

#### CONCURRENT LICENSE SERVER

**Nercurv** 

Functional

Testing



#### INSTALLATION GUIDE

# **Mercury** Functional Testing Concurrent License Server Installation Guide Version 7.6



Mercury Functional Testing Concurrent License Server Installation Guide, Version 7.6

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Mercury Interactive Corporation 1325 Borregas Avenue Sunnyvale, CA 94089 USA Tel: (408) 822-5200 Toll Free: (800) TEST-911, (866) TOPAZ-4U Fax: (408) 822-5300

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If you have any comments or suggestions regarding this document, please send them via e-mail to documentation@merc-int.com.

# **Table of Contents**

Setting Up the Concurrent License Server	1
Understanding the Concurrent License Setup Procedure	2
Installing a Concurrent License Server	4
Requesting a Concurrent License Code	9
Activating a Concurrent License Code	11
Concurrent License Server Tips and Tricks	15
General Tips	15
Turning Off and Restarting the Concurrent License Server	15
Locking Codes	17
Known Problems and Workarounds	17
<b>License Server Error Codes</b> Error 5: Cannot talk to the license manager. "LocalHost" server	19
not running	19
Error 19: Cannot install a license code	19
Concurrent License Server Utilities	21
Overview	21
Displaying Current Concurrent License Server Users	26
Displaying License Servers	26
Monitoring License Servers	27
Setting the LSHOST or LSFORCEHOST Variable	28
Uninstalling a Concurrent License Server	33

Mercury Functional Testing Concurrent License Server Installation Guide

# **Setting Up the Concurrent License Server**

You can work with QuickTest and WinRunner with two types of licenses: seat and concurrent. The Mercury Functional Testing Concurrent License Server supports concurrent licensing on QuickTest version 6.0 and later, QuickTest add-ins version 6.5 and later, WinRunner version 7.01 and later, and WinRunner add-ins version 7.6 and later.

This guide describes everything you need to know about installing the Mercury Functional Testing Concurrent License Server and a concurrent license code. For information on installing a seat license, refer to the *QuickTest Professional Installation Guide* or the *WinRunner Installation Guide*. If you are not sure which type of license to install, refer to the relevant product's installation guide or contact your system administrator or local Mercury Interactive representative.

Note that you must also install the QuickTestor WinRunner client, using the concurrent license option, on each computer on which you want to run QuickTest or WinRunner. When you install a concurrent license, you can install QuickTest or WinRunner on as many computers as you want. However, the Mercury Functional Testing Concurrent License Server regulates the number of copies of QuickTest and/or WinRunner that are allowed to run concurrently based on your concurrent license code. You can increase the number of copies of QuickTest or WinRunner you can run at the same time by purchasing additional QuickTest or WinRunner licenses from Mercury Interactive. For information on installing the QuickTest and WinRunner clients, refer to the *QuickTest Professional Installation Guide* or the *WinRunner Installation Guide*.

This chapter describes:

- ► Understanding the Concurrent License Setup Procedure
- ► Installing a Concurrent License Server
- ► Requesting a Concurrent License Code
- ► Activating a Concurrent License Code

## **Understanding the Concurrent License Setup Procedure**

This section summarizes the steps for setting up QuickTest or WinRunner with a concurrent license.

**Notes:** The Mercury Functional Testing Concurrent License Server supports concurrent licensing on QuickTest version 6.0 or later, and on WinRunner version 7.01 or later. If you are also running WinRunner 7.0 or earlier, you will need to install the WinRunner Floating License Server on a different machine, so that you have two license servers (the original license server for WinRunner 7.0 and earlier, and one for WinRunner 7.01 and later).

If you want to use the commuter licensing feature, you need to request a new Mercury Functional Testing Concurrent License Server license code. Contact Mercury Interactive Customer Support for assistance. For information on commuter licensing, refer to the *QuickTest Professional Installation Guide* or the *WinRunner Installation Guide*.

#### To set up QuickTest or WinRunner with a concurrent license:

- **1** Install the Mercury Functional Testing Concurrent License Server on a network computer. For more information, see "Installing a Concurrent License Server", on page 4.
- **2** Request your concurrent license code. For more information, see "Requesting a Concurrent License Code", on page 9.
- **3** Once you receive the concurrent license code from Mercury Interactive, enter the code to activate your license on the license server. For more information, see "Activating a Concurrent License Code", on page 11.
- **4** Run the QuickTest or WinRunner setup program on each computer from which you want to run QuickTest or WinRunner. Select **Concurrent License** in the License Type screen. For more information, refer to the *QuickTest Professional Installation Guide* or the *WinRunner Installation Guide*.

