

Reviewing Hardware Status, DPR Dependency, DPR Production Timeline, Alarms, and Job Activities

Reviewing Hardware Status

The Production Monitor reviews hardware status using AutoSys. Hardware status is displayed by the AutoXpert HostScope GUI. By checking the hardware status the Production Monitor can determine the status of processors, the condition of the queue, whether any processors are overloaded while others are idle, whether there are any system problems, etc.

HostScope displays jobs on a machine-by-machine basis, indicating which AutoSys server/client machines are up and active, and which jobs are running or have recently run on each machine. HostScope allows the Production Monitor to check hardware status in real-time.

The procedure for reviewing hardware status starts with the assumption that the Production Monitor has logged in to AutoSys.

Reviewing Hardware Status

- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2 Click on the **HostScope** button on the **AutoSys GUI Control Panel**.
 - The **HostScope** GUI page (Figure 15) is displayed.
 - View presented is **Normal View**.
- 3 Review the Control Region (left side of the display) to identify the color codes for the status of the machines. In the View Region (right side of the display) the color code is displayed on the border of each machine box.
 - **MACHINE UP** (active) is green.
 - **MACHINE DOWN** (inactive and cannot be reached) is red.
 - **MACHINE INACTIVE** is black. (The color code is not shown in the Control Region)
- 4 Review the machine type in the View Region.
 - The name of the machine is displayed in the upper left-hand corner of each machine box.
 - Server machines are in the first (top) row of the display.

- Event Server name appears below the list of jobs, if applicable.
 - Event Processor name appears below the list of jobs, if applicable.
 - Client machines are in the subsequent rows of the display.
- 5** Review the machine boxes in the View Region to determine the status of individual machines.
- The total number of jobs **STARTING** or **RUNNING**.
 - All jobs **RUNNING** are listed.
 - The View Region is scrollable.
- 6** Review the **Alarm** indicating buttons of individual machines in the View Region.
- Alarm button is in the upper right-hand corner of the box.
 - Red indicates that an alarm has been generated.
 - Gray (default color) indicates normal operation.
 - If an alarm is present, clicking an alarm button brings up the Alarm Manager (described in a subsequent section).
- 7** Review the machine connection status in the View Region.
- Solid black line indicates that AutoSys can communicate with the client machine Internet daemon.
 - Solid red line indicates that AutoSys cannot communicate with the client machine Internet daemon; however, the daemon does respond to **ping** commands.
 - Dashed red line indicates that AutoSys cannot communicate with the client machine; the machine is probably turned off.
- 8** Select **File** → **Exit** from the pull-down menu then click on the **OK** button to exit from **HostScape**.
- **HostScape** quits (is closed).
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Changing the Hardware Status View

The View Options provide the Production Monitor with the following three methods of viewing hardware status:

- Normal.
- Global.
- Zoom.

In the Normal (default) view three rows of machines with job activities are displayed. In the Global view seven rows of machines but no job activities are displayed. In the Zoom view one machine is displayed in great detail. The details include job name, description, status, and commands.

The Performance Monitor selects the Global view to monitor the entire system and uses the Zoom view to focus on a specific machine, especially in case of a malfunction.

The procedure for changing hardware status views starts with the assumption that **AutoSys is running in the HostScape mode with the default Normal view displayed.**

Changing Hardware Status Views

- 1 Select a machine in the View Region by clicking on its name, then select **View → Select View Level → Global View** from the pull-down menu.
 - The **Global** view is displayed.
 - Seven rows of machines are displayed.
 - No job information is displayed.
 - 2 Select a specific machine by clicking on its name, then select **View → Zoom in Machine** from the pull-down menu.
 - The **Zoom** view is displayed.
 - A table listing the following data is displayed:
 - **Job Name.**
 - **Description.**
 - **Status.**
 - **Command.**
 - 3 Select **Dismiss**.
 - The **Global** view is displayed.
 - 4 Select **View → Select View Level → Normal View** from the pull-down menu.
 - The **Normal** view is displayed.
 - Three rows of machines are displayed.
 - Limited job information is displayed.
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Reviewing DPR Dependencies

The Production Monitor reviews DPR dependencies using AutoSys. DPR dependencies are displayed by the AutoXpert JobScope GUI.

JobScope presents a Pert-like view of job processing from a logical (or job dependency) point of view. JobScope depicts all job types; i.e., command jobs, box jobs, and file-watcher jobs. In addition, it depicts the nesting of jobs within boxes and the dependencies between jobs.

JobScope can be used for monitoring job flow in real-time. It allows the Production Monitor to identify potential problems, try to prevent them from becoming actual problems, stop problem jobs in favor of letting good jobs run, etc.

AutoSys defines job status in the terms listed in Table 2. The different states are color-coded on the JobScope display. However, the codes can be changed. The color codes listed in the table are the default values.

Table 2. Job States

Status	Color Code	Meaning
ACTIVATED	white	The top-level box that the job is in is now in the "running" state but the job itself has not started yet.
STARTING	forest green	The Event Processor has initiated the start procedure with the Remote Agent. The job is in the process of "coming up."
RUNNING	green	The job is running. If the job is a box job, "running" means that the jobs within the box may be started (other conditions permitting). If the job is a command job or a file-watcher job, "running" means that the process is actually running on the remote machine.
SUCCESS	light blue	When the job had completed running, it had an exit code equal to or less than the "maximum exit code for success." By default, only the exit code "0" is interpreted as "success." However, a range of values up to the "maximum exit code for success" may be reserved for each job to be interpreted as success. If the job is a box job, "success" means that all jobs within the box had exit codes indicating "success" (default) or the "exit condition for box success" was "true."
FAILURE	red	When the job had completed running, it had an exit code greater than the "maximum exit code for success." The default is any non-zero exit code. If the job is a box job, "failure" means that at least one job within the box had an exit code greater than zero (the default meaning) or the "exit condition for box failure" was "true."
TERMINATED	red	The job terminated while in the "running" state. Termination may be the result of a user sending a "killjob" event, or a job may have been terminated because the job itself (or the box it is in) failed. If the job itself fails, it has a "failure" status rather than a "terminated" status.
RESTART	orange	The job was unable to start due to hardware or application problems and has been scheduled to restart.

Table 2. Job States

Status	Color Code	Meaning
QUE_WAIT	yellow	The job can logically run (i.e., all starting conditions have been met); however, there are not enough machine resources available to allow it to run.
ON_ICE	black	The job is removed from all conditions and logic but is still defined to AutoSys. Operationally it is as though the job had been deactivated. The job remains “on_ice” until it receives the “job_off_ice” event. Downstream dependent jobs behave as though the “on_ice” job ran successfully. A job that is “starting” or “running” cannot be put “on_ice.”
ON_HOLD	black	The job is on hold and will not run until it receives the “job_off_hold” event. Downstream jobs will not run until the job is taken off hold. A job that is “starting” or “running” cannot be put “on_hold.”
INACTIVE	white	The job has not yet been processed. Either the job has never been run or its status was intentionally altered to “turn off” its previous completion status.

The procedure for reviewing DPR Dependencies starts with the assumption that the Production Monitor has logged in to the Production Workbench.

Reviewing DPR Dependencies

- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2 Click on the **JobScope** button on the **AutoSys GUI Control Panel**.
 - The **JobScope** GUI page (Figure 17) is displayed.
- 3 Review the Control Region (left side of display) to identify the **True/False** dependency legend.
 - **True** is indicated by a **solid** arrow, which indicates that job dependencies have been met.
 - The solid arrow is the default code for **True**; the codes can be changed.
 - **False** is indicated by a **dashed** arrow, which indicates that job dependencies have **not** been met.
 - Dependency arrows indicate only that a job dependency exists for a job. They do not define time-related starting conditions, nor do they describe the type of job dependency, e.g., “success,” “failure,” or “running.”

- 4 Review the Job Display to determine the status (color-coded) of DPRs.
 - Default colors representing job statuses are listed in Table 2.
 - 5 Review the Job Display to determine the types of jobs:
 - Rectangle = **Box Job**.
 - Ellipse = **Command Job**.
 - Hexagon = **File Watcher Job**.
 - 6 Select a job (for which descendants are to be determined) by placing the mouse cursor on the job and clicking with the **left** mouse button.
 - Color of the border around the selected job changes to **yellow**.
 - Name of the job appears in the **Current Job Name** area of the Control Region.
 - 7 Review the job's descendants by placing the mouse cursor on the job and clicking and holding the **right** mouse button.
 - **Descendants** pop-up menu appears.
 - Color of the border around the selected job changes to **yellow**.
 - Name of the job appears in the **Current Job Name** area of the Control Region.
 - 8 Select (highlight) **Show Children** from the **Descendants** pop-up menu (release the right mouse button).
 - Job's first-level Command, File-Watcher, and Box Jobs appear.
 - Repeat Step 6 to select a different job.
 - 9 Select **Show All Descendants** from the **Descendants** pop-up menu.
 - Job's Command, File-Watcher, and Box Jobs appear for all levels.
 - 10 Select **Hide All Descendants** from the **Descendants** pop-up menu.
 - Default view is displayed.
 - All descendants are hidden.
 - 11 Select **File** → **Exit** from the pull-down menu then click on the **OK** button to exit from **JobScape**.
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Reviewing the DPR Production Timeline

The Production Monitor reviews the DPR Production Timeline using AutoXpert TimeScope.

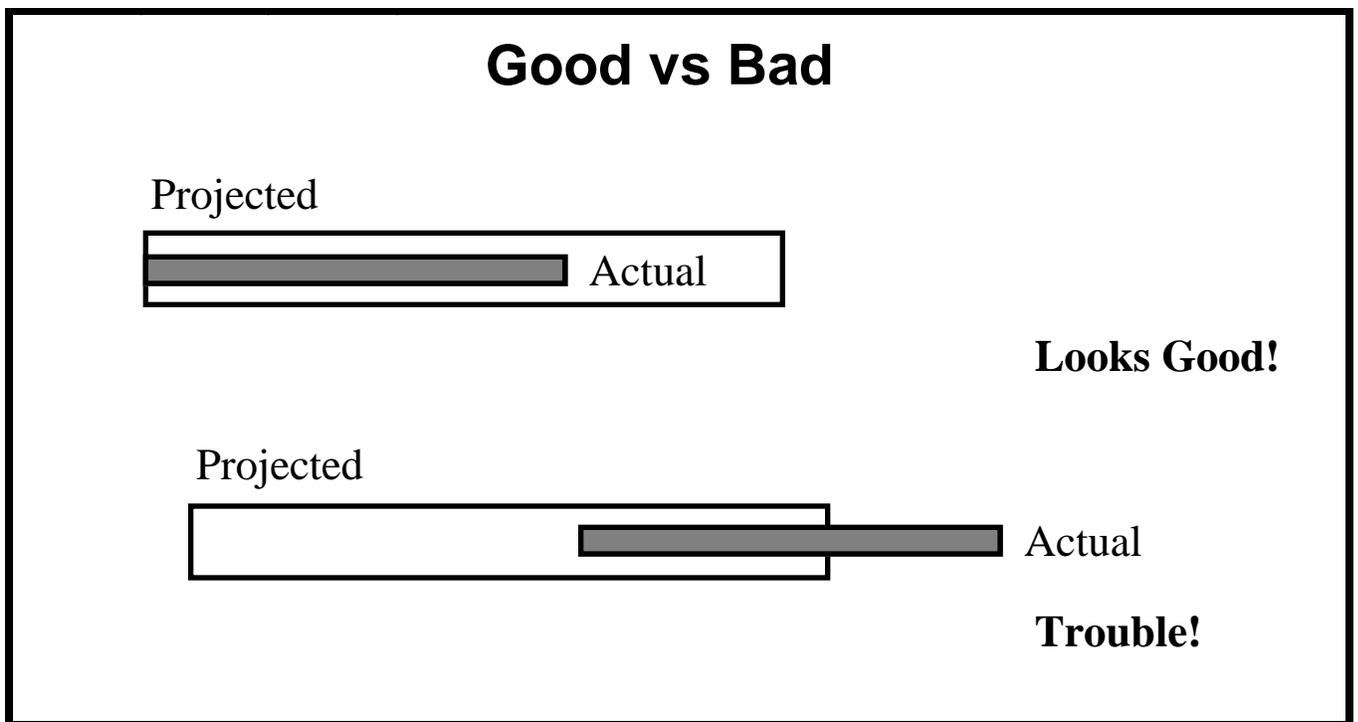
TimeScope presents a Gantt-like view of a job processing from a temporal (time-related) point of view. TimeScope depicts all job types; i.e., Command Jobs, Box Jobs, and File Watcher Jobs. It also depicts the nesting of jobs within boxes and the duration of time it will take for jobs to complete. TimeScope is used for monitoring job flow in real-time.

The procedure for reviewing the DPR production timeline starts with the assumption that the Production Monitor has logged in to the system.

Reviewing the DPR Production Timeline

- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2 Click on the **TimeScope** button on the **AutoSys GUI Control Panel**.
 - The **TimeScope** GUI page (Figure 16) is displayed.
 - Current time is displayed in red in the View Region (right side of the display).
- 3 Review the Control Region (left side of display) to identify the **Actual/Projected** legend for making comparisons in the View Region. (Refer to Figure 19.)
 - **Projected** is a rectangular (blue filled) graphic, to show average job completion time.
 - **Actual** is a striped (white and blue) ribbon, to show how much of the job has completed.
 - If there is a green stripe, the job is running.
 - If there is a black stripe, the job has been completed.
- 4 Review a job's descendants by placing the **mouse cursor** on a job and clicking and holding the **right** mouse button.
 - **Descendants** pop-up menu appears.
 - An asterisk (*) indicates that a Box Job's descendants have been hidden.
- 5 Select (highlight) **Show Children** from the **Descendants** pop-up menu and release the mouse button.
 - Job's first-level Command, File Watcher, and Box Jobs appear.
 - Return to Step 4 to select a different job.
 - Go to Step 6 to change the view.

- 6 Select (using the right mouse button) **Show All Descendants** from the **Descendants** pop-up menu.
 - Job's Command, File Watcher, and Box Jobs appear with all levels.
 - 7 Select (using the right mouse button) **Hide All Descendants** from the **Descendants** pop-up menu.
 - Default view is displayed.
 - All descendants are removed.
 - 8 Select **File** → **Exit** from the pull-down menu then click on the **OK** button to exit from **TimeScale**.
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DRAFT *Figure 19. Evaluating Actual versus Projected Job Processing Time*

Reviewing Alarms

Alarms indicate problems with job processing. They may involve a failure of job processing, a database problem, a communications problem, hardware or software failure or some other error in the data processing system.

The Production Monitor reviews alarms using the AutoSys Alarm Manager. The Alarm Manager allows the Production Monitor to perform the following functions:

- View alarms as they arrive.
- Provide a response to an alarm.
- Change alarm status.

