CHAPTER 8

Detecting Job Event Conditions

Overview

Using Enterprise Scheduler job events allows you to automatically trigger actions whenever certain event triggers (job conditions) arise. Actions include user notification via email, console alert messages, launching new jobs, job control commands, variable updates, log message posting and SNMP traps to HP OpenView or other network managers. This chapter describes how to:

- Define an operator alert action
- Add the action to the job by using the **Job Events** dialog
- Submit the job to production and watch the operator alert action occur

Note To complete the exercises in this tutorial, you need to:

- Install Scheduler in the default directory Scheduler (or the examples in this tutorial will not work properly)
- Select the Super User option in your User definition
- Configure a default agent
- Create and have available the work day calendar

Understanding Actions

An action is a predefined response to a job event that is triggered by a job in the production schedule. You define event triggers for jobs in the **Job Events** dialog and associate them to actions. Actions can be linked to multiple jobs and job groups.

There are different types of actions that can be defined within Scheduler. Each type of action can be triggered based on any job's status, job control by an operator and/or an event triggered by the system. Furthermore, you can personalize actions from a set of included variables such as system, job, job event, action and user-defined information.

- **Email** – An email action is a standard format email message that issues each time the associated job event is triggered. Email can be sent to any user on your network.
- **Alert** – An alert action is an alert sent to the Job Activity Console, with one of four separate levels of severity: *Critical*, *Error*, *Warning* and *Information*. This is the type of action used in this exercise

- **SNMP** – An SNMP message action can be sent to any SNMP-compliant manager.

- **SAP Event** (SAP only) – Notifies an SAP instance that a specified event occurred in Scheduler. Can be used to trigger an event-based job in SAP.

- **Job** – Scheduler can initiate automated job recovery procedures with a job action. The new job action also allows you to override certain command parameter values at submission time.

- **Variable** – This variable update action updates user-defined variables. Since jobs can be dependent on variable values, this action can be used to start a job based on a wide selection of events experienced by another job which sets the variable.

- **Log** – The log message action posts a user-defined message to the Enterprise Scheduler logging facility and optionally to the NT Application Events log, viewable from the **Logs** window and the NT Event Viewer (respectively).

Creating an Alert Action

In the following exercise, you define an action that sends an alert to the **Job Activity** window when the job *EDI_Download* (created in the previous chapter) ends with a **Completed Abnormally** status.

To create an Alert action:

1. In the **Navigator** pane, select **Definitions>Actions**.

   The **Actions** window displays.

2. Double-click **Alert** to display the **Alert** window.

3. In the Enterprise Scheduler toolbar, click the **Add** 🛠 button.

   -or-

   Right-click the **Alert** window to display the **Alert** window context menu, then select **Add Alert Action**.

   The **Action Definition:Alert** dialog displays.

4. Type the following message and select the variables shown in angle brackets from the **Variables** list. The variables appear between the brackets as <variable>.

   ```
   The Job <Jobname>, owned by <JobOwner> went to <JobStatus> status on <SysDate.M/d/yy>.
   <JobOwner>'s pager number is <JobPager>.
   ```

   When this action is triggered, an alert record is sent to the Job Activity console for the operator to take action.

Table 8-1   Variables Used in Step 4

Variable	Path	Description
<JobName>	Job Variables\JobNAME	The name of the job that triggered the action.
<JobOwner>	Job Variables\JobOWNER	The name of the user that owns the job.
<JobStatus>	Job Variables\JobSTATUS	The status the Job is in at the time of the message.

Variable	Path	Description
<SysDate.M/d/yy>	System Variables\System Date\M/d/yy	The day, month, date, year action was triggered.
<Job Pager>	Job Variables Owner's Pager Number	The pager number of the owner.

5. Click **OK** to accept the action.

The action is displayed in the **Actions** window.

Associating the Action to the Job

You can assign the action to the *EDI_Download* job through the **Job Events** dialog.

To associate the action to the job:

1. In the **Navigator** pane, select **Definitions>Events**.

The **Events** window displays.

