

Mercury Performance Center™ Administrator's Guide



Mercury Performance Center™

Administrator's Guide Version 7.8 Service Pack 4

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Mercury Performance Center Administrator's Guide, Version 7.8 Service Pack 4

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Welcome

Welcome to the Administration Site of Mercury Performance Center. Mercury Performance Center is Mercury Interactive's Web-enabled global load testing tool, which is specially designed to streamline the testing process and increase the test efficiency for multiple concurrent load tests across multiple geographic locations.

Mercury Performance Center consists of three modules:

- ► User Site for conducting and monitoring load tests
- Privilege Manager for managing user and project access rights throughout Mercury Performance Center
- Administration Site for overall resource management and technical supervision

This guide covers the Administration Site. For information about the User Site and Privilege Manager, refer to the *Mercury Performance Center User's Guide*.

Using this Guide

This guide describes how to use the Mercury Performance Center Administration Site to monitor and supervise load testing by multiple users.

The guide contains twelve chapters:

Introducing the Administration Site

Describes the Administration Site pages, how to log in and out, and how to move around the site.

Managing Host Machines

Describes how to manage the allocation and availability of host machines.

Managing Timeslots

Describes how to monitor the allocation and availability of timeslots.

Managing Test Runs

Describes how to monitor the states of test runs.

Managing Event Logs

Describes how to manage reported events and errors.

Managing License Information

Describes how to view and update your license key number and its expiry date.

Managing User Requests

Describes how to view user requests.

Managing General Settings

Describes how to view and edit settings that effect the system during the test run.

Running Vusers over a Firewall

Describes how to configure your system to run Vusers over a firewall.

Managing Servers

Describes how to supply and view license and server system configuration information.

Understanding Reports

Describes the Autostart Viewer, site user, system resource usage, and test run reports.

Managing User Privileges

Describes how Privilege Manager manages users, projects and privilege levels in the system.

Documentation Set



In addition to this guide, which is available in printed, PDF, and browserbased format, Mercury Performance Center comes with the following documentation:

Mercury Performance Center User's Guide (printed, PDF, browser-based) explains how to define and run load tests and analyze the results of test runs.

Mercury Performance Center Viewer's Guide (browser-based) explains how to analyze the results of test runs.

Mercury Performance Center System Configuration and Installation Guide (printed, PDF) explains how to install the Mercury Performance Center system.

Typographical Conventions

This guide uses the following typographical conventions:

1, 2, 3	Bold numbers indicate steps in a procedure.
>	Bullets indicate options and features.
Stone Sans	The Stone Sans font indicates names of interface elements in a procedure that you perform actions upon (for example, "Click the Run button.").
Italics	<i>Italic</i> text indicates names (for example, names of variables or books).
\diamond	Angle brackets enclose a part of a URL address that needs to be typed in.

1

Introducing the Administration Site

The Mercury Performance Center Administration site is the Web site for administrating load tests.

From the Administration site, you can:

- ► Manage host machines, controlling how hosts are allocated to test runs
- Manage timeslots, view user reservations, and monitor availability of time and resources
- Manage test runs, view all the tests in the system, and see which ones are running at any time
- Manage any errors that occur during test runs
- ► Manage your license information
- Manage user requests
- Manage general system configuration information
- ► View and supply specific System Configuration information
- Analyze Autostart Viewer, Site Users, System Resource, and Test Run Information reports
- Manage user privileges

The customer defines, runs and analyzes load tests for their Web Site from the Mercury Performance Center User Web Site. For details, see the *Mercury Performance Center User's Guide*.

For details on installing the User Web site and Administration site, see the *Mercury Performance Center System Configuration and Installation Guide*.

Logging In and Out

You log in to the Administration site from the URL of the directory on which you installed Mercury Performance Center.

To log in:

1 Enter the path to the Mercury Performance Center Administration site installation directory, for example, http://<Server_Name>/admin.

If this is the first time you are entering the system, a system configuration page opens:

Welcome to Performance Center 7.8 SP4						
Before you begin using Performance Center, you'll need to supply a few details to set your system configuration.						
System (Database:	Configuration	File Server:				
DB host		Name				
DB type	SQLServer 💌					
User						
Password		Save				

The page asks you to supply some basic information that is used to configure your system.

The System Configuration screen displays the following information:

- ➤ Database
 - **DB Server** the machine on which the database resides
 - DB type the type of Database installed on the server, either SQLServer or Oracle
 - ► User the user name to connect to the Database
 - Password the password to connect to the Database

► File Server

► Name - the name of the machine that contains the file server installation where system files such as scripts are stored

Note: Mapped drive configuration for the file server is no longer supported in Mercury Performance Center.

After you supply the necessary information, click Save.

A log listing details of the system configuration process appears in the lower left-hand corner of the page.

Pinging Database Server - skoda				
Trying to login to Database Server - skoda				
Installing Database				
Database installed successfully				
Updating connection string on File Server				
Updating connection string on Admin Server				
Updating Database with system details				
System details were updated in Database successfully				
System initial configuration completed successfully				
Log to Site				

If the configuration is not successful, the log provides a detailed message to help you correct the problem. After correcting the problem, repeat the Save process.

If the configuration is successful, click the **Log to Site** button.

The Mercury Performance Center Administration site login page opens:



- **2** Type your user name in the User Name box. The first time you login, use the default user name "Admin". Once you have logged on, you will be able to modify your user name and password for the future. For details, see the *Mercury Performance Center User's Guide*.
- **3** Type your password in the Password box. The first time you login, use the default password "Admin."
- **4** Click **Login**. The Administration site opens.

Note: If this is the first time you are logging on to the system, you will be redirected to the Servers page and asked for additional details to complete your system configuration. For more details, see Chapter 2, "Managing Servers."

To log out:

Click the **Log Out** button on the top right.

Refreshing the Display

The display automatically refreshes itself every 90 seconds. The number of seconds left until the next refresh is displayed at the top of the screen. If you want to refresh the display, click **Refresh Now**.

You can also change the automatic refresh frequency or set the display not to refresh.

To change the automatic refresh frequency:

1 Click **Refresh Frequency**. The Auto-Refresh Frequency dialog box opens.

Auto-Refresh Frequer	іс у
Select auto-refresh f	requency :
Refresh screen every:	30 seconds 💌
ок	Close

2 Select either the frequency rate you want or "No refresh" from the dropdown list.

Moving around the Site

To move to a page, click the page name in the left navigation menu. You can expand or collapse the menu to show or hide menu links. A "+" icon next to a menu indicates that it can be expanded to show submenu links; a "-" icon indicates that it can be collapsed. The available pages are:

Resources

- Hosts displays the allocation and availability of host machines. For details, see Chapter 3, "Managing Host Machines."
- Host Locations displays an editable list of host locations and whether they are within or over the firewall. For details, see Chapter 3, "Managing Host Machines."

Site Management

- Test Runs displays the states of test runs. For details, see Chapter 5, "Managing Test Runs."
- Timeslots displays timeslot reservations and availability. For details, see Chapter 4, "Managing Timeslots."
- Event Log displays reported events and errors. For details, see Chapter 6, "Managing Event Logs."
- ➤ User Requests displays user requests. For details, see Chapter 8, "Managing User Requests."

System Configuration

- License displays license information. For details, see Chapter 7, "Managing License Information."
- General Settings displays general system configuration information. For details, see Chapter 9, "Managing General Settings."
- Servers displays specific system configuration information. For details, see Chapter 2, "Managing Servers."

Reports

- ➤ Site Users displays individual user information. For details, see "Viewing the Site Users Report" in Chapter 11.
- ► **Resource Usage Report** displays system resource usage information. For details, see "Viewing the Resource Usage Report" in Chapter 11.
- ► Test Run Information displays general information about the test run. For details, see "Viewing the Test Run Information Report" in Chapter 11.
- ► Autostart Viewer displays information about autostart load tests. For details, see "Viewing the Autostart Viewer Report" in Chapter 11.

User Management

Privilege Manager - displays information about users, projects and privilege levels. For details, see Chapter 12, "Managing User Privileges."

Chapter 1 • Introducing the Administration Site

2

Managing Servers

You supply, view and edit Server details from the Mercury Performance Center Administration site.

This chapter describes the following:

- ► Supplying Server Information
- ► Viewing and Editing Server Information

About Managing Servers

The Servers page provides details as to where key components of Mercury Performance Center are located. You can use the Servers page for mapping information, to establish where information should be stored and from where it should be retrieved.

Supplying Server Information

The first time you log on to the Administration site, you will be redirected to the Servers page.

Database:	Web Servers:	
*Name: cola	* Name:	
Test Connection	Name:	
File Server:	Name:	
*Name: oklahoma	Name:	
Utility Server: *Name:		
Hosts License:		Reset
*License:		Save

* -required fields

The File Server name and Database information are supplied during the product installation and appear as read-only. For more details, see the "After Installing" chapter of the *Mercury Performance Center System Configuration and Installation Guide*.

You are now prompted to supply License, Utility and Web Server information.

Note: The License Server needs to be available at all times. It is advisable to choose a machine that is *not* a Host as your License Server.

After you supply the required information, click **Save**. The system configuration and product installation is now complete and all appropriate mapping is done.

Viewing and Editing Server Information

To view and edit server information:

- 1 On the System Configuration menu, click Servers. The Servers page opens.
- **2** Edit any information that is not read-only. Click **Save** to update the information.

The Servers page displays the following information:

- ► Database
 - Name (read-only) the name of the machine on which the system database is installed
 - Test Connection: tests the connection to the using the previously supplied details to the system
- ► File Server (read-only) the machine that contains the file server installation where system files such as scripts are stored
- ➤ Utility Server: the machine that hosts the Mercury Performance Center license
- Hosts License: the Mercury license which is automatically installed on the hosts as you add them to the system
- ▶ Web Servers: the Web servers on which the user's site will be installed

Chapter 2 • Managing Servers

3

Managing Host Machines

The host machines are used for test runs. Managing the host machines involves adding and removing hosts from the system, defining each host's testing function, prioritizing host allocation, monitoring host condition, and identifying the host location.

This chapter describes:

- ► Using the Hosts Page
- ► Understanding Host Allocation
- ► Assigning Purpose
- ► Handling Resource Failure
- ► Monitoring Host Performance
- ► Managing Pools
- ► Viewing Pool Resources
- ► Managing Host Details
- ► Checking Hosts

About Managing Host Machines

The Administrator manages the information stored in the system about the hosts, which is used to allocate hosts to test runs. This involves defining the purpose of each host, controlling which projects can use which hosts, prioritizing the use of certain hosts over others, monitoring host performance, checking the condition of the hosts, and following up on any operating problems.

Mercury Performance Center gives a user the ability to creates a load test from the main site. The load test specifies how many hosts it requires and reserves the necessary number of hosts for a specific time period. Since the availability of hosts is limited, they are allocated for specific time periods called "timeslots." When a user "reserves a timeslot," they are actually reserving the required hosts for the specified timeslot.

When the user tries to reserve a timeslot, Mercury Performance Center allocates hosts according to parameters that you control from the Hosts page in the Administration site.

Using the Hosts Page

The Hosts page displays the information about the hosts available for load testing.

To enter the Hosts page:

On the **Resources** menu, click **Hosts**.

Hosts					Page will	reload in 7	secs. 🗾 F	Refresh Now	Refresh	Frequenc	y
Host Measurements (Fr Add New Host	ee Disk Spa Check Hos	ce & Status) were last (Detach Ho: 1 - 2 /	updated on: sts	12-Aug-2	004 9:52:45 4 Filt	M ter: All H	losts	Update Mea Edit Reso	asuremer urce Pool	nts Is ào
Click host name to view	v event log fo	or that host									
ID. Name ± Run Id 1 brooklyn N/A 3 radius N/A	Priority 3 3	Purpose	Pool urika pool yossi ₹ - Loac	Location Default Default	Project none yossi	<u>Condition</u> Operational Operational alysis ^学 - (OSType Win2000/ Win2000/ Controller	E Free Di: XP 19266927 XP 28075416 → - Loac	s <u>k Space</u> KB KB Generator	Status	0ller
Local Machine Key: <u>P</u> riority: P <u>u</u> rpose: Co <u>n</u> dition:	3 Controller Operational	.	U A T H	<u>s</u> er Login Ilocation : ocation: <u>o</u> st Pool:	Name: (r 0 Default - General -	equired only whe <u>Com</u> OS]	in OSType i: I ments : [ype:	s Unix)	:000/XP 💌	×	
Project: yossi (Deta	ach)					Rout	ting Confi	guration		01	<

The screen displays the following information about the hosts:

- ► ID the host ID number, This is automatically assigned when you add a new host.
- Name the host name, that you assign when you add a new host. You can click the Name link to view the Event Log Page for the host. For details, see "The Host Administration Page" on page 22.

