcID=4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov: PDPSSDSV1:MoPGE02#sy14182000TS2SC:MOD03.001:55732 Priority: 0 Time : 06/18/01 17:28:16

PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrWorkingCollectionDoDitributeDistributeFile

Msg: Acquire Succeeded - DISTRIBUTED 2 filecount, rpcID = 4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov:PDPS:MoPGE02#sy14182000 TS2SC:MOD03.001:55732 Priority: 0 Time : 06/18/01 17:28:16

PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsSrSessionExecuteCommandComplt

Msg: Command 1/1 execution complete for Request ID 4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov:PDPS:MoPGE02#sy14182000 TS2SC:MOD03.001:55732, Success: 1 Priority: 0 Time : 06/18/01 17:28:16

PID : 5497:Thread ID : 525 : MsgLink :0 meaningfulname :DsShSRequestRealSetStateSettingState

Msg: Request 4_18442_1727-1124614837_169062001_x0sps06.xdc.ecs.nasa.gov: PDPS:MoPGE02#sy14182000TS2SC:MOD03.001:55732 state set to DONE Priority: 0 Time : 06/18/01 17:28:16

- If the ShortName does not appear in the ALOG file, with a timestamp corresponding to the time of the attempted acquire, SDSRV may not be running, or may not be communicating with other servers.
- If the ALOG file does contain entries for that ShortName and indicates that two files (the file and its associated metadata file) are being distributed, SDSRV has completed its role in the acquire.
- If the ALOG contains the ShortName and also contains an error showing that the data file time stamp does not match the time stamp required by the acquire, the data file needs to be removed from the Science Data Server and reinserted.
  - This is usually done using a script called DsDbCleanGranules.

5 To quit the view application at the **view** program prompt enter:

:q!

6 If the ShortName does **not** appear in the ALOG file, with a timestamp corresponding to the time of the attempted acquire, ensure that it is possible to connect to the necessary hosts and servers.

- For detailed instructions refer to the **Check Connections to Hosts/Servers** procedure (Section 18.5.1.1).

7 If the ALOG contains the ShortName and also contains an error showing that the data file time stamp does not match the time stamp required by the acquire, notify the Archive Manager to have the data file(s) removed from the Science Data Server and reinserted.

8 If a problem was detected and corrected in one of the preceding steps (as indicated in the log file), return to the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

9 If the ALOG file does contain entries for the ShortName and indicates that the relevant data file(s) and associated metadata file(s) are being distributed, continue with the **Check the Archive Server Log Files** procedure (Section 18.5.2.5).

Table 18.5-11. Check the Science Data Server Log Files - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (SDSRV Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/logs**	**enter text, press Enter**
3	**view <file name>** (Science Data Server ALOG)	**enter text, press Enter**
4	Determine whether the relevant file(s) was (were) successfully acquired	**read text**
5	**:q!** (when applicable)	**enter text, press Enter**
6	If the ShortName does not appear in the ALOG file, check the connections to hosts	Use procedure in Section 18.5.1.1
7	If the ALOG contains an error showing that the data file time stamp does not match the time stamp required by the acquire, notify the Archive Manager to have the data file(s) reacquired	**contact Archive Manager**
8	If a problem was detected and corrected in one of the preceding steps, return to the **Recover from a Data Distribution Failure** procedure	Use procedure in Section 18.5.2
9	If the file(s) was (were) successfully acquired, continue with the **Check the Archive Server Log Files** procedure	Use procedure in Section 18.5.2.5

18.5.2.5 Check the Archive Server Log Files

The procedure to **Check the Archive Server Log Files** is a part of the **Recover from a Data Distribution Failure** procedure (Section 18.5.2). It is performed in response to an acquire failure.

Files to be acquired are stored in the archive so the Archive Server is involved during an acquire. Consequently, it may be useful to inspect the Archive Server log files (e.g., EcDsStArchiveServer<HWCIn>.ALOG) to check for error messages associated with the ShortName of the file type.

Table 18.5-12 presents (in a condensed format) the steps required to check the Archive Server log files. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the APC Server host.
- Examples of APC Server host names include **e0acg11, g0acg01, l0acg02, n0acg01**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/logs

- **<MODE>** is current mode of operation.
- "**logs**" is the directory containing archive server log files (e.g., EcDsStArchiveServerACM1.ALOG).

3 At the command line prompt enter:

view <file name>

- **<file name>** is the name of the applicable archive server ALOG file.
- For example:

  view EcDsStArchiveServerACM1.ALOG
- Although this procedure has been written for the **view** command, any UNIX editor or visualizing command (e.g., **vi**, **pg**, **more**) can be used to review the log file.

4 Review the log file to determine whether the relevant file(s) was (were) successfully acquired.
- The following **view** editor commands are useful:
  - **h** (move cursor left).
  - **j** (move cursor down).
  - **k** (move cursor up).
  - **l** (move cursor right).

- **a** (append text).
- **i** (insert text).
- **x** (delete a character).
- **u** (undo previous change).
- **Esc** (switch to command mode).

5 To quit the view application at the **view** program prompt enter:

:q!

6 If the relevant file(s) was (were) **not** successfully acquired, notify the Archive Manager to have the data file(s) reacquired.

7 If a problem was detected and corrected in one of the preceding steps, return to the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

8 If the relevant file(s) had been successfully acquired (as indicated in the log file), continue with the **Check the Staging Disk** procedure (Section 18.5.2.6).

Table 18.5-12. Check the Archive Server Log Files - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (APC Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/logs**	**enter text, press Enter**
3	**view <file name>**(Archive Server ALOG)	**enter text, press Enter**
4	Determine whether the relevant file(s) was (were) successfully acquired	**read text**
5	**:q!** (when applicable)	**enter text, press Enter**
6	If the file(s) was (were) not successfully acquired, notify the Archive Manager to have the data file(s) reacquired	**contact Archive Manager**
7	If a problem was detected and corrected in one of the preceding steps, return to the **Recover from a Data Distribution Failure** procedure	Use procedure in Section 18.5.2
8	If the file(s) had been successfully acquired, continue with the **Check the Staging Disk** procedure	Use procedure in Section 18.5.2.6

18.5.2.6 Check the Staging Disk

The procedure to **Check the Staging Disk** is a part of the **Recover from a Data Distribution Failure** procedure (Section 18.5.2). It is performed in response to an acquire failure.

During an acquire, files are copied to a staging area as an intermediate step before distributing them to their destination. As part of diagnosing an acquire failure it is useful to check the staging area to ascertain whether the files have completed part of their journey. A subdirectory containing both the data granule and metadata file should have been written to the staging area.

Table 18.5-13 presents (in a condensed format) the steps required to check the staging disk. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the Distribution Server host.
- Examples of Distribution Server host names include **e0dis02, g0dis02, l0dis02, n0dis02**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/drp/<archive host>/data/staging/<disk number>

- **<MODE>** is current mode of operation.
- **<archive host>** refers to the applicable archive host (e.g., e0drg11, g0drg01, l0drg01, n0drg01).
- **<disk number>** is the relevant staging disk for the distribution.

3 At the UNIX command line prompt enter:

ls -lrt

- A listing of the staging disk subdirectory contents is displayed.

4 Review the subdirectory contents to determine whether the relevant file(s) was (were) successfully staged.
- The subdirectory should contain both the relevant data granule(s) and corresponding metadata file(s).

5 If the relevant file(s) was (were) successfully staged, ensure that it is possible to connect to the necessary hosts and servers.
- For detailed instructions refer to the **Check Connections to Hosts/Servers** procedure (Section 18.5.1.1).

6 If the relevant file(s) was (were) successfully staged and if it is possible to connect to the necessary hosts and servers, return to the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

7 If the relevant file(s) was (were) **not** successfully staged, continue with the **Check the Staging Disk ALOG File** procedure (Section 18.5.2.7) to determine why the data were not successfully staged.

Table 18.5-13. Check the Staging Disk - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (Distribution Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/drp/<archive host>/data/staging/<disk number>**	**enter text, press Enter**
3	**ls -lrt**	**enter text, press Enter**
4	Determine whether the relevant file(s) was (were) successfully staged	**read text**
5	If the relevant file(s) was (were) successfully staged, check the connections to hosts	Use procedure in Section 18.5.1.1
6	If the file(s) was (were) successfully staged, return to the **Recover from a Data Distribution Failure** procedure	Use procedure in Section 18.5.2
7	If the file(s) was (were) not successfully staged, continue with the **Check the Staging Disk ALOG File** procedure	Use procedure in Section 18.5.2.7

18.5.2.7 Check the Staging Disk ALOG File

The procedure to **Check the Staging Disk ALOG File** is a part of the **Recover from a Data Distribution Failure** procedure (Section 18.5.2). It may be performed in conjunction with the procedure to **Check the Staging Disk** (Section 18.5.2.6) in response to an acquire failure. If a failure occurs in copying files to the staging area, then the staging disk ALOG files (e.g., EcDsStStagingDiskServer.ALOG or EcDsStCacheManagerServer.ALOG) may reveal the cause.

Table 18.5-14 presents (in a condensed format) the steps required to check the staging disk ALOG file. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the Distribution Server host.

- Examples of Distribution Server host names include **e0dis02, g0dis02, l0dis02, n0dis02**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/logs

- **<MODE>** is current mode of operation.
  - TS1 - Science Software Integration and Test (SSI&T)
  - TS2 - New Version Checkout
  - OPS - Normal Operations
- "**logs**" is the directory containing data distribution, science data server, or storage management log files (e.g., EcDsDdistGui.ALOG, EcDsDistributionServer.ALOG).

3 At the command line prompt enter:

view <file name>

- **<file name>** refers to the Staging Disk Server ALOG or Cache Manager Server ALOG as applicable.
  - For example:

    view EcDsStStagingDiskServer.ALOG
- Although this procedure has been written for the **view** command, any UNIX editor or visualizing command (e.g., **vi**, **pg**, **more**) can be used to review the log file.

4 Review the log file to determine whether the relevant file(s) was (were) successfully staged.

- The following **view** editor commands are useful:
  - **h** (move cursor left).
  - **j** (move cursor down).
  - **k** (move cursor up).
  - **l** (move cursor right).
  - **a** (append text).
  - **i** (insert text).
  - **x** (delete a character).
  - **u** (undo previous change).
  - **Esc** (switch to command mode).

5 To quit the view application at the **view** program prompt enter:

:q!

6 If the relevant file(s) was (were) successfully staged, ensure that it is possible to connect to the necessary hosts and servers.

- For detailed instructions refer to the **Check Connections to Hosts/Servers** procedure (Section 18.5.1.1).

7 If the relevant file(s) was (were) successfully staged and if it is possible to connect to the necessary hosts and servers, return to the **Recover from a Data Distribution Failure** procedure (Section 18.5.2).

8 If the relevant file(s) was (were) **not** successfully staged, continue with the **Check the Space Available in the Staging Area** procedure (Section 18.5.2.8).

Table 18.5-14. Check the Staging Disk ALOG File - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (Distribution Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/<MODE>/CUSTOM/logs**	**enter text, press Enter**
3	**view <file name>** (Staging Disk Server ALOG or Cache Manager Server ALOG as applicable)	**enter text, press Enter**
4	Determine whether the relevant file(s) was (were) successfully staged	**read text**
5	**:q!** (when applicable)	**enter text, press Enter**
6	If the relevant file(s) was (were) successfully staged, check the connections to hosts	Use procedure in Section 18.5.1.1
7	If the file(s) was (were) successfully staged, return to the **Recover from a Data Distribution Failure** procedure	Use procedure in Section 18.5.2
8	If the file(s) was (were) not successfully staged, continue with the **Check the Space Available in the Staging Area** procedure	Use procedure in Section 18.5.2.8

18.5.2.8 Check the Space Available in the Staging Area

The procedure to **Check the Space Available in the Staging Area** is a part of the **Recover from a Data Distribution Failure** procedure (Section 18.5.2). It may be performed in conjunction with the procedures to **Check the Staging Disk ALOG File** (Section 18.5.2.7) and **Check the Staging Disk** (Section 18.5.2.6) in response to an acquire failure. An acquire failure can be caused by a lack of space in the staging area.

Table 18.5-15 presents (in a condensed format) the steps required to check the space available in the staging area. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the Distribution Server host.
- Examples of APC Server host names include **e0dis02, g0dis02, l0dis02, n0dis02**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd /usr/ecs/<MODE>/CUSTOM/drp/<archive host>/data/

- Change to the appropriate data subdirectory.
- **<MODE>** is current mode of operation.
- **<archive host>** refers to the applicable archive host (e.g., e0drg11, g0drg01, l0drg01, n0drg01).

3 At the UNIX command line prompt enter:

df -k .

- Be sure to include the dot at the end of the command.
- The **df -k .** command generates a report of the number of free disk blocks and files.
  - For example:

```
Filesystem            kbytes    used   avail capacity  Mounted on
x0drg01:/usr/ecs/TS2/CUSTOM/drp/x0drg01/data
                     278586880 156217472 122369408    57%
/data1/ecs/TS2/CUSTOM/drp/x0drg01/data
```

4 Review the available space listed to determine whether there is adequate space for staging the relevant file(s).

5 If there is **not** adequate space for staging the relevant file(s), notify the Operations Controller/System Administrator of the lack of space.

6 If there is adequate space for staging the relevant file(s), notify the Archive Manager to have the data file(s) reacquired.

7 Return to the **Recover from a Data Distribution Failure** procedure (Section 18.5.2) after the problem has been corrected.

Table 18.5-15. Check the Space Available in the Staging Area - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	UNIX window (Distribution Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /usr/ecs/*MODE*/CUSTOM/drp/<archive host>/data/**	**enter text, press Enter**
3	**df -k .**	**enter text, press Enter**
4	Determine whether there is adequate space for staging the relevant file(s)	**read text**

Table 18.5-15. Check the Space Available in the Staging Area - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
5	Notify the Operations Controller/System Administrator of the lack of space (if applicable)	**contact Operations Controller**
6	Notify the Archive Manager to have the data file(s) reacquired (if there is adequate space)	**contact Archive Manager**
7	Return to the **Recover from a Data Distribution Failure** procedure	Use procedure in Section 18.5.2

18.5.2.9 Check Database Connections

The storage management/data distribution shared 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.

Table 18.5-16 presents (in a condensed format) the steps required to check database connections. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

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 **e0acg11, g0acg01, l0acg02, n0acg01**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).
- APC Server typically hosts Sybase for the storage management/data distribution shared database.

3 At the UNIX command line prompt enter:

isql –U <user ID> -S <database server>

- **<user ID>** is the database user's identification; e.g., **stmgt_role**.
- **<database server>** is the database server; e.g., **x0acg01_srvr**.
- For example:

  isql –U stmgt_role –S x0acg01_srvr

4 At the **Password:** prompt enter:

<database password>

- **<database password>** is the password for logging in to the database using the specified **<user ID>**.
- A **1>** prompt is displayed, indicating that a connection has been made with the database.

5 At the **1>** prompt enter:

sp_who

- A **2>** prompt is displayed.

6 At the **2>** prompt enter:

go

- A listing of current log-ins to the database is displayed; it includes data in the following columns:
  - **spid.**
  - **status.**
  - **loginame.**
  - **hostname.**
  - **blk.**
  - **dbname.**
  - **cmd.**
- A listing similar to the following one is displayed (most lines have been deleted):

```
 spid  status      loginame                 hostname   blk
     dbname                  cmd
------ ----------- ---------------------------- ---------- -----
     ---------------------------- ----------------
   1 recv sleep   stmgt_role                x0acs03     0
     stmgtdb1_TS1              AWAITING COMMAND
   2 sleeping    NULL                           0
     master                 NETWORK HANDLER
   3 sleeping    NULL                           0
     master                 DEADLOCK TUNE
```

7 At the **1>** prompt enter:

sp_configure "user connections"

8 At the **2>** prompt enter:

go

- A listing similar to the following one is displayed:

```
Parameter Name                 Default     Memory Used Config Value
     Run Value
 ----------------------------- ----------- ----------- ------------
     -----------
 number of user connections          25       20195        255
          255
 (1 row affected)
 (return status = 0)
```

9 At the **1>** prompt enter:

quit

- The connection with the database is discontinued.
- A UNIX command line prompt is displayed.

10 Compare the number of actual connections with the number of connections for which the database has been configured.

- Number of actual connections is displayed in response to the **sp_who** isql command.
- Number of connections for which the database has been configured is displayed in response to the **sp_configure "user connections"** isql command.

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).

- In Step 1 of this procedure a request was made to the Database Administrator to identify the value assigned to DBMaxConnections.

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.

Table 18.5-16. Check Database Connections - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Request the Database Administrator to identify values for EcDsDistributionServer parameters **DBName**, **DBServer**, and **DBMaxConnections**	**contact Database Administrator**
2	UNIX window (APC Server)	**single-click** or use procedure in Section 18.2.1
3	**isql –U <user ID> -S <database server>**	**enter text, press Enter**
4	**<database password>**	**enter text, press Enter**
5	**sp_who**	**enter text, press Enter**
6	**go**	**enter text, press Enter**
7	**sp_configure "user connections"**	**enter text, press Enter**
8	**go**	**enter text, press Enter**
9	**quit**	**enter text, press Enter**
10	Compare the number of actual connections with the number for which the database has been configured	**read text**
11	Notify the Database Administrator that the number of actual connections is very close to the number of connections for which the database has been configured (if applicable)	**contact Database Administrator**
12	Compare the number of actual connections with the value for DBMaxConnections (If applicable))	**read text**
13	Notify the Database Administrator that the number of actual connections is very close to the value for DBMaxConnections (if applicable)	**contact Database Administrator**

18.6 Starting Up PDS

Hard (physical) media distribution on disks or tape cartridges is accomplished through the Product Distribution System (PDS), which supports distribution on the following types of media:

- 8mm tape cartridges.
- Digital Linear Tape (DLT).
- Compact disk (CD).
- DVD (formerly digital video disk or digital versatile disk now referred to as just "DVD").

The method of data distribution is dictated by the nature of the data distribution request. (The requester specifies the distribution method when ordering the data.)

When a requester submits a request for hard media distribution, the retrieved data and metadata files on the staging disk are transferred via ftp push to the designated PDS staging area. The

PDS generates and mails the media; and sends an e-mail distribution notice (order shipment notification) in standard ECS format to the requester's e-mail address (as specified in the original order).

Table 18.6-1, below, provides an Activity Checklist for starting up PDS.

Table 18.6-1. Starting Up PDS - Activity Checklist

Order	Role	Task	Section	Complete?
1	Distribution Technician	Start the PDSIS Server and PDSIS Cron	(P) 18.6.1	
2	Distribution Technician	Start the PDS Operator Interface (PDSOI)	(P) 18.6.2	
3	Distribution Technician	Start the PDSIS Operator Interface (PDSIS OI)	(P) 18.6.3	
4	Distribution Technician	Start the PDS Job Monitor	(P) 18.6.4	
5	Distribution Technician	Start the Rimage CD Production Software	(P) 18.6.5	
6	Distribution Technician	Start the PDS Verification Tool	(P) 18.6.6	
7	Distribution Technician	Start the PDS Maintenance Module	(P) 18.6.7	
8	Distribution Technician	Start the PDSIS Maintenance Module	(P) 18.6.8	

18.6.1 Start the PDSIS Server and PDSIS Cron

On rare occasions it may be necessary to start the PDSIS Server, PDSIS Cron process, and/or the PDSIS Midnight Cron process.

The applications are invoked from a UNIX command line prompt. Table 18.6-2 presents (in a condensed format) the steps required to start the PDSIS Server, PDSIS Cron process, and/or the PDSIS Midnight Cron process. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Log in to the PDS Server host using the appropriate PDSIS user ID for the operating mode being used.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- PDSIS user IDs are **pdsis**, **pdsis_ts1**, and **pdsis_ts2**, which are used for PDSIS operations in the OPS, TS1, and TS2 modes respectively.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 To determine whether the PDSIS Server is running, in the terminal window, at the command line prompt, enter:

ps -ef | grep pdsis

- One of the following types of message is displayed:

  pdsis 1038 1 0 Oct 10? 0:02 /usr/java/bin/../bin32/sgi/green_threads/java ECSPDSServer 15010 true
  pdsis_ts2 1062 1 0 Oct 10? 0:07 /usr/java/bin/../bin32/sgi/green_threads/java ECSPDSServer 15011 true
  pdsis 790367 790059 0 10:15:11 pts/8 0:00 grep pdsis

  - or -

  pdsis_ts 5289776 1 0 Oct 10 ? 0:05 /usr/java/bin/../bin32/sgi/native_threads/java -classpath /data1/pdsis_ts1/lib/
  pdsis 3976659 1 0 Oct 10 ? 0:08 /usr/java/bin/../bin32/sgi/native_threads/java -classpath /data1/pdsis/lib/PDS/
  pdsis 5403476 5365954 0 14:47:12 pts/1 0:00 grep pdsis
  pdsis_ts 4203934 4185654 0 Oct 10 pts/10 0:00 -csh

- If the PDSIS Server were **not** running, the following type of message only would be displayed:

  pdsis 903677 900597 0 10:16:16 pts/8 0:00 grep pdsis

3 At the UNIX command line prompt enter:

cd /usr/local/pdsis_<mode>/utilities

- Change directory to the directory containing the PDSIS Server start-up script (e.g., EcPdPDSISServerStart).
- **pdsis_<mode>** refers to one of the following subdirectories:
  - pdsis (for OPS-mode operations).
  - pdsis_ts1 (for TS1-mode operations).
  - pdsis_ts2 (for TS2-mode operations).

4 If the message **/usr/local/pdsis/utilities - No such file or directory** is displayed, go to Step 9.

5 If starting the PDSIS Server is desired, at the UNIX command line prompt enter:

EcPdPDSISServerStart <MODE> <debug>

- **<MODE>** is one of the following values:
  - **pdsis.**
  - **pdsis_ts1.**

  - **pdsis_ts2.**
- **<debug>** is one of the following values:
  - **false.**
  - **true.**
  - **super.**
- The PDSIS Server starts.

6 If starting the PDSIS Server is desired, at the UNIX command line prompt enter:

EcPdPDSISCronStart <MODE> <crontype> <debug>

- **<crontype>** is one of the following values:
  - **cleanup.**
  - **status.**
  - **scli.**
  - **all.**
- **<debug>** is one of the following values:
  - **false.**
  - **true.**
  - **super.**
- The PDSIS Cron will start at the appropriate time (as specified in the cronfile).
- If an error message is displayed, notify the System Administrator of the problem.

7 If starting the PDSIS Midnight Cron job is desired, at the UNIX command line prompt enter:

EcPdPDSISMidnightCronStart <MODE> <port> <debug>

- **<port>** refers to the appropriate port for the Midnight Cron job.
- **<debug>** is one of the following values:
  - **false.**
  - **true.**
  - **super.**
- The PDSIS Midnight Cron will start at the appropriate time (as specified in the cronfile).
- If an error message is displayed, notify the System Administrator of the problem.

8 If the PDSIS Server, PDSIS Cron process, and PDSIS Midnight Cron process have all been initiated, quit this procedure.

- End of procedure.

9 If there is no "utilities" directory, at the UNIX command line prompt enter:

cd /usr/local/pdsis_<mode>/bin

- Change directory to the directory containing the PDSIS Server start-up script (e.g., startPDSISServer.sh).
- **pdsis_<mode>** refers to one of the following subdirectories:
  - pdsis (for OPS-mode operations).
  - pdsis_ts1 (for TS1-mode operations).
  - pdsis_ts2 (for TS2-mode operations).

10 If starting the PDSIS Server is desired, at the UNIX command line prompt enter:

startPDSISServer.sh

- The PDSIS Server starts.

11 If starting the PDSIS Cron job is desired, at the UNIX command line prompt enter:

startPDSISCron.sh

- The PDSIS Cron will start at the appropriate time (as specified in the cronfile).
- If an error message is displayed, notify the System Administrator of the problem.

12 If starting the PDSIS Midnight Cron job is desired, at the UNIX command line prompt enter:

startPDSISMidnightCron.sh

- The PDSIS Midnight Cron will start at the appropriate time (as specified in the cronfile).
- If an error message is displayed, notify the System Administrator of the problem.

Table 18.6-2. Start the PDSIS Server and PDSIS Cron - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server) (using appropriate PDSIS user ID)	**single-click** or use procedure in Section 18.2.1
2	**ps -ef | grep pdsis**	**enter text, press Enter**
3	**cd /usr/local/pdsis_*mode*/utilities**	**enter text, press Enter**
4	If **/usr/local/pdsis/utilities - No such file or directory**, go to Step 9	**enter text, press Enter**
5	**EcPdPDSISServerStart <MODE> <debug>** (if applicable)	**enter text, press Enter**
6	**EcPdPDSISCronStart <MODE> <crontype> <debug>** (if applicable)	**enter text, press Enter**
7	**EcPdPDSISMidnightCronStart <MODE> <port> <debug>** (if applicable)	**enter text, press Enter**

Table 18.6-2. Start the PDSIS Server and PDSIS Cron - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
8	End (if the PDSIS Server, PDSIS Cron process, and PDSIS Midnight Cron process have all been initiated)	**enter text, press Enter**
9	**cd /usr/local/pdsis_<mode>/bin** (if no "utilities" directory)	**enter text, press Enter**
10	**startPDSISServer.sh** (if applicable)	**enter text, press Enter**
11	**startPDSISCron.sh** (if applicable)	**enter text, press Enter**
12	**startPDSISMidnightCron.sh** (if applicable)	**enter text, press Enter**

18.6.2 Start the PDS Operator Interface (PDSOI)

The PDS Operator Interface (PDSOI) is intended to run continually to allow the monitoring and control of jobs in PDS.

The PDS Operator Interface (PDSOI) is invoked from a UNIX command line prompt. Table 18.6-3 presents (in a condensed format) the steps required to start the PDS Operator Interface (PDSOI). If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 In the terminal window, at the command line prompt, enter:

pdsoi

- The PDSOI Startup Window is displayed.
  - It may take a few seconds for the window to be displayed.
- The following information is displayed near the top of the screen:
  - Name of the Oracle Form (e.g., PDSMTOIX).
  - Current version of the PDS (e.g., 2.3).
  - Database instance being run (e.g., PRODUCTION).
  - Current date.
- **pdsoi** is an alias for a UNIX script (pdsoi_prod.sh) that is used to start up the PDSOI.
  - The script is located in the "run" directory (e.g., /data1/pds_it/run).
  - The alias may vary somewhat depending on the site set-up.

3 **Single-click** and **hold** the **PDS Machine** option button to display a menu of machines, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Selected machine is displayed on the **PDS Machine** option button when the mouse button is released.

4 In the **Console ID** window enter:

<console ID>

- The PDSOI Start-Up Selection Screen is displayed.
- The **Machine ID** and **Console ID** (linked with an underscore) are displayed in the header of the window.
  - For example, "PDS1_test" in the header of the window indicates that "PDS1" was chosen as the Machine ID and that "test" was typed in as the Console ID.
- Together the **PDS Machine** and **Console ID** constitute the **OI ID** for all jobs started up from the current window.
  - If the OI is shut down or goes down for some reason, it is necessary to log in to the system with the same Machine ID and Console ID to be able to continue work on any jobs started with the OI ID being used in the current session.

5 **Single-click** on the toggle button(s) corresponding to the desired priority(ies) in the **Priority** list.

- Options are: **All**, **1**, **2**, **3**, **4**, **5**, **6**, **7**, **8**, **9**.
- Priority meanings might be assigned (in the database) as follows (for example):

1 -	**Emergency** -	Eight-hour turn-around required.
2 -	**High Priority** -	Less than 24-hour turn-around.
3 -	**Priority** -	Turn around in less than five working days.
4 - 6 -	**Rush** -	Two-week turn-around.
7 - 9 -	**Standard Orders** -	Four- to six-week turn-around.

- One button or several buttons may be selected.
- Options may change.
- Single-clicking on a button changes its state from unselected to selected or vice versa.
- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

6 **Single-click** on the toggle button(s) corresponding to the desired product media type(s) in the **Product Media** list.

- Options are: All, **CD**, 8H, D7, DVD.
- Product media types might be defined (in the database) as follows (for example):

CD -	CDROM.
8H -	8mm tape.

D7 - DLT.
DVD - DVD.

- Options may change.
- One button or several buttons may be selected.
- Single-clicking on a button changes its state from unselected to selected or vice versa.
- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

7 **Single-click** on the toggle button(s) corresponding to the desired due date(s) in the **Due Date** list.

- Options are: **All**, **Past Due**, **Today**, **1 Week**.
- Options may change.
- One button or several buttons may be selected.
- Single-clicking on a button changes its state from unselected to selected or vice versa.
- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

8 **Single-click** on the toggle button(s) corresponding to the desired product code(s) in the **Product Code** list.

- Options are: **All** and all valid individual product codes.
- One button or several buttons may be selected.
- Single-clicking on a button changes its state from unselected to selected or vice versa.
- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

9 **Single-click** and **hold** the appropriate **Sort By** option button to display a list of numbers indicating the order in which the sort criteria should be evaluated, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Options are: **Job Key**, **Priority**, **Job Status**, **Product Media**, **Project Id**, **Product Code**, **Due Date**.
- Selected sort order number is displayed on the selected **Sort By** option button when the mouse button is released.
- It is not possible to select a sort order number for a sorting category if the number has already been assigned to another category.
  - For example, if Job Status was assigned Number 1, Product Media cannot be assigned Number 1 as well. If jobs should be sorted by Product Media first, it is necessary to change the Job Status assignment to some (unused) number other than one (1) then one (1) can be assigned to Product Media.

10 Repeat Step 9 as necessary to assign sorting order to additional categories.

- It is possible to select more than one **Sort By** item.

- If more than one **Sort By** option is selected the jobs will be selected by the sort order for the selection assigned Number 1, then within that sort order they would be sorted by the category assigned Number 2, etc.
  - For example, if Job Status were assigned the first sort order (1) and Due Date were assigned the second sort order (2), the jobs would be sorted by Job Status, then within each status the jobs would be sorted by Due Date. So the jobs containing the same status would be displayed together with the earliest due date for each status at the top of the list for that status.

11 **Single-click** on the **Execute** button.

- A **Querying Database** notice is displayed temporarily in a blue box.
  - The message line at the bottom of the screen displays "Working" while the Querying Database notice is being displayed.
  - If there are status files waiting to be read, another blue box may be displayed indicating "Reading Status files. Please wait…"
  - If no selection criteria were selected, a **Selection Error Dialogue** is displayed in a purple box.
  - **Single-click** on the **OK** button to dismiss the error window.
- The **Main OI Screen** is displayed when the **Querying Database** notice quits (indicating that database has been queried and the results are being displayed).

12 Set timer intervals.

- The timer interval determines how often the data displayed on the **Main OI Screen** are refreshed.
- For detailed instructions refer to the **Set Timer Intervals** procedure (Section 18.8.2).

Table 18.6-3. Start the PDS Operator Interface (PDSOI) - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**pdsoi**	**enter text, press Enter**
3	**<machine>** (from **PDS Machine** option button)	**single-click**
4	**<console ID>** (in **<console ID>** window)	**enter text, press Enter**
5	**<priority>** (in **Priority** list)	**single-click**
6	**<product media>** (in **Product Media** list)	**single-click**
7	**<due date>** (in **Due Date** list)	**single-click**
8	**<product code>** (in **Product Code** list)	**single-click**
9	**<sort order>** (on the applicable **Sort By** option button)	**single-click**
10	Repeat preceding step as necessary to assign sorting order	

Table 18.6-3. Start the PDS Operator Interface (PDSOI) - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
11	**Execute** button	**single-click**
12	Set timer intervals	Use procedure in Section 18.8.2

18.6.3 Start the PDSIS Operator Interface (PDSIS OI)

Like the PDSOI, the PDSIS Operator Interface (PDSIS OI) is intended to run continually to allow the monitoring and control of orders in PDS. It may be useful to start the **PDSIS OI Main Screen** in a separate workspace from the PDS **Main OI Screen** to prevent crowding in the PDS workspace.

The **PDSIS OI Main Screen** is invoked from a UNIX command line prompt. Table 18.6-4 presents (in a condensed format) the steps required to start the PDSIS Operator Interface (PDSIS OI). If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the UNIX command line prompt enter:

    echo $PDSROOT

3 At the UNIX command line prompt enter:

pdsisoi

- The **PDSIS OI Main Screen** is displayed.
  - It may take a few seconds for the window to be displayed.
  - The following information is displayed near the top of the screen: Name of the Oracle Form (e.g., PDSISMTOIX); Current version of the PDS (e.g., 1.0); Database instance being run (e.g., PDSIS); Current date.

- **pdsisoi** is an alias for a UNIX script (pdsisoi_prod.sh) that is used to start up the PDSIS OI.
  - The script is located in the "run" directory (e.g., /data1/pds_it/run).
  - The alias may vary somewhat depending on the site set-up.

Table 18.6-4. Start the PDSIS Operator Interface (PDSIS OI) - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**pdsisoi**	**enter text, press Enter**

18.6.4 Start the PDS Job Monitor

The PDS **Job Monitor Main Window** is intended to run continually in conjunction with the PDS **Main OI Screen**.

The PDS **Job Monitor Main Window** is invoked from a UNIX command line prompt. Table 18.6-5 presents (in a condensed format) the steps required to start the PDS Job Monitor. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the UNIX command line prompt enter:

    echo $PDSROOT

3 At the command line prompt enter:

cd jobmon

- Change to the "jobmon" subdirectory.

4 At the command line prompt enter:

jobmonitor &

- The **Job Monitor Main Window** is displayed.
- The PDS **Job Monitor Main Window** is intended to run continually in conjunction with the PDS **Main OI Screen**.
- Hypothetically, there is no limit to the number of PDS Job Monitors that can be running at once; however, since the application consumes a small amount of resources, care should be taken to not run multiple instances excessively.

Table 18.6-5. Start the PDS Job Monitor - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**cd jobmon**	**enter text, press Enter**
4	**jobmonitor &**	**enter text, press Enter**

18.6.5 Start the Rimage CD Production Software

The following Rimage CD production software programs have to be started on the Rimage personal computer (PC):

- Data Publisher.
- Production Server.

A Network File System (NFS) mount is needed in order to see the job control directory (e.g., /pdssa/rimage_jobcontrol) on the PDS system. When the Windows NT system for the Rimage PC is set up, the PDS job control directory is typically assigned to the PC's Z: drive.

Table 18.6-6 presents (in a condensed format) the steps required to start the Rimage CD production software. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Double-click** on the Data Publisher icon on the PC desktop.

- The program starts and a Data Publisher window is displayed on the PC.
- Data Publisher watches the job control directory looking for order files that describe data to be transferred (so they can be written to disk).
  - The order files are identified by a ".ORD" extension, which indicates that data are ready to be transferred.

- Data Publisher transfers (via ftp) data (i.e., image files) from PDSSA to the "CD-R_images" directory on the Rimage PC E: drive and changes the ".ORD" extension on the order file to a ".dn0" extension.

2 **Double-click** on the Production Server icon on the PC desktop.
- The program starts and a Production Server window is displayed on the PC.
- The Production Server does an initial hardware check on the Rimage CD burners, internal printer and the media carousel. The Production Server transfers data to disk media after Data Publisher has transferred the data onto the Rimage PC E: drive.

3 **Single-click** on the **Start** button in the Production Server window.

Table 18.6-6. Start the Rimage CD Production Software - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Data Publisher icon (on PC desktop)	**double-click**
2	Production Server icon (on PC desktop)	**double-click**
3	**Start** button (in Production Server window)	**single-click**

18.6.6 Start the PDS Verification Tool

The PDS **Verification Tool** is intended to run continually in conjunction with the PDS **Main OI Screen**.

