CHAPTER 10

Managing Command Parameters

Overview

This chapter describes how to:

- Pass command parameters to an executable
- Determine the job completion status based on the jobs output
- Define command parameters and enable alternative tracking methods

In this chapter, you will create two jobs (**Report Writer 1** and **Report Writer 2**) that use the same batch file but with different command parameters. The command is coded to echo the command parameters to the output. You use the echoed value to determine the success or failure of the job. This example serves to demonstrate two important features: passing input and determining the jobs success by examining the output.

Note To complete the exercises in this tutorial, you need to:
1. Select the Super User option in your User definition
2. Configure a default agent
3. Create and have available work day calendar

Passing Command Parameters

The command parameters feature allows you to pass information to a command when it is launched by Enteprise Scheduler. You can alter parameters such as dates or other data at runtime, rather than hard-coding the command file itself. You can also use parameters to add flexibility to the same command.

For example, you may have a batch file that can process several files. By specifying its file name as a command parameter, the batch file knows which file to process at any given time.

Enteprise Scheduler uses the standard MS-DOS or command prompt syntax for command parameters. The command parameters are substituted into a command file containing the variable names **%1**, **%2**, etc. Through the DOS prompt, parameters are passed as a list of values separated by spaces after the command. In Enteprise Scheduler, the command parameters are displayed in a list below the command. The first value replaces **%1**, the second value replaces **%2**, and so on, when the batch file is executed.

Tracking Methods

A job's completion status is determined by its exit code. The exit code can be set by using the **ocsexit** command at the end of a batch file. Using **ocsexit** to facilitate job tracking, the completion status of a job can be:

- **Completed Normally** indicated by an exit code of 0 to notify that the job succeeded
- **Completed Abnormally** indicated by an exit code $\neq 0$ to notify that the job ran, but failed.

Note Completion statuses of Skipped, Orphaned, Error Occurred and Externally Defined are also possible but are not determined by the exit code.

The completion status is frequently used to control dependencies. For example, you can set up jobs that run if its predecessor completes with a **Completed Normally** status.

Enteprise Scheduler supports four other tracking methods:

- **External** – You can use this option if you need to inspect the job before determining how the job completed. Enteprise Scheduler sets the status to **Set Externally** when the job completes.
- **Exit Code of cmd pipe** – You can use this option to pipe the output of your job as an input to a command or other output analysis tool. Enteprise Scheduler then uses that command's exit code as the job's exit code. You must type the command that invokes the associated tool.
- **Scan Output: Normal String** – Select this option to use a particular text string in the job output to determine if the job completed normally. Enter the exact text that determines "normal" in the text box below.
- **Scan Output: Abnormal String** – Select this option to use a particular text string in the job output to determine if the job completed abnormally. Enter the exact text that determines "abnormal" in the text box below.

The tracking selections are located in the **Tracking** section of the **Run** tab in the **Job Definition** dialog.

Using the Exit Code

In this section, you will create a **Reporting** job group with two jobs, **Report Writer 1** and **Report Writer 2**. Each job will use the same command, but will pass a different command parameter. The command parameter is then echoed in the output of both jobs after they complete.

To determine whether the jobs completed successfully or not, both jobs will use the **Exit code of cmd pipe** tracking method using the Windows **Find** command to search for the saved output. The result of the **Find** command will determine the job's final status.

You will set up **Report Writer 1** to succeed, and **Report Writer 2** to fail. You do this by setting the command parameter for job **Report Writer 1** to **OK** and the parameter for **Report Writer 2** to **FAILED**.

Creating the Reporting Job Group

To create the reporting job group:

Step 1 From the **Navigator** pane, select **Definitions>Jobs** to display the **Jobs** pane.

Step 2 Right-click and select **Add Job Group** from the context menu.

Step 3 In the **Job Group Name** field, enter **Reporting**.

Step 4 Click the **Schedule** tab, if not already selected.

Step 5 From the **Calendar Name** list, select **work day**.

Step 6 Click **OK** to save the job group.

Step 7 Click **Cancel** at the **Effective Date** dialog.

Note If you click OK at this dialog, the job group enters the production schedule, but nothing will run because there are no jobs associated with the job group yet. Clicking Cancel means the job group will be added to the schedule manually.

Setting the Report Writer 1 Job to Succeed

To set the Report Writer 1 job to succeed:

Step 1 Right-click the **Reporting** job group and select **Add>Job** from the context menu.

Step 2 In the **Job Name** field, enter **Report Writer 1**.

Step 3 In the **Command** field, enter the full path to the **Argdemo** batch file.

Step 4 Enter **OK** in the **Command Parameters** field. This passes as **Argument 1 (%1)** to the batch file.

Step 5 Click the **Run** tab.

Step 6 In the **Tracking** section, select the **Exit code of cmd pipe** option.

Step 7 In the text field below, type **grep "OK"**. This tells Enteprise Scheduler to search through the output of the job for the string "OK". Since "OK" is passed as a command parameter, it will appear in the output.

Step 8 Click **OK.**

Step 9 Click **Cancel** in the **Effective Date** dialog. This job will enter the schedule when manually submit its job group.

Setting the Report Writer 2 Job to Fail

To set the Report Writer 2 job to fail:

Step 1 Right-click the **Report Writer 1** job in the jobs view.

Step 2 Select **Copy Job/Group** from the context menu.

Step 3 Double-click the **Copy of Report Writer 1** job to open its definition for editing.

Step 4 In the **Job Name** field, change **Copy of Report Writer 1** to **Report Writer 2**.

Step 5 In the **Command Parameters** field, change **OK** to **FAILED**.

The **Run** tab should contain **grep "OK"** in the **Tracking** section. This was inherited when you copied the job.

Step 6 Click **OK**.

Step 7 Click **Cancel** at the **Effective Date** dialog.

Adding the Reporting Job Group to the Production Schedule

To add the Reporting job group to the production schedule:

Step 1 Right-click the **Reporting** job group.

Step 2 Select **Insert Job into Schedule** from the context menu.

Step 3 Click **OK** in the **Insert Job Into Schedule** dialog.

Step 4 Click **OK** in the **Information** dialog.

The jobs start with one completing normally and the other completing abnormally. The job group results in a **Completed Abnormally** status because one of its jobs completed abnormally.

Setting Report Writer 2 to Complete Normally

To set Report Writer 2 to Complete Normally:

Step 1 In the **Job Definition** dialog, double-click the **Report Writer 2** job.

Step 2 In the **Job Definition** dialog, change the **Command Parameter** value from **FAILED** to **OK**.

Step 3 Click **OK**.

Step 4 Click **OK** at the **Effective Date** dialog.

Step 5 Re-submit the jobs by adding the **Reporting** job group using the **Insert into Schedule** option, from the right-click context menu or selecting the option from the **Actions** main menu.

Step 6 Click **OK** when the **Insert Job Into Schedule** dialog displays.

Step 7 Click **OK** in the **Information** dialog.

Both **Report Writer 1** and **Report Writer 2** complete successfully.