- Run ID the ID number of the test run for which the host is currently being used. If the host is currently not being used for a test runs, and is therefore available, this field displays "null."
- Priority a rank assigned to the host. The higher the priority you give the host, the more likely the host is to be allocated to a test. Therefore, for example, you may want to set the priority according to the performance of the hosts. You assign this value when you add a new host, and you can edit it for any host. For details, see the "Monitoring Host Performance" section of this chapter.
- Purpose the function the host performs in a test run. You define a host as a Controller, load generator, Controller + load generator or an analysis manager. (The hosts are used to generate load on the customer's Web server using Mercury Interactive's virtual user technology.)
- ➤ Pool the pool to which the host is assigned. Pools allow you to control which hosts are allocated to which projects. When allocating hosts for a test, the system allocates hosts with the pool specified for the project in the project profile. You can edit the pools and add new ones. For details, see the "Managing Pools" section of this chapter.
- Location describes the location of the host so you can determine if the host is within or outside of the firewall.
- Project the project currently using the host. The project name remains after a test run is complete, until you detach the host from the project, or until the host is allocated to another test. To find out if a host is no longer being used by the project, check the Run ID. When the test run has finished, the run ID is restored to "null."
- ➤ Condition the condition of the host. "Operational" indicates that the host is working. "Resource failure" indicates the host is *not* working. If the host is in the "Resource Failure" state, you should try to fix the problem, and then change the condition back to "Operational." If the system detects that the host is still not working, the condition reverts to "Resource Failure." "Out of Order" indicates that the host is currently not working for some other reason, for example, Mercury Performance Center has not been installed.
- ► OS Type the host operating system.

- Free Disk Space the disk space available on the machine. The information is retrieved from the system. To view the current disk space, click the Update Measurements button.
- Status an indicator of the machine's current system performance, represented by a color indicator. The performance is assessed according to three parameters: CPU usage, memory usage, and disk space. There is a threshold for each parameter. The possible colors are:
- Green: indicates that all three performance parameters are within their thresholds, and the host is suitable for running a test on.
- Yellow: indicates that one or two of the performance parameters are within their thresholds.
- Red: indicates that all three performance parameters are outside of their thresholds, and the host is not recommended for running tests on.
- Grey: indicates that the information is not available.

You can see more information about the host's condition by clicking the color indicator. For details, see the "Monitoring Host Performance" section of this chapter.

Note: Due to the configuration of both UNIX machines and hosts located over the firewall, complete information about their performance is not available. These machines will always have a Status of "not available" and display a gray icon.

Additionally, when you add a Host, it displays a Status of "not available" and displays a gray icon until you click the **Update Measurements** button.

The sections below describe the functions you can perform to change the display.

Sorting the Hosts

You can sort the hosts according to the values in any column whose heading is underlined.

To sort the hosts:

Click an underlined column heading of your choice. A downward facing arrow appears next to the column heading. The hosts are sorted in descending alphabetical order of the values in that column.

When you click the heading again, the arrow reverses direction, and the hosts are sorted in ascending alphabetical order of the values in that column.

Filtering the Display

You can use the filter drop-down list to display a specified subset of the hosts, according to the allocation and availability.

To filter the display:

From the filter drop-down list, select one of the filtering options. The table displays hosts specified by the filtering option.

The filtering options are:

- ► All Hosts displays all hosts
- Allocated Hosts for Load Test displays only hosts that are currently allocated to a load test
- > Allocated Hosts for Analysis displays only hosts used for results analysis
- ► Free Hosts for Load Test displays only hosts that are available to be used as Controller, Load Generator, or Controller + Load Generator machines
- Free Hosts for Analysis displays only hosts that are available to be used as analysis machines

Understanding Host Allocation

When creating a test, the user specifies the number of host machines required for the test, and reserves a timeslot. To successfully reserve a timeslot, the required number of hosts needed for the test must be available.

When the user tries to reserve a timeslot, the system uses some of the information that is displayed on the Hosts page to determine if the required number of hosts, with the proper purposes are available. If the required hosts are found, and are available for the requested time period, the timeslot is successfully reserved, and the hosts are allocated. If the system cannot find suitable hosts to allocate for the requested time period, the timeslot cannot be reserved.

Each test requires one host as a Controller and one or more hosts to be load generators (it is possible to designate one host as a Controller + load generator). Mercury Performance Center uses different criteria to allocate hosts for each of these purposes, and out of all the hosts that meet the requirements, allocates those with highest priority. For details, see the "Monitoring Host Performance" section of this chapter.

Allocating Hosts

For load generation, Mercury Performance Center uses the following criteria for allocating hosts.

- ► Run ID: "-" meaning the host is not currently running
- ► Allocation: "0" meaning the host is not allocated to the timeslot
- ► Condition: "Operational"
- Purpose: "Controller", "Controller + Load Generator", or "Load Generator" as indicated.
- ➤ **Pool**: the same pool as specified for the project for whom the test is being run. For each project Mercury Performance Center assigns hosts from a specific pool. This pool is specified in the project information page. For details, see the *Mercury Performance Center User's Guide*.
- Project: either "none" or the name of the test's project for whom the test is being run. Priority goes to hosts already assigned to the project.

Assigning Purpose

The purpose is the function that you assign to each host. Each host is allocated for a single purpose.

- ► Load Generator
- ☞ ➤ Controller
- Load Generator + Controller the host may be used as a Controller or a Load Generator.

Note: Designating a host as a Load Generator + Controller allows the system greater flexibility when allocating machines. When allocating machines the system tries to use single function machine before Load Generator + Controller machines. In other words if you need a Controller and there is a Controller machine and a Load Generator + Controller machine available, the system will allocate the Controller only machine.

🔥 > Analysis

Bear in mind that even though one analysis host can be used for more than one test run, the fewer test runs that one host is analyzing at once, the faster the host operates. The system can only allocate hosts assigned with purpose "Analysis" for interactive analysis. Therefore, the number of hosts that you assign for analysis influences how many test runs to each Analysis host.

A machine that is located over the firewall or is a UNIX machine can only be assigned the purpose of Load Generator.

Handling Resource Failure

If one or more of the hosts fail when Mercury Performance Center tries to run a test on the set of allocated machines, the condition of the failed host(s) changes from "Operational" to "Resource Failure," and an alert is sent to the main site. The alert specifies the reason for the host failure.

To see the host failure reason:

Click anywhere along the line for the failing host in the Hosts screen to select it. The host failure reason appears at the bottom of the screen.

When you think you have fixed the problem, you should change the condition back to "Operational." If the host is still not operational, the condition automatically returns to "Resource Failure" in the next test run.

Resetting a Host's Routing Configuration

You can view a host's routing configuration and reset it to the original setup. This is useful for example, if a host gets stuck.

To view a host's routing configuration table:

Select a host, and then click the **Routing Configuration** link that appears in the Edit Details for host section at the bottom of the screen. The Routing Table for host dialog box opens.

Press the 'Reset'	button to restore ro	uting configuration	to original setup.	
Network Destination	Mask	Gateway	Interface	Metric
0.0.0.0	0.0.0.0	207.232.29.1	207.232.29.220	1
127.0.0.0	255.0.0.0	127.0.0.1	127.0.0.1	1
207.232.29.0	255.255.255.0	207.232.29.220	207.232.29.220	1
207.232.29.220	255.255.255.255	127.0.0.1	127.0.0.1	1
207.232.29.255	255.255.255.255	207.232.29.220	207.232.29.220	1
224.0.0.0	224.0.0.0	207.232.29.220	207.232.29.220	1
255.255.255.255	255.255.255.255	207.232.29.220	207.232.29.220	1
255.255.255.255	255.255.255.255	207.232.29.220	207.232.29.220	1
Reset		Refresh Now	Clos	e

Click **Reset** to reset the routing configuration.

Click **Close** to close the Routing Table for host dialog box and return to the hosts page.

Click **Refresh Now** to refresh the routing configuration settings.

Monitoring Host Performance

You assign a priority to each host. The system allocates hosts with higher priority in preference to those with lower priority.

There are a number of criteria to consider when assigning priority. The main considerations are whether the host is a dedicated machine or a shared resource and the type of hardware installed on the machine.

The Host Measurements columns provide you with at-a-glance indications of the performance of each host. You can display the latest information whenever you want, by clicking **Update Measurements**. You should consult this information when assigning priority to each host.

Depending on the indications, you may want to view more detailed information about a host's condition.

The Host Administration Page

You can view more detailed information about the operational status of each host by entering the administration page for the host.

To enter a Host Administration page:

Click the status indicator for the host. The Host Administration Page opens:

Host 'ALKER' information :								
Free space on system disk:6044480 KB Last error on host: No Error								
Host status descriptio	Host status description: GREEN: All measurements are within the recommended range							
	Page will reload in	27 secs. Refresh Now	Refresh Frequency	Clo:	se			
Host 'ALKER' processes:	% Processor Time	Mem Usage (bytes)	Elanced Time (hours)	PID	Kill			
AWHOST32	1	1581056	23.039	128				
CSRSS	0	606208	23.045	33	8			
EXPLORER	0	1617920	19.095	292	8			
Idle	97.975	16384	23.048	0	8			
LLSSRV	0	606208	23.038	149	8			
LOADWC	0	0	19.062	298	8			
LSASS	0	1290240	23.044	50	8			
MDM	0	1626112	13.294	422	8			
MSGSYS	0	53248	23.033	258	8			
NetwProb	0	1114112	16.328	69	8			
ORCHID~2	0	16211968	0.248	697	8			
PSTORES	0	225280	23.037	178	8			
REXECD	0	40960	23.039	116	8			
RLOGIND	0	40960	23.039	119	8			
RSHSVC	0	49152	23.037	183	8			
SERVICES	0	2371584	23.044	47	8			

Consult the Host Status description for a description of any problems with the machine's status.

To kill a process, click the button in the Kill column for the process.

Managing Pools

Pools are groups of hosts that you define in order to control which hosts may be accessed by which projects.

In the Hosts page, you assign each host to a pool. An Analysis machine is not added to a pool. In the Mercury Performance Center Privilege Manager you assign a pool to each project.

The relationship between hosts, pools, and projects determines which hosts the project can access and allocate. For details, see "User Privileges" in the *Mercury Performance Center User's Guide*.

You can add and edit pools. The system contains a predefined pool named "General".

Viewing Pool Resources

A single pool is made up of multiple hosts. When managing a pool, it is important to understand the total available resources. That is, how many Controller, Load Generator, or other machines are a part of a pool.

To view a list of pools and their resources:

Click Edit Resource Pools. The Host Pools page opens.

Host Pools			Page will reload in 68 secs. Refresh Now Refresh Frequency				
Add New Po	ol						
<u>Pool Id</u> 후	<u>Pool Name</u>	<u>Total C</u>	<u>Backup C</u>	<u>Total L</u>	<u>Backup L</u>	<u>Total C + L</u>	Backup
1	General	0	0	0	0	0	0
			'C' - Controllers 'L' - Load Generators 'C + L' - Controllers and Load Generators				
Edit Pool Deta	ils:						
Pool ID: (not selected) Configure Backup Hosts: Learn more about backup hosts							
Name:			' <u>L</u> ' Ba	ckup Qty :		'C + L' <u>B</u> ackup Qty	:
' <u>C</u> ' Backup Qty:							

As hosts are added to a pool, the statistics for that pool are increased accordingly. Suppose you have a pool named "General" and the pool consists of one Controller and two load generators. If you assign a new Controller host to the pool, the number of Controllers will be increased by one and a quantity of two Controllers is displayed.

For each type of machine (Controller, Load Generator, Controller + Load Generator) a quantity and a backup quantity are displayed.

The purpose of the backup machines is to hold some resources in reserve in case there are problems with some hosts. The backup machines are not shown to the user and are not allocated. When they are needed, the system automatically allocates them.

To edit the pool definitions:

- **1** Select the pool by clicking anywhere on its line in the Host Pools table. The pool details appear in the Edit Pool Details display at the bottom of the screen.
- **2** Edit the name and backup quantity as desired. Increasing or decreasing the backup quantity changes the quantity number accordingly.
- **3** Click **Save** to save the new details.