The PDS **Verification Tool** is invoked from a UNIX command line prompt. Table 18.6-7 presents (in a condensed format) the steps required to start the PDS **Verification Tool**. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the UNIX command line prompt enter:

    echo $PDSROOT

3 At the command line prompt enter:

ckwin &

- The PDS **Verification Tool** is displayed.
- The PDS **Verification Tool** is intended to run continually in conjunction with the PDS **Main OI Screen**.

Table 18.6-7. Start the PDS Verification Tool - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**ckwin &**	**enter text, press Enter**

18.6.7 Start the PDS Maintenance Module

The PDS Maintenance Module contains Oracle Forms, which are used to look at and update the data within the database used by the PDSOI. The PDS **Maintenance Module** is intended to be run as it is needed to change data in certain fields in the database. It would not normally be running continuously.

The PDS Maintenance Module is invoked from a UNIX command line prompt. Table 18.6-8 presents (in a condensed format) the steps required to start the PDS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the UNIX command line prompt enter:

    echo $PDSROOT

3 At the command line prompt enter:

pds_maint

- The PDS **Maintenance Module Login Screen** is displayed.
- **pds_maint** is an alias for a UNIX script (pdsmaint.sh) that is used to start up the PDS Maintenance Module.
  - The script is located in the $PDSROOT/run directory (e.g., /data1/pds_it/run).
  - The alias may vary somewhat depending on the site set-up.

4 In the **Username** field of the PDS **Maintenance Module Login Screen** enter:

<user ID>

5 In the **Password** field of the PDS **Maintenance Module Login Screen** enter:

<password>

NOTE: It is not necessary to fill in the **Database** field on the PDS **Maintenance Module Login Screen**; it defaults to the correct database if left blank.

6 **Single-click** on the appropriate button from the following selections:

- **Connect** - to log in to the PDS Maintenance Module.
  - The PDS **Maintenance Module Main Menu** is displayed.
- **Cancel** - to dismiss the PDS **Maintenance Module Login Screen** without logging in to the PDS Maintenance Module.

Table 18.6-8. Start the PDS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**pds_maint**	**enter text, press Enter**
4	**<user ID>** (in **Username** field)	**enter text, press Tab**
5	**<password>** (in **Password** field)	**enter text, press Enter**
6	**Connect** button	**single-click**

18.6.8 Start the PDSIS Maintenance Module

The PDSIS Maintenance Module contains Oracle Forms, which are used to look at and update the data within the database tables used by the PDSIS OI. The **PDSIS Maintenance Module** is

intended to be run as it is needed to change data in certain fields in the database. It would not normally be running continuously.

The PDSIS Maintenance Module is invoked from a UNIX command line prompt. Table 18.6-9 presents (in a condensed format) the steps required to start the PDSIS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the UNIX command line prompt enter:

    echo $PDSROOT

3 At the command line prompt enter:

pdsismaint

- The **PDSIS Maintenance Module Login Screen** is displayed (identical to the **PDS Maintenance Module Login Screen**).
- **pdsismaint** is an alias for a UNIX script (pdsismaint_<MODE>.sh) that is used to start up the PDSIS Maintenance Module.
  - The script is located in the $PDSROOT/run directory (e.g., /data1/pds_it/run).
  - The alias may vary somewhat depending on the site set-up.

4 In the **Username** field of the **PDSIS Maintenance Module Login Screen** enter:

<user ID>

5 In the **Password** field of the **PDSIS Maintenance Module Login Screen** enter:

<password>

NOTE: It is not necessary to fill in the **Database** field on the **PDSIS Maintenance Module Login Screen**; it defaults to the correct database if left blank.

6 **Single-click** on the appropriate button from the following selections:

- **Connect** - to log in to the PDSIS Maintenance Module.
  - The **PDSIS Maintenance Module Main Menu** is displayed.
- **Cancel** - to dismiss the **PDSIS Maintenance Module Login Screen** without logging in to the PDSIS Maintenance Module.

Table 18.6-9. Start the PDSIS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**pdsismaint**	**enter text, press Enter**
4	**<user ID>** (in **Username** field)	**enter text, press Tab**
5	**<password>** (in **Password** field)	**enter text, press Enter**
6	**Connect** button	**single-click**

18.7 Shutting Down PDS

Shutting down PDS is best done only after all executing PDS jobs have completed or are at a logical stopping point.

Table 18.7-1, below, provides an Activity Checklist for shutting down PDS.

Table 18.7-1. Shutting Down PDS - Activity Checklist

Order	Role	Task	Section	Complete?
1	Distribution Technician	Shut Down the PDS Maintenance Module	(P) 18.7.1	
2	Distribution Technician	Shut Down the PDS Job Monitor	(P) 18.7.2	
3	Distribution Technician	Shut Down the PDS Operator Interface (PDSOI)	(P) 18.7.3	
4	Distribution Technician	Shut Down the Rimage CD Production Software	(P) 18.7.4	
5	Distribution Technician	Shut Down the PDS Verification Tool	(P) 18.7.5	
6	Distribution Technician	Shut Down the PDSIS Maintenance Module	(P) 18.7.6	
7	Distribution Technician	Shut Down the PDSIS Operator Interface (PDSIS OI)	(P) 18.7.7	

18.7.1 Shut Down the PDS Maintenance Module

The PDS **Maintenance Module Main Menu** provides the Distribution Technician with a means of shutting down the PDS Maintenance Module.

Table 18.7-2 presents (in a condensed format) the steps required to shut down the PDS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If one of the maintenance modules is being displayed, **single-click** on the **Exit** button at the bottom of the window.

- If the **Exit** button is not visible on the maintenance module form, **single-click** on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the PDS **Maintenance Module Main Menu** is displayed.

2 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:

- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.

3 **Single-click** on the **Exit** button at the bottom of the PDS **Maintenance Module Main Menu** window.

- The PDS **Maintenance Module Main Menu** is dismissed.
- The PDS maintenance module has been shut down.

Table 18.7-2. Shut Down the PDS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Exit** button (on PDS maintenance module) (if applicable)	**single-click**
2	**Yes** button (if applicable)	**single-click**
3	**Exit** button (on PDS **Maintenance Module Main Menu**)	**single-click**

18.7.2 Shut Down the PDS Job Monitor

The **Job Monitor Main Window** provides the Distribution Technician with a means of shutting down the PDS Job Monitor.

Table 18.7-3 presents (in a condensed format) the steps required to shut down the PDS Job Monitor. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the **Exit** button at the bottom of the **Job Monitor Main Window**.

- The **Job Monitor Main Window** is dismissed.

Table 18.7-3. Shut Down the PDS Job Monitor - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Exit** button (on **Job Monitor Main Window**)	**single-click**

18.7.3 Shut Down the PDS Operator Interface (PDSOI)

The PDS **Main OI Screen** provides the Distribution Technician with a means of shutting down the PDS Operator Interface (PDSOI).

Table 18.7-4 presents (in a condensed format) the steps required to shut down the PDS Operator Interface (PDSOI). If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path from the pull-down menu (on the PDS **Main OI Screen**):

Shutdown → Stop All Jobs

- A yellow **Shutdown Confirmation** dialogue box is displayed.

2 **Single-click** on the appropriate button from the following selections:

- **Yes** - to shut down the PDSOI and dismiss the **Shutdown Confirmation** dialogue box.
  - The message line at the bottom of the screen displays a message indicating that the system is in shutdown mode.
  - The OI stops checking the status of jobs or starting jobs; however, the products may continue to be produced and status files may be generated.
  - Any status files generated while the OI is shut down will not be processed until the OI is up and running.
- **Cancel** - to dismiss the **Shutdown Confirmation** dialogue box without shutting down the PDSOI.

Table 18.7-4. Shut Down the PDS Operator Interface (PDSOI) - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Shutdown → Stop All Jobs** (on PDS **Main OI Screen**)	**single-click**
2	**Yes** button	**single-click**

18.7.4 Shut Down the Rimage CD Production Software

The Rimage Production Server and Data Publisher provide the Distribution Technician with means of shutting down the production programs.

Table 18.7-5 presents (in a condensed format) the steps required to shut down the Rimage CD production software. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the **X** in the box at the upper right-hand corner of the Rimage Production Server window.

- The Production Server window is dismissed.

2 **Single-click** on the **X** in the box at the upper right-hand corner of the Rimage Data Publisher window.

- The Data Publisher window is dismissed.

Table 18.7-5. Shut Down the Rimage CD Production Software - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**X** (upper right-hand corner of the Rimage Production Server window)	**single-click**
2	**X** (upper right-hand corner of the Rimage Data Publisher window)	**single-click**

18.7.5 Shut Down the PDS Verification Tool

The **PDS Verification Tool** provides the Distribution Technician with a means of shutting down the tool.

Table 18.7-6 presents (in a condensed format) the steps required to shut down the PDS **Verification Tool**. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the **Exit** button at the bottom of the PDS **Verification Tool**.
- A verification tab is displayed below the **Exit** button inquiring whether the PDS **Verification Tool** should really be exited.

2 **Single-click** on the verification tab below the **Exit** button.
- The PDS **Verification Tool** is dismissed.

Table 18.7-6. Shut Down the PDS Verification Tool - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Exit** button (on PDS **Verification Tool**)	**single-click**
2	Verification tab	**single-click**

18.7.6 Shut Down the PDSIS Maintenance Module

The **PDSIS Maintenance Module Main Menu** provides the Distribution Technician with a means of shutting down the PDSIS Maintenance Module.

Table 18.7-7 presents (in a condensed format) the steps required to shut down the PDSIS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If one of the PDSIS maintenance modules is being displayed, **single-click** on the **Exit** button at the bottom of the window.
- If the **Exit** button is not visible on the maintenance module form, **single-click** on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the **PDSIS Maintenance Module Main Menu** is displayed.

2 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:
- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.

3 **Single-click** on the **Exit** button at the bottom of the **PDSIS Maintenance Module Main Menu** window.
- The **PDSIS Maintenance Module Main Menu** is dismissed.
- The PDSIS maintenance module has been shut down.

Table 18.7-7. Shut Down the PDSIS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Exit** button (on PDSIS maintenance module) (if applicable)	**single-click**
2	**Yes** button (if applicable)	**single-click**
3	**Exit** button (on **PDSIS Maintenance Module Main Menu**)	**single-click**

8.7.7 Shut Down the PDSIS Operator Interface (PDSIS OI)

The **PDSIS OI Main Screen** provides the Distribution Technician with a means of shutting down the **PDSIS Operator Interface** (**PDSIS OI**).

Table 18.7-8 presents (in a condensed format) the steps required to shut down the **PDSIS Operator Interface** (**PDSIS OI**). If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path from the pull-down menu (on the **PDSIS OI Main Screen**):

Action → Shutdown

- The **PDSIS OI** is shut down.

Table 18.7-8. Shut Down the PDSIS Operator Interface (PDSIS OI) - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Action → Shutdown** (on **PDSIS OI Main Screen**)	**single-click**

18.8 Monitoring/Controlling Product Processing Using PDS

Distribution Technicians use the following tools to monitor and control PDS activities:

- **PDS Main OI Screen.**
- **OI Detail Screen.**
- **Job Monitor Main Window.**
- **Verification Tool.**

Table 18.8-1, below, provides an Activity Checklist for monitoring/controlling product processing using PDS.

Table 18.8-1. Monitoring/Controlling Product Processing Using PDS - Activity Checklist (1 of 2)

Order	Role	Task	Section	Complete?
1	Distribution Technician	Monitor/Control Product Processing Using PDS	(P) 18.8.1	
2	Distribution Technician	Set Timer Intervals	(P) 18.8.2	
3	Distribution Technician	Specify Job Selection Criteria	(P) 18.8.3	
4	Distribution Technician	Use the OI Detail Screen	(P) 18.8.4	

Table 18.8-1. Monitoring/Controlling Product Processing Using PDS - Activity Checklist (2 of 2)

Order	Role	Task	Section	Complete?
5	Distribution Technician	Sort Units	(P) 18.8.5	
6	Distribution Technician	Select Multiple Units	(P) 18.8.6	
7	Distribution Technician	Activate a Job	(P) 18.8.7	
8	Distribution Technician	Compare the Number of Units in an Order and a Job	(P) 18.8.8	
9	Distribution Technician	Determine the Current Grouping Factor	(P) 18.8.9	
10	Distribution Technician	Stop/Terminate a Job Using the Main OI Screen Display	(P) 18.8.10	
11	Distribution Technician	Stop/Terminate a Job Using the Job Monitor Main Window	(P) 18.8.11	
12	Distribution Technician	Respond to a Status of QC-Hold (Perform a QC Check or Verification)	(P) 18.8.12	
13	Distribution Technician	Complete a Job	(P) 18.8.13	
14	Distribution Technician	Enter Notes about a Job	(P) 18.8.14	
15	Distribution Technician	Promote a Job	(P) 18.8.15	
16	Distribution Technician	Cancel a Job	(P) 18.8.16	
17	Distribution Technician	Generate PDS Production Reports	(P) 18.8.17	
18	Distribution Technician	Select an Alternate Printer	(P) 18.8.18	
19	Distribution Technician	Use the PDS Cleanup Manager	(P) 18.8.19	

18.8.1 Monitor/Control Product Processing Using PDS

Monitoring/controlling product processing using PDS (PDSSA) involves the following activities (among others):

- Determining the status of a job and/or taking action with respect to a job (using the Main OI Screen).
- Determining the status of units associated with a particular job or taking action with respect to units associated with a particular job (using the OI Detail Screen).
- Activating a Job.

- Stopping/Terminating a Job.
- Responding to a Status of QC-Hold (Perform a QC Check or Verification).
- Completing a Job.
- Entering Notes about a Job.
- Promoting a Job.
- Generating PDS Production Reports.

PDS activities are monitored and controlled using the **Main OI Screen**, the **OI Detail Screen**, the **Job Monitor Main Window** and the **Verification Tool**.

The **Main OI Screen** displays the following items for each individual PDS job:

- Action Button [not labeled].
  - Allows access to a list of actions that can be taken with respect to the job.
- Job Stopped [not labeled].
  - "STOP" is displayed in the field if the job has been stopped.
- Job Key.
  - Unique label for the job composed of the order number, an underscore and a zero-padded unit number of the first unit of the job.
- To_Do Units.
  - Number of units left in the job in either a pending, active or status of QC-Hold state [waiting for a quality-control (QC) check].
- Pri.
  - Priority of the job from 1 to 9, with "1" the highest priority.
- Product Media.
  - The pds_description of the output specifications.
- Project Id.
  - An optional field that indicates whether there is a particular project associated with the job.
- Due Date.
  - Date that the order is due to the customer.
- Copy Flag.
  - An "*" is displayed if the total number of copies does not equal the total number of units. (Used if multiple copies are needed for a specific unit.)
- Product Code.
  - The pds_description of the product code.
- Note.
  - An "*" is displayed if there is a current note for the job.
- Job Status.
  - Status of the job.

The **OI Detail Screen** displays the following items for the selected individual PDS job:

- Job Key.
  - The dynamically generated identifier tying the units in the job together.

- Copies.
  - Number of copies the customer wants for each unit.
- Pri.
  - Priority code for the job.
- Product Media.
  - PDS's description of the output specifications.
- Due Date.
  - Date that the job needs to be delivered to the customer.
- Product Code.
  - PDS's description of the product code.

The **OI Detail Screen** displays the following items for each unit within the selected PDS job:

- "Select" button [not labeled].
  - Used for selecting or deselecting each individual unit to which an action (e.g., "Activate") will be applied.
- Unit # .
  - Unit number.
- Status.
  - PDS's description of the status.
- PPF Key.
  - Blank if the unit is in pending status; otherwise the PPF Key for the unit is displayed.
  - Ties to the .ppf file used during the product generation process.
  - Composed of the order number, an underscore and the zero-padded unit number.
- ECS Order ID.
  - ECS Order Id. (blank if there is no ECS Order ID in the PDT_PDSINFO table).
- Source Data Path.
  - Location of the source data needed to produce the customer's product.
  - Could be either a media storage identifier in the digital archive or a storage location on a mass media device or a location on a remote machine.

The **Job Monitor Main Window** displays the following types of information:

- Running Jobs.
  - **Job Key.**
  - **Type** [of product].
  - **Stage** [What the job is currently doing (if the information is available)].
- Assembly Disk Usage.
  - Graphical displays of the free space remaining on the PDS assembly and ftp staging disks.
  - Intended to give the operator advance warning when one (or more) of the disks is running low on available space.

- Rimage Pending Orders.
  - Displays how many orders are pending on the Rimage systems [Refers to how many CD images are *waiting* to be pulled over to the Rimage system; it does *not* refer to the number of jobs that are actually active on the Rimage itself. Useful when balancing the distribution of jobs among Rimage systems. Displays whether PDS's AutoRimage mode is enabled or disabled.]

The **Verification Tool** displays the following types of information:

- Drives available for or in use performing verification of disks and tapes.

Table 18.8-2 presents (in a condensed format) the steps required to monitor and control product processing using PDS. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If any of the following PDS tools are not currently in operation, perform the corresponding procedure(s):
- **Main OI Screen - Start the PDS Operator Interface (PDSOI)** (Section 18.6.2).
- **Job Monitor Main Window - Start the PDS Job Monitor** (Section 18.6.4).
- **Production Server - Start the Rimage CD Production Software** (Section 18.6.5).
- **Data Publisher - Start the Rimage CD Production Software** (Section 18.6.5).
- **Verification Tool - Start the PDS Verification Tool** (Section 18.6.6).

2 If desired, set timer intervals.
- The timer interval determines how often the data displayed on the **Main OI Screen** are refreshed.
- For detailed instructions refer to the **Set Timer Intervals** procedure (Section 18.8.2).

3 Observe information displayed on the **Main OI Screen**.
- The following items are displayed on a **job line** for each individual PDS job:
  - Action Button [not labeled].
  - Job Stopped [not labeled].
  - **Job Key.**
  - **To_Do Units.**
  - **Pri.**
  - **Product Media.**
  - **Project Id.**
  - **Due Date.**
  - **Copy Flag.**
  - **Product Code.**
  - **Note.**
  - **Job Status.**

- Each **job line** display is color-coded to draw attention to job status. The colors are interpreted as follows:
- **Red** Either Error or Error-Partial status. (Error indicates that all units in the job are in error. Error Partial indicates that part of the job is in error and there are no actives or QC-holds.)
- **Green** Either Active or Active-Partial status. (Active indicates that all units in the job are active. Active-Partial indicates that part of the job is active.)
- **Yellow** Either QC-Hold or QC-Hold-Partial status. (QC-Hold indicates that all units in the job are in QC-hold. QC-Hold-Partial indicates that part of the job is in QC-hold and there are no actives.)
- **Grey** Pending status. (Pending indicates that all units in the job are pending.)

- If there are more records than can be displayed on the screen, use the scroll bar on the right hand side of the form to view the additional records.
- The **status line** at the bottom of the screen displays information about the form (for example, the status line might display "Record: 1/16" and "INSERT").
- The **message line** near the bottom of the screen (just above the **status line**) displays informational messages and error messages pertinent to what is happening on the form.
  - For example, an informational message might indicate "Working…".
  - Messages are displayed on the screen as long as they are pertinent.

4 If the list of jobs on the **Main OI Screen** needs to be filtered and/or sorted, go to the **Specify Job Selection Criteria** procedure (Section 18.8.3).

5 If more specific information is required or action should be taken with respect to units associated with a particular job, go to the **Use the OI Detail Screen** procedure (Section 18.8.4).

6 Observe information displayed on the **Main OI Screen** and **Job Monitor Main Window**.

- Refer to Step 3 for a description of features on the **Main OI Screen**.
- For each individual PDS job that is running the following items are displayed on a **running jobs** line on the **Job Monitor Main Window**:
  - **Job Key.**
  - **Type** [of product].
  - **Stage.**
- The following values are among those that may be displayed in the **Stage** field (based on data from the job log) on the **Job Monitor Main Window**:
  - **Unknown** - does not mean that there is anything wrong; it simply means that the job monitor was unable to determine what a particular job is currently doing.

- **Initializing** - getting job parameters from the PPF file, setting up data structures, and doing whatever else is required before the job can actually start producing the output media.
- **Retrieving Data From Source** - indicates that the job is assembling the data for the product. [The source varies depending on the type of product it is. The stage may take quite some time, particularly for orders coming off peak loads systems.]
- **Making Browse Image** - (for satellite and other types of raster data that require small browse images on the CD insert label) indicates that PDS is subsampling the image data and creating the browse image. [Typically does not take a large amount of time, although for sizable multi-scene Landsat-7 data, it can be a fairly lengthy process.]
- **Waiting For Drive Selection** - currently waiting for the operator to respond to the Media Drive Selection window to select a tape drive or a CD writer. [The job has retrieved all data for the product. If a job is in this stage but no selection window is visible, it may be "hidden" behind another window. After locating the Media Drive Selection window go to Step 4 of the **Activate a Job** procedure (Section 18.8.7). If the Media Drive Selection window cannot be located, go to the **Respond to a "Waiting for Drive Selection" Message on the Job Monitor** procedure (Section 18.10.28).]
- **Writing Data To Tape Drive** - currently writing the product to the specifically named tape drive.
- **Making ISO9660 Image(s)** - generating "raw" CD image files that will be passed to the Rimage systems for CD generation. [May be a somewhat lengthy process, depending on the size of the job and the load on the system.]
- **Waiting For Rimage Status** - product has been submitted to the Rimage machine chosen by the operator and the job is waiting for the completion of the output CD(s). [May be a lengthy process, depending on product size and/or system load.]
- **Cleaning Up** - PDS is cleaning up the job after having generated the product media. [Generally involves removing the assembly directory from $PDSASSM, writing status and summary files, and removing the Rimage order files.]

- The following items are displayed in the **Assembly Disk Usage** section of the **Job Monitor Main Window**:
  - Assembly disk usage bars, which display (graphically) the free space remaining on the PDS assembly staging disks. [Provide advance warning when one (or more) disk(s) is (are) running low on available space. Disk bar changes color to yellow if the disk becomes unavailable for some reason. If disk space becomes low, perform the procedure for **Respond to Low Disk Space** (Section 18.10.30).]
- The **Toggle AutoRimage** button is for use with systems that have multiple Rimage units. [AutoRimage should be **disabled** at sites that have a single Rimage unit.]

7 If it becomes necessary to perform any of the following actions, go to the corresponding section/procedure:

- **Set Timer Intervals** (Section 18.8.2) (to set the amount of time between refresh events for the OI Main Screen and/or the amount of time between episodes of processing the status files from the product generation code).
- **Specify Job Selection Criteria** (Section 18.8.2) (to specify the selection and sorting criteria for jobs to be displayed on the OI Main Screen).
- **Use the OI Detail Screen** (Section 18.8.4) (to determine the status of units associated with a particular job or take action with respect to units associated with a particular job).
- **Activate a Job** (Section 18.8.7) (to activate a job).
- **Compare the Number of Units in an Order and a Job** (Section 18.8.8) (to compare the number of units in an order and a job).
- **Determine the Current Grouping Factor** (Section 18.8.9) (to determine the current grouping factor).
- **Stop/Terminate a Job Using the Main OI Screen Display** (Section 18.8.10) (to suspend a job).
- **Stop/Terminate a Job Using the Job Monitor Main Window** (Section 18.8.11) (to suspend a job).
- **Respond to a Status of QC-Hold (Perform a QC Check or Verification)** (Section 18.8.12) (to perform a QC check or media verification).
- **Complete a Job** (Section 18.8.13) (to complete a job after a QC check).
- **Enter Notes about a Job** (Section 18.8.14) (to enter comments or notes about a job).
- **Promote a Job** (Section 18.8.15) (to process a job ahead of other jobs).
- **Cancel a Job** (Section 18.8.16) (not supported by the operator tools).
- **Generate PDS Production Reports** (Section 18.8.17) (to generate PDS reports).
- **Select an Alternate Printer** (Section 18.8.18) (to select an alternate printer for printing reports or jewel cases).
- **Troubleshoot PDS Problems** (Section 18.10) (to troubleshoot problems/failures affecting product processing).

8 If it is necessary to update the data on the **Main OI Screen** from the database without having to wait for the interval set on the timer, execute the following menu path from the pull-down menu:

Display → Refresh

- The data on the **Main OI Screen** is refreshed.

9 If it is necessary to requery the status of running jobs and display the data on the **Job Monitor Main Window**, **single-click** on the **Refresh Display** button.

- Current status of running jobs is displayed on the **Job Monitor Main Window**.
  - Every two minutes the PDS Job Monitor provides an automatic update to the information displayed in the running jobs listbox, assembly disk usage bars, and Rimage pending orders sections.

10 If it is necessary to cause the entire **Main OI Screen** to be redrawn without accessing the database for data, execute the following menu path from the pull-down menu:

Display → Repaint

- The **Main OI Screen** (including borders, buttons, and data) is redrawn.
  - The **Repaint** option is used in case the window becomes garbled.

11 If it is necessary to access help information concerning the **Main OI Screen**, execute the following menu path from the pull-down menu:

Help → On Form

- A web browser pops up in another window, positioned to the start of the document about the Operator Interface.

12 If it is necessary to access information concerning the last error encountered by the PDSOI, execute the following menu path from the pull-down menu on the **Main OI Screen**:

Help → Show Error

- A message is displayed on the **message line** of the **Main OI Screen** stating the last error encountered.
  - Frequently a "No errors encountered recently" message is displayed in response to the **Show Error** option.

13 If it is necessary to print a report that contains the data currently being displayed **Main OI Screen**, execute the following menu path from the pull-down menu:

Reports → Queue

- The report is printed on the designated report printer.

14 Repeat Steps 4 through 13 as necessary to monitor/control jobs.

15 If it becomes necessary to shut down the Job Monitor, **single-click** on the **Exit** button at the bottom of the **Job Monitor Main Window**.

- The Job Monitor Main Window is dismissed.

16 If it becomes necessary to shut down the operator interface, perform the **Shut Down the PDS Operator Interface** procedure (Section 18.7.3).

Table 18.8-2. Monitor/Control Product Processing Using PDS - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start PDS tools (if necessary)	Use applicable procedure(s) in Sections 18.6.1, 18.6.2, 18.6.4, 18.6.5, and/or 18.6.\6
2	Set timer intervals (if applicable)	Use procedure in Section 18.8.2
3	Observe information displayed on the **Main OI Screen**	**read text**
4	Specify job selection criteria (if applicable)	Use procedure in Section 18.8.3
5	Use the **OI Detail Screen** (if applicable)	Use procedure in Section 18.8.4
6	Observe information displayed on the **Main OI Screen** and **Job Monitor Main Window**	**read text**
7	Perform the appropriate operational procedure as needed	Use applicable procedure(s) in Sections 18.8.2 through 18.8.18
8	**Display → Refresh** (on the **Main OI Screen**) (as necessary)	**single-click**
9	**Refresh Display** button (on the **Job Monitor Main Window**) (as necessary)	**single-click**
10	**Display → Repaint** (on the **Main OI Screen**) (as necessary)	**single-click**
11	**Help → On Form** (on the **Main OI Screen**) (as necessary)	**single-click**
12	**Help → Show Error**(on the **Main OI Screen**) (as necessary)	**single-click**
13	**Reports → Queue**(on the **Main OI Screen**) (as necessary)	**single-click**
14	Repeat Steps 4 through 13 as necessary to monitor/control jobs	
15	**Exit** button (on the **Job Monitor Main Window**) (when applicable)	**single-click**
16	Shut down the operator interface (when applicable)	Use procedure in Section 18.7.3

18.8.2 Set Timer Intervals

The procedure to **Set Timer Intervals** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The **Main OI Screen Display** menu provides the Distribution Technician with a means of setting timer intervals. There are two timers that the technician can set:

- Refresh Timer.
  - Amount of time (in minutes) between refresh events for the **OI Main Screen**.
- Status Timer.
  - Amount of time (in minutes) between episodes of processing the status files from the product generation code.

Timer changes do not affect the default values for the timers. The changed values are in effect until they are changed again or a shutdown occurs. The default values in the database are used each time the OI is started up.

Table 18.8-3 presents (in a condensed format) the steps required to set timer intervals. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path from the pull-down menu (on the **Main OI Screen**):

Display → Timers

- The **Set Timer Intervals** dialogue box is displayed.

2 In the **Refresh Timer** field enter:

<minutes>

3 In the **Status Timer** field enter:

<minutes>

4 **Single-click** on the **Return** button.

5 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-3. Set Timer Intervals - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	**Display → Timers** (on **Main OI Screen**)	**single-click**
2	**<minutes>** (in **Refresh Timer** field)	**enter text, press Enter**

Table 18.8-3. Set Timer Intervals - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
3	**<minutes>** (in **Status Timer** field)	**enter text, press Enter**
4	**Return** button	**single-click**
5	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.3 Specify Job Selection Criteria

The procedure to **Specify Job Selection Criteria** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section Section 18.8.1). The jobs to be displayed on the **Main OI Screen** can be selected and/or sorted using the **PDSOI Selection Criteria Screen**. The selection can be done on the basis of the following criteria, either individually or in combination:

- Priority.
- Product Media [type].
- Due Date.
- Product Code.

Jobs can be sorted on the following fields, either individually or in combination:

- Job Key.
- Priority.
- Job Status.
- Product Media.
- Project Id.
- Product Code.
- Due Date.

Table 18.8-4 presents (in a condensed format) the steps required to specify job selection criteria. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path from the pull-down menu (on the **Main OI Screen**):

Display → Data/Sort

- The **PDSOI Selection Criteria Screen** is displayed.

2 **Single-click** on the toggle button(s) corresponding to the desired priority(ies) in the **Priority** list.

- Options are: **All**, **1**, **2**, **3**, **4**, **5**, **6**, **7**, **8**, **9**.

- Priority meanings might be assigned (in the database) as follows (for example):

  1 - Emergency - Eight-hour turn-around required.
  2 - High Priority - Less than 24-hour turn-around.
  3 - Priority - Turn around in less than five working days.
  4 - 6 - Rush - Two-week turn-around.
  7 - 9 - Standard Orders - Four- to six-week turn-around.

- One button or several buttons may be selected.
- Options may change.
- Single-clicking on a button changes its state from unselected to selected or vice versa.
- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

3 **Single-click** on the toggle button(s) corresponding to the desired product media type(s) in the **Product Media** list.

- Options are: **All, CD, 8H**, **D7**, **DVD**.
- Product media types might be defined (in the database) as follows (for example):

  CD - CDROM.
  8H - 8mm tape.
  D7 - DLT.
  DVD - DVD.

- Options may change.
- One button or several buttons may be selected.
- Single-clicking on a button changes its state from unselected to selected or vice versa.
- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

4 **Single-click** on the toggle button(s) corresponding to the desired due date(s) in the **Due Date** list.

- Options are: **All**, **Past Due**, **Today**, **1 Week**.
- Options may change.
- One button or several buttons may be selected.
- Single-clicking on a button changes its state from unselected to selected or vice versa.
- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

5 **Single-click** on the toggle button(s) corresponding to the desired product code(s) in the **Product Code** list.

- Options are: **All** and all valid individual product codes.
- One button or several buttons may be selected.
- Single-clicking on a button changes its state from unselected to selected or vice versa.

- Buttons have a depressed or sunken appearance rather than a raised appearance when selected.

6 **Single-click** and **hold** the appropriate **Sort By** option button to display a list of numbers indicating the order in which the sort criteria should be evaluated, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Options are: **Job Key, Priority, Job Status, Product Media, Project Id, Product Code, Due Date**.
- Selected sort order number is displayed on the selected **Sort By** option button when the mouse button is released.
- It is not possible to selected a sort order number for a sorting category if the number has already been assigned to another category.
  - For example, if Job Status was assigned Number 1, Product Media cannot be assigned Number 1 as well. If jobs should be sorted by Product Media first, it is necessary to change the Job Status assignment to some (unused) number other than one (1) then one (1) can be assigned to Product Media.

7 Repeat Step 6 as necessary to assign sorting order to additional categories.

- It is possible to select more than one **Sort By** item.
- If more than one **Sort By** option is selected the jobs will be selected by the sort order for the selection assigned Number 1, then within that sort order they would be sorted by the category assigned Number 2, etc.
  - For example, if Job Status were assigned the first sort order (1) and Due Date were assigned the second sort order (2), the jobs would be sorted by Job Status, then within each status the jobs would be sorted by Due Date. So the jobs containing the same status would be displayed together with the earliest due date for each status at the top of the list for that status.

8 **Single-click** on the appropriate button from the following selections:

- **Execute** - to query the database for the specified selections and dismiss the **PDSOI Selection Criteria Screen**.
  - A **Querying Database** notice is displayed temporarily in a blue box. The **message line** at the bottom of the screen displays "Working" while the **Querying Database** notice is being displayed. If there are status files waiting to be read, another blue box may be displayed indicating "Reading Status files. Please wait…"
  - If no selection criteria were selected, a **Selection Error Dialogue** is displayed in a purple box. (**Single-click** on the **OK** button to dismiss the error window.)
  - The **Main OI Screen** is displayed when the **Querying Database** notice quits (indicating that database has been queried and the results are being displayed).

- **Cancel** - to dismiss the **PDSOI Selection Criteria Screen** without specifying any selection or sorting criteria.
  - The **Main OI Screen** is displayed with the original selection/sorting criteria results.

9 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-4. Specify Job Selection Criteria - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Display → Data/Sort** (on **Main OI Screen**)	**single-click**
2	**<priority>** (in **Priority** list)	**single-click**
3	**<product media>** (in **Product Media** list)	**single-click**
4	**<due date>** (in **Due Date** list)	**single-click**
5	**<product code>** (in **Product Code** list)	**single-click**
6	**<sort order>** (on the applicable **Sort By** option button)	**single-click**
7	Repeat preceding step as necessary to assign sorting order	
8	**Execute** button	**single-click**
9	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.4 Use the OI Detail Screen

The procedure to **Use the OI Detail Screen** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The **OI Detail Screen** provides the Distribution Technician with a means of accomplishing the following objectives:

- Obtaining specific information with respect to units associated with a particular job.
- Taking action with respect to units associated with a particular job.

Table 18.8-5 presents (in a condensed format) the steps required to use the **OI Detail Screen**. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: It is recommended that the operator not stay in the Detail window for long periods of time because the processing initiated by the Main screen timers does not occur while the Detail window is open. If the Detail window is left open for a long time, the amount of processing that might occur when the Detail window was closed and control returned to the Main screen could be extensive and might cause the Main screen to be inactive for quite a period of time.

1 **Single-click** on the action button at the beginning of the job line for the relevant job (on the **Main OI Screen**).

- The **Action List** box is displayed.
- Not all actions are available for every job.
  - The available actions depend on the job's current status and processing.

2 **Single-click** on (highlight) **Detail** in the **Action List** box.

- **Detail** is highlighted.

3 **Single-click** on the appropriate button from the following selections:

- **OK** - to bring up the **OI Detail Screen** and dismiss the **Action List** box.
  - The **OI Detail Screen** is displayed.
- **Cancel** - to dismiss the **Action List** box and return to the **Main OI Screen**.
  - The **Main OI Screen** is displayed.

4 Observe information displayed on the **OI Detail Screen**.

- The following items are displayed on the **OI Detail Screen** for the selected individual PDS job:
  - **Job Key.**
  - **Copies.**
  - **Pri.**
  - **Product Media.**
  - **Due Date.**
  - **Product Code.**
- The following items are displayed on the **OI Detail Screen** for each unit within the selected PDS job:
  - "Select" button.
  - **Unit # .**
  - **Status.**
  - **PPF Key.**
  - **ECS Order ID.**
  - **Source Data Path.**
- Each **unit line** display is color-coded to draw attention to unit status. The colors are interpreted as follows:
  - **Red** Error.
  - **Green** Active.
  - **Yellow** QC-Hold.
  - **Grey** Pending.

