

611-TD-561-001

## **EOSDIS Core System Project**

# **M&O Procedures: Section 13—Production Planning**

Interim Update

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Raytheon Systems Company  
Upper Marlboro, Maryland

# Preface

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This document is an interim update to the Mission Operations Procedures Manual for the ECS Project, document number 611-CD-500-001. This document has not been submitted to NASA for approval, and should be considered unofficial.

The document has been updated to include information relevant to ECS Release 5B.

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# 13. Production Planning

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## 13.1 Production Planning Process

The Planning Subsystem supports site operations in developing a production plan based on locally defined strategy. Production Planning involves creation of Production Requests using the Production Request Editor and the scheduling of the Production Requests using the Planning Workbench.

The Production Planner defines ECS science data processing requirements in terms of Production Requests (PRs).

- a. A PR is an order for data to be produced by the Data Processing Subsystem.
- b. Each PR identifies specific science software [in the form of a Product Generation Executive (PGE)] that is to be run and the data (in terms of a time period, set of orbits, etc.) that is to be processed to produce the desired output product(s).

In response to a PR the Planning Subsystem generates either one or a series of Data Processing Requests (DPRs).

- a. Each DPR corresponds to one execution of a single PGE.
- b. Each DPR contains the information that is needed by the Data Processing Subsystem to execute the PGE and produce the desired output product(s).

The Production Planner defines Production Strategies that specify values in several categories related to DPRs.

- a. The values specified in a Production Strategy can be used in determining the priority of each DPR.

The Production Planner creates a Production Plan that specifies which PR(s) [and consequently which DPR(s)] should be sent to Data Processing at one time.

- a. When creating a Production Plan, the Production Planner can associate a particular Production Strategy with the PRs in the plan.
- b. When the Production Planner “activates” a Production Plan, the associated DPRs become accessible to Data Processing.

The Production Planner uses the following principal tools in the Planning Subsystem:

- a. Production Request Editor GUI - for creating Production Requests and Data Processing Requests.
- b. Production Strategies GUI - for creating Production Strategies.
- c. Planning Workbench GUI – for creating and activating Production Plans.
- d. Planning Timeline – for reviewing Production Plans.

Subsequent sections related to Production Planning address the following topics:

- a. Section 13.2 An overview of the process for creating Production Requests and Data Processing Requests and step-by-step procedures for using the Production Request Editor.
- b. Section 13.3 An overview of the process for creating Production Strategies and step-by-step procedures for using the Production Strategies GUI.

- c. Section 13.4 An overview of the process for creating and activating Production Plans and step-by-step procedures for using the Planning Workbench GUI and Planning Timeline.
- d. Section 13.5 An overview and step-by-step procedures for cleaning the PDPS database.
- e. Section 13.6 Referral to the procedures for tuning system parameters included in Chapter 14, Production Processing.

## 13.2 Creating Production Requests and Data Processing Requests

From the Production Request Editor, the Production Planner can create new production requests, modify or delete production requests, and review or delete data processing requests.

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 should 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 13.2-1 provides an Activity Checklist for activities related to the creation of Production Requests and Data Processing Requests.

**Table 13.2-1. Production Requests and Data Processing Requests - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Production Planner	Launch the Production Request Editor	(P) 13.2.1	
2	Production Planner	Create a New Production Request	(P) 13.2.2	
3	Production Planner	Edit/Modify a Production Request	(P) 13.2.3	
4	Production Planner	Delete a Production Request	(P) 13.2.4	
5	Production Planner	Display Data Processing Request Information	(P) 13.2.5	
6	Production Planner	Delete a Data Processing Request	(P) 13.2.6	
7	Production Planner	Re-Generate Granules Affected by Loss of Files from the Archive	(P) 13.2.7	

**NOTE:** The procedures that follow are written under the assumption that PGEs have been previously created and are available for use with the same rule criteria that you are attempting to use.

### 13.2.1 Launch the Production Request Editor

The Production Request Editor is invoked from a UNIX command line prompt. Table 13.2-2 presents (in a condensed format) the steps required to launch the Production Request Editor. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 At the UNIX command line prompt enter:  
**setenv DISPLAY <clientname>:0.0**
  - a. Use either the X terminal/workstation IP address or the machine-name for the clientname.
  - b. When using secure shell, the DISPLAY variable is set just once, before logging in to remote hosts. If it were to be reset after logging in to a remote host, the security features would be compromised.
- 2 In the terminal window, at the command line prompt, start the log-in to the Planning/Management Workstation by entering:  
**/tools/bin/ssh <hostname>**
  - a. Examples of hostnames include **e0pls03**, **g0pls01**, or **l0pls02**.
  - b. 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).
  - c. 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.
  - d. If you have not previously set up a secure shell passphrase, go to Step 4.
- 3 If a prompt to **Enter passphrase for RSA key '<user@localhost>'** appears, enter:  
**<Passphrase>**
  - a. Go to Step 5.
- 4 At the **<user@remotehost>'s password:** prompt enter:  
**<Password>**
- 5 Start the login to DCE by entering:  
**dce\_login**
- 6 At the **Enter Principal Name:** prompt enter:  
**<DCE UserID>**
- 7 At the **Enter Password:** prompt enter: then press the **Return/Enter** key.  
**<DCE Password>**

- 8** In the terminal window, at the command line, enter:  
**cd /usr/ecs/<MODE>/CUSTOM/utilities**
- a. <MODE> is current mode of operation.
    1. TS1 - Science Software Integration and Test (SSI&T)
    2. TS2 - New Version Checkout
    3. OPS - Normal Operations
  - b. “utilities” is the directory containing the Planning Subsystem start-up scripts.
- 9** Set the application environment variables by entering:  
**setenv ECS\_HOME /usr/ecs/**
- a. Application home environment is entered
  - b. When logging in as a system user (e.g., cmshared), the ECS\_HOME variable may be set automatically so it may not be necessary to set it manually.
- 10** Start the Production Request Editor by entering:  
**EcPIPRE\_IFStart <MODE>**
- a. The Production Request Editor is launched.

**Table 13.2-2. Launch the Production Request Editor - Quick-Step Procedures**

<b>Step</b>	<b>What to Enter or Select</b>	<b>Action to Take</b>
<b>1</b>	Log in to the Planning host using secure shell	<b>enter text, press Enter</b>
<b>2</b>	Log in to DCE	<b>enter text, press Enter</b>
<b>3</b>	Enter <b>cd /usr/ecs/&lt;MODE&gt;/CUSTOM/utilities</b>	<b>enter text, press Enter</b>
<b>4</b>	Set environment variables if necessary	<b>enter text, press Enter</b>
<b>5</b>	Enter <b>EcPIPRE_IFStart &lt;MODE&gt;</b>	<b>enter text, press Enter</b>

### **13.2.2 Create a New Production Request**

The process of creating a new Production Request begins with the Production Planner starting the Production Request Editor GUI. The Production Planner specifies the PGE, duration, and comments for the new Production Request.

**TYPES OF DATA PROCESSING:** ECS accommodates four general types of data processing.

Routine Processing	Pre-defined software production processing that is periodic and keyed to data arrival. For example, every day a Production Planner includes in the daily schedule a DPR for generating a particular Level 1A product from the most recent Level 0 data from the applicable satellite instrument.
Reprocessing	Typically involves using a new, improved PGE to process data that had previously been processed with an older version of the PGE.
Ad-Hoc Reprocessing	Production processing that involves rerunning a PGE to process data that had been previously processed. For example, if a product fails a quality assurance (QA) check, the same PGE could be run again on the same data set in the hope of creating an acceptable product.
On-Demand Processing	Involves ad-hoc processing initiated by an end-user (as opposed to the Production Planner). For example, a researcher using data from the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) instrument on the Terra satellite may need a particular Level 2 product that has not yet been generated. The ASTER researcher would submit an on-demand request to have the product generated from a Level 1B product stored in the archive.

**NOTE:** When reprocessing, it is important to generate DPRs for one chain completely before generating any DPRs for the next chain. For example, if PGE1 produces Product1 that is input to PGE2 that produces Product2 that is input to PGE3 that produces Product3, PRs for PGE1, PGE2, and PGE3 should be created for each of those DPRs for Chain1. Then PRs for Chain2 can be created, etc.

A reprocessing DPR selects the latest version granule in the database as input. Consequently, if Product1 from Chain2 were in the database before the DPR for Chain1 PGE2 was created, the Chain1 DPR for PGE2 would select the Product1 from Chain2 as its input and Product1 from Chain1 would not be used.

**PRODUCTION RULES:** Production Rules provide templates for Instrument Teams to describe the relationship(s) between PGEs and their input and output data. The assumption of this documentation is that the user has knowledge of the specific production rules under which the PGE was created. Listed below is a sampling of the available production rules.

Basic Temporal	Temporal (time) range of inputs matches the temporal range of outputs.
Advanced Temporal	Temporal range of inputs is offset from the expected temporal range of inputs and outputs.

Alternate Inputs	PGE is run with different inputs based on the availability of various alternate input data sets.
Optional Inputs	PGE is run with specified optional inputs if available; otherwise, PGE is run without them.
Min/Max Granules	Minimum number of input granules needed for full data coverage and maximum number of input granules to search for may be specified. Minimum and maximum number of outputs expected from the PGE may be specified.
Optional DPRs	The only DPRs executed are those for which the non-routine key input data actually become available (i.e., are either produced in data processing or can be acquired from the archive).
Intermittent Activation	Every $n^{\text{th}}$ DPR is activated; all other DPRs are skipped.
Metadata Checks	DPR is run only if input data's metadata value(s) meet(s) certain criteria.
Metadata Query	Input granule selection is based on metadata value(s).
Spatial Query/Spatial Pad	Input granule selection is based on the spatial coverage of another input (i.e., the key input). Spatial Pad involves adding area to all sides of the key input's spatial shape. All granules that intersect the expanded area are retrieved.
Closest Granule	DPR is generated if a required input granule within a particular time range (rather than an exact time) is available; otherwise, no DPR is generated.
Orbital Processing	Selection of input times is based on orbit information.

Table 13.2-3 presents (in a condensed format) the steps required to create a new production request. 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 following detailed procedures.

- 1 Launch the **Production Request Editor** (refer to Section 13.2.1).
  - a. The Production Request Editor GUI is displayed.
- 2 **Single-click** on the **PR Edit** tab.
  - a. The **PR Edit** GUI is displayed.

**NOTE:** If the GUI is unresponsive, always check to see if a prompt window is hidden behind the main GUI waiting for a response. Respond to the window, then continue with the Production Request Editor GUI.

- 3 **Single-click** and **hold** the **PR Type** option button to display a menu of types of production requests, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.
- Options are: **Routine**, **On-Demand** [not currently available for selection], **Reprocessing**, and **Ad-hoc Reprocessing**.

- 4 **Single-click** and **hold** the **User Type** option button to display a menu of types of users, **move** the mouse cursor to the desired selection (highlighting it), then **release** the mouse button.
- Options are: **Operator**, **DAAC Manager**, **Scientist**, and **Researcher**.

**NOTE:** The **PR Name** and **Origination Date** fields will be filled automatically when the Production Request is saved at the end of the procedure. (You do not need to fill in these fields.)

- 5 In the **Originator** field either enter the actual name of the originator or enter:  
<username>

- 6 In the **Priority** field enter:  
<Priority>
- Enter a number in the range of one (1) to ten (10).
    - One (1) has the highest priority; ten (10) has the lowest priority.
  - The **Priority** field specifies the **Production Request Editor** priority to be included in the Data Processing Request(s) that result(s) from the Production Request.
  - Production Request Editor Priority** is subsequently weighted according to the value specified in the Production Strategy selected from the Planning Workbench when a Production Plan is created that uses the Production Request.

- 7 **Single-click** on the **PGE...** button.
- The **PGE** GUI is displayed.

- 8 Select the desired PGE by **single-clicking** on the PGE.
- The desired **PGE** is highlighted.

- 9 **Single-click** the **Ok** button.
- The **PR Edit** GUI is displayed.
  - The following fields are automatically filled:
    - Satellite Name.**
    - Instrument Name.**
    - PGE Name.**
    - PGE Version.**
    - Profile ID.**

- 10 **Single-click** on the **PGE Parameters...** button.
- The **PGE Parameters** GUI is displayed.
  - PGE parameter data are displayed in a table that has the following columns:
    - Parameter Name.**
    - Logical Id.**
    - Default Value.**
    - Override Value.**

## 5. Description.

- 11 Select the parameter (if any) with the default value to be changed by **single-clicking** on the **Parameter Name** row.
  - a. The parameter row is highlighted.
  - b. Only the default values can be modified.
  - c. Modify parameter values when and as directed by the customer (e.g., MODIS) only.
- 12 If a parameter with a default value to be changed has been selected, in the **Override Value** field enter:  
<override value>
- 13 If a parameter with a default value to be changed has been selected, **single-click** on the **Apply** button at the bottom of the **PGE Parameter Mappings** window.
  - a. The new value is displayed in the **Override Value** column.
  - b. Repeat Steps 11 through 13 to modify additional parameters (if applicable).
- 14 **Single-click** on the **Ok** button to approve the changes.
  - a. The **PR Edit** GUI is displayed.