To add a new pool:

1 Click Add New Pool. The Add Pool dialog box opens.

Add Pool:	
Pool Name:]
ок	Close

- **2** In the Pool Name text box, enter a name for the pool.
- **3** Click **OK** to add the new pool to the table, or **Close** to close the dialog box without adding the pool.
To delete a pool:

- 1 Select the pool by clicking anywhere on it's line in the table. The pool details appear in the Edit Pool Details display at the bottom of the screen.
- **2** Click the **Delete** button. The pool is deleted.

To return to the hosts table:

Click Return to Hosts page.

Managing Host Details

The details that you define when you create a host are: OS Type (Windows NT, Windows 2000 or UNIX), purpose (Load Generator, Controller, Load Generator + Controller, or Analysis), condition (Operational, Out of Order, or Resource Failure) priority, and host pool. You can edit them for any host whenever necessary. For details, see the "Understanding Host Allocation" section of this chapter.

To edit the host details:

- 1 Click anywhere along the host's line in the table to select the host. The line changes color to indicate that it is selected.
- **2** Edit the details at the bottom of the screen.
- **3** Click **Save**. The details are changed.

Adding a New Host

You can add and remove hosts from the Hosts Page list. When you add a host, you enter the operating system, purpose, condition, priority, and host pool. The system uses these values to allocate hosts for test runs. For details, see the "Understanding Host Allocation" section of this chapter.

Note: If you are using the multiple IP addresses feature, make sure to add the host to the Admin site before running the IP Wizard to define multiple IPs on the host.

To add a new host:

1 Click **Add New Host**. The Add New Host Details section appears at the bottom of the screen.

Add New Hos	t Details:				
N <u>a</u> me:		1			
OS <u>T</u> ype:	Win2000/XP] U <u>s</u> er Login N	ame: (required only	when OSType is Unix)	
P <u>u</u> rpose:	Controller	<u>P</u> riority:	3	H <u>o</u> st Pool:	General 💌
<u>C</u> omments:	×	Location:	Default 💽	Co <u>n</u> dition:	Operational 🔹
					Save Cancel

- **2** Enter a name for the host in the Host box.
- **3** In the OS Type box, select the operating system of the host. This can be either Windows NT, Windows 2000 or UNIX.
- **4** In the Purpose box, select a purpose to assign to the host.

Note: If the host is located over the firewall or is a UNIX machine, the only purpose it can be assigned is Load Generator.

- **5** In the Comments box, type any relevant information about the host.
- **6** In the User Login Name box, enter your system user login name. This information is only required for an OS Type of UNIX.
- **7** In the Priority box, enter a priority number.
- **8** In the Location box, select the host's location.
- **9** In the Host Pool box, select a host pool to assign to the host.
- **10** In the Condition box, select the appropriate description of the host condition.
- 11 Click Save.

Note: Additional information for the fields of the Add New Host Details section can be found throughout this chapter.

Next time the display is refreshed, the new host is listed in the Hosts page. You can click **Refresh Now** to refresh the display.

Removing a Host

You can remove a host from the Hosts page. If you remove a host, it is no longer available to be allocated to a test run, even if the host still has the Mercury Performance Center software installed.

To remove a host from the Hosts list:

Click the **Delete** button at the end of the line for the host.

The host machine is now removed from the list, and is no longer available to the system to be used for a test.

Detaching Hosts

When a timeslot has ended, the system does not automatically detach hosts from projects, unless a user tries to reserve another timeslot for a host. You can request all hosts to be detached from all projects, thereby returning their allocation value to "0".

To detach all hosts from projects:

1 Click Detach Hosts. The Detach Hosts dialog box opens.



2 Click OK.

Checking Hosts

You can check the connections between your project's Hosts and various servers and machines within your system. You can also check whether a load generator Host is able to create an active session.

To check Hosts:

Check Hosts

1 Click the **Check Hosts** button. The Check Hosts dialog box opens.

Check Hosts
Clear All Check Hosts
Host Name Ping to Host File Server Database DCOM Connectivity Ping URL Zerver Database DCOM Connectivity Ping URL
🗆 🖈 electra
 ← - Load Generator II Analysis 주 - Controller A - Load Generator + Controller File Server Web Server Utility Server
Result Status: (not selected)
File Server:
Database:
DCOM Connectivity:
Ping to URL:

2 Select each Host you want to check.

Note: The icon next to the Host name indicates the purpose of the Host. The Check Hosts table displays the unique Server icon \square . For more information on Purpose, see "Assigning Purpose" on page 20.

- **3** If you want the selected Host(s) to ping a remote site, enter the URL address.
- **4** Click **Check Hosts**. Mercury Performance Center performs the following actions:
- ▶ **Ping to Host** The administration server pings the selected Host.

- ➤ File Server The selected Host attempts to write, read, and delete from the file server.
- **Database** The selected Host connects to the database server.
- DCOM Connectivity The Host creates a DCOM session object. This is applicable to load generator Hosts only
- ▶ Ping URL The selected Host pings the listed URL.

The Check Hosts table displays the success or failure of the actions.

Check Ho	osts				Close
					Clear All Check Hosts
✓ Host Name	Ping to Host	File Server	Database	DCOM Connectivity	Ping URL
☑ 🚴 brooklyn	×	v	×	v	N/A
🗹 🎏 gum	1	1	v	V	N/A
← - Load Gener ☐ - File Server	rator 📙 - A 🧭 - V	Analysis Veb Server	寧 - Contr 郎 - Utility	oller \lambda - Load Server	Generator + Controller

Result Status: brooklyn	
Ping to Host:	Succeed to ping: 3 times. Average time is: 0 ms.
File Server:	Succeed to write, read and delete from file server.
Database:	Succeed to connect to database server.
DCOM Connectivity:	Succeed to raise DCOM session on host.
Ping to URL:	N/A

5 Select a Host to view its Result Status. Details for each action are listed in the Result Status section.

To clear all the results, click Clear All.

6 Select Close to return to the Hosts page.

Using the Host Location Page

The Host Locations page displays the location information about the hosts available for load testing.

When a user creates a load test from the main Mercury Performance Center site, the user specifies which hosts to use for the test. It is possible for the host machines to be located across a wide physical area. The location of the host might be a consideration when creating a test.

The Host Locations page also specifies whether a host is outside of or within the firewall. This information is crucial when assigning a purpose for the host. Hosts over the firewall can only be designated as Load Generator machines.

To enter the Host Locations page:

On the **Resources** menu, click **Host Locations**. The Host Locations page opens:

Host L	ocations	Page will reload in	58 sec	CS. Refresh Now	Refresh Frequ	ency
Add Host Lo	ocation					
Currently Showing :	1 - 1 / 1					
Id	Name		<u>Over</u>	Firewall		
1	Default	No				8
Edit Location	1 Details:					
Location II	(not selected) <u>N</u> ame:			Located Over Fir	ewall: 🔿 Yes	O No
						Save

The screen displays the following information about the hosts:

- ► ID the host ID number. This is automatically assigned when you add a new host.
- ➤ Name the name of the location. This is the name that you assign when you add a new location.

Over Firewall - This indicates whether or not the location is over the firewall. Hosts that are located over the firewall may only be designated as Load Generator machines.

To edit a host location:

- **1** In the Edit Location Details section, enter a new name or choose a new Located Over Firewall option.
- 2 Click Save. The Host Location information is updated.

To add a new host location:

1 Click the Add Host Location link. The Add Host Location dialog box opens.

Add Host Locatio	on:
Location Name: Over FireWall:	OYes ⊙No
ок	Close

- **2** Fill in a location name. The name should have a logical connection to the location.
- **3** Indicate whether or not the location is over the firewall.
- 4 Click **OK**. The location is added to the list.

Chapter 3 • Managing Host Machines

4

Managing Timeslots

From the Administration site, you can monitor timeslot reservations.

This chapter describes:

- ► Viewing Timeslot Allocations
- ► Deleting a Timeslot
- ► Viewing Timeslot Availability

About Managing Timeslots

When a user creates a load test from the main Mercury Performance Center site, the user specifies how many hosts the test requires and reserves the necessary number of hosts for a specific time period.

Note: If Vuser Scheduling is enabled in the General Settings of the Administration site, the user can also specify the number of Vusers the test requires, and if available, reserve them for a specific time period.

The availability of the required hosts (and Vusers) for a specific time period is called a timeslot, and the user is said to have reserved a timeslot.

From the timeslots screen, you can see details of all timeslot reservations and how many hosts (and Vusers) remain available for any given timeslot. If necessary, you can delete reservations.

Viewing Timeslot Allocations

The timeslots table displays details of all reserved timeslots. Use the table to see which projects have reserved which timeslots, and how many hosts (and Vusers) are reserved for each timeslot.

To enter the Timeslots screen:

On the **Site Management** menu, click **Timeslots**. The Timeslots screen opens, displaying the Timeslots Table:

Ti	meslots	[Switch to Res	ources Availability Table]	Page will reload in 29 see	os. R	efresh Now	Refrest	i Frequen	cy
					Time o	on Server :	16-Aug-200	4 9:11:32	2 AM
Sho	w timeslots from:	16-Aug-2004	12:00:00 AM to:	22-Aug-2004 12:00:00 AM		Go			
<u>ID</u>	Project Name	User Name	From Time	<u>To Time</u>	Hosts	Yusers	Host Pool	Run Id	
1	Default	Admin	23-Aug-2004 11:00:00 PM	24-Aug-2004 1:00:00 AM	1	N/A	General	4	
2	Default	Admin	24-Aug-2004 10:30:00 PM	24-Aug-2004 11:00:00 PM	1	5	General	-	8
Addit	tional details for s	elected timesla	tid:						
Dur	ation:	User Name		Comme	nts 🗌				
Hos	ts:								

The table displays the following information about the timeslots:

- ► ID the identification number of the timeslot.
- ► **Project Name** the name of the project.
- ► User Name the name of the user.
- ► From Time, To Time- the start and end of the timeslot. Note that due to the autostart feature, the start and end times are displayed in minutely increments. For details on Autostart, see "Viewing Autostart Load Tests" in the *Mercury Performance Center User's Guide*.
- Hosts the number of hosts reserved for the test that will run during the timeslot.
- Vusers the number of Vusers reserved for the test that will run during the timeslot.

Note: The Vusers column is only displayed if Vuser Scheduling is enabled in the General Settings.

- Host Pool the host pool assigned to the project. The project is only allocated hosts from that pool. For details, see "Managing Pools" on page 24.
- Run ID The ID of the load test using the timeslot. This number is automatically generated by the system when the load test starts.
- ► Delete delete button. Use to undo the reservation.

The bottom section displays the following read-only information about the timeslots:

- **Duration (hours)** the total length of reserved time in hours.
- ➤ Hosts the names of the hosts assigned to the load test. If no hosts were specified when the timeslot was reserved, a message will appear.
- ► User Name the name of the user who reserved the timeslot.
- Comments When the user reserves a timeslot they can add comments. The comments for a specific timeslot are displayed when the timeslot is clicked.

Sorting the Timeslots

You can sort the timeslots according to the values in any column whose heading is underlined.

To sort the timeslots:

- 1 Click an underlined column heading of your choice. A downward facing arrow appears next to the column heading. The timeslots are sorted in descending alphabetical order of the values in that column.
- **2** When you click the heading again, the arrow reverses direction, and the timeslots are sorted in ascending alphabetical order of the values in that column.

Deleting a Timeslot

You can delete a timeslot reservation.

To delete a timeslot reservation:

Click the timeslot's **Delete** button in the table. The timeslot is removed from the table.

Viewing Timeslot Availability

You can switch from the Timeslots table to the Resources Availability table to display the distribution of available Controller hosts and Vusers over any time period.

Note: Vuser availability is only displayed if Vuser Scheduling is enabled in the General Settings.

To switch to the Resources Availability Table:

Click **Switch to Resources Availability Table** in the top left of the screen next to the Timeslots heading. The Resources Availability Table opens:



Point mouse cursor to timeslot for details

Using the Resources Availability Table

The Resources Availability Table contains the following elements:

- Total hosts in selected project(s) the number of Controller hosts available in the selected projects, and therefore, the maximum number of hosts that could be available for the project at any one time.
- Total Vusers in selected project(s) the number of Vusers available in the selected projects, and therefore, the maximum number of Vusers that could be available for the project at any one time.
- ► Time on Server the current time according to the server.

To configure the Resources Availability table:

- **1** Click **Month** and select the month for which you want to display resource availability.
- **2** Click **Week** and select the specific week for which you want to display resource availability.
- **3** Click **Select Project** and select the projects for which you want to display resource availability.
- Calendar Display displays how many resources are available for each timeslot period selected.