- There is a "Select" button [not labeled] at the beginning of each unit line.
  - Used for selecting or deselecting each individual unit.
  - It is possible to select multiple units to be affected by the same action (e.g., "Activate") at the same time.
- If there are more records than can be displayed on the screen, use the scroll bar on the right hand side of the form to view the additional records.
- If the entire entry is not visible in a field, click in the field and use the arrow keys on the keyboard to scroll to the end of the entry.
- The **status line** at the bottom of the screen displays information about the form (for example, the status line might display “Record: 1/4” and “INSERT").
- The **message line** near the bottom of the screen (just above the **status line**) displays informational messages and error messages pertinent to what is happening on the form.
- The following three "Action" buttons are located at the bottom of the screen:
  - **Complete** - completes all appropriate unit status changes (for the selected units) in the system. Units with current status either **QC-Hold** or **Error** are the only units that can be completed using the **Complete** button.
  - **Activate** - starts the data generation process (creates the .ppf file) for the selected units that are needed by product generation. Units with current status either **Pending** or **Error** are the only units that can be activated using the **Activate** button.
  - **Return** - causes any selected units to be deselected, closes the **OI Detail Screen**, and returns control to the **Main OI Screen**. If any timers went off while the **OI Detail Screen** was activated, the associated processing occurs upon selection of the **Return** button.

5 If the list of units on the **OI Detail Screen** needs to be sorted, perform the **Sort Units** procedure (Section 18.8.5).

6 If it is desirable to select a unit for the application of an action, **single-click** on the "Select" button at the beginning of the unit line for the relevant unit.

- To select multiple units for the application of the same action, perform the **Select Multiple Units** procedure (Section 18.8.6).

7 To deselect all currently selected units execute the following menu path from the pull-down menu:

Select → Clear All

- The "Select" buttons for all units go to the unselected state.

8 If it becomes necessary to activate unit(s), **single-click** on the **Activate** button near the bottom of the **OI Detail Screen**.

- Unit status before activation must be either **Pending** or **Error**.

- **Single-clicking** on the **Activate** button starts the data generation process (creates the .ppf file) for the selected unit(s) only.
- A pop-up window appears indicating that the activation is being performed.
- When the activation process has been completed, the database is queried, the **OI Detail Screen** is refreshed, all selected units are deselected and all active units are shown in green.
- If no units were selected for activation, a “No units were selected, no action taken” message is displayed in a purple box.
  - **Single-click** on the **OK** button to dismiss the error window.

9 If it becomes appropriate to complete unit(s) [e.g., the unit(s) has (have) passed the QC check], **single-click** on the **Complete** button near the bottom of the **OI Detail Screen**.

- Unit status before initiating a "complete" action must be either **QC-Hold** or **Error**.
- Clicking on the **Complete** button completes all appropriate unit status changes in the system for the selected unit(s) only.
- A pop-up window appears indicating that the "complete" action is being performed.
- When the "complete" action has finished, the database is queried, the **OI Detail Screen** is refreshed, all selected units are deselected and all completed units have been removed from the display (are no longer visible).
- If no units were selected for completion, a “No units were selected, no action taken” message is displayed in a purple box.
  - **Single-click** on the **OK** button to dismiss the error window.
  - When it is done, the database will be requeried causing the Detail Window to refresh and all selected units to be deselected, and completed units will no longer be visible.

10 If it becomes necessary to stop the job (that includes the units currently being displayed on the **OI Detail Screen**), select **Stop Job** from the pull-down menu.

- A confirmation dialogue box is displayed to inquire "Are you sure you want to stop this job?"

11 If **Stop Job** was selected from the pull-down menu, click on the appropriate button from the following selections:

- **Yes** - to stop the job and dismiss the confirmation dialogue box.
  - The system performs no further actions on the job except to process status files from the product generation code.
  - Any status files generated while the OI is shut down will not be processed until the OI is up and running again.
  - When the **Main OI Screen** is refreshed the next time, the field adjacent to the action button on the job line for the specified job displays the word **STOP**.
- **Cancel** - to dismiss the confirmation dialogue box without stopping the job.

12 If it is necessary to update the data on the **OI Detail Screen** from the database, execute the following menu path from the pull-down menu:

Display → Refresh

- The data in the database is requeried and redisplayed using the current detail window default sort preference. (The data on the **OI Detail Screen** is refreshed.)

13 If it is necessary to cause the entire **OI Detail Screen** to be redrawn without accessing the database for data, execute the following menu path from the pull-down menu:

Display → Repaint

- The **OI Detail Screen** (including borders, buttons, and data) is redrawn.
  - The **Repaint** option is used in case the window becomes garbled.

14 If it is necessary to access help information concerning the **OI Detail Screen**, execute the following menu path from the pull-down menu:

Help → On Form

- A web browser pops up in another window, positioned to the start of the document about the Operator Interface.

15 If it is necessary to access information concerning the last error encountered, execute the following menu path from the pull-down menu on the **OI Detail Screen**:

Help → Show Error

- A message is displayed on the **message line** of the **Main OI Screen** stating the last error encountered.
  - Frequently a "No errors encountered recently" message is displayed in response to the Show Error option.

16 Repeat Steps 4 through 15 as necessary to obtain additional information with respect to units associated with the selected job and/or take action with respect to units associated with the job.

17 To return to the **Main OI Screen single-click** on the **Return** button.

- **Single-clicking** on the **Return** button deselects any selected units, closes the **OI Detail Screen**, and returns control to the **Main OI Screen**.
  - If any timers went off while the **OI Detail Screen** was activated, the associated processing occurs upon selection of the **Return** button.
  - The **Main OI Screen** is refreshed, showing any new information and status changes.

18 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-5. Use the OI Detail Screen - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Action button (on **Main OI Screen**)	**single-click**
2	**Detail**	**single-click**
3	**OK** button	**single-click**
4	Observe information displayed on the **OI Detail Screen**	**read text**
5	Sort units (as necessary)	Use procedure in Section 18.8.5
6	"Select" button (or select multiple units) (as necessary)	**single-click** (or use procedure in Section 18.8.6) (as applicable)
7	**Select** → **Clear All** (as necessary)	**single-click**
8	**Activate** button (as necessary)	**single-click**
9	**Complete** button (as necessary)	**single-click**
10	**Stop Job** (as necessary)	**single-click**
11	**Yes** button (if applicable)	
12	**Display** → **Refresh** (on the **Main OI Screen**) (as necessary)	**single-click**
13	**Display** → **Repaint** (on the **Main OI Screen**) (as necessary)	**single-click**
14	**Help** → **On Form** (on the **Main OI Screen**) (as necessary)	**single-click**
15	**Help** → **Show Error**(on the **Main OI Screen**) (as necessary)	**single-click**
16	Repeat Steps 4 through 15 as necessary	
17	**Return** button (when appropriate)	**single-click**
18	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.5 Sort Units

The procedure to **Sort Units** is performed as part of the **Use the OI Detail Screen** procedure (Section 18.8.4). The units to be displayed on the **OI Detail Screen** can be sorted using the **Sort Dialogue Box**. The sorting can be done on the basis of the following criteria, either individually or in combination:

- Unit Nbr [number] (default sort preference that is used whenever the **OI Detail Screen** is opened).
- Unit Status.
- PPF Key.

Table 18.8-6 presents (in a condensed format) the steps required to sort units. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the

system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path from the pull-down menu (on the **OI Detail Screen**):

Display → Sort

- The **Sort Dialogue Box** is displayed.

2 **Single-click** and **hold** the appropriate **Sort By** option button to display a list of numbers indicating the order in which the sort criteria should be evaluated, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

- Options are: **Unit Nbr, Unit Status, PPF Key**.
- Selected sort order number is displayed on the selected **Sort By** option button when the mouse button is released.
- It is not possible to selected a sort order number for a sorting category if the number has already been assigned to another category.

3 Repeat Step 2 as necessary to assign sorting order to additional categories.

- It is possible to select more than one **Sort By** item.
- If more than one **Sort By** option is selected the units will be selected by the sort order for the selection assigned Number 1, then within that sort order they would be sorted by the category assigned Number 2, etc.
  - For example, if Unit Status were assigned the first sort order (1) and Unit Nbr were assigned the second sort order (2), the jobs would be sorted by Unit Status, then within each status the jobs would be sorted by Unit Nbr. So the units containing the same status would be displayed together with the lowest unit number for each status at the top of the list for that status.

4 **Single-click** on the appropriate button from the following selections:

- **Execute** - to query the database for the specified selections and dismiss the **Sort Dialogue Box**.
  - A **Querying Database** notice is displayed temporarily in a blue box.
  - The **message line** at the bottom of the screen displays "Working" while the **Querying Database** notice is being displayed.
  - If there are status files waiting to be read, another blue box may be displayed indicating "Reading Status files. Please wait…"
  - If no selection criteria were selected, a **Selection Error Dialogue** is displayed in a purple box. (**Single-click** on the **OK** button to dismiss the error window.)
  - The **OI Detail Screen** is displayed when the **Querying Database** notice quits (indicating that database has been queried and the results are being displayed).
- **Cancel** - to dismiss the **Sort Dialogue Box** without specifying any sorting criteria.
  - The **OI Detail Screen** is displayed with the original sorting criteria results.

5 Return to the **Use the OI Detail Screen** procedure (Section 18.8.4).

Table 18.8-6. Sort Units - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Display → Sort** (on **OI Detail Screen**)	**single-click**
2	**<sort order>** (on the applicable **Sort By** option button)	**single-click**
3	Repeat preceding step as necessary to assign sorting order	
4	**Execute** button	**single-click**
5	Return to the **Use the OI Detail Screen** procedure	Use procedure in Section 18.8.4

18.8.6 Select Multiple Units

The procedure to **Select Multiple Units** is performed as part of the **Use the OI Detail Screen** procedure (Section 18.8.4).

Table 18.8-7 presents (in a condensed format) the steps required to select multiple units. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Execute the following menu path from the pull-down menu (on the **OI Detail Screen**):

Select → Range

- The **Range Dialogue Box** is displayed.

2 In the **Begin Unit** field enter:

<unit number>

- **<unit number>** represents the unit number of the first unit in the range of units to be selected.

3 In the **End Unit** field enter:

<unit number>

- **<unit number>** represents the unit number of the last unit in the range of units to be selected.

4 **Single-click** on the appropriate button from the following selections:

- **Select Units** - to query the database for the specified selections and dismiss the **Range Dialogue Box**.
  - The **OI Detail Screen** is displayed and the "Select" buttons for all units within the specified range go to the selected state.
  - Already selected units remain selected and units that are not within the specified range are ignored.
- **Return** - to dismiss the **Sort Dialogue Box** without specifying any sorting criteria.
  - The **OI Detail Screen** is displayed with the "Select" buttons in their original states.

5 Return to the **Use the OI Detail Screen** procedure (Section 18.8.4).

Table 18.8-7. Select Multiple Units - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Select → Range** (on **OI Detail Screen**)	**single-click**
2	**<unit number>** (in **Begin Unit** field)	**enter text, press Enter**
3	**<unit number>** (in **End Unit** field)	**enter text, press Enter**
4	**Select Units** button	**single-click**
5	Return to the **Use the OI Detail Screen** procedure	Use procedure in Section 18.8.4

18.8.7 Activate a Job

The procedure to **Activate a Job** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The **Main OI Screen** provides the Distribution Technician with a means of activating jobs that are in a **Pending** status. The **Activate** option is available just once for each job. If it is necessary to reactivate the same job, the activation must be done at the detail level, which is accomplished using the **OI Detail Screen** as described in the **Use the OI Detail Screen** procedure (Section 18.8.4).

Table 18.8-8 presents (in a condensed format) the steps required to activate a job. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 On the PDS **Main OI Screen** observe the number of units in the **To_Do Units** column for the pending job to be activated.

- The number of units in the **To_Do Units** column can provide a rough approximation of the size of the job.

2 If the job to be activated is a large job, determine whether all units for the order are included in the pending job that is displayed on the PDS **Main OI Screen**.

- For detailed instructions refer to the **Compare the Number of Units in an Order and a Job** procedure (Section 18.8.8).

3 **Single-click** on the action button at the beginning of the job line for the relevant job (on the **Main OI Screen**).

- The **Action List** box is displayed.
- Not all actions are available for every job.
  - The available actions depend on the job's current status and processing.

4 **Single-click** on (highlight) **Activate** in the **Action List** box.

- **Activate** is highlighted.
- The **Activate** option is available if the job status is **Pending** only.
- Once selected, the **Activate** option is no longer available for the selected job.
  - Subsequent activation/reactivation must be done at the detail level, which is accomplished using the **OI Detail Screen** as described in the **Use the OI Detail Screen** procedure (Section 18.8.4).

5 **Single-click** on the appropriate button from the following selections:

- **OK** - to start the process of generating the data (in the form of a .ppf file) that the product generation code needs by using this machine's job limitation information and other data stored in the database.
  - A blue pop-up window is displayed with one of the following types of messages indicating that the activation is being performed:

    Activating Job <job key>.

    Activating next units <job key>.

  - When the activation process has been completed, the database is queried, the **Main OI Screen** is refreshed and after the job has retrieved all data for the product the **Media Drive Selection** window is displayed.
  - The **Media Drive Selection** window is not displayed for Rimage units if AutoRimage mode has been enabled.
  - AutoRimage may be enabled on systems that have multiple Rimage units only.
  - AutoRimage should be disabled at sites that have a single Rimage unit.
- **Cancel** - to dismiss the **Action List** box and return to the **Main OI Screen**.
  - The **Main OI Screen** is displayed.

6 If the job is a CD or DVD job, ensure that the input bins of the Rimage unit contain blank disks.
- Load the input bin(s) if necessary, ensuring that the disks are inserted right-side up (shiny side down).
  - For detailed instructions refer to the Rimage unit operating manual.

7 If the data are to be recorded on a tape, ensure that there is a blank tape in the drive to be used for recording the data.
- A list of the available drives is displayed in the **Media Drive Selection** window.

8 If the data are to be recorded on a tape, wait for the drive to come on line before responding to the **Media Drive Selection** window.
- Wait for light to stop flashing.

9 In the **Media Drive Selection** window **single-click** on (highlight) the drive (i.e., tape drive or Rimage unit) to be used for the job.
- For CD and DVD jobs it is possible to activate more jobs than can be accommodated by the number of currently available drives.
- Activating more jobs than can be accommodated by the number of currently available drives is not possible for 8MM or DLT jobs.

10 **Single-click** on the **OK** button.
- The **Media Drive Selection** window is dismissed.
- The process of writing data to the selected drive starts.

11 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-8. Activate a Job - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Observe the number of units in the **To_Do Units** column for the job (PDS **Main OI Screen**)	**read text**
2	Determine whether all units for the order are included in the pending job displayed on the PDS **Main OI Screen** (if the job is large)	Use procedure in Section 18.8.8
3	Action button (on **Main OI Screen**)	**single-click**
4	**Activate**	**single-click**
5	**OK** button	**single-click**
6	Insert blank disks in the input bins of the Rimage unit (if applicable)	**stack**
7	Insert a blank tape in the appropriate tape drive (if applicable)	**push in** or **push in and close door** (as applicable)

Table 18.8-8. Activate a Job - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
8	Wait for the drive to come on line (if applicable)	**wait**
9	**<drive>** (in **Media Drive Selection** window)	**single-click**
10	**OK** button	**single-click**
11	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.8 Compare the Number of Units in an Order and a Job

The **Compare the Number of Units in an Order and a Job** procedure may be performed as part of the **Activate a Job** procedure (Section 18.8.7). The purpose of comparing the number of units in an order and a job is to determine whether all units for a large order are included in a pending job that is displayed on the PDS **Main OI Screen**. The result is useful in deciding whether to activate the job or wait until the data for more or all units in the order become available.

The procedure for comparing the number of units in an order and a job involves a comparison between the number of units in the order on the **PDSIS OI Detail Screen** and the number of units specified on the **Main OI Screen**. It is possible for the number of units in the order on the **PDSIS OI Detail Screen** to be greater than the number of units specified on the **Main OI Screen**. If the number of units in the PDSIS order were greater than the number of units in the corresponding PDSSA job and the job was activated, only the units that were accessible to PDSSA would be copied to the specified medium. Depending on the circumstances (including DAAC policy) activating part of an order may be acceptable. However, for high-capacity media types such as DLT, activation of a partial job could be a very inefficient use of the media.

Discrepancies in the number of units in an order (as displayed on the **PDSIS OI Detail Screen**) and the number of units in the corresponding job (as displayed on the PDS **Main OI Screen**) are generally due to PDSIS data "grouping" (also known as "chunking"). There are two possible grouping factors but only one of them is in effect at a time.

The two grouping factors are as follows:

- Granule size.
- Group limits.

When the current grouping factor is "granule size," PDSIS makes a chunk of a large order available to PDSSA after a specified number of megabytes of data have been received from ECS. The granule size limit is specified in the group_data_size column of the pdsis_serverconfig_tbl database table. If the total size of an order is smaller than the granule size limit, granule-size grouping is irrelevant for that order.

If the current grouping factor is "group limits," PDSIS makes a chunk of an order available to PDSSA when a specified number of units has been received from ECS. The number of units is specified in the group_unit_size column of the pdsis_serverconfig_tbl database table. If the value is NULL, all units are made available to PDSSA only after all unit data have been staged by ECS. If the total number of units in an order is less than the group limit, group-limit grouping is irrelevant for that order.

The grouping factor in use is specified by the value in the grouping_config column of the pdsis_serverconfig_tbl database table. Valid grouping values for the pdsis_serverconfig_tbl are as follows:

- **S** - "granule size" grouping.
- **G** - "group limits" grouping.

To determine the current grouping factor use the **Determine the Current Grouping Factor** procedure (Section 18.8.9).

The grouping factor is relevant for orders that are larger than the value assigned to the current grouping factor only. For example, if **Grouping Config** equals "S" and **Group Data Size** is set to "35,000," an order for 600 megabytes of data would not be broken up into chunks.

The **Main OI Screen** provides the Distribution Technician with a means of determining the number of units in a job. The **PDSIS OI Detail Screen** provides the Distribution Technician with a means of determining the total number of units in the order.

Table 18.8-9 presents (in a condensed format) the steps required to compare the number of units in an order and a job. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Activate the **PDSIS OI Detail Screen** for the order to be filled.
- For detailed instructions refer to the **Use the PDSIS OI Detail Screen** procedure (Section 18.9.2).
- The **PDSIS OI Detail Screen** is displayed.

2 Scroll to the bottom of the **PDSIS OI Detail Screen** to find the last unit in the order.

3 Observe the number of units in the **To_Do Units** column for the corresponding job on the **Main OI Screen**.

4 Compare the number of units in the order on the **PDSIS OI Detail Screen** with the number of units specified in the **To_Do Units** column for the corresponding job on the **Main OI Screen**.
- If the number of units is equal, the job can be activated.
  - For detailed instructions refer to the **Activate a Job** procedure (Section 18.8.7).

- If the number of units is not equal, consider the effects on job processing before activating the job:
  - If the job is activated, only the units that are accessible to PDSSA (in the PDT_PDSINFO table) will be activated.
  - Activating a partial order may be acceptable, depending on the circumstances and DAAC policy.
  - For a high-capacity type of medium (e.g., DLT) activating a partial order would be an inefficient use of the media if all units in the order could be recorded on a single tape or disk.
  - Distribution of a partial order may be authorized by User Services when some granules are currently unavailable but the customer has an immediate need for the granules that are available.
  - Activating a partial order may be acceptable when multiple media are required to fill the order and there is a sufficient quantity of data available to fill one disk or tape.
  - Activating a partial order may lead to manual intervention to correct the information on the labels affixed to the media, especially if more tapes or disks are used than originally expected. [Alternatively, DAAC policy may allow distribution of media volumes even when the numbering is not consistent with the original numbering scheme (e.g., 1 of 2, 2 of 2, 3 of 2.]

5 If all units currently available to PDSSA should be activated immediately, activate the job.
- For detailed instructions refer to the **Activate a Job** procedure (Section 18.8.7).

6 If some of the units currently available to PDSSA should be activated immediately, activate the applicable units.
- For detailed instructions refer to the **Use the OI Detail Screen** procedure (Section 18.8.4).

7 If none of the units currently available to PDSSA should be activated immediately, wait until the appropriate number of units is available to PDSSA before continuing.

8 If it was necessary to wait until the appropriate number of units became available to PDSSA before continuing, return to Step 3.

Table 18.8-9. Compare the Number of Units in an Order and a Job - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	**PDSIS OI Detail Screen** (for the order to be filled)	Use procedure in Section 18.9.2
2	Last unit in the order	**scroll down**

Table 18.8-9. Compare the Number of Units in an Order and a Job - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
3	Number of units in the **To_Do Units** column (on **PDSIS OI Detail Screen**) for the corresponding job on the **Main OI Screen**	**read text**
4	Number of units in the order (on **PDSIS OI Detail Screen**) vs. number of units specified in the **To_Do Units** column for the corresponding job (on **Main OI Screen**)	**compare**
5	Activate job (If all units should be activated now)	Use procedure in Section 18.8.7
6	Activate units (if some units should be activated now)	Use procedure in Section 18.8.4
7	Wait until the appropriate number of units is available to PDSSA before continuing (if no units should be activated now)	**wait**
8	Return to Step 3 (if waiting for units was necessary)	

18.8.9 Determine the Current Grouping Factor

It may be necessary to determine the current grouping factor when comparing the number of units in an order and a job.

Table 18.8-10 presents (in a condensed format) the steps required to determine the current grouping factor. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Perform the **Start the PDSIS Maintenance Module** procedure (Section 18.6.8).

2 **Single-click** on the **Server Config** button on the **PDSIS Maintenance Module Main Menu**.
- The **Server Config Maintenance (PDSISMTPST)** window is displayed.

3 **Single-click** on the **Execute Query** button on the **Server Config Maintenance** window.
- Server configuration is displayed in the **Server Config Maintenance** window.

4 Observe the value in the **Grouping Config** field of the **Server Config Maintenance** window.
- Valid grouping values are as follows:
  - **S** - "granule size" grouping.
  - **G** - "group limits" grouping.

5 Observe the value in the **Group Data Size** field of the **Server Config Maintenance** window.
- Value indicates the maximum size (in megabytes) of each chunk of data made available to PDSSA if **Grouping Config** is set to "S."
- For example, a value of "35000" would indicate a grouping factor of 35,000 megabytes (35 gigabytes).

6 Observe the value in the **Group Unit Size** field of the **Server Config Maintenance** window.
- Value indicates the maximum number of units in each chunk of data made available to PDSSA if **Grouping Config** is set to "G."
- For example, a value of "10" would indicate a grouping factor of 10 units.

7 To close the **Server Config Maintenance** window **single-click** on the **Exit** button at the bottom of the window.
- If the **Exit** button is not visible on the maintenance module form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- The **PDSIS Maintenance Module Main Menu** is displayed.

8 To shut down the **PDSIS Maintenance Module single-click** on the **Exit** button at the bottom of the **PDSIS Maintenance Module Main Menu** window.
- The **PDSIS Maintenance Module Main Menu** is dismissed.

9 Return to the procedure that recommended determining the current grouping factor.
- For example, the **Compare the Number of Units in an Order and a Job** procedure (Section 18.8.8)

Table 18.8-10. Determine the Current Grouping Factor - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Start the **PDSIS Maintenance Module**	Use procedure in Section 18.6.8
2	**Server Config** button (on **PDSIS Maintenance Module Main Menu**)	**single-click**
3	**Execute Query** button (on **Server Config Maintenance** window)	**single-click**
4	**<value>** (in **Grouping Config** field)	**read text**
5	**<value>** (in **Group Data Size** field)	**read text**
6	**<value>** (in **Group Unit Size** field)	**read text**
7	**Exit** button (on **Server Config Maintenance** window)	**single-click**

Table 18.8-10. Determine the Current Grouping Factor - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
8	**Exit** button (on **PDSIS Maintenance Module Main Menu**)	**single-click**
9	Return to procedure that recommended determining the current grouping factor	

18.8.10 Stop/Terminate a Job Using the Main OI Screen Display

The procedure to **Stop/Terminate a Job Using the Main OI Screen Display** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). Although the procedures for stopping/terminating (suspending) jobs are rarely used, both the **Main OI Screen** and the **Job Monitor Main Window** provide the Distribution Technician with means of doing so. Note that if a job has proceeded to the stage where the data are being written to the specified medium that process (writing to the medium) continues even after an attempt to stop/terminate the job.

Table 18.8-11 presents (in a condensed format) the steps required to stop/terminate a job using the **Main OI Screen** display. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the action button at the beginning of the job line for the relevant job on the **Main OI Screen**.
- The **Action List** box is displayed.
- Not all actions are available for every job.
  - The available actions depend on the job's current status and processing.

2 **Single-click** on (highlight) **Stop Job** in the **Action List** box.
- **Stop Job** is highlighted.

3 **Single-click** on the appropriate button from the following selections:
- **OK** - to start the process of stopping the job.
  - A confirmation dialogue box is displayed to inquire "Are you sure you want to stop this job?"
- **Cancel** - to dismiss the **Action List** box and return to the **Main OI Screen**.
  - The **Main OI Screen** is displayed. [End of procedure.]

4 If a confirmation dialogue box is being displayed, click on the appropriate button from the following selections:

- **Yes** - to stop the job and dismiss the confirmation dialogue box.
  - The system performs no further actions on the job except to process status files from the product generation code.
  - When the screen is refreshed the next time, the field adjacent to the action button on the job line for the specified job displays the word **STOP**.

NOTE: It may be useful to manually refresh the screen.

- **Cancel** - to dismiss the confirmation dialogue box without stopping the job.
  - When the activation process has been completed, the database is queried, the **Main OI Screen** is refreshed.

5 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-11. Stop/Terminate a Job Using the Main OI Screen Display - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Action button (on **Main OI Screen**)	**single-click**
2	**Stop Job**	**single-click**
3	**OK** button	**single-click**
4	**Yes** button	**single-click**
5	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.11 Stop/Terminate a Job Using the Job Monitor Main Window

The procedure to **Stop/Terminate a Job Using the Job Monitor Main Window** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). Although the procedures for stopping/terminating (suspending) jobs are rarely used, both the **Main OI Screen** and the **Job Monitor Main Window** provide the Distribution Technician with means of doing so. Note that if a job has proceeded to the stage where the data are being written to the specified medium that process (writing to the medium) continues even after an attempt to stop/terminate the job.

Table 18.8-12 presents (in a condensed format) the steps required to stop/terminate a job using the **Job Monitor Main Window**. If you are already familiar with the procedures, you may

prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Place** the mouse cursor on the relevant job in the running job list of the **Job Monitor Main Window**, **single-click** and **hold** the **right** mouse button, **move** the mouse cursor to **Terminate Job** (highlighting it), then **release** the mouse button.
- Pop-up menu appears with the options **View Job Log, View Job PPF, Force AutoRimage Completion** [appears only when the selected job is waiting for a completion message from a Rimage writer]**, Terminate Job.**
- Select **Terminate Job** from the pop-up menu.
  - A confirmation window is displayed.

2 **Single-click** on the appropriate button from the following selections:
- **Proceed** - to suspend the job and dismiss the confirmation window.
  - The confirmation window is dismissed.
- **Cancel** - to dismiss the confirmation window without suspending the job.
  - The confirmation window is dismissed.

3 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-12. Stop/Terminate a Job Using the Job Monitor Main Window - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Terminate Job** (**Job Monitor Main Window**)	**right-click**
2	**Proceed** button	**single-click**
3	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.12 Respond to a Status of QC-Hold (Perform a QC Check or Verification)

The procedure to **Respond to a Status of QC-Hold (Perform a QC Check or Verification)** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). A status of **QC-Hold** on the **PDS Operator Interface (PDSOI)** indicates that a job requires a QC check or media verification. The PDS **Verification Tool** provides the Distribution Technician with a means of selecting a verification drive for checking a disk or tape. The **PDSIS OI Main Screen** provides a means of marking the job "shipped."

Table 18.8-13 presents (in a condensed format) the steps required to respond to a status of QC-Hold (perform a QC check or verification). If you are already familiar with the procedures, you

may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Retrieve the product summary from the report printer.

2 Review the product summary to determine whether there were any problems in writing to the medium.
- The status of each file on the medium is indicated on the report by a "Y" or "N."
- If there were problems in writing to the medium, go to the **Reprocess a Job** procedure (Section 18.10.19).
- If a disk was created but no product summary was printed, go to the **Reprocess a Job** procedure (Section 18.10.19).

3 Remove the medium (tape or disk) from the unit in which the data were written.
- 8mm tapes are ejected from the drive when completed.
- When a DLT tape is finished, the **Operate Handle** light on the DLT drive turns green.
  - To extract the completed DLT tape from the drive, lift the handle on the front of the drive and pull the tape out of the drive.
- The access door to the Rimage unit may be opened whenever the media arm is not moving media.
- If the label on a disk was not printed, go to the **Reprint a Label Stamped on a Disk** procedure (Section 18.10.17).

4 If the medium is a tape, set the write-protect switch on the tape cartridge at the **Read-Only** (write-protected) position.

5 If the medium is a tape, retrieve the tape label from the label printer.
- If the tape label is not correct or damaged, go to the **Reprint PDS Documents and Labels** procedure (Section 18.10.18).

6 If the medium is a tape, affix the tape label in the appropriate place.
- Labels are typically affixed directly to the tape cartridge unless DAAC policy states otherwise (e.g., affix the label to the case for the tape).

7 If the medium is a disk, retrieve the corresponding jewel-case insert from the jewel-case insert printer.
- If the jewel-case insert is not correct or damaged, go to the **Respond to a Jewel-Case Insert Printing Failure** procedure (Section 18.10.22).

8 If the medium is a disk, insert the jewel-case insert in a jewel case.

- If the DAAC is supplied with CD jewel cases and DVD jewel cases, ensure that each type of disk is placed in the appropriate type of jewel case (i.e., CDs in CD cases, DVDs in DVD cases).

9 Observe the PDS **Verification Tool** to identify an available drive for verifying writing to the medium (tape or disk).

- The color of the buttons on the PDS **Verification Tool** provides an indication as to the status of each drive.
  - Dark blue typically indicates "available."
  - Red typically indicates "in use."
- The colors may vary in meaning because the color settings are configurable.
- If there is no CD drive available for verification (e.g., if all CD drives are out of service), CDs can be verified by reading their contents using a verification DVD drive, a CD drive in a PC or a DVD drive in a PC.
  - Verify that there are data and metadata files for all units in the job and that the file sizes indicate the presence of data [e.g., file size of 0 (zero) indicates that there is no data in the file].
- If there is no DVD drive available for verification (e.g., if all verification DVD drives are out of service), DVDs can be verified by reading their contents using a DVD drive in a PC.

10 Load the medium (tape or disk) in an available drive.

11 Wait for the drive to come on line before continuing.

- Generally the lights on the drive stop blinking when the drive comes on line.

12 On the PDS **Verification Tool single-click** on the button corresponding to the drive in which the medium was loaded.

- The following events occur when the reader in which the medium was loaded has completed the verification:
  - The drive opens (except DLT drives, which do not open automatically).
  - The button corresponding to the drive on the PDS **Verification Tool** changes color.

13 When the reader in which the medium was loaded has completed the verification, retrieve the corresponding verification report from the printer.

- It is important to match the verification report with the corresponding tape or disk before you remove the medium from the drive because the verification report makes reference to the verification drive only.
  - The verification report does not make reference to the order number, request ID, or job number.

14 Remove the medium from the drive.

- Keep the medium and its verification report together.
- If verification reports for media are lost, it is necessary to reverify the tape or disk.
- 8mm tapes are ejected from the drive when completed.
- When a DLT tape is finished, the **Operate Handle** light on the DLT drive turns green.
  - To extract the completed DLT tape from the drive, lift the handle on the front of the drive then pull the tape out of the drive.
- The access door to the Rimage unit may be opened whenever the media arm is not moving media.

15 Insert the medium in its case.

- If the DAAC is supplied with CD jewel cases and DVD jewel cases, ensure that each type of disk is placed in the appropriate type of jewel case (i.e., CDs in CD cases, DVDs in DVD cases).

16 Review the verification report for read errors.

- If the medium is a tape with read errors and the tape has just been verified for the first time, repeat the verification on a different drive (return to Step 3).
- If the medium is a tape with read errors and the errors have been verified for a second time, reprocess the job by performing the **Reprocess a Job** procedure (Section 18.10.19).
- Successful verification of a DVD using the PDS Verification Tool is possible only when the disk contains less than 2.5 GB of data.
  - A DVD that exceeds the 2.5-GB limit can be verified successfully up to the limit then errors occur for the remainder of the units.
  - To verify that the remainder of the files were written properly, read the DVD in the DVD drive of a PC. Starting with the first unit number that failed the QC verification, open each folder for the unit that failed and verify the files (i.e., verify that there are data and metadata files for all units in the job and that the file sizes indicate the presence of data).
- If the verification report for a disk (CD or DVD) does not list any contents, turn the power switch for the affected CD or DVD drive **off** then **on** and retry the verification check in the same drive (return to Step 10).
- If the medium is a disk with read errors and the disk has just been verified for the first time, visually inspect the disk for obvious damage.
  - If the disk has obvious unrecoverable damage (such as a scratch), discard the disk and reprocess the job by performing the **Reprocess a Job** procedure (Section 18.10.19).
  - If the disk does not have obvious damage or has a recoverable problem (such as a fingerprint that can be wiped off), fix the problem and repeat the verification on a different drive (return to Step 3).

- If the medium is a disk with read errors and the errors have been verified for a second time, reprocess the job by performing the **Reprocess a Job** procedure (Section 18.10.19).

17 Place the medium (in its case), product summary, and verification report (indicating that the medium is good) together in an appropriate place.

18 Perform the **Complete a Job** procedure (Section 18.8.13).
- About five to fifteen minutes after the job has been marked complete on the **PDSOI**, its status on the **PDSIS OI** changes from "I" (In Progress) to "C" (Completed).
- About five to fifteen minutes after the job has been marked "C" on the **PDSIS OI** the shipping labels and packing lists are printed.

19 When the shipping label and packing list have been printed, retrieve the items and put them with the medium (in its case) in the appropriate area for pick-up by or delivery to the shipping (dissemination) area.
- Disposition of the paperwork depends on site policy.
  - For example, both shipping labels and one packing list may go to the shipping (dissemination) area while all remaining paperwork is recycled.

20 Verify that all items (i.e., disk/tape, shipping labels, packing list) to be sent to the shipping (dissemination) area are for the same order.

21 When the shipping labels and packing lists have been printed and the job status on the **PDSIS OI** has changed from "I" (In Progress) to "C" (Completed), **single-click** on the action button (on the **PDSIS OI Main Screen**) at the beginning of the job line for the job.
- The **Action List** box is displayed.

22 **Single-click** on (highlight) **Ship** in the **Action List** box.
- **Ship** is highlighted.

23 **Single-click** on the appropriate button from the following selections:
- **OK** - to mark the job "shipped."
- **Cancel** - to dismiss the **Action List** box and return to the **PDSIS OI Main Screen** without marking the job "shipped."
  - The **PDSIS OI Main Screen** is displayed.