**Note:** Computers running QuickTest or WinRunner using a concurrent license must always be able to access the concurrent license server. You can use the commuter licensing feature for computers that temporarily cannot access the concurrent license server (for example, users taking their laptop computers on business trips). For more information on commuter licensing, refer to the *QuickTest Professional Installation Guide* or the *WinRunner Installation Guide*.

**5** Begin using QuickTest or WinRunner. When QuickTest or WinRunner opens, it automatically finds the license server and connects to it.

**Note:** If your QuickTest or WinRunner client computer cannot find the license server and connect to it, you may need to set the LSHOST or LSFORCEHOST variable. For more information, see "Setting the LSHOST or LSFORCEHOST Variable" on page 28.

# **Installing a Concurrent License Server**

It is recommended to install the license server on a computer that is running Windows NT 4.0 Server or Windows 2000. You must install the license server on a computer that has TCP/IP installed.

Note: To ascertain that TCP/IP is installed and functioning properly, you can check that another computer on the network can identify the computer where you plan to install the license server. On another computer, click **Start > Run**. In the **Open** box, type ping <name of the computer where the license server will be installed>. Click **OK**. If the first computer can identify the second computer on the network, an MS-DOS window opens and four successful reply messages are displayed. If the first computer cannot identify the second computer on the network, an MS-DOS window opens, but there are no successful reply messages.

After you have installed the concurrent license server, it must be running whenever you use QuickTest or WinRunner.

#### To install the concurrent license server:

1 Insert the Mercury Functional Testing Concurrent License Server CD-ROM into the drive from which you want to install. If the CD drive is located on your local computer, the Mercury Functional Testing - License Server Installation window opens. If you are installing from a network drive, connect to it and run **autorun.exe**.



2 Click Install the Mercury Functional Testing Concurrent License Server.

The SentinelLM Server setup program starts and the SentinelLM Welcome screen opens.



**3** Click Next. The SentinelLM License Agreement screen opens.

InstallShield Wizard	×
License Agreement Please read the following license agreement carefully.	M
Press the PAGE DOWN key to see the rest of the agreement.	
SOFTWARE LICENSE AND DEVELOPER'S AGREEMENT All Products (including developer's kits, Sentinel hardware keys, diskettes or other magnetic media, software, documentation and all future orders) are subject to the terms stated below. If you disagree with these terms, please return the Product and the documentation to Rainbow, postage prepaid, within three days of your receipt, and Rainbow will provide you with a refund, less freight and normal handling charges. Do you accept all the terms of the preceding License Agreement? If	f you choose No, the
setup will close. To install SentinelLM 7.2.0 Server, you must accep InstallShield Kack	t this agreement. Yes No

**4** Click **Yes** to accept the terms of the license agreement and install the Mercury Functional Testing Concurrent License Server. If you click **No**, the setup program will close.

5 Specify the destination folder for the Mercury Functional Testing Concurrent License Server. To choose a different destination, click Browse.

InstallShield Wizard	X
Choose Destination Location	
Select folder where Setup will install files.	
Setup will install SentinelLM 7.2.0 Server in the following fold	er.
To install to this folder, click Next. To install to a different fold another folder.	ler, click Browse and select
Destination Folder	
C:\\SentinelLM 7.2.0 Server	Browse
InstallShield	
< Back	Next > Cancel

Click Next to proceed.

The installation process begins. To pause or quit the installation process, click **Cancel**.

**6** Click **Finish** to complete the installation process.

Once you have installed the concurrent license server, you must request and activate the concurrent license code before you can use QuickTest or WinRunner. Note that there is no concurrent demo license available.

# **Requesting a Concurrent License Code**

Once the concurrent license server is installed, you must run the Concurrent License Server license installation program to request your license code from Mercury Interactive. You must run the Concurrent License Server license installation program on the computer on which you installed the concurrent license server.

#### To request a concurrent license code:

**1** Insert the Mercury Functional Testing Concurrent License Server CD-ROM into the drive from which you want to install. If the CD-ROM drive is located on your local computer, the Mercury Functional Testing - License Server Installation window opens.

If you are installing from a network drive, connect to it and run *autorun.exe*.



#### 2 Click Install Concurrent License.

The Concurrent License Server license installation program starts and the Welcome screen opens, displaying the locking code for your computer and the license type.



- **3** Use the Web site link in the Welcome screen to send the locking code, license type, and maintenance number to Mercury Interactive Customer Support. Note that you can copy and paste the information from the Welcome screen into the license request form on the Mercury Interactive Customer Support Web site or into an e-mail message.
- **4** If you already have your license code, click **Next** to begin the license activation process, and proceed to step 3 of "Activating a Concurrent License Code" on page 11. Otherwise, click **Cancel** and wait for your license code to arrive. When it arrives, follow the instructions as described in "Activating a Concurrent License Code" on page 11.

## **Activating a Concurrent License Code**

Once you receive your license code from Mercury Interactive, you must run the Concurrent License Server license installation program again to activate the code. The concurrent license code must be activated on the computer on which you installed the concurrent license server.