The table is divided into half-hour timeslots. Each timeslot is represented by a rectangle which indicates the number of resources available during that hour. Place the mouse cursor over a timeslot for resource availability details.

The three types of availability are listed below the table:

- All Hosts and Vusers Available all the hosts and Vusers are available for the timeslot. For the total number of hosts and Vusers, read the Total hosts in selected project(s) and Total Vusers in selected project(s) number above the table.
- Partial Hosts/Vusers Available the number on the rectangle is the number of hosts and Vusers available.
- ► No Hosts/Vusers Available there are no hosts or Vusers available.

To return to the Timeslots Table:

Click **Switch to Timeslots Table** in the top left of the screen next to the Timeslots heading.

5

Managing Test Runs

You can view all the test runs in the system and monitor their progress.

This chapter describes:

- ► The Test Runs Screen
- ► Using the Fast Recovery
- ► Changing a Test Run State
- ► Deleting a Test Run
- Deleting the Pointer to a Run
- ► Deallocating Hosts from a Test Run

About Managing Test Runs

A test run is the actual execution of a load test. You can view all the test runs in the system to see when each test is supposed to run, whether it is currently running, and which project it belongs to.

During a test run, there are several stages, called states. The Test Runs screen lets you monitor the test runs, and check the state of each run. You can change the state of a test run where necessary.

The Test Runs Screen

The Test Runs screen displays the test runs and their details.

To enter the Test Runs screen:

On the **Site Management** menu, click **Test Runs**. The Test Runs screen opens:

Test	Runs			_		Page will re	eload in	80 secs.	Refrest	Now Refr	esh Freque	ncy
Total Ru Deallo	ns in DB : 8 cate Hosts			Filter:	time Las	t 24 Hours 💌	stat	e All States	Proje	cts All Proje	cts 💌	Go
Current	ly Showing:	•						1 - 2	/ 2			
Click Ru Run Id	n Id to view e Test Name	vent lo Proje	g for run ct Name	State	# Vusers	Analysis H	ost ID	Analysis St	tart Time	Run Date 🔻	Timeslot	ID
<u>8</u>	generate errors	Defaul	t	Finished	1	null		null		7-Nov-2004 4:12:04 PM	3	8
Z	generate errors	Defaul	t	Before Collating Results	1	null		null		7-Nov-2004 10:22:00 AM	3	8
Addition	al details for :	selected	d run id 7	:								
Duratio Max Co	on (min) Incurrent Vu	sers	147 1		Controlle Injectors	r Machine (#Yusers)	colgat	e		User N	ame	Admin
DCOM 9	Session Stat	us	Ended		Results D	irectory	C:∖Pr Cente	ogram Files\f ^\orchidtmp\f	Aercury In Results∖7	teractive\Perf	ormance	
Collato	r Status		Inactive		Vusers Ir	nvolved	1				hange Stat	:e

The Test Runs screen displays the following details about each test run:

- Run ID the identification number of the test. This number is automatically generated by the system when the load test starts. You can click the Run Id link to view the Event Log Page for the run. For details, see the "Viewing Event Logs" on page 51.
- **Test Name** the name the user gave the test when it was created.
- > Project Name the name of the project running the test.
- State the state of the test run. If a test is stuck in a state, you can change it. For details, see "Changing a Test Run State" on page 46.
- #Vusers the number of Vusers that were running in the test. The number is updated when the test finishes.

- Analysis Host ID the identification number of the analysis host. (If the test results analysis is not complete, the value will appear as "null.")
- ➤ Analysis Start Time the start time of the analysis process. (If the test results analysis is not complete, the value will appear as "null.")
- **Run Date** the start time of the test run.
- ► Timeslot ID the ID for the test's timeslot.

The Test Runs screen also displays:

► Total Runs in DB - the total number of all runs in the Mercury Performance Center database.

The sections below describe the functions you can perform to change the display.

Sorting the Test Runs

You can sort the test runs according to the values in any column whose heading is underlined.

To sort the test runs:

- 1 Click an underlined column heading of your choice. A downward facing arrow appears next to the column heading. The test runs are sorted in descending alphabetical order of the values in that column.
- **2** When you click the heading again, the arrow reverses direction, and the test runs are sorted in ascending alphabetical order of the values in that column.

Filtering the Display

There are three drop-down lists for filtering the display:

- **Time** lets you display only test runs that ran within a specified time period.
- **State** lets you display test runs with specific states. The options are:
 - ► All States displays test runs of all states
 - ► Run displays only test runs that are currently running
 - Collate displays only test runs whose results are currently being collated
 - ► Error displays only test runs with errors
- > Project lets you display only test runs for a specific project.

To filter the display:

- **1** From one or more of the filter drop-down lists, select filtering options.
- **2** Click **Go**. The table displays test runs specified by the selected filtering options.

Selecting a Test Run

When you select a test run, the following additional details appear at the bottom of the screen, as well as a button which lets you change the test run's state:

- ► Duration (min) the duration of the test.
- Max Concurrent Vusers the maximum number of concurrent virtual users allowed during the test run.
- DCOM Session Status- indicates whether or not the pointer in the Mercury Performance Center database is still pointing to the test run object. If so, (indicated by status "Live"), the user can reconnect the test. For details, see "Deleting the Pointer to a Run" on page 49.
- Collator Status tells you whether or not the collator pointer is still pointing to a test run object in the Mercury Performance Center database. If so, (indicated by status "Active"), the user can reconnect the test. For details, see "Deleting the Pointer to a Run" on page 49.

- Controller Machine the host machine used as the controller. In the Mercury Performance Center system, one of the load generators is a controller, and the others are injectors.
- ► Injectors (#Vusers) a list of the hosts used to inject virtual users.
- **Results Directory** the directory storing the test results from the run.
- ► Vusers Involved the total number of Vusers used in the run.
- ► User Name the name of the user who ran the test.
- Change State allows you to change the state of the load test. For example, you can change the state from "before collating results" to "fatal error".
- Fast Recovery allows you to stop a test when it has a status of Ready, Running, or Stopping. The button only appears when the test is in one of these three states and causes an abrupt termination that results in a deallocation of resources and resetting of the pointers to the active object.

Using the Fast Recovery

Fast Recovery

When viewing the details of a test run, the Fast Recovery button may appear in the bottom right corner of the Additional details section. This button should only be used if the test is frozen and unable to continue, for example, if the Host Connection fails and the processing cannot continue for a particular run.

Clicking the Fast Recovery button frees all the system resources, stops the test run, and resets the run state to "Before Collating Results".

At this point, the Administrator should contact the user and inform them of the fast recovery.

Changing a Test Run State

Changing the state of a test run provides a great deal of flexibility for running and processing your tests.

Changing the state of the test run is another way to handle a frozen test. For example, if the test is stuck in the "Running" state, you can change to the "Before Collating Results" state. Since the "Before Collating Results" state occurs after the "Running" state, by changing the test to this new state, you have placed the test at a point beyond the problem. The test restarts and proceeds to the end of the test.

Use the following flowchart to study the relationship between states. Knowing the flow of states allows you to change a test's state to the appropriate position.



When viewing the flowchart, note the following:

- The Active state is a temporary state indicating that the system is performing an operation.
- ➤ The Non-Active state is a static state which only changes when the user performs an action.

Note: When a user deletes a test run in the User site, the test is no longer displayed on the page. In the Admin site, however, the test still appears with a state of "Deleted". The administrator can change the state and the test will reappear in the User site.

To change the state of a test run:

- **1** Select the test run. The **Change State** button appears at the bottom of the screen.
- 2 Click Change State. The following dialog box opens:



- **3** Select the correct state.
- 4 Click Save.

Deleting a Test Run

You can delete a test run. This is useful for deleting old runs that no longer need monitoring.

To delete a test run:

Click the **Delete** button at the end of the test run's row in the table. The test run is deleted from the database and file server, and no longer appears in the table.

Deleting the Pointer to a Run

Sometimes, after a test has finished running, the object pointer or collator pointer in the database is still active. As long as the pointer is still active, the user is able to reconnect the test.

To see if a pointer is active:

Select the test run. The additional details for the test run appear at the bottom of the screen. If the DCOM Session Status is "Live" or the Collator Status is "Active", the pointer is still active. Otherwise, it displays "Ended" or "Inactive" respectively.

To reset the DCOM Session status or collator status to the run:

1 Click Live or Inactive. A dialog box opens:



2 Click **OK**. A dialog box opens confirming the Pointer value is zeroed.



3 Click OK.

Deallocating Hosts from a Test Run

You can detach all the hosts that are allocated to a particular test run. Do this if a host is still stuck in running status after the test finished.

To deallocate hosts from a test run:

1 Click **Deallocate Hosts**. The Deallocate Hosts dialog box opens.

Deallocate Hosts by Run ID	
Choose the host's type and then specify the h	ost's Run ID:
O Deallocate Load Generator host	
O Deallocate Analysis host	
Run ID :	
OK	

- **2** In the boxes provided, specify the type of host you are deallocating and the run ID of the test run from which you want to deallocate hosts.
- **3** Click **OK**. A dialog box opens confirming the Hosts deallocation.



4 Click Close.

6

Managing Event Logs

In case of an event during a test run, you can see a description of the event and its source in the Event Log screen. An event can be can be informational or generated by an error.

This chapter describes the following:

► Viewing Event Logs

Viewing Event Logs

The Event Log screen displays all the events, reporting the source and severity of each event, as well as showing which host and test run it occurred on, and the time it occurred.

To view Event Logs:

On the **Site Management** menu, click **Event Log**. The Event Log screen opens:

E١	vent Log		Page will reload	lin 31	secs.	Refresh Nov	Refres	sh Frequ	ency
Tot	al events in data	abase: 62	Filter by: Time All	•	Sev	erity All		•	
E	xport Event Log		Host - All -	•	Run	Id			Go
Cui She	rrently owing :	1 - 20 / 62	00						
<u>ID</u>	<u>Time</u>		Description	Eve	<u>nt</u>	<u>Source</u>	<u>Severity</u>	<u>Run Id</u>	<u>Host</u>
62	5-Sep-2004 3:01:09 AM	IISReset::Red	cover resource ELECTRA	0		Maintenance Service	Info	-	electra
61	5-Sep-2004 3:01:08 AM	IISReset::Red	cover resource electra	0		Maintenance Service	Info	-	electra
60	5-Sep-2004 3:00:52 AM	IISReset::Red	cover resource ELECTRA	0		Maintenance Service	Info	-	electra
59	31-Aug-2004 12:39:51 PM	Method: 'AS:: doesn't exist.	GetVuserOutputPage'. The file "	-21472	19953	Active Session	Error	20	electra
58	4-Sep-2004 3:01:06 AM	IISReset::Red	cover resource ELECTRA	0		Maintenance Service	Info	-	electra

The following information is displayed for each event:

- ► ID the identification number of the event
- ► Time the time the event was recorded
- **Description** a description of the event
- **•** Event this number is an internal identifier for the event
- ► Source the system element where the event originated
- **Severity** how serious the event is. Severity can be *Error* or *Information*.
- Run ID the identification number of the test run. Point to a Run ID number to display the project name and test name for the test run.
- Host the host from which the event is generated The screen also displays:
- ► Total Events in database the total number of events in the system
- ► Export Event Log prepares and downloads a text file of all the events that have occurred in the past week or of all the events in the log

To prepare and export an event log:

1 Click the **Export Event Log** button. The Export Event Log dialog box opens.

Export Event Log
Choose a time period for the event log, press OK to prepare the file for download:
• Events for the past 7 days
O All events
OK

- **2** Choose the desired time period and click **OK**. The event log is prepared for download.
- 3 Select Download.
- **4** Choose the location into which you want the file placed.

Sorting Events

You can sort the events according to the values in any column whose heading is underlined.

To sort the events:

Click an underlined column heading of your choice. A downward facing arrow appears next to the column heading. The events are sorted in descending alphabetical order of the values in that column.

When you click the heading again, the arrow reverses direction, and the events are sorted in ascending alphabetical order of the values in that column.

Filtering the Display

You can use the filter drop-down lists to display a specified subset of the events.

There are two drop-down lists for filtering the display:

- **Time** lets you display only test runs that ran within a specified time period.
- **Severity** lets you display test runs with specific severity levels.
- Host lets you display test runs that were performed on a specific host machine
- > Run Id lets you display test runs with a specific run Id

To filter the display:

- **1** From one or more of the filter drop-down lists, select filtering options.
- **2** Click **Go**. The table displays test runs specified by the selected filtering options.

