



Using Scheduler Agents

Overview

If you have installed two or more Tidal Agents for Unix on separate machines, you can perform the procedures in this chapter. If you have only one agent, you may still want to read this chapter to understand how other agents are integrated in Enterprise Scheduler.

In previous exercises, you scheduled jobs to run on the Enterprise Scheduler master system which included an agent of its own. You can also run jobs on multiple external agents. Agents let you expand your computing power and flexibility, helping you get jobs done more quickly and efficiently.

For an Enterprise Scheduler master to recognize an agent, the Enterprise Scheduler agent software must be installed on that agent machine, and a valid license file must exist for it on the master. Refer to the installation guide for more information on licensing and registering agents.

The Enterprise Scheduler master provides centralized control over scheduling in a distributed computing environment. There is no limit on how many agents you can attach to a master, if your license contains the unlimited (floating) provision for agents. You can also schedule a job to run on any agent in your network.

Enterprise Scheduler lets you group multiple agents into sets called **agent lists**. When you associate one of these lists with a job, Enterprise Scheduler launches that job depending on the type of list:

- **Ordered List** – Runs on the first agent available in the list, chosen sequentially from the top of the list
- **Balanced List** – Runs on the agent with the lightest load at the time the job is ready to run.
- **Random List** – Runs on an agent picked at random from the list
- **Rotation List** – Runs on the agent following the last agent used for execution
- **Broadcast List** – Runs on all agents in the list

In this chapter, you learn how to run a job on an external agent. You will also learn how to create an inter-agent dependency, that is, a dependency on a job that runs on a different machine. We will add an agent and run a job that is located on it.



Note

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

Defining An Agent Connection

To define an agent connection:

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- Step 1** From the **Navigator** pane, select **Administration>Connections** to display the **Connections** pane.
 - Step 2** Double-click the Unix agent connection to display the **Connection Definition** dialog.
 - Step 3** Select the **Connection** tab to display the **Connection** tab.
 - Step 4** In the **Machine Name** field, enter the machine with the Enterprise Scheduler agent installed on it.
 - Step 5** In the **Master-to-Agent Communication Port** field, enter the agent's listener port number used during agent installation. The default port number for the first agent is 5912 but subsequent agent installations use an incremented port number (e.g., 5913 for the second agent, etc.).
 - Step 6** Select the **Enabled** options, if it is not already selected.
 - Step 7** Click **OK**.

The agent will begin the connection process. The agent status light at the bottom of the client is yellow until the agent is connected. It then turns green. This normally takes about 45 seconds or less.

Adding a Job that Requires Operator Release

To add a job that requires operator release:

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- Step 1** From the **Navigator** pane, select **Definitions>Jobs** to display the **Jobs** pane.
 - Step 2** Click the **Add Job** button to display a **Job Definition** dialog.
 - Step 3** In the **Job Name** field, enter **Agent_Job1**.
 - Step 4** In the **Command** field, enter the full path to the file:

```
/UNIX_TEST_1.sh
```
 - Step 5** Click the **Schedule** tab and select **work day** from the **Calendar Name** list.
 - Step 6** Click the **Run** tab, and from the **Agent Name** list, select the remote agent you are going to use.
 - Step 7** Click the **Options** tab and select the **Require operator release** option.
 - Step 8** Click **OK**.
 - Step 9** Click **OK** to display the **Effective Date** dialog.

The job is placed in the production schedule with a **Waiting on Operator** status. We will release this job, but first let's create a job with a dependency on this job to demonstrate the agent dependency feature.

Adding an Agent Job Dependency

In this section, you will define a remote agent job dependency. You will use **Agent_Job1**, created in the previous exercise, in the dependency condition for the new job. Defining a job that depends on a job run by a remote agent is the same as defining any other job dependency.

Adding an agent job dependency:

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- Step 1** In the **Job Name** field of the **Job Definition** dialog, enter **Agent_Job2**.
 - Step 2** In the **Command** field, enter the full path to the file:

```
/UNIX_TEST_1.sh
```
 - Step 3** Click the **Schedule** tab and select **work day** from the **Calendar Name** list.
 - Step 4** Click the **Run** tab and from the **Agent Name** list, select the agent that exists on the master.
 - Step 5** Click the **Dependencies** tab to display the **Dependencies** tab.
 - Step 6** Click **Add** and select the **Add Job Dependency** option to display the **Job Dependency Definition** dialog.
 - Step 7** From the **Job/Group** list, select the **Agent_Job1** job.



Note Only jobs that have already been defined will appear in the menu. If you have not defined any jobs, none will appear.

- Step 8** Click **OK** to close the **Job Dependency Definition** dialog. This accepts the default dependency condition. The **Agent_Job1** job dependency appears in the **Dependency** section.
 - Step 9** Click **OK** to close the **Job Definition** dialog.
 - Step 10** Click **OK** again in the **Effective Date** dialog.
When the dialog closes, the **Agent_Job2** job appears in the **Jobs** pane.
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Releasing the Agent Jobs

To release the Agent jobs:

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- Step 1** From the **Navigator** pane, select **Operations>Job Activity** to display the **Job Activity** pane.
 - Step 2** Select the **Agent_Job1** job.
 - Step 3** Right-click the job, and then select **Job Control>Release/Resume** from the context menu to release **Agent_Job1** from the **Waiting on Operator** status.
 - Step 4** Click **Yes** in the **Confirm** dialog.
 - Step 5** Click **OK** in the **Information** dialog.

Step 6 The **Agent_Job1** runs on the external agent. When it completes successfully, the **Agent_Job2** runs on the local agent.

Summary

Congratulations! With the completion of this chapter, you have built a good foundation of knowledge about Enterprise Scheduler. You are ready for Enterprise Scheduler to increase and complement your productivity.

If you need any further information or training, contact tidal-support@cisco.com.