***\*\*The procedures that follow involve the implementation of specific PRODUCTION RULES.\*\****

**MODIS** uses *1) Temporal Rules, to include Basic and Advanced Temporal specifications, 2) Orbit-Based Activation and 3) Period/Calendar Specification, 4) Conditional Activation, 5) Additional inputs and 6) DataBase Query.*

**ASTER** uses both *Temporal Rules, Basic and Advanced Temporal specifications. In addition, ASTER routine processing makes use of the Optional DPRs Production Rule to schedule and execute ASTER PGEs for new data that have been archived. The Production Planner specifies the **insertion time** range (i.e., the time period when the desired data were archived) as opposed to the **collection time** (when the satellite instrument gathered the data).*

**MISR** has primarily “orbit” based PGEs.

Multiple “production rules” can be combined to complete a PR, however, **Temporal- and Orbit-based rules** cannot be combined.

To execute either a **Basic or Advanced Temporal Production Rule**, you must complete Steps 14, specified above in 13.2.2. and specify date and time information for processing (Steps 30 and 31). Then continue processing with Step 34, etc. as necessary.

### **METADATA-BASED PRODUCTION RULE**

- 15 If the PGE is subject to a metadata-based production rule and the value(s) to be checked need(s) to be changed, **single-click** on the **Metadata Checks...** button, perform Steps 16 through 20 as applicable; otherwise go to Step 21.
  - a. The **MetadataChecks** GUI page is displayed.

- b. The **MetadataChecks** GUI has an **InputDataType** window that lists the input data types for the PGE.
  - c. In addition, the **MetadataChecks** GUI has a metadata checks (**MetaDataField-Operator-Value-Type**) window in which there is a table that lists the following information concerning each metadata check:
    1. **MetaDataField.**
    2. **Operator.**
    3. **Value.**
    4. **Type.**
  - d. Initial values for metadata checks are entered during SSI&T; however, it is possible to modify the values using the **MetadataChecks** GUI when creating a production request.
    1. Modify metadata check values when and as directed by the customer (e.g., MODIS) only.
- 16** If it is necessary to change any value(s) for metadata checks, select an input data type with a value to be changed by **single-clicking** on the corresponding row in the **InputDataType** window.
- a. The input data type row is highlighted.
  - b. The metadata check information for the highlighted input data type is displayed in the **MetaDataField-Operator-Value-Type** window.
- 17** Select (highlight) a metadata field with a comparison value to be changed by **single-clicking** on the corresponding row in the **MetaDataField-Operator-Value-Type** window.
- a. The metadata field row is highlighted in the **MetaDataField-Operator-Value-Type** window.
  - b. The identity of the metadata field is displayed in the **MetaDataField** window.
- 18** If it is necessary to change any value(s) for metadata checks, in the **Value** field enter:  
<value>
- 19** **Single-click** on the appropriate button from the following selections:
- a. **OK** - to approve the new value and dismiss the **MetadataChecks** GUI.
    1. The Production Request - PR Edit GUI is displayed.
    2. Go to Step 21.
  - b. **Apply** - to approve the new value without dismissing the **MetadataChecks** GUI.
    1. Go to Step 20.
  - c. **Cancel** - to return to the **Production Request - PR Edit** GUI without saving the new value.
    1. The **Production Request - PR Edit** GUI is displayed.
    2. Go to Step 21.
- 20** If any additional value(s) to be checked need to be changed, repeat Steps 16 through 19 as necessary.
- ALTERNATE INPUTS PRODUCTION RULE**
- 21** If the PGE is subject to the **Alternate Inputs Production Rule** and the timer settings or the order of alternate inputs need to be changed, **single-click** on the **Alternate Input Values...** button and perform Steps 22 through 27 as applicable; otherwise go to Step 28.
- a. The **AlternateInputValues** GUI page is displayed.

- b. The **AlternateInputValues** GUI has an **AlternateListName** window that lists the applicable alternate inputs.
  - c. In addition, the **AlternateInputValues** GUI has an alternate input (**Order-Data Type-LogicalID-Timer**) window in which there is a table that lists the following information concerning each alternate input:
    - 1. **Order.**
    - 2. **Data Type.**
    - 3. **LogicalID.**
    - 4. **Timer.**
  - d. The initial set-up for alternate inputs is entered during SSI&T; however, it is possible to modify the set-up using the **AlternateInputValues** GUI when creating a production request.
- 22** If it is necessary to change timer settings or the order of alternate inputs, first select (highlight) an alternate input to be changed by **single-clicking** on the corresponding row in the **AlternateListName** window.
- a. The alternate input row is highlighted.
  - b. Information concerning the highlighted alternate input is displayed in the **Order-Data Type-LogicalID-Timer** window.
- 23** Select (highlight) an alternate input with timer settings or the order of alternate inputs to be changed by **single-clicking** on the corresponding row in the **Order-Data Type-LogicalID-Timer** window.
- a. Alternate input row is highlighted in the **Order-Data Type-LogicalID-Timer** window.
  - b. The data type of the alternate input is displayed in the **Data Type** field.
- 24** If it is necessary to change the order of alternate inputs, **single-click** on the up/down arrow buttons adjacent to the **Order-Data Type-LogicalID-Timer** window as necessary until the highlighted alternate input has the proper order listed in the **Order** column of the window.
- a. If necessary, repeat Steps 23 and 24 to change the order of additional alternate inputs.
- 25** If the timer setting for an alternate input is to be modified, verify that the alternate input with the timer setting to be changed has been highlighted then in the **Timer** fields enter:
- <hh:mm:ss>**
- a. Another method of changing timer settings (other than typing the numbers) is to **single-click** in each of the timer fields in turn and click on the up/down buttons adjacent to the **Timer** fields until the correct time is indicated.
- 26** **Single-click** on the appropriate button from the following selections:
- a. **OK** - to approve the new alternate input setting(s) and dismiss the **AlternateInputValues** GUI.
    - 1. The **Production Request - PR Edit** GUI is displayed.
    - 2. Go to Step 28.
  - b. **Apply** - to approve the new alternate input setting(s) without dismissing the **AlternateInputValues** GUI.
    - 1. Go to Step 27.
  - c. **Cancel** - to return to the **Production Request - PR Edit** GUI without saving the new alternate input setting(s).
    - 1. The **Production Request - PR Edit** GUI is displayed.

2. Go to Step 28.
- 27** If any additional alternate input setting(s) need to be changed, repeat Steps 22 through 26 as necessary.

*ASTER routine processing makes use of the **Optional DPRs Production Rule** to schedule and execute **ASTER PGEs** for new data that have been archived. The **Production Planner** specifies the **insertion time** range (i.e., the time period when the desired data were archived) as opposed to the **collection time** (when the satellite instrument gathered the data).*

- 28 **Single-click** on either the **Collection Time** or **Insertion Time** button (as applicable) if data are to be processed on the basis of time (rather than orbit).
- Normally the **Collection Time** (time when the data were collected by the instrument on the satellite) is used for specifying what data are to be processed.
  - The **Insertion Time** option is available primarily for ASTER processing to allow the generation of DPRs for all data contained on an ASTER tape received from the ASTER Ground Data System (GDS).

#### ***TIME- OR ORBIT-BASED PROCESSING?***

- 29 **Single-click** on either the **UTC Time** (Coordinated Universal Time) button or the **Orbit** button, depending on whether data to be processed is specified by time or orbit.
- If **UTC Time** is selected, go to Step 30.
  - If **Orbit** is selected go to Step 32.

#### ***TEMPORAL PRODUCTION RULES***

- 30 Enter the desired data start date and time in the **Begin** fields in the following format:

**<MM/DD/YYYY hh:mm:ss>**

- As data are entered in each field the cursor automatically advances to the next field.
- Another method of entering date and time (other than typing the numbers) is to **single-click** in each of the date/time fields in turn and click on the up/down buttons adjacent to the date/time fields until the correct date/time is indicated.

- 31 Enter the desired data end date and time in the **End** fields in the following format:

**<MM/DD/YYYY hh:mm:ss>**

#### ***ORBITAL PROCESSING PRODUCTION RULE***

- 32 If the Orbital Processing Production Rule applies, in the **From** field enter:

**<first orbit number>**

- 33 If the Orbital Processing Production Rule applies, in the **To** field enter:

**<last orbit number>**

#### ***INTERMITTENT ACTIVATION PRODUCTION RULE***

- 34 If the Intermittent Activation Production Rule applies, in the **Skip** field enter:

**<number of DPRs>**

- If the Intermittent Activation Production Rule applies, perform Steps 35 and 36.
- If the Intermittent Activation Production Rule does not apply, go to Step 37.

- 35 If the Intermittent Activation Production Rule applies, in the **Keep** field enter:

**<number of DPRs>**

- 36 If the first DPR is to be skipped, **single-click** on the **SkipFirst** button.

- 37 If applicable, in the **Comments** field enter:

**<comments>**

- 38 Start the process of saving the production request and generating DPRs by executing the following menu path:  
**File → Save As**  
a. The **File Selection** window is displayed.
- 39 In the **Selection** field enter:  
*<PR name>*
- 40 **Single-click** on the **OK** button to save the production request.  
a. Eventually a **Production Request Explosion into DPRs** dialogue box is displayed.  
1. It may take several minutes or even hours for the process to complete.  
2. If the explosion into DPRs is successful, the production request and corresponding DPR(s) are saved in the PDPS database and the Production Request **PR Name** and **Origination Date** fields are automatically updated.  
3. If the explosion into DPRs is not successful, the dialogue box contains a message to that effect and it will be necessary to troubleshoot the problem.
- 41 **Single-click** on the **OK** button to dismiss the **Production Request Explosion into DPRs** dialogue box.  
a. The dialogue box is dismissed.
- 42 To clear the entries on the **Production Request Editor** GUI execute the following menu path:  
**File → New**  
a. Return to Step 3 to create another new PR.
- 43 To exit the **Production Request Editor** execute the following menu path:  
**File → Exit**

**Table 13.2-3. Create a New Production Request - Quick-Step Procedures (1 of 3)**

Step	What to Enter or Select	Action to Take
1	Launch <b>Production Request Editor</b> GUI	Use procedure in Section 13.2.1
2	Select <b>PR Edit</b> tab	<b>single-click</b>
3	Select <i>&lt;PR type&gt;</i> from the <b>PR Type:</b> button	<b>single-click</b>
4	Select <i>&lt;user type&gt;</i> from the <b>User Type:</b> button	<b>single-click</b>
5	Enter <i>&lt;originator&gt;</i> in the <b>Originator:</b> field	<b>press Tab</b>
6	Enter <i>&lt;priority&gt;</i> in the <b>Priority:</b> field	<b>press Tab</b>
7	Select <b>PGE...</b> button	<b>single-click</b>
8	Select <i>&lt;PGE&gt;</i> from the <b>PGE Selection</b> list	<b>single-click</b>
9	Select <b>OK</b>	<b>single-click</b>
10	If changing PGE parameters, select <b>PGE Parameters...</b> button	<b>single-click</b>

**Table 13.2-3. Create a New Production Request - Quick-Step Procedures (2 of 3)**

<b>Step</b>	<b>What to Enter or Select</b>	<b>Action to Take</b>
11	If changing PGE parameters, select <parameter> from the <b>PGE Parameter Mappings</b> list	<b>single-click</b>
12	If changing the PGE parameters, enter <override value> in the <b>Override Value</b> field	<b>enter text</b>
13	If changing PGE parameters, select <b>OK</b>	<b>single-click</b>
14	If changing metadata value(s), select <b>Metadata Checks...</b> button	<b>single-click</b>
15	If changing metadata value(s), select <input data type> from the <b>InputDataType</b> list	<b>single-click</b>
16	If changing metadata value(s), select <metadata field> from the <b>MetaDataField-Operator-Value-Type</b> list	<b>single-click</b>
17	If changing metadata value(s), enter <value> in the <b>Value</b> field	<b>enter text</b>
18	If changing metadata value(s), select <b>OK</b>	<b>single-click</b>
19	If changing alternate input timer settings or the order of inputs, select <b>Alternate Input Values...</b> button	<b>single-click</b>
20	If changing alternate input timer settings or the order of inputs, select <alternate input> from <b>AlternateListName</b> list	<b>single-click</b>
21	If changing alternate input timer settings or the order of inputs, select <alternate input> from <b>Order-DataType-LogicalID-Timer</b> list	<b>single-click</b>
22	If changing the order of alternate inputs, reorder inputs in <b>Order-DataType-LogicalID-Timer</b> list using up/down arrows	<b>single-click</b>
23	If changing alternate input timer settings, enter <hh:mm:ss> in <b>Timer</b> fields	<b>enter text</b>
24	If changing alternate input timer settings or the order of inputs, select <b>OK</b>	<b>single-click</b>
25	Select either <b>Collection Time</b> or <b>Insertion Time</b> (as applicable)	<b>single-click</b>
26	Select either <b>UTC Time</b> or <b>Orbit</b> (as applicable)	<b>single-click</b>
27	Enter <MM/DD/YYYY hh:mm:ss> in the <b>Begin</b> fields (if applicable)	<b>enter text, press Tab</b>
28	Enter the <MM/DD/YYYY hh:mm:ss> in the <b>End</b> fields (if applicable)	<b>enter text, press Tab</b>
29	Enter the < first orbit number> in the <b>From</b> field (if applicable)	<b>enter text</b>
30	Enter < last orbit number> in the <b>To</b> field (if applicable)	<b>enter text</b>

**Table 13.2-3. Create a New Production Request - Quick-Step Procedures (3 of 3)**

Step	What to Enter or Select	Action to Take
31	Enter <number of DPRs> in the <b>Skip</b> field (if applicable)	enter number
32	Enter <number of DPRs> in the <b>Keep</b> field (if applicable)	enter number
33	Select <b>SkipFirst</b> (if applicable)	single-click
34	Enter <comment> in the <b>Comment</b> field (if applicable)	enter text
35	Execute <b>File</b> → <b>Save As</b>	single-click
36	Enter <PR name> in the <b>Selection</b> field	enter text
37	Select <b>Ok</b>	single-click
38	Select <b>Ok</b>	single-click

### 13.2.3 Edit/Modify a Production Request

Edits or modifications to a previously created production request result in a new production request. The new production request must be saved with a new name.