24 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-13. Respond to a Status of QC-Hold (Perform a QC Check or Verification) - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Retrieve product summary from report printer	**pick up**
2	Determine whether there were any problems in writing to the medium (review product summary)	**read text**
3	Remove the medium (tape or disk) from the unit in which the data were written	**pull out** or **open door and pull out** (as applicable)
4	**Read-Only** position (tape cartridge write-protect switch) (if applicable)	**set switch**
5	Retrieve tape label from label printer (if applicable)	**pick up**
6	Affix tape label (if applicable)	**attach**
7	Retrieve jewel-case insert from jewel-case insert printer (if applicable)	**pick up**
8	Insert jewel-case insert in jewel case (if applicable)	**insert**
9	Identify an available drive for verifying writing to the medium (on PDS **Verification Tool**)	**observe**
10	Load medium in an available drive	**push in** or **push in and close door** (as applicable)
11	Wait for the drive to come on line	**wait**
12	Applicable drive button (on PDS **Verification Tool**)	**single-click**
13	Retrieve verification report from report printer (when applicable)	**pick up**
14	Remove medium from verification drive	**pull out** or **open door and pull out** (as applicable)
15	Insert medium in its case	**insert**
16	Identify read errors (review the verification report)	**read text**
17	Place the medium (in its case), product summary, and verification report together in an appropriate place	**place**
18	Complete the job	Use procedure in Section 18.8.13
19	When the shipping label and packing list have been printed, retrieve the items and put them with the medium (in its case) in the appropriate area for pick-up by or delivery to the shipping function	**place**
20	Verify that all items (i.e., disk/tape, shipping labels, packing list) are for the same order	**read text**
21	Action button (**PDSIS OI Main Screen**)	**single-click**
22	**Ship**	**single-click**
23	**OK** button	**single-click**

Table 18.8-13. Respond to a Status of QC-Hold (Perform a QC Check or Verification) - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
24	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.13 Complete a Job

The procedure to **Complete a Job** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The **Main OI Screen** provides the Distribution Technician with a means of completing jobs that are in a **QC-Hold** status once they have passed the QC check. This "Complete" action first checks the status of the units of the job. If any unit(s) of the job is (are) not in QC-Hold status, some unit(s) may not be ready for completion; consequently, the completion must be performed using the **OI Detail Screen** as described in the **Use the OI Detail Screen** procedure (Section 18.8.4).

Table 18.8-14 presents (in a condensed format) the steps required to complete a job. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the action button at the beginning of the job line for the relevant job (on the **Main OI Screen**).
- The **Action List** box is displayed.
- Not all actions are available for every job.
  - The available actions depend on the job's current status and processing.

2 **Single-click** on (highlight) **Complete** in the **Action List** box.
- **Complete** is highlighted.
- The **Complete** option is available if the job status is **QC-Hold** only.

3 **Single-click** on the appropriate button from the following selections:
- **OK** - to start the process of completing the units in the job and the job itself.
  - A blue pop-up window is displayed with the following type of message indicating that the job's units are being completed:

    Completing Job <job key>.

  - When the completion process has finished, the database is queried, the **Main OI Screen** is refreshed, showing any new information or status changes.
  - The job that was completed should no longer be displayed after the screen is refreshed because there are no units to be processed.

- **Cancel** - to dismiss the **Action List** box and return to the **Main OI Screen**.
  - The **Main OI Screen** is displayed.

4 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-14. Complete a Job - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Action button (on **Main OI Screen**)	**single-click**
2	**Complete**	**single-click**
3	**OK** button	**single-click**
4	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.14 Enter Notes about a Job

The procedure to **Enter Notes about a Job** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The **Main OI Screen** provides the Distribution Technician with a means of entering comments or notes about jobs. If a note has been entered for a job, an "*" is displayed in the **Note** field of the **Main OI Screen**.

Table 18.8-15 presents (in a condensed format) the steps required to enter notes about a job. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the action button at the beginning of the job line for the relevant job (on the **Main OI Screen**).
- The **Action List** box is displayed.
- Not all actions are available for every job.
  - The available actions depend on the job's current status and processing.

2 **Single-click** on (highlight) **Notes** in the **Action List** box.
- **Notes** is highlighted.

3 **Single-click** on the appropriate button from the following selections:
- **OK** - to gain access to the **Job Notes** dialogue box.
  - The **Job Notes** dialogue box is displayed.
- **Cancel** - to dismiss the **Action List** box and return to the **Main OI Screen**.
  - The **Main OI Screen** is displayed.

4 In the **Job Notes** dialogue box enter:

<text>

- If notes had already been entered for the selected job, the notes are displayed in the **Job Notes** dialogue box and it is possible to add to or modify them.

5 **Single-click** on the **Return** button to dismiss the **Job Notes** dialogue box and return to the **Main OI Screen**.

- The **Main OI Screen** is displayed.
- When the **Main OI Screen** is refreshed next an "*" is displayed in the **Note** field on the job line for the specified job (on the **Main OI Screen**) indicating that there is a note concerning the job**.**

6 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-15. Enter Notes about a Job - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Action button (on **Main OI Screen**)	**single-click**
2	**Notes**	**single-click**
3	**OK** button	**single-click**
4	**<text>** (in **Job Notes** dialogue box)	**enter text**
5	**Return** button	**single-click**
6	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.15 Promote a Job

A job would most likely be promoted at the request of User Services. The only practical means the Distribution Technician has of promoting jobs is to activate the pending job ahead of any other pending jobs.

18.8.16 Cancel a Job

Jobs are not normally canceled using the PDSSA operator tools. Jobs (orders) can be "rejected" using PDSIS tools. (Refer to the **Reject a Unit/Order** procedure (Section 18.9.4).

18.8.17 Generate PDS Production Reports

The procedure to **Generate PDS Production Reports** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The **Main OI Screen** provides the Distribution Technician with a means of generating PDS production reports.

Table 18.8-16 presents (in a condensed format) the steps required to generate PDS production reports. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the report is to be printed on the currently assigned report printer, continue with Step 2; otherwise, perform the **Select an Alternate Printer** procedure (Section 18.8.18).

2 If a report that contains the data currently being displayed **Main OI Screen** is desired, execute the following menu path from the pull-down menu:

Reports → Queue

- The report is printed on the designated report printer.
- The report is fired off in the background and uses the printer definition for reports.
- The file generated for the report is $PDSROOT/summary/queue<timestamp>.rpt.

3 If a report of all orders that still need to be produced (broken down by various time frame ranges) is desired, execute the following menu path from the pull-down menu:

Reports → Lag

- The report is printed on the designated report printer.
- The report is fired off in the background and uses the printer definition for reports.
- The file generated for the report is $PDSROOT/summary/lag<timestamp>.rpt.

4 If an error report for a particular job is desired, first **single-click** in one of the fields on the job line for the relevant job.

5 If an error report for a particular job is desired, execute the following menu path from the pull-down menu:

Reports → Error

- The report provides information about errors that have occurred with the specified job.
- The report is fired off in the background.
- The report is printed on the designated report printer.

6 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.8-16. Generate PDS Production Reports - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Select an alternate printer (if applicable)	Use procedure in Section 18.8.18
2	Either **Reports → Queue** or **Reports → Lag** or **Reports → Error** (on **Main OI Screen**) (as applicable)	**single-click**
3	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.8.18 Select an Alternate Printer

The procedure to **Select an Alternate Printer** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The **Main OI Screen** provides the Distribution Technician with a means of selecting an alternate printer.

Table 18.8-17 presents (in a condensed format) the steps required to select an alternate printer. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on **Printers** on the menu bar of the **Main OI Screen**.
- The **Default Printers** dialogue box is displayed.
- The current selections for printers for reports and jewel-case inserts are displayed.

2 **Single-click** and **hold** the applicable option button (either **Report Printer** or **Jewel Case Printer**) to display a menu of printers, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.
- If the desired printer is not available on the list of printers, submit a request to the supervisor to have it added to the list.
- Selected printer is displayed on the option button when the mouse button is released.

3 If an alternate printer is to be designated for the other type of printer, repeat Step 2 for the other printer.

4 **Single-click** on the **Return** button.
- The **Main OI Screen** is displayed.

5 Return to the **Generate PDS Production Reports** procedure (Section 18.8.17) or the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1) as applicable.

Table 18.8-17. Select an Alternate Printer - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Printers** (on **Main OI Screen**)	**single-click**
2	**<printer>** (from either the **Report Printer** or the **Jewel Case Printer** option button as applicable)	**single-click**
3	Repeat Step 2 for the other printer (if applicable)	
4	**Return** button	**single-click**
5	Return to the **Generate PDS Production Reports** procedure or the **Monitor/Control Product Processing Using PDS** procedure as applicable	Use procedure in Section 18.8.17 or 18.8.1 as applicable

18.8.19 Use the PDS Cleanup Manager

The PDS Cleanup Manager is a GUI that is used for specifying a file cleanup strategy for the following types of PDSSA files:

- Summary files.
- Master list files.
- Log files.
- Operator Interface log files.
- Status files.
- Jewel-case insert files.
- Label files.
- Text files.
- TIFF (Tag Image File Format) files.

PDSIS files are not included in the PDS Cleanup Manager's cleanup strategy.

The PDS Cleanup Manager generates or modifies a Bourne shell script (i.e., cleanup.sh) that implements the file cleanup strategy. In addition, the PDS Cleanup Manager may modify the crontab file to adjust the time intervals for deletion or archiving of files.

The large number of files generated by PDS activities would overwhelm the system if some of the files were not removed from the working directories on a fairly frequent basis. However, some files may be required for a limited period of time in order to troubleshoot a job if there is a problem with it or if it is returned from the customer.

The PDS Cleanup Manager is not used very often, especially if a manageable retention period has been established for PDSSA files.

Table 18.8-18 presents (in a condensed format) the steps required to use the PDS Cleanup Manager. If you are already familiar with the procedures, you may prefer to use the quick-step

table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the UNIX command line prompt enter:

    echo $PDSROOT

3 At the UNIX command line prompt enter:

cd run

- Change to the "run" directory.

4 At the UNIX command line prompt enter:

pdscleanup

- The **PDS Cleanup Manager** GUI is displayed.

5 If any of the types of files in the "summary" directory or "label" directory are to be archived or deleted, in the **Summary Directory** or **Label Directory** section (as applicable) of the **PDS Cleanup Manager** GUI **single-click** on either the **Archive** or **Delete** radio button (as applicable) to the right of one of those types of file.
- When one of the radio buttons is selected, the button color changes from gray to red and the button gives the appearance of being depressed.

6 If any of the types of files in the "summary" directory or "label" directory are to be archived or deleted, in the text box adjacent to the button selected in the previous step enter:

<number of days>

- **<number of days>** represents the number of days after which files of that type are to be either archived or deleted.

- The following types of files are listed in the **Summary Directory** section of the **PDS Cleanup Manager** GUI:
  - **Summary files.**
  - **Masterlist files.**
  - **Log files.**
  - **OILog files.**
  - **Status files.**
  - **Insert files.**
- The following types of files are listed in the **Label Directory** section of the **PDS Cleanup Manager** GUI:
  - **Label files.**
  - **Text files.**
  - **TIFF files.**

7 Repeat Steps 5 and 6 for each additional type of file in the "summary" directory or "label" directory that is to be archived or deleted.

8 If files older than a particular number of days should be deleted, **single-click** on the **Delete any files older than** radio button.

- When the **Delete any files older than** button is selected, the button color changes from gray to red.

9 If files older than a particular number of days should be deleted, in the text box adjacent to the **Delete any files older than** radio button enter:

<number of days>

- **<number of days>** represents the number of days after which files older than that number of days are to be deleted.

10 In the **Run cleanup daily at** fields enter:

<cleanup run time>

- **<cleanup run time>** represents the time when the cleanup should run [in 12-hour (rather than 24-hour) format].
- For example, type **2:00** for either two o'clock in the morning or two o'clock in the afternoon.

11 **Single-click** on either the **AM** or **PM** radio button (as applicable).

- When one of the radio buttons is selected, the button color changes from gray to red and the button gives the appearance of being depressed.

12 **Single-click** on the appropriate button from the following selections:

- **Apply & Exit** - to set the cleanup parameters as specified on the **PDS Cleanup Manager** GUI.
  - A **This will modify the PDS cleanup script and/or crontab** dialogue box is displayed.
  - Go to Step 13.
- **Cancel** - to dismiss the **PDS Cleanup Manager** GUI without applying any new cleanup parameters.
  - The **PDS Cleanup Manager** GUI is dismissed.
  - End of procedure.

13 **Single-click** on the appropriate button from the following selections:

- **Proceed** - to set the cleanup parameters as specified on the **PDS Cleanup Manager** GUI.
  - The cleanup script is generated, incorporating the parameters specified on the **PDS Cleanup Manager** GUI.
  - The **PDS Cleanup Manager** GUI is dismissed.
- **Cancel** - to dismiss the **PDS Cleanup Manager** GUI without applying any new cleanup parameters.
  - The **PDS Cleanup Manager** GUI is dismissed.

Table 18.8-18. Use the PDS Cleanup Manager - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**cd run**	**enter text, press Enter**
4	**pdscleanup**	**enter text, press Enter**
5	Either the **Archive** or **Delete** radio button (if applicable)	**single-click**
6	**<number of days>** (in text box corresponding to the type of file) (if applicable)	**enter text**
7	Repeat Steps 5 and 6 (as necessary)	
8	**Delete any files older than** radio button (if applicable)	**single-click**
9	**<number of days>** (in text box for **Delete any files older than**) (if applicable)	**enter text**
10	**<cleanup run time>** (in **Run cleanup daily at** fields)	**enter text**
11	Either **AM** or **PM** radio button (as applicable)	**single-click**
12	**Apply & Exit** button	**single-click**
13	**Proceed** button	**single-click**

18.9 Monitoring/Controlling Order Processing Using the PDSIS OI

Distribution Technicians use the following tools to monitor and control PDSIS activities:

- **PDSIS OI Main Screen.**
- **PDSIS OI Detail Screen.**
- **PDSIS OI Error Screen.**

Table 18.9-1, below, provides an Activity Checklist for monitoring/controlling order processing using the PDSIS OI.

Table 18.9-1. Monitoring/Controlling Order Processing Using the PDSIS OI - Activity Checklist

Order	Role	Task	Section	Complete?
1	Distribution Technician	Monitor/Control Order Processing Using the PDSIS OI	(P) 18.9.1	
2	Distribution Technician	Use the PDSIS OI Detail Screen	(P) 18.9.2	
3	Distribution Technician	Mark a Job Shipped	(P) 18.9.3	
4	Distribution Technician	Reject a Unit/Order	(P) 18.9.4	

18.9.1 Monitor/Control Order Processing Using the PDSIS OI

Monitoring/controlling order processing using the PDSIS OI involves the following activities (among others):

- Determining the status of an order and/or taking action with respect to an order (using the PDSIS OI Main Screen).
- Determining the status of units associated with a particular order or taking action with respect to units associated with a particular order (using the PDSIS OI Detail Screen).
- Marking a job "Shipped."
- Rejecting a unit/order.

PDSIS activities are monitored and controlled using the **PDSIS OI Main Screen**, the **PDSIS OI Detail Screen** and the **PDSIS OI Error Screen**.

The **PDSIS OI Main Screen** displays the following items for each individual PDS order:

- Action Button [not labeled].
  - Allows access to a list of actions that can be taken with respect to the order.

- Order Nbr.
  - Unique PDS order number given to the customer request.
  - The software creates an order number each time the ECS VOGW sends an order.
- Ecs Ordid.
  - ECS order number for the customer request in the MSS database.
- Ecs Reqid.
  - ECS Request ID number for the customer request in the MSS database.
- Sta.
  - PDSIS status of the order.
- Status Date.
  - Last date any database status has changed on the order.
- Date Entered.
  - Date when the order was entered in the system.

The **PDSIS OI Detail Screen** displays the following items for the selected individual PDS order:

- Order Number.
  - Unique PDS order number given to the customer request.
- ECS Order ID.
  - ECS order number of the customer request in the MSS database.
- ECS Req ID.
  - ECS Request ID number of the customer request in the MSS database.
- Status.
  - PDSIS status of the order.

The **PDSIS OI Detail Screen** displays the following items for each unit within the selected PDS order:

- Action Button [not labeled].
  - Allows access to a list of actions that can be taken with respect to the job.
- Unit Number.
  - Unit number.
- Ordering ID.
  - Unique reference for the relevant granule in the ECS archive.
- Prod Code.
  - PDSIS's description of the product code.
  - It is loaded from customizable tables.
- Output Specs.
  - PDSSA's description of the output specifications selected by the customer.
- Subset Data.
  - Yes/No flag indicating whether the unit is a subsetted request (L7 floating scene).
- Size.
  - Size in MB of the granule.
  - May be an estimate in some cases.

- Status.
  - PDSIS status of the order.
- Status Date.
  - Last date any database status has changed on the unit.

The **PDSIS OI Error Screen** displays the following types of information:

- Action Button [not labeled].
  - Allows access to a list of actions that can be taken with respect to the item.
- Date/Time.
  - Time when the error occurred.
- Order Number.
  - Order number of the order in which the error occurred.
- Unit Number.
  - PDS unit number in which the error occurred.
- Error Source.
  - Source of the error.
- Error Message.
  - PDSIS coded error message.

Table 18.9-2 presents (in a condensed format) the steps required to monitor/control order processing using the PDSIS OI. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the **PDSIS OI Main Screen** is not already in operation, start the PDSIS Operator Interface (PDSIS OI) (refer to Section 18.6.3).

- The **PDSIS OI Main Screen** is displayed.

2 Observe information displayed on the **PDSIS OI Main Screen**.

- The following items are displayed on an **order status line** for each individual PDS order:
  - Action Button [not labeled].
  - **Order Nbr.**
  - **Ecs Ordid.**
  - **Ecs Reqid.**
  - **Sta.**
  - **Status Date.**
  - **Date Entered.**
- Each **order status line** display is color-coded to draw attention to job status. The colors are interpreted as follows:
  - **Red** The error flag for the order is set at "Y" in the database.
  - **Green** In Progress status.

  - **Yellow** Completed status.
  - **Grey** Order Received status.
- If there are more records than can be displayed on the screen, use the scroll bar on the right hand side of the form to view the additional records.
- The **status line** at the bottom of the screen displays information about the form (for example, the status line might display “Record: 1/?” and “INSERT").
- The **message line** near the bottom of the screen (just above the **status line**) displays informational messages and error messages pertinent to what is happening on the form.
  - Messages are displayed on the screen as long as they are pertinent.

3 If more specific information is required or action should be taken with respect to units associated with a particular order, perform the **Use the PDSIS OI Detail Screen** procedure (Section 18.9.2).

4 If it becomes necessary to perform any of the following actions, go to the corresponding procedure:

- **Use the PDSIS OI Detail Screen** (Section 18.9.2) (to determine the status of units associated with a particular order or take action with respect to units associated with a particular order).
- **Mark a Job Shipped** (Section 18.9.3) (to mark a completed job shipped).
- **Reject a Unit/Order** (Section 18.9.4) (to change the status of a unit or order to "X" ("Reject"), effectively canceling the unit or order).
- **Check/Clear Errors on PDSIS** procedure (Section 18.10.4) (to see the error(s) associated with a particular job).
- **Troubleshoot PDS Problems** (Section 18.10) (to troubleshoot problems/failures affecting order processing).

5 If it is necessary to update the data on the screen from the database without having to wait for the interval set on the timer, execute the following menu path from the pull-down menu:

Display → Refresh

- The data on the screen is refreshed.

6 If it is necessary to cause the entire screen to be redrawn without accessing the database for data, execute the following menu path from the pull-down menu:

Display → Repaint

- The screen (including borders, buttons, and data) is redrawn.
  - The **Repaint** option is used in case the window becomes garbled.

7 Repeat Steps 2 through 6 as necessary to monitor/control orders.

8 If it becomes necessary to shut down the PDSIS OI, perform the **Shut Down the PDSIS Operator Interface (PDSIS OI)** procedure (Section 18.7.7).

Table 18.9-2. Monitor/Control Order Processing Using the PDSIS OI - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDSIS Operator Interface (PDSIS OI) (if necessary)	Use procedure in Section 18.6.3
2	Observe information displayed on the **PDSIS OI Main Screen**	**read text**
3	Use the **PDSIS OI Detail Screen** (if applicable)	Use procedure in Section 18.9.2
4	Perform the appropriate operational procedure as needed	Use applicable procedure(s) in Sections 18.9.2 through 18.9.4 or 18.10.4
5	**Display → Refresh** (on the **PDSIS OI Main Screen**) (as necessary)	**single-click**
6	**Display → Repaint** (on the **PDSIS OI Main Screen**) (as necessary)	**single-click**
7	Repeat Steps 2 through 6 as necessary to monitor/control jobs	
8	Shut down the operator interface (when applicable)	Use procedure in Section 18.7.7

18.9.2 Use the PDSIS OI Detail Screen

The procedure to **Use the PDSIS OI Detail Screen** is performed as part of the **Monitor/Control Order Processing Using the PDSIS OI** procedure (Section 18.9.1). The **PDSIS OI Detail Screen** provides the Distribution Technician with a means of accomplishing the following objectives:

- Obtaining specific information with respect to units associated with a particular order.
- Taking action with respect to units associated with a particular order.

Table 18.9-3 presents (in a condensed format) the steps required to use the **PDSIS OI Detail Screen**. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the action button at the beginning of the order status line (on the **PDSIS OI Main Screen**) for the relevant order.

- An **Action List** box is displayed.
- Not all actions are available for every order.
  - The available actions depend on the order's current status.

2 **Single-click** on (highlight) **Details** in the **Action List** box.

- **Details** is highlighted.

3 **Single-click** on the appropriate button from the following selections:

- **OK** - to bring up the **PDSIS OI Detail Screen** and dismiss the **Action List** box.
  - The **PDSIS OI Detail Screen** is displayed.
- **Cancel** - to dismiss the **Action List** box and return to the **Main OI Screen**.
  - The **PDSIS OI Main Screen** is displayed.

4 Observe information displayed on the **PDSIS OI Detail Screen**.

- The following items are displayed on the **PDSIS OI Detail Screen** for the selected individual order:
  - **Order Number.**
  - **ECS Order ID.**
  - **ECS Req ID.**
  - **Status.**
- The following items are displayed on the **PDSIS OI Detail Screen** for each unit within the selected PDS order:
  - Action Button [not labeled].
  - **Unit Number.**
  - **Ordering ID.**
  - **Prod Code.**
  - **Output Specs.**
  - **Subset Data.**
  - **Size.**
  - **Status.**
  - **Status Date.**
- Each **unit line** display is color-coded to draw attention to unit status. The colors are interpreted as follows:
  - **Red** The error flag for the unit is set at "Y" in the database.
  - **Green** In Progress status.
  - **Yellow** Completed status.
  - **Grey** Order Received status.
- There is an action button [not labeled] at the beginning of each unit line. The button allows access to a list of actions that can be taken with respect to the job:
  - **Errors** (displays an Error Window).
  - **Reject** (changes the status of the selected unit to Reject).
- If there are more records than can be displayed on the screen, use the scroll bar on the right hand side of the form to view the additional records.

- The **status line** at the bottom of the screen displays information about the form.
- The **message line** near the bottom of the screen (just above the **status line**) displays informational messages and error messages pertinent to what is happening on the form.

5 If it is desirable to see the error(s) associated with a particular unit, perform the **Check/Clear Errors on PDSIS** procedure (Section 18.10.4).

6 If it becomes necessary to reject unit(s), perform the **Reject a Unit/Order** procedure (Section 18.9.4).

7 If it is necessary to update the data on the screen from the database without having to wait for the interval set on the timer, execute the following menu path from the pull-down menu:

Display → Refresh

- The data on the screen is refreshed.

8 If it is necessary to cause the entire screen to be redrawn without accessing the database for data, execute the following menu path from the pull-down menu:

Display → Repaint

- The screen (including borders, buttons, and data) is redrawn.
  - The **Repaint** option is used in case the window becomes garbled.

9 Repeat Steps 4 through 8 as necessary to obtain additional information with respect to units associated with the selected order and/or take action with respect to units associated with the order.

10 To return to the **PDSIS OI Main Screen** execute the following menu path from the pull-down menu:

Action → Return

- The **PDSIS OI Detail Screen** is dismissed.
- The **PDSIS OI Main Screen** is displayed.

Table 18.9-3. Use the PDSIS OI Detail Screen - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Action button (on **PDSIS OI Main Screen**)	**single-click**
2	**Details**	**single-click**
3	**OK** button	**single-click**
4	Observe information displayed on the **PDSIS OI Detail Screen**	**read text**

Table 18.9-3. Use the PDSIS OI Detail Screen - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
5	Check/clear errors on PDSIS (if applicable)	Use procedure in Section 18.10.4
6	Reject a unit/order (if applicable)	Use procedure in Section 18.9.4
7	**Display → Refresh** (on the **PDSIS OI Detail Screen**) (as necessary)	**single-click**
8	**Display → Repaint** (on the **PDSIS OI Detail Screen**) (as necessary)	**single-click**
9	Repeat Steps 4 through 8 as necessary	
10	**Action → Return** (when applicable)	**single-click**

18.9.3 Mark a Job Shipped

The procedure to **Mark a Job Shipped** is performed as part of the **Monitor/Control Order Processing Using the PDSIS OI** procedure (Section 18.9.1). The **PDSIS OI Main Screen** provides the Distribution Technician with a means of marking a completed job shipped.

Table 18.9-4 presents (in a condensed format) the steps required to mark a job "shipped." If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Verify that the following conditions have been met:
- The **Sta** [status] of the job (as displayed on the **PDSIS OI Main Screen**) is **C** (completed).
- The packing lists for the job have been printed.
- The shipping labels for the job have been printed.

2 **Single-click** on the action button at the beginning of the relevant order status line (on the **PDSIS OI Main Screen**).
- The **Action List** box is displayed.

3 **Single-click** on (highlight) **Ship** in the **Action List** box.
- **Ship** is highlighted.

4 **Single-click** on the appropriate button from the following selections:
- **OK** - to mark the order shipped and dismiss the **Action List** box.
  - The **PDSIS OI Main Screen** is displayed.
  - The status of the order changes to shipped and the order is removed from (is no longer visible on) the **PDSIS OI Main Screen**.

- **Cancel** - to dismiss the **Action List** box without marking the order shipped.
  - The **PDSIS OI Error Screen** is displayed.

5 Return to the **Monitor/Control Order Processing Using the PDSIS OI** procedure (Section 18.9.1).

Table 18.9-4. Mark a Job Shipped - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Verify that the job is ready to be marked shipped	**read text**
2	Action button (on **PDSIS OI Main Screen**)	**single-click**
3	**Ship**	**single-click**
4	**OK** button	**single-click**
5	Return to the **Monitor/Control Order Processing Using the PDSIS OI** procedure	Use procedure in Section 18.9.1

18.9.4 Reject a Unit/Order

The procedure to **Reject a Unit/Order** is performed as part of either the **Monitor/Control Order Processing Using the PDSIS OI** procedure (Section 18.9.1) or the **Use the PDSIS OI Detail Screen** procedure (Section 18.9.2). Both the **PDSIS OI Main Screen** and the **PDSIS OI Detail Screen** provide the Distribution Technician with means of rejecting a unit/order.

CAUTION

Before rejecting a unit or order it is advisable to have in hand written authorization to do so.
Selecting "Reject" changes the status of the unit or order to a Reject (X) or cancelled state. Care is recommended because the reject function does not have a confirmation button. All units in process will be marked for rejection and no further processing will occur. The customer's completion report will reflect the specified unit as having a Reject status.

Table 18.9-5 presents (in a condensed format) the steps required to reject a unit/order. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the action button at the beginning of the relevant order status line or unit line (on the **PDSIS OI Main Screen** or **PDSIS OI Detail Screen** as applicable).
- The **Action List** box is displayed.

2 **Single-click** on (highlight) **Reject** in the **Action List** box.
- **Reject** is highlighted.

3 **Single-click** on the appropriate button from the following selections:
- **OK** - to reject the unit/order, dismiss the **Action List** box and return to the screen that was displayed before the action button was selected.
  - Either the **PDSIS OI Main Screen** or the **PDSIS OI Detail Screen** (as applicable) is displayed.
- **Cancel** - to dismiss the **Action List** box and return to the screen that was displayed before the action button was selected.
  - Either the **PDSIS OI Main Screen** or the **PDSIS OI Detail Screen** (as applicable) is displayed.

4 Return to the procedure being performed before the action button was selected.
- Either **Monitor/Control Order Processing Using the PDSIS OI** (Section 18.9.1) or **Use the PDSIS OI Detail Screen** (Section 18.9.2) (as applicable).

Table 18.9-5. Reject a Unit/Order - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Action button (on **PDSIS OI Main Screen** or **PDSIS OI Detail Screen** as applicable)	**single-click**
2	**Reject**	**single-click**
3	**OK** button	**single-click**
4	Return to the **Monitor/Control Order Processing Using the PDSIS OI** procedure or the **Use the PDSIS OI Detail Screen** procedure as applicable	Use procedure in Section 18.9.1 or 18.9.2 as applicable

18.10 Troubleshooting PDS Problems

Troubleshooting is a process of identifying the source of problems on the basis of observed trouble symptoms. Many problems with PDS can be traced to some part of the PDS itself. However, a common source of problems involves the reliance on messages or data from other subsystems. Like many other operational areas, PDS has interfaces with several ECS

subsystems. Consequently, it is possible to trace some problems to an ECS subsystem, including (but not necessarily limited to) those in the following list:

- Data Management Subsystem (DMS).
- Data Server Subsystem (DSS).
- Science Data Server.
- Data Distribution.
- Storage Management.
- System Management Subsystem (MSS).
- Communications Subsystem (CSS).

The general process of troubleshooting involves the following activities:

- Review the trouble symptoms.
- Check the status of relevant hosts/servers (as necessary).
- Check log files (as necessary).
- Take action to correct the problem(s).

If a problem is suspected in one of the subsystems in the preceding list, refer to Section 18.5, **Troubleshooting DDIST Problems**.

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 18.10-1, below, provides an Activity Checklist for troubleshooting PDS problems.

Table 18.10-1. Troubleshooting PDS Problems - Activity Checklist (1 of 3)

Order	Role	Task	Section	Complete?
1	Distribution Technician	Troubleshoot a PDS Failure	(P) 18.10.1	
2	Distribution Technician	Change the Values of Job Parameters Using the PDS Maintenance Module	(P) 18.10.2	
3	Distribution Technician	Change the Values of Order Parameters Using the PDSIS Maintenance Module	(P) 18.10.3	
4	Distribution Technician	Check/Clear Errors on PDSIS	(P) 18.10.4	
5	Distribution Technician	Check PDSSA or PDSIS Log Files	(P) 18.10.5	
6	Distribution Technician	Check/Restore Synchronization of the Rimage PC Time with PDS System Time	(P) 18.10.6	
7	Distribution Technician	Check/Restore the Rimage PC NFS Connection	(P) 18.10.7	
8	Distribution Technician	Clean Up the E: Drive on the Rimage PC	(P) 18.10.8	

Table 18.10-1. Troubleshooting PDS Problems - Activity Checklist (2 of 3)

Order	Role	Task	Section	Complete?
9	Distribution Technician	Clear an Error Displayed on the PDSIS OI Error Screen	(P) 18.10.9	
10	Distribution Technician	Determine Output Specifications Using the PDS Maintenance Module	(P) 18.10.10	
11	Distribution Technician	Determine Output Specifications Using the PDSIS Maintenance Module	(P) 18.10.11	
12	Distribution Technician	Determine Product Codes Using the PDS Maintenance Module	(P) 18.10.12	
13	Distribution Technician	Determine Product Codes Using the PDSIS Maintenance Module	(P) 18.10.13	
14	Distribution Technician	Determine the Status of PDS Tape/Disk Drives	(P) 18.10.14	
15	Distribution Technician	Determine Which Instance of PDSOI Was Used to Activate a Job	(P) 18.10.15	
16	Distribution Technician	Force AutoRimage Completion	(P) 18.10.16	
17	Distribution Technician	Reprint a Label Stamped on a Disk	(P) 18.10.17	
18	Distribution Technician	Reprint PDS Documents and Labels	(P) 18.10.18	
19	Distribution Technician	Reprocess a Job	(P) 18.10.19	
20	Distribution Technician	Reset/Reactivate Units	(P) 18.10.20	
21	Distribution Technician	Respond to a CD/DVD Job Error Indicated on PDSOI	(P) 18.10.21	
22	Distribution Technician	Respond to a Jewel-Case Insert Printing Failure	(P) 18.10.22	
23	Distribution Technician	Respond to a Job's Status Not Changing to QC-Hold Upon Successful Completion	(P) 18.10.23	
24	Distribution Technician	Respond to a Job on a Lag Report	(P) 18.10.24	
25	Distribution Technician	Respond to a Locked-Up Screen	(P) 18.10.25	
26	Distribution Technician	Respond to a Problem Starting PDSOI	(P) 18.10.26	
27	Distribution Technician	Respond to a Save Changes Dialogue Box When Exiting a Maintenance Module Window	(P) 18.10.27	
28	Distribution Technician	Respond to a "Waiting for Drive Selection" Message on the Job Monitor	(P) 18.10.28	
29	Distribution Technician	Respond to Duplicate Jobs on the PDSOI	(P) 18.10.29	

Table 18.10-1. Troubleshooting PDS Problems - Activity Checklist (3 of 3)

Order	Role	Task	Section	Complete?
30	Distribution Technician	Respond to Low Disk Space	(P) 18.10.30	
31	Distribution Technician	Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports)	(P) 18.10.31	
32	Distribution Technician	Respond to PDSOI's Failure to Update Status	(P) 18.10.33	
33	Distribution Technician	View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands	(P) 18.10.33	
34	Distribution Technician	View a Job Log Using the PDS Job Monitor	(P) 18.10.34	
35	Distribution Technician	View a Job PPF Using the PDS Job Monitor	(P) 18.10.35	
36	Distribution Technician	View an Extended Error Message	(P) 18.10.36	

18.10.1 Troubleshoot a PDS Failure

1 If it is not possible to log in to the PDS Server or any other host, ask the Operations Controller/System Administrator to verify that the host is "up."

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06, n0dig06**.

2 If there is a general problem with the PDS GUIs (e.g., the PDS **Main OI Screen**, **PDSIS OI Main Screen**, **OI Detail Screen**, **Job Monitor Main Window**), refer to Table 18.10-2, General Problems.

3 If an error message or other problem associated with the **PDS Operator Interface (PDSOI)** is identified, refer to Table 18.10-3, PDS Operator Interface (PDSOI) Problems.

4 If an error message or other problem associated with the **Job Monitor** is identified, refer to Table 18.10-4, Job Monitor Problems.

5 If an error message or other problem associated with the **PDS Maintenance Module** is identified, refer to Table 18.10-5, PDS Maintenance Module Problems.

6 If an error message or other problem associated with the **PDSIS Operator Interface (PDSIS OI)** is identified, refer to Table 18.10-6, PDSIS Operator Interface (PDSIS OI) Problems.

7 If an error message or other problem associated with the **PDSIS Maintenance Module** is identified, refer to Table 18.10-7, PDSIS Maintenance Module Problems.

8 If some other type of problem is encountered, go to the appropriate procedure for identifying and/or correcting the problem as indicated in Table 18.10-1, Troubleshooting PDS Problems - Activity Checklist.

9 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 18.10-2. General Problems (1 of 2)

Symptom	Response
A selection has been made from an **Action List** window but the action is not invoked	**Single-click** on the **OK** button near the bottom of the **Action List** window to start the action or go to the appropriate screen.
Buttons are not visible at the bottom of the screen but they should be visible	1. **Move** the mouse to the outside edge of the form. (The cursor changes shape.) 2. **Single-click** and **hold** the mouse button and **move** the mouse to resize the screen until the buttons are visible.
Disk label needs to be reprinted	Perform the **Reprint a Label Stamped on a Disk** procedure (Section 18.10.17).
Jewel-case insert did not print	Perform the **Respond to a Jewel-Case Insert Printing Failure** procedure (Section 18.10.22).
Jewel-case insert needs to be reprinted	Perform the **Respond to a Jewel-Case Insert Printing Failure** procedure (Section 18.10.22).
Job needs to be reprocessed [e.g., product has stalled in the media production process or fails the media quality control (QC) check]	Perform the **Reprocess a Job** procedure (Section 18.10.19).
Lag report includes a job that is not displayed on the PDSOI	Perform the **Respond to a Job on a Lag Report** procedure (Section 18.10.24).
Media Drive Selection window does not appear in the workspace within a couple of minutes after a job/unit has been activated	Perform the **Respond to a "Waiting for Drive Selection" Message on the Job Monitor** procedure (Section 18.10.28).
No printouts	Perform the **Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports)** procedure (Section 18.10.31).
Not all text is showing in a text box or the box appears to be too small	1. **Single-click** in the text box. 2. **Move** the cursor using the arrow keys. [The text scrolls in the box and hidden text becomes visible.]
Packing list for a completed order (i.e., an order with a status of "C") needs to be reprinted	Set the action flag to "S" using the PDSIS Maintenance Module as described in the **Change the Values of Order Parameters Using the PDSIS Maintenance Module** procedure (Section 18.10.3).