The Production Monitor can configure the Alarm Manager to display certain types of alarms only. The Production Monitor may wish to see only certain types of alarms (e.g., job failure alarms) or only those alarms that are open (have not yet been acknowledged) or only the alarms that have occurred within the last thirty minutes.

The Production Monitor can select alarms to be displayed based on any or all of the following three criteria:

- Type of alarm
- Alarm state
- Time of the alarm

The procedure for reviewing alarms starts from the assumption that the Production Monitor has logged in to the system.

Reviewing Alarms

- 1** Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2** Click on the **Ops Console** button on the **AutoSys GUI Control Panel**.
 - The **Job Activity Console** GUI, also known as the **Ops Console** GUI, (Figure 20) is displayed.
- 3** Click on the **Alarm** button.
 - The **Alarm Manager** GUI page (Figure 21) is displayed.
 - Alarms are displayed in reverse order of occurrence; i.e., the most recent alarm appears at the top of the list.

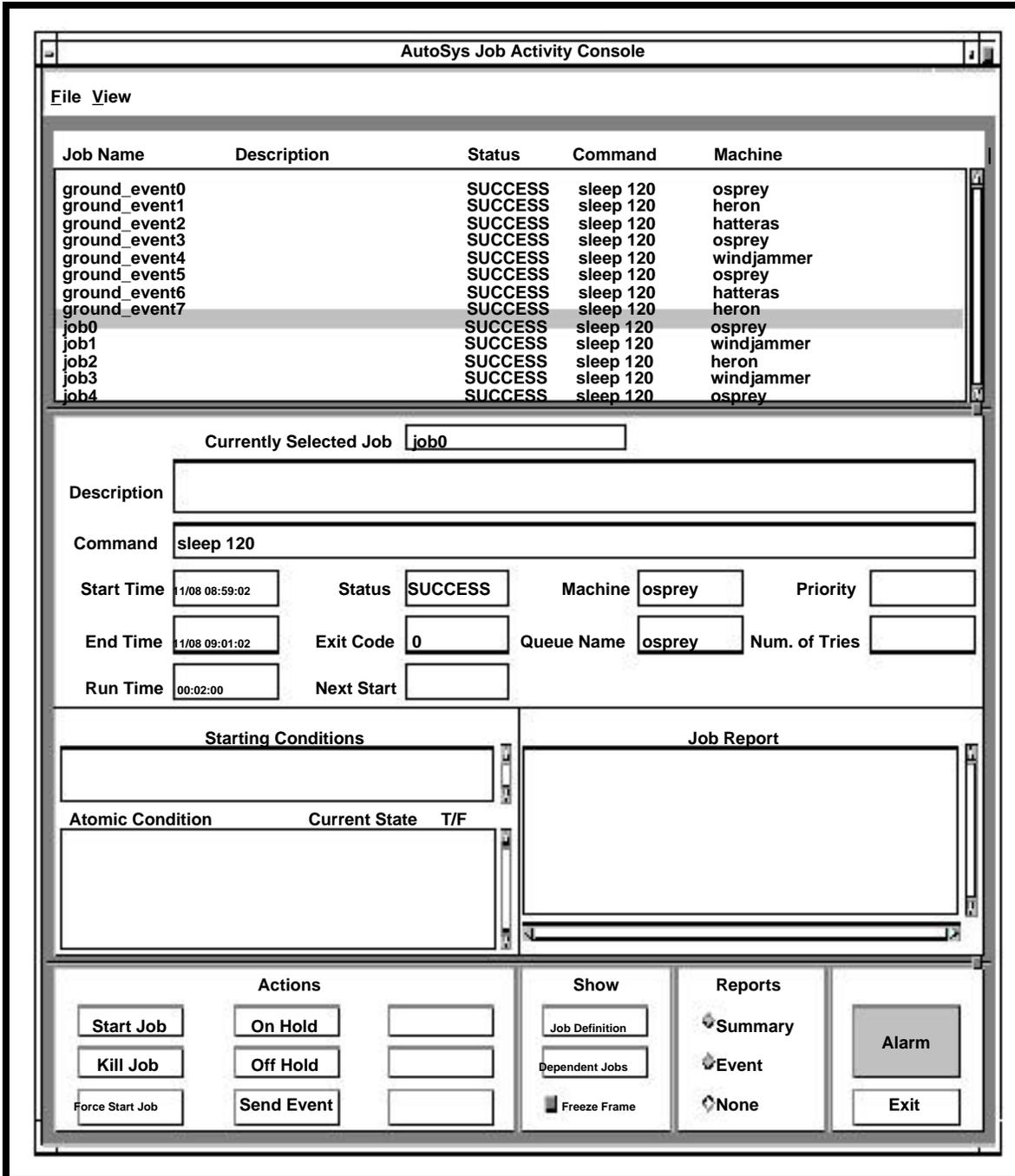


Figure 20. Job Activity Console (Ops Console) GUI

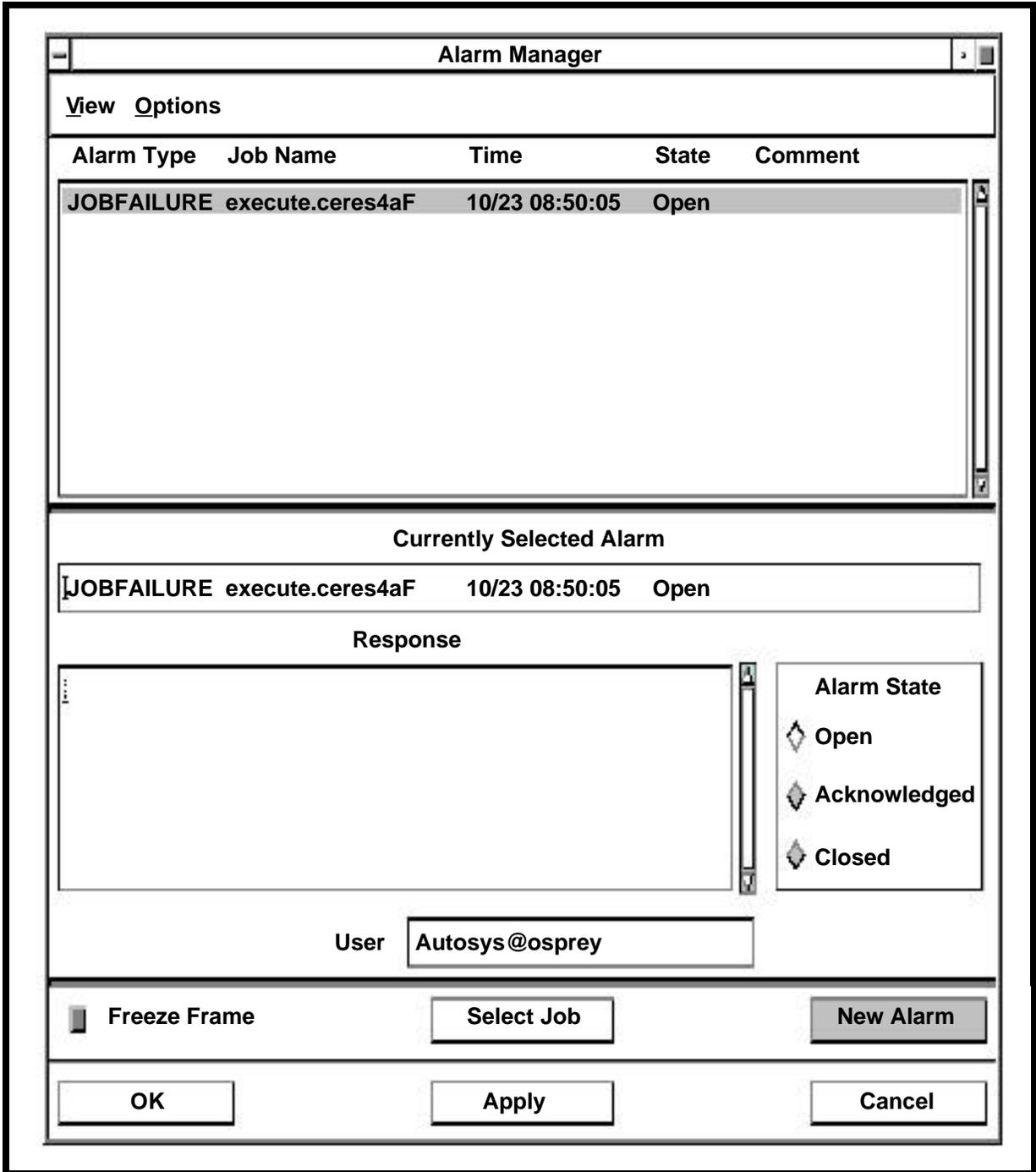


Figure 21. Alarm Manager GUI

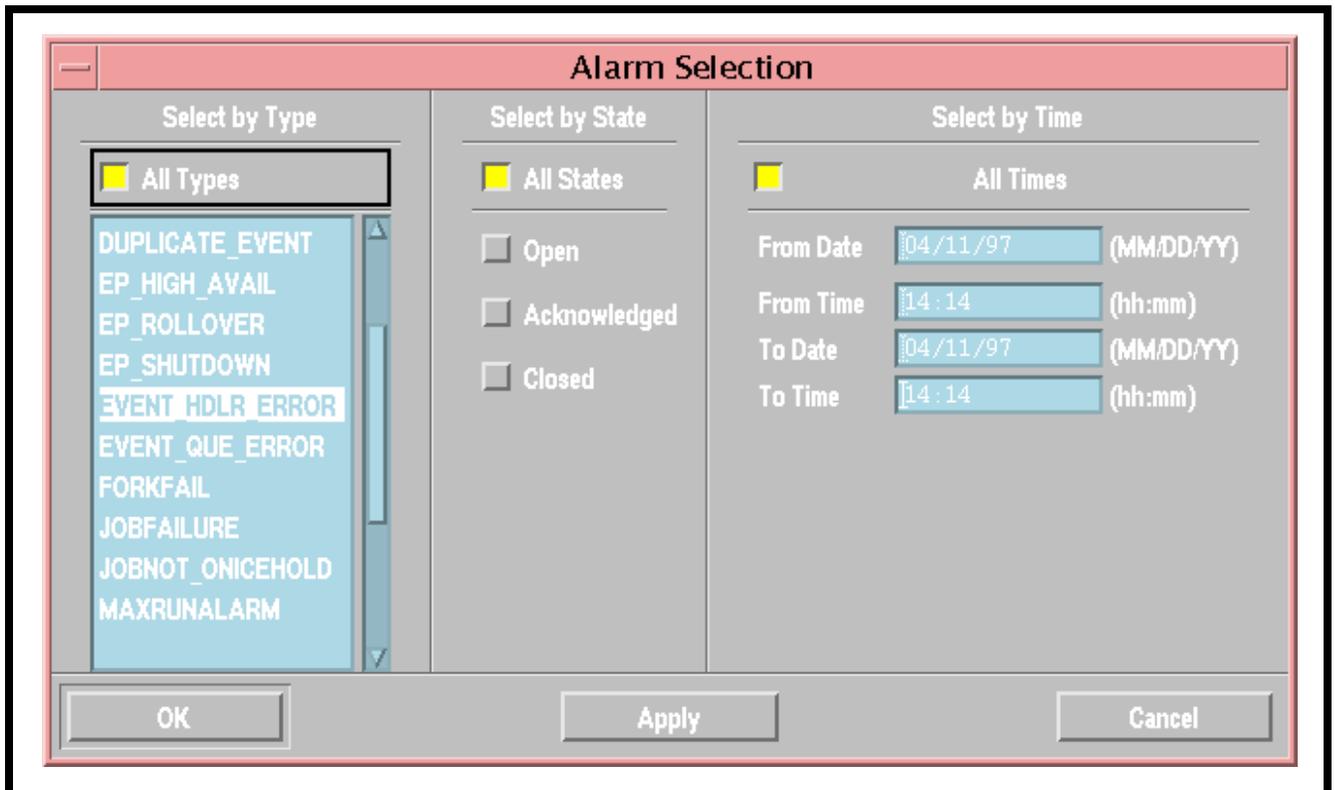
- The following information is displayed:
 - **Alarm Type.**
 - **Job Name.**
 - **Time.**
 - **State.**
 - **Comment.**
 - 4** Click on an alarm in the **Alarm List**.
 - Alarm is displayed in detail in the **Currently Selected Alarm** region of the display.
 - 5** Click the **Response** edit box and type in a response, if desired, then press the **Tab** key on the keyboard.
 - Response is entered.
 - 6** Update the **Alarm State** by clicking on whichever of the following radio buttons appropriately describes the **Alarm State**:
 - **Open.**
 - **Acknowledged.**
 - **Closed.**The **Alarm State** is updated.
 - 7** Click on the **Apply** button.
 - The alarm response is entered.
 - 8** Repeat Steps 4 through 7 to review and update multiple alarms.
 - Alarms are updated/reviewed.
 - 9** When no more alarms are to be reviewed, click on the **OK** button.
 - **Alarm Manager** quits (is closed).
 - **Job Activity Console (Ops Console)** GUI is displayed.
 - 10** To exit from the **Job Activity Console (Ops Console)** GUI click on the **Exit** button then on the **OK** button.
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By configuring the AutoSys Alarm Manager the Production Monitor can control which alarms are displayed. Alarms can be selected by type, state, or time.

The procedure for configuring the Alarm Manager starts from the assumption that the **Alarm Manager** is currently running.

Configuring Alarm Selection

- 1 Select **View** → **Select Alarms** from the pull-down menu.
 - **Alarm Selection** GUI (Figure 22) is displayed.
 - **Alarm Selection** has the following defaults:
 - **All Types** for **Select by Type**.
 - **Open** and **Acknowledge** for **Select by State**.
 - **All Times** for **Select by Time**.



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Figure 22. Alarm Selection GUI

- 2 To select a single type of alarm, click on the desired alarm in the **Select by Type** alarm list; to select all types of alarms, click on the **All Types** button.
 - Desired alarm type is selected.
 - If **All Types** are selected, the **All Types** button color changes to yellow.
- 3 To select multiple types of alarms: press and **hold the Control (Ctrl)** key on the keyboard while clicking the desired alarms in the **Select by Type** alarm list.
 - Multiple alarms are selected.
- 4 To select all alarm states click on the All States button; to select alarms by state click on whichever of the following **Select by State** toggle buttons properly describe(s) the state(s) to be selected:
 - **Open.**
 - **Acknowledge.**
 - **Closed.**

Any or all of the buttons in the preceding list can be selected.