Table 13.2-4 presents (in a condensed format) the steps required to edit/modify a production request. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 Launch the **Production Request Editor** by performing procedure 13.2.1.
  - a. The Production Request Editor GUI is displayed.
- 2 **Single-click** on the **PR Edit** tab.
  - a. The **PR Edit GUI** is displayed.
- 3 To display a list of Production Requests from which to select the PR to be opened execute the following menu path:
 

**File** → **Open**

  - a. A list of Production Requests is displayed in the **File Selection** window.
- 4 Select (highlight) the PR to be edited/modified by **single-clicking** on the corresponding PR name in the list of PRs.
- 5 **Single-click** on the **OK** button.
  - a. The PR information appears in the **PR Edit GUI**.

**NOTE:** Perform only those steps of the procedure that are applicable to the changes you want to make. You do not have to go through all of the fields in the PR to successfully modify it. However, you must save the modified PR to make the changes effective.

- 6 To change the type of production request select the desired **PR Type** from the option button by **single-clicking** and **holding, moving** the mouse cursor to the desired selection (highlighting it), then **releasing** the mouse button.
- 7 To change the user type select the desired **User Type** from the option button by **single-clicking** and **holding, moving** the mouse cursor to the desired selection (highlighting it), then **releasing** the mouse button.
- 8 To change the originator in the **Originator** field either enter the actual name of the originator or enter:  
*<username>*
- 9 To change the **Production Request Editor Priority** in the **Priority:** field enter:  
*<Priority>*
- 10 If changing the PGE, **single-click** on the **PGE...** button.
  - a. The **PGE** GUI is displayed.
- 11 If changing the PGE, select the desired PGE by **single-clicking** on the PGE.
- 12 If changing the PGE, **single-click** the **Ok** button.
- 13 To change PGE parameters first **single-click** on the **PGE Parameters...** button.
  - a. The **PGE Parameters** GUI displays.
- 14 When changing PGE parameters, select a parameter to be modified by **single-clicking** on the **Parameter Name** row.
  - a. The **parameter** row is highlighted.
- 15 When changing PGE parameters, in the **Override Value** field enter:  
*<override value>*
  - a. Some PGEs may NOT have modifiable parameters.
- 16 When changing PGE parameters, **single-click** on the **Apply** button at the bottom of the **PGE Parameter Mappings** window.
- 17 When changing PGE parameters, **single-click** on the **Ok** button to approve the changes.
  - a. The Production Request Editor GUI is displayed.
- 18 If the PGE is subject to a metadata-based production rule and the value(s) to be checked need(s) to be changed, **single-click** on the **Metadata Checks...** button.
- 19 If it is necessary to change any value(s) for metadata checks, select an input data type with a value to be changed by **single-clicking** on the corresponding row in the **InputDataType** window.
- 20 If it is necessary to change any value(s) for metadata checks, select (highlight) a metadata field with a comparison value to be changed by **single-clicking** on the corresponding row in the **MetaDataField-Operator-Value-Type** window.

- 21 If it is necessary to change any value(s) for metadata checks, in the **Value** field enter:  
<value>
- 22 If it is necessary to change any value(s) for metadata checks, **single-click** on the appropriate button from the following selections:
- OK** - to approve the new value and dismiss the **MetadataChecks** GUI.
  - Apply** - to approve the new value without dismissing the **MetadataChecks** GUI.
  - Cancel** - to return to the **Production Request - PR Edit** GUI without saving the new value.
- 23 If the PGE is subject to the **Alternate Inputs Production Rule** and the timer settings or the order of alternate inputs need to be changed, **single-click** on the **Alternate Input Values...** button.
- 24 If it is necessary to change timer settings or the order of alternate inputs, first select (highlight) an alternate input to be changed by **single-clicking** on the corresponding row in the **AlternateListName** window.
- 25 If it is necessary to change timer settings or the order of alternate inputs, select (highlight) an alternate input with timer settings or the order of alternate inputs to be changed by **single-clicking** on the corresponding row in the **Order-DataType-LogicalID-Timer** window.

- 26 If it is necessary to change the order of alternate inputs, **single-click** on the up/down arrow buttons adjacent to the **Order-DataType-LogicalID-Timer** window as necessary until the highlighted alternate input has the proper order listed in the **Order** column of the window.
- 27 If the timer setting for an alternate input is to be modified, verify that the alternate input with the timer setting to be changed has been highlighted then in the **Timer** fields enter:  
<hh:mm:ss>
- 28 If it is necessary to change timer settings or the order of alternate inputs, **single-click** on the appropriate button from the following selections:
- OK** - to approve the new alternate input setting(s) and dismiss the **AlternateInputValues** GUI.
  - Apply** - to approve the new alternate input setting(s) without dismissing the **AlternateInputValues** GUI.
  - Cancel** - to return to the **Production Request - PR Edit** GUI without saving the new alternate input setting(s).
- 29 If data are to be processed on the basis of time (rather than orbit), **single-click** on either the **Collection Time** or **Insertion Time** button (as applicable).
- 30 **Single-click** on either the **UTC Time** (Coordinated Universal Time) button or the **Orbit** button, depending on whether data to be processed is specified by time or orbit.
- 31 If data are to be processed on the basis of time and the data start time is to be modified, enter the desired data start date and time in the **Begin** fields in the following format:  
<MM/DD/YYYY hh:mm:ss>
- 32 If data are to be processed on the basis of time and the data end time is to be modified, enter the desired data end date and time in the **End** fields in the following format:  
<MM/DD/YYYY hh:mm:ss>
- 33 If the Orbital Processing Production Rule applies and the first orbit of data is to be modified, in the **From** field enter:  
<first orbit number>
- 34 If the Orbital Processing Production Rule applies and the last orbit of data is to be modified, in the **To** field enter:  
<last orbit number>

- 35 If the Intermittent Activation Production Rule applies and the number of DPRs to skip is to be modified, in the **Skip** field enter:  
<number of DPRs>
- 36 If the Intermittent Activation Production Rule applies and the number of DPRs to keep is to be modified, in the **Keep** field enter:  
<number of DPRs>
- 37 If the Intermittent Activation Production Rule applies and the first DPR is to be skipped, verify that the **SkipFirst** button has been activated (**single-click** on the button if necessary).
- 38 If applicable, in the **Comments** field enter:  
<comments>
- 39 To save the modified production request execute the following menu path:  
**File** → **Save As**  
a. **File Selection** Window appears.
- 40 In the **Selection** field enter:  
<PR name>  
a. Production Request is named.  
b. Name must be changed.
- 41 **Single-click** on the **Ok** button.  
a. Eventually a **Production Request Explosion into DPRs** dialogue box is displayed.
- 42 **Single-click** on the **OK** button to dismiss the **Production Request Explosion into DPRs** dialogue box.  
a. The dialogue box is dismissed.

**Table 13.2-4. Edit/Modify a Production Request - Quick-Step Procedures (1 of 3)**

Step	What to Enter or Select	Action to Take
1	Launch <b>Production Request Editor</b>	Use procedure in Section 13.2.1
2	Select <b>PR Edit</b>	<b>single-click</b>
3	Execute <b>File</b> → <b>Open</b>	<b>single-click</b>
4	Select <PR name> from the <b>Production Requests:</b> list	<b>single-click</b>
5	Select <b>OK</b>	<b>single-click</b>

**Table 13.2-4. Edit/Modify a Production Request - Quick-Step Procedures (2 of 3)**

<b>Step</b>	<b>What to Enter or Select</b>	<b>Action to Take</b>
6	Modify the <PR type> from the <b>PR Type:</b> button (if applicable)	<b>single-click</b>
7	Modify the <user type> from the <b>User Type:</b> button (if applicable)	<b>single-click</b>
8	Modify the <originator> in the <b>Originator:</b> field (if applicable)	<b>enter text</b>
9	Modify the <priority> in the <b>Priority:</b> field (if applicable)	<b>enter number</b>
10	If changing the PGE, select <b>PGE...</b> button	<b>single-click</b>
11	If changing the PGE, select <PGE> from the <b>PGE Selection</b> list	<b>single-click</b>
12	If changing the PGE, select <b>OK</b>	<b>single-click</b>
13	If changing PGE parameters, select <b>PGE Parameters...</b> button	<b>single-click</b>
14	If changing PGE parameter values, select <parameter> from the <b>PGE Parameter Mappings</b> list	<b>single-click</b>
15	If changing PGE parameter values, enter <override value> in the <b>Override Value</b> field	<b>enter text</b>
16	If changing PGE parameter values, select <b>OK</b>	<b>single-click</b>
17	If changing metadata value(s), select <b>Metadata Checks...</b> button	<b>single-click</b>
18	If changing metadata value(s), select <input data type> from the <b>InputDataType</b> list	<b>single-click</b>
19	If changing metadata value(s), select <metadata field> from the <b>MetaDataField-Operator-Value-Type</b> list	<b>single-click</b>
20	If changing metadata value(s), enter <value> in the <b>Value</b> field	<b>enter text</b>
21	If changing metadata value(s), select <b>OK</b>	<b>single-click</b>
22	If changing alternate input timer settings or the order of inputs, select <b>Alternate Input Values...</b> button	<b>single-click</b>
23	If changing alternate input timer settings or the order of inputs, select <alternate input> from <b>AlternateListName</b> list	<b>single-click</b>
24	If changing alternate input timer settings or the order of inputs, select <alternate input> from <b>Order-DataType-LogicalID-Timer</b> list	<b>single-click</b>
25	If changing the order of alternate inputs, reorder inputs in <b>Order-DataType-LogicalID-Timer</b> list using up/down arrows	<b>single-click</b>

**Table 13.2-4. Edit/Modify a Production Request - Quick-Step Procedures (3 of 3)**

Step	What to Enter or Select	Action to Take
26	If changing alternate input timer settings, enter <b>&lt;hh:mm:ss&gt;</b> in <b>Timer</b> fields	<b>enter text</b>
27	If changing alternate input timer settings or the order of inputs, select <b>OK</b>	<b>single-click</b>
28	Select either <b>Collection Time</b> or <b>Insertion Time</b> (as applicable)	<b>single-click</b>
29	Select either <b>UTC Time</b> or <b>Orbit</b> (as applicable)	<b>single-click</b>
30	Enter <b>&lt;MM/DD/YYYY hh:mm:ss&gt;</b> in the <b>Begin</b> fields (if applicable)	<b>enter text, press Tab</b>
31	Enter the <b>&lt;MM/DD/YYYY hh:mm:ss&gt;</b> in the <b>End</b> fields (if applicable)	<b>enter text, press Tab</b>
32	Enter the <b>&lt; first orbit number&gt;</b> in the <b>From</b> field (if applicable)	<b>enter number</b>
33	Enter <b>&lt; last orbit number&gt;</b> in the <b>To</b> field (if applicable)	<b>enter number</b>
34	Enter <b>&lt;number of DPRs&gt;</b> in the <b>Skip</b> field (if applicable)	<b>enter number</b>
35	Enter <b>&lt;number of DPRs&gt;</b> in the <b>Keep</b> field (if applicable)	<b>enter number</b>
36	Select <b>SkipFirst</b> (if applicable)	<b>single-click</b>
37	Modify <b>&lt;comment&gt;</b> in the <b>Comment</b> field (if applicable)	<b>enter text</b>
38	Execute <b>File</b> → <b>Save As</b>	<b>single-click</b>
39	Enter <b>&lt;PR name&gt;</b> in the <b>Selection</b> field	<b>enter text</b>
40	Select <b>Ok</b>	<b>single-click</b>
41	Select <b>Ok</b>	<b>single-click</b>

### 13.2.4 Delete a Production Request

Production Requests can be deleted if necessary. Table 13.2-5 presents (in a condensed format) the steps required to delete Production Requests. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 Launch the **Production Request Editor** (refer to Section 13.2.1).
  - a. The Production Request Editor GUI is displayed.
- 2 **Single-click** on the **PR List** tab.
  - a. The **PR List** GUI is presented.
  - b. A list of Production Requests is displayed.