Table 18.10-2. General Problems (2 of 2)

Symptom	Response
Rimage (CD or DVD) drive goes off line.	Verify that the blank media were placed in the Rimage input bins with the shiny side down.
Shipping label for a completed order (i.e., an order with a status of "C") needs to be reprinted	Set the action flag to "S" using the PDSIS Maintenance Module as described in the **Change the Values of Order Parameters Using the PDSIS Maintenance Module** procedure (Section 18.10.3).
Summary report is not printed but disk or tape is produced	Perform the **Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports)** procedure (Section 18.10.31).
Tape label needs to be reprinted	Perform the **Reprint PDS Documents and Labels** procedure (Section 18.10.18).
Units that were previously completed need to be reset/reactivated	Perform the **Reset/Reactivate Units** procedure (Section 18.10.20).

Table 18.10-3. PDS Operator Interface (PDSOI) Problems (1 of 3)

Symptom	Response
"Already activated" message is displayed in a purple box (error dialogue box).	1. **Single-click** on the **OK** button to dismiss the error window. 2. Perform the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2) to determine the value of the **OI ID** field in the PDS Maintenance Module **PDSINFO Jobs Table**. [The message indicates that the job was already started by another PDSOI with a different OI ID (machine_id/console_id).] 3. Start another PDSOI using the OI ID specified in the **PDSINFO Jobs Table**. [Refer to the **Start the PDS Operator Interface (PDSOI)** procedure (Section 18.6.2).] 4. Process the job using the PDSOI started using the OI ID specified in the **PDSINFO Jobs Table**. [Refer to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).]
"Cannot activate because the selected field in the PWT_PDS_WORK_TBL contains an incorrect value" message is displayed in a purple box (error dialogue box).	1. **Single-click** on the **OK** button to dismiss the error window. 2. Perform the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2) to set the value of the **Selected** field to **N** in the PDS Maintenance Module **PDSINFO Work Table**. [The message indicates that an attempt was made to activate the unit before and the **Selected** field in the PDS Maintenance Module **PDSINFO Work Table** did not get set correctly.]

Table 18.10-3. PDS Operator Interface (PDSOI) Problems (2 of 3)

Symptom	Response
"No job limit" message is displayed in a purple box (error dialogue box).	1. **Single-click** on the **OK** button to dismiss the error window. 2. Call the help desk and submit a trouble ticket in accordance with site Problem Management policy. [The PDS Maintenance Module **Machine Parameters Maintenance Form (PDSMTMPX)** is used to set the job limits for the particular **Product Code**.]
"No job" message is displayed in a purple box (error dialogue box).	1. **Single-click** on the **OK** button to dismiss the error window. 2. Record (make a note of) the job_key displayed in the purple box. 3. Perform the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2) to query the **PDSINFO Jobs Table** and the **PDSINFO Work Table** to determine whether there is a job with the specified job_key in the system. [If a unit was rejected after it was already in process, it is possible that the job no longer exists when the status file is written.] 4. If there is no such job currently in the system, **single-click** in or open a UNIX (terminal) window. 5. If there is no such job currently in the system, enter: **mv <filename>.status tmp.<filename>.status** then press the **Return/Enter** key. [<**filename>** represents the body of the file name for the status file for the job; it includes the PDSOI ID and the PPF_KEY. The status file must either be moved or removed (deleted) or no other status files can be processed. For example: **mv PDS1_drg_0110011130207_0001.status tmp.PDS1_drg_0110011130207_0001.status** An alternative: **rm PDS1_drg_0110011130207_0001.status**]
"No units were selected, no action taken" message is displayed in a purple box (error dialogue box).	1. **Single-click** on the **OK** button to dismiss the error window. 2. Perform Steps 6 through 9 (as applicable) of the **Use the OI Detail Screen** procedure (Section 18.8.4). [The message indicates that no units were selected from the **OI Detail Screen** for activation or completion before clicking on the corresponding **Activate** or **Complete** button.]
"Stopped" job is not identified as stopped on the **Main OI Screen**	Select **Display → Refresh** from the pull-down menu on the **Main OI Screen** to force querying of the database. [The stop does not appear until the next time the database is queried.]
"You must select at least one selection criteria" message is displayed in a purple box (error dialogue box).	1. **Single-click** on the **OK** button to dismiss the error window. 2. Perform Steps 5 through 12 of the **Start the PDS Operator Interface (PDSOI)** procedure (Section 18.6.2). [The message indicates that no selection criteria were selected from the **PDSOI Start-Up Selection Screen**.}

Table 18.10-3. PDS Operator Interface (PDSOI) Problems (3 of 3)

Symptom	Response
"You must select at least one sort criteria" [sic] message is displayed in a purple box (error dialogue box).	1. **Single-click** on the **OK** button to dismiss the error window. 2. Perform Steps 9 through 12 of the **Start the PDS Operator Interface (PDSOI)** procedure (Section 18.6.2). [The message indicates that no sorting criteria were selected from the **PDSOI Start-Up Selection Screen**.]
Duplicate jobs are displayed on the PDSOI	Perform the **Respond to Duplicate Jobs on the PDSOI** procedure (Section 18.10.29).
No status updates on PDSOI	Perform the **Respond to PDSOI's Failure to Update Status** procedure (Section 18.10.32).
Problem starting PDSOI	Perform the **Respond to a Problem Starting PDSOI** procedure (Section 18.10.26).
Red job status line associated with a CD or DVD job on the PDSOI (indicating an error condition)	Perform the **Respond to a CD/DVD Job Error Indicated on PDSOI** procedure (Section 18.10.21).
Screen (PDSOI) has locked up	Perform the **Respond to a Locked-Up Screen** procedure (Section 18.10.25).

Table 18.10-4. Job Monitor Problems (1 of 2)

Symptom	Response
CD or DVD job has produced optical media and is waiting needlessly (and AutoRimage is enabled)	Perform the **Force AutoRimage Completion** procedure (Section 18.10.16).
Disk space is low (as displayed on the **Job Monitor Main Window**)	Perform the **Respond to Low Disk Space** procedure (Section 18.10.30).
Log file needs to be checked for error messages	Perform either the **View a Job Log Using the PDS Job Monitor** procedure (Section 18.10.34) or the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure (Section 18.10.33).
PPF file needs to be checked for job-related data	Perform either the **View a Job PPF Using the PDS Job Monitor** procedure (Section 18.10.35) or the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure (Section 18.10.33).
"Waiting for Drive Selection" message is displayed	1. If the **Media Drive Selection** window is visible in the workspace, go to Step 6 of the **Activate a Job** procedure (Section 18.8.7). 2. If the **Media Drive Selection** window does not appear in the workspace within a couple of minutes, perform the **Respond to a "Waiting for Drive Selection" Message on the Job Monitor** procedure (Section 18.10.28).

Table 18.10-4. Job Monitor Problems (2 of 2)

Symptom	Response
"Waiting For *Rimage* Status" message is displayed for an excessive period of time	1. Wait a reasonable period of time for the message to disappear. [The wait may be lengthy depending on product size and/or system load.] 2. If the Rimage status is not provided (if the message does not disappear) within a reasonable period of time, go to the **Reprocess a Job** procedure (Section 18.10.19).

Table 18.10-5. PDS Maintenance Module Problems

Symptom	Response
Dialogue box is displayed inquiring as to whether changes should be saved before exiting a maintenance module window	Perform the **Respond to a Save Changes Dialogue Box When Exiting a Maintenance Module Window** procedure (Section 18.10.27).
No **Exit** button on a Maintenance Screen (**PDS Maintenance Module** or **PDSIS Maintenance Module**)	**Single-click** on the **Cancel Query** button. [The buttons change and the **Exit** button becomes visible.]
Output specification is unknown/needed	Perform the **Determine Output Specifications Using the PDS Maintenance Module** procedure (Section 18.10.10).
Product code is unknown/needed	Perform the **Determine Product Codes Using the PDS Maintenance Module** procedure (Section 18.10.12).
Units that were previously completed need to be reset/reactivated	Perform the **Reset/Reactivate Units** procedure (Section 18.10.20).
Value of a job parameter is missing, incorrect, or needs to be modified	Perform the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2).

Table 18.10-6. PDSIS Operator Interface (PDSIS OI) Problems

Symptom	Response
Red order status line on the **PDSIS OI Main Screen** (an error flag for the order is set at "Y" in the database)	Perform the **Check/Clear Errors on PDSIS** procedure (Section 18.10.4).

Table 18.10-7. PDSIS Maintenance Module Problems

Symptom	Response
Output specification is unknown/needed	Perform the **Determine Output Specifications Using the PDSIS Maintenance Module** procedure (Section 18.10.11).
Product code is unknown/needed	Perform the **Determine Product Codes Using the PDSIS Maintenance Module** procedure (Section 18.10.13).
Value of an order parameter is missing, incorrect, or needs to be modified	Perform the **Change the Values of Order Parameters Using the PDSIS Maintenance Module** procedure (Section 18.10.3).

18.10.2 Change the Values of Job Parameters Using the PDS Maintenance Module

The PDS Maintenance Module provides the Distribution Technician with a means of changing the values assigned to job parameters, especially the following types of parameters:

- Status of an order (job).
  - May be changed (for example) to "Pending" so the job will rerun (e.g., if there was a problem with the previous run of the job).
- Media type assigned to an order (job) or unit within an order.
  - Typically changed in response to a request from the user that has been forwarded by User Services.
- Output specification assigned to change the output specifications for a unit.
  - Typically have to be changed if the media type is changed.
- Number of copies in an order (job).
  - May be changed in response to a request from the user that has been forwarded by User Services.
  - Usually involves in-house orders.
- Directory path for pulling data for an order (job).
  - May be necessary if (for example) a problem occurs with the disk on which the normal directory resides.
- E-Mail address for ftp notification of order (job) completion.
  - Typically changed in response to a request from the user that has been forwarded by User Services.

In order to maintain consistency between PDSIS packing lists and PDSSA media generation, changes to the values assigned to order/job parameters may need to be made using both the PDSIS and PDSSA maintenance modules.

- Changes that affect both PDSIS and PDSSA should be made in PDSIS first, then PDSSA.

- Some changes affect PDSIS only.
  - For example, PDSSA does not contain customer shipping address information, so no shipping-address changes are necessary in PDSSA.
  - No changes are needed in PDSSA if order processing in PDSIS has not made any data for an order available to PDSSA yet.

The PDS **Maintenance Module Main Menu** has the following buttons available for selection:

- Lookups.
- Product Code Descriptions.
- Product Media Descriptions.
- Status Code Descriptions.
- Printers.
- PPF Definitions.
- Jewel Cases.
- Machine Parameter/Job Limits.
- PDSINFO Jobs Table.
- PDSINFO Work Table.
- Query Only PDSINFO.
- Mass Update PDSINFO.
- Restage a Job.
- Exit.

Along the top of the PDS **Maintenance Module Main Menu** are the following features:

- Name of the Oracle Form (e.g., PDSMNMSM).
- Current version of the PDS in use (e.g., 2.3).
- Database instance that is being running against (e.g., PRODUCTION).
- Current date (e.g., 2000/01/19).

At the bottom of the PDS **Maintenance Module Main Menu** are the following features:

- The **status line** displays information about the form (e.g., “Record: 1/1” and “INSERT").
- The **message line** (just above the **status line**) displays informational messages and error messages pertinent to what is happening on the form (e.g., "Working…").
  - Messages are displayed on the screen as long as they are pertinent.

CAUTION

Before changing product media type, number of copies, or customer's e-mail address it is advisable to have in hand written authorization to do so.

Table 18.10-8 presents (in a condensed format) the steps required to change the values of job parameters using the PDS Maintenance Module. If you are already familiar with the procedures,

you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: In order to maintain consistency between PDSIS packing lists and PDSSA media generation, changes to the values assigned to order/job parameters may need to be made using both the PDSIS and PDSSA maintenance modules. Changes that affect both PDSIS and PDSSA should be made in PDSIS first, then PDSSA. However, there are changes that affect PDSIS only. For example, PDSSA does not contain customer shipping address information, so no shipping-address changes are necessary in PDSSA. Furthermore, no changes are needed in PDSSA if order processing in PDSIS has not made any data for an order available to PDSSA yet.

1 Perform the **Start the PDS Maintenance Module** procedure (Section 18.6.7).
- The **PDS Maintenance Module Main Menu** is displayed.

NOTE: If parameter values (except Input Directory or Email Address) are to be changed for a job or all units within a job, continue with Step 2. If parameters are to be changed for specific units only associated with a job, go to Step 12. Output Specs, Input Directory, or Email Address parameter values can be changed on the **PDSINFO Work Table** only (go to Step 12).

2 **Single-click** on the **PDSINFO Jobs Table** button on the PDS **Maintenance Module Main Menu**.
- The **PDSINFO Jobs Table Maintenance Form (PDSMTPJT)** or **PDSINFO Jobs Table** is displayed.

3 **Single-click** and **drag** (to highlight the text) in the **Job Key** field for the appropriate job on the **Main OI Screen**.
- **Job Key** text is highlighted on the **Main OI Screen**.

4 **Single-click** in the **Job Key** field on the **PDSINFO Jobs Table** with the **center** mouse button.
- **Job Key** is pasted in the **Job Key** field on the **PDSINFO Jobs Table**.

5 **Single-click** on the **Execute Query** button near the bottom of the **PDSINFO Jobs Table**.
- The database is queried for data concerning the job represented by the **Job Key** and the relevant data are displayed on the **PDSINFO Jobs Table**.

6 In the appropriate field of the **PDSINFO Jobs Table** enter:

<value>

- Clicking on the **List** button on the **PDSINFO Jobs Table** causes a list of valid values for the field to be displayed in a dialogue box if the value of certain parameters is being changed.
- Lists are available for at least the following parameters:
  - **Status.**
  - **Product Media.**
- Valid **Status** values for the **PDSINFO Jobs Table** are as follows:
  - **Q** - Pending.
  - **I** - Active.
  - **IP** - Active Partial.
  - **F** - QC-Hold.
  - **FP** - QC-Hold Partial.
  - **G** - Error.
  - **GP** - Error Partial.
  - **C** - Completed.
- Valid **Product Media** values for the **PDSINFO Jobs Table** are as follows:
  - **CD** - compact disk.
  - **8H** - 8-mm tape.
  - **D7** - DLT.
  - **DVD** - DVD.
  - **FT** - ftp.
- Valid **Copies** value is the desired number of copies of the unit.

7 Repeat Step 6 to modify values in other fields of the **PDSINFO Jobs Table**.

8 **Single-click** on the **Save** button on the **PDSINFO Jobs Table**.

- The record is saved in the database with the new value entered in the appropriate field.
- It is recommended that each record be saved immediately after it is changed (before making changes to another record).

9 **Single-click** on the **Exit** button at the bottom of the **PDSINFO Jobs Table**.

- If the **Exit** button is not visible on the form, **single-click** on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the PDS **Maintenance Module Main Menu** is displayed.

10 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:

- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.

11 **Single-click** on the **PDSINFO Work Table** button on the PDS **Maintenance Module Main Menu**.

- The **PDSINFO Table Maintenance Form (PDSMTPDT)** or **PDSINFO Work Table** is displayed.

12 **Single-click** and **drag** (to highlight the text) in the **Job Key** field for the appropriate job on the **Main OI Screen**.

- **Job Key** text is highlighted on the **Main OI Screen**.

13 **Single-click** in the **Job Key** field on the **PDSINFO Work Table** with the **center** mouse button.

- **Job Key** is pasted in the **Job Key** field on the **PDSINFO Work Table**.

14 **Single-click** on the **Execute Query** button near the bottom of the **PDSINFO Work Table**.

- The database is queried for data concerning the job represented by the **Job Key** and the relevant data are displayed on the **PDSINFO Work Table**.

15 If the values of any of the following parameters were changed in the **PDSINFO Jobs Table** (Steps 2 through 10), determine whether the values have changed in the **PDSINFO Work Table**:

- **Status.**
- **Product Media.**
- **Copies.**

16 If the values of any of the preceding parameters were changed in the **PDSINFO Jobs Table** and the changed values are not displayed in the **PDSINFO Work Table**, continue with Step 17; otherwise, go to Step 23.

17 If the data displayed on the **PDSINFO Work Table** do not refer to the appropriate record, **single-click** on the next/previous record buttons (**>** **>>** **<** **<<**) near the bottom of the form as necessary to display the appropriate record.

- The current record is listed in the **Unit Nbr** field.

18 In the appropriate field of the **PDSINFO Work Table** enter:

<value>

- Clicking on the **List** button on the **PDSINFO Work Table** causes a list of valid values for the field to be displayed in a dialogue box if the value of certain parameters is being changed.
- Lists are available for at least the following parameters:
  - **Status.**
  - **Product Media.**
- Valid **Status** values for the **PDSINFO Work Table** are as follows:
  - **Q** - Pending.
  - **I** - Active.
  - **F** - QC-Hold.
  - **G** - Error.
  - **C** - Completed.
- Valid **Output Specifications** for a particular media type can be determined by performing the **Determine Output Specifications Using the PDS Maintenance Module** procedure (Section 18.10.10); however, representative **Output Specs** values are as follows:
  - **CDRMS** - compact disk.
  - **8MHAU** - 8-mm tape.
  - **DLUCS** - DLT.
  - **DVD** - DVD.
  - **FTP** - ftp.
- Valid **Product Media** values for the **PDSINFO Work Table** are as follows:
  - **CD** - compact disk.
  - **8H** - 8-mm tape.
  - **D7** - DLT.
  - **DVD** - DVD.
  - **FT** - ftp.
- Valid **Copies** value is the number of copies of the unit desired by the requester.
- Valid **Input Directory** value is the correct directory path for pulling data for the order (job).
- Valid **Email Address** value is the correct e-mail address for ftp notification of order (job) completion.

19 Repeat Step 18 to modify values in other fields of the **PDSINFO Work Table**.

20 **Single-click** on the **Save** button on the **PDSINFO Work Table**.
- The record is saved in the database with the new value entered in the appropriate field.
- It is recommended that each record be saved immediately after it is changed (before making changes to another record).

21 Repeat Steps 17 through 20 for all additional records that need to be modified for the job.

22 **Single-click** on the **Exit** button at the bottom of the **PDSINFO Work Table**.
- If the **Exit** button is not visible on the form, **single-click** on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the PDS **Maintenance Module Main Menu** is displayed.

23 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:
- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.

24 **Single-click** on the **Exit** button at the bottom of the PDS **Maintenance Module Main Menu** window.
- The PDS **Maintenance Module Main Menu** is dismissed.
- The PDS maintenance module has been shut down.

25 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1) or the **Reprocess a Job** procedure (Section 18.10.19) as applicable.

Table 18.10-8. Change the Values of Job Parameters Using the PDS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDS Maintenance Module	Use procedure in Section 18.6.7
2	**PDSINFO Jobs Table** button	**single-click**
3	Copy **<Job Key>** (in the **Job Key** field on the **Main OI Screen**)	**single-click** and **drag**
4	Paste **<Job Key>** (in the **Job Key** field on the **PDSINFO Jobs Table**)	**center-click**
5	**Execute Query** button	**single-click**
6	**<value>** (in appropriate field of the **PDSINFO Jobs Table**)	**enter text**
7	Repeat the preceding step to modify values in other fields (if applicable)	
8	**Save** button	**single-click**
9	**Exit** button	**single-click**
10	**Yes** button (if applicable)	**single-click**
11	**PDSINFO Work Table** button	**single-click**
12	Copy **<Job Key>** (in the **Job Key** field on the **Main OI Screen**)	**single-click** and **drag**
13	Paste **<Job Key>** (in the **Job Key** field on the **PDSINFO Work Table**)	**center-click**
14	**Execute Query** button	**single-click**
15	Determine whether the values changed in the **PDSINFO Jobs Table** have changed in the **PDSINFO Work Table**	**read text**
16	next/previous record buttons (**> >> < <<**) as necessary to display additional records (if applicable)	**single-click**
17	**<value>** (in appropriate field of the **PDSINFO Work Table**) (if applicable)	**enter text**
18	Repeat the preceding step to modify values in other fields of the **PDSINFO Work Table**	
19	**Save** button (if applicable)	**single-click**
20	Repeat Steps 16 through 19 for all additional records that need to be modified for the job (if applicable)	
21	**Exit** button	**single-click**
22	**Yes** button (if applicable)	**single-click**
23	**Exit** button	**single-click**
24	Return to the **Monitor/Control Product Processing Using PDS** procedure or the **Reprocess a Job** procedure as applicable	Use procedure in Section 18.8.1 or 18.10.19 as applicable

18.10.3 Change the Values of Order Parameters Using the PDSIS Maintenance Module

The PDSIS Maintenance Module provides the Distribution Technician with a means of changing the values assigned to order parameters, especially the following types of parameters:

- Status of an order or unit.
  - May be changed (for example) to "ODL Order Received" so the order processing will restart (e.g., if the order is hung up in PDSIS).
- Action to be sent to an order or unit.
  - Used for stimulating the order or unit to perform functions consistent with the current status.
- Error flag for an order or unit.
  - Reset the error flag for the order/unit.
- Output specification for a unit.
  - Must be changed if a different media type is requested.
- Number of copies of a unit.
  - May be changed in response to a request from the user that has been forwarded by User Services.
  - Usually involves in-house orders.
- Directory (location) for PDSSA to pull data for a unit.
  - May be necessary if (for example) a problem occurs with the disk on which the normal directory resides.
- E-Mail address for ftp notification of order completion.
  - Typically changed in response to a request from the user that has been forwarded by User Services.

In addition the PDSIS Maintenance Module provides the Distribution Technician with a means of determining the values assigned to various output specifications.

In order to maintain consistency between PDSIS packing lists and PDSSA media generation, changes to the values assigned to order/job parameters may need to be made using both the PDSIS and PDSSA maintenance modules.

- Changes that affect both PDSIS and PDSSA should be made in PDSIS first, then PDSSA.
- Some changes affect PDSIS only.
  - For example, PDSSA does not contain customer shipping address information, so no shipping-address changes are necessary in PDSSA.
  - No changes are needed in PDSSA if order processing in PDSIS has not made any data for an order available to PDSSA yet.

The **PDSIS Maintenance Module Main Menu** has the following buttons available for selection:

- PDSIS Orders.
- PDSIS Units.
- PDSIS Address.

- Server Config.
- ODL Lookup.
- Outspec Info.
- Prod Code Info.
- Lookups.
- Exit.

Along the top of the **PDSIS Maintenance Module Main Menu** are the following features:

- Name of the Oracle Form (e.g., PDSISMTMNU).
- Current version of the PDS in use (e.g., 1.0).
- "PDSIS".
- Current date (e.g., 03-APR-2001).

At the bottom of the **PDSIS Maintenance Module Main Menu** are the following features:

- The **status line** displays information about the form (e.g., “Record: 1/1” and “INSERT").
- The **message line** (just above the **status line**) displays informational messages and error messages pertinent to what is happening on the form (e.g., "Working…").
  - Messages are displayed on the screen as long as they are pertinent.

CAUTION

Before changing output specs or number of copies it is advisable to have in hand written authorization to do so.

Table 18.10-9 presents (in a condensed format) the steps required to change the values of order parameters using the PDSIS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: In order to maintain consistency between PDSIS packing lists and PDSSA media generation, changes to the values assigned to order/job parameters may need to be made using both the PDSIS and PDSSA maintenance modules. Changes that affect both PDSIS and PDSSA should be made in PDSIS first, then PDSSA. However, there are changes that affect PDSIS only. For example, PDSSA does not contain customer shipping address information, so no shipping-address changes are necessary in PDSSA. Furthermore, no changes are needed in PDSSA if order processing in PDSIS has not made any data for an order available to PDSSA yet.

1 Perform the **Start the PDSIS Maintenance Module** procedure (Section 18.6.8).

- The **PDSIS Maintenance Module Main Menu** is displayed.

NOTE: If parameter values (except Output Specs) are to be changed for an order or all units within an order, continue with Step 2. If parameters are to be changed for specific units only associated with an order, go to Step 10. Output Specs or Directory parameter values can be changed on the **PDSIS Units Maintenance Form** only (go to Step 10). E-mail address parameter values can be changed on the **PDSIS Address Maintenance Form** only (go to Step 22).

2 **Single-click** on the **PDSIS Orders** button on the **PDSIS Maintenance Module Main Menu**.

- The **PDSIS Orders Maintenance Form (PDSISMTPOT)** is displayed.

3 **Single-click** and **drag** (to highlight the text) in the **Order Nbr** field for the appropriate order on the **PDSIS OI Main Screen**.

- **Order Nbr** text is highlighted on the **PDSIS OI Main Screen**.

4 **Single-click** in the **Order Nbr** field on the **PDSIS Orders Maintenance Form** with the **center** mouse button.

- **Order Nbr** is pasted in the **Order Nbr** field on the **PDSIS Orders Maintenance Form**.

5 **Single-click** on the **Execute Query** button near the bottom of the **PDSIS Orders Maintenance Form**.

- The database is queried for data concerning the order represented by the **Order Nbr** and the relevant data are displayed on the **PDSIS Orders Maintenance Form**.

6 In the appropriate field of the **PDSIS Orders Maintenance Form** enter:

<value>

- Valid **Status** field values for the **PDSIS Orders Maintenance Form** are as follows:
  - **O** - ODL Order Received (initial status in PDSIS).
  - **I** - In Progress.
  - **C** - Completed.
  - **S** - Shipped.
  - **X** - Rejected.
- Valid **Action** field values for the **PDSIS Orders Maintenance Form** are as follows:
  - **A** - activate (activate entire order).
  - **S** - print shipping labels and packing lists.

  - **M** - mail the distribution notice to the customer (unless dorran is listed in the Special Action field of the PDSIS Orders Maintenance Form, in which case the DORRAN billing and accounting system (EDC only) is notified of the order status).
  - **D** - delete all order data in all tables associated with the specified order.
  - **X** - reject (reject the entire order).
- Valid **Error Flag** field values for the **PDSIS Orders Maintenance Form** are as follows:
  - **Y** - Yes, an error condition exists.
  - **N** - No error condition exists.

7 **Single-click** on the **Save** button on the **PDSIS Orders Maintenance Form**.
- The record is saved in the database with the new value entered in the appropriate field.
- It is recommended that each record be saved immediately after it is changed (before making changes to another record).

8 **Single-click** on the **Exit** button at the bottom of the **PDSIS Orders Maintenance Form**.
- If the **Exit** button is not visible on the form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the **PDSIS Maintenance Module Main Menu** is displayed.

9 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:
- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.

10 **Single-click** on the **PDSIS Units** button on the **PDSIS Maintenance Module Main Menu**.
- The **PDSIS Units Maintenance Form (PDSISMTPUT)** is displayed.

11 **Single-click** and **drag** (to highlight the text) in the **Order Nbr** field for the appropriate order on the **PDSIS OI Main Screen**.

- **Order Nbr** text is highlighted on the **PDSIS OI Main Screen**.

12 **Single-click** in the **Order Nbr** field on the **PDSIS Units Maintenance Form** with the **center** mouse button.

- **Order Nbr** is pasted in the **Order Nbr** field on the **PDSIS Units Maintenance Form**.

13 **Single-click** on the **Execute Query** button near the bottom of the **PDSIS Units Maintenance Form**.

- The database is queried for data concerning the order represented by the **Order Nbr** and the relevant data are displayed on the **PDSIS Units Maintenance Form**.

14 If the values of any of the following parameters were changed in the **PDSIS Orders Maintenance Form** (Steps 2 through 9), determine whether the values have changed in the **PDSIS Units Maintenance Form**:

- **Status.**
- **Action.**
- **Error Flag.**

15 If the values of any of the preceding parameters were changed in the **PDSIS Orders Maintenance Form** and the changed values are not displayed in the **PDSIS Units Maintenance Form**, continue with Step 16; otherwise, go to Step 20.

16 If the data displayed on the **PDSIS Units Maintenance Form** do not refer to the appropriate record **single-click** on the next/previous record buttons (**>** **>>** **<** **<<**) near the bottom of the form as necessary to display additional records (units) for the order.

- The current record is listed in the **Unit Nbr** field.

17 In the appropriate field of the **PDSIS Units Maintenance Form** enter:

<value>

- Valid **Status** values for the **PDSIS Units Maintenance Form** are as follows:
  - **O** - ODL Order Received (initial status in PDSIS).
  - **D** - ECS Data Requested.
  - **R** - ECS Data Received.
  - **P** - PDS Products Requested.
  - **C** - PDS Completed.
  - **S** - Shipped.
  - **X** - Rejected.

- Valid **Action** values for the **PDSIS Units Maintenance Form** are as follows:
  - **A** - activate (activate the unit).
  - **E** - request ECS data.
  - **P** - request PDS data.
  - **C** - clean/delete the directory associated with the unit.
  - **X** - reject (reject the unit).
- Valid **Error Flag** values for the **PDSIS Units Maintenance Form** are as follows:
  - **Y** - Yes, an error condition exists.
  - **N** - No error condition exists.
- Valid **Output Specs** for a particular media type can be determined by performing the **Determine Output Specifications Using the PDSIS Maintenance Module** procedure (Section 18.10.11); however, representative **Output Specs** values are as follows:
  - **CDRMS** - compact disk.
  - **8MHAU** - 8-mm tape.
  - **DLUCS** - DLT.
  - **DVD** - DVD.
  - **FTP** - ftp.
- Valid **Copies** value is the desired number of copies of the unit.
- Valid **Directory** where the data are staged.

18 **Single-click** on the **Save** button on the **PDSIS Units Maintenance Form**.
- The record is saved in the database with the new value entered in the appropriate field.
- It is recommended that each record be saved immediately after it is changed (before making changes to another record).

19 Repeat Steps 16 through 18 for all additional records that need to be modified for the order.

20 **Single-click** on the **Exit** button at the bottom of the **PDSIS Units Maintenance Form**.
- If the **Exit** button is not visible on the form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the **PDSIS Maintenance Module Main Menu** is displayed.

21 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:

- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.

22 **Single-click** on the **PDSIS Address** button on the **PDSIS Maintenance Module Main Menu**.

- The **PDSIS Address Maintenance Form (PDSISMTADD)** is displayed.

23 **Single-click** and **drag** (to highlight the text) in the **Order Nbr** field for the appropriate order on the **PDSIS OI Main Screen**.

- **Order Nbr** text is highlighted on the **PDSIS OI Main Screen**.

24 **Single-click** in the **Order Nbr** field on the **Address Maintenance Form** with the **center** mouse button.

- **Order Nbr** is pasted in the **Order Nbr** field on the **Address Maintenance Form**.

25 **Single-click** on the **Execute Query** button near the bottom of the **PDSIS Address Maintenance Form**.

- The database is queried for data concerning the order represented by the **Order Nbr** and the relevant data are displayed on the **PDSIS Address Maintenance Form**.

26 If the data displayed on the **PDSIS Address Maintenance Form** do not refer to the appropriate record (e.g., as indicated in the **Address Type** field) **single-click** on the next/previous record buttons (**>** **>>** **<** **<<**) near the bottom of the form as necessary to display the appropriate record.

- The following codes specify the **Address Type**:
  - **C** -contact.
  - **B** - billing.
  - **S** - shipping.

27 In the **Email** field of the **PDSIS Address Maintenance Form** enter:

<e-mail address>

28 **Single-click** on the **Save** button on the **PDSIS Address Maintenance Form**.

- The record is saved in the database with the new value entered in the appropriate field.
- It is recommended that each record be saved immediately after it is changed (before making changes to another record).

29 Repeat Steps 26 through 28 for all additional records that need to be modified for the order.

30 **Single-click** on the **Exit** button at the bottom of the **PDSIS Address Maintenance Form**.

- If the **Exit** button is not visible on the form, **single-click** on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the **PDSIS Maintenance Module Main Menu** is displayed.

31 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:

- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The **PDSIS Maintenance Module Main Menu** is displayed.

32 To shut down the **PDSIS Maintenance Module single-click** on the **Exit** button at the bottom of the **PDSIS Maintenance Module Main Menu** window.

- The **PDSIS Maintenance Module Main Menu** is dismissed.

33 Return to the **Monitor/Control Order Processing Using the PDSIS OI** procedure (Section 18.9.1).

Table 18.10-9. Change the Values of Order Parameters Using the PDSIS Maintenance Module - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Start the PDSIS Maintenance Module	Use procedure in Section 18.6.8
2	**PDSIS Orders** button	**single-click**
3	Copy **<Order Nbr>** (in the **Order Nbr** field on the **PDSIS OI Main Screen**)	**single-click** and **drag**
4	Paste **<Order Nbr>** (in the **Order Nbr** field on the **PDSIS Orders Maintenance Form**)	**center-click**
5	**Execute Query** button	**single-click**
6	**<value>** (in appropriate field of the **PDSIS Orders Maintenance Form**)	**enter text**
7	**Save** button	**single-click**
8	**Exit** button	**single-click**
9	**Yes** button (if applicable)	**single-click**
10	**PDSIS Units** button	**single-click**
11	Copy **<Order Nbr>** (in the **Order Nbr** field on the **PDSIS OI Main Screen**)	**single-click** and **drag**
12	Paste **<Order Nbr>** (in the **Order Nbr** field on the **PDSIS Units Maintenance Form**)	**center-click**
13	**Execute Query** button	**single-click**
14	Determine whether the values changed in the **PDSIS Orders Maintenance Form** have changed in the **PDSIS Units Maintenance Form**	**read text**
15	next/previous record buttons (**> >> < <<**) as necessary to display additional records (if applicable)	**single-click**
16	**<value>** (in appropriate field of the **PDSIS Units Maintenance Form**) (if applicable)	**enter text**
17	**Save** button (if applicable)	**single-click**
18	Repeat Steps 15 through 17 for all additional records that need to be modified for the order (if applicable)	
19	**Exit** button	**single-click**
20	**Yes** button (if applicable)	**single-click**
21	**PDSIS Address** button	**single-click**
22	Copy **<Order Nbr>** (in the **Order Nbr** field on the **PDSIS OI Main Screen**)	**single-click** and **drag**
23	Paste **<Order Nbr>** (in the **Order Nbr** field on the **PDSIS Address Maintenance Form**)	**center-click**
24	**Execute Query** button	**single-click**

Table 18.10-9. Change the Values of Order Parameters Using the PDSIS Maintenance Module - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
25	next/previous record buttons (**> >> < <<**) as necessary to display additional records (if applicable)	**single-click**
26	**<e-mail address>** (in **Email** field of the **PDSIS Address Maintenance Form**)	**enter text**
27	**Save** button (if applicable)	**single-click**
28	Repeat Steps 25 through 27 for all additional records that need to be modified for the order (if applicable)	
29	**Exit** button	**single-click**
30	**Yes** button (if applicable)	**single-click**
31	**Exit** button	**single-click**
32	Return to the **Monitor/Control Order Processing Using the PDSIS OI** procedure	Use procedure in Section 18.9.1

18.10.4 Check/Clear Errors on PDSIS

The procedure to **Check/Clear Errors on PDSIS** is performed as part of either the **Monitor/Control Order Processing Using the PDSIS OI** procedure (Section 18.9.1) or the **Use the PDSIS OI Detail Screen** procedure (Section 18.9.2). Both the **PDSIS OI Main Screen** and the **PDSIS OI Detail Screen** provide the Distribution Technician with means of checking and/or clearing errors associated with PDS orders.

Table 18.10-10 presents (in a condensed format) the steps required to check/clear errors on PDSIS. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the action button at the beginning of the relevant order status line or unit line (on the **PDSIS OI Main Screen** or **PDSIS OI Detail Screen** as applicable).
- The **Action List** box is displayed.