 - The color of selected button(s) change(s) to yellow.
- 5 To select all times click on the **All Times** button; to select alarms by time type the starting date (in *MM/DD/YY* format) in the **From Date** field and press the **Tab** key on the keyboard to advance to the next field.
 - Starting date is entered.
 - If **All Times** have been selected, proceed to Step 9.
- 6 Type the starting time (in *hh:mm* format) in the **From Time** field and press the **Tab** key on the keyboard to advance to the next field.
 - Starting time is entered.
- 7 Type the end date (in *MM/DD/YY* format) in the **To Date** field, and press the **Tab** key on the keyboard to advance to the next field.
 - End date is entered.
- 8 Type the end time (in *hh:mm* format) in the **To Time** field.
 - End time is entered.
- 9 Click on the **Apply** button.
 - Selections are applied without dismissing (closing) the **Alarm Selection GUI**.
 - This step can be skipped if the **OK** button is going to be clicked to dismiss the **Alarm Selection GUI**.

- 10 Click on the **OK** button.
 - Alarm selections are applied.
 - **Alarm Selection** GUI is closed.
 - **Alarm Manager** GUI is displayed.
 - 11 If alarm sound is desired, select **Options** → **Sound On** from the pull-down menu.
 - **Sound On** toggle button is yellow when the sound is on.
 - 12 If no alarms are to be reviewed, click on the **OK** button to exit from the **Alarm Manager** GUI.
 - **Alarm Manager** quits (is closed).
 - **Job Activity Console (Ops Console)** GUI is displayed.
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Reviewing Job Selection Criteria

The Production Monitor reviews job activities using the AutoSys Job Activity Console as described in the next section of this lesson. The AutoSys Job Selection GUI is used for specifying (filtering) the jobs to be reviewed, including setting the criteria for displaying jobs by name, status and/or machine.

The procedure for reviewing job selection criteria starts from the assumption that the Production Monitor has logged in to the system.

Reviewing Job Selection Criteria

- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2 Click on the **Ops Console** button on the **AutoSys GUI Control Panel**.
 - The **Job Activity Console** GUI, also known as the **Ops Console** GUI, (Figure 20) is displayed.
- 3 Select **View** → **Select Jobs** from the pull-down menu.
 - The **Job Selection** GUI (Figure 23) is displayed.
 - **Job Selection** has the following default values:
 - **All Jobs/Job Name** for **Select by Name**.
 - **All Statuses** for **Select by Status**.

- **All Machines** for **Select by Machine**.
- **Unsorted** for **Sort Order**.

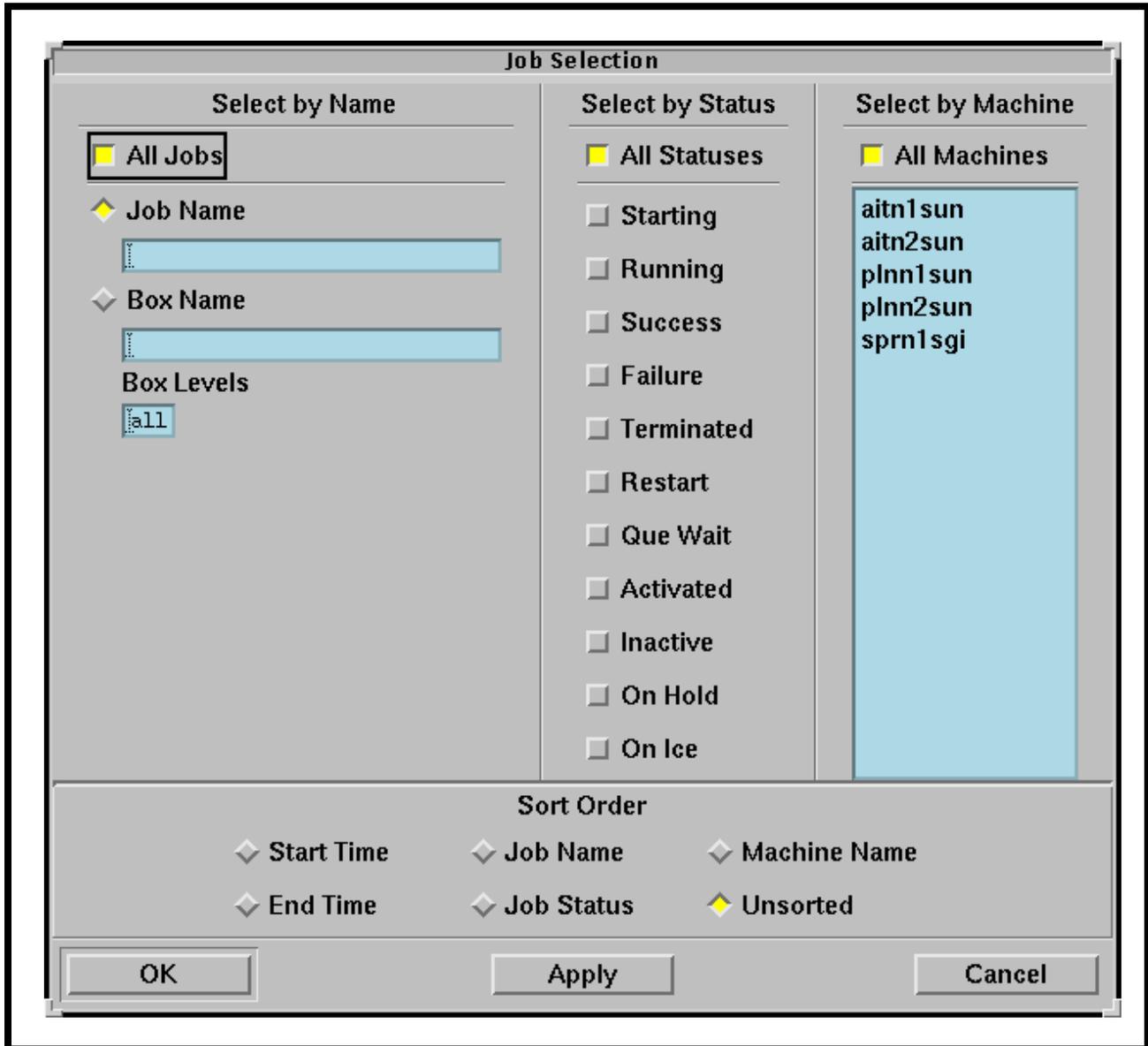


Figure 23. Job Selection GUI

- 4** For the **Select by Name** option select all jobs by clicking on the **All Jobs** button. Alternatively, to select a particular job by name, type the name of the desired job in the **Job Name** field; to select a particular box by name, type the name of the desired box in the **Box Name** field then type in the **Box Levels** field how many levels of nesting you want to view for the box job.
- Desired job selection is made.
 - When typing in either the **Job Name** field or the **Box Name** field, the corresponding toggle button is automatically turned on. (You do not have to click on the button, just start typing in the desired field.)
 - The asterisk (*) wildcard character can be used for entering a partial job or box name (e.g., *.ceres*)
 - In the **Box Levels** field any valid positive integer can be entered or the word “all.”
 - 0 - indicates that only the top-level box specified in the **Box Name** field is to be displayed.
 - 1 - indicates that the specified top-level box and all direct descendant boxes and enclosed jobs are to be displayed.
 - all - indicates that all jobs in the box are to be displayed.
 - If **All Jobs** are selected, the **All Jobs** button color changes to yellow.
- 5** To select all job statuses click on the **All Statuses** button; to select jobs by status click on whichever of the following **Select by Status** toggle buttons properly describe(s) the status(es) to be selected:
- **Starting.**
 - **Running.**
 - **Success.**
 - **Failure.**
 - **Terminated.**
 - **Restart.**
 - **Que Wait.**
 - **Activated.**
 - **Inactive.**
 - **On Hold.**
 - **On Ice.**

- 6 To select all machines click on the **All Machines** button; to select jobs by the particular machine click on the name of the desired machine in the **Select by Machine** list; to select multiple machines, click and hold on the first machine then drag the cursor to the name of the last machine to be selected and release the mouse button.
 - Selected machine(s) is (are) highlighted.
 - **All Machines** button turns yellow if selected.
 - 7 Click on the desired order in the **Sort Order** area.
 - The following options are available for **Sort Order**:
 - **Start Time.**
 - **End Time.**
 - **Job Name.**
 - **Job Status.**
 - **Machine Name.**
 - **Unsorted.**
 - 8 Click on the **Apply** button.
 - Selections are applied without dismissing (closing) the **Job Selection** GUI.
 - This step can be skipped if the **OK** button is going to be clicked to dismiss the **Job Selection** GUI.
 - 9 Click on the **OK** button.
 - Job selections are applied.
 - **Job Selection** GUI is closed.
 - **Job Activity Console** GUI is displayed.
 - Job list based on the new selection criteria is displayed in the **Job List** region of the **Job Activity Console**.
 - 10 When the job activity has been adequately reviewed, click on **Exit** to quit the **Job Activity Console** display.
 - AutoSys **Job Activity Console Exit** GUI is displayed to confirm the decision to quit the display.
 - 11 Click on the **OK** button to close the **Job Activity Console** GUI.
 - AutoSys **Job Activity Console** GUI quits (is closed).
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Reviewing Job Activities

The Production Monitor reviews job activities using AutoSys. The Job Activity Console is the primary interface that allows the operator to monitor all jobs that have been defined for AutoSys. The Job Selection GUI (described in the preceding section) is used for defining the criteria for displaying jobs on the Job Activity Console.

The procedure for reviewing job activities starts from the assumption that the Production Monitor has logged in to the system.

Reviewing Job Activities

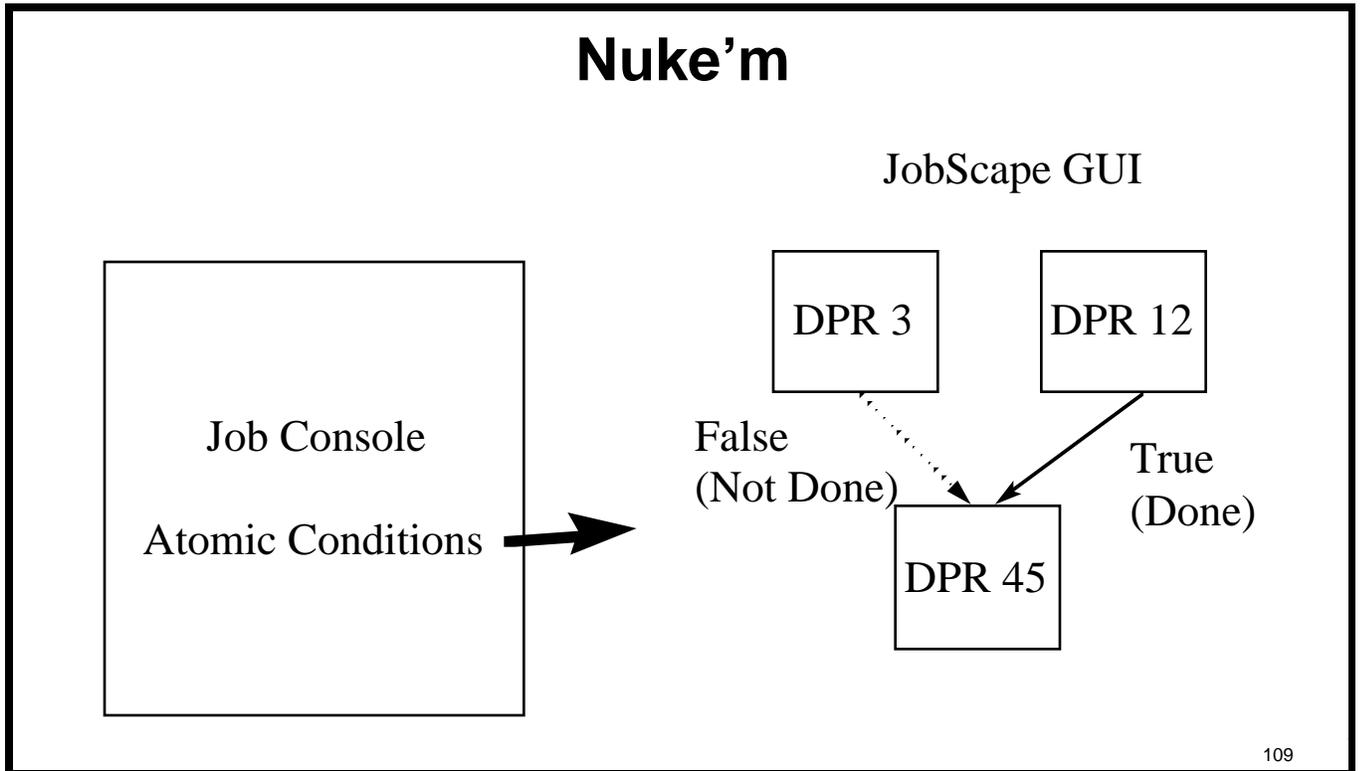
- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2 Click on the **Ops Console** button on the **AutoSys GUI Control Panel**.
 - The **Job Activity Console** GUI, also known as the **Ops Console** GUI, (Figure 20) is displayed.
- 3 Review the **Job List** region of the **Job Activity Console**.
 - The following job characteristics are displayed in a table:
 - **Job Name** (currently selected job).
 - **Description**.
 - **Status**.
 - **Command**.
 - **Machine**.
- 4 If the **Job List** region does not contain the desired job or set of jobs, perform the procedure for **Reviewing Job Selection Criteria** (preceding section of this lesson).
- 5 Click anywhere on a job row in the **Job List** region to have detailed information for that job displayed in the **Currently Selected Job** region of the display.
- 6 Review the data in the **Currently Selected Job** region of the display.
 - The following job details are displayed in the **Currently Selected Job** region of the **Job Activity Console**:
 - Job name (**Currently Selected Job**).
 - **Description**.
 - **Command**.

- **Start Time** (and date).
- **End Time** (and date).
- **Run Time**.
- **Status**.
- **Exit Code**.
- **Next Start**.
- **Machine**.
- **Queue Name**.
- **Priority**.
- **Num. of Tries**.

7 Review the data in the **Starting Conditions** region of the display.

- The following job starting conditions are displayed:
 - overall starting conditions (including all atomic conditions).
 - Identification of each **Atomic Condition**.
 - **Current State**.
 - **T/F** (true or false).
- The starting conditions can be useful in determining what “upstream” job may be preventing the currently selected job from running.
- An **Atomic Condition** is one of the most basic components of an overall starting condition; for example, if SUCCESS(X) and SUCCESS(Y) define the overall starting condition for a job, there are two atomic conditions, one of which is SUCCESS(X) and the other of which is SUCCESS(Y).
- The **T/F** (true/false) flag indicates whether the corresponding atomic condition has been satisfied.
- Clicking on one of the **Atomic Conditions** causes the job associated with that condition to become the currently selected job, with its details displayed in the **Currently Selected Job** region of the display. By checking the atomic conditions, it is possible to check the path of upstream dependencies to determine which job (if any) is preventing a particular job from running.
 - Figure 24 shows how atomic conditions relate to job dependencies as displayed using JobScape. (In this case DPR3 and DPR12 are atomic conditions for DPR45.)