- 3 **Single-click** on the Production Request to be deleted.
  - a. The Production Request to be deleted is highlighted.
- 4 Execute the following menu path:  
**Edit→Delete**
  - a. A dialogue box is displayed requesting confirmation of the decision to delete the Production Request.
- 5 **Single-click** on the **OK** button to delete the Production Request.
  - a. If there are no dependencies among Production Requests, a confirmation dialogue box is displayed.
  - b. If there are dependencies among Production Requests, a “List Of Orphan DPRs” dialogue box is displayed.
- 6 **Single-click** on the appropriate button from the following selections:
  - a. **OK** - to confirm deletion of the Production Request(s) and dismiss the dialogue box.
    1. A “deletion completed” dialogue box is displayed.
    2. The Production Request(s) is/are deleted.
  - b. **Cancel** - to preserve the Production Request(s) and dismiss the dialogue box.
    1. The dialogue box is dismissed.
    2. The Production Request(s) is/are not deleted.
- 7 **Single-click** on **OK** to dismiss the “deletion completed” dialogue box.
  - a. The “deletion completed” dialogue box is dismissed.
- 8 To start the process of exiting from the **Production Request Editor** GUI execute the following menu path:  
**File → Exit**
  - a. A **Do you really want to exit?** dialogue box is displayed.
- 9 **Single-click** on the appropriate button from the following selections:
  - a. **OK** - to exit from the **Production Request Editor** GUI.
    1. The **Production Request Editor** GUI is dismissed.
  - b. **Cancel** - to return to the **Production Request Editor** GUI.

**Table 13.2-5. Delete a Production Request - Quick-Step Procedures (1 of 2)**

Step	What to Enter or Select	Action to Take
1	Launch <b>Production Request Editor</b>	Use procedure in Section 13.2.1
2	Select <b>PR List</b> tab	<b>single-click</b>
3	Select <PR name> from the <b>Production Requests</b> list	<b>single-click</b>
4	Execute <b>Edit→Delete</b>	<b>single-click</b>

**Table 13.2-5. Delete a Production Request - Quick-Step Procedures (2 of 2)**

Step	What to Enter or Select	Action to Take
5	Select <b>OK</b>	<b>single-click</b>
6	Select <b>OK</b>	<b>single-click</b>
7	Select <b>OK</b>	<b>single-click</b>

### 13.2.5 Display Data Processing Request Information

The process of displaying Data Processing Request information begins with the Production Planner launching the Production Request Editor. The Production Planner can review DPRs associated with a specific PR. The Production Planner can review such DPR values as input granule(s), output granule(s), predicted and actual start times, data start time, status, and priority.

Table 13.2-6 presents (in a condensed format) the steps required to display and review DPRs. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 Launch the **Production Request Editor** (refer to Section 13.2.1).
  - a. The **Production Request Editor** GUI is displayed.
- 2 **Single-click** on the **DPR List** tab.
  - a. The **DPR List** GUI is presented.
- 3 **Single-click** on the **Production Request** pull-down arrow.
  - a. A list of Processing Requests is displayed.
- 4 **Single-click** on the Production Request for which a DPR listing is desired.
  - a. The Production Request is entered into the **Production Request** field.
- 5 **Single-click** on the **Filter** button.
  - a. The list of DPRs associated with the selected Production Request is displayed.
- 6 **Single-click** the **DPR View** tab.
  - a. The **DPR View** GUI is displayed.
- 7 Execute the following menu path:  
**File → Open**
  - a. The **File Selection** GUI is displayed.
- 8 **Single-click** on the desired DPR from list.
  - a. DPR appears in the **Selection** field.

- 9 **Single-click** on the **OK** button.
  - a. The **DPR** information is displayed on the **DPR View** GUI.
  - b. The **DPR ID** is a modification of the original PGE name.
  
- 10 Review **Data Processing Request Identification** information displayed.
  - a. **DPR Name.**
  - b. **PR Name.**
  - c. **Origination Date.**
  - d. **Originator.**
  - e. **PGE ID.**
  - f. **Data Start Time.**
  - g. **Data Stop Time.**
  
- 11 **Single-click** on the **PGE Parameters...** button.
  - a. The **PGE Parameter Mappings** GUI displays.
  
- 12 Review the **PGE Parameter Mappings** information displayed.
  - a. PGE parameter data are displayed in a table that has the following columns:
    1. **Parameter Name.**
    2. **Logical Id.**
    3. **Default Value.**
    4. **Override Value.**
    5. **Description.**
  
- 13 **Single-click** on the **Ok** button.
  - a. The **PGE Parameter Mappings** GUI is dismissed.
  - b. The **DPR View** GUI is displayed.
  
- 14 **Single-click** on the **PGE File Mappings...** button.
  - a. The **UR File Mappings** GUI is displayed.
  
- 15 Review the **Universal Reference (UR) File Mappings** information displayed.
  - a. **Input Data.**
    1. **Logical Id.**
    2. **Granule Id.**
    3. **Start Time(UTC)** (date and time).
    4. **Stop Time (UTC)** (date and time).
    5. **Availability** (date and time).
    6. **UR** (granule universal reference).
  - b. **Output Data** (Displays the same data as shown for Input Data).
  
- 16 **Single-click** on the **Ok** button.
  - a. The **UR File Mappings** GUI is dismissed.
  - b. The **DPR View** GUI is displayed.
  
- 17 Review the **DPR Status** information displayed.
  - a. **Predicted Start Time** (date and time).
  - b. **Actual Start Time** (date and time).
  - c. **Priority.**
  - d. **Status.**
  - e. **Predicted** and **Actual Start Times** and **Status** are not displayed if the Production Request has not been scheduled.

- 18 Repeat steps 2 through 17 to review multiple DPRs associated with multiple PRs.
- 19 To start the process of exiting from the **Production Request Editor** GUI execute the following menu path:
- File → Exit**
- a. A **Do you really want to exit?** dialogue box is displayed.
- 20 **Single-click** on the appropriate button from the following selections:
- a. **OK** - to exit from the **Production Request Editor** GUI.
1. The **Production Request Editor** GUI is dismissed.
- b. **Cancel** - to return to the **Production Request Editor** GUI.

**Table 13.2-6. Display Data Processing Request Information - Quick-Step Procedures**

Step	What to Enter or Select	Action to Take
1	Launch <b>Production Request Editor</b>	Use procedure in Section 13.2.1
2	Select <b>DPR List</b> tab	<b>single-click</b>
3	Select <PR name> from the <b>Production Request</b> option list	<b>single-click</b>
4	Select <b>Filter</b>	<b>single-click</b>
5	Select <DPR ID> from the <b>Data Processing Requests</b> list	<b>single-click</b>
6	Select <b>DPR View</b> tab	<b>single-click</b>
7	Execute <b>File → Open</b>	<b>single-click</b>
8	Select <DPR ID> from the <b>Data Processing Requests</b> list	<b>single-click</b>
9	Select <b>Ok</b>	<b>single-click</b>
10	Review DPR information	<b>read text</b>
11	Select <b>PGE Parameters...</b> button	<b>single-click</b>
12	Review PGE parameters	<b>read text</b>
13	Select <b>OK</b>	<b>single-click</b>
14	Select <b>PGE File Mappings...</b> button	<b>single-click</b>
15	Review input and output granule information	<b>read text</b>
16	Select <b>OK</b>	<b>single-click</b>
17	Repeat Steps 2 through 16 to review additional DPRs	

### 13.2.6 Delete a Data Processing Request

DPRs can be deleted manually if necessary. Table 13.2-7 presents (in a condensed format) the steps required to delete DPRs. If you are already familiar with the procedures, you may prefer to

use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 Launch the **Production Request Editor** (refer to Section 13.2.1).
  - a. The **Production Request Editor** GUI is displayed.
- 2 **Single-click** on the **DPR List** tab.
  - a. The **DPR List** GUI is presented.
- 3 **Single-click** on the **Production Request** pull-down arrow.
  - a. A list of Production Requests is displayed.
- 4 **Single-click** on the Production Request for which a DPR listing is desired.
  - a. The Production Request is entered into the **Production Request** field.
- 5 **Single-click** on the **Filter** button.
  - a. A list of the DPRs associated with the Production Request is displayed.
- 6 **Single-click** on the DPR to be deleted.
  - a. The DPR to be deleted is highlighted.
- 7 Execute the following menu path:  
**Edit**→**Delete**
  - a. A DPR deletion confirmation dialogue box is displayed requesting confirmation of the decision to delete the DPR.
- 8 Click on the appropriate button from the following selections:
  - a. **OK** - to confirm deletion of the DPR and dismiss the dialogue box.
    1. A deletion dialogue box is displayed.
    2. The DPR is deleted.
    3. If the DPR was the only DPR in the Production Request, the PR is deleted too.
  - b. **Cancel** - to preserve the DPR and dismiss the dialogue box.
    1. The deletion confirmation dialogue box is dismissed.
    2. The DPR is not deleted.
- 9 Select **OK** to dismiss the dialogue box.
  - a. The dialogue box is dismissed.
- 10 To start the process of exiting from the **Production Request Editor** GUI execute the following menu path:  
**File** → **Exit**
  - a. A **Do you really want to exit?** dialogue box is displayed.
- 11 **Single-click** on the appropriate button from the following selections:
  - a. **OK** - to exit from the **Production Request Editor** GUI.
    1. The **Production Request Editor** GUI is dismissed.
  - b. **Cancel** - to return to the **Production Request Editor** GUI.

**Table 13.2-7. Delete a Data Processing Request - Quick-Step Procedures**

Step	What to Enter or Select	Action to Take
1	Launch <b>Production Request Editor</b>	Use procedure in Section 13.2.1
2	Select <b>DPR List</b> tab	<b>single-click</b>
3	Select <PR name> from the <b>Production Request</b> option list	<b>single-click</b>
4	Select <b>Filter</b>	<b>single-click</b>
5	Select <DPR ID> (DPR to be deleted) from the <b>Data Processing Requests</b> list	<b>single-click</b>
6	Execute <b>Edit → Delete</b>	<b>single-click</b>
7	Select <b>OK</b>	<b>single-click</b>
8	Select <b>OK</b>	<b>single-click</b>

### 13.2.7 Re-Generate Granules Affected by Loss of Files from the Archive

The entry point for this procedure is the “Data Recovery Process” in Chapter 17, including (especially) the “Data Recovery Procedure for Known Files” and “SDSRV Retrieval of Granule Production History Metadata” sections.

The role of this procedure is to initiate production of replacements for granules previously generated within this DAAC but now lost due to failure in the ECS Archive. In order to achieve this, Production Requests (PRs) for the generation of the replacement granules must be created, entered into a Production Plan, and activated.

The PRs are created using the Production Request Editor (PRE). However, first the necessary parameters of the PRs must be retrieved from the Production History file (PH) of the lost granule. The PH file is itself acquired by use of the QA Monitor tool and, though the PH UR is supplied in the input to this process, this can be achieved only by first using the QA Monitor tool to search the SDSRV database for granules matching the lost granule. Hence, this process commences with use in the QA Monitor GUI of the attributes of each lost granule (shortname, versionID etc.) supplied in the input to this procedure. Refer to Chapter 17 for further information on the wider context of this procedure.

The input to this procedure is the “Granules for PDPS Re-Generation” list. This is a list of granules and associated metadata generated by the procedure “SDSRV Retrieval of Granule Production History Metadata” (refer to Chapter 17). While the list can be obtained electronically, its use in this procedure is line-by-line. However, if available electronically, entries from it can be ‘cut and pasted’ into the input fields of the QA monitor GUI to avoid typing errors.

The outputs of the procedure are as follows:

- a. Granule re-generation Production Requests entered into a production plan.
- b. The “PDPS Residual Granules List” which is a list of Granules which this PDPS can not re-generate or which it has been decided do not justify re-generation. This list is returned to the process in Chapter 17.