2 **Single-click** on **Errors** in the **Action List** box.
- **Errors** is highlighted.

3 **Single-click** on the appropriate button from the following selections:
- **OK** - to display the **PDSIS OI Error Screen**.
  - The **PDSIS OI Error Screen** is displayed.

- **Cancel** - to dismiss the **Action List** box and return to the screen that was displayed before the action button was selected.
  - Either the **PDSIS OI Main Screen** or the **PDSIS OI Detail Screen** (as applicable) is displayed.

4 Observe information displayed on the **PDSIS OI Error Screen**.

- The following items are displayed on the **PDSIS OI Error Screen**:
  - Action Button [not labeled].
  - **Date/Time.**
  - **Order Number.**
  - **Unit Number.**
  - **Error Source.**
  - **Error Message.**
- If the entire entry is not visible in a field, **single-click** in the field and use the arrow keys on the keyboard to scroll to the end of the entry.

5 If it is desirable to see an extended error message associated with a particular unit, perform the **View an Extended Error Message** procedure (Section 18.10.36).

6 If it is desirable to clear an error displayed on the **PDSIS OI Error Screen**, perform the **Clear an Error Displayed on the PDSIS OI Error Screen** procedure (Section 18.10.9).

7 Repeat Steps 4 through 6 as necessary.

8 **Single-click** on the **Return** button to return to the procedure being performed before the action button was selected.

- Either **Monitor/Control Order Processing Using the PDSIS OI** (Section 18.9.1) or **Use the PDSIS OI Detail Screen** (Section 18.9.2) (as applicable).
- The **PDSIS OI Error Screen** is dismissed.
- Either the **PDSIS OI Main Screen** or the **PDSIS OI Detail Screen** is displayed (as applicable).

Table 18.10-10. Check/Clear Errors on PDSIS - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Action button (on **PDSIS OI Main Screen** or **PDSIS OI Detail Screen** as applicable)	**single-click**
2	**Errors**	**single-click**
3	**OK** button	**single-click**
4	Review error information displayed on the **PDSIS OI Error Screen**	**read text**
5	View an extended error message (if applicable)	Use procedure in Section 18.10.36

Table 18.10-10. Check/Clear Errors on PDSIS - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
6	Clear an error (if applicable)	Use procedure in Section 18.10.9
7	Repeat Steps 4 through 6 as necessary	
8	**Return** button	**single-click**
9	Either monitor/control order processing using the PDSIS OI or use the PDSIS OI Detail Screen (as applicable)	Use procedure in Section 18.9.1 or 18.9.2 (as applicable)

18.10.5 Check PDSSA or PDSIS Log Files

PDSIS maintains the following kinds of daily logs for PDSIS troubleshooting purposes:

- Error log.
  - May give slightly more information on the nature of a problem than the PDSIS Error screen.
  - Provides a history of daily problems.
- Debug log.
  - Provides a record of all pertinent server information as the cron runs every five minutes.
  - Nominal/successful processing is logged in the debug log file; consequently, debug logs can grow large.
  - Problems may be logged below the level of a declared error in the debug log file. (May provide the operator with indications as to the health of the PDSIS server:)

PDSSA maintains the following kinds of logs:

- Operator Interface log (oilog).
  - Describes the events that occur with respect to the jobs that are being processed through the operator interface (PDSOI).
  - Among the entries in the Operator Interface log are items related to the activation of jobs, eventual status of jobs processed by the production modules (as reported in job status files), and errors detected by the operator interface.
- Job log.
  - Describes the events that occur during the processing of an individual job.
  - Procedures available for checking a job log include the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure (Section 18.10.33) and the **View a Job Log Using the PDS Job Monitor** procedure (Section 18.10.34).

Table 18.10-11 presents (in a condensed format) the steps required to check PDSSA or PDSIS log files. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).
- PDS Server host has the following PDSSA log files:
  - Operator Interface log (e.g., DIG06_ops_05022002102727.oilog).
  - Job log (e.g., YEA0203190048_0001.log).
- PDS Server host has the following PDSIS log files:
  - Debug log (e.g., debug.log).
  - Error log (e.g., error.log).

2 At the UNIX command line prompt enter:

cd <path>

- Change directory to the directory containing the PDSSA or PDSIS log files.
- **<path>** represents the full directory path to the directory containing the log files.
- **/usr/local/pds_<mode>/summary** is the typical directory path for PDSSA logs (i.e., Operator Interface logs and job logs).
- **/usr/local/pdsis_<mode>/logs/debug** is the typical directory path for PDSIS debug logs.
- The **pdsis_<mode>** refers to one of the following subdirectories:
  - pdsis (for OPS-mode operations).
  - pdsis_ts1 (for TS1-mode operations).
  - pdsis_ts2 (for TS2-mode operations).
- **/usr/local/pdsis_*mode*/logs/errors** is the typical directory path for PDSIS error logs.

3 At the UNIX command line prompt enter:

pg <file name>

- **<file name>** refers to the PDSSA or PDSIS log file to be reviewed (e.g., DIG06_ops_05022002102727.oilog, YEA0203190048_0001.log, error log, debug.log).
- 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:

- PDSIS- or PDSSA-related problems.
  - Perform the appropriate procedure(s) from the list near the beginning of the Troubleshooting PDS Problems section (Table 18.10-1).

- 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.

Table 18.10-11. Check PDSSA or PDSIS Log Files - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd <path>**	**enter text, press Enter**
3	**pg <file name>**	**enter text, press Enter**
4	Identify problems indicated in the log file	**read text**
5	Respond to problems as necessary	Use applicable procedure(s)

18.10.6 Check/Restore Synchronization of the Rimage PC Time with PDS System Time

The time on the Rimage PC must be set to within five (5) minutes of the time on the PDS Server host (e.g., x0dig06). If the time is not properly synchronized, CD and DVD jobs cannot proceed to a QC-Hold status.

Table 18.10-12 presents (in a condensed format) the steps required to check/restore synchronization of the Rimage PC time with PDS system time. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt on the PDS Server host enter:

date

- The date and time (as known to the PDS Server host) are displayed as follows:

  Thu Jun 20 15:42:15 EDT 2002

- If the date or time values shown on the PDS Server host appear to be incorrect, notify the System Administrator.

3 On the Rimage PC **double-click** on the time displayed on the Windows task bar.

- A **Date/Time Properties** window is displayed.
- The current date and time (as known to the Rimage PC) are displayed.
- An alternative method of displaying the **Date/Time Properties** window is to select **Start → Settings → Control Panel** from the Windows task bar, then **double-click** on the **Date/Time** icon.

4 If the date and time displayed on the Rimage PC are the same as those displayed on the PDS Server host, **single-click** on the **Cancel** button in the **Date/Time Properties** window on the Rimage PC.

- End of procedure.

NOTE: If the date or time zone displayed on the Rimage PC is not the same as that displayed on the PDS Server host, change the date/time zone on the Rimage PC before changing the time. No specific steps for doing so are provided in this procedure because they are not likely to be needed.

5 If the time displayed on the Rimage PC is not the same as that displayed on the PDS Server host, on the Rimage PC (in the **Date/Time Properties** window) enter:

<hour/minute/second>

- **<hour/minute/second>** represent the correct value(s) (as displayed on the PDS Server host) for the hour, minute and/or second in the digital time display.
- The clock stops when a new time value is entered.
- The new time values are displayed but not applied yet.

6 If the time displayed on the Rimage PC was not the same as that displayed on the PDS Server host, on the Rimage PC (in the **Date/Time Properties** window) **single-click** on the appropriate button from the following selections:

- **OK** - to restart the Rimage PC clock with the new time values and dismiss the **Date/Time Properties** window.
  - Rimage PC time is reset.
  - The **Date/Time Properties** window is dismissed.

- **Cancel** - to restart the Rimage PC clock with the old time values and dismiss the **Date/Time Properties** window.
  - Rimage PC time is not reset.
  - The **Date/Time Properties** window is dismissed.
- **Apply** - to restart the Rimage PC clock with the new time values without dismissing the **Date/Time Properties** window.
  - Rimage PC time is reset.
  - The **Date/Time Properties** window is still displayed.

7 Return to the procedure that recommended checking/restoring synchronization of the Rimage PC time with PDS system time.

- For example, the **Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports)** procedure (Section 18.10.31).

Table 18.10-12. Check/Restore Synchronization of the Rimage PC Time with PDS System Time - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**date**	**enter text, press Enter**
3	**<time>** (on Windows task bar of Rimage PC)	**double-click**
4	**Cancel** button (in **Date/Time Properties** window on Rimage PC) (if applicable)	**single-click**
5	**<hour/minute/second>** (in **Date/Time Properties** window on Rimage PC) (as necessary)	**single-click**
6	**OK** button (in **Date/Time Properties** window on Rimage PC)	**single-click**
7	Return to the procedure that recommended checking/restoring synchronization of the Rimage PC time with PDS system time	

18.10.7 Check/Restore the Rimage PC NFS Connection

A Network File System (NFS) mount is needed in order for the Rimage software to see the job control directory (e.g., /pdssa/rimage_jobcontrol) on the PDS system. When the Windows NT system for the Rimage PC is set up, the PDS job control directory is typically assigned to the PC's Z: drive.

Table 18.10-13 presents (in a condensed format) the steps required to check/restore the Rimage PC NFS connection. If you are already familiar with the procedures, you may prefer to use the

quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 On the Rimage PC select **Start → Programs → Windows NT Explorer** from the Windows task bar.
- An **Exploring – [C:]** window is displayed.

2 In the left (**All Folders**) frame, scroll down to determine whether there is a network drive Z: to which rimage_jobcontrol is assigned.
- If no drive associated with the rimage_jobcontrol directory, there is a problem with the NFS connection.
  - Go to Step 5.

3 If there is a network drive Z: to which rimage_jobcontrol is assigned, **single-click** on the icon for the drive.
- Folders (subdirectories) and files in the rimage_jobcontrol directory should be displayed in the right (**Contents of…**) frame of the **Exploring – [C:]** window.
- If no folders (subdirectories) or files are displayed in the **Exploring – [C:]** window, there is a problem with the NFS connection.

4 If there is no problem with the NFS connection, go to Step 15.

5 If there is a problem with the NFS connection, shut down the Rimage CD production software.
- For detailed instructions refer to the **Shut Down the Rimage CD Production Software** procedure (Section 18.7.4).
- Shutting down the Rimage CD production software is a preparatory step for rebooting the computer.
  - When logging back on to the computer as a user with NFS privileges, the NFS connection should be restored.

6 To start the process of rebooting the computer select **Start → Shut Down** from the Windows task bar.
- A **Shut Down Windows** window is displayed.

7 **Single-click** on the appropriate radio button from the following selections (which are alternate endings to the question, **Are you sure you want to:**):
- **Shut down the computer?** - to indicate an intention to shut down the computer for the purpose of turning it off.

- **Restart the computer?** - to indicate an intention to shut down the computer and immediately restart it.
  - This is the optimum choice for rebooting the computer (the goal in this procedure) although **Shut down the computer?** is an acceptable choice as well.
- **Close all programs and log on as a different user?** - to indicate an intention to close all programs and log on as a different user.

8 **Single-click** on the appropriate button from the following selections:

- **Yes** - to implement the choice indicated in the preceding step.
  - The **Shut Down Windows** window is dismissed.
  - If **Shut down the computer?** was selected in the preceding step, eventually a **Shutdown Computer** window (containing the text "It is now safe to turn off your computer" and a **Restart** button) is displayed. (**Single-clicking** on the **Restart** button causes the screen to go black, then a variety of text is displayed on the screen as the computer checks its configuration and loads and starts the operating system, and eventually a **Begin Logon** window (containing the text "Press Ctrl + Alt + Delete to log on") is displayed.)
  - If **Restart the computer?** was selected in the preceding step, the screen goes black, then a variety of text is displayed on the screen as the computer checks its configuration and loads and starts the operating system, and eventually a **Begin Logon** window (containing the text "Press Ctrl + Alt + Delete to log on") is displayed.
  - If **Close all programs and log on as a different user?** was selected in the preceding step, eventually a **Begin Logon** window (containing the text "Press Ctrl + Alt + Delete to log on") is displayed.
- **No** - to dismiss the **Shut Down Windows** window without shutting down the computer.
  - The **Shut Down Windows** window is dismissed.
  - The Windows desktop is displayed.

9 If the **Begin Logon** window contains the text "Press Ctrl + Alt + Delete to log on," simultaneously press the **Ctrl**, **Alt**, and **Delete** keys on the keyboard.

- The **Begin Logon** window is dismissed.
- An **Acceptance of … Computer Policy** window (containing policy text and an **OK** button) is displayed.

10 If an **Acceptance of … Computer Policy** window is displayed, **single-click** on the **OK** button.

- The **Acceptance of … Computer Policy** window is dismissed.

- A **Logon Information** window is displayed.
  - The **Logon Information** window contains the text "Enter a user name and password that is valid for this system" and fields for **Username**, **Password**, and **Domain**.

11 Ensure that the entries in the **Username** and **Domain** fields of the **Logon Information** window are correct.
- Enter the appropriate information in the fields if necessary.
- The user name entered in the **Username** field must have NFS access privileges.

12 In the **Password** field of the **Logon Information** window enter:

<password>
- If the **Return/Enter** key on the keyboard is pressed after the password has been typed, go to Step 14.

13 **Single-click** on the appropriate button from the following selections:
- **OK** - to start log-on to Windows.
  - The **Logon Information** window is dismissed.
  - Scripts run in log-on windows and eventually the Windows desktop is displayed.
- **Cancel** - to dismiss the **Logon Information** window without starting the log-on to Windows.
  - The **Logon Information** window is dismissed.
  - The **Begin Logon** window is displayed.
  - Return to Step 9.
- **Shut Down** - to dismiss the **Logon Information** window and select choices for computer shutdown.
  - The **Logon Information** window is dismissed.
  - A **Shutdown Computer** window is displayed.
  - Return to Step 7.

14 Return to Step 1 to recheck the Rimage PC NFS connection.

15 If the Rimage CD production software was shut down, restart the Rimage CD production software.
- For detailed instructions refer to the **Start the Rimage CD Production Software** procedure (Section 18.6.5).

16 Return to the procedure that recommended checking/restoring the Rimage PC NFS connection.
- For example, **Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports)** (Section 18.10.31).

Table 18.10-13. Check/Restore the Rimage PC NFS Connection - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Start → Programs → Windows NT Explorer** (Windows task bar on Rimage PC)	**single-click**
2	Determine whether there is a network drive Z: to which rimage_jobcontrol is assigned	**read text**
3	Icon for the drive (network drive Z:) (if available)	**single-click**
4	Go to Step 15 (if no problem with NFS connection)	
5	Shut down the Rimage CD production software (if problem with NFS connection)	Use procedure in Section 18.7.4
6	**Start → Shut Down** (Windows task bar)	**single-click**
7	**Restart the computer?** (**Shut Down Windows** window)	**single-click**
8	**Yes** (**Shut Down Windows** window)	**single-click**
9	**Ctrl**, **Alt**, **Delete** keys (if **Begin Logon** window contains text "Press Ctrl + Alt + Delete to log on")	**press Ctrl**, **Alt**, **Delete simultaneously**
10	**OK** button (if an **Acceptance of … Computer Policy** window is displayed)	**single-click**
11	**<Username> <Domain>** (**Logon Information** window) (if necessary)	**enter text**
12	**<password>** (**Logon Information** window)	**enter text, press Enter**
13	Return to Step 1 (recheck the Rimage PC NFS connection)	
14	Restart the Rimage CD production software (if necessary)	Use procedure in Section 18.6.5
15	Return to the procedure that recommended checking/restoring the Rimage PC NFS connection	

18.10.8 Clean Up the E: Drive on the Rimage PC

From time to time the E: drive (a hard drive on the Rimage PC) needs cleaning to remove files that result from ftp errors, disk space issues, or problems producing an output.

Table 18.10-14 presents (in a condensed format) the steps required to clean up the E: drive on the Rimage PC. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Double-click** on the **My Computer** icon (on the Rimage PC).

- A window is displayed containing icons for the accessible drives.
- Unneeded files should be deleted on the E drive before attempting to delete them through the Rimage Production Server Production Order Editor.

2 **Double-click** on the icon for the **E** drive.

- A window is displayed containing icons for the folders (directories) and files on the **E** drive.

3 **Double-click** on the icon for the **CD-R_Images** folder.

- A window is displayed containing icons for the files in the **CD-R_Images** folder.

4 **Hold** the **Ctrl** key and **single-click** on the icons (highlighting them) for all unneeded files to be deleted from the **CD-R_Images** folder.

- All unneeded files in the **CD-R_Images** folder are highlighted.

5 **Single-click** on one of the highlighted icons with the **right** mouse button.

- Pop-up menu appears.

6 **Single-click** on **Delete** from the pop-up menu.

- A **Confirm File Delete** dialogue box is displayed containing the message "Are you sure you want to send '<file name>' to the Recycle Bin?".

7 **Single-click** on the appropriate button from the following selections:

- **Yes** - to send the selected files to the recycle bin and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The selected files are transferred to the recycle bin (folder).
- **No** - to dismiss the dialogue box without sending the selected files to the recycle bin.
  - The dialogue box is dismissed.

8 **Single-click** on the **X** in the box at the upper right-hand corner of the **CD-R_Images** folder window.

- The **CD-R_Images** folder window is dismissed.

9 Execute the following menu path from the pull-down menu in the **Production Server** window on the PC:

File → Production Order Editor

- The **pofile** window is displayed.

10 **Hold** the **Ctrl** key and **single-click** on the icons (highlighting them) for all unneeded files to be deleted.
- All unneeded files are highlighted.

11 **Single-click** on one of the highlighted icons with the **right** mouse button.
- Pop-up menu appears.

12 **Single-click** on **Delete** from the pop-up menu.
- A **Confirm File Delete** dialogue box is displayed containing the message "Are you sure you want to send '<file name>' to the Recycle Bin?".

13 **Single-click** on the appropriate button from the following selections:
- **Yes** - to send the selected files to the recycle bin and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The selected files are transferred to the recycle bin (folder).
- **No** - to dismiss the dialogue box without sending the selected files to the recycle bin.
  - The dialogue box is dismissed.

14 **Single-click** on the **Recycle Bin** icon on the PC desktop with the **right** mouse button.
- Pop-up menu appears.

15 **Single-click** on **Empty Recycle Bin** from the pop-up menu.
- A **Confirm Multiple File Delete** dialogue box is displayed containing the message "Are you sure you want to delete these *n* items?".

16 **Single-click** on the appropriate button from the following selections:
- **Yes** - to delete the selected files and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The selected files are deleted.
- **No** - to dismiss the dialogue box without deleting the selected files.
  - The dialogue box is dismissed.

17 **Single-click** on the **X** in the box at the upper right-hand corner of the **pofile** window.
- The **pofile** window is dismissed.

18 **Single-click** on the **X** in the box at the upper right-hand corner of the **E** drive window.
- The **E** drive window is dismissed.

19 **Single-click** on the **X** in the box at the upper right-hand corner of the **My Computer** window.
- The **My Computer** window is dismissed.

Table 18.10-14. Clean Up the E: Drive on the Rimage PC - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**My Computer** icon (on the Rimage PC)	**double-click**
2	**E** drive icon	**double-click**
3	**CD-R_Images** folder icon	**double-click**
4	**<file>** icons (in the **CD-R_Images** folder)	**hold** the **Ctrl** key and **single-click**
5	**<file>** icon (in the **CD-R_Images** folder)	**right-click**
6	**Delete** (from the pop-up menu)	**single-click**
7	**Yes** button	**single-click**
8	**X** (upper right-hand corner of the **CD-R_Images** folder window)	**single-click**
9	**File → Production Order Editor**	**single-click**
10	**<file>** icons	**hold** the **Ctrl** key and **single-click**
11	**<file>** icon	**right-click**
12	**Delete** (from the pop-up menu)	**single-click**
13	**Yes** button	**single-click**
14	**Recycle Bin** icon (on the Rimage PC desktop)	**right-click**
15	**Empty Recycle Bin** (from the pop-up menu)	**single-click**
16	**Yes** button	**single-click**
17	**X** (**pofile** window)	**single-click**
18	**X** (**E** drive window)	**single-click**
19	**X** (**My Computer** window)	**single-click**

18.10.9 Clear an Error Displayed on the PDSIS OI Error Screen

The procedure to **Clear an Error Displayed on the PDSIS OI Error Screen** is performed as part of the procedure to **Check/Clear Errors on PDSIS** (Section 18.10.4).

Table 18.10-15 presents (in a condensed format) the steps required to clear an error displayed on the **PDSIS OI Error Screen**. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: It is generally good practice to ensure that the condition that caused an error has been corrected before clearing the error on the GUI (operator interface); otherwise, the error may recur.

1 **Single-click** on the action button at the beginning of the relevant error status line (on the **PDSIS OI Error Screen**).
- The **Action List** box is displayed.

2 **Single-click** on **Clear Error** in the **Action List** box.
- **Clear Error** is highlighted.

3 **Single-click** on the appropriate button from the following selections:
- **OK** - to clear the error and dismiss the **Action List** box.
  - The **PDSIS OI Error Screen** is displayed.
  - The status of the order/unit changes to its pre-error state and condition.
  - The error is removed (logged) and is no longer visible on the **PDSIS OI Error Screen**.
  - The order/unit restarts from its pre-error state.
  - The same error or a different error may occur if the root cause of the error has not been corrected.
- **Cancel** - to dismiss the **Action List** box without clearing the error and return to the **PDSIS OI Error Screen**.
  - The **PDSIS OI Error Screen** is displayed.

4 Return to the **Check/Clear Errors on PDSIS** procedure (Section 18.10.4).

Table 18.10-15. Clear an Error Displayed on the PDSIS OI Error Screen - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Action button (on **PDSIS OI Error Screen**)	**single-click**
2	**Clear Error**	**single-click**
3	**OK** button	**single-click**
4	Return to the **Check/Clear Errors on PDSIS** procedure	Use procedure in Section 18.10.4

18.10.10 Determine Output Specifications Using the PDS Maintenance Module

It may be necessary to determine product output specifications when performing other procedures associated with PDS processing; e.g., responding to a job on a Lag Report or changing the values of job or order parameters.

Table 18.10-16 presents (in a condensed format) the steps required to determine output specifications using the PDS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Perform the **Start the PDS Maintenance Module** procedure (Section 18.6.7).
- The PDS **Maintenance Module Main Menu** is displayed.

2 **Single-click** on the **Product Media Descriptions** button on the PDS **Maintenance Module Main Menu**.
- The **Product Media Descriptions Maintenance Form (PDSMTPMD)** is displayed.

3 **Single-click** on the **Execute Query** button on the **Product Media Descriptions Maintenance Form**.
- Product codes are displayed on the **Product Media Descriptions Maintenance Form**.
- The following types of data are displayed on the **Product Media Descriptions Maintenance Form**:
  - **Output Spec** - output specification of the product ordered.
  - **Description** - a longer (more understandable) description of what the output specification is.
  - **PDS Description** - Grouping of output specifications.

4 Observe the data displayed on the **Product Media Descriptions Maintenance Form** to determine whether the relevant output specification has appropriate values.
- The entries displayed on the **Product Media Descriptions Maintenance Form** are the values in the OUT_OTSPTBLV_TBL database table.

5 If the relevant output specification does not have the appropriate value on the **Product Media Descriptions Maintenance Form**, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

6 To close the **Product Media Descriptions Maintenance Form single-click** on the **Exit** button at the bottom of the window.
- If the **Exit** button is not visible on the maintenance module form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- The PDS **Maintenance Module Main Menu** is displayed.

7 To shut down the PDS **Maintenance Module single-click** on the **Exit** button at the bottom of the PDS **Maintenance Module Main Menu** window.
- The PDS **Maintenance Module Main Menu** is dismissed.

Table 18.10-16. Determine Output Specifications Using the PDS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDS Maintenance Module	Use procedure in Section 18.6.7
2	**Product Media Descriptions** button	**single-click**
3	**Execute Query** button	**single-click**
4	Determine whether the relevant output specification has the appropriate value	**read text**
5	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8
6	**Exit** button (**Product Media Descriptions Maintenance Form**) (when applicable)	**single-click**
7	**Exit** button (PDS **Maintenance Module Main Menu**) (when applicable)	**single-click**

18.10.11 Determine Output Specifications Using the PDSIS Maintenance Module

It may be necessary to determine product output specifications when performing other procedures associated with PDS processing; e.g., responding to a job on a Lag Report or changing the values of job or order parameters.

Table 18.10-17 presents (in a condensed format) the steps required to determine output specifications using the PDSIS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Perform the **Start the PDSIS Maintenance Module** procedure (Section 18.6.8).
- The **PDSIS Maintenance Module Main Menu** is displayed.

2 **Single-click** on the **Outspec Info** button on the **PDSIS Maintenance Module Main Menu**.
- The **PDSIS Output Specifications Window (PDSISMTLOT)** is displayed.

3 **Single-click** on the **Execute Query** button on the **PDSIS Output Specifications Window**.
- Output specifications are displayed on the **PDSIS Output Specifications Window**.
- The following types of data are displayed on the **PDSIS Output Specifications Window**:
  - **Output Specs** - output specifications.
  - **Prod Media** - product medium on which the data are to be recorded.

- **Media Type** - type of input medium (ET = Electronic Transfer).
- **Input Media** - format of the incoming data.
- **Product Density** - density of the product (primarily used for tape density).
- **Tape Blocking** - tape blocking factor.
- **Compress Type** - compression type (default is NONE).
- **Media Size** - storage size of the product medium in megabytes.
- **Size Check** - whether or not PDSIS issues errors for units that are too large to fit on the specified medium (Y = Yes, PDSIS checks; N = No, PDSIS does not check).

4 Observe the data displayed on the **PDSIS Output Specifications Window** to determine the relevant output specification(s).

5 To close the **PDSIS Output Specifications Window single-click** on the **Exit** button at the bottom of the window.
- If the **Exit** button is not visible on the maintenance module form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- The **PDSIS Maintenance Module Main Menu** is displayed.

6 To shut down the **PDSIS Maintenance Module single-click** on the **Exit** button at the bottom of the **PDSIS Maintenance Module Main Menu** window.
- The **PDSIS Maintenance Module Main Menu** is dismissed.

Table 18.10-17. Determine Output Specifications Using the PDSIS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDSIS Maintenance Module	Use procedure in Section 18.6.8
2	**Outspec Info** button	**single-click**
3	**Execute Query** button	**single-click**
4	Identify the relevant output specification(s)	**read text**
5	**Exit** button (**PDSIS Output Specifications Window**) (when applicable)	**single-click**
6	**Exit** button (**PDSIS Maintenance Module Main Menu**) (when applicable)	**single-click**

18.10.12 Determine Product Codes Using the PDS Maintenance Module

It may be necessary to determine product codes when troubleshooting problems with PDS processing; e.g., responding to a job on a Lag Report.

Table 18.10-18 presents (in a condensed format) the steps required to determine product codes using the PDS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Perform the **Start the PDS Maintenance Module** procedure (Section 18.6.7).
- The PDS **Maintenance Module Main Menu** is displayed.

2 **Single-click** on the **Product Code Descriptions** button on the PDS **Maintenance Module Main Menu**.
- The **Product Code Descriptions Maintenance Form (PDSMTPCD)** is displayed.

3 **Single-click** on the **Execute Query** button on the **Product Code Descriptions Maintenance Form**.
- Product codes are displayed on the **Product Code Descriptions Maintenance Form**.
- The following types of data are displayed on the **Product Code Descriptions Maintenance Form**:
  - **Prod Code** - product code used to describe what is being ordered.
  - **Description** - a longer (more understandable) description of what the product code is.
  - **PDS Description** - Grouping of product codes.

4 Observe the data displayed on the **Product Code Descriptions Maintenance Form** to determine whether the relevant product code has the appropriate value.
- The entries displayed on the **Product Code Descriptions Maintenance Form** are the values in the PVT_PRCDTBL_TBL database table.

5 If the relevant product code does not have appropriate values on the **Product Code Descriptions Maintenance Form**, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

6 To close the **Product Code Descriptions Maintenance Form single-click** on the **Exit** button at the bottom of the window.
- If the **Exit** button is not visible on the maintenance module form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- The PDS **Maintenance Module Main Menu** is displayed.

7 To shut down the PDS **Maintenance Module single-click** on the **Exit** button at the bottom of the PDS **Maintenance Module Main Menu** window.
- The PDS Maintenance Module Main Menu is dismissed.

Table 18.10-18. Determine Product Codes Using the PDS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDS Maintenance Module	Use procedure in Section 18.6.7
2	**Product Code Descriptions** button	**single-click**
3	**Execute Query** button	**single-click**
4	Determine whether the relevant product code has the appropriate value	**read text**
5	Submit a trouble ticket (if applicable)	Use procedure in chapter 8
6	**Exit** button (**Product Code Descriptions Maintenance Form**) (when applicable)	**single-click**
7	**Exit** button (PDS **Maintenance Module Main Menu**) (when applicable)	**single-click**

18.10.13 Determine Product Codes Using the PDSIS Maintenance Module

It may be necessary to determine product codes when troubleshooting problems with PDS processing; e.g., responding to a job on a Lag Report.

Table 18.10-19 presents (in a condensed format) the steps required to determine product codes using the PDSIS Maintenance Module. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Perform the **Start the PDSIS Maintenance Module** procedure (Section 18.6.8).
- The **PDSIS Maintenance Module Main Menu** is displayed.

2 **Single-click** on the **Prod Code Info** button on the **PDSIS Maintenance Module Main Menu**.
- The **PDSIS Product Code Info Window (PDSISMTLPT)** is displayed.

3 **Single-click** on the **Execute Query** button on the **PDSIS Product Code Info Window**.
- Product codes are displayed on the **PDSIS Product Code Info Window**.
- The following types of data are displayed on the **PDSIS Product Code Info Window**:
  - **Prod Code** - product code.
  - **Product Format** - product format of the output data (e.g., GENERIC).
  - **PDS Project** - PDS Project (e.g., EDAAC, GSFC, MODIS).
  - **Order Node** - first three characters of an order number for an order of this type.

- **Default Size** - default size of a granule in megabytes (used if the ECS query returns a NULL size).
- **Receive Email** - indicates whether (Y or N) PDSIS sends an e-mail for the particular product code on initial receipt of an order.

4 Observe the data displayed on the **PDSIS Product Code Info Window** to determine the relevant product code.

5 To close the **PDSIS Product Code Info Window single-click** on the **Exit** button at the bottom of the window.
- If the **Exit** button is not visible on the maintenance module form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- The **PDSIS Maintenance Module Main Menu** is displayed.

6 To shut down the **PDSIS Maintenance Module single-click** on the **Exit** button at the bottom of the **PDSIS Maintenance Module Main Menu** window.
- The PDSIS Maintenance Module Main Menu is dismissed.

Table 18.10-19. Determine Product Codes Using the PDSIS Maintenance Module - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDSIS Maintenance Module	Use procedure in Section 18.6.8
2	**Prod Code Info** button	**single-click**
3	**Execute Query** button	**single-click**
4	Identify the relevant product code	**read text**
5	**Exit** button (**PDSIS Product Code Info Window**) (when applicable)	**single-click**
6	**Exit** button (**PDSIS Maintenance Module Main Menu**) (when applicable)	**single-click**

18.10.14 Determine the Status of PDS Tape/Disk Drives

The purpose of the procedure is to determine the current status of PDS tape and/or disk drives.

Table 18.10-20 presents (in a condensed format) the steps required to determine the status of PDS tape/disk drives. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

tpstat

- The following type of response is displayed:

DRIVE NAME	DRIVE TYPE	HOST	USER	DEVICE
dlt1	dlt7000	x0dig06	----	/dev/rmt/tps42d4nrnsv.7000c
dlt2	dlt7000	x0dig06	----	/dev/rmt/tps42d5nrnsv.7000c
drive1	8mm	x0dig06	----	/dev/rmt/tps2d5nrnsv.8500
drive2	8mm	x0dig06	----	/dev/rmt/tps3d2nrnsv.8500
dvdrimage1	dvdr	x0dig06	----	/pdssa/rimage_jobcontrol
cdrimage1	cdr	x0dig06	----	/pdssa/rimage_jobcontrol

- **tpstat** shows each of the drives connected to the PDS Server host and the owner of each drive.

3 To determine the current status of one of the devices connected to the PDS Server, at the UNIX command line prompt enter:

mt –f <device> status

- **<device>** is a device identifier such as those specified as a result of running the tpstat command.
- The following type of response is displayed:

  Controller: SCSI
  Device: EXABYTE: EXB-85058HE-00000112
  Status: 0x20262
  Drive type: 8mm(8500) cartridge
  Media : READY, writable, at BOT

  – The example shows the report from an 8mm drive that is ready, will accept commands to write to tape (is not write-protected or read-only), and is positioned at the beginning of the tape.

4 To determine other commands available for manual tape control (in addition to **status**), at the UNIX command line prompt enter:

mt –f <device> help

- Some other commands include (but are not limited to) the following commands:
  – **erase.**
  – **offline.**

- **rewind.**
- **unload.**

Table 18.10-20. Determine the Status of PDS Tape/Disk Drives - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**tpstat**	**enter text, press Enter**
3	**mt –f <device> status** (if applicable)	**enter text, press Enter**
4	**mt –f <device> help** (if applicable)	**enter text, press Enter**

18.10.15 Determine Which Instance of PDSOI Was Used to Activate a Job

The purpose of the procedure for determining which instance of PDSOI was used to activate a job is to identify the instance of the PDSOI that can be used for completing the job. The instance is important because each activated job's status file name starts with the OI ID (which identifies the PDSOI instance). Only an instance of the PDSOI with that OI ID can change the job's status to "QC-Hold" after the production module has sent the job's status file to the "status" subdirectory. So typically the procedure for determining which instance of PDSOI was used to activate a job is performed while trying to determine why a PDS job does not change to a QC-Hold status although production was successful.

There are at least two sources of information for determining which instance of PDSOI was used to activate a job:

- Name of the status file for the job.
- Contents of the PPF for the job.

Table 18.10-21 presents (in a condensed format) the steps required to determine which instance of PDSOI was used to activate a job. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID enter:

    echo $PDSROOT

3 At the UNIX command line prompt enter:

cd status

- Change to the "status" directory.

4 At the UNIX command line prompt enter:

ls

- A list of the subdirectories and files in the current directory is displayed.

5 Observe the entries in the list of subdirectories and files in the current directory to identify the status file for the job.

- The file has the format <MachineID>_<ConsoleID>_<JobKey>.status
- For example:

  DIG06_ops_YEA0203190048_0001.status

  - **DIG06** is the Machine ID.
  - **ops** is the Console ID.
  - **YEA0203190048_0001** is the Job Key.

6 If there is a status file for the job (and if applicable), return to the appropriate step of the **Respond to a Job's Status Not Changing to QC-Hold Upon Successful Completion** procedure (Section 18.10.23).

7 If the current directory is the status directory, continue with Step 8; otherwise, go to Step 10.

8 If there is no status file for the job in the status directory, at the UNIX command line prompt enter:

cd ../summary

- Change to the "summary" directory.

9 Return to Step 4.

10 If there is no status file for the job in either the status directory or the summary directory, at the UNIX command line prompt enter:

pg <filename>

- **<filename>** refers to the PPF to be reviewed (e.g., YEA0203190048_0001.ppf).
  - The order ID (e.g., YEA0203190048) portion of the filename is listed on the product summary that was printed for the job.
- The PPF 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.

11 Observe the entries in the PPF to determine the OI ID of the PDSOI instance that initiated the job.

- The PPF contains the following type of entry identifying the OI ID of the PDSOI instance that initiated the job:

  OI_ID S 1 DIG06_ops

  - In the example the OI ID is **DIG06_ops**.