— Note that clicking on one of the atomic conditions listed on the Job Activity Console does **not** actually cause the JobScape GUI to be displayed.



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Figure 24. Atomic Conditions and Upstream Dependencies

8 In the **Reports** list click on the type of report to be reviewed then review the report in the **Job Report** region of the display:

- The following types of reports can be selected:
 - **Summary**, which shows the result of the last execution of the job including the following types of information:
 - Job Name
 - Last Start
 - Last End
 - Status
 - Run Pri/Xit

— **Event**, which lists all events from the last execution of the job including the following types of information:

- Status [Event]
- Time
- Ntry
- EventState
- ProcessTime
- Machine

— **None**.

- The selected report is displayed. The color of the button corresponding to the selected report changes to yellow.

9 When the job activity has been adequately reviewed, click on **Exit** to quit the **Job Activity Console** display.

- AutoSys **Job Activity Console Exit** GUI is displayed to confirm the decision to quit the display.
- Subsequent sections of this lesson describe features that are accessible through the **Actions** and **Show** regions of the **Job Activity Console**.
- Use and configuration of **Alarm** functions were described in previous sections.

10 Click on the **OK** button.

- AutoSys **Job Activity Console** GUI quits (is closed).
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Modifying Job Priority

Job Priority

It is sometimes necessary to modify the priority of a job. For example, there may be a hardware or software problem that reduces the available resources to the point where some jobs are too large to be processed. Or it may become evident that due to the volume of large, high-priority jobs, some small, low-priority jobs will never be processed unless they are given higher priority.

Job priorities are assigned using numbers according to the following rules:

- 1 (one) has the highest priority.
- Higher-priority jobs (lower numerically) completely block lower-priority jobs.
 - Prevents situations where a high-priority, resource-intensive job cannot obtain enough resources to run because smaller, lower-priority jobs continually grab the small amounts of resources available.

The Production Monitor uses AutoSys when modifying job priority. The procedure for making the modification starts from the assumption that the Production Monitor has logged in to the system.

CAUTION

The only field that may be modified on the **Job Definition Advanced Features** GUI is the **Que Priority** field. ECS cannot disable these GUI features, because AutoSys/AutoXpert is a commercial off-the-shelf (COTS) product. Operations personnel will receive training and documentation that will provide clear instructions concerning the intended use of the **Job Definition Advanced Features** GUI and which features must be avoided.

Modifying Job Priority

- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2 Click on the **Job Definition** button.
 - The **Job Definition** GUI page (Figure 25) is displayed.

Job Definition

Clear
Delete
Save
Adv Features
Exit

Job Name

Job Type

Box
 Command
 File Watcher

Edit OneTime Over-Rides?

 Yes
 No

Name of Box this Job is IN

Owner

Description

Starting Parameters

Is the Start Date/Time Dependent?

 Yes
 No

Starting Condition

Command & File Watch Information

Execute On Machine

UNIX Command

File To Watch for

Figure 25. Job Definition GUI

- 3 Type the name of the job with the priority to be modified in the **Job Name** field.
 - If necessary, you can select the name of the job from the list of all jobs in the database by typing the % wildcard character in the **Job Name** field, clicking on the **Search** button, and double-clicking on the appropriate job in the pop-up **Selection List** window.
 - 4 Click on the **Adv Features** button.
 - The **Job Definition Advanced Features** GUI (Figure 26) is displayed.
 - 5 In the **Command Information** area of the **Job Definition Advanced Features** GUI, click in the **Que Priority** field and type in the desired priority value.
 - Remember that the only field you may change on the **Job Definition Advanced Features** GUI is the **Que Priority**.
 - 6 Click on the **Save&Dismiss** button.
 - The modified **Que Priority** value is saved.
 - The **Job Definition** GUI (Figure 25) is displayed.
 - 7 Click on the **Exit** button to quit the **Job Definition** GUI.
-

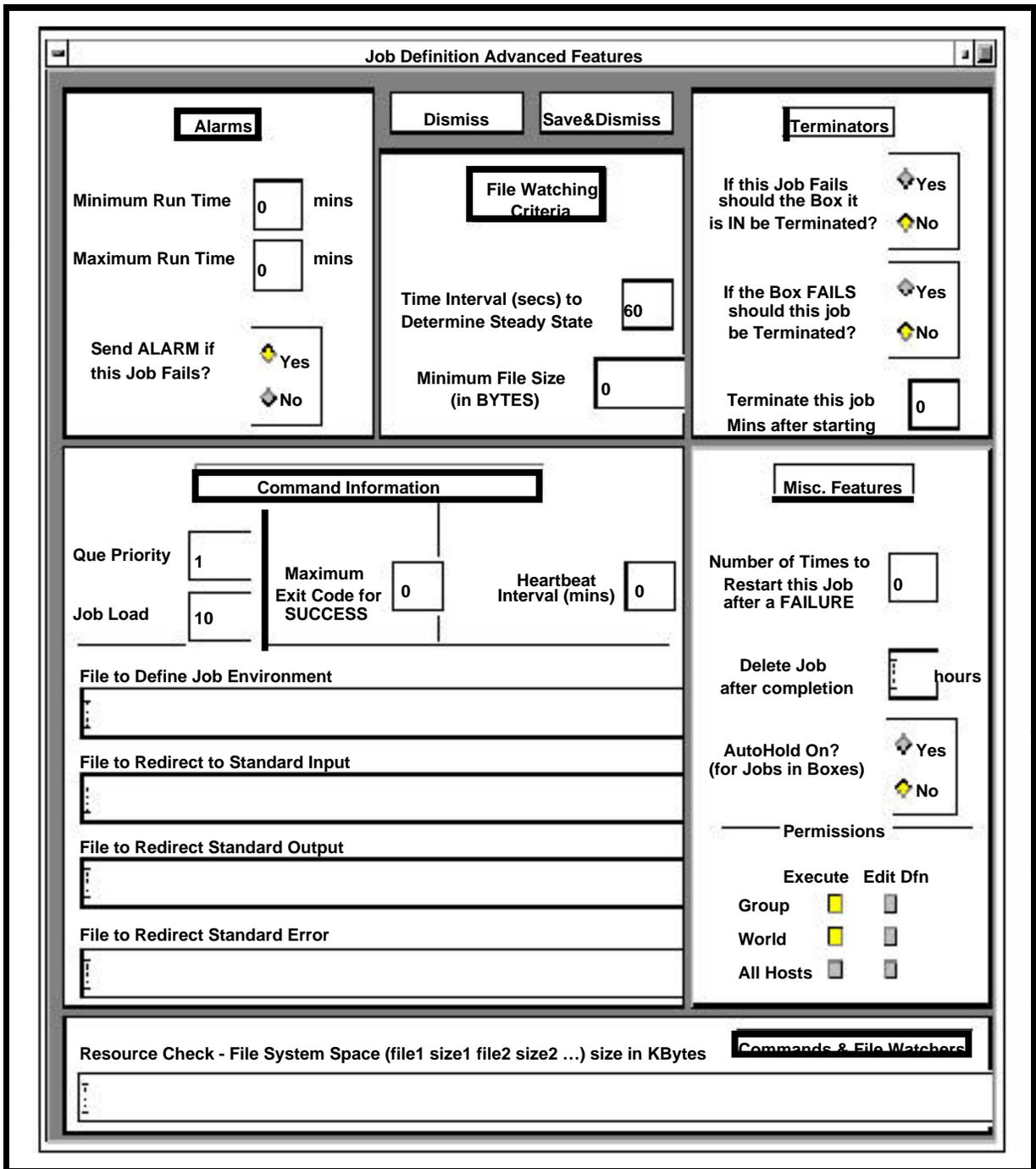


Figure 26. Job Definition Advanced Features GUI

Modifying Job Status

Job Status

At times the Production Monitor may need to modify a particular job in any of the following ways:

- Start the job.
- Kill the job.
- Force the job to start.
- Place the job on hold.
- Take the job off hold.

The Production Monitor can initiate the preceding actions from the **Actions** region of the **Job Activity Console (Ops Console)**, Figure 20. Those actions and the following additional actions can be initiated from the Send Event GUI:

- Change the job's status.
- Change the job's priority.
- Put the job on ice.
- Take the job off ice.
- Stop the demon (stop the Event Processor in an emergency).
- Set a global value.
- Send a signal concerning the job.
- Make a comment (for example, why a job start was forced).

The Production Monitor uses the AutoSys **Send Event** GUI to modify job status. The procedure starts with the assumption that the Production Monitor has logged in to the system

CAUTION

Once an event has been sent from the **Send Event** dialog, it cannot be canceled or modified in any way.

Modifying Job Status

- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.
- 2 Click on the **Ops Console** button on the **AutoSys GUI Control Panel**.
 - The **Job Activity Console** GUI, also known as the **Ops Console** GUI, (Figure 20) is displayed.
- 3 Review the **Job List** region of the **Job Activity Console** to identify the job with the status to be modified.
- 4 If the **Job List** region does not contain the desired job or set of jobs, perform the procedure for **Reviewing Job Selection Criteria** (described in a previous section).
- 5 In the **Job List** region of the **Job Activity Console** click on the job row corresponding to the job with the status to be modified.
- 6 Click on the **Send Event** button in the **Actions** region of the **Job Activity Console** GUI.
 - The **Send Event** GUI (Figure 27) is displayed.
 - **Send Event** has the following default values.
 - **Start Job** for **Event Type**.
 - **Now** for **Time**.
 - **Normal** for **Send Priority**.
- 7 Verify that the correct job is listed in the **Job Name** field of the **Send Event** GUI.
 - If not, click on the **Cancel** button and select the correct job (perform Steps 3 through 6).
- 8 Click on **Event Type** to select the desired type of job status to be modified.
 - **Event Type** has the following options.
 - **Start Job**.
 - **Job On Hold**.
 - **Job Off Hold**.
 - **Comment**.
 - **Stop Demon**.

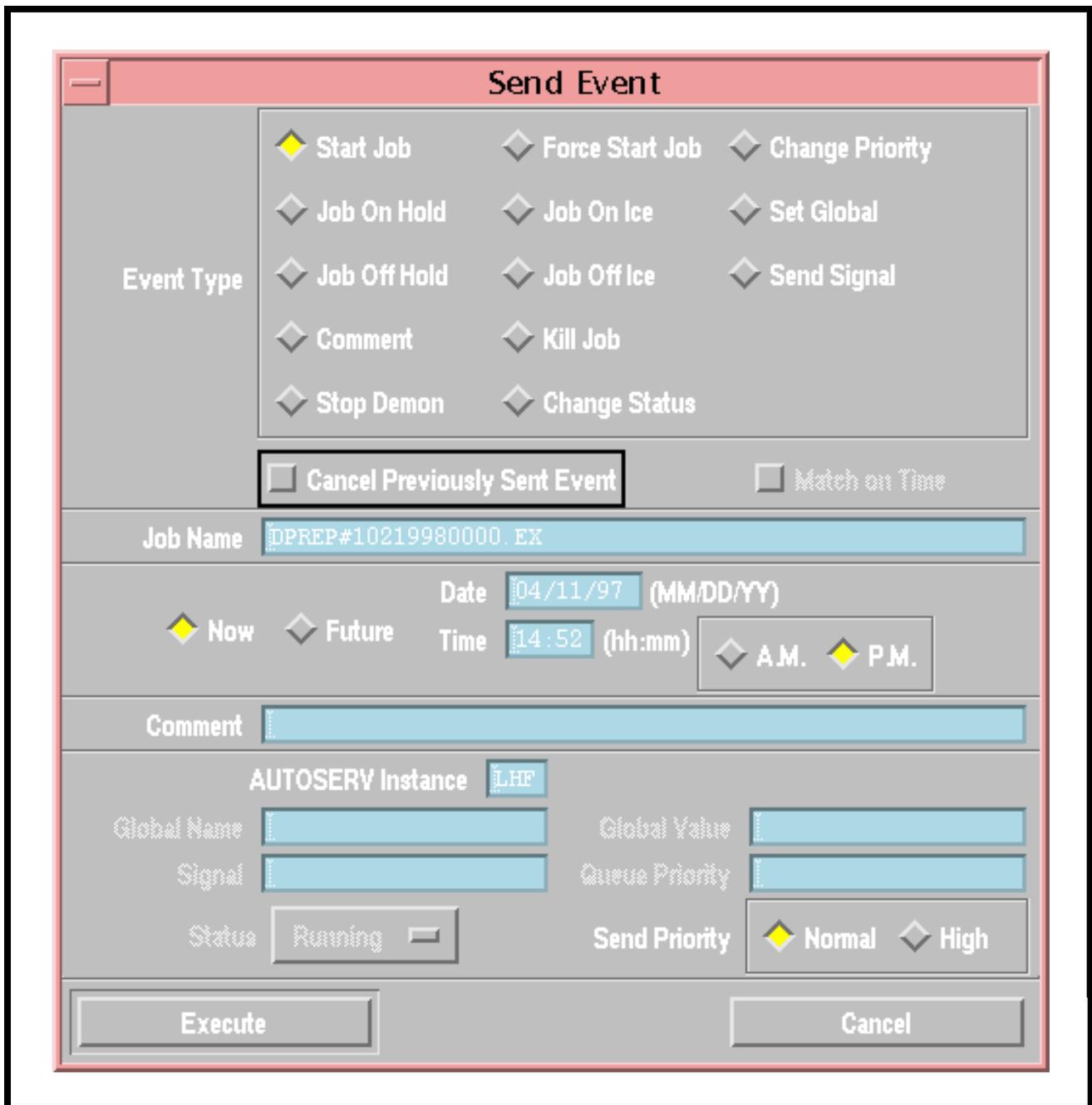


Figure 27. Send Event GUI

- **Force Start Job.**
- **Job On Ice.**
- **Job Off Ice.**
- **Kill Job.**
- **Change Status.**
- **Change Priority.**
- **Set Global.**
- **Send Signal.**

- Remember that a job with status of either “starting” or “running” cannot be put “on hold” or “on ice.”
- Note that the GUI has an option to **Cancel Previously Sent Event.**

9 To enter the desired date and time when the job status is to be modified, either right away or at some time in the future, click on either **Now** or **Future**. If **Future** is selected, type in the **Date** (in *MM/DD/YY* format) and **Time** (in *hh:mm* format), and click on either **A.M.** or **P.M.**

- Select **Now** for immediate execution. (Current date and time are default values.)
- Select **Future** for a future date and time.

10 Type any comments in the **Comment** field.

- **Comment** is a free-form field for entering text that should be associated with the event in the database.
 - For example, explain why the selected “send event” was initiated.

11 Review the **AUTOSERV Instance** field.

- **Instance** field specifies the instance of AutoSys/AutoXpert to which the event will be sent. (You can send events to instances of AutoSys/AutoXpert other than the one you are running.)
- The current AutoSys/AutoXpert instance should be displayed by default in the **AUTOSERV Instance** field.
- If the event specified in the **Event Type** field should be sent to a different instance of AutoSys/AutoXpert, type the name of the other instance in the **AUTOSERV Instance** field.