Note that the following assumptions apply to the application of this procedure:

- a. The Science Data Server (SDSRV) will provide a list of granules to be regenerated (“Granules for PDPS Re-Generation”). This list will contain information about the granules to be regenerated and a Universal Reference (UR) for the associated Production History tar file.
- b. When reproducing lost granules, all outputs of the PGE, not just those equivalent to the lost granule(s), will be produced and archived.
- c. It cannot be guaranteed that the PGE re-run will use the same inputs as were used during its original execution due to the variability of: Optional/Alternate inputs, Ad Hoc Reprocessing, Metadata Checks, Metadata Query and other Production Rules.
- d. It is possible that at the time of the original run of PGE, certain optional/alternate inputs were not available, which became available later. During the re-run of the PGE use of those additional or other optional inputs cannot be avoided. However, it can be assumed that an equivalent or better product than the original will be produced as a result.
- e. PDPS maintains a minimal amount of granule level versioning. By design, only the latest version of the granule will be used. If the PGE which is to be re-run uses inputs which have more than one granule level version, PDPS will use only the latest version of those inputs. However, if references to those granules have been deleted from the PDPS database (a delete script, which runs periodically, cleans up unused database entries), then PDPS will choose the first one returned from SDSRV. SDSRV does not guarantee any sort of ordering in this case but PDPS will select the latest granule from those returned (Note: depends on fix to NCR ECSed16326).
- f. At Production Request time, the default values for metadata checks can be overridden. The new values used are stored in the PDPS database but not in the Production History. If, at the time of re-run of the PGE, the references to that PGE have been deleted from PDPS database, the default metadata checks will be used. It is possible, therefore, that these default values will cause this DPR not to be run in this instance; e.g. if the metadata checks had been changed in the original run to be less restrictive. If these types of changes to metadata checks are required in order to get DPRs to run, then it is assumed that these defaults are saved as part of the PGE profile.
- g. In a manner that is similar to Metadata Checks, a Metadata Query specifies a query to be used to determine the input granules to be used for a DPR. For reasons of production timing or updated QA values, a product reproduced at a later date could have different granules used as input. Again, it can be assumed that in this case a better product will result.
- h. Other production rules (e.g., spatial query) could make it impossible to reproduce identical granules.
- i. If a PGE (PGE name, version and profile) has to support lost granules regeneration, then that PGE should not be deleted from the PDPS database. This means, in the SSIT Operational Metadata GUI, the delete flag for that PGE should not be checked.

Table 13.2-8 presents (in a condensed format) the steps required to re-generate granules affected by loss of files from the archive. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1** Determine whether all the granules in the input list “Granules for PDPS Re-Generation” should be reproduced.
  - a. It is possible that some granules need not be reproduced, e.g. because a newer version of that product is available.

- b. Granules that need not be reproduced should be added to the “PDPS Residual Granules” list. Also, at any time during this process, if it is determined that some granules cannot be regenerated or need not be regenerated, then those granules should be included in the “PDPS Residual Granules” list.
- 2** Retrieve (using the QA Monitor GUI) the Production History tar file from the archive for each granule in the “Granules for PDPS Re-Generation” list that needs to be reproduced.
- a. Procedures for using the QA Monitor GUI are presented in Chapter 15.
  - b. Use the lost granule’s datatype, and “begin date” and “end date” values that encompass its RangeBeginningDateTime and RangeEndingDateTime. Note that the GUI interprets the dates in UTC format.
  - c. For each granule that meets the query conditions and is displayed on the QA Monitor GUI, the granule’s UR, its Production History tar file’s UR, and the name of the Production History tar file are shown. For only one of the granules will the URs (both the granule UR and the Production History UR) match the URs for this granule in the input list.
    1. If the Query failed or did not return any hit that matched, add the granule to “PDPS Residual Granules” list.
  - d. Retrieve the matching granule.
    1. The Production History tar file will be acquired to a directory that is configurable (the name of the configuration parameter is DpPrQA\_DATA\_DIR, and the default value for this parameter is \$ECS\_HOME/<MODE>/CUSTOM/data/DPS).
    2. The name of the tar file is the one that appears under the column **Production History File Name** on the QA Monitor GUI.
  - e. Note that if more than one granule in the input list maps to the same Production History tar file, then the Production History tar file need not be retrieved multiple times.
  - f. The Production History tar file contains the Process Control File (PCF) which has all the information needed to re-run the PGE. The following particulars have to be extracted from the PCF:
    1. PGE Name.
    2. PGE Version.
    3. PGE Profile ID.
    4. DPR Start time.
    5. DPR Stop time.
    6. PGE runtime parameters and their associated values.
  - g. Identification of information in the PCF:
    1. The PGE Name, PGE Version, and the PGE Profile appear in the System Runtime Parameters section of the PCF. They are concatenated (with a # sign to separate them) and appear in the place reserved for “Software ID”.
    2. DPR Start time appears in the User Defined Parameter Section of the PCF under the logical ID 10258.
    3. DPR Stop time also appears in the User Defined Parameter Section of the PCF under logical ID 10259.
    4. All other logical IDs in the User Defined Parameter Section of the PCF form the run time parameters and their associated values. Note the logical ID and its corresponding values.
    5. An automated script could be written to extract the values from the PCF.
- 3** If the PGE name, version and profile that is extracted from the PCF does not appear as an Existing/New PGE, then add the granule that is to be regenerated to the “PDPS Residual Granules” list.

- 4 From the SSIT host, launch the **SSIT Manager** GUI and invoke the **PDPS Operational Metadata** GUI.
  - a. Procedures for using SSI&T tools are presented in Chapter 11.
- 5 If the PGE is not registered, register the PGE using the **PDPS Science Update Metadata Update** from the **SSIT Manager** GUI.
  - a. The PGE must be registered before a production request can be entered.
- 6 If it is decided not to re-register the PGE, add the granule that is to be regenerated to the “PDPS Residual Granules” list.
- 7 From the Planning Workstation, launch the **Production Request Editor** GUI as described in Section 13.2.1.
- 8 Enter a Production Request (as described in Section 13.2.2) for the relevant PGE/version/profile ID.
  - a. Use **Ad-Hoc Reprocessing** for the **Processing Type**.
  - b. Use the **DPR Start** and **Stop Time** listed in the Production History for the **Begin** and **End** times.
  - c. View the default PGE runtime parameters and compare them against the runtime parameters obtained from the Production History tar file.
    1. Modify the runtime parameter values to match exactly what was used in the original run.
  - d. If granules that need to be regenerated are produced by PGEs that are chained, then the production requests must be entered in that order.
    1. For instance, if granules A and B are to be regenerated, and PGEs P1 & P2 produce them and if P1 & P2 are chained (P2 takes P1’s outputs as its inputs) then the production request for P1 must be entered before entering one for P2.
- 9 Launch the Planning Workbench from the Planning Workstation as described in Section 13.3.1.
- 10 Create and activate a production plan that includes the newly created production request(s) as described in Section 13.3.2.
- 11 Return the output (“PDPS Residual Granules”) list to the “Data Recovery Procedure for Known Files” procedure in Chapter 17 for further processing.
  - a. Those granules which were not re-generated by this process are listed in the output (“PDPS Residual Granules”) list.

**Table 13.2-8. Re-Generate Granules Affected by Loss of Files from the Archive - Quick-Step Procedures (1 of 2)**

Step	What to Enter or Select	Action to Take
1	Identify granules to be reproduced	read text
2	Add not-to-be-reproduced granules to the "PDPS Residual Granules "List	enter text

**Table 13.2-8. Re-Generate Granules Affected by Loss of Files from the Archive - Quick-Step Procedures (2 of 2)**

Step	What to Enter or Select	Action to Take
3	Retrieve Production History tar file for each element to be reproduced using the <b>QA Monitor GUI</b>	Use QA Monitor procedures (Chapter 15)
4	Obtain URs from the QA Monitor GUI	Use QA Monitor procedures (Chapter 15)
5	Extract PGE parameters from the Process Control File	Use QA Monitor procedures (Chapter 15)
6	Launch the <b>PDPS Operational Metadata GUI</b> from the <b>SSIT Manager GUI</b> if the applicable PGE is not registered	Use SSIT procedure for launching the PDPS Operational Metadata GUI (Chapter 11)
7	Register the PGE	Use SSIT procedure for registering PGEs (Chapter 11)
8	Launch the <b>Production Request Editor GUI</b>	Use procedure in Section 13.2.1
9	Enter the <b>Production Request</b> for <b>Ad Hoc Reprocessing</b>	Use procedure in Section 13.2.2
10	Launch the <b>Planning Workbench</b>	Use procedure in Section 13.3.1
11	Create and activate a plan for the newly created <b>Production Request</b>	Use procedure in Section 13.3.2
12	Return the output (“PDPS Residual Granules”) list to the “Data Recovery Procedure for Known Files” procedure (Chapter 17)	

### 13.3 Creating Production Strategies

A Production Strategy is a high-level set of priorities by which the Production Planner defines the rules for priorities and preferences in the processing of DPRs. The Production Planner uses the **Production Strategies** GUI to prepare Production Strategies.

Production Strategies work on two levels. First, the Production Planner can update lists of DPR attributes so that each value an attribute can have is tied to a particular priority. For example, the DPR attribute “PR Type” has three values that may have their default priority of (e.g., 2) changed as follows (on a scale of 1 to 10):

- a. Routine 6
- b. On-Demand 10
- c. Reprocessing 4

Next, the Production Planner can change the weight that each attribute's priority is given. For example, weights (from 1 to 100) might be assigned to the DPR attributes as follows:

- a. PR Type 45
- b. User Type 15
- c. PGE Type 20

A weight is also given to the priority specified when the Production Planner created the Production Request as shown in the following example:

- a. Production Request Editor 20

The total weights assigned to PR Type, User Type, PGE Type and Production Request Editor [Priority] must equal 100.

The values included in the selected strategy are read by the Planning Workbench when prioritizing the DPRs in a production plan.

Finally, there is a Late Start Delta that can be used to increase the priority of all jobs that have been waiting in the Production Queue for more than a day.

Table 13.3-1 provides an Activity Checklist for activities related to the creation of Production Strategies.

**Table 13.3-1. Production Strategies - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Production Planner	Launch the Production Strategies GUI	(P) 13.3.1	
2	Production Planner	Define or Modify a Production Strategy	(P) 13.3.2	

### 13.3.1 Launch the Production Strategies GUI

The Production Strategies GUI is invoked as described in the procedure that follows. Table 13.3-2 presents (in a condensed format) the steps required to launch the Production Strategies 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 following detailed procedures.

- 1 At the UNIX command line prompt enter:  
**setenv DISPLAY <clientname>:0.0**
  - a. Use either the X terminal/workstation IP address or the machine-name for the clientname.
  - b. When using secure shell, the DISPLAY variable is set just once, before logging in to remote hosts. If it were to be reset after logging in to a remote host, the security features would be compromised.
  
- 2 In the terminal window, at the command line prompt, start the log-in to the Planning/Management Workstation by entering:  
**/tools/bin/ssh <hostname>**
  - a. Examples of hostnames include **e0pls03**, **g0pls01**, or **l0pls02**.
  - b. 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).
  - c. 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.
  - d. If you have not previously set up a secure shell passphrase, go to Step 4.

- 3 If a prompt to **Enter passphrase for RSA key '<user@localhost>'** appears, enter:  
**<Passphrase>**
  - a. Go to Step 5.
- 4 At the **<user@remotehost>'s password:** prompt enter:  
**<Password>**
- 5 In the terminal window, at the command line, enter:  
**cd /usr/ecs/<MODE>/CUSTOM/utilities**
  - a. **<MODE>** is current mode of operation.
    1. TS1 - Science Software Integration and Test (SSI&T)
    2. TS2 - New Version Checkout
    3. OPS - Normal Operations
  - b. "utilities" is the directory containing the Planning Subsystem start-up scripts.
- 6 Set the application environment variables by entering:  
**setenv ECS\_HOME /usr/ecs/**
  - a. Application home environment is entered
  - b. When logging in as a system user (e.g., cmshared), the ECS\_HOME variable may be set automatically so it may not be necessary to set it manually.
- 7 Start the Production Strategies GUI by entering:  
**EcPIProdStratStart <MODE>**
  - a. The Production Strategies GUI is launched.

**Table 13.3-2. Launch the Production Strategies GUI - Quick-Step Procedures**

Step	What to Enter or Select	Action to Take
1	Log in to the Planning host using secure shell	<b>enter text, press Enter</b>
2	Enter <b>cd /usr/ecs/&lt;MODE&gt;/CUSTOM/utilities</b>	<b>enter text, press Enter</b>
3	Set the environment variables if necessary	<b>enter text, press Enter</b>
4	Enter <b>EcPIProdStratStart &lt;MODE&gt;</b>	<b>enter text, press Enter</b>

### 13.3.2 Define or Modify a Production Strategy

The Production Planner uses the Production Strategies GUI to develop Production Strategies. Table 13.3-3 presents (in a condensed format) the steps required to define or modify a production strategy. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 Launch the **Production Strategies** GUI (refer to Section 13.3.1).
  - a. The **Production Strategies** GUI is displayed.

- 2 If defining a new production strategy, execute the following menu path:  
**File → New**
  - a. The fields of the **Production Strategies** GUI are reset.
- 3 If modifying an existing production strategy, first **single-click** the option button associated with the **Production Strategies** field, then highlight (in the option menu) the name of the production strategy to be modified.
  - a. Data pertaining to the selected production strategy are displayed in the applicable fields of the **Production Strategies** GUI.
  - b. Alternatively, it is possible to execute the following menu path: **File → Open**, select the desired production strategy from the list on the **Open** window, and **single-click** on the **Ok** button to open the production strategy.
- 4 If changing the default priority for PR Type, in the **Default** field below the **PR Type** button enter:  
*<default value>*
  - a. The range for the default is from 1 to 10.
- 5 If changing the default priority for User Type, in the **Default** field below the **User Type** button enter:  
*<default value>*
- 6 If changing the default priority for PGE Type, in the **Default** field below the **PGE Type** button enter:  
*<default value>*
- 7 If defining or modifying a priority for a type of production request, first **single-click** on the **PR Type** button.
  - a. The different types of production requests are displayed in the **Type List** field at the bottom left of the GUI.
- 8 If defining a priority for a type of production request **not** currently listed in the **PR Type Value-Priority** list, **single-click** on that PR type in the **Type List** field.
  - a. The PR type is highlighted.
  - b. It is possible to highlight multiple PR types (by **single-clicking** on each one in turn) if they are all going to be assigned the same priority.
- 9 If redefining or deleting a priority for a type of production request **already** listed in the **PR Type Value-Priority** list, **single-click** on that PR type in the **Value-Priority** list.
  - a. The PR type is highlighted.
  - b. It is possible to highlight multiple PR types (by **single-clicking** on each one in turn while holding down either the **Shift** key or the **Ctrl** key) if the same action is going to be taken with respect to all of them.