12 If applicable, return to the appropriate step of the **Respond to a Job's Status Not Changing to QC-Hold Upon Successful Completion** procedure (Section 18.10.23).

Table 18.10-21. Determine Which Instance of PDSOI Was Used to Activate a Job - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**cd status**	**enter text, press Enter**
4	**ls**	**enter text, press Enter**
5	Identify the status file for the job	**read text**
6	Return to the appropriate step of the **Respond to a Job's Status Not Changing to QC-Hold Upon Successful Completion** procedure (if there is a status file for the job and if applicable),	Use procedure in Section 18.10.23
7	If the current directory is the status directory, continue with Step 8; otherwise, go to Step 10	
8	**cd ../summary**	**enter text, press Enter**
9	Return to Step 4	
10	**pg <PPF file name>** (if no status file for the job in either status directory or summary directory)	**enter text, press Enter**
11	Determine the OI ID of the PDSOI instance that initiated the job (in PPF)	**read text**

Table 18.10-21. Determine Which Instance of PDSOI Was Used to Activate a Job - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
12	Return to the appropriate step of the **Respond to a Job's Status Not Changing to QC-Hold Upon Successful Completion** procedure (if applicable)	Use procedure in Section 18.10.23

18.10.16 Force AutoRimage Completion

The PDS Job Monitor provides the Distribution Technician with a means of forcing AutoRimage completion. It results in a signal being sent to the job telling it to stop waiting needlessly and complete processing in a normal fashion. This is useful when a number of jobs are queued for a Rimage, but the waiting job has produced the media and is waiting needlessly.

Table 18.10-22 presents (in a condensed format) the steps required to force AutoRimage completion. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the **Job Monitor Main Window** is not already in operation, start the PDS Job Monitor (refer to Section 18.6.4).
- The **Job Monitor Main Window** is displayed.

2 **Place** the mouse cursor on the relevant job in the running job list of the **Job Monitor Main Window**, **single-click** and **hold** the **right** mouse button, **move** the mouse cursor to **Force AutoRimage Completion** (highlighting it), then **release** the mouse button.
- Pop-up menu appears with the options **View Job Log, View Job PPF, Force AutoRimage Completion** [appears only when the selected job is waiting for a completion message from a Rimage writer]**, Terminate Job.**
- Select **View Job PPF** from the pop-up menu.
  - A confirmation prompt is displayed.

3 **Single-click** on the appropriate button from the following selections:
- **Yes** - to force AutoRimage completion and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The Rimage unit stops waiting and completes processing of the medium.
- **No** - to dismiss the dialogue box without forcing AutoRimage completion.
  - The dialogue box is dismissed.

Table 18.10-22. Force AutoRimage Completion - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDS Job Monitor (if necessary)	Use procedure in Section 18.6.4
2	**Force AutoRimage Completion** (**Job Monitor Main Window**)	**right-click**
3	**Yes** button	**single-click**

18.10.17 Reprint a Label Stamped on a Disk

The problem is that the Rimage unit failed to print a legible label on a CD or DVD.

Table 18.10-23 presents (in a condensed format) the steps required to reprint a label stamped on a disk. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Clean any ink from the disk with a cloth and alcohol-based cleaner.
- The surface may need to be cleaned twice to eliminate all ink smears.

2 **Double-click** on the **Label Editor** icon on the Windows desktop (on the Rimage PC).
- A **Label Editor** window is displayed.

3 Execute the following menu path from the pull-down menu in the **Label Editor** window on the PC:

File → Open

- An **Open** window is displayed containing a list of files.
- The folder/directory should contain a template for each product type.
  - The template for the appropriate product type should be selected as the basis for creating an appropriate file for the use during the restamping.

4 Select the appropriate drive (e.g., C:) in the **Open** window.
- The appropriate drive may vary with system set-up.
- If necessary, **single-click** and **hold** the option button to display a list of drives/folders, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

5 **Single-click** on the icon for **reprint.lab** in the list of files in the **Open** window.
- The selected file is selected (highlighted).

- If there is no icon labeled "reprint.lab," **single-click** on a label icon for a similar type of job.

6 **Single-click** on the **Open** button.
- The **Open** window is dismissed.
- The selected file is opened and displayed in the **Label Editor** window.

7 Edit the file in the **Label Editor** window.
- Use the jewel-case insert for the disk as a guide to the appropriate data to be entered.

8 Execute the following menu path from the pull-down menu in the **Label Editor** window on the PC:

File → Save As

- A **Save As** window is displayed.

9 In the **File Name** field enter:

reprint.lab

- Save the template with the name **reprint.lab** (do not change the name).

10 **Single-click** on the **Save** button.
- The **Save As** window is dismissed.
- The file is saved with the specified file name.
- The file is displayed in the **Label Editor** window.

11 Execute the following menu path from the pull-down menu in the **Label Editor** window on the PC:

File → Exit

12 **Double-click** on the **CD-R Workstation** icon on the Windows desktop.
- A window similar to the **Production Server** window is displayed.

13 **Single-click** on the **Start** button on the **CD-R Workstation** toolbar.

14 **Single-click** on the **Add** button on the **CD-R Workstation** toolbar.
- The **Add Job Wizard - Select Job Option** window is displayed.

15 **Single-click** on the button corresponding to **Print Labels Only** on the **Add Job Wizard**.

16 **Single-click** on the **Next** button on the **Add Job Wizard**.

17 **Single-click** on the **Next** button again on the **Add Job Wizard**.

18 Ensure that **Rimage Label (No Merge Fields)** is selected in the **Label Type** field on the **Add Job Wizard**.

- If necessary, **single-click** and **hold** the **Label Type** option button to display a list of label types, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.

19 **Single-click** on the **Next** button again on the **Add Job Wizard**.

20 **Single-click** on the **Browse** button adjacent to the **Enter the Label File Name** field on the **Add Job Wizard**.

- A window containing a list of file icons is displayed.

21 **Double-click** on the icon for **reprint.lab** (the file name of the label template created and saved in Steps 5 through 8).

- An alternative is to **single-click** on the icon for the file name of the label template then **single-click** on the **Open** button.

22 Place the disk that needs the label in the appropriate Rimage input bin.

- If a CD is to be labeled, it should be placed in the CD input bin.
- If a DVD is to be labeled, it should be placed in the DVD input bin.
- The disk needing to be re-labeled may be placed on top of blank disks.

23 **Single-click** on the **Finish** button on the **Add Job Wizard**.

- The robot picks and labels the disk and places it in the output bin.

24 When the label has been reprinted, execute the following menu path from the **CD-R Workstation** pull-down menu:

File → Exit

Table 18.10-23. Reprint a Label Stamped on a Disk - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Clean ink from the disk with a cloth and alcohol-based cleaner (as necessary)	**Wipe**
2	**Label Editor** icon (on the Rimage PC)	**double-click**
3	**File → Open**	**single-click**
4	**<drive>** (e.g., C:) (in **Open** window)	**single-click**
5	**reprint.lab** icon (in **Open** window)	**single-click**
6	**Open** button	**single-click**

Table 18.10-23. Reprint a Label Stamped on a Disk - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
7	Edit the file (in **Label Editor** window)	**enter text**
8	**File → Save As** (in **Label Editor** window)	**single-click**
9	**reprint.lab** (in **File Name** field)	**enter text**
10	**Save** button	**single-click**
11	**File → Exit** (in **Label Editor** window)	**single-click**
12	**CD-R Workstation** icon (on the Rimage PC)	**double-click**
13	**Start** button (on **CD-R Workstation**)	**single-click**
14	**Add** button (on **CD-R Workstation**)	**single-click**
15	**Print Labels Only** (on **Add Job Wizard**)	**single-click**
16	**Next** (on **Add Job Wizard**)	**single-click**
17	**Next** (on **Add Job Wizard**)	**single-click**
18	**Rimage Label (No Merge Fields)** (in **Label Type** field on the **Add Job Wizard**)	**single-click**
19	**Next** (on **Add Job Wizard**)	**single-click**
20	**Browse** button (adjacent to the **Enter the Label File Name** field)	**single-click**
21	**reprint.lab** icon (label template)	**double-click**
22	Place the disk that needs the label in the appropriate Rimage input bin	**place**
23	**Finish** button (on the **Add Job Wizard**)	**single-click**
24	**File → Exit** (on **CD-R Workstation**) (when applicable)	**single-click**

18.10.18 Reprint PDS Documents and Labels

The problem may be that PDSSA or PDSIS has failed to print one of the following items or one of the following items has been damaged, lost, or misprinted:

- Summary report.
- Tape label.
- Packing list.
- Shipping label.

Packing lists and shipping labels can be reprinted in another way as well as by using the method described in the procedure for reprinting PDS documents and labels. The process involves the use of the **PDSIS Orders Maintenance Form** to set the **Action Code** for the relevant order to "S", which provides a stimulus for PDSIS to print packing lists and shipping labels. (Both types of documents are printed in response to an "S" action code.) For detailed instructions refer to the **Change the Values of Order Parameters Using the PDSIS Maintenance Module** procedure (Section 18.10.3).

To reprint a jewel-case insert go to the **Respond to a Jewel-Case Insert Printing Failure** procedure (Section 18.10.22).

Verification [i.e., quality control (QC) check] report files are not saved; consequently, if a verification report is needed, rerun the verification by performing the **Respond to a Status of QC-Hold (Performing a QC Check or Verification)** procedure (Section 18.8.12).

The Distribution Technician must have ensured that the printer input is loaded with blank paper, labels, or inserts (as applicable) and that there are no obvious printer faults (e.g., paper jam).

Table 18.10-24 presents (in a condensed format) the steps required to reprint PDS documents and labels. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: If a packing list or shipping label is needed, consider using the **Change the Values of Order Parameters Using the PDSIS Maintenance Module** procedure (Section 18.10.3) unless access to the **PDSIS Maintenance Module** is not currently feasible. As previously mentioned, the process involves the use of the **PDSIS Orders Maintenance Form** to set the **Action Code** for the relevant order to "S", which provides a stimulus for PDSIS to print both packing lists and shipping labels.

If use of the **PDSIS Maintenance Module** is not an option, use the procedure that follows.

1 Access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- Use the appropriate PDSSA log-in (i.e., pds, pds_st, or pds_it) for printing the following types of documents:
  - Summary report.
  - Tape label.
- Use the appropriate PDSIS log-in (i.e., pdsis, pdsis_ts1, or pdsis_ts2) for printing the following types of documents:
  - Packing list.
  - Shipping label.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory.
  - To identify the PDS root directory at the command line prompt enter:

    echo $PDSROOT
- Typical PDS root directories for PDS user IDs are as follows:
  - /usr/local/pds (linked to /data1/pds) (for PDSSA user "pds").
  - /usr/local/pds_st (linked to /data1/pds_st) (for PDSSA user "pds_st").
  - /usr/local/pds_it (linked to /data1/pds_it) (for PDSSA user "pds_it").
  - /usr/local/pdsis (linked to /data1/pdsis) (for PDSIS user "pdsis").
  - /usr/local/pdsis_ts1 (linked to /data1/pdsis_ts1) (for PDSSA user "pdsis_ts1").
  - /usr/local/pdsis_ts2 (linked to /data1/pdsis_ts2) (for PDSSA user "pdsis_ts2").

3 At the UNIX command line prompt enter:

<path>

- Change to the appropriate subdirectory:
  - **label** (to reprint a tape label); for example, /usr/local/pds/label or /data1/pds/label.
  - **summary** (to reprint a summary report); for example, /usr/local/pds/summary or /data1/pds/summary.
  - **logs/labels** (to reprint a packing list or shipping label); for example, /usr/local/pdsis/logs/labels or /data1/pdsis/logs/labels.
- Actual subdirectories may vary from site to site.

4 At the UNIX command line prompt enter:

lp -d <printerID> <filename>

- An alternative is to enter:

  lpr -P <printerID> <filename>
- The document prints on the specified printer.
- **<printerID>** is the name of the appropriate printer. For example, …
  - **x0dih05** prints summary reports and packing lists.
  - **x0dil09** prints tape labels.
  - **x0dil10** prints shipping labels.
  - Actual printer names vary from site to site.
- **<filename>** is the name of the document or label file to be printed.
- **<filename>** is composed of the order number (as displayed on the **PDSIS OI Main Screen**) or job key (as displayed on the **Main OI Screen**) and a file-name extension that indicates the type of document. For example, …
  - **TS20112020001_0001_1.lbl** is a tape label for job TS20112020001_0001.
  - **TS20112130001_0001.sum** is the summary report for job TS20112130001_0001.

- **TS20112130001.lbl** is the shipping label for order TS20112130001.
- **TS20112130001.note** is the packing list for order TS20112130001 (actually, it's the text of the e-mail distribution notice).

Table 18.10-24. Reprint PDS Documents and Labels - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**cd <path>**	**enter text, press Enter**
4	**lp -d <printerID> <filename>**	**enter text, press Enter**

18.10.19 Reprocess a Job

In general jobs are reprocessed in response to one of the following problems:

- Processing of an order will not complete.
- An error occurs during processing.
- The medium does not pass verification.

If a job is in an error status, it may be possible to reprocess the job by activating the units associated with the job. If the job is not in an error status or if it has failed the QC check (and is in QC-Hold status), it will probably be necessary to perform the following actions:

- Remove (delete) the associated PPF, status file, and image files.
- Reset the unit and job status to Pending.
- Reactivate the job.

Table 18.10-25 presents (in a condensed format) the steps required to reprocess a job. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the job requiring reprocessing is an 8mm job, check the job log to determine whether there was an I/O (input/output) error.

- For detailed instructions refer to either the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure for (Section 18.10.33) or the **View a Job Log Using the PDS Job Monitor** procedure (Section 18.10.34).

2 If the job requiring reprocessing is an 8mm job and the job log indicated an I/O (input/output) error, turn the power switch for the affected 8mm drive **off** then **on**.

3 If the job is in an **Error** status (as indicated by the job line turning red on the **Main OI Screen**), reactivate units in the job.

- For detailed instructions refer to the **Use the OI Detail Screen** procedure (Section 18.8.4).
- All units that require reprocessing must be selected before activating.
  - Unit status before activation must be either **Pending** or **Error**.
- If multiple media are involved in processing the job, PDS starts numbering the media volumes being produced with one and numbering consecutively even though the volume numbers do not coincide with the original production.
  - This may or not be acceptable at a particular site. Refer to DAAC policy.

4 If units in a job should not be reactivated as described in the preceding step, go to Step 6.

5 If a job (or units in a job) has (have) been reactivated, go to Step 16.

6 Access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

7 At the UNIX command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory.
  - To identify the PDS root directory at the command line prompt enter:

    echo $PDSROOT

8 At the command line prompt enter:

ls

- A list of subdirectories and files in the PDS root directory is displayed.

9 At the UNIX command line prompt enter:

rm <job key>.ppf

- Remove the PPF for the job.
- **<job key>.ppf** refers to the PPF for the job.
  - For example:

    YEA0203190048_0001.ppf

  - The job key is a unique label for the job composed of the order number, an underscore and a zero-padded unit number of the first unit of the job.

10 At the UNIX command line prompt enter:

rm <machine ID>_<console ID>_<job key>.status

- Remove the status file for the job.
- **<machine ID>_<console ID>_<job key>.status** refers to the applicable status file.

11 At the UNIX command line prompt enter:

cd /pdssa/assemble

- Change to the "assemble" directory.

12 At the command line prompt enter:

ls

- A list of subdirectories and files in the "assemble" directory is displayed.

13 At the command line prompt enter:

rm -r <job key>

- Remove data directory associated with the job (and identified by the job key).

14 At the command line prompt enter:

rm <job key>.image

- Remove image data associated with the job from the directory.
- **<job key>.image** refers to the applicable image file.

15 Change the status of the job and its units to **Q** (Pending) and reactivate the units/job.

- For detailed instructions refer to the **Reset/Reactivate Units** procedure (Section 18.10.20).

16 Monitor job processing.

- For detailed instructions refer to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.10-25. Reprocess a Job - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Determine whether there was an I/O error (review job log) (if 8mm job)	Use procedure in Section 18.10.33 or Section 18.10.34
2	**off** then **on** (power switch for affected 8mm drive) (if I/O error)	**press switch**
3	Reactivate units in the job (if job is in **Error** status)	Use procedure in Section 18.8.4
4	Go to Step 6 (if units should not be reactivated)	

Table 18.10-25. Reprocess a Job - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
5	Go to Step 16 [if job (or units in job) has (have) been reactivated]	
6	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
7	**cd**	**enter text, press Enter**
8	**ls**	**enter text, press Enter**
9	**rm <job key>.ppf**	**enter text, press Enter**
10	**rm <machine ID>_<console ID>_<job key>.status**	**enter text, press Enter**
11	**cd /pdssa/assemble**	**enter text, press Enter**
12	**ls**	**enter text, press Enter**
13	**rm -r <job key>**	**enter text, press Enter**
14	**rm <job key>.image**	**enter text, press Enter**
15	Change the status of the job and its units to **Q** (Pending) and reactivate the units/job	Use procedure in Section 18.10.20
16	Monitor job processing	Use procedure in Section 18.8.1

18.10.20 Reset/Reactivate Units

The problem is that units of a job were completed and later need to be redone.

Both the **Main OI Screen** and the **PDSIS OI Main Screen** may be involved in resetting/reactivating units.

Table 18.10-26 presents (in a condensed format) the steps required to reset/reactivate units. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: It is recommended that you **avoid** the PDS Maintenance Module **Reset Stage Units to Q Status Form (PDSRSTAG)**.

1 If data concerning the job/units is still in the PDSSA database tables, in the **PDSINFO Work Table** reset the **Status** field value for all affected units to **Q** (pending).

- For detailed instructions refer to the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2).

- The job key is either available on the **Main OI Screen** or can be derived from the order number on the **PDSIS OI Main Screen**.
  - The job key is derived from the order number by adding an underscore and the zero padded unit number of the first unit of the job (typically 0001); for example, job key YEA0203060028_0001 is composed of order number YEA0203060028, an underscore, and unit number 0001.

2 If data concerning the job/units is still in the PDSSA database tables, in the **PDSINFO Jobs Table** reset the **Status** field value for the job to **Q** (pending).
- For detailed instructions refer to the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2).

3 If data concerning the job/units is no longer in the PDSSA database tables but is still in the PDSIS database tables (i.e., the order has not been marked "shipped" yet), in the **PDSIS Orders Maintenance Form** reset the **Status** field value for the order to **I** (in progress).
- For detailed instructions refer to the **Change the Values of Order Parameters Using the PDSIS Maintenance Module** procedure (Section 18.10.3).
- The order number is available on the **PDSIS OI Main Screen**.

4 If data concerning the order/units is no longer in the PDSSA database tables but is still in the PDSIS database tables (i.e., the order has not been marked "shipped" yet), in the **PDSIS Units Maintenance Form** reset the following fields to the specified values:
- **Status** field value for all units in the order set to **R** (ECS data received).
- **Action** field value for all units in the order set to **P** (request PDS data).
  - For detailed instructions refer to the **Change the Values of Order Parameters Using the PDSIS Maintenance Module** procedure (Section 18.10.3).
  - The order number is available on the **PDSIS OI Main Screen**.

5 Reactivate the job using the **Main OI Screen**.
- For detailed instructions refer to the **Activate a Job** procedure (Section 18.8.7).
- The units may not be displayed immediately on the PDSOI; however, they should appear on the **Main OI Screen** within 15 to 30 minutes.

Table 18.10-26. Reset/Reactivate Units - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Reset the **Status** field value (in **PDSINFO Work Table**) for all affected units to **Q** (if units are still in the table)	Use procedure in Section 18.10.2
2	Reset the **Status** field value (in **PDSINFO Jobs Table**) for the job to **Q** (if job is still in the table)	Use procedure in Section 18.10.2

Table 18.10-26. Reset/Reactivate Units - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
3	Reset the **Status** field value (in the **PDSIS Orders Maintenance Form**) for the order to **I** (if job is no longer in PDSSA but order is still in PDSIS)	Use procedure in Section 18.10.3
4	Reset **Status** field value to **R** and **Action** field value to **P** (in **PDSIS Units Maintenance Form**) for all units in the order (if order/units no longer in PDSSA but still in PDSIS)	Use procedure in Section 18.10.3
5	Reactivate the job	Use procedure in Section 18.8.7

18.10.21 Respond to a CD/DVD Job Error Indicated on PDSOI

The problem is that an error with a CD or DVD job is indicated on PDSOI.

Table 18.10-27 presents (in a condensed format) the steps required to respond to a CD/DVD job error indicated on PDSOI. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the command line prompt enter:

cd /pdssa/rimage_jobcontrol

- Change to the Rimage job control directory.

3 At the command line prompt enter:

more pwrtool.log

- The content of the PowerTools log is displayed.
- Although this procedure has been written for the **more** command, any UNIX editor or visualizing command (e.g., **pg, vi**, **view**) can be used to review the log file.

4 Examine the content of the PowerTools log for the following types of entries:
- File already exists.
- File not found.

5 If one of the preceding types of problems is found in the PowerTools log, perform the **Clean Up the E: Drive on the Rimage PC** procedure (Section 18.10.8).

Table 18.10-27. Respond to a CD/DVD Job Error Indicated on PDSOI - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd /pdssa/rimage_jobcontrol**	**enter text, press Enter**
3	**more pwrtool.log**	**enter text, press Enter**
4	Examine the PowerTools log for error messages	**read text**
5	Clean Up the E: drive on the Rimage PC (if applicable)	Use procedure in Section 18.10.8

18.10.22 Respond to a Jewel-Case Insert Printing Failure

The problem is that a jewel-case insert has failed to print and the following circumstances exist:

- Data have been written to the medium.
- Status has changed to QC-Hold.
- Summary sheet has printed.
- There are no obvious printer faults (e.g., paper supply empty, paper jam).
- Jewel-case insert has not printed.

Table 18.10-28 presents (in a condensed format) the steps required to respond to a jewel-case insert printing failure. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: Do not change the status of units that have no inserts to "Complete."

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the command line prompt enter:

    echo $PDSROOT

3 At the command line prompt enter:

cd summary

- Change to the "summary" directory.

4 At the command line prompt enter:

ls

- A list of the subdirectories and files in the "summary" directory is displayed.

5 Observe the entries in the list of subdirectories and files in the "summary" directory to identify the status file for the job.

- The file has the format <Machine ID>_<Console ID>_<Job Key>.status
- For example:

  DIG6-IT_pds_TS20112130001_0001.status

  - **DIG6-IT** is the Machine ID.
  - **pds** is the Console ID.
  - **TS20112130001_0001** is the Job Key.

6 If reprinting all jewel-case inserts for a multiple CD/DVD job, at the command line prompt enter:

mv <status file name> ../status

- For example:

  mv DIG6-IT_pds_TS20112130001_0001.status ../status

- **<status file name>** refers to the status file for the job.

NOTE: The units in the status file cannot have been completed or subsequent reading of the status file will return an error.

7 If the printer still does not provide output or if reprinting an individual jewel-case insert, at the command line prompt enter:

lp -d <printer ID> <insert file name>

- **<printer ID>** refers to the jewel-case insert printer to be tested.
- **<insert file name>** refers to the name of a jewel-case insert file to be printed on the printer to be tested.
- For example:

  lp -d x0dit09 PDSGENDAAC_TS20112130001_0001_1.1

  - **x0dit09** is the printer being tested.

- **PDSGENDAAC_TS20112130001_0001_1.1** is a jewel-case insert for Job Key TS20112130001_0001.
- The jewel-case insert file should be printed on x0dit09 (the jewel-case insert printer).
- When jewel-case inserts are reprinted using the **lp** command, the bar code is not printed on the insert.
- Check the local DAAC policy to determine whether jewel-case inserts without bar codes are acceptable.

8 If the specified file did not print on the printer, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

9 Return to Step 7 if it is necessary to print jewel-case inserts for additional disks associated with the job.

Table 18.10-28. Respond to a Jewel-Case Insert Printing Failure - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**cd summary**	**enter text, press Enter**
4	**ls**	**enter text, press Enter**
5	Identify the status file for the job	**read text**
6	**mv <status file name> ../status** (if reprinting all jewel-case inserts for a multiple CD/DVD job)	**enter text, press Enter**
7	**lp -d <printer ID> <insert file name>** (if applicable)	**enter text, press Enter**
8	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8
9	Return to Step 7 (if necessary)	

18.10.23 Respond to a Job's Status Not Changing to QC-Hold Upon Successful Completion

The problem is that a PDS job does not change to a QC-Hold status although production was successful. The possible causes include the following items:

- At least two instances of PDSOI with the same OI ID are currently active.
- The instance of PDSOI with the OI ID that activated the job is not currently active.
- The time on the Rimage PC is not set to within five minutes of the time on the PDS Server host (CD or DVD job only).

Table 18.10-29 presents (in a condensed format) the steps required to respond to a job's status not changing to QC-Hold upon successful completion. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Review the contents of the job log to verify that production of the affected job was in fact successful.

- For detailed instructions refer to either the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure for (Section 18.10.33) or the **View a Job Log Using the PDS Job Monitor** procedure (Section 18.10.34).
- If job production was successful, the following types of entries should be observed at the end of the job log:

  volcount = 1
  volsize = 520279040.000000
  ENTERING STAGE: Cleaning Up
  request id is x0dph10-45 (standard input)
  Job complete

- If the types of entries shown in the example (i.e., volcount, volsize, "ENTERING STAGE: Cleaning Up", request id, and "Job complete") are not present at the end of the job log, job production was not successful.

2 If job production was not successful, go to the procedure to **Reprocess a Job**.

- For detailed instructions refer to the **Reprocess a Job** procedure (Section 18.10.19).

3 If the affected job is a CD or DVD job, check the synchronization of the Rimage PC time with PDS system time.

- The time on the Rimage PC must be set to within five (5) minutes of the time on the PDS Server host (e.g., x0dig06).
  - If the time is not properly synchronized, CD and DVD jobs cannot proceed to a QC-Hold status.
- For detailed instructions refer to the **Check/Restore Synchronization of the Rimage PC Time with PDS System Time** procedure (Section 18.10.6).

4 If the affected job is not a CD or DVD job or if checking/restoring synchronization of the Rimage PC time with PDS system time is not effective, determine which instance of PDSOI was used to activate the job.

- For detailed instructions refer to the **Determine Which Instance of PDSOI Was Used to Activate a Job** procedure (Section 18.10.15).

5 Access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

6 At the UNIX command line prompt enter:

ps -ef | grep PDSMTOIX

- The command searches the current processes on the host for the string "**PDSMTOIX**" and displays the results of the search.
  - **PDSMTOIX** is the name of the Oracle Form for the PDSOI.
- The following type of response is displayed:

  pds 4174557 1 0 10:13:25 pts/5 0:03 f45runm PDSMTOIX pdssa/xxx
  pds 4167754 4161497 0 10:17:03 pts/9 0:00 grep PDSMTOIX

  - The example shown indicates that there is only one instance of PDSOI currently running and it is user "pds" who is running it.
  - The entry that ends in "grep PDSMTOIX" is the process that was searching for PDSMTOIX.
- The following example is another type of response:

  pds 4179615 4161497 0 11:00:43 pts/9 0:00 grep PDSMTOIX
  pds 4174557 1 0 10:13:25 pts/5 0:03 f45runm PDSMTOIX pdssa/xxx
  pds 4180400 1 0 10:58:11 pts/10 0:03 f45runm PDSMTOIX pdssa/xxx

  - The second example indicates that there are two instances of PDSOI currently running and user "pds" is running both, although through different connections (i.e., pts/5 and pts/10). (It is possible that there are different individuals running the two instances of PDSOI with the same user ID.)
  - If both instances of PDSOI were launched using the same OI ID (i.e., Machine ID and Console ID), there is a significant chance of causing confusion when writing to the Operator Interface log (oilog).

7 If there are any active instances of PDSOI currently running, observe the header of each **Main OI Screen** to identify the OI ID that applies to each open instance of the PDSOI.

- The format of the **Main OI Screen** header is PDS <OI_ID>, where <OI_ID> has the format <MachineID>_<ConsoleID>.
- For example:

  PDS DIG06_ops is in the header of a Main OI Screen.

  - **DIG06_ops** is the OI ID.
  - **DIG06** is the Machine ID.
  - **ops** is the Console ID.

8 If there are multiple instances of PDSOI currently running with what should be the single controlling OI ID on each instance of the GUI, shut down all but one instance of the PDSOI with that OI ID.

- For detailed instructions refer to the **Shut Down the PDS Operator Interface (PDSOI)** procedure (Section 18.7.3).

- In general it is good practice to have only one controlling instance of the PDSOI active at a time.
- Any other instances of the PDSOI that are launched for monitoring purposes should have different OI IDs (i.e., different Console IDs).
- For example:
  - **DIG06_ops** might be the instance of PDSOI that is always brought up on a workstation in the PDS area for the purpose of controlling the processing of jobs in OPS mode.
  - **DIG06_mon** might be brought up on a workstation in a remote location to allow monitoring jobs in OPS mode without ever being used to activate or otherwise control jobs.
- If for some reason there are multiple controlling instances of the PDSOI, it is crucial for each to have a different OI ID (i.e., different Console ID) to avoid conflicts.

9 If there is no current instance of PDSOI with the OI ID indicated in the status file name or .ppf contents, start another PDSOI using the specified OI ID.
- For detailed instructions refer to the **Start the PDS Operator Interface (PDSOI)** procedure (Section 18.6.2).

10 Change the values of the following job parameters using the PDS Maintenance Module as described in the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2):
- PDSINFO Work Table:
  - Change the **Status** of each unit in the job to **F**.
- PDSINFO Jobs Table:
  - Change the **Status** of the job to **F**.
  - Change the **Job Status** of the job to **QC-Hold**.

11 Observe the information displayed on the PDSOI **Main OI Screen** to determine whether the **Job Status** for the job has changed to **QC-Hold**.
- If the **Job Status** for the job has changed to **QC-Hold**, the job line for the job is yellow.

12 If the **Job Status** for the job has changed to **QC-Hold**, perform the QC check.
- For detailed instructions refer to the **Respond to a Status of QC-Hold (Performing a QC Check or Verification)** procedure (Section 18.8.12).

13 If the **Job Status** for the job has not changed to **QC-Hold**, reprocess the job.
- For detailed instructions refer to the **Reprocess a Job** procedure (Section 18.10.19).

Table 18.10-29. Respond to a Job's Status Not Changing to QC-Hold Upon Successful Completion - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Verify that production of the affected job was successful (review job log)	Use procedure in Section 18.10.33 or Section 18.10.34
2	Go to the procedure to reprocess a job (if job production was not successful)	Use procedure in Section 18.10.19
3	Check the synchronization of the Rimage PC time with PDS system time (if CD or DVD job)	Use procedure in Section 18.10.6
4	Determine which instance of PDSOI was used to activate the job (if not a CD or DVD job or if checking/restoring synchronization of the Rimage PC time with PDS system time is not effective)	Use procedure in Section 18.10.15
5	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
6	**ps -ef | grep PDSMTOIX**	**enter text, press Enter**
7	Observe the header of each **Main OI Screen** to identify the OI ID on each (if applicable)	**read text**
8	Shut down all but one instance of the PDSOI with the relevant OI ID (if applicable)	Use procedure in Section 18.7.3
9	Start PDSOI using the specified OI ID (if applicable)	Use procedure in Section 18.6.2
10	Change the values of job parameters: PDSINFO Work Table: **Status** (each unit) → **F** PDSINFO Jobs Table: **Status → F** **Job Status → QC-Hold**	Use procedure in Section 18.10.2
11	Determine whether **Job Status** has changed to **QC-Hold** (PDSOI **Main OI Screen**)	**read text**
12	Perform the QC check (if **Job Status** is **QC-Hold**)	Use procedure in Section 18.8.12
13	Go to the procedure to reprocess a job (if **Job Status** not **QC-Hold**)	Use procedure in Section 18.8.18

18.10.24 Respond to a Job on a Lag Report

A lag report specifies all orders that still need to be produced, broken down by various time-frame ranges. A corresponding file (i.e., $PDSROOT/summary/lag<timestamp>.rpt) is generated.

A job may show up on the lag report but not show up on the PDSOI. This condition is usually due to a data problem.

Table 18.10-30 presents (in a condensed format) the steps required to respond to a job on a lag report. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Perform the **Start the PDS Maintenance Module** procedure (Section 18.6.7).

2 **Single-click** on the **PDSINFO Work Table** button on the PDS **Maintenance Module Main Menu**.

- The **PDSINFO Table Maintenance Form (PDSMTPDT)** or **PDSINFO Work Table** is displayed.

3 In the **Job Key** field on the **PDSINFO Work Table** enter:

<job key>

- **<job key>** is shown on the Lag Report.

4 **Single-click** on the **Execute Query** button near the bottom of the **PDSINFO Work Table**.

- The database is queried for data concerning the job represented by the **Job Key** and the relevant data are displayed on the **PDSINFO Work Table**.

5 Observe the data in all of the various fields on the **PDSINFO Work Table** to determine whether there is missing data in any field, especially the **Product Code** and **Output Specs** fields.

- At least during the initial implementation of PDS in ECS there is only one **Product Code**; i.e., G001.
  - To determine acceptable product codes perform the **Determine Product Codes Using the PDS Maintenance Module** procedure (Section 18.10.12).
- To check the **Output Specs** compare the entries in the **Output Specs** and **Product Media** fields of the **PDSINFO Work Table** to determine whether the entries are consistent.
  - To determine acceptable output specifications perform the **Determine Output Specifications Using the PDS Maintenance Module** procedure (Section 18.10.10).

6 If there is missing or incorrect data in any field, in the appropriate field enter:

<value>

7 **Single-click** on the **Save** button on the **PDSINFO Work Table**.

- The record is saved in the database with the new value entered in the appropriate field.

- It is recommended that each record be saved immediately after it is changed (before making changes to another record).

8 **Single-click** on the next/previous record buttons (> >> < <<) near the bottom of the form as necessary to display additional records (units) for the job.

9 Repeat Steps 5 through 8 for all additional records that need to be modified for the job.

10 When all records that need to be modified for the job have been corrected, **single-click** on the **Exit** button at the bottom of the window.
- If the **Exit** button is not visible on the maintenance module form, **single-click** on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the PDS **Maintenance Module Main Menu** is displayed.

11 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:
- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.

12 Perform the **Determine Product Codes Using the PDS Maintenance Module** procedure (Section 18.10.12) to determine whether there are appropriate entries in the **PVT_PRCDTBL_TBL** database table for **Product Code**.
- Includes determining whether there is an appropriate entry for **Product Code** in the **PDS Description** field (**PVT_PRCDTBL_TBL** database table).

13 Perform the **Determine Output Specifications Using the PDS Maintenance Module** procedure (Section 18.10.10) to determine whether there are appropriate entries in the **OUT_OTSPTBLV_TBL** database table for **Output Spec**.
- Includes determining whether there is an appropriate entry for **Output Spec** in the **PDS Description** field (**OUT_OTSPTBLV_TBL** database table).

14 Perform the **Specify Job Selection Criteria** procedure (Section 18.8.3).
- The **Main OI Screen** is displayed.
- Includes ensuring that the specified criteria include the values for the job on the lag report.

15 Observe information displayed on the **Main OI Screen**.
- The job on the lag report should be displayed on the **Main OI Screen**.

16 If the problem could not be identified through any of the preceding steps, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
- If the job on the lag report is still not displayed on the **Main OI Screen**, that is an indication that the problem was not identified through any of the preceding steps.