- 12** Review the **Global Name** and **Global Value** fields.
- **Global Name** and **Global Value** are accessible only if **Set Global** was selected in the **Event Type** region.
 - If **Set Global** was specified in the **Event Type** field, type the appropriate entries in the **Global Name** and **Global Value** fields.
- 13** Review the **Signal** field.
- **Signal** is accessible only if **Send Signal** or **Kill Job** was selected in the **Event Type** region.
 - If either **Send Signal** or **Kill Job** was specified in the **Event Type** field, type the appropriate entries in the **Signal** field.
- 14** Review the **Queue Priority** entry.
- Queue priority can be changed only if **Change Priority** was selected in the **Event Type** region.
 - If the queue priority is to be changed, type the new priority in the **Queue Priority** field.
- 15** Review the **Status** option menu.
- Status can be changed only if **Change Status** was selected in the **Event Type** region.
 - Click on the **Status** button and select (from the pick-list) the job status to which the job should be changed.
 - **Status** has the following options.
 - **Running.**
 - **Success.**
 - **Failure.**
 - **Terminated.**
 - **Starting.**
 - **Inactive.**
- 16** Review the **Send Priority** radio buttons.
- Send priority can be changed only if **Send Priority** was selected in the **Event Type** region.
 - If the send priority is to be changed, click on the button corresponding to the desired send priority.

- **Send Priority** has the following options.

- **Normal.**

- **High.**

- **High** priority is reserved for emergencies.

17 Click on the **Execute** button then click on the **Yes** button to enable the modified event.

- **Job Activity Console (Ops Console)** GUI is displayed.
 - Once an event has been sent from the **Send Event** dialog, it cannot be canceled or modified in any way.
-

Reviewing Activity and Job Dependency Logs

Reviewing an Activity Log

The Production Monitor reviews the activity log to obtain the following types of information:

- which jobs have been completed.
- which jobs are currently running.
- which jobs are in the queue.

The Production Monitor reviews the activity log using the AutoSys **AutoRep** command. The **AutoRep** command reports information about a job, jobs within boxes, machines, and machine status. Figure 28 shows a sample activity log.

```
-----< Date: 06/14 21:52:04 >-----  
EVENT: CHANGE_STATUS      STATUS: STARTING  JOB: stage.DPR_04  
EVENT: CHANGE_STATUS      STATUS: RUNNING   JOB: stage.DPR_04  
EVENT: CHANGE_STATUS      STATUS: SUCCESS   JOB: stage.DPR_04  
  
-----< Date: 06/14 21:53:04 >-----  
EVENT: CHANGE_STATUS      STATUS: STARTING  JOB: prepare.DPR_08  
EVENT: CHANGE_STATUS      STATUS: RUNNING   JOB: prepare.DPR_08  
EVENT: CHANGE_STATUS      STATUS: SUCCESS   JOB: prepare.DPR_08
```

Figure 28. Sample Activity Log

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The procedure starts with the assumption that the Production Monitor has logged in to the system.

Reviewing an Activity Log

NOTE: Commands in Steps 1 through 10 are typed at a UNIX system prompt.

- 1** Access the command shell.
 - The command shell prompt is displayed.
- 2** Type **xhost** + then press the **Return/Enter** key on the keyboard.
- 3** Open another UNIX window.
- 4** Start the log-in to the planning server by typing either **telnet *servername*** (e.g., **plnn1sun**), **rlogin *servername***, or **rsh *servername*** in the second window then press the **Return/Enter** key.
 - If you use the **telnet** command, a **Login:** prompt appears; continue with Step 5.
 - If you use either the **rlogin** or **rsh** command, the system uses the User ID currently in use; go to Step 6.
- 5** If a **Login:** prompt appears, log in as yourself by typing your **UserID** then pressing the **Return/Enter** key.
- 6** At the **Password:** prompt type your **Password** then press the **Return/Enter** key.
- 7** Type **setenv DISPLAY *clientname*:0.0** then press the **Return/Enter** key.
 - It is recommended that you use the terminal/workstation IP address instead of the machine-name for the **clientname**.
- 8** Type **cd */path*** then press **Return/Enter**.
 - Change directory to the directory (e.g., **/home/kummerer/ssit/AutoSys**) containing the AutoSys set-up file (i.e., **Autosys_Setup.com**).
- 9** Type **source Autosys_Setup.com** then press **Return/Enter**.
 - The **source** command sets the environment variables.
- 10** Type **autorep -J ALL** unless the command needs to be modified in one of the following ways:
 - The particular path to be typed may vary from site to site.
 - To specify a particular job, type the job name instead of **ALL**.
 - To obtain a machine report, type **-M *machine_name*** after either **ALL** or the job name.
 - To obtain a summary report, type **-s** after either **ALL** or the job name.
 - To obtain a detailed report, type **-d** after either **ALL** or the job name.

- To obtain a query report, type **-q** after either **ALL** or the job name.
 - To print the document, type **|lpr** after typing the code for whichever of the preceding options are desired.
- 11** Press the **Return/Enter** key on the keyboard to obtain access to the **Activity Log**.
- The **Activity Log** (Figure 28) is displayed.
 - If **|lpr** was typed on the command line, the **Activity Log** is printed.
- 12** Review the **Activity Log** to determine job states.
- Completed.
 - Currently running.
 - In the queue.
-

Reviewing a Job Dependency Log

The Production Monitor reviews a job dependency log using the AutoSys **job_depends** command. The **job_depends** command reports information about the dependencies and conditions of jobs. The command can be used for determining the current state of a job, its job dependencies, the dependencies and nested hierarchies (for boxes) as specified in the job definition, and a forecast of what jobs will run during a given period of time.

The procedure starts with the assumption that the Production Monitor has logged in to the system.

Reviewing a Job Dependency Log

- 1** Set up **AutoSys** as described in Steps 1 through 9 of the procedure for **Reviewing an Activity Log**.
- 2** Type **job_depends -c -J ALL** unless the command needs to be modified in one of the following ways:
 - The particular path to be typed may vary from site to site.
 - To specify a particular job, type the job name instead of **ALL**.
 - To obtain the current condition status, type **-c** before **-J**.
 - To obtain the dependencies only, type **-d** before **-J**.
 - To obtain the time dependencies, type **-t** before **-J**.
 - To print the document, type **|lpr** after typing the code for whichever of the preceding options are desired.

- 3 Press the **Return/Enter** key on the keyboard to obtain access to the Activity Log.
 - The **Job Dependency Log** (Figure 29) is displayed.
 - If | **lpr** was typed on the command line, the **Job Dependency Log** is printed.

<u>Job Name</u>	<u>Status</u>	<u>Date Cond?</u>	<u>Start Cond?</u>	<u>Dependent Jobs?</u>
DPR##	Activated	No	Yes	No
Condition: (success(DPR_##) and exit code(execute.DPR_##)<5)				
<u>Atomic Condition</u>			<u>Current Status</u>	<u>T/F</u>
SUCCESS(SPR_##)			SUCCESS	T
EXIT_CODE(execute.DPR_##)			SUCCESS	F

Figure 29. Sample Job Dependency Log

- 4 Review the **Job Dependency Log** to determine job status, including the status of atomic conditions.
-

Generating Production Reports

Production Reports

Members of the Production Team can generate several different types of reports. The method used depends on the type of report desired. For example, the Report Generator GUI allows the Production Team to select from a variety of standard reports, including the following types of reports:

- Processing Status Report.
- Processing Errors Report.
- Resource Usage Report.
- Actual vs. Plan Report.
- Ground Event Resource Utilization Report.
- Ground Event Resource Schedule (by resource) Report.
- Ground Event Resource Schedule (Chronological) Report.
- Job Report.
- Dependency Jobs Report
- Disk Availability Report.
- Production Plan Report.

Other reports can be generated from the Monitor/Browser GUI. AutoSys also has the capability of generating Job Reports, Machine Reports, and Reports on AutoSys Global Variables being used.

Processing Status Report - Provides status of production requests (PRs) for a specified instrument and a specified period. PRs are included in the report if they had Data Processing Requests (DPRs) run during the reporting time period, or if PRs are currently active within the DAAC plan. The reporting periods for which status is determined are one (1) day (current) and three (3), seven (7), 30, and 90 days in the past. The one-, three-, and seven-day reports are updated daily, while the 30- and 90-day reports are updated weekly. There is one set of Processing Status Reports per instrument per DAAC.

Processing Errors Report - Provides error status from all failed DPRs during one day grouped by PR, and summaries for the preceding three (3), seven (7), 30 and 90 days. The report is produced daily. There is one Processing Errors Report per instrument per DAAC.

Actual vs. Plan Report - The report compares the active production plan with the current processing status at the product group, product, and PGE level, and gives an account of production backlogs.

Ground Event Resource Usage Report - The report summarizes the resource usage for the day. In addition, comparisons for the average of resource usage from the successful DPRs for the preceding seven (7) and 30 days are also produced daily.

Ground Event Resource Schedule Report - The report summarizes the scheduling of resources.

The procedure for generating standard production reports starts with the assumption that the Production Planner or Monitor has logged in to the system.

Generating Standard Production Reports

- 1 Launch the Production Request Editor as described in Steps 1 through 10 of the procedure for **Creating a New Production Request**.
 - The **Production Request Editor Introductory** GUI (Figure 2) is displayed.
- 2 Access the **Report Generator** GUI by selecting **File** → **Generate Report** from the pull-down menu.
 - The **Report Generator** GUI (Figure 30) is displayed.
- 3 Click and **hold** on the **Report** option button to display a menu of reports.
 - The following menu of reports is displayed:
 - **Processing Status Report.**
 - **Processing Errors Report.**
 - **Resource Usage Report.**
 - **Actual vs. Plan.**
 - **Ground Event Resource Utilization.**
 - **Ground Event Resource Schedule (by resource).**
 - **Ground Event Resource Schedule (Chronological).**
 - **Job Report.**
 - **Dependency Jobs Report.**
 - **Disk Availability Report.**
 - **Production Plan Report.**

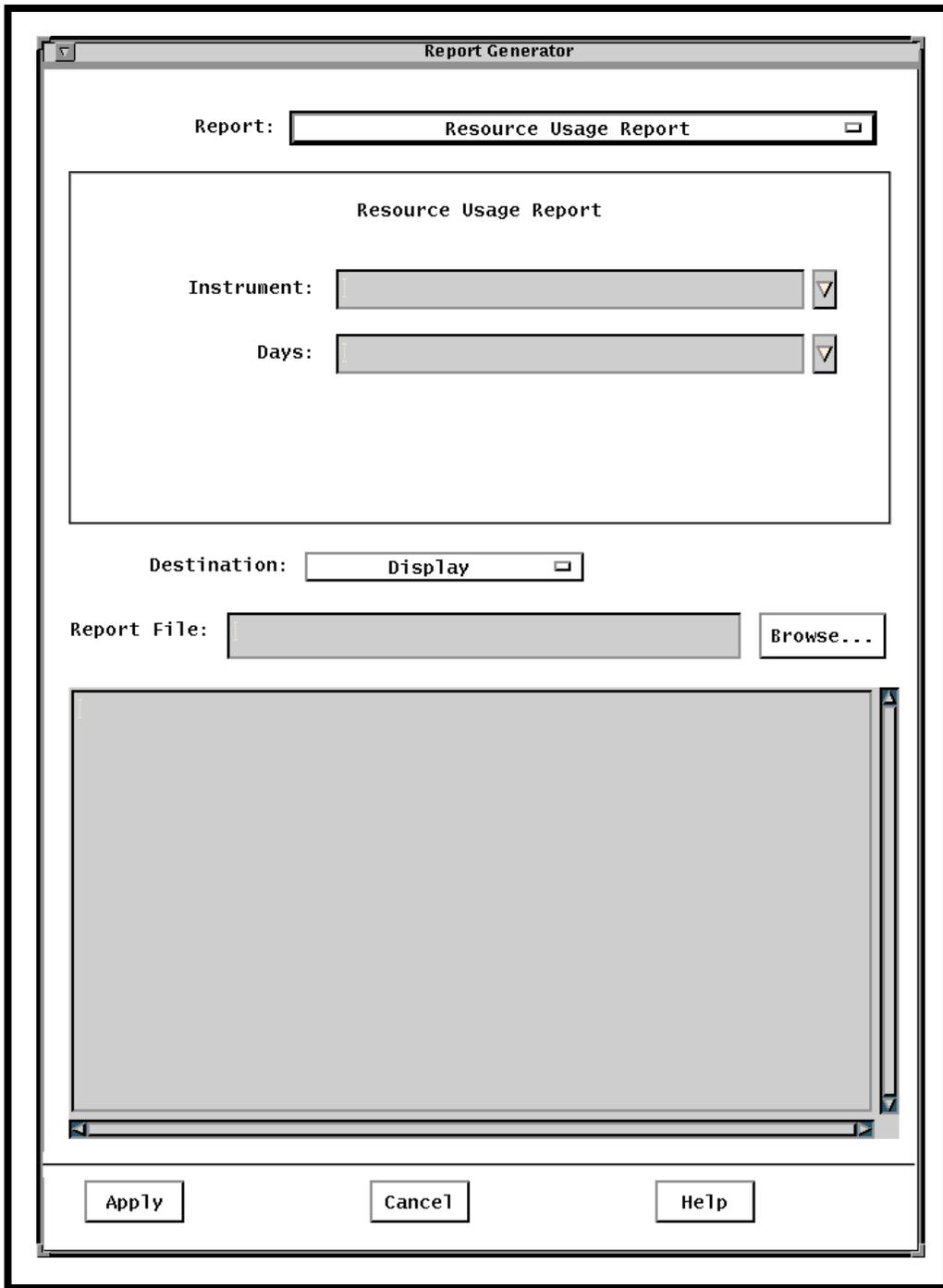


Figure 30. Report Generator GUI

- 4 Select the desired report by moving the cursor to the desired report in the menu to highlight it, then release the mouse button.
 - Selected type of report appears on the **Report** option button.
 - Report fields appear in the **Report Selection** area.
- 5 Enter (type/select) report parameters in the fields that appear in the **Report Selection** area (if applicable).
 - Parameters vary with the type of report selected.
 - No parameters (Ground Event Resource Utilization Report or Disk Availability Report).
 - **Instrument, Days** (Processing Status Report, Processing Errors Report, Resource Usage Report, Actual vs. Plan Report).
 - **Start Date, End Date** (Ground Event Resource Schedule Report (by Resource), Ground Event Resource Schedule Report (Chronological)).
 - **Name, Start Date, End Date** (Production Plan Report).
 - **DPR I.D.** (Job Dependency Report).
 - To select options for fields that have options (i.e., **Instrument, Days**) click and hold the option button for the field to display a menu from which values (e.g., **CERES** or **LIS; 1, 7, 30, 90**) can be chosen.
- 6 Click and **hold** the **Destination** option button to display a menu of destinations (output options).
 - The following menu of destinations is displayed:
 - **Display** is the default and is always selected.
 - **Printer** will send the file to the selected printer.
 - **Data Document Server** will save the file to the Document Data Server.
 - **File** will save the file in a specified directory (selected in the next step).
- 7 Select the desired destination by moving the cursor to the desired destination in the menu to highlight it, then release the mouse button.
 - Selected destination appears in the **Destination** field.
- 8 If **File** was selected in Step 7, either type the report file destination (path/filename) in the **Report File** field or use the browse tool (**Browse...** button) to select/identify the file.
- 9 Click on the **Apply** button to generate the report.
 - The report is generated.
 - Report appears in the **Report** area of the GUI.