- 10 If defining or modifying (not deleting) a priority, click on the up/down arrow buttons to the right of the **Priority** field until the desired priority value is displayed in the **Priority** field.
  - a. Alternatively, in the **Priority** field enter:  
*<priority value>*
  - b. The acceptable range for the priority is from 1 to 10.
- 11 **Single-click** on the appropriate button from the following selections:
  - a. **Add** - to approve a priority for an additional PR type and display the selected PR type and priority in the **PR Type Value-Priority** list at the left center of the GUI.
  - b. **Modify** - to approve a revised priority for the selected PR type and display the PR type and modified priority in the **PR Type Value-Priority** list.
  - c. **Delete** - to delete the priority for the selected PR type and remove the PR type and priority from the **PR Type Value-Priority** list.
- 12 Repeat Steps 7 through 11 as necessary until all PR Type priorities (as shown in the **PR Type Value-Priority** field) are correct.
- 13 If defining or modifying a priority for a type of user, first **single-click** on the **User Type** button.
  - a. The different types of users are displayed in the **Type List** field at the bottom left of the GUI.
- 14 If defining a priority for a type of user **not** currently listed in the **User Type Value-Priority** list, **single-click** on that user type in the **Type List** field.
  - a. The user type is highlighted.
  - b. It is possible to highlight multiple user types (by **single-clicking** on each one in turn).
- 15 If redefining or deleting a priority for a user type **already** listed in the **User Type Value-Priority** list, **single-click** on that user type in the **Value-Priority** list.
  - a. The user type is highlighted.
  - b. It is possible to highlight multiple user types (by **single-clicking** on each one in turn while holding down either the **Shift** key or the **Ctrl** key).
- 16 If defining or modifying (not deleting) a priority, click on the up/down arrow buttons to the right of the **Priority** field until the desired priority value is displayed in the **Priority** field.
  - a. Alternatively, in the **Priority** field enter:  
*<priority value>*
  - b. The acceptable range for the priority is from 1 to 10.
- 17 **Single-click** on the appropriate button from the following selections:
  - a. **Add** - to approve a priority for an additional user type and display the selected user type and priority in the **User Type Value-Priority** list near the center of the GUI.
  - b. **Modify** - to approve a revised priority for the selected user type and display the user type and modified priority in the **User Type Value-Priority** list.
  - c. **Delete** - to delete the priority for the selected user type and remove the user type and priority from the **User Type Value-Priority** list.

- 18 Repeat Steps 13 through 17 as necessary until all user type priorities (as shown in the **User Type Value-Priority** field) are correct.
- 19 If defining a priority for a type of PGE, first **single-click** on the **PGE Type** button.
  - a. The different types of PGEs are displayed in the **Type List** field at the bottom left of the GUI.
- 20 If defining a priority for a type of PGE **not** currently listed in the **PGE Type Value-Priority** list, **single-click** on that PGE type in the **Type List** field.
  - a. The PGE type is highlighted.
  - b. It is possible to highlight multiple PGE types (by **single-clicking** on each one in turn).
- 21 If redefining or deleting a priority for a PGE type **already** listed in the **PGE Type Value-Priority** list, **single-click** on that PGE type in the **Value-Priority** list.
  - a. The PGE type is highlighted.
  - b. It is possible to highlight multiple PGE types (by **single-clicking** on each one in turn while holding down either the **Shift** key or the **Ctrl** key).
- 22 If defining or modifying (not deleting) a priority, click on the up/down arrow buttons to the right of the **Priority** field until the desired priority value is displayed in the **Priority** field.
  - a. Alternatively, in the **Priority** field enter:  
*<priority value>*
  - b. The acceptable range for the priority is from 1 to 10.
- 23 **Single-click** on the appropriate button from the following selections:
  - a. **Add** - to approve a priority for an additional PGE type and display the selected PGE type and priority in the **PGE Type Value-Priority** list near the center of the GUI.
  - b. **Modify** - to approve a revised priority for the selected PGE type and display the PGE type and modified priority in the **PGE Type Value-Priority** list.
  - c. **Delete** - to delete the priority for the selected PGE type and remove the PGE type and priority from the **PGE Type Value-Priority** list.
- 24 Repeat Steps 19 through 23 as necessary until all PGE type priorities (as shown in the **PGE Type Value-Priority** field) are correct.
- 25 In the **Weight** field below the **PR Type** button enter:  
*<weight>*
  - a. The acceptable range for weights is from 1 to 100.
  - b. The **Total Weight** field displays updated totals of all weighting factors as they are entered.
  - c. When entering weights for the **PR Type**, **User Type**, **PGE Type**, and **Production Request Editor** factors, relative values can be entered without regard to whether the values in the four categories add up to 100. The **Normalize** button provides a means of eventually ensuring that the total of all four categories equals 100.
  - d. The assigned weight in each category is multiplied by the priority for each type. To maintain a high priority (low number, such as one), assign a low weight; to ensure a low priority, assign a relatively high weight.

- 26 In the **Weight** field below the **User Type** button enter:  
<weight>
- 27 In the **Weight** field below the **PGE Type** button enter:  
<weight>
- 28 In the **Production Request Editor** field enter:  
<weight>
- The priority to which the weight is applied is the priority assigned using the Production Request Editor when a production request is created.
- 29 **Single-click** on the **Normalize** button.
- The Planning Subsystem adjusts all weighting factors to produce a total weight of 100 (as displayed in the **Total Weight** field).
- 30 If it is necessary to change the priority of jobs that have been waiting in the Production Queue for more than a day, in the **Late Start Delta Priority** field enter:  
<priority value>
- The range for the Late Start Delta Priority is from 1 to 100.
- 31 To start the process of saving the production strategy execute the following menu path:  
**File** → **Save As**
- A **Save As** window similar to the **File Selection** window is displayed.
- 32 In the **Save As** field enter:  
<strategy file name>
- 33 **Single-click** on the appropriate button from the following selections:
- OK** - to accept the file name in the **Save As** field.
    - The **Save As** window is dismissed.
    - The production strategy is saved with the specified file name.
  - Cancel** - to dismiss the **Save As** window without saving the production strategy.
- 34 To start the process of modifying or creating another production strategy execute the following menu path:  
**File** → **New**
- Return to Step 3 to modify an existing production strategy.
- 35 To start the process of exiting from the **Production Strategies** GUI execute the following menu path:  
**File** → **Exit**
- A **Do you really want to exit?** dialogue box is displayed.
- 36 **Single-click** on the appropriate button from the following selections:
- OK** - to exit from the **Production Strategies** GUI.

1. The **Production Strategies** GUI is dismissed.
- b. **Cancel** - to return to the **Production Strategies** GUI.

**Table 13.3-3. Define a Production Strategy - Quick-Step Procedures (1 of 2)**

<b>Step</b>	<b>What to Enter or Select</b>	<b>Action to Take</b>
1	Launch <b>Production Strategies</b> GUI	Use procedure in Section 13.3.1
2	Execute <b>File</b> → <b>New</b>	<b>single-click</b>
3	Enter < <b>default priority</b> > for <b>PR Type</b> if applicable	<b>enter text</b>
4	Enter < <b>default priority</b> > for <b>User Type</b> if applicable	<b>enter text</b>
5	Enter < <b>default priority</b> > for <b>PGE Type</b> if applicable	<b>enter text</b>
6	Select <b>PR Type</b> button.	<b>single-click</b>
7	Select < <b>PR type</b> > from the <b>Type List</b> field	<b>single-click</b>
8	Enter < <b>priority value</b> > in the <b>Priority</b> field	<b>enter text</b> or <b>single-click</b> as necessary
9	Select <b>Add</b>	<b>single-click</b>
10	Repeat Steps 7 through 9 for additional PR types if applicable	
11	Select <b>User Type</b> button.	<b>single-click</b>
12	Select < <b>user type</b> > from the <b>Type List</b> field	<b>single-click</b>
13	Enter < <b>priority value</b> > in the <b>Priority</b> field	<b>enter text</b> or <b>single-click</b> as necessary
14	Select <b>Add</b>	<b>single-click</b>
15	Repeat Steps 12 through 14 for additional user types if applicable	
16	Select <b>PGE Type</b> button.	<b>single-click</b>
17	Select < <b>PGE type</b> > from the <b>Type List</b> field	<b>single-click</b>
18	Enter < <b>priority value</b> > in the <b>Priority</b> field	<b>enter text</b> or <b>single-click</b> as necessary
19	Select <b>Add</b>	<b>single-click</b>
20	Repeat Steps 17 through 19 for additional PGE types if applicable	
21	Enter < <b>weight</b> > for <b>PR Type</b>	<b>enter text</b>
22	Enter < <b>weight</b> > for <b>User Type</b>	<b>enter text</b>
23	Enter < <b>weight</b> > for <b>PGE Type</b>	<b>enter text</b>
24	Enter < <b>weight</b> > for <b>Production Request Editor</b>	<b>enter text</b>
25	Select the <b>Normalize</b> button	<b>single-click</b>
26	Enter < <b>priority value</b> > for <b>Late Start Delta Priority</b>	<b>enter text</b>
27	Execute <b>File</b> → <b>Save As</b>	<b>single-click</b>
28	Enter < <b>strategy file name</b> > in the <b>Save As</b> field	<b>enter text</b>

**Table 13.3-3. Define a Production Strategy - Quick-Step Procedures (2 of 2)**

Step	What to Enter or Select	Action to Take
29	Select <b>Ok</b>	<b>single-click</b>
30	Execute <b>File</b> → <b>Exit</b> if desired	<b>single-click</b>
31	Select <b>OK</b>	<b>single-click</b>

## 13.4 Creating Production Plans

The planning process involves the Production Planner preparing monthly and weekly production plans as well as a daily production schedule from the most current weekly plan. Although production planning varies from DAAC to DAAC, the following guidelines are generally applicable:

- a. Monthly plans.
  1. Developed for the coming month and one or two months in advance.
  2. Produced, reviewed, updated, published and distributed approximately two weeks before the beginning of the month.
  3. Plan for the coming month is used to establish a baseline against which production targets can be measured.
- b. Weekly plans.
  1. Produced, reviewed, updated, published and distributed approximately five days before the beginning of the coming week.
  2. Used to produce a baseline for comparison of planned vs. actual production results.
- c. Daily plan or schedule.
  1. Produced each day for the next processing day.
  2. Developed from the current weekly plan, adjusted to reflect the actual processing accomplished and the actual resources available at the time the daily schedule is generated.
  3. The daily plan is the type of plan that is implemented through the **Planning Workbench** GUI.
  4. If there is a very large processing volume, it may be advisable to divide the daily plan into multiple plans; e.g., one for each shift or one for each four-hour period.

During normal processing, when reasonably accurate predictions of the processing time for the PGEs are available, the processing schedule should result in a reasonably accurate prediction of when data products will be generated. However, during abnormal situations (e.g., equipment failure), what is actually accomplished could depart significantly from the plan. In such situations, the Production Planner may choose to develop new plans to reflect current events. This process is known as “replanning.”

Table 13.4-1 provides an Activity Checklist for activities related to the creation of Production Plans.

**Table 13.4-1. Production Plans - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Production Planner	Launch the Planning Workbench and Planning Timeline GUIs	(P) 13.4.1	
2	Production Planner	Create a New Production Plan	(P) 13.4.2	
3	Production Planner	Review a Plan Timeline	(P) 13.4.3	

### 13.4.1 Launch the Planning Workbench and Planning Timeline GUIs

The Planning Workbench and Planning Timeline GUIs are invoked from a UNIX command line prompt. Table 13.4-2 presents (in a condensed format) the steps required to launch the Planning Workbench and Planning Timeline 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 following detailed procedures.

- 1 At the UNIX command line prompt enter:  
**setenv DISPLAY <clientname>:0.0**
  - a. Use either the X terminal/workstation IP address or the machine-name for the clientname.
  - b. When using secure shell, the DISPLAY variable is set just once, before logging in to remote hosts. If it were to be reset after logging in to a remote host, the security features would be compromised.
  
- 2 In the terminal window, at the command line prompt, start the log-in to the Planning/Management Workstation by entering:  
**/tools/bin/ssh <hostname>**
  - a. Examples of hostnames include **e0pls03**, **g0pls01**, or **l0pls02**.
  - b. 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).
  - c. 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.
  - d. If you have not previously set up a secure shell passphrase, go to Step 4.
  