#### To activate your concurrent license code:

**1** Insert the Mercury Functional Testing Concurrent License Server CD-ROM into the drive from which you want to install. If the CD-ROM drive is located on your local computer, the Mercury Functional Testing - License Server Installation window opens.

If you are installing from a network drive, connect to it and run **autorun.exe**.



#### 2 Click Install Concurrent License Code.

The Concurrent License Server license installation program starts and the Welcome screen opens, displaying the locking code for your computer and the license type.



Click **Next** to continue.

**3** Read the message about exiting all Windows programs before continuing with the installation. Exit all Windows programs and click **Next**.

Concurrent License Server License Installation - User Information		
Mi O	Type in below your name and yo type in your maintenance numbe with your product).	our company name. You must also er (this number was shipped to you
	<u>First Name:</u> John	Last Name: Smith
	Company: Mercury Interactive	
	<u>Maintenance Number:</u>	
	< <u>B</u> ack	Next > Cancel

The User Information screen opens.

**4** Enter your first name, last name, and company name in the appropriate boxes. In the **Maintenance Number** box, enter the maintenance number that you received from Mercury Interactive. This number can be found in the Maintenance Pack Number envelope or on the bill of lading. The maintenance number, which identifies the customer, determines the license type.

Click Next.

5 The Details screen opens. Verify that the information in the Details screen is correct and insert the license code provided by Mercury Interactive Customer Support into the License Code box.



Note that the license code is valid only for the computer with the locking code that you entered in the license request form. Click **Next**.

- **6** If you entered a valid license code, the Status screen confirms that your license code was successfully installed. Click **Next**.
- 7 The Finished screen opens and displays customer support information. Click Finish to complete the license activation process.

**Note:** For additional information and answers to common license code questions, see <u>http://supp//kb-web.mercuryinteractive.com/license.html</u>.

# **Concurrent License Server Tips and Tricks**

This chapter provides hints, tips, and troubleshooting information for your concurrent license server. It also describes how to stop and restart the concurrent license server.

This chapter describes:

- ➤ General Tips
- ► Turning Off and Restarting the Concurrent License Server
- ► Locking Codes
- Known Problems and Workarounds

## **General Tips**

When the client computers running QuickTest and/or WinRunner are on multiple domains, you should install a license server on each domain.

It is recommended to install the license server on a computer running Windows NT 4.0 Server or Windows 2000. The computer should also have a fixed IP address and must have TCP/IP installed.

## **Turning Off and Restarting the Concurrent License Server**

If you want to reset the license server, we recommend restarting the computer. You can also turn off the license server and then turn it on again without restarting the computer by following the instructions below.

**Note:** The concurrent license server starts automatically at startup on the host computer.

**Tip:** You can also shut down the license server using the LSRVDOWN utility. For more information, see page 23.

# To turn off and restart the license server if the host computer is running Windows 2000:

- 1 Click Start > Settings > Control Panel.
- **2** Double-click **Administrative Tools** and then double-click **Services**.

Note that **SentinelLM** appears in the **Services (Local)** list in the **Services** dialog box.

- **3** Highlight **SentinelLM** and click **Stop Service**.
  - **4** To restart the license server, highlight **SentinelLM** and click **Start Service**.
- **Tip:** You can highlight **SentinelLM** and click **Restart Service** to stop and then restart the license server.

To turn off and restart the license server if the host computer is running Windows NT 4.0:

- 1 Click Start > Settings > Control Panel.
- **2** Double-click **Services**.

Note that **SentinelLM** appears in the **Service** list in the **Services** dialog box.

- 3 Highlight SentinelLM and click Stop.
- **4** To restart the license server, highlight **SentinelLM** and click **Start**.

#### To turn off the license server if the host computer is running Windows 98:

Note that SentinelLM appears in the taskbar. Right-click on the icon and click **Close** on the pop-up menu.

To restart the license server, reboot your computer.

.

**Note:** It is recommended to run the license server on a computer with Windows NT 4.0 Server or Windows 2000.

# **Locking Codes**

A locking code is a number generated by a license server or a seat license host. Every computer has its own locking code. The locking code, together with the maintenance number, are used to generate the license code for the server computer. A license code generated based on the locking code from one computer cannot be used on another computer.

## **Known Problems and Workarounds**

Problem	Workaround
The concurrent license server is installed on a different domain/subnet than the QuickTest or WinRunner clients.	Open UDP port 5093 between domains. Set the LSHOST and LSFORCEHOST parameters on the QuickTest or WinRunner client computers. For additional information, see "Concurrent License Server Utilities" on page 21.
	To check the connection, use <b>ping -a</b> from the Windows command line.
	If this is successful, it should display: <b>Reply from</b> <server address="" i.p.=""> : <byte size=""> &lt; time &gt;.</byte></server>
You want to install concurrent license servers on Novell or Unix computers.	The concurrent license server software does not support Novell or Unix. Generate a seat license code for each QuickTest or WinRunner client computer. Alternatively, use a Windows platform network computer as your concurrent license server.