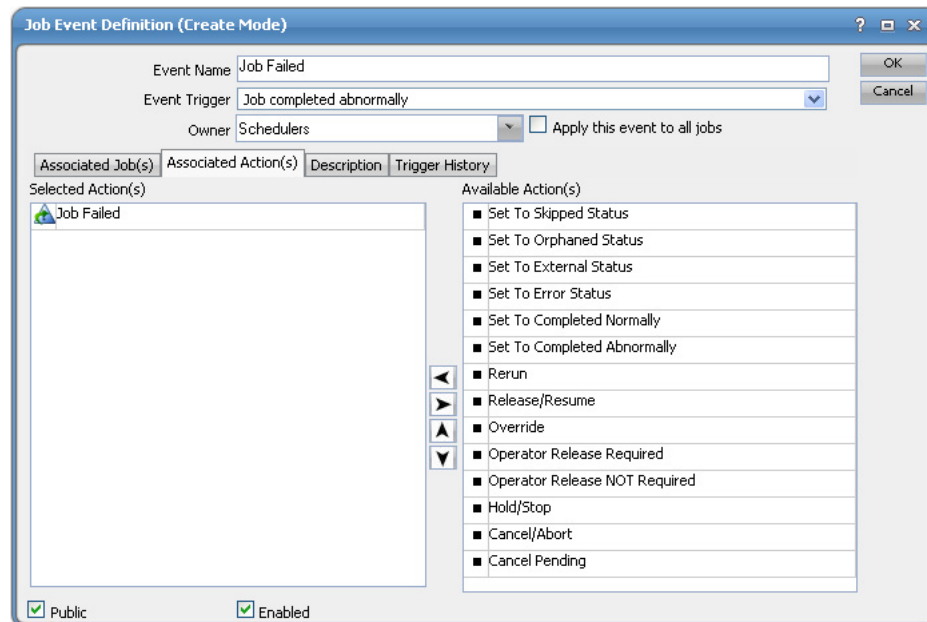2. Double-click **Job Events** to display the **Job Events** window.

3. In the Scheduler toolbar, click the **Add** 🗓 button.

-or-

Right-click the **Job Events** window to display the **Job Events** window context menu, then select **Add Job Events**.

The **Job Event Definition** dialog displays.

Figure 8-1   *Job Event Definition Dialog*

4. In the **Event Name** field, enter **Job Failed**.

5. From the **Event Trigger** list, select **Job Completed Abnormally**.

6. In the **Available Action(s)** list, highlight **Job Failed** and click the left arrow button or drag-and-drop the **Job Failed** action to the **Selected Action(s)** section.

7. Click the **Associated Job(s)** tab to associate the *EDI_Download* job to the job event.

8. Select *EDI_Download* from the list, then click **Add**.

9. Select the **Public** option, if not already selected.

    This makes your event available to other Scheduler users.

10. Click **OK**.

    The *EDI_Download* job is now linked to the **Job Failed** alert action through the **Job Failed** job event.

Changing the edi.bat file to Fail

To change the edi.bat file:

1. Right-click the **Edi** batch file and select **Edit** from the context menu.

    The *Edi.bat* file opens in Microsoft Notepad.

2. Change the last line of the file *ocsexit 0* to *ocsexit 1*.

3. From Notepad's **File** menu, select **Exit**.

    A Notepad dialog displays.

4. Click **Yes** to save your changes.

5. Insert the job into the schedule by right-clicking the *EDI_Download* job and selecting **Insert Job into Schedule** from the context menu.

    The **Insert Job Into Schedule** dialog displays.

6. Click **OK**.

7. On the **Navigator** pane, select **Operations>Job Activity** to display the **Job Activity** window.

    Watch as the job goes into the *Active* state and runs. The job eventually terminates with an **Completed Abnormally** status, initiating the action you defined and changing the Alerts status light at the bottom of the console to red.

Changing the Status of the Alert

To change the status of the alert:

1. In the **Navigator** pane, select **Operations>Alerts** to display the **Alerts** window.

2. Double-click the alert to display the **Alert Detail** dialog.

3. Select the **Acknowledged** option.

4. You can enter a response or comment in the **Response** box.

5. Click **OK** to close the dialog.