7

Managing License Information

You can view and update your license key from the Licensing page.

This chapter describes the following:

- ► Viewing License Information
- ► License Types

About Managing License Information

Your license key is a function of your Vuser limit, concurrent runs limit, and expiry date. In the license page you can view these details, and, if necessary, you can update you license key number.

Note: The concurrent runs limit refers to the number of tests that can be run simultaneously.

Viewing License Information

To view the Licensing page:

On the **System Configuration** menu, click **License**. The Licensing page opens.

License	
Yuser Limit:	10000
Concurrent Runs Limit:	10
¥alid:	Unlimited
Set New License	

To update your license key:

1 Click **Set New License**. The Set New License dialog box opens.

Set New License:	
ок	Close

- **2** Enter the new license key.
- **3** Click **OK** to save or **Close** to close the dialog box without saving.

License Types

There are two types of licenses available for Mercury Performance Center:

- Regular This type of license is limited by time and the total number of concurrent runs and Vusers.
- VUD-based The license is limited by a number of Virtual User Days (VUDs). A VUD is an actual time period of one day. A VUD license enables the user to use the product an unlimited number of times within a period of 24 hours. It is important to note that concurrent use is a key factor in how your VUD is debited.

For example, a user has a VUD-based license for a total of 1000 Vusers and creates a test that uses 200 hundred Vusers and lasts for forty-five minutes. At 8:00 AM the user runs the test. The user also runs the test at 10:00 AM, 2:00 PM, and 4:00 PM. In each case, the test finishes before the new one begins. Since there is no concurrent use, a total of 200 VUDs are deducted at the end of the day, leaving 800.

Let's say however, that the user starts the second run of the day at 8:30 AM. In this case, the first test does not complete the run before the second test initializes. There are now 400 Vusers running concurrently. At the end of the day, 400 VUDs are deducted because that is the highest number of concurrent Vusers. The total left for future use is now 600 VUDs.

Chapter 7 • Managing License Information

Managing User Requests

You can manage requests submitted by users in the Mercury Performance Center Administration site.

This chapter describes the following:

- ► Viewing User Requests
- ► Deleting Messages

About User Requests

You view requests that have been submitted by users in the Mercury Performance Center main or Administration site, and delete them when appropriate.

Viewing User Requests

To view requests submitted to Mercury Performance Center by users:

On the **Site Management** menu, click **User Requests**. The User Requests screen opens.

User Requests		ests	Page will reload in 73 secs. Refre	efresh Now Refresh Frequency	
Cur Sha	rently owing :	1-2/2			
<u>ID</u>	<u>User Name</u>		<u>User Message</u>	Creation Date	
з	Admin	Increase the number of Hosts for the Administration group.		20-May-2004 5:59:27 PM	8
2	Admin	Please change r	ny privilege level from Guest to Consultant.	20-May-2004 1:26:28 PM	8

The User Requests screen displays the following information about each user message:

- ► ID the identification number of the user request
- ► User Name the name of the user who entered the request
- ► User Message the user request
- ► Creation Date the date that the user entered the request

There is also a delete button displayed for each message.

Sorting Messages

You can sort the messages according to the values in any column whose heading is underlined.

To sort the messages:

Click an underlined column heading of your choice. A downward facing arrow appears next to the column heading. The messages are sorted in descending alphabetical order of the values in that column.

When you click the heading again, the arrow reverses direction, and the messages are sorted in ascending alphabetical order of the values in that column.

Deleting Messages

To delete a message:

- **1** Click the **Delete** button for the message.
- **2** A message is issued asking you to confirm the delete.
- 3 Click OK.
Chapter 8 • Managing User Requests

9

Managing General Settings

You can manage the general configuration settings of the system by viewing them in a table and editing them as necessary.

This chapter describes the following:

► Viewing General Settings

About General Settings

The General Settings page provides information about the system configuration. You can set the time zone, the alert threshold, autostart options, and enable the check host and IIS maintenance services.

This screen also provides read-only information, such as the upload directory path and the temporary graph directory.

Viewing General Settings

To view the General Settings page:

On the **System Configuration** menu, click **General Settings**. The General Settings page opens.

General Settings

Use Routing	\odot Enable \odot Disable	Enables projects to use configured target IPs (which prevent targeting load tests outside the run scope).
Upload Directory	\\brooklyn\LRFS\UploadDir	Specifies the path to the folder to which scripts are uploaded.
Temporary Graph Directory	\\brooklyn\LRFS\graphs	Specifies the path to the folder in which analysis graphs are stored.
Time Zone	(GMT -8) PST	Specifies the time zone used by the system (default is PST).
Prevent Using Fully Utilized Hosts	O Enable ⓒ Disable	Enables automatic load balancing across hosts. Load balancing prevents the system from trying to run Vusers on hosts that are fully utilized.
Firewall Monitoring Communicator		Specifies the IP address of the Mercury Interactive Listener machine, which you configure to collect server monitor data from outside the firewall.
Firewall ¥users Communicator		Specifies the IP address of the Mercury Interactive Listener machine that enables you to run Vusers over the firewall.
License VUD Alert threshold	5000	Specifies the license VUD threshold for giving an alert.
Performance Center Installation Name		Specifies the name of the Performance Center installation (Specifying a name is optional).
Maximum Number of Autostart Retries	5	Specifies the maximum number of attempts allowed by the Autostart mechanism to start a load test in case of failure.
Autostart Retries Interval (min)	1	Specifies the interval, in minutes, that the Autostart mechanism waits between retry attempts.
Vuser Scheduling	O Enable 🖸 Disable	Enables users to reserve and schedule Vusers in the Timeslots page.
User Specified Scheduler Start	O Enable 🖸 Disable	Enables users to specify automatic or manual start of the scheduler at the beginning of a load test run.
Host Checkup Service	© Enable O Disable run service every 30 minutes	Detects host resource failures and recovers hosts to the operational status. If enabled, specifies the service frequency.
IIS Maintenance Service	Enable O Disable run service every 10 minutes Application Memory limit 250 MB	Verifies that IIS is operational and restarts it if necessary. If enabled, specifies the service frequency. IIS Maintenance Service also restarts Performance Center when its memory limit is reached. Running tests will not be affected.
Restart IIS Daily	© Enable O Disable at 03:00 (HH:MM 24h) example: 23:50	Restarts IIS at a set time every day. Restarting IIS increases Performance Center stability. When IIS is restarted, running tests are not affected and users can reconnect to tests and view progress. If enabled, specifies the restart time.
		Save Cancel

You can update any editable settings by entering new details in the boxes provided, and then clicking **Save**.

The settings are:

- ➤ Use Routing enables projects to use configured target IPs (which prevent targeting load tests outside the run scope). Select *Enable* to enable use of target IPs (default) or *Disable* to disable their use.
- ➤ Upload Directory specifies the path to the folder to which scripts are uploaded.
- Temporary Graph Directory specifies the path to the folder in which analysis graphs are stored.
- Time Zone specifies the time zone used by the server (default is PST). You enter the string that you want displayed within the Mercury Performance Center system.
- Prevent Using Fully Utilized Hosts enables automatic load balancing across hosts. Load balancing prevents the system from trying to run Vusers on hosts that are fully utilized. Select *Enable* to prevent using fully utilized hosts (default) or *Disable* to disable their use.
- Firewall Monitoring Communicator specifies the IP address of the Mercury Interactive Listener machine, which you configure to collect server monitor data from outside the firewall.
- ➤ Firewall Vusers Communicator specifies the IP address of the Mercury Interactive Listener machine that enables you to run Vusers over the firewall.
- License VUD Alert Threshold specifies the threshold for issuing a VUD license alert. The default setting is 5000.
- Performance Center Installation Name specifies the name of the Performance Center installation. (Specifying a name is optional.)
- Maximum Number of Autostart Retries specifies the maximum number of attempts allowed by the Autostart mechanism to start a load test in case of failure.
- Autostart Retries Interval (min) specifies the interval, in minutes, that the Autostart mechanism waits between retry attempts.

Vuser Scheduling - enables users to schedule and reserve Virtual users (Vusers) in the Timeslot page. Select *Enable* to enable use of Vuser Scheduling or *Disable* to disable use (default).

Note: If you attempt to change this setting, Performance Center performs a test to see if there are any autostart tests scheduled or future timeslots reserved. If there are, Performance Center displays an alert that you must delete all autostart tests and cancel all future timeslots before changing this setting.

- User Specified Scheduler Start enables users to specify automatic or manual start of the Scheduler at the beginning of the load test run. Select *Enable* to enable user to specify automatic or manual Scheduler start or *Disable* to disable use (default).
- Host Checkup Service enables Performance Center to detect hosts in resource failure status and recover them if possible. Select *Enable* to enable use of the Host Checkup Service (default) and specify service frequency, or *Disable* to disable use.

Note: Host Recovery currently supports only load generators installed on Windows machines.

- ➤ IIS Maintenance Service enables Performance Center to verify that IIS is operational and restart IIS if necessary. Running tests are unaffected when IIS is restarted. It also restarts Performance Center when its memory limit is reached. Select *Enable* to enable use of the IIS Maintenance Service (default) and specify the service frequency and Application Memory limit, or select *Disable* to disable use.
- Restart IIS Daily enables Performance Center to restart IIS at a set time every day. Restarting IIS increases Performance Center stability and is highly recommended. Running tests are unaffected when IIS is restarted, and users can reconnect to tests and view progress. Select *Enable* to enable use of Restart IIS Daily (default) and specify restart time, or *Disable* to disable use.

10

Running Vusers over a Firewall

You can run Vusers within a firewall, while the Controller is outside of the firewall.

This chapter describes the following:

► Running Vusers Over the Firewall

About Running Vusers over a Firewall

Once you set up your environment, as described in the "Monitoring Over a Firewall" section of the *Mercury Performance Center System Configuration and Installation Guide*, you need to configuring your system to run Vusers over the firewall. You configure your system from the Admin site.

Running Vusers Over the Firewall

To enable running Vusers over the firewall, you need to add the host location, and configure your host to run Vusers over a firewall.

To run Vusers over the firewall:

- 1 Select General Settings in the System Configuration menu of your User site.
- **2** Enter the IP address of the MI Listener machine that enables the running of Vusers over the firewall in the **Firewall Vusers Communicator** text box.

Note: This machine can be the same as your Monitoring MI Listener machine.

3 To add the host location, select **Host Locations** in the **Resources** menu, and then click the **Add Host Location** link. The Add Host Location dialog box opens.

Add Host Locatio	on:	
Location Name: Over FireWall:	OYes ⊙No	
ок	Close	

Enter the location name. The name should have a logical connection to the host location. Click **Yes** to indicate that the host is over the firewall.

Click **OK** to add the location to the list.

4 To add the host name, select **Hosts** in the **Resources** menu, and then click **Add New Host**. The Add New Host Details section appears at the bottom of the screen.

Add New Host D	Details:		
N <u>a</u> me:	Doors		
05 <u>T</u> ype:	Win2000 -	U <u>s</u> er Login Name: (required only	when OSType is Unix)
P <u>u</u> rpose:	Load Generator	Priority: 3 Host Poo	I: General 🗸
<u>C</u> omments :	×	Location: Boston 💌 Conditio	n: Operational 🔽
			Cancel Save

Enter a name for the host in the Host box to specify the over the firewall Host location. Select the operating system, and enter your system login name if required.

In the Purpose box, select Load Generator. This is the only purpose that can be assigned to a host located over a firewall.

Enter a priority number, and select a host pool. Select the host's location and condition, and then click **Save** to add the host to the list.

5 Configure the Mercury Performance Center agent. For more information, see the "Monitoring Over a Firewall" section of the *Mercury Performance Center System Configuration and Installation Guide.*

Note: When specifying the Local Machine Key, you must use the format *hostname_locationname* where *hostname* is the name of the host as found in the Hosts page of the Admin site, and *locationname* is the name of the host location as found in the Host Location page of the Admin site.

Your system is now configured to run Vusers over the firewall.

Chapter 10 • Running Vusers over a Firewall

11

Understanding Reports

You can get an overall analysis of Mercury Performance Center site users, system resource usage, load test runs, and autostart load tests from the Mercury Performance Center Administration site.