- File is printed, if **Printer** was selected in Step 7.
 - File is saved to the document data server if **Data Document Server** was selected in Step 7.
 - File is saved to the specified local directory if **File** was selected in Step 7.
- 10** When the report has been adequately reviewed on the screen, click on the **Cancel** button to close the GUI.
- **Report Generator** GUI is closed.
-

The procedure for generating AutoSys reports (e.g., about a job, job within boxes, machines, and machine status, along with reports on global variables) starts with the assumption that the Production Planner or Monitor has logged in to the system.

Generating AutoSys Reports

- 1** Set up **AutoSys** as described in Steps 1 through 9 of the procedure for **Reviewing an Activity Log**.
- 2** If a **Detailed Job Report** is desired, type **autorep -J job_name -d** then press the **Return/Enter** key on the keyboard.
 - **Detailed Job Report** is displayed.
 - To specify all jobs type **ALL** instead of *job_name*.
 - Refer to the *AutoSys User Manual* for descriptions of all options and displays for all reports.
- 3** If a **Summary Job Report** is desired, type **autorep -J job_name -s** then press the **Return/Enter** key on the keyboard.
 - **Summary Job Report** is displayed.
 - To specify all jobs, type **ALL** instead of *job_name*.
 - Refer to the *AutoSys User Manual* for descriptions of all options and displays for all reports.
- 4** If a **Machine Report** is desired, type **autorep -M machine_name** then press the **Return/Enter** key on the keyboard.
 - **Machine Report** is displayed.
 - To specify all machines type **ALL** instead of *machine_name*.
 - Refer to the *AutoSys User Manual* for descriptions of all options and displays for all reports.

- 5** If an AutoSys **Global Variables Report** is desired, type **autorep -G *global_name*** then press the **Return/Enter** key on the keyboard.
- AutoSys system configuration parameters are displayed.
 - To specify all global variables type **ALL** instead of *global_name*.
 - Refer to the *AutoSys User Manual* for descriptions of all options and displays for all reports.
- 6** Review the report.
-

Defining and Running Monitors/Browsers

Defining Monitors/Browsers

The Production Monitor uses the AutoSys Monitor/Browser to define monitors and browsers. Although some Production Monitors may wish to monitor all events, it is more likely that they will prefer to limit monitoring to alarms and changes of job status (e.g., from “running” to “success” or “failure”). They use the browser function to determine such things as the current status of a particular job or which jobs presently have a particular status (e.g., which jobs, if any, are on hold).

```
Alarm: STARTJOBFAIL Job: execute.DPR_15 06/14 19:18:18 Run #782:9
```

```
Exit Code = 0
```

```
Job: execute.DPR_15 FAILURE 06/14 19:20:20 Run # 782
```

```
<Have EXCEEDED the Max # of times (10) to attempt a restart. Something is  
wrong and needs to be investigated>
```

```
Alarm: STARTJOBFAIL Job: execute.DPR_15 06/14 19:18:18 Run #782:9
```

```
Exit Code = -655
```

Figure 31. Sample Browser Screen

The procedure for defining monitors or browsers starts with the assumption that the Production Monitor has logged in to the system.

Defining Monitors/Browsers

- 1 Launch **AutoSys** as described in Steps 1 through 10 of the procedure for **Configuring AutoSys Runtime Options**.
 - The **AutoSys GUI Control Panel** (Figure 14) is displayed.

- 2 Click on the **Monitor/Browser** button on the **AutoSys GUI Control Panel**.
 - The **Monitor/Browser** GUI (Figure 32) is displayed.
- 3 Type a name for the monitor or browser in the **Name** field near the top of the GUI.
 - Name must be in valid file-name format.
 - If a pre-defined monitor or browser is desired, use the **Search** button under the **Name** field to call it up.
- 4 Click on either the **Alarms** button or the **ALL EVENTS** button for **Types of Events**.
- 5 Click on either **ALL Job Status Events** or the corresponding toggle button(s) to select individual **Job Status Events**.
 - Any or all of the following **Job Status Events** can be selected:
 - **Running.**
 - **Success.**
 - **Failure.**
 - **Terminated.**
 - **Starting.**
 - **ReStarting.**
 - **On Ice.**
 - **On Hold.**
- 6 Click on the corresponding toggle button to select the desired **Job Selection Criteria**.
 - Job selection criteria options are as follows:
 - **All Jobs.**
 - **Box with its Jobs.**
 - **Single Job.**
 - If **Single Job** is selected, type the job name in the **Job Name** field.
- 7 Click on the corresponding toggle button to select the desired **Monitor Options**.
 - **Monitor Options** refers to one of the following choices:
 - **Sound.**
 - **Verification Required for Alarms.**

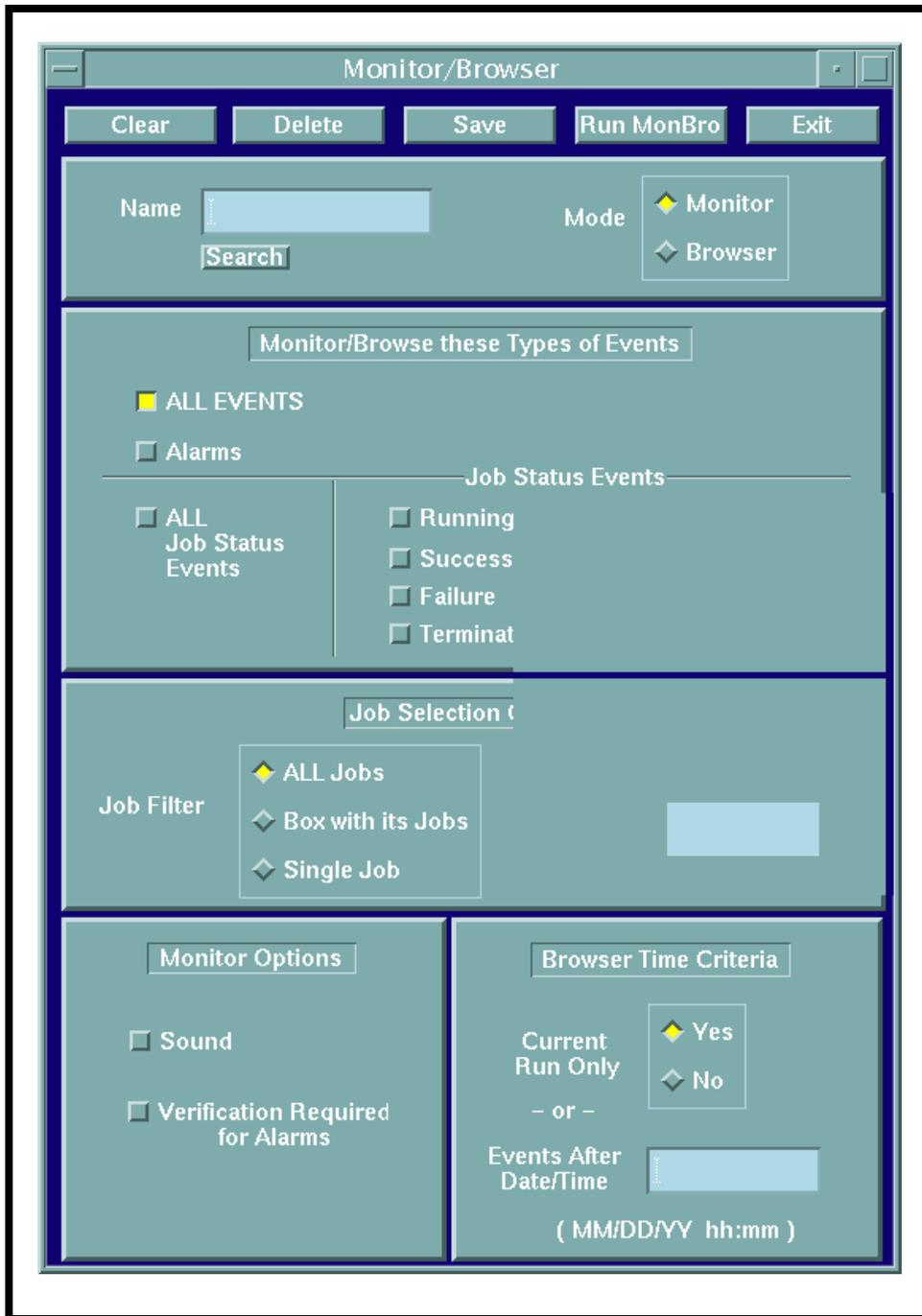


Figure 32. Monitor/Browser GUI

- 8 Click on **Yes** or **No** to select the desired **Current Run Time** and/or **Events After Date/Time**, which are the **Browser Time Criteria**.
 - If **Events After Date/Time** are desired, type the starting date and time (in *MM/DD/YY hh:mm* formats) in the **Events After Date/Time** field.
 - 9 Click on the corresponding toggle button to select the desired **Mode**.
 - The following options are available:
 - **Monitor**.
 - **Browser**.
 - If **Monitor** is selected, settings are defined for a monitor.
 - If **Browser** is selected, settings are defined for a report.
 - 10 Click on the **Save** button.
 - The monitor or browser definition is saved to the database.
 - Before running a monitor or browser you must **Save** the monitor/browser definition first.
 - 11 Click on the **Run MonBro** button to run the monitor/browser that has just been defined.
 - 12 Review the monitor/browser results.
 - 13 Type Ctrl-C to exit from a browser.
-

Running Monitors/Browsers

There are two procedures for running monitors/browsers. Monitors/browsers may be run from the **Monitor/Browser** GUI as described in the preceding procedure or they may be run using a UNIX command. In either case, the procedure starts with the assumption that the Production Monitor has logged in to the system.

Running Monitors/Browsers

- 1 Set up **AutoSys** as described in Steps 1 through 9 of the procedure for **Reviewing an Activity Log**.
- 2 Type **monbro -N *name* &** then press the **Return/Enter** key on the keyboard to run the previously defined monitor/browser.
 - The monitor or report (browser) must have been previously defined and saved under an appropriate file *name* using the **Monitor/Browser** GUI.
 - The report is displayed.

- Refer to the *AutoSys User Manual* for all options and displays for all **monbro** reports.
- 3 Review the monitor/browser results.
 - 4 Type Ctrl-C to exit from a browser.
-

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Changing the Database Maintenance Time

Database Maintenance Time

Once a day the Event Processor goes into an internal database maintenance cycle. During this time, it does not process any events and it waits for the maintenance activities to be completed before resuming normal operations. The time of day for start-up of the maintenance cycle is pre-set to 3:30 AM. The database maintenance cycle takes approximately one minute. If it is necessary to change the time when the maintenance cycle occurs, the Production Monitor can reset it, preferably to a time when there is minimal activity.

The procedure for changing the database maintenance time starts with the assumption that the Production Monitor has logged in to the system.

Changing the Database Maintenance Time

- 1 Access the command shell.
 - The command shell prompt is displayed.
- 2 Type **xhost +** then press the **Return/Enter** key on the keyboard.
- 3 Open another UNIX window.
- 4 Start the log-in to the appropriate server by typing either **telnet *servername*** (e.g., **plnn1sun**), **rlogin *servername***, or **rsh *servername*** in the second window then press the **Return/Enter** key.
 - If you use the **telnet** command, a **Login:** prompt appears; continue with Step 5.
 - If you use either the **rlogin** or **rsh** command, the system uses the User ID currently in use; go to Step 6.
- 5 If a **Login:** prompt appears, log in as yourself by typing your *UserID* then pressing the **Return/Enter** key.
- 6 At the **Password:** prompt type your *Password* then press the **Return/Enter** key.
- 7 Type **setenv DISPLAY *clientname*:0.0** then press the **Return/Enter** key.
 - It is recommended that you use the terminal/workstation IP address instead of the machine-name for the *clientname*.
- 8 Type **cd */path*** then press **Return/Enter**.
 - Change directory to the directory (e.g., **/data1/COTS/autotree2**) containing the **config.XXX** file (where **XXX** = the applicable AUTOSERV instance).
 - The particular path to be typed may vary from site to site.

- 9 Type **vi config.XXX** (where **XXX** = the applicable AUTOSERV instance) then press **Return/Enter**.
- The configuration file is displayed by the vi text editor.
- 10 Using vi editor commands find **DBMaintTime=03:30** and replace the existing time with the desired time in 24 hour format (hh:mm).
- The time may already have been changed to some value other than 03:30 (e.g., **DBMaintTime=04:00**).
 - The following vi editor commands are useful:
 - **h** (move cursor left)
 - **j** (move cursor down)
 - **k** (move cursor up)
 - **l** (move cursor right)
 - **i** (insert text)
 - **x** (delete a character)
 - **u** (undo previous change)
 - **Esc** (switch to command mode)
- 11 Press the **Esc** key.
- 12 Type **ZZ** then press **Return/Enter**.
- New database maintenance time is entered and saved in the configuration file.
 - UNIX prompt is displayed.
-

Production Processing Scenarios

The following three scenarios from the *Operations Scenarios for the ECS Project: Release A*, 605-CD-001-003, June 1996, illustrate production processing:

- Normal Production Processing Scenario
- Production Processing Job Anomaly Scenario
- Production Processing Job Modification Scenario

Normal Production Processing Scenario

This scenario occurs during a given day of the Release A period at the Langley Research Center (LaRC) DAAC under the following conditions:

- DAAC is in stable operations.
- The Production Planner sends the next 16-hour portion daily production schedule to the Data Processing Subsystem (DPS), representing the processing workload for the day.

Production processing is expected to be a routine event. The Production Monitor monitors the daily production schedule at the beginning of each shift and periodically throughout the day. In the normal case, the Production Monitor interacts with the system only at the beginning of the day and when jobs fail. The loading of a day's jobs occurs once in each sixteen hour period. The activation of the daily production schedule in AutoSys is automatic and does not require operator intervention.

The scenario is based on the following assumptions:

- The long-term production planning window is one month.
- Each day the production planner sends a sixteen hour portion of the active plan to the production processing system.
 - This window is adjustable to suit the needs of the DAAC.
- The scenario represents normal processing and does not investigate various anomalies.