Table 18.10-30. Respond to a Job on a Lag Report - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDS Maintenance Module	Use procedure in Section 18.6.7
2	**PDSINFO Work Table** button	**single-click**
3	**<job key>** (in the **Job Key** field)	**enter text, press Enter**
4	**Execute Query** button	**single-click**
5	Determine whether there is missing data in any field	**read text**
6	**<value>** [field(s) on the **PDSINFO Work Table**] (if applicable)	**enter text, press Enter**
7	**Save** button	**single-click**
8	next/previous record buttons (**> >> < <<**) as necessary to display additional records	**single-click**
9	Repeat Steps 5 through 8 for all additional records that need to be modified for the job	
10	**Exit** button	**single-click**
11	**Yes** (if applicable)	**single-click**
12	Determine whether there are appropriate entries in the **PVT_PRCDTBL_TBL** database table for **Product Code**	Use procedure in Section 18.10.12
13	Determine whether there are appropriate entries in the **OUT_OTSPTBLV_TBL** database table for **Output Spec**.	Use procedure in Section 18.10.10
14	Specify job selection criteria	Use procedure in Section 18.8.3
15	Observe information displayed on the **Main OI Screen**	**read text**
16	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8

18.10.25 Respond to a Locked-Up Screen

The problem is that the PDSOI screen is locked up and it is not possible to get access to the main menu in order to shut down the GUI.

Table 18.10-31 presents (in a condensed format) the steps required to respond to a locked-up screen. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 In the UNIX window where the PDSOI was originally started at the command line prompt enter:

ps -ef | grep PDSMTOIX

- The following type of message is displayed:

```
pds    790367    790059  0 10:15:11 pts/8   0:00 grep PDSMTOIX
pds    233139          1  0   Feb 08  pts/66  0:27 f45runm PDSMTOIX
pds    779612          1  0 09:25:06 pts/8   0:03 f45runm PDSMTOIX
```

- All current processes owned by the user ID are displayed.
- PDSMTOIX is the name of the Oracle Form for PDSOI.
- In the preceding example the **grep** command returns the same pts/8 as one of the PDSMTOIX lines.
- In the example the process ID (pid) of the PDSMTOIX process is 779612.

2 At the command line prompt enter:

kill -15 <process ID>

- The PDSOI screen is dismissed.
- **<process ID>** refers to the process ID of the process to be killed.

Table 18.10-31. Respond to a Locked-Up Screen - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server) (where the PDSOI was originally started)	**single-click**
2	**ps -ef | grep PDSMTOIX**	**enter text, press Enter**
3	**kill -15 <process ID>**	**enter text, press Enter**

18.10.26 Respond to a Problem Starting PDSOI

The problem is that the pdsoi alias was typed but the PDSOI GUI was not displayed. Likely causes include improper setting of the DISPLAY environmental variable and inadvertent deletion of the pdsoi alias from the alias list.

Table 18.10-32 presents (in a condensed format) the steps required to respond to a problem starting PDSOI. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

NOTE: It may take a few seconds for the PDSOI to be displayed.

1 Wait a few seconds for the PDSOI to be displayed.

2 If the PDSOI is not displayed after a few seconds, at the command line prompt enter:

echo $DISPLAY

- The following type of response should be received:

  x0dig06:12.0

- If a **DISPLAY - Undefined variable** message was received, the DISPLAY environmental variable was not set properly.

3 If the DISPLAY environmental variable was not set properly, at the command line prompt enter:

ps -ef | grep PDSMTOIX

- The following type of message is displayed:

  pds 790367 790059 0 10:15:11 pts/8 0:00 grep PDSMTOIX
  pds 779612 1 0 09:25:06 pts/8 0:03 f45runm PDSMTOIX

- All current processes owned by the user ID are displayed.
- PDSMTOIX is the name of the Oracle Form for PDSOI.
- In the example the process ID (pid) of the PDSMTOIX process is 779612.

4 If the DISPLAY environmental variable was not set properly, at the command line prompt enter:

kill -15 <process ID>

- The process is terminated.
- **<process ID>** refers to the process ID of the process to be terminated.

5 If the DISPLAY environmental variable was not set properly, at the command line prompt enter:

exit

- **logout** is an acceptable alternative command.
- The log-in to the PDS Server host is terminated; control is returned to the previous host.

6 If the DISPLAY environmental variable was not set properly, repeat Step 5 as necessary to return to the original log-in host.

- Exit from as many hosts as necessary to return to the original host.

7 If the DISPLAY environmental variable was not set properly, perform the **Start the PDS Operator Interface (PDSOI)** procedure (Section 18.6.2).

- Set the DISPLAY environmental variable properly this time.

8 If the DISPLAY environmental variable was set properly, at the command line prompt enter:

alias pdsoi

- The actual executable name should be returned.
- For example:

  /data1/pds_it/run/pdsoi_prod.sh

9 If the executable name was not returned in response to the **alias pdsoi** command, at the command line prompt enter:

alias pdsoi /<path>/<executable>

- For example:

  alias pdsoi /data1/pds_it/run/pdsoi_prod.sh

- **<path>** represents the full directory path to the directory containing the executable program.
- **<executable>** represents the name of the executable program.

Table 18.10-32. Respond to a Problem Starting PDSOI - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Wait a few seconds for the PDSOI to be displayed	**wait**
2	**echo $DISPLAY** (if applicable)	**enter text, press Enter**
3	**ps -ef | grep PDSMTOIX** (if applicable)	**enter text, press Enter**
4	**kill -15 <process ID>** (if applicable)	**enter text, press Enter**

Table 18.10-32. Respond to a Problem Starting PDSOI - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
5	**exit** (if applicable)	**enter text, press Enter**
6	Repeat Step 5 as necessary to return to the original log-in host (if applicable)	
7	Start the PDS Operator Interface (PDSOI) (if applicable)	Use procedure in Section 18.6.2
8	**alias pdsoi** (if applicable)	**enter text, press Enter**
9	**alias pdsoi /<path>/<executable>** (if applicable)	**enter text, press Enter**

18.10.27 Respond to a Save Changes Dialogue Box When Exiting a Maintenance Module Window

The problem is that after having clicked on the **Exit** button to exit a maintenance module window a dialogue box containing the message "Do you want to save changes?" is displayed. The procedure is performed as part of one of the following procedures:

- **Change the Values of Job Parameters Using the PDS Maintenance Module** (Section 18.10.2).
- **Change the Values of Order Parameters Using the PDSIS Maintenance Module** (Section 18.10.3).
- **Respond to a Job on a Lag Report** (Section 18.10.24).

In each case after clicking on the **Exit** button to exit a maintenance module window a dialogue box containing the message "Do you want to save changes?" is displayed.

Table 18.10-33 presents (in a condensed format) the steps required to respond to a save changes dialogue box when exiting a maintenance module window. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the appropriate button from the following selections:

- **Yes** - to accept the changes and dismiss the dialogue box and maintenance module window.
  - The dialogue box is dismissed.
  - The maintenance module window is dismissed.
  - The maintenance module main menu is displayed.
  - If changes have been made that cannot be saved to the database, single-clicking on **Yes** does not override the restrictions; in such a case it is not possible to get out of the maintenance module window except by single-clicking on **No**. A permission problem could cause an inability to save changes.

- **No** - to dismiss the dialogue box and maintenance module window without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The maintenance module window is dismissed.
  - The maintenance module main menu is displayed.
- **Cancel** - to dismiss the dialogue box and return to the maintenance module window.
  - The dialogue box is dismissed.
  - The maintenance module window is displayed.

2 If changes should be saved but it is not possible to save changes and get out of the maintenance module window, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.
- If the dialogue does not accept **Yes** as a response, it is not possible to save changes and get out of the maintenance module window.

Table 18.10-33. Respond to a Save Changes Dialogue Box When Exiting a Maintenance Module Window - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	**Yes**	**single-click**
2	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8

18.10.28 Respond to a "Waiting for Drive Selection" Message on the Job Monitor

The procedure to **Respond to a "Waiting for Drive Selection" Message on the Job Monitor** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The problem is that a job or unit has been activated from the PDS **Main OI Screen** or **OI Detail Screen** but the **Media Drive Selection** window is not visible.

Table 18.10-34 presents (in a condensed format) the steps required to respond to a "Waiting for Drive Selection" message on the job monitor. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the **Media Drive Selection** window does not appear within a reasonable period of time (a couple of minutes), minimize other windows in the workspace and see if it was hidden behind another window.
- The **Media Drive Selection** window can sometimes be found behind other windows.

2 If the **Media Drive Selection** window is visible in the workspace, continue with job activation.

- For detailed instructions refer to the **Activate a Job** procedure (Section 18.8.7).

3 If the **Media Drive Selection** window is not visible anywhere in the workspace, access a terminal window logged in to the PDS Server host.

- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

4 At the command line prompt enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the command line prompt enter:

    echo $PDSROOT

5 At the command line prompt enter:

cd run

- Change to the "run" directory.

6 At the command line prompt enter:

genericout <job key>

- Run the **genericout** program using the job ID as an argument.
- The **Media Drive Selection** window should be displayed.

7 If the **Media Drive Selection** window is visible in the workspace, continue with job activation.

- For detailed instructions refer to the **Activate a Job** procedure (Section 18.8.7).

8 If the **Media Drive Selection** window is not visible anywhere in the workspace, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

Table 18.10-34. Respond to a "Waiting for Drive Selection" Message on the Job Monitor - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Minimize other windows in the workspace and see if the **Media Drive Selection** window was hidden behind another window	**single-click**
2	If the **Media Drive Selection** window is visible in the workspace, continue with job activation	Use procedure in Section 18.8.7
3	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
4	**cd**	**enter text, press Enter**
5	**cd run**	**enter text, press Enter**
6	**genericout <job key>**	**enter text, press Enter**
7	If the **Media Drive Selection** window is visible in the workspace, continue with job activation	Use procedure in Section 18.8.7
8	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8

18.10.29 Respond to Duplicate Jobs on the PDSOI

The procedure to **Respond to Duplicate Jobs on the PDSOI** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The problem is that jobs are displayed on the PDSOI multiple times. If the PDSOI continues to create duplicate jobs after duplicates have been removed, there may be a data problem in the PDSINFO table.

Table 18.10-35 presents (in a condensed format) the steps required to respond to duplicate jobs on the PDSOI. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Observe the job keys of the "duplicate" jobs on the **Main OI Screen** to verify that the jobs are true duplicates.
- Verify that the jobs have the same exact job key (i.e., **all** digits the same).

2 Perform the **Start the PDS Maintenance Module** procedure (Section 18.6.7).

3 **Single-click** on the **PDSINFO Jobs Table** button on the PDS **Maintenance Module Main Menu**.
- The **PDSINFO Jobs Table Maintenance Form (PDSMTPJT)** or **PDSINFO Jobs Table** is displayed.

4 **Single-click** and **drag** (to highlight the text) in the **Job Key** field for the appropriate job on the **Main OI Screen**.
- **Job Key** text is highlighted on the **Main OI Screen**.

5 **Single-click** in the **Job Key** field on the **PDSINFO Jobs Table** with the **center** mouse button.
- **Job Key** is pasted in the **Job Key** field on the **PDSINFO Jobs Table**.

6 **Single-click** on the **Execute Query** button near the bottom of the **PDSINFO Jobs Table**.
- The database is queried for data concerning the job represented by the **Job Key** and the relevant data are displayed on the **PDSINFO Jobs Table**.

7 Observe the data in all fields of the form.

8 **Single-click** on the next/previous record buttons (> >> < <<) near the bottom of the form as necessary to display additional records with the same job key.

9 Observe the data in all fields of the form.
- Check **all** fields to identify any field with data that differs from that shown for the preceding record.

10 Repeat Steps 8 and 9 for all records with the same job key in the **PDSINFO Jobs Table**.

11 If any field has data that differ from preceding records, determine which record is the correct one.
- For example, if the **OI ID** is filled in on one record and blank on the others, the one that contains a value is the "correct" one.
  - It means that the job has been started using the specified OI ID and work will be performed using the specified OI ID only.
  - Another OI ID would not work on the job.

12 After determining which job is the correct one, record (make a note of) the values in the fields in the **PDSINFO Jobs Table**.

13 **Single-click** on the next/previous record buttons (> >> < <<) near the bottom of the form as necessary to display additional records with the same job key.
- Ensure that the current record being displayed in the table is one of those to be removed, not the record to be kept.

14 Execute the following menu path:

Record → Remove

- The removed record is no longer displayed on the screen, but the record to be kept is displayed (unless there are multiple duplicates).

15 **Single-click** on the **Save** button on the **PDSINFO Jobs Table**.

16 If there are multiple duplicates, repeat Steps 13 through 15 to remove the additional duplicate(s).

17 If the **OI ID** specified in the **PDSINFO Jobs Table** is different from the OI ID used in starting the current PDSOI, start another PDSOI using the OI ID specified in the **PDSINFO Jobs Table**.

- For detailed instructions refer to the **Start the PDS Operator Interface (PDSOI)** procedure (Section 18.6.2).

18 If the **OI ID** specified in the **PDSINFO Jobs Table** is different from the OI ID used in starting the current PDSOI, process the job using the PDSOI started using the OI ID specified in the **PDSINFO Jobs Table**.

- For detailed instructions refer to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

19 **Single-click** on the **Exit** button at the bottom of the **PDSINFO Jobs Table**.

- If the **Exit** button is not visible on the form, **single-click** on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the PDS **Maintenance Module Main Menu** is displayed.

20 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:

- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.

21 **Single-click** on the **PDSINFO Work Table** button on the PDS **Maintenance Module Main Menu**.

- The **PDSINFO Table Maintenance Form (PDSMTPDT)** or **PDSINFO Work Table** is displayed.

22 **Single-click** and **drag** (to highlight the text) in the **Job Key** field for the appropriate job on the **Main OI Screen**.

- **Job Key** text is highlighted on the **Main OI Screen**.

23 **Single-click** in the **Job Key** field on the **PDSINFO Work Table** with the **center** mouse button.

- **Job Key** is pasted in the **Job Key** field on the **PDSINFO Work Table**.

24 **Single-click** on the **Execute Query** button near the bottom of the **PDSINFO Work Table**.

- The database is queried for data concerning the job represented by the **Job Key** and the relevant data are displayed on the **PDSINFO Work Table**.

25 Compare the values in the fields on the **PDSINFO Work Table** with the values recorded from the fields on the **PDSINFO Jobs Table** to identify all discrepancies.

26 If the values of any parameters on the **PDSINFO Work Table** are inconsistent with the values recorded from the fields on the **PDSINFO Jobs Table** (especially **Product Media** and **Product Code**), **single-click** in the appropriate field of the **PDSINFO Work Table**.

27 If the values of any parameters on the **PDSINFO Work Table** are inconsistent with the values recorded from the fields on the **PDSINFO Jobs Table**, in the appropriate field of the **PDSINFO Work Table** enter:

<value>

28 Repeat Steps 26 and 27 as necessary to modify values in other fields of the **PDSINFO Work Table**.

29 **Single-click** on the **Save** button on the **PDSINFO Work Table**.

- The record is saved in the database with the new value entered in the appropriate field.
- It is recommended that each record be saved immediately after it is changed (before making changes to another record).

30 **Single-click** on the next/previous record buttons (> >> < <<) near the bottom of the form as necessary to display additional records (units) for the job.

31 Repeat Steps 25 through 30 as necessary for all additional records that need to be modified for the job.

32 **Single-click** on the **Exit** button at the bottom of the **PDSINFO Work Table**.

- If the **Exit** button is not visible on the form, click on the **Cancel Query** button.
  - The buttons change and the **Exit** button becomes visible.
- Either the maintenance module window is dismissed or a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved.
- If the maintenance module window was dismissed, the PDS **Maintenance Module Main Menu** is displayed.

33 If a dialogue box is displayed with a message requesting whether changes made to the data on the form should be saved, **single-click** on the appropriate button from the following selections:

- **Yes** - to accept the changes and dismiss the dialogue box.
  - The dialogue box is dismissed.
  - The PDS **Maintenance Module Main Menu** is displayed.
- **No** - to dismiss the dialogue box without accepting the changes made to the data on the form.
  - The dialogue box is dismissed.
  - The PDS Maintenance Module Main Menu is displayed.

34 **Single-click** on the **Exit** button at the bottom of the PDS **Maintenance Module Main Menu** window.

- The PDS **Maintenance Module Main Menu** is dismissed.
- The PDS maintenance module has been shut down.

35 If the PDSOI continues to create duplicate jobs, identify and modify fields that are blank or contain invalid values.

- Make changes to the PDS Maintenance Module **PDSINFO Work Table** as necessary.
- For detailed instructions refer to the **Change the Values of Job Parameters Using the PDS Maintenance Module** procedure (Section 18.10.2).

36 If the PDSOI has continued to create duplicate jobs, repeat the preceding steps as necessary to remove duplicate records.

Table 18.10-35. Respond to Duplicate Jobs on the PDSOI - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Observe the job keys of the "duplicate" jobs on the **Main OI Screen** to verify that the jobs are true duplicates	**read text**
2	Start the PDS Maintenance Module	Use procedure in Section 18.6.7
3	**PDSINFO Jobs Table** button	**single-click**
4	Copy **<job key>** (in the **Job Key** field on the **Main OI Screen**)	**single-click** and **drag**
5	Paste **<job key>** (in the **Job Key** field on the **PDSINFO Jobs Table**)	**center-click**
6	**Execute Query** button	**single-click**
7	Observe the data in all fields of the form	**read text**
8	Next/previous record buttons (**> >> < <<**) as necessary to display additional records	**single-click**
9	Observe the data in all fields of the form	**read text**
10	Repeat Steps 8 and 9 for all records with the same job key in the **PDSINFO Jobs Table**	
11	If any field has data that differ from preceding records, determine which record is the correct one	**read text**
12	Make a note of the values in the fields	**write text**
13	Next/previous record buttons (**> >> < <<**) as necessary to display additional records	**single-click**
14	**Record → Remove**	**single-click**
15	**Save** button	**single-click**
16	Repeat Steps 13 through 15 to remove duplicate record(s) (if applicable)	
17	Start another PDSOI using the OI ID specified in the **PDSINFO Jobs Table** (if applicable)	Use procedure in Section 18.6.2
18	Process the job using the PDSOI started using the OI ID specified in the **PDSINFO Jobs Table** (if applicable)	Use procedure in Section 18.8.1
19	**Exit** button	**single-click**
20	**Yes** button (if applicable)	**single-click**
21	**PDSINFO Work Table** button	**single-click**
22	Copy **<job key>** (in the **Job Key** field on the **Main OI Screen**)	**single-click** and **drag**
23	Paste **<job key>** (in the **Job Key** field on the **PDSINFO Work Table**)	**center-click**
24	**Execute Query** button	**single-click**

Table 18.10-35. Respond to Duplicate Jobs on the PDSOI - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
25	Identify all discrepancies between values in the fields on the **PDSINFO Work Table** with values in the fields on the **PDSINFO Jobs Table**	**read text**
26	**<value>** (in appropriate field of the **PDSINFO Work Table**) (if applicable)	**enter text**
27	Repeat preceding step as necessary to modify values in other fields (if applicable)	
28	**Save** button (if applicable)	**single-click**
29	Next/previous record buttons (**> >> < <<**) as necessary to display additional records	**single-click**
30	Repeat Steps 25 through 29 to modify additional record(s) (if applicable)	
31	**Exit** button	**single-click**
32	**Yes** button (if applicable)	**single-click**
33	**Exit** button (PDS **Maintenance Module Main Menu** window)	**single-click**
34	If the PDSOI continues to create duplicate jobs, modify fields that are blank or contain invalid values	Use procedure in Section 18.10.2
35	If the PDSOI has continued to create duplicate jobs, repeat the preceding steps as necessary	

18.10.30 Respond to Low Disk Space

The procedure to **Respond to Low Disk Space** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The problem is that the available space on a disk has become low (e.g., as indicated in the **Assembly Disk Usage** section of the **Job Monitor Main Window**).

Table 18.10-36 presents (in a condensed format) the steps required to respond to low disk space. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Wait before activating any jobs that would use the disk resource.

2 Complete orders that are being processed.

- For detailed instructions refer to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

3 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

4 At the command line prompt enter:

cd /pdssa/assemble

- Change to the assembly directory.

5 At the command line prompt enter:

ls

- A list of subdirectories and files in the assembly directory is displayed.

6 At the command line prompt enter:

rm <file name>

- Remove unneeded data from the directory.
- **<file name>** refers to unneeded file(s) or subdirectory(ies).

7 Repeat Step 6 as necessary to remove unneeded data from the assembly directory.

8 Return to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.10-36. Respond to Low Disk Space - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Wait before activating any jobs that would use the disk resource	**wait**
2	Complete orders that are being processed	Use procedure in Section 18.8.1
3	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
4	**cd /pdssa/assemble**	**enter text, press Enter**
5	**ls**	**enter text, press Enter**
6	**rm <file name>**	**enter text, press Enter**
7	Repeat Step 6 (as necessary)	
8	Return to the **Monitor/Control Product Processing Using PDS** procedure	Use procedure in Section 18.8.1

18.10.31 Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports)

The procedure to **Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports)** is performed as part of the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1). The problem is that either jewel-case inserts or paper reports (e.g., summary reports, quality check reports) are not printing.

Table 18.10-37 presents (in a condensed format) the steps required to respond to the problem of no printouts (either jewel-case inserts or paper reports). If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Observe the printer to determine whether there are any obvious faults (e.g., power off, paper supply empty, paper jam).

2 Respond to obvious faults, if any.
- Turn the power on, replenish the paper supply, clear the paper jam, etc. as necessary.
- For detailed instructions refer to the applicable printer manual.
- If the problem has not been resolved, continue with Step 3.

3 If the jewel-case printer is affected and the printer displays a "Wrong Media in Multi-Purpose Tray" message, reset the printer settings.
- From the Menu on the front panel, select **Printer Settings → Multi-Purpose Tray → Paper Type → Tek Labels** then select **Paper Size → #10 Envelope**.
- For detailed instructions refer to the jewel-case printer manual.
- The printer should start printing properly.
- If the problem has not been resolved, continue with Step 4.

4 **Single-click** on **Printers** on the menu bar of the **Main OI Screen**.
- The **Default Printers** dialogue box is displayed.
- The current selections for printers for reports and jewel-case inserts are displayed.

5 If no printer is selected for either Report Printer or Jewel Case Printer, **single-click** and **hold** the applicable option button (either **Report Printer** or **Jewel Case Printer**) to display a menu of printers, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.
- If the desired printer is not available on the list of printers, submit a request to the supervisor to have it added to the list.
- Selected printer is displayed on the option button when the mouse button is released.

6 If an alternate printer is to be designated for the other type of printer, repeat Step 5 for the other printer.

7 **Single-click** on the **Return** button.
- The **Main OI Screen** is displayed.

8 If either printer still does not provide output, access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

9 If either printer still does not provide output, at the command line prompt enter:

lp -d <printer ID> <file name>

- **<printer ID>** refers to the printer to be tested.
- **<file name>** refers to the name of a file to be printed on the printer to be tested.
- For example:

  lp -d x0dih04 0000104030361_0001.ppf

  – **x0dih04** is the printer being tested.
  – **0000104030361_0001.ppf** is a ppf file being used as a test file.
  – The ppf file should be printed on x0dih04.
- For additional details refer to the **Reprint PDS Documents and Labels** procedure (Section 18.10.18).

10 If the specified file did not print on the printer being tested, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

11 If the test file did print on the printer and it is not the jewel-case printer that is affected, go to Step 15.

12 If the test file did print on the printer and it is the jewel-case printer that is affected, examine the job log for an entry indicating that the job has stalled while waiting for status from Rimage.
- For example, if the last message is "Waiting for Rimage to signal status" and there have been no further entries for several minutes or there are multiple entries that include "volsdone:0 sleepcount…," the NFS connection may have been lost.
  – A Network File System (NFS) mount is needed in order to see the job control directory (e.g., /pdssa/rimage_jobcontrol) on the PDS system.
  – When the Windows NT system for the Rimage PC is set up, the PDS job control directory is typically assigned to the PC's Z: drive.

- For detailed instructions refer to either the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure for (Section 18.10.33) or the **View a Job Log Using the PDS Job Monitor** procedure (Section 18.10.34).

13 If the job has stalled while waiting for status from Rimage, check the NFS connection.
- For detailed instructions refer to the **Check/Restore the Rimage PC NFS Connection** procedure (Section 18.10.7).

14 If the NFS connection is good or if the job does not go to completion after the NFS connection has been restored, check synchronization of the Rimage PC time with the PDS system time.
- For detailed instructions refer to the **Check/Restore Synchronization of the Rimage PC Time with PDS System Time** procedure (Section 18.10.6).

15 If the problem has not been resolved through any of the preceding actions, call the help desk and submit a trouble ticket in accordance with site Problem Management policy.

Table 18.10-37. Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports) - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	Observe the printer for obvious faults	**observe**
2	Respond to obvious faults (if applicable)	**turn the power on, replenish the paper supply, clear the paper jam, etc.** (as necessary)
3	Reset the printer settings (if necessary)	Use procedure in jewel-case printer manual
4	**Printers** (on the menu bar of the **Main OI Screen**)	**single-click**
5	**<printer>** (either **Report Printer** or **Jewel Case Printer** option button as applicable)	**single-click**
6	Repeat Step 5 for the other printer (if applicable)	
7	**Return** button	**single-click**
8	UNIX window (PDS Server) (if applicable)	**single-click** or use procedure in Section 18.2.1
9	**lp -d <printer ID> <file name>** (if applicable)	**read text**
10	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8
11	Go to Step 15 (if the test file did print and it is not the jewel-case printer that is affected)	
12	Examine the job log for an entry indicating that the job stalled while waiting for status from Rimage (if applicable)	Use procedure in Section 18.10.33 or Section 18.10.34
13	Check the NFS connection (if applicable)	Use procedure in Section 18.10.7
14	Check synchronization of the Rimage PC time with the PDS system time (if applicable)	Use procedure in Section 18.10.6

Table 18.10-37. Respond to No Printouts (Either Jewel-Case Inserts or Paper Reports) - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
15	Submit a trouble ticket (if applicable)	Use procedure in Chapter 8

18.10.32 Respond to PDSOI's Failure to Update Status

The problem is that the PDSOI does not seem to be picking up status files. The likely cause is that there is no corresponding instance of PDSOI currently running.

Table 18.10-38 presents (in a condensed format) the steps required to respond to PDSOI's failure to update status. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the PDS Server host.
- Examples of PDS Server host names include **e0dig06**, **g0dig06**, **l0dig06**, **n0dig06**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the command line prompt, enter:

cd

- The alias **cd** changes the current directory to the PDS root directory for the PDS user ID of the log-in.
  - To identify the PDS root directory for the current PDS user ID at the command line prompt enter:

    echo $PDSROOT

3 At the command line prompt, enter:

cd status

- Change to the "status" directory.

4 At the command line prompt, enter:

ls

- A list of the subdirectories and files in the "status" directory is displayed.

5 Observe the entries in the list of subdirectories and files in the "status" directory to identify the status file for the job.
- The file has the format <Machine ID>_<Console ID>_<Job Key>.status

- For example:

  DIG6-IT_pds_0000104030361_0001.status

  - **DIG6-IT** is the Machine ID.
  - **pds** is the Console ID.
  - **0000104030361_0001** is the Job Key.

6 If there is no status file for the job, go to the **Respond to a Job's Status Not Changing to QC-Hold Although Production is Successful** procedure (Section 18.10.23).

7 Observe the header of each current **Main OI Screen** to identify the OI ID that applies to each open instance of the PDSOI.

- The format of the **Main OI Screen** header is PDS <OI ID>, where <OI ID> has the format <Machine ID>_<Console ID>
- For example:

  PDS DIG6-ST_pds is in the header of a **Main OI Screen**.

  - **DIG6-ST** is the Machine ID.
  - **pds** is the Console ID.

8 If there is no current instance of PDSOI with the OI ID specified in the status file name, start another PDSOI using the OI ID specified in the status file name.

- For detailed instructions refer to the **Start the PDS Operator Interface (PDSOI)** procedure (Section 18.6.2).

9 Process the job (that has the job key specified in the status file name) using the PDSOI started using the OI ID specified in the status file name.

- For detailed instructions refer to the **Monitor/Control Product Processing Using PDS** procedure (Section 18.8.1).

Table 18.10-38. Respond to PDSOI's Failure to Update Status - Quick-Step Procedures (1 of 2)

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**cd status**	**enter text, press Enter**
4	**ls**	**enter text, press Enter**
5	Identify the status file for the job	**read text**
6	Respond to the job's status not changing to QC-Hold (if no status file)	Use procedure in Section 18.10.23
7	Identify the OI ID that applies to each open instance of the PDSOI	**read text**

Table 18.10-38. Respond to PDSOI's Failure to Update Status - Quick-Step Procedures (2 of 2)

Step	What to Enter or Select	Action to Take
8	Start another PDSOI using the OI ID specified in the status file name (if applicable)	Use procedure in Section 18.6.2
9	Process the job using the OI ID specified in the status file name	Use procedure in Section 18.8.1

18.10.33 View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands

Although the PDS Job Monitor provides the Distribution Technician with a relatively easy means of gaining access to the log for a particular job, if it is not available, UNIX commands can be used to gain access to a log file or job Production Parameter File (PPF).

Table 18.10-39 presents (in a condensed format) the steps required to view a job log or job Production Parameter File (PPF) using UNIX commands. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 Access a terminal window logged in to the Operations Workstation.
- Examples of Operations Workstation host names include **e0acs03**, **g0acs02**, **l0acs01**, **n0acs03**.
- For detailed instructions refer to the **Log in to ECS Hosts** procedure (Section 18.2.1).

2 At the UNIX command line prompt enter:

cd
- Change directory to the PDS root directory, which contains the PPF files for the jobs being processed by PDS.
- When logged in with a PDS user ID, **cd** is an alias that changes the current working directory to the PDS root directory.
- If a PPF is to be viewed, go to Step 4.
- If a job log is to be viewed, continue with Step 3.

3 If a job log is to be viewed, at the UNIX command line prompt enter:

cd summary
- Change directory to the "summary" directory, which contains the log files for the jobs being processed by PDS.

4 At the UNIX command line prompt enter:

pg <filename>

- **<filename>** refers to the PPF or log file to be reviewed and consists of the job key (as displayed on the **Main OI Screen**) and the file-name extension, either "ppf" or "log," as applicable (e.g., TS20112130001_0001.ppf, TS20112130001_0001.log).
- Either the PPF file or the first page of the log file (as applicable) 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.

5 Review the PPF or log.

- The following **pg** commands (at the **:** prompt) are useful:
  - **n** then **Return/Enter** (go to Page n).
  - **Return/Enter** or **+1** then **Return/Enter** (go down to the next page).
  - **-1** then **Return/Enter** (go back to the preceding page).
  - **+n** then **Return/Enter** (go down n number of pages).
  - **-n** then **Return/Enter** (go back n number of pages).
  - **+nl** then **Return/Enter** (go down n number of lines).
  - **-nl** then **Return/Enter** (go back n number of lines).
  - **$** then **Return/Enter** [go to the last page (end of file)].
  - **q** then **Return/Enter** (exit from pg).

Table 18.10-39. View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	UNIX window (PDS Server)	**single-click** or use procedure in Section 18.2.1
2	**cd**	**enter text, press Enter**
3	**cd summary** (if a job log is to be viewed)	**enter text, press Enter**
4	**pg <filename>**	**enter text, press Enter**
5	Review the PPF or log	**read text**

18.10.34 View a Job Log Using the PDS Job Monitor

The PDS Job Monitor provides the Distribution Technician with a relatively easy means of gaining access to the log for a particular job. If the PDS Job Monitor is not available, UNIX commands can be used to gain access to log files, as described in the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure (Section 18.10.33).

Table 18.10-40 presents (in a condensed format) the steps required to view a job log using the PDS Job Monitor. If you are already familiar with the procedures, you may prefer to use the

quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the **Job Monitor Main Window** is not already in operation, start the PDS Job Monitor (refer to Section 18.6.4).
- The **Job Monitor Main Window** is displayed.

2 **Place** the mouse cursor on the relevant job in the running job list of the **Job Monitor Main Window**, **single-click** and **hold** the **right** mouse button, **move** the mouse cursor to **View Job Log** (highlighting it), then **release** the mouse button.
- Pop-up menu appears with the options **View Job Log, View Job PPF, Force AutoRimage Completion** [appears only when the selected job is waiting for a completion message from a Rimage writer]**, Terminate Job.**
- Select **View Job Log** from the pop-up menu.
  - The log file for the selected job is displayed in a text window.

3 Review the log.

4 To exit from the log **single-click** on the **Exit** button at the bottom of the window.
- The window is dismissed.

Table 18.10-40. View a Job Log Using the PDS Job Monitor - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDS Job Monitor (if necessary)	Use procedure in Section 18.6.4
2	**View Job Log** (**Job Monitor Main Window**)	**right-click**
3	Review the log	**read text**
4	**Exit** button	**single-click**

18.10.35 View a Job PPF Using the PDS Job Monitor

The PDS Job Monitor provides the Distribution Technician with a relatively easy means of gaining access to the production parameter file for a particular job. The PPF specifies all of the information that the job needs to run (e.g., the media type, data path, bin number, etc.). If the PDS Job Monitor is not available, UNIX commands can be used to gain access to PPFs, as described in the **View a Job Log or Job Production Parameter File (PPF) Using UNIX Commands** procedure (Section 18.10.33).

Table 18.10-41 presents (in a condensed format) the steps required to view a job PPF using the PDS Job Monitor. If you are already familiar with the procedures, you may prefer to use the

quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 If the **Job Monitor Main Window** is not already in operation, start the PDS Job Monitor (refer to Section 18.6.4).
- The **Job Monitor Main Window** is displayed.

2 **Place** the mouse cursor on the relevant job in the running job list of the **Job Monitor Main Window**, **single-click** and **hold** the **right** mouse button, **move** the mouse cursor to **View Job PPF** (highlighting it), then **release** the mouse button.
- Pop-up menu appears with the options **View Job Log, View Job PPF, Force AutoRimage Completion** [appears only when the selected job is waiting for a completion message from a Rimage writer]**, Terminate Job.**
- Select **View Job PPF** from the pop-up menu.
  - The production parameter file (PPF) for the selected job is displayed in a text window.

3 Review the PPF file.

4 To exit from the PPF file **single-click** on the **Exit** button at the bottom of the window.
- The window is dismissed.

Table 18.10-41. View a Job PPF Using the PDS Job Monitor - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Start the PDS Job Monitor (if necessary)	Use procedure in Section 18.6.4
2	**View Job PPF** (**Job Monitor Main Window**)	**right-click**
3	Review the PPF file	**read text**
4	**Exit** button	**single-click**

18.10.36 View an Extended Error Message

The procedure to **View an Extended Error Message** is performed as part of the procedure to **Check/Clear Errors on PDSIS** (Section 18.10.4).

Table 18.10-42 presents (in a condensed format) the steps required to view an extended error message. If you are already familiar with the procedures, you may prefer to use the quick-step table. If you are new to the system, or have not performed this task recently, you should use the detailed procedures that follow.

1 **Single-click** on the action button at the beginning of the relevant error status line (on the **PDSIS OI Error Screen**).
- The **Action List** box is displayed.

2 **Single-click** on **Expanded Message** in the **Action List** box.
- **Expanded Message** is highlighted.

3 **Single-click** on the appropriate button from the following selections:
- **OK** - to display the extended message window.
  - The **Extended Error Message Window** is displayed.
- **Cancel** - to dismiss the **Action List** box and return to the screen that was displayed before the action button was selected.
  - The **PDSIS OI Error Screen** is displayed.

4 Observe information displayed on the extended message window.

5 To return to the **Check/Clear Errors on PDSIS** procedure (Section 18.10.4) **single-click** on the **Close** button.
- The Extended Message Window is dismissed.
- The **PDSIS OI Error Screen** is displayed.

Table 18.10-42. View an Extended Error Message - Quick-Step Procedures

Step	What to Enter or Select	Action to Take
1	Action button (on **PDSIS OI Error Screen**)	**single-click**
2	**Expanded Message**	**single-click**
3	**OK** button	**single-click**
4	**Close** button	**single-click**

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