This chapter describes the following:

- ► Viewing the Site Users Report
- ► Viewing the Resource Usage Report
- ► Viewing the Test Run Information Report
- ► Viewing Report Details
- ► Viewing the Autostart Viewer Report

About Reports

The Site Users Report screen provides detailed user information, including the projects that each users can access, user privilege levels, user status, and user expiration dates.

The Resource Usage Report screen provides details of resource usage by individual users, as well as, overall system resource usage.

The Test Run Information Reports screen provides aggregate details of runs on a per project or per user basis. The Run Reports screen also provides a link to view information on individual runs. The Autostart Viewer Reports screen provides information about all autostart load tests in a project, and provides a link to status reports on tests that have run. The Autostart Viewer Reports screen also enables you to cancel scheduled tests.

Viewing the Site Users Report

The Site Users Report displays a complete list of users in the Mercury Performance Center system. The Site User Report specifies the total number of users in the system, and provides information on each user's project access, privilege level, status, and expiration date. The report is available from the left menu.

On the Reports menu, click Site Users. The Site Users page opens.

Site Users

🔲 Include expired Users and Projects

Total number of Users : 4									
≜ User Name	Project	Privilege	Active	Expires At					
Admin	AllCompanies	Admin	\checkmark	Never					
new user	Default	Guest	\checkmark	Never					
no access list	Default	start test	V	Never					
no access list	newProj	start test		Never					
no access list	proji	start test	\checkmark	Never					
start test	Default	start test		Never					
start test	newProj	start test	V	Never					
start test	proji	start test	\checkmark	Never					

The Site Users page displays the following information:

- Include expired Users and Projects includes users and projects that expired and were deleted from the system.
- ➤ Total Number of Users the total number of users that are in the Mercury Performance Center system.
- ► User Name the name of the user.

- ► **Project** the name of the project.
- ► **Privilege** the user's privilege level
- ➤ Active the status of the user in the Mercury Performance Center system. The status can be active or non-active. A user with a non-active status cannot log into the system. This field cannot be edited.
- **Expires At** the date and time that the user will be deleted from the system.

The sections below describe the functions you can perform to change the display.

Sorting Results

You can sort the Site Users reports according to the values of any column. The arrow in the heading displays whether the column is sorted in ascending or descending order.

To sort the report:

Click a column heading. The arrow indicates whether the column is sorted in ascending or descending order.

Clicking the column again reverses the arrow's direction and the entries are displayed in the opposite order.

Viewing the Resource Usage Report

The Resource Usage Report provides general information about the usage of your system resources. The report is available from the left menu. You can view statistics per user within a project and for total usage by project.

To enter the Resource Usage page:

On the **Reports** menu, click **Resource Usage**. The Resource Usage page opens.

Resource Usage										
Show usage from: 10-Mar-2003 10:12:14 AM to: 10-Apr-2003 10:12:14 AM Go View by • Project • User										
≜ Project	≜ Project Total Active Total Reserved Avg Hosts per Avg Yusers per Duration Duration Active Hour Active Hour									
Project1	2:24	10:00	0.9	9.9						
Project2	Project2 4:01 8:30 0.1 0									
Default	-	4:00	-	-						

The Resource Usage page the following information:

- ► **Project/User** the name of the project or user.
- ➤ Total Active Duration the total time tests were run during reserved timeslots.
- Total Reserved Duration the total time reserved, in the Timeslots window, by user or per project.
- ➤ Avg Hosts per Active Hour the average number of Hosts used per active hour.
- Avg Vusers per Active Hour the average number of running Vusers per active hour.

Note: An active hour/duration refers to the actual running time of your tests.

The sections below describe the functions you can perform to change the display.

Sorting Results

You can sort the Resource Usage reports according to the values of any column. The arrow in the heading displays whether the column is sorted in ascending or descending order.

To sort the report:

Click a column heading. The arrow indicates whether the column is sorted in ascending or descending order.

Clicking the column again reverses the arrow's direction and the entries are displayed in the opposite order.

Selecting the Usage Report Time Range

Mercury Performance Center enables you to select the time range for the Resource Usage report.

To select a time range for the Resource Usage report:

1 Click the browse button of the **Show usage from:** text box. The Calendar window opens.

8	Ap	oril			-	200	3 🔽]	9	
	S	М	Т	W	Т	F	S			
			<u>1</u>	2	<u>3</u>	<u>4</u>	<u>5</u>			
	<u>6</u>	Ζ.	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>			
	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>			
	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>			
	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>						
Selected Date:5-Apr-2003 Time: 12 V:00 V PM V										
Time on a	Ser	Clo: /er:	se 10-	Apr	Se -20	et 03 1	 L2:4	5:0)9 P	M

- **2** Select a time and date for the start of the range.
- **3** Click **Set**. The calendar closes and the Show usage from: text box is updated.
- **4** Repeat steps 1-3 for the **to**: text box to set the end of the range.
- **5** Click **Go**. The Resource Usage report table displays the information for the selected range.

Selecting the View

The **View by** radio buttons allow you to view usage information per project or per user.

Choose the option to display the desired information.

Viewing the Test Run Information Report

The Test Run Information Report provides general information about your test runs. The report is available from the left menu. You can view statistics per user within a project and for total usage by project.

To enter the Test Run Information page:

On the **Reports** menu, click **Test Run Information**. The Test Run Information page opens.

Test Run Information

Show Inforr	nation from	: 24-Jul-2004 11:40):58 AM to	: 24-Aug-200	4 11:40:58 AM	Go
View by 💿	Project O	User				
≜ Project	Total Runs	Total ¥users Involved	Avg ¥users per Run	Total Duration	Avg Duration per Run	Avg Hosts per Run
Default	2	4	2	0:02	0:01	1

The Test Run Information page displays the following information:

Project/User - the name of the project or user. Select View by Project/User to view usage information per project or per user.

To display run information grouped by user for a desired project, click the Project link. To display run information grouped by project for a desired user, click the User link. For more information, see "Viewing Report Details" on page 79.

- ➤ Total Runs the total number of runs for the project/user during the specified time range.
- ➤ Total Vusers Involved the total number of Vusers involved in runs during the specified time range.
- > Avg Vusers per Run the average number of Vusers used per run.
- ► Total Duration the total time used by the listed runs.
- > Avg Duration per Run the average time used for the listed runs.
- ► Avg Hosts per Run the average number of Hosts used per run.

The sections below describe the functions you can perform to change the display.

Sorting Results

You can sort the Test Run Information reports according to the values of any column. The arrow in the heading displays whether the column is sorted in ascending or descending order.

To sort the report:

Click a column heading. The arrow indicates whether the column is sorted in ascending or descending order.

Clicking the column again reverses the arrow's direction and the entries are displayed in the opposite order.

Selecting Test Run Information Reports Time Range

Mercury Performance Center enables you to select the time range for the Test Run Information reports.

To select a Test Run Information reports time range:

	•	1	•

1 Click the browse button of the **Show reports from:** text box. The Calendar window opens.

8	Ap	oril				200	3 🔽]	9	
	S	Μ	Т	W	Т	F	S			
			<u>1</u>	2	<u>3</u>	<u>4</u>	<u>5</u>			
	<u>6</u>	<u>Z</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>			
	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>			
	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>			
	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>						
Selected Date:5-Apr-2003 Time: 12 •:00 • PM •										
Close Set Time on Server: 10-Apr-2003 12:45:09 PM										

- **2** Select a time and date for the start of the range.
- **3** Click **Set**. The calendar closes and the Show reports from: text box is updated.
- **4** Repeat steps 1-3 for the **to**: text box to set the end of the range.
- **5** Click **Go**. The Test Run Information reports table displays the information for the selected range.

Viewing Report Details

In addition to summary information for your runs, you can also view details on a per user or per project basis.

To view per project run details:

- **1** From the Test Run Information page, select **View by Project**.
- **2** Click the desired project. The Details for Project window opens and displays run information grouped by user.

Test Run Information									
Details for Project Default									
⊙ Group Runs by User ○ View all Runs						Back			
≜ User	Total Runs	Total Vusers Involved	Avg Vusers per Run	Total Duration	Avg Duration per Run	Avg Hosts per Run			
Reese	3	29	9.666666	1:24	0:28	1			
Admin	4	34	8.5	1:32	0:23	2			

The table is sortable by any column and displays the same categories as the Test Run Information table.

3 Select View all Runs. The table expands and displays all runs for the project.

Test Run Information

Details for Project Default

O Group Runs by User 💿 View all Runs									
≜ RunId	Run Date	User	Total Vusers Involved	Hosts	Duration				
1	4-Nov-2004 2:59:37 PM	Admin	0	1	0:02				
2	4-Nov-2004 3:03:27 PM	Admin	1	1	0:19				
4	4-Nov-2004 7:01:12 PM	Admin	5	1	0:01				
6	4-Nov-2004 7:34:35 PM	Admin	6	1	0:22				
7	7-Nov-2004 10:22:00 AM	Admin	1	1	2:27				
8	7-Nov-2004 4:12:04 PM	Admin	1	1	10:00				

The View all Runs table displays the following information:

- ► **RunID** the unique ID number assigned to the run.
- **Run Date** the date and time of the run.
- **User** the name of the user.
- ► Total Vusers Involved the number of Vusers for the run.
- ► Hosts the number of Hosts used for the run.
- **Duration** the time used by the run.
- **4** Click **Back** to return to the Test Run Information Reports page.

To view per user run details:

- 1 From the Test Run Information page, select View by User.
- **2** Click the desired user. The Details for User window opens and displays run information grouped by project.

Test Run Information

Details for User Ali

⊙ Group Runs by Project ○ View all Runs									
≜ Project	Total Runs	Total ¥users Involved	Avg Vusers per Run	Total Duration	Avg Duration per Run	Avg Hosts per Run			
Default	6	14	2.33	13:11	2:12	1			

The table is sortable by any column and displays the same categories as the Test Run Information table.

3 Select View all Runs. The table expands and displays all runs for the user.

Test Run Information

Details for User Ali

O Group		Back			
≜ RunId	Run Date	Project	Total Vusers Involved	Hosts	Duration
1	4-Nov-2004 2:59:37 PM	Default	0	1	0:02
2	4-Nov-2004 3:03:27 PM	Default	1	1	0:19
4	4-Nov-2004 7:01:12 PM	Default	5	1	0:01
6	4-Nov-2004 7:34:35 PM	Default	6	1	0:22
7	7-Nov-2004 10:22:00 AM	Default	1	1	2:27

The View all Runs table displays the following information:

- **RunID** the unique ID number assigned to the run.
- **Run Date** the date and time of the run.
- ► **Project** the name of the project.
- ► Total Vusers Involved the number of Vusers for the run.
- ► Hosts the number of Hosts used for the run.
- ► **Duration** the time used by the run.
- **4** Click **Back** to return to the Test Run Information page.

Viewing the Autostart Viewer Report

The Autostart Load Tests page provides information about load tests with autostart for a project. Along with the general information provided in the main table, you can access status reports on tests that have run and cancel tests that are scheduled to run. The Autostart Load Tests page is available from the left menu.

The Autostart Viewer page gives *information* about tests scheduled to autostart. The actual scheduling of the autostart is done in the Timeslots page, while the configuring of the test is done when you create a new load test. For details on scheduling and configuring the autostart, see the *Mercury Performance Center User's Guide*.

To view a status report on a test that has run:

On the **Reports** menu, click **Autostart Viewer**. The Autostart Viewer page opens.

Autostart load tests			Pag	e will reload in	70 secs.	Refre	sh Now	Refresh	Frequenc	y
Curre	ntly Showing:1-1/1									
ĪD	₹ <u>D</u> ate and Time	<u>P</u> roject Name	<u>U</u> ser Name	<u>T</u> est Name	Statu	15	Duration	<u>H</u> osts	<u>¥</u> users	
4	16-Aug-2004 9:00:00 PM	Default	Admin	test	<u>Scheduled</u> <u>Run</u>	to	01:00	1	2	8

The page displays a table of information on all tests scheduled to autostart, navigation arrows for the table, and a link to the Load Tests and Timeslots pages.

The table supplies the following information:

- ► ID a unique number identifying the autostart load test.
- Date and Time the date and time of the timeslot you reserve when you schedule a test to autostart.
- > **Project Name** the name of the project.
- ► User Name the name of the user who scheduled the test.
- ► Test Name the name of the test that is scheduled to autostart. This is the same name that was given when the test was created.
- Status the status of the autostart test. Some of the information (Finished, Scheduled to run, Did not run) is specific for the autostart status, other information describes the tests' status in the test workflow. For more information on the test workflow, see "Changing a Test Run State" on page 46.
- Duration the duration of the test scheduled to autostart, as defined when reserving the timeslot.
- ➤ Hosts the number of Hosts assigned to the autostart test, as defined when reserving the timeslot.