The following steps have been extracted and adapted from the scenario:

1. The Production Planner notes the jobs scheduled for processing today in the month-long current active plan. The Production Planner, using the Planning Workbench software, initiates the “downloading” of the daily schedule of jobs to the AutoSys scheduling tool.

- The system converts DPRs into AutoSys commands using the AutoSys Job Information Language (JIL) interface.
 - AutoSys displays each DPR in a job box which contains all the required jobs for a PGE.
 - AutoSys automatically places the jobs in a “held” state while waiting on their data dependencies.
2. The Data Server Subsystem notifies the Planning Subsystem subscription manager software as subscription requests are fulfilled.
 - The subscription manager software releases the appropriate DPRs from their “held” state as the subscription notifications arrive.
 - This process is automatic and requires no operator intervention.
 3. The Production Monitor may use AutoSys/AutoXpert to observe and determine the processing status of all DPRs throughout the day.
 - The AutoXpert **JobScope** GUI shows job status.
 - The Processing Subsystem scheduling engine (AutoSys) dispatches DPRs as specified by the subscription manager.
 - A typical DPR may contain the following information:
 - Resource Allocation.
 - Data Staging.
 - Environment Preparation.
 - PGE execution.
 - Data Destaging
 - Resource Deallocation.
 - As DPRs finish, their job boxes turn gray.
 4. The Production Monitor views a GANTT-chart view (AutoXpert **TimeScope** GUI) of the daily schedule of jobs.
 5. The Processing Subsystem scheduling engine (AutoSys) stores production history data (e.g., duration, completion code) in its database.
 - Production planning software uses production history data in creating the next daily production schedule.

At the completion of the preceding scenario, the Planning and Data Processing System (PDPS) database contains new and updated entries reflecting the production processing status from the current day. The Production Planner will use the information in determining which DPRs to include in the next daily production schedule.

Production Processing Job Anomaly Scenario

The Production Processing Job Anomaly Scenario occurs during a given day of the Release A period at the LaRC DAAC under the following conditions:

- The DAAC is in stable operations.
- The daily production schedule for this day has been loaded and PGE execution is in progress.
- The Data Processing Subsystem (as managed by the AutoSys Job Scheduling engine) runs the PGEs and associated jobs as the resources required for the tasks become available.

This scenario follows a PGE that fails due to an internal software error during execution. The scenario follows the PGE execution from AutoSys alarm generation and PGE termination through PGE data destaging, notification to the Instrument Team (IT), post-mortem analysis and PGE reprocessing. The actors in the scenario are the DAAC Production Monitor, the DAAC Data Specialist and the ECS system.

This scenario addresses anomalies that occur internal to the PGE. Such failures include but are not limited to the following factors:

- missing, bad or incomplete input data.
- PGE software faults.
- input or output resource failures.
- communication errors.

The scenario does not address re-initiation of the PGE after failure. Each PGE will have individual methods for re-initiation, from simple resubmission to specialized command line arguments. As this varies widely with the PGE in question it is not addressed here although re-initiation is an option when a PGE fails.

Production processing job anomalies are expected to be non routine events. However, job anomalies are expected. It is expected that the majority of PGEs run to completion without incident. The Production Monitor is alerted to the anomalies that occur and can take the needed action. Less than 5% of PGEs should fall into this category.

The scenario is based on the following assumptions:

- The daily production schedule has been sent from Planning and some of the scheduled PGEs are executing.
- The failed PGE terminates gracefully and returns a status code.
- No option to re-initiate the PGE exists for the failed PGE.

The following steps have been extracted and adapted from the scenario:

1. The Production Monitor, using the AutoXpert **HostScape** GUI, notes that a PGE completed its execution abnormally.
 - The system displays an AutoSys alarm for the failed PGE on the AutoXpert **HostScape** GUI.
2. The system sends the Management Subsystem (MSS) HP OpenView event for the AutoSys alarm.
 - MSS logs the event.
3. The Production Monitor decides to double-check the failed PGE using the AutoXpert **TimeScape** and **JobScape** GUIs.
 - The system displays the failed PGE on the **TimeScape** and **JobScape** GUIs.
 - This step is not mandatory; it is presented to demonstrate how the Production Monitor can view the problem.
4. The Production Monitor clicks on the **HostScape** alarm box and views the detailed information concerning the PGE failure.
 - The system displays the AutoSys alarm display for detailed alarm information.
5. The Production Monitor notifies the responsible DAAC Data Specialist of the PGE failure.
 - May send an e-mail message or make a telephone call.
 - The Processing Subsystem moves the temporary output and job logs for the failed PGE to the local storage on the appropriate data server for destaging.
6. The Production Monitor opens a trouble ticket on the PGE failure.
7. The DAAC Data Specialist, coordinating with the Science Computing Facility (SCF), reviews appropriate information received from the Production Monitor, makes the necessary adjustments to the PGE and resubmits the algorithm through the integration and test process.

At the completion of the scenario, the PDPS database contains new and updated entries reflecting the production processing status from the failed job. The data server contains the job logs and output data from the PGE. The DAAC Data Specialist has been informed of the location of the this data and the detailed alarm information. The DAAC Data Specialist passes the information to the Instrument Team.

Production Processing Job Modification Scenario

The Production Processing Job Modification Scenario occurs during a given day of the Release A period at the LaRC DAAC under the following conditions:

- The DAAC is in stable operations.
- The daily production schedule for the day has been loaded and PGE execution is in progress although the PGE to be modified has not begun executing.
- The Data Processing Subsystem (as managed by the AutoSys Job Scheduling engine) executes the PGEs and associated jobs as the resources required for the tasks become available.

The scenario follows the steps the Production Monitor takes to change the priority of a PGE. The scenario follows the PGE from selection to priority change. The actors in the scenario are the Production Monitor and the ECS system.

Note that the job modification (priority change in this scenario) applies to the next execution of the PGE only.

- A modification made with the AutoSys interface allows the Production Monitor flexibility in controlling the job schedule.
 - No change is reflected in the PDPS database.
- A permanent change is accomplished through the Planning Subsystem GUIs as described in the Replanning Production Scenario.

Production processing job modifications are expected to be non routine events. It is expected that the majority of PGEs will not require changes. However the ECS allows the production monitor to modify job parameters (such as priority) any time prior to PGE execution. This allows flexibility in unforeseen and unusual circumstances. Such circumstances include but are not limited to the following conditions:

- equipment failures.
- emergency or high priority processing.
- delayed input data.
- PGE faults.
- PGEs with data product-dependent components that affect PGE run time (e.g., the PGE runs long or short when clouds are encountered).
- PGEs with geo-location dependent processing.

The job modification rate is expected to be very low, well under 5%.

The scenario is based on the following assumptions:

- The daily production schedule has been sent from Planning and some of the scheduled PGEs are executing.
- The PGE to be modified has not begun execution.

The following steps have been extracted and adapted from the scenario:

1. The Production Monitor, using AutoSys, selects a PGE from the **Job Activity Console** GUI and clicks on the **Job Definition** button.
 - The system displays the **Job Definition** GUI.
2. The Production Monitor selects the **Job Definition Advanced Features** GUI by clicking on the **Adv Features** button on the **Job Definition** GUI.
 - The system displays the **Job Definition Advanced Features** GUI.
3. The Production Monitor changes the priority of the selected PGE and saves the data in AutoSys by clicking on the **Save&Dismiss** button on the **Job Definition Advanced Features** GUI.
 - The system displays the **Job Definition Advanced Features** GUI.
4. The Processing Subsystem (AutoSys) updates the job priority of the selected PGE.

At the completion of the scenario, the AutoSys database entry for the selected PGE has been modified as desired.

Performing Science Product Quality Assurance

Science Product Quality Assurance

Science product quality assurance (QA) involves the use of the Q/A Monitor application. The Production Monitor's role in QA is limited to making a visual check to ensure that the output of data processing is of the desired type (rather than an empty granule). The Science Data Specialist makes a more detailed inspection of the science products.

The procedure for performing science product QA starts with the assumption that the Production Monitor has logged in to the ECS system.

Performing Science Product Quality Assurance (QA)

NOTE: Commands in Steps 1 through 10 are typed at a UNIX system prompt.

- 1 Access the command shell.
 - The command shell prompt is displayed.
- 2 Type **xhost** + then press the **Return/Enter** key on the keyboard.
- 3 Open another UNIX window.
- 4 Start the log-in to the appropriate server by typing either **telnet *servername*** (e.g., **sprn1sun**), **rlogin *servername***, or **rsh *servername*** in the second window then press the **Return/Enter** key.
 - If you use the **telnet** command, a **Login:** prompt appears; continue with Step 5.
 - If you use either the **rlogin** or **rsh** command, the system uses the User ID currently in use; go to Step 6.
- 5 If a **Login:** prompt appears, log in as yourself by typing your **UserID** then pressing the **Return/Enter** key.
- 6 At the **Password:** prompt type your **Password** then press the **Return/Enter** key.
- 7 Type **setenv DISPLAY *clientname*:0.0** then press the **Return/Enter** key.
 - It is recommended that you use the terminal/workstation IP address instead of the machine-name for the **clientname**.
- 8 Type **cd */path*** then press **Return/Enter**.
 - Change directory to the directory (e.g., **/home/kummerer/ssit/QaMonitor**) containing the QA Monitor set-up file (i.e., **QaMonitor_Setup.com**).

- 9 Type source **QaMonitor_Setup.com** then press **Return/Enter**.
 - The **source** command sets the environment variables.
- 10 Type **QAMonitor** then press **Return/Enter** to launch the Q/A Monitor GUI.
 - The **Q/A Monitor** GUI (Figure 33) is displayed.
 - If the **Q/A Monitor** GUI is unresponsive, check to see if there is a prompt window waiting for a response hidden behind the main GUI.
 - The operator composes a query so the program can search for the granule(s) to be checked. The operator specifies the data type and range of dates to be included in the search.
- 11 Verify that the **QRU data** tab is being displayed. (Click on the **QRU data** tab if necessary.)
 - The **Q/A Monitor** GUI **QRU data** tab (Figure 33) is displayed.
 - QRU = Query, Retrieve and Update.
- 12 In the **Data Types** field, click on the data type to be checked.
 - It may be necessary to scroll through the **Data Types** list.
 - The selected data type is highlighted.
 - Only one data type can be selected at a time.
 - Alternatively, the **Find** field and button can be used for specifying a data type.
 - The **Find** field is case-sensitive.
- 13 Click in the appropriate **Duration** window field(s) and either type or use the up/down arrow buttons to enter the **Begin Date** and **End Date** in **MM/DD/YYYY** format.
 - In the **Duration** window it is necessary to specify the range of dates (between the **Begin Date** and the **End Date**) to formulate a query for searching for the desired granule(s) to be checked.
 - Time is based upon day of insert into the data server. If no dates are entered, an error message is displayed.
 - The up and down arrows next to the duration fields may be used for modifying entries in each field.
 - The **Tab** key may be used to move from field to field.
- 14 Click on the **Query** button.
 - File Names within the specified date range appear in the **Data Granules** field.



Figure 33. Q/A Monitor GUI - QRU Data Tab

- 15** In the **Data Granules** field, click on the granule to be checked.
- It may be necessary to scroll through the list of granules.
 - The selected granule is highlighted.
 - Multiple granules may be selected.
 - Use the **Ctrl** key in conjunction with the mouse to highlight multiple granules.
 - Use the **Shift** key in conjunction with the arrow keys to highlight multiple granules.
 - Alternatively, the **Find** field and button may be used for specifying a data granule.
 - The **Find** field is case-sensitive.
- 16** Click on the **Retrieve Data Granule** button.
- Be patient; it will probably take some time for the selected files to be downloaded.
- 17** Click on the **Visualize data** tab.
- The **Q/A Monitor** GUI **Visualize data** tab (Figure 34) is displayed.
 - The **Filter** field (uneditable) contains the default configuration directory/file path.
 - The default configuration directory/file path is **/var/tmp/***.
 - If you retrieve one type of files then retrieve a second type of files, the list of files retrieved expands. You should clean out the directory using UNIX commands to prevent the directory size (list of files) from becoming too great.
- 18** In the **Files** field click on the name of the file to be checked.
- The selected file name is displayed in the **Selection** field.
- 19** Click on the **Visualize** button
- Be patient; it will probably take some time for the selected file to be displayed.
- 20** Review the image, checking the Operational QA Parameters of the image.
- Verify that processing has actually resulted in an image.
 - If there is no image, it is necessary to investigate why processing failed and subsequently reprocess the PGE.
- 21** Click on the **QRU data** tab.
- The product **Q/A Monitor** GUI **QRU data** tab is displayed.
- 22** In the **Data Granule** field click on the granule that was reviewed.
- 23** Click on the **Update MetaFile** button.
- The **Q/A Monitor** GUI **Update Meta Data** dialog box (Figure 35) is displayed.