- 3 If a prompt to **Enter passphrase for RSA key '<user@localhost>'** appears, enter:  
**<Passphrase>**
  - a. Go to Step 5.
  
- 4 At the **<user@remotehost>'s password:** prompt enter:  
**<Password>**
  
- 5 In the terminal window, at the command line, enter:  
**cd /usr/ecs/<MODE>/CUSTOM/utilities**

- a. <MODE> is current mode of operation.
  1. TS1 - Science Software Integration and Test (SSI&T)
  2. TS2 - New Version Checkout
  3. OPS - Normal Operations
- b. “utilities” is the directory containing the Planning Subsystem start-up scripts.

**6** Set the application environment variables by entering:

**setenv ECS\_HOME /usr/ecs/**

- a. Application home environment is entered
- b. When logging in as a system user (e.g., cmshared), the ECS\_HOME variable may be set automatically so it may not be necessary to set it manually.

**NOTE:** The selection of a start-up script for launching the **Planning Workbench GUI** depends on the number of DPRs in the PDPS database. If the number is very high (~4000), the **EcPISomeStart** script is used to start the underlying processes (Message Handler, System Name Server, and Resource Model). Then additional scripts are used to start the **Planning Workbench GUI** and the **Production Planning Timeline GUI**. If the number of DPRs in the PDPS database is not very high (less than about 4000), the **EcPIAllStart** script is used to start the underlying processes, **Planning Workbench GUI** and **Production Planning Timeline GUI**.

**7** If the number of DPRs in the PDPS database is not large (less than about 4000), start the Planning Workbench-related applications by entering:

**EcPIAllStart <MODE> <Application\_id>**

- a. The System Name Server and Resource Model are launched.
- b. The **Message Handler** GUI is displayed.
- c. Eventually, the **Planning Workbench GUI** is displayed.
- d. Then the **Production Planning Timeline GUI** is displayed.
  1. The **Production Planning Timeline GUI** usually occupies the entire screen when it is initially displayed.
- e. The **application\_id** or **MSGSRV\_ID** is a number from 1 to 5. It identifies the message service in use so messages can be directed to the proper message handler GUI. Consequently, it is a good idea to use the same application\_id consistently during a production planning session.
- f. Go to Step 11.

**8** If the number of DPRs in the database is large (~4000 or more), start the Message Handler, System Name Server, and Resource Model by entering:

**EcPISomeStart <MODE> <Application\_id>**

- a. The **Message Handler** GUI is displayed.
- b. Wait until the Resource Model is completely up before proceeding with starting the **Planning Workbench GUI**.

**9** If the number of DPRs in the database is large (~4000 or more), start the **Planning Workbench GUI** by entering:

**EcPIWbStart <MODE> <Application\_id>**

- a. The **Planning Workbench** GUI is displayed.
- 10** If the number of DPRs in the database is large (~4000 or more), start the **Production Planning Timeline** GUI by entering
- EcPITStart <MODE> <Application\_id>**
- a. The **Production Planning Timeline** GUI is displayed.
- 11** If the **Production Planning Timeline** GUI is occupying the whole screen, either **single-click** on the “minimize” icon in the upper right corner of the GUI or adjust the window size and the view of the timeline as necessary using the mouse.
- a. Grab a corner of the timeline window with the cursor and resize the window as desired.

**Table 13.4-2. Launch the Planning Workbench and Planning Timeline GUIs - Quick-Step Procedures**

Step	What to Enter or Select	Action to Take
1	Log in to the Planning host using secure shell	enter text, press Enter
2	Enter <b>cd /usr/ecs/&lt;MODE&gt;/CUSTOM/utilities</b>	enter text, press Enter
3	Set environment variables if necessary	enter text, press Enter
4	Enter <b>EcPIAllStart &lt;MODE&gt; &lt;application_id&gt;</b>	enter text, press Enter

### 13.4.2 Create a New Production Plan

The Production Planner uses the Planning Workbench when creating a plan for production data processing at the DAAC. The Planning Workbench GUI provides the means by which the Production Planner selects specific PRs whose DPRs are to be run. The planning tool provides a forecast of the start and completion times of the jobs based upon historical experience in running these PGEs (as determined during the SSI&T process). Through the planning tool, when the generated plan is “activated,” the information included in the plan is transferred to the Data Processing Subsystem and loaded into the Platinum AutoSys tool where production processing is managed.

Table 13.4-3 presents (in a condensed format) the steps required to create a new Production Plan. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures:

- 1** Launch the Planning Workbench (refer to Section 13.4.1).
  - a. The **Planning Workbench** and **Planning Timeline** GUIs are displayed.
- 2** Execute the following menu path on the **Planning Workbench GUI**:
  - File → New**
  - a. The **New Plan** window is displayed.

- 3 In the **Plan Names** field enter:  
<plan name>
  - a. Name is displayed in **Plan Names** field.
  - b. Status is **Candidate**.
- 4 **Single-click** on the appropriate button from the following selections:
  - a. **Ok** - to accept the file name in the **Plan Names** field.
    1. The **New Plan** window is dismissed.
    2. The production plan is saved with the specified file name.
  - b. **Apply** - to save the production plan without dismissing the **New Plan** window.
    1. The production plan is saved with the specified file name.
  - c. **Cancel** - to dismiss the **New Plan** window without saving the production plan.
- 5 If applicable, **single-click** on the option button associated with the **Strategy** field, then select the desired production strategy from the option menu.
- 6 If applicable, in the **Comment** field enter:  
<comment>
- 7 Select a Production Request to be scheduled by **single-clicking** on the request line and **single-clicking** on **schedule/unschedule** up and down arrows to move the Production Request from the **Unscheduled** panel to the **Scheduled** panel or vice versa.
  - a. Production Request will appear in the appropriate panel.
  - b. Operator can **single-click** on multiple Production Requests to add them all at the same time.
  - c. If the PR depends upon another PR that is not scheduled, then the following message is displayed: "Production Request 'xxx' must be selected before DPR 'yyy' of Production Request 'zzz' can be scheduled."
  - d. If all DPRs associated with a PR have been run, the PR cannot be rescheduled.
  - e. If processing of the currently active plan is to be continued when the new plan is activated, include the PR(s) for the currently active plan in the new plan.
  - f. In the **Scheduled** list, items with the prefix "GE\_" are resource reservations (also called "ground events").
  - g. All ground events are automatically scheduled with any plan; therefore, the ground events are normally displayed in the Scheduled list.
  - h. Whenever a plan is activated, the ground events are activated as well as the DPRs associated with the specified PRs.
  - i. If a ground event appears in the **Unscheduled** list, the ground event has lost allocations.
- 8 If the priority of any PR in the **Scheduled** list needs to be changed, perform Steps 9 through 13; otherwise go to Step 14.
- 9 **Single-click** on the PR entry in the **Scheduled** list to highlight it.
- 10 **Single-click** on the **Prioritize** button.
  - a. The **Priority popup** window is displayed.
- 11 In the **Production Request(s) priority** field enter:  
<priority value>

- 12 **Single-click** on the appropriate button from the following selections:
- OK** - to accept the new priority in the **Production Request(s) priority** field.
    - The **Priority popup** window is dismissed.
    - The new priority for the PR is saved in the database.
  - Cancel** - to dismiss the **Priority popup** window without saving the new priority.
- 13 Repeat Steps 9 through 12 for any additional PR(s) needing a change of priority.
- 14 Execute the following menu path:
- File → Save As**
- The **Save Plan** window is displayed.
- 15 If the *plan name* for the production plan is not displayed in the **Plan Names** field, enter:  
<plan name>
- 16 **Single-click** on the appropriate button from the following selections:
- Ok** - to accept the file name in the **Plan Names** field.
    - The **Save Plan** window is dismissed.
    - The production plan is saved with the specified file name.
    - The **Planning Workbench** GUI is displayed.
    - The **Plan Name** is displayed.
    - The **Status** displayed is **Candidate**.
  - Apply** - to save the production plan without dismissing the **Save Plan** window.
    - The production plan is saved with the specified file name.
  - Cancel** - to dismiss the **Save Plan** window without saving the production plan.
- 17 If the plan is to be activated immediately, perform Steps 18 and 19; otherwise go to Step 20.
- 18 **Single-click** on the **Activate** button.
- A **Confirm Activation** dialogue box is displayed.
- 19 **Single-click** on the appropriate button from the following selections:
- Yes** - to activate the plan.
    - The **Confirm Activation** dialogue box is dismissed.
    - The new plan is activated.
    - The time of plan activation is displayed next to **Rollover Time** on the **Planning Workbench** GUI.
    - When a plan is activated the Data Processing Requests (DPRs) associated with the planned PRs are transferred to Job Management in the Data Processing Subsystem.
    - Once its data dependencies have been satisfied, each DPR is “released” to be run as processing resources become available.
    - Activating a new plan causes the current active plan to get "replanned over" by the selected plan.
  - No** – to dismiss the **Confirm Activation** dialogue box without activating the plan.
- 20 If it is desired to baseline the plan, perform Steps 21 through 25; otherwise go to Step 26.

- 21 **Single-click** on the **Baseline** button.
- A confirmation dialogue box containing the message **The current plan is <Plan Name>. Do you wish to baseline it?** is displayed.
  - Clicking on the **Baseline** button records the plan and the time of baselining.
  - A baseline plan can be used as a point of comparison with which to compare future plans and results.
- 22 If it is desired to baseline the plan, **single-click** on the appropriate button from the following selections:
- Yes** - to baseline the plan.
    - The confirmation dialogue box containing the message **The current plan is <Plan Name>. Do you wish to baseline it?** is dismissed.
    - The plan is baselined.
  - No** – to dismiss the confirmation dialogue box containing the message **The current plan is <Plan Name>. Do you wish to baseline it?** without baselining the plan.
- 23 Execute the following menu path:
- File → Save As**
- The **Save Plan** window is displayed.
- 24 If the *plan name* for the production plan is not displayed in the **Plan Names** field, enter: **<plan name>**
- 25 **Single-click** on the appropriate button from the following selections:
- Ok** - to accept the file name in the **Plan Names** field.
    - The **Save Plan** window is dismissed.
    - The production plan is saved with the specified file name.
  - Apply** - to save the production plan without dismissing the **Save Plan** window.
    - The production plan is saved with the specified file name.
  - Cancel** - to dismiss the **Save Plan** window without saving the production plan as a baseline plan.
- 26 Repeat Steps 1 through 25 to perform additional production planning activities.
- 27 To view the **Planning Timeline** perform the procedure in Section 13.4.3.
- 28 To quit the **Planning Workbench** GUI when production planning is complete execute the following menu path:
- File → Exit**
- 29 After quitting the **Planning Workbench** GUI **single-click** in the UNIX window used to start the **Planning Workbench** GUI.
- The Message Handler, System Name Server, and Resource Model should be shut down to eliminate unneeded processes and allow other operators to gain access to the Planning Workbench if necessary.
- 30 Shut down Planning Workbench-related applications by entering:

**EcPISlayAll <MODE> <Application\_id>**

- a. The following Planning Workbench-related applications shut down:
  - 1. Planning Workbench (if it has not already been shut down).
  - 2. Planning Timeline (if it has not already been shut down).
  - 3. Message Handler.
  - 4. System Name Server.
  - 5. Resource Model.

**31** Obtain a list of active processes in the specified mode by entering:

**ps -ef | grep <MODE>**

- a. A list of active processes in the specified mode is displayed.
- b. If an error message is received when **ps -ef | grep <MODE>** is entered, enter:

**ps -auxwww | grep <MODE>**

**32** Examine the list of processes running in the specified mode to determine whether the Message Handler, System Name Server, and Resource Model processes have actually been shut down.