 Vusers - the number of Vusers assigned to the autostart test, as defined when reserving the timeslot

Note: This column is only displayed if Vuser Scheduling is enabled in the General Settings.

Delete - clicking an X in the Delete column cancels the autostart test. The timeslot is released and the entry is removed from the Autostart Load Tests page.

Note: Only tests that have not started their run can be deleted.

Sorting Tests

When you open the Autostart Load Tests page, the tests are sorted on the Autostart Date and Time key. It is also possible to sort the tests according to the Project Name, User Name, Test Name or # Hosts.

To sort tests:

In the column by which you want the tests sorted, click the column heading. An arrow appears next to the column heading indicating if the tests are sorted in descending or ascending order.

When you click the heading again, the arrow reverses direction, and the tests are sorted in the opposite order of the values in that column.

Viewing Autostart Load Test Reports

The Autostart Load Test Report window displays an overview of load test performance and a table of the autostart actions.

To open the Autostart Load Test Report window:

In the Autostart Viewer page table, click an entry in the Status column. The Autostart Load Test Report window for the test opens.

Autostart Load	utostart Load Test Report									
Load Test (test I)										
Run Date and Time Duration (min) Total Vusers Involved	6/26/2003 6:37:59 PM 29 2									
Max Concurrent Vusers Controller (#Vusers) Host List (#Vusers)	0 tomato(2)									
Currently Showing :	1-3/3									
≜ <u>T</u> ime	Status									
26-Jun-2003 6:37:55 PM	Start of AutoStarted test									
26-Jun-2003 6:38:18 PM	Test Initialization.									
26-Jun-2003 7:08:05 PM	End of AutoStarted test									

You can view and access the following information in the Autostart Load Tests Report window:

- Load Test performance information. The information includes the start of the run, Vuser information, the Controller of the load test, and the names of any additional Hosts.
- Autostart Test actions. This information reports on the autostart aspect of the test run, not on the actual running of the load test. The table gives a step by step list of the progress of the test. This information includes the start time, when the test initialized, and end time of the test.

The sortable **Time** column supplies the date and time of the action, while the **Status** column supplies a self-explanatory note of the action performed or the problem the test encountered.

12

Managing User Privileges

Privilege Manager manages the users, projects and privilege levels in the Mercury Performance Center system.

This chapter describes:

- Accessing Privilege Manager
- Understanding Privilege Levels
- Viewing Your Personal Information
- Managing User Information
- Managing Project Information
- ► Configuring Privilege Levels

About Managing User Privileges

Privilege Manager is used for managing personal information, user information, project information, and privilege levels.

The Users and Projects pages store all the information about users and projects that is relevant to their use of the Mercury Performance Center system. This includes security information and privilege levels.

Privilege levels define users' access rights within Privilege Manager and within Mercury Performance Center itself.

Accessing Privilege Manager

You can access Privilege Manager from the left navigation menu on any page in the Mercury Performance Center Administration site.

To access Privilege Manager:

On the User Management menu, click Privilege Manager.

To return to the Administration Site:

Click the **Administration Site** link in the left navigation menu.

When you enter Privilege Manager, your personal information page opens.

Personal Information

Login Information	Personal Details		General Inform	ation
User Name: Admin	Full Name:	administrator	Privilege Level:	Admin
Password: *****	Company:	Sports	User Creator:	administrator
Expiration Date 05/24/2002	E-Mail :	Admin@mercory.com	User Status:	Active
10:43:49 AM	Additional Data:	×	Creation Date:	6/3/01 6:09:13 PM

Depending on your privilege level, the left navigation menu may display links to other Privilege Manager pages. For details of privilege levels, see "Understanding Privilege Levels" on page 87.

Edit

Logging Out

To log out of Privilege Manager:

Click **Log Out** at the top right of the page. You return to the Mercury Performance Center Admin Site login page.

Understanding Privilege Levels

Every user is assigned to a single privilege level. Your privilege level is displayed in your personal information page and determines which actions you can perform and which pages you can view. Privilege levels affect your access rights throughout Mercury Performance Center. When you log in to Mercury Performance Center with your user name, your privilege level is registered in the system.

The following table shows the privilege levels that come predefined in Mercury Performance Center and which parts of Privilege Manager you can access, according to your privilege level.

Privilege Level	Privilege Manager Pages	Description
Guest	Personal Information	Guests have access to personal information and can view runs of projects to which they belong. Guests do not have access to the Admin Site
Consultant	Personal Information, Users	Consultants possess most administrative powers with some restrictions. Consultants can only manage projects to which they belong and privilege levels of users that are lower in the privilege hierarchy. Consultants do not have access to the Admin Site
Administrator	Personal Information, Users, Projects, Privilege Levels	Administrators have complete and unrestricted access rights within Performance Center

Links to these pages are displayed in the left hand navigation menu. Depending on your privilege level, you may not be able to perform all actions in every page. You can use the pages for the following purposes:

 Personal Information - view and modify your personal information. For details, see "Viewing Your Personal Information" on page 88.

- ► Users view, modify, add, and delete user information. For details, see "Managing User Information" on page 89.
- Projects view, modify, add, and delete project information. For details, see "Managing Project Information" on page 96.
- Privilege Levels view, modify, add, and delete privilege levels. For details, see "Configuring Privilege Levels" on page 105.

In addition to the predefined privilege levels, new levels can be added. Each new level is defined to allow certain actions. One of the actions that can be allowed is the management of privilege levels. Each privilege level has a position in a hierarchy. Users who are allowed to manage privilege levels can only manage levels lower than their own in the hierarchy.

Viewing Your Personal Information

Your personal information page stores information about you as a user, such as your user name, password, project, privilege level, and status.

You access your personal information page from the Personal Information link in the left navigation menu. Your personal information page includes the following fields:

- ► User Name your user name for logging on.
- ► **Password** your password for logging on.
- **Expiration Date** the date you will be deleted from the system.
- ► Full Name your full name.
- ► **Project** your project's name.
- ► E-Mail your e-mail address.
- ► Additional Data any additional relevant information.
- ► **Privilege Level** your privilege level.
- ➤ User Creator the name of the user who created your profile in the system. This field is automatically filled in when a user is added and cannot be edited.

- ➤ User Status the status of a user can be active or non-active. A user with a non-active status cannot log into the system.
- Creation Date the date on which the user's information profile was entered into the system.

To view your personal information:

Click **Personal Information** in the left navigation menu.

Personal Information

Login Information	Personal Details		General Inform	ation
User Name: Admin	Full Name:	administrator	Privilege Level	: Admin
Password: *****	Company:	Sports	User Creator:	administrator
Expiration Date 05/24/2002	E-Mail :	Admin@mercory.com	User Status:	Active
10:43:49 AM	Additional Data:	A V	Creation Date:	6/3/01 6:09:13 PM

Edit

Managing User Information

Your privilege level allows you to manage user information, you access the "Users" page with the link in the left navigation menu.

User information includes a user's name, password, project, privilege level, and status. You can view and edit user information, and add new users.

Viewing User Information

The Users page displays a list of all users whose privilege levels are lower than yours. As an administrator, you can view all users in the system.

To view the Users page, click **Users** in the left navigation menu.

Users

Find use	ers (by user name):		Find	Show All			Ad	d New User
Currentl	y Showing :	1-4/4						
≜ <u>I</u> d	<u>F</u> ull Name	<u>U</u> ser Name	<u>P</u> roject	PI	ivilege	Ex	piration Date	Active
з	Sheri Carson	Sheri	Default	Consu	iltant	Never E:	xpires	 Image: A second s
2	Max Torres	max	Default	Admir	1	Never E:	×pires	 Image: A second s
4	Kim Barnes	Kim	Default	Consu	iltant	Never E:	xpires	 Image: A second s
5	Josh Smith	Josh	Default	Guest		Never E:	×pires	 Image: A set of the set of the
Login User N	Information lame: Sheri	Personal Details Full Name:	Sheri Carson		General Privileg	Informa e Level: •	tion Consultant	
Passw	ord: *****	Project:	Default		User Cr	eator: 🧳	Admin	
Expirat	ion Date: Never Expires	E-Mail :	sheri@yahoo.com		User Sta	atus: ,	Active	
		Additional Data:		4	Creatio	n Date: 🗄	10/14/2002 12:	:05:16 PM
					Ac	cess List	Edit	Delete

The page displays the first fifty users, with a vertical scrollbar to scroll down the list. Use the arrow buttons above the table to navigate between sets of fifty users.

If you want to display the complete list of users, click the **Show All** button. This will expand the list from fifty users to all users.

The User Information section at the bottom of the page displays the user information of the currently selected user. The fields are exactly the same as those in your personal information page. For details, see "Viewing Your Personal Information" on page 88.

Adding a User

You can add a new user to the list of users.

To add a user:

User Information (Add Mode)

- 1 Click **Users** in the left navigation menu. The Users page opens.
- **2** At the top of the page, click **Add New User**. The User Information section switches to Add Mode. The fields are now editable.

OSCI INICINICION (Add	inoucy	
Login Information	Personal Details	General Information
User Name:	Full Name:	Privilege Level: Select Privilege Level
Password:	Project: Select Project	User Creator:
Confirm Password:	E-Mail :	User Status: O Active O Non-Active
Expiration Date: O dd-MMM-yyyy hh:mm:ss tt • Never Expires	Additional Data:	Creation Date:

- **3** Enter information about the new user in the editable fields. For a description of the fields, see "Viewing Your Personal Information" on page 88.
- **4** If you want to set an expiration date, select the radio button next to the date.
- **5** Click the **Expiration Date** link. A calendar popup opens.
- **6** Select the desired date and time. Click **Set**. The popup closes and the date is entered in its field.

Note: If you don't want the user to expire, select the **Never Expires** radio button.

7 Click Add. Confirm the password and the user is added to the list.

Searching for a User

You use the Find button to search for a specific user or alpha string from the list of users.

To search for a specific user or alpha string:

- **1** Enter the user name or alpha string into the Find text box.
- **2** Click the **Find** button. Mercury Performance Center returns the appropriate list.

Note: Entering an alpha string will return a list of all the users that have the specified string anywhere in their spelling. If you entered "th", the display list might include "Seth", "*Th*omas" and "Anthony".

Modifying User Information

You can modify the information for any user listed in the User Management page.

To modify a user's information:

- 1 Click Users in the left navigation menu. The Users page opens.
- **2** Click anywhere along a line in the table to select the user whose information you want to modify. The line changes color to indicate that the user is selected.
- **3** Click **Edit** at the bottom of the page. The User Information section switches to edit mode. Some of the fields are editable.
- **4** Modify the information in the editable fields.
- **5** Click **Save** to save changes to the user's information.

Note: In cases where a user forgets their password, use the Edit mode to assign a new password value.

Deleting a User

You can delete a user from the system.

To delete a user:

- 1 Click Users in the left navigation menu. The Users page opens.
- **2** Click anywhere along a line in the table to select the user you want to delete. The line changes color to indicate that the user is selected.
- **3** Click **Delete** at the bottom of the page. The user is deleted from the system and no longer appears in the table.

Viewing a User's Access List

A user's access list is a list of projects, other than the user's own project, through which the user is allowed to access Mercury Performance Center. If a user's privilege level allows access through all projects, there is no access list for the user.

To view a user's access list:

- **1** From the Users page, select the user from the table. The User Information section displays the selected user's information.
- **2** Click **Access List** at the bottom of the page. The Access List for User dialog box opens.

Access List for User: Maya R								
Move projects between the two lists to define access privileges for user "Maya R".								
Available Projects Showing 1 - 3 / 3		Accessible Projects						
■ Default ■ urika proj ■ yossi	×	Empty						
		User's project is: (read only)						
		■ Maya						
Sav	e Cl	ose						

The dialog box lists all of the projects that the user is currently allowed to access.

Modifying the Access List for a User

The Administrator privilege level allows you to manage users, you can modify another user's access list. The Access List for the User dialog box displays arrows for moving projects on and off the list.

Access List for User: Maya R		
Move projects between the two lists to de	fine ac	cess privileges for user "Maya R".
Available Projects Showing 1 - 3 / 3		Accessible Projects
■ Default ■ urika proj ■ yossi	*	Empty User's project is: (read only)
Sav	e Cl	ose

The frame on the right displays the selected user's access list, while the frame on the left lists all the additional projects that may be added to the user's access list.