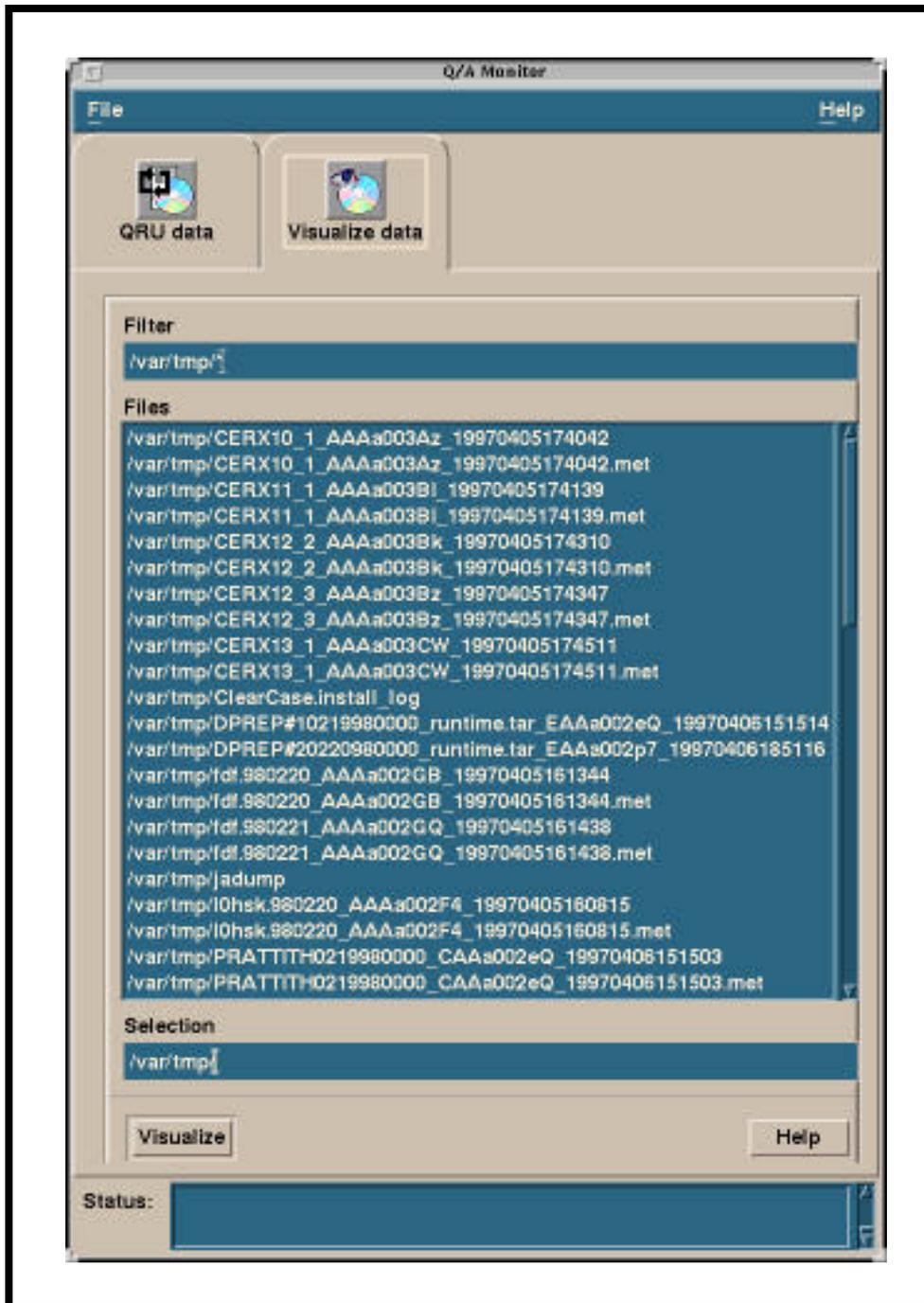


Figure 34. Q/A Monitor GUI - Visualize Data Tab

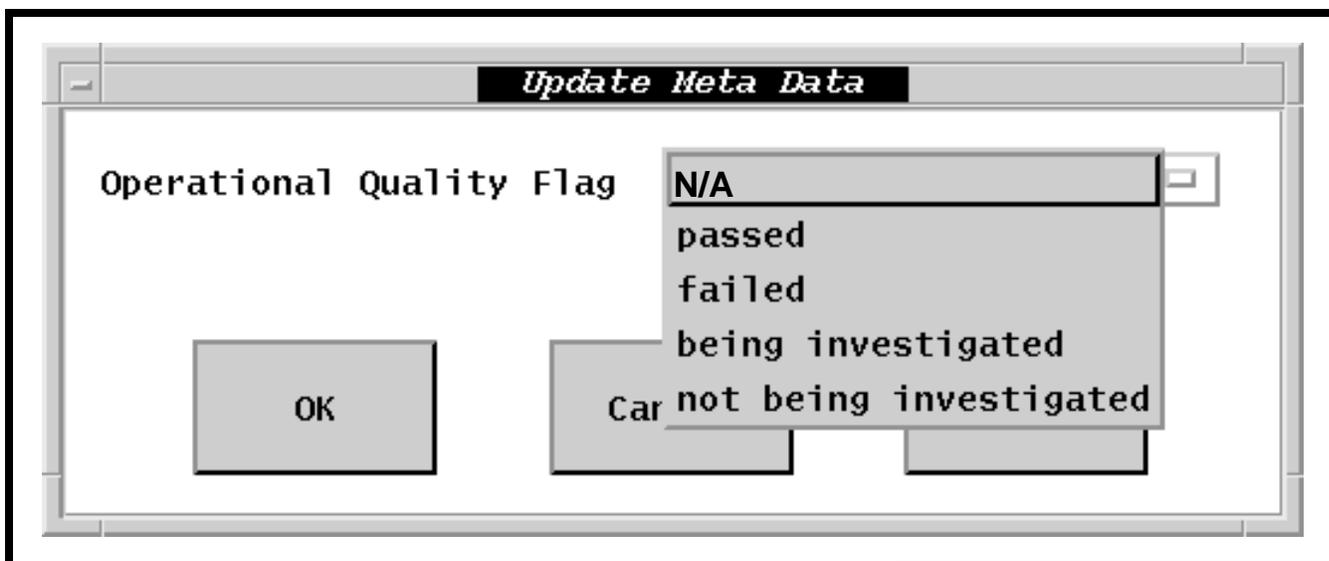


Figure 35. Q/A Monitor GUI - Update Meta Data Window

- 24** Click on the **Operational Quality Flag** option button to display a menu of operational quality flags. 214
- The following menu of QA options is displayed:
 - **N/A.**
 - **passed.**
 - **failed.**
 - **being investigated.**
 - **not being investigated.**
- 25** Click on the appropriate QA parameter.
- Selected code is displayed on the **Operational Quality Flag** option button.
- 26** Click on the **OK** button to set the flag and close the **Update Meta Data** dialog box.
- 27** Repeat steps as necessary to review additional granules/files.
- 28** Select **File** → **Quit** from the pull-down menu to exit from the **Q/A Monitor** GUI.
-

Reviewing Science Product History

Reviewing science product history involves getting access to and inspecting data granule production history files. Both the Q/A Monitor GUI and UNIX command shells are used in gaining access to the history files.

The procedure for reviewing science product history starts with the assumption that the Production Monitor has logged in to the ECS system.

Reviewing Science Product History

- 1** Launch the **Q/A Monitor** GUI and select the data granule to be reviewed as described in Steps 1 through 16 of the procedure for **Performing Science Product Quality Assurance (QA)**.
 - The product **Q/A Monitor** GUI **QRU data** tab (Figure 33) is displayed.
 - The appropriate granule in the **Data Granules** field is highlighted.
 - 2** Click on the **Retrieve Prod History** button.
 - Be patient; it will probably take some time for the retrieval to occur.
 - 3** Click in the UNIX (Terminal) window.
- NOTE:** Commands in Steps 4 through 6 are typed at a UNIX system prompt.
- 4** Type **cd /path** then press **Return/Enter**.
 - Change directory to the main granule history data directory (e.g., /net/sprn2sgi/imf_data/archive).
 - The directory path is embedded in the UR for the data granule.
 - 5** Type **cd datatype** then press **Return/Enter**.
 - Change directory to that of the desired data type.
 - 6** Type **more filename.met** then press **Return/Enter**.
 - Displays the metadata for the specified file.
 - 7** Repeat steps as necessary to review additional data granule production history files.
 - 8** When all desired data granule production history files have been reviewed, click on the **Q/A Monitor** GUI to reactivate it.
 - 9** Select **File** → **Quit** from the pull-down menu to exit from the **Q/A Monitor** GUI.
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Practical Exercise

Introduction

This exercise is designed to give the students practice in production planning and processing activities.

Equipment and Materials

One ECS workstation per student.

Statement of the requirements for the exercise.

Mission Operation Procedures for the ECS Project, 611-CD-002-001, one copy per student.

Release A Operations Tools Manual, 609-CD-002-001, one copy per student.

Creating a New Production Request

The exercise involves the preparation of a new production request. The exercise begins with a student acting in the role of Production Planner receiving the necessary information/requirements for creating a new production request. The student prepares a new production request that is consistent with the requirements.

Perform the following steps:

1. Access the Production Request Editor.
2. Prepare a new production request that is consistent with the written or stated requirements.
3. Save the new production request.

Editing/Modifying a Production Request

The exercise requires the editing of a production request. The exercise begins with a student acting in the role of Production Planner receiving the necessary information/requirements for editing an existing production request. The student modifies the production request consistent with the requirements.

Perform the following steps:

1. Access the Production Request Editor.
2. Select the Production Request to be modified.
3. Make production request modifications consistent with the written or stated requirements.
4. Save the modified production request.

Creating a New Production Plan

The exercise involves the preparation of a new production plan. The exercise begins with a student acting in the role of Production Planner receiving the necessary information/requirements for creating a new production plan. The student prepares a new production plan that is consistent with the requirements.

Perform the following steps:

1. Access the Planning Workbench.
2. Prepare a new production plan that is consistent with the written or stated requirements.
3. Save the new production plan.

Reviewing Data Processing Requests

The exercise involves reviewing data processing requests. The exercise begins with a student acting in the role of Production Planner being directed to review specific data processing requests to determine specified characteristics. The student reviews the data processing requests consistent with the requirements.

Perform the following steps:

[TBD]

Reviewing a Plan Timeline

The exercise involves reviewing a production plan timeline. The exercise begins with a student acting in the role of Production Planner receiving the necessary information/requirements for reviewing a production plan timeline. The student reviews the specified production plan timeline and responds to questions concerning timeline characteristics.

Perform the following steps:

[TBD]

Configuring AutoSys Runtime Options

The exercise involves the configuration of AutoSys runtime options. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/requirements for configuring AutoSys runtime options. The student configures AutoSys consistent with the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access the AutoSys functions specified in the written or stated requirements.
3. Select the AutoSys runtime options specified in the written or stated requirements.
4. Apply the AutoSys runtime options specified in the written or stated requirements.

Configuring Hardware Groups

The exercise involves the configuration of AutoSys hardware groups. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for configuring AutoSys hardware groups. The student configures AutoSys consistent with the requirements.

Perform the following steps:

1. Access the AutoSys group definition function.
2. Enter the hardware groups specified in the written or stated requirements.
3. Launch AutoSys.
4. Review the hardware groups.
5. Apply the AutoSys hardware groups specified in the written or stated requirements.

Reviewing Hardware Status and Changing Hardware Status Views

The exercise involves reviewing hardware status (including changing hardware status views) using AutoSys. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for reviewing hardware status using AutoSys. The student reviews hardware status using AutoSys as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access HostScape.
3. Review hardware status as specified in the written or stated requirements.
4. Change hardware status views as specified in the written or stated requirements.
5. Exit from HostScape.

Reviewing DPR Dependencies

The exercise involves reviewing DPR dependencies. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for reviewing DPR dependencies. The student reviews DPR dependencies as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access JobScape.
3. Review DPR dependencies as specified in the written or stated requirements.
4. Exit from JobScape.

Reviewing the DPR Production Timeline

The exercise involves reviewing the DPR production timeline. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for reviewing the DPR production timeline. The student reviews the DPR production timeline as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access TimeScape.
3. Review the DPR production timeline as specified in the written or stated requirements.
4. Exit from TimeScape.

Reviewing Alarms and Configuring Alarm Selection

The exercise involves reviewing and configuring AutoSys alarms. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for reviewing and configuring AutoSys alarms. The student reviews and configures AutoSys alarms as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access the Alarm Manager through the Ops Console.
3. Review and configure alarms as specified in the written or stated requirements.
4. Exit from the AutoSys Alarm Manager.

Reviewing Job Activities and Job Selection Criteria

The exercise involves reviewing job activities and job selection criteria using AutoSys. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for reviewing job activities and job selection criteria using AutoSys. The student reviews job activities and job selection criteria using AutoSys as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access the AutoSys Job Activity Console.
3. Review job activities as specified in the written or stated requirements.
4. Review job selection criteria as specified in the written or stated requirements.
5. Exit from the AutoSys Job Activity Console.

Modifying Job Priority

The exercise involves modifying job priority using AutoSys. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for modifying job priority using AutoSys. The student modifies job priority using AutoSys as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access the AutoSys Job Definition Advanced Features graphical user interface (GUI).
3. Modify the job Que Priority as specified in the written or stated requirements.
4. Exit from the AutoSys Job Definition Advanced Features GUI, the Job Definition GUI and the Auto JAC GUI.

Modifying Job Status

The exercise involves modifying job status using AutoSys. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for modifying job status using AutoSys. The student modifies job status using AutoSys as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access the AutoSys Send Event GUI through the Ops Console and the Job Activity Console.
3. Modify the job status as specified in the written or stated requirements.
4. Exit from the AutoSys Send Event GUI.

Reviewing Activity Logs and Job Dependency Logs

The exercise involves reviewing activity logs and job dependency logs. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for reviewing activity logs and job dependency logs. The student reviews an activity log and a job dependency log as specified in the requirements.

Perform the following steps:

1. Access the command shell.
2. Type the appropriate command for an activity log as specified in the requirements.
3. Review the activity log.
4. Type the appropriate command for a job dependency log as specified in the requirements.
5. Review the job dependency log.

Generating Standard Production Reports

The exercise involves generating standard production reports. The exercise begins with a student acting in the role of Production Planner receiving the necessary information/requirements for generating standard production reports. The student generates standard production reports as specified in the requirements.

Perform the following steps:

1. Launch the Production Request Editor.
2. Access the Report Generator GUI.
3. Generate the standard production reports specified in the requirements.
4. Exit from the Report Generator GUI.

Generating AutoSys Reports

The exercise involves generating AutoSys reports. The exercise begins with a student acting in the role of Production Planner receiving the necessary information/requirements for generating AutoSys reports. The student generates AutoSys reports as specified in the requirements.

Perform the following steps:

1. Access the command shell.
2. Type the command line for generating the AutoSys reports specified in the requirements.

Defining and Running Monitors/Browsers

The exercise involves defining and running monitors/browsers. The exercise begins with a student acting in the role of Production Planner receiving the necessary information/requirements for defining and running monitors/browsers. The student defines and runs monitors/browsers as specified in the requirements.

Perform the following steps:

1. Launch AutoSys.
2. Access the Monitor/Browser GUI.
3. Define monitors/browsers as specified in the requirements.
4. Save the monitors/browsers.
5. Run the monitors/browsers.

Changing the Database Maintenance Time

The exercise involves changing the database maintenance time. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/requirements for changing the database maintenance time. The student changes the database maintenance time as specified in the requirements.

Perform the following steps:

1. Access the command shell.
2. Change the database maintenance time.
3. Save the modified configuration file.

Performing Science Product Quality Assurance (QA)

The exercise involves checking a data granule to verify the output of data processing. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for performing science product quality assurance (QA). The student performs science product QA as specified in the requirements.

Perform the following steps:

1. Launch the Q/A Monitor GUI.
2. Check the specified granule to determine whether it contains an appropriate image.
3. Set the operational quality flag to the appropriate value based on the evaluation of the granule.
4. Exit from the Q/A Monitor GUI.

Reviewing Science Product History

The exercise involves reviewing a data granule production history file. The exercise begins with a student acting in the role of Production Monitor receiving the necessary information/ requirements for reviewing a data granule production history file. The student performs the procedure as specified in the requirements.

Perform the following steps:

1. Launch the Q/A Monitor GUI.
2. Specify a granule to be reviewed.
3. Retrieve product history.
4. Access the command shell.
5. Access/display the metadata file for the data granule.
6. Exit from the Q/A Monitor GUI.

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Slide Presentation

Slide Presentation Description

The following slide presentation represents the slides used by the instructor during the conduct of this lesson.

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