- a. None of the following processes should be active:
  - 1. EcPIWb
  - 2. EcPITI
  - 3. EcPIMsh
  - 4. EcPISns
  - 5. EcPIRm

**33** If any of the specified processes [especially the Message Handler, System Name Server, and/or Resource Model process(es)] is/are still active, terminate the active process(es) by entering:

**kill -15 <PROCESS\_ID1> <PROCESS\_ID2> <...> <PROCESS\_IDx>**

**34** Repeat Steps 31 through 33 as necessary.

**Table 13.4-3. Create a New Production Plan - Quick-Step Procedures (1 of 2)**

<b>Step</b>	<b>What to Enter or Select</b>	<b>Action to Take</b>
<b>1</b>	Launch <b>Planning Workbench</b>	Use procedure in Section 13.4.1
<b>2</b>	Execute <b>File → New</b>	<b>single-click</b>
<b>3</b>	Enter <b>&lt;plan name&gt;</b>	<b>enter text</b>
<b>4</b>	Select <b>Ok</b>	<b>single-click</b>
<b>5</b>	Select <b>&lt;strategy&gt;</b> from <b>Strategy</b> button	<b>single-click</b>
<b>6</b>	Select <b>&lt;Production Request(s)&gt;</b> to schedule/unschedule	<b>single-click</b>
<b>7</b>	Select <b>Schedule</b> button or <b>Unschedule</b> button as applicable	<b>single-click</b>
<b>8</b>	Execute <b>File → Save As</b>	<b>single-click</b>
<b>9</b>	Enter <b>&lt;plan name&gt;</b>	<b>enter text</b>

**Table 13.4-3. Create a New Production Plan - Quick-Step Procedures (2 of 2)**

Step	What to Enter or Select	Action to Take
10	Select <b>Ok</b>	<b>single-click</b>
11	Select <b>Activate</b> if applicable	<b>single-click</b>
12	Select <b>Yes</b> if applicable	<b>single-click</b>
13	Select <b>Baseline</b> if applicable	<b>single-click</b>
14	Select <b>Yes</b> if applicable	<b>single-click</b>
15	Execute <b>File</b> → <b>Save As</b> if applicable	<b>single-click</b>
16	Enter <plan name> if applicable	<b>enter text</b>
17	Select <b>Ok</b> if applicable	<b>single-click</b>
18	View the <b>Planning Timeline</b> if desired	Use procedure in Section 13.4.3
19	Execute <b>File</b> → <b>Exit</b>	<b>single-click</b>
20	Enter <b>EcPISlayAll &lt;MODE&gt; &lt;Application_id&gt;</b>	<b>enter text, press Enter</b>
21	Enter <b>ps -ef   grep &lt;MODE&gt;</b>	<b>enter text, press Enter</b>
22	Enter <b>kill -15 &lt;PROCESS_ID1&gt; &lt;PROCESS_ID2&gt; &lt;...&gt; &lt;PROCESS_IDx&gt;</b> to terminate active process(es) if necessary	<b>enter text, press Enter</b>

### 13.4.3 Review a Plan Timeline

Table 13.4-4 presents (in a condensed format) the steps required to review planning timelines. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 Launch the **Planning Workbench** and **Timeline** GUIs (refer to Section 13.4.1).
  - a. The **Planning Timeline** GUI is displayed.
  - b. If you have previously saved a configuration file, you may load it by executing the following menu path:
    - File** → **Load Configuration**
      1. Change directory in GUI box, if necessary.
  - c. Otherwise continue with Step 2.
- 2 Execute the following menu path:
  - File** → **Open Plan**
    - a. The **Open Plan** window is displayed with a list of plans.
- 3 **Single-click** on the name (in the **Items** list) of the plan to be reviewed.
- 4 **Single-click** on the appropriate button from the following selections:
  - a. **OK** - to open the selected plan and dismiss the **Open Plan** window.
    1. The timeline for the specific plan is displayed.
    2. Name is displayed in the Title bar.
  - b. **Apply** - to open the selected plan without dismissing the **Open Plan** window.

1. The timeline for the specific plan is displayed.
  2. Name is displayed in the Title bar.
  - c. **Cancel** - to dismiss the **Open Plan** window without opening any plan.
- 5 Observe the production plan information displayed on the timeline GUI.
  - 6 If a different time scale (start and end dates and times) is desired, perform Steps 7 through 10; otherwise, go to Step 11.
  - 7 Execute the following menu path:  
**Time → Change Plan Window**
    - a. The **plan window edit** window appears with default times.
  - 8 In the **Plan Win Start** fields enter the start date and time in the following formats:  
<DD MMM YYYY> <hh:mm:ss>
  - 9 In the **Plan Win End** fields enter the end date and time in the following formats:  
<DD MMM YYYY> <hh:mm:ss>
  - 10 **Single-click** on the appropriate button from the following selections:
    - a. **OK** - to accept the changes and dismiss the **plan window edit** window.
    - b. **Apply** - to accept the changes without dismissing the **plan window edit** window.
    - c. **Cancel** - to cancel the changes and dismiss the **plan window edit** window.
  - 11 If a different time span is desired, **single-click** on the **Show** pushbutton and select one of 11 time increments between **5 min** and **168 hrs** for the timeline scale.
    - a. The entry “**other**” has no purpose at this time.
  - 12 If no resources are displayed on the GUI or if different resources should be displayed, perform Steps 13 through 19; otherwise, go to Step 20.
  - 13 Execute the following menu path:  
**Display → Change resources**
    - a. **Resource edit** window with lists of **Available Resources** and **Viewed Resources** is displayed.
  - 14 **Single-click** resource(s) in desired list.
    - a. Multiple resources may be selected by single-clicking each desired resource.
  - 15 **Single-click** either **Add** or **Del**.
    - a. **Add** to move the resource(s) from the **Available** list to the **Viewed** list.
    - b. **Del** to remove items from the **Viewed** List.
  - 16 To change the order in which resources are displayed on the timeline, **single-click** on an item in the **Viewed Resources** list.
  - 17 To change the order in which resources are displayed on the timeline, **single-click** on the **up** or **down** arrow(s) as appropriate.

- a. Selected resource moves up or down in order on the list.
- 18** Repeat Steps 16 and 17 as necessary.
- 19** **Single-click** on the appropriate button from the following selections:
  - a. **OK** - to accept the changes and dismiss the **Resource edit** window.
  - b. **Apply** - to accept the changes without dismissing the **Resource edit** window.
  - c. **Cancel** - to cancel the changes and dismiss the **Resource edit** window.
- 20** If different color coding of the timeline is desired, perform Steps 21 through 25; otherwise, go to Step 26.
- 21** Execute the following menu path:  
**Display → Change colors**
  - a. Color grid appears with a list of Production Requests.
- 22** **Single-click** on the Production Request name.
- 23** **Single-click** on the desired color for the Production Request.
  - a. New color appears on the horizontal bar between color and Production Request selections.
- 24** Repeat Steps 22 and 23 as necessary.
- 25** **Single-click** on the appropriate button from the following selections:
  - a. **OK** - to accept the changes and dismiss the **Color Selections** window.
  - b. **Apply** - to accept the changes without dismissing the **Color Selections** window.
  - c. **Cancel** - to cancel the changes and dismiss the **Color Selections** window.
- 26** Observe the production plan information displayed on the timeline GUI.
- 27** If desired, save the current configuration as a file by executing the following menu path:  
**File → Save Configuration**
- 28** **Single-click** on the appropriate button from the following selections:
  - a. **OK** - to save the configuration and dismiss the **Color Selections** window.
  - b. **Apply** - to save the configuration without dismissing the **Color Selections** window.
  - c. **Cancel** - to dismiss the **Color Selections** window without saving the configuration.
- 29** To exit the **Planning Master Timeline** GUI, execute the following menu path:  
**File → Exit**
  - a. The **Planning Master Timeline** GUI is dismissed.

**Table 13.4-4. Review a Plan Timeline - Quick-Step Procedures**

Step	What to Enter or Select	Action to Take
1	Launch <b>Planning Workbench</b> and <b>Timeline</b>	Use procedure in Section 13.4.1
2	Load configuration file (execute <b>File</b> → <b>Load Configuration</b> ) (optional)	<b>single-click</b>
3	Execute <b>File</b> → <b>Open Plan</b>	<b>single-click</b>
4	Select <b>&lt;plan name&gt;</b>	<b>single-click</b>
5	Select <b>Ok</b>	<b>single-click</b>
6	Observe the production plan information	<b>read text</b>
7	Execute <b>Time</b> → <b>Change Plan</b> window	<b>single-click</b>
8	Enter <b>&lt;DD MMM YYYY&gt;</b> <b>&lt;hh:mm:ss&gt;</b> in <b>Plan Win Start</b> fields	<b>enter text</b>
9	Enter <b>&lt;DD MMM YYYY&gt;</b> <b>&lt;hh:mm:ss&gt;</b> in <b>Plan Win End</b> fields	<b>enter text</b>
10	Select <b>Ok</b>	<b>single-click</b>
11	Select <b>&lt;time span&gt;</b> from <b>Show</b> pushbutton	<b>single-click</b>
12	Execute <b>Display</b> → <b>Change resources</b>	<b>single-click</b>
13	Select <b>&lt;resources&gt;</b>	<b>single-click</b>
14	Select <b>Add</b>	<b>single-click</b>
15	Select <b>&lt;viewed resource&gt;</b> to be reordered	<b>single-click</b>
16	Reorder viewed resources using up/down arrows	<b>single-click</b>
17	Select <b>Ok</b>	<b>single-click</b>
18	Execute <b>Display</b> → <b>Change colors</b>	<b>single-click</b>
19	Select <b>&lt;Production Request&gt;</b>	<b>single-click</b>
20	Select <b>&lt;color&gt;</b> for Production Request	<b>single-click</b>
21	Select <b>Ok</b>	<b>single-click</b>
22	Observe the production plan information	<b>read text</b>
23	Execute <b>File</b> → <b>Save Configuration</b>	<b>single-click</b>
24	Enter <b>&lt;file name&gt;</b>	<b>enter text</b>
25	Select <b>Ok</b>	<b>single-click</b>
26	Execute <b>File</b> → <b>Exit</b>	<b>single-click</b>

## 13.5 Cleaning the PDPS Database

In the /usr/ecs/<MODE>/CUSTOM/utilities directory on the Planning/Management Workstation there is a script that can be run to clean up some tables in a PDPS database. When it runs, the script tries to delete applicable records in the following order:

- a. Data Processing Requests based on timeStamp completionState(SUCC\_DEL).
- b. Production Requests that have no associated DPRs.
- c. Dynamic data granules that are not used by any DPR or by the Data Processing Subsystem.
- d. List of data granules that are not deleted because of Data Processing Subsystem usage.
- e. PGEs marked with a deleteFlag.

- f. Science Software that has no associated PGE.

The procedure for cleaning the PDPS database starts with the assumption that the applicable servers are running and the Production Planner has logged in to the ECS system.

Table 13.5-1 provides an Activity Checklist for activities related to the database cleaning.

**Table 13.5-1. Database Cleaning - Activity Checklist**

Order	Role	Task	Section	Complete?
1	Production Planner Database Administrator	Clean the PDPS Database	(P) 13.5.1	

### 13.5.1 Clean the PDPS Database

The database cleaning script is invoked from a UNIX command line prompt. Table 13.5-2 presents (in a condensed format) the steps required to clean the PDPS database. If you are already familiar with the procedures, you may prefer to use this quick-step table. If you are new to the system, or have not performed this task recently, you should use the following detailed procedures.

- 1 At the UNIX command line prompt enter:  
**setenv DISPLAY <clientname>:0.0**
  - a. Use either the X terminal/workstation IP address or the machine-name for the clientname.
  - b. When using secure shell, the DISPLAY variable is set just once, before logging in to remote hosts. If it were to be reset after logging in to a remote host, the security features would be compromised.
  
- 2 In the terminal window, at the command line prompt, start the log-in to the Planning/Management Workstation by entering:  
**/tools/bin/ssh <hostname>**
  - a. Examples of hostnames include **e0pls03**, **g0pls01**, or **l0pls02**.
  - b. 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).
  - c. 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.
  - d. If you have not previously set up a secure shell passphrase, go to Step 4.
  
- 3 If a prompt to **Enter passphrase for RSA key '<user@localhost>'** appears, enter:  
**<Passphrase>**
  - a. Go to Step 7.

- 4 At the `<user@remotehost>`'s **password:** prompt enter:  
`<Password>`
  
- 5 In the terminal window, at the command line, enter:  
**cd /usr/ecs/<MODE>/CUSTOM/utilities**
  - a. `<MODE>` is current mode of operation.
    1. TS1 - Science Software Integration and Test (SSI&T)
    2. TS2 - New Version Checkout
    3. OPS - Normal Operations
  - b. "utilities" is the directory containing the Planning Subsystem start-up scripts.
  
- 6 Set the application environment variables by entering:  
**setenv ECS\_HOME /usr/ecs/**
  - a. Application home environment is entered
  - b. When logging in as a system user (e.g., cmshared), the ECS\_HOME variable may be set automatically so it may not be necessary to set it manually.
  
- 7 Start the database cleaning script by entering:  
**EcPIDbClean <MODE> <dbuser> <dbpassword> <dbserver> <months> <days>**
  - a. `<dbuser>` is the user name for logging in to isql.
  - b. `<dbpassword>` is the password for isql login.
  - c. `<dbserver>` refers to the name of the PDPS database server (e.g., x0pls02\_svr).
  - d. `<months>` is a number specifying the removal of records that are older than that number of months.
  - e. `<days>` is a optional argument. It is a number that specifies the removal of records that are older than that number of days.
  - f. Both `<months>` and `<days>` are taken into account by the cleaning script.

**Table 13.5-2. Clean the PDPS Database - Quick-Step Procedures**

Step	What to Enter or Select	Action to Take
1	Log in to the Planning host using secure shell	<b>enter text, press Enter</b>
2	Enter <b>cd /usr/ecs/&lt;MODE&gt;/CUSTOM/utilities</b>	<b>enter text, press Enter</b>
3	Set environment variables if necessary	<b>enter text, press Enter</b>
4	Enter <b>EcPIDbClean &lt;MODE&gt; &lt;dbserver&gt; &lt;dbuser&gt; &lt;dbpassword&gt; &lt;months&gt; &lt;days&gt;</b>	<b>enter text, press Enter</b>

## 13.6 Tuning System Parameters

The Production Planner works with the rest of the production team (i.e, Resource Planner and Production Monitors) to tune system parameters. Detailed procedures are included in Chapter 14, Production Processing.