You can add and remove projects to or from the user's access list on the right.

To add a project to the user's access list:

- **1** Select the project in the Available Projects list.
- **2** Click the right arrow to move it to the Accessible Projects list.

To remove a project from a user's access list:

- **1** Select the project in the Accessible Projects list.
- 2 Click the left arrow to move it to the Available Projects list.

Managing Project Information

Your privilege level allows you to view, edit, add and delete project information.

Project information includes a project's name, status, Vuser limit, and machine limit.

Viewing Project Information

The Projects page displays a list of all projects in the system. Since your privilege level is administrator, you can view all projects in the system.

To view the Projects page, click **Projects** in the left navigation menu.

Projects

Find project (by name): Find Show All Currently Showing : 1 - 5 / 5									
Id	∛ Name	¥user Limit	Machine Limit	н	lost Pool	Expiration Date	Active		
4	Sales	5	5	General		Never	×		
5	Production	5	5	General		Never	× -		
з	Marketing	5	5	General		Never	× -		
1	кэн	10	10	General		Never	× -		
2	HR	5	5	General		Never	× -		
Pro	ject Information		-14.	-	u	ô			
Projec	t Name: Sales	vuser un	11C:	2	HOST POOL	General			
Projec	t Status: Active	Machine I	Limit:	5	Creation Date:	10/15/2002 10:37:31 AM			
En	Enable running Yusers on Controller Concurrent Runs: 5 Expiration Date: Never Expires								
🔲 Use	Use Target IP Definitions								

The page displays the first fifty projects, with a vertical scrollbar to scroll down the list. Use the arrow buttons to navigate between sets of fifty projects.

Define Target IP

Access List

Edit

Delete

If you want to find a particular project, enter the name in the text box and click the **Find** button.

If you want to display the complete list of projects, click the **Show All** button. This will expand the list from fifty projects to all projects.

The Project Information section at the bottom of the page displays the selected project's information, and includes the following fields:

- ► **Project Name** the name of the project.
- Project Status the status of the project in the Mercury Performance Center system. The status can be active or non-active. Note that, if a project is in a non-active state, none of the users in the project will be able to log into the Mercury Performance Center system.
- Enable running Vusers on Controller allows the project to run Vusers on the controller machine. This is not recommended. For best results, Vusers should be run from a different machine.
- Use Target IP Definitions allows user to define the IP addresses to use as targets for load testing. For details, see "Defining Target IP Addresses" on page 102.
- Vuser Limit the maximum number of Vusers a project can run at once. The total number used by all the project's concurrent load tests must add up to no more than this maximum.
- Machine Limit the maximum number of host machines a project can use at once. The total number used by all the project's concurrent load tests must add up to no more than this maximum.
- Concurrent Runs- the maximum number of concurrent runs allowed within a project.
- Host Pool specification of what class of host machines should be assigned to the project for load tests. If your privilege level is administrator, you can edit the set of possible pools from the Administration site. For details, see "Managing Pools" on page 24.
- ► Creation Date the date and time the project was added to the system.
- **Expiration Date** the date and time a project is deleted from the system.
Adding a Project

You can add a new project to the list of projects from the Projects page.

To add a project:

- **1** At the top of the Projects page, click **Add New Project**. The Project Information section switches to Add Mode, with editable fields.
- **2** Enter information about the new project in the editable fields.
- **3** Click the **Expiration Date** link. A calendar popup opens.
- **4** Select the desired date and time. Click **Set**. The popup closes and the date is entered in its field.

Note: If you don't want the project to expire, do not edit this field. An expiration field of mm/dd/yyyy hh:mm:ss means there is no expiration date.

5 To add the new project to the project list, click **Add**.

To clear all fields, click **Clear**.

To return to viewing projects without adding the new project, click Cancel.

Searching for a Project

You use the Find button to search for a specific project or alpha string from the list.

To search for a specific project or alpha string:

- **1** Enter the project name or alpha string into the Find text box.
- **2** Click the **Find** button. Mercury Performance Center returns the appropriate list.

Note: Entering an alpha string will return a list of all entries that have the specified string anywhere in their spelling. If you entered "me", the display list might include "Acme", "Merchandise" and "barometer".

Modifying Project Information

You can modify project information from the Project Management page.

To modify project information:

- **1** Select the project whose information you want to modify.
- **2** Click **Edit** at the bottom of the page. The Project Information section at the bottom of the page switches to edit mode. The fields are now editable.
- **3** Modify the information listed in the editable fields.
- 4 Click Save to save the changes or Cancel to undo the changes.

Note: If you reduce the Vuser, host machine, or concurrent run limit, the following alert window opens.



Ensure that there are no reserved timeslots that require resources exceeding the new Vuser, host machine, or concurrent run limit, otherwise the load test will fail to run. Click **OK** to save the changes, or **Cancel** to undo the changes.

Deleting a Project

You can delete a project from the system. Note that you cannot delete a project if there are load tests running in the project.

To delete a project:

- **1** Select the project you want to delete.
- **2** Click **Delete** at the bottom of the page. The project is deleted from the system and no longer appears in the table.

Viewing a Project Access List

A project's access list is the list of users who are allowed to access Mercury Performance Center through the project.

To view a project's access list:

1 Select the project. The Project Information section displays the selected project's information.

2 Click **Access List** at the bottom of the page. The Access List for Project dialog box opens.

Access List for Project: proj					
Move users between the two lists to define access privileges for project "proj".					
Available users		Allowed users			
(without access to this project)		(with access to this project)			
new user	>>	Kim Barnes Users belonging to this project and users with access privileges to all projects (read-only) Admin			
Privilege Levels: 🎂 - Administrator, 🌘 - Consultant, 👘 - Guest, 📥 - User Defined					
Save					

The frame on the right lists the users with access to Mercury Performance Center through the selected project. An icon beside each user name displays the privilege level of the user.

The frame on the left lists all the users that users that do not have access to Mercury Performance Center through the project. By default, the left-frame lists users from all projects.

Modifying the Access List for a Project

You can modify a project's access list to allow different users to access Mercury Performance Center through the project.

To add a user to the access list:

- **1** Select the user in the Available users list.
- **2** Click the right arrow to move it to the Allowed users list.

To remove a user from the access list:

- **1** Select the user in the Allowed users list.
- **2** Click the left arrow to move it to the Available users list.

Defining Target IP Addresses

If the Enable Target IP addresses box is checked for a project, target IP addresses must be defined. These are the addresses to which the project's load tests will be targeted. If no addresses are defined, the project's load tests cannot run.

By default, the check box is checked. If the box is cleared, the project may target its tests to any IP addresses.

- ➤ To limit your load test to one or more individual IP addresses, enter the IP address(es) along with the following mask address: 255.255.255.255.
- To limit your load test to a network of target IP addresses, enter the correct IP and Subnet mask combination that your network administrator has provided for your organization.

About Using IP Addresses

IP addresses are assigned so that the addresses of all hosts on a given network share a common prefix. The common prefix defines the network portion of the IP address, and the remainder defines the host portion (also referred to as the local portion). Note that the term "network" in this context refers to a logical network, which might span one or more physical networks. The network portion of an IP address identifies a site and the local portion identifies a single host at that site.

About Using Subnet Masks

A site using subnet addressing must specify a 32-bit subnet mask for each network. Each bit in the subnet mask is set to 1 if the network treats the corresponding bit in the IP address as part of the network address and 0 if it treats the corresponding bit in the IP address as part of the host id.

Consider, for example, the subnet mask 11111111 1111111 0000000 0000000 (or in decimal form, 255.255.0.0). This subnet mask specifies that the first two octets identify the network and the last two octets identify the host on that network.

To define Target IP addresses for a project:

- **1** Select the project from the list. The Project Information section displays the selected project's information.
- **2** Click **Define Target IP**. The Define Target IP Addresses for Project dialog box opens.

O Define Target IP Addresses for Project: MON_DIO					
Define target IP and mask addresses for load testing in Project mon_pro.					
Note: If the 'Use Target IP Definitions' checkbox is checked, and IP addresses aren't defined, load tests for this Project will run in Performance Center 7.8. Please define IP target addresses or uncheck the 'Use Target IP Definitions' checkbox.					
		New Line			
Ip Address	Mask				
	255 . 255 . 255 . 255	8			
Save Close					

To add a new address:

Click **New Line**, and enter information in the fields in the table.

To delete an address:

8 Click the **Delete** icon in the table row.

To edit an address:

- **1** Place the cursor in the field you want to edit.
- **2** Enter the new address.

Configuring Privilege Levels

Your privilege level allows you to manage all privilege levels. The Privilege Levels link is displayed in the left navigation menu. You can edit privilege level definitions and add new privilege levels.

To view the set of privilege levels:

Click **User Privilege Configuration** in the left navigation menu. The User Privilege Configuration page opens.

Privileges	Description				
👜 Consultant					
💼 Guest	Privilege Name:	Consultant			
-					
	Privilege Description:	Consultants po	ssess most administrative powers 🗾 🗌		
		with some rest	rictions. Consultants can only		
		privilege levels	s of users that are lower in the		
		privilege hiera	rchy.Consultants do not have 🔤		
		access to the A	Admin Site 🗾		
	Available Actions:		_		
	View Running Lo	ad Tests	Tool Downloads		
	🗹 Run Load Tests		Manage Privilege Levels		
	View Load Test R	Results	Access to All Projects		
	Create New Load	Test	Manage Allowed Projects		
		**			
		(S)			
	Manage scripts		✓ Upload/Download files		
Change Hierarchy					
Move Up Move Down					
Learn more about the privilege hier	archy	New Privil	lege Delete Save		

User Privilege Configuration

The list of privilege levels on the left represents a hierarchy. Every user who is allowed to manage privilege levels, is allowed to manage only the levels that appear lower than his own in this list. Therefore, when you move the levels up and down this list, you change the management hierarchy. The levels displayed in the list are only the levels that come below your own in the hierarchy.

The Privilege Information section displays the details of the currently selected privilege level and includes the following elements:

- > Privilege Name the name of the privilege level.
- > Privilege Description a description of the privilege level.
- Available Actions a list of check boxes for available actions that you can allow or disallow for each privilege level. The list only includes actions that you yourself are allowed to perform.

The available actions may include:

- View Running Load Tests allows users to view their own projects' load tests in view-only mode, and is always checked
- Run Load Tests allows users to run load tests, and to view test runs and perform certain operations during test runs, such as add VUsers and change test settings
- View Load Test Results allows users to view the results of their own projects' load tests
- ► Create New Load Test allows users to create and edit load tests
- Manage Timeslots allows users to view timeslot availability and reserve, modify, and delete timeslots
- ► Manage Scripts allows users to view, edit, upload and create VUser scripts
- Tool Downloads allows users to download applications from the downloads page in the main Mercury Performance Center site
- > Access to all Projects allows access to all projects in the system
- > Manage Privilege Levels allows users to manage privilege levels
- > Manage Allowed Projects allows users to manage projects
- ► Manage Allowed Users allows users to manage users
- ► Upload/Download Files allows users to upload/download files to and from Performance Center using LoadRunner VuGen and Analysis

You can add new privilege levels, edit existing ones, change the order of the levels in the hierarchy by moving them up and down in the list, and delete privilege levels.

To edit a privilege level:

- **1** Select the privilege level. The Privilege Information section displays the details of the privilege level.
- **2** Edit the information in the editable fields, and check or clear available actions, as required.

To add a new privilege level:

- **1** Click **New Privilege**. A new privilege level is added to the Privileges list.
- **2** Enter a name for the privilege level in the Privilege Name box.
- **3** Enter a description of the privilege level in the Privilege Description box.
- **4** In the Available Actions list, check all the actions that you want to allow users with the new privilege level to perform.
- 5 Click Add to add the new level, or click Cancel to undo the addition.

To move a privilege level to a different position in the list:

- **1** Select the privilege level.
- **2** Move it up or down using the **Move Up** or **Move Down** button.

To delete a privilege level:

- **1** Select the privilege level. The Privilege Information section displays the details of the privilege level.
- 2 Click **Delete**. The Delete Privilege Levels dialog box opens.



Note: The Delete Privilege Levels dialog box only appears when users are assigned to the level you are deleting. If no users are assigned to the level, steps 2 through 4 are not performed.

- **3** Select a privilege level to assign to all users currently assigned to the privilege level you are deleting.
- **4** Click **Delete** to proceed. The privilege level is deleted and the users previously assigned to it are transferred to the privilege level you selected.

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