The following is a list of known problems and workarounds:

Problem	Workaround
Although you have a legal license code installed on your concurrent license server, you cannot start QuickTest or WinRunner.	If you install QuickTest or WinRunner using the <b>setup.exe</b> file instead of from the autorun screen, it automatically installs QuickTest or WinRunner with the seat license option. In the message box displayed when you try to open QuickTest or WinRunner, click <b>Install License</b> . This opens the License Installation utility, which enables you to change your license type to the concurrent license option.
You have changed the date on the computer where the concurrent license server is installed, for example, due to date operations testing. This locked the concurrent license server license code.	Restore the computer's clock to the original date and contact Mercury Interactive Customer Support for further assistance.

# **License Server Error Codes**

This chapter provides information regarding concurrent license server error messages that may be displayed.

This chapter describes:

- ► Error 5: Cannot talk to the license manager. "LocalHost" server not running
- ► Error 19: Cannot install a license code

# Error 5: Cannot talk to the license manager. "LocalHost" server not running

The concurrent license server has stopped. For Windows NT and Windows 2000, choose **Start > Settings > Control Panel > Services**. Locate the SentinelLM service and click **Start**. If the license server does not start, contact Mercury Interactive Customer Support for assistance.

## Error 19: Cannot install a license code

Error 19 can occur in two situations:

► Failed to add license string "Unknown" to the license server on "NO-NET."

A seat license cannot be installed on the concurrent license server running on the specified computer.

Failed to add license string UNKNOWN to the license server on "Local-host."

A concurrent license cannot be installed on the concurrent license server running on the specified computer.

#### **Reasons that Error 19 Occurs**

The following is general information about why error 19 occurs:

Possible Causes	Possible Solutions
The license code is nodelocked and does not match the locking code of the PC where the license server is being installed.	Contact Mercury Interactive Customer Support to reissue the license with the correct license code.
When you try to install a seat license, the license code is for a concurrent license.	Copy Isdecode.exe from Mercury Functional Testing Concurrent License Server CD-ROM\utils to Program Files\Common Files\Mercury Interactive\License Manager and run the Isdecode.exe file. This displays the license code information, which enables you to verify that you are installing the correct license type.
The license code was entered incorrectly.	Copy Isdecode.exe from Mercury Functional Testing Concurrent License Server CD-ROM\utils to Program Files\Common Files\Mercury Interactive\License Manager and run the Isdecode.exe file. This displays the license code information, which enables you to verify that you are installing the correct license type.
The license code has already been installed.	Check whether the <b>lservrc</b> file exists in <b>Program</b> <b>Files\Common Files\Mercury Interactive\License</b> <b>Manager</b> or <b>Program Files\Rainbow</b> <b>Technologies\sentLM\Server\Iservrc</b> or the Rainbow Technologies installation path. <b>Note:</b> If it exists and you want to reinstall the license code, delete the <b>lservrc</b> file before reinstalling.

# **Concurrent License Server Utilities**

This chapter describes the utilities included with the Mercury Functional Testing Concurrent License Server that assist you in managing your QuickTest Professional and WinRunner concurrent licenses. The license management utilities are in the Mercury Functional Testing Concurrent License Server Installation CD-ROM\utils folder.

This chapter describes:

- ► Overview
- ► Displaying Current Concurrent License Server Users
- ► Displaying License Servers
- ► Monitoring License Servers
- ➤ Setting the LSHOST or LSFORCEHOST Variable

#### **Overview**

You can use the WLMADMIN utility to monitor a concurrent license server. You can use the other Mercury Functional Testing server management utilities to verify and manage specific elements of your concurrent license server. You can start Mercury Functional Testing server management utilities from a Windows user interface by running **SrvUtils.exe** in the **Mercury Functional Testing Concurrent License Server Installation CD-ROM**\**utils** folder.

🛁 Server Utilities Tool	×
😪 💐 🔕 🖇 ±	
ECHOID Utility	
Generates a locking code information from the custor for generating the license l	for the computer. Obtains the mer machine (locking code) to be used key for a specific computer.
Command Line	
Executable Name:	echoid.exe
Command Line Options:	

The following table provides a brief description of the Mercury Functional Testing license management utilities and brief examples to facilitate usage:

Utility	Description/Example of Usage
echoid.exe ECHOID Utility	Generates a computer's locking code. Obtains the information from your computer (locking code) that is used to generate the license key for a specific computer.
ipxecho.exe IPXECHO Utility	Displays the IPX network address on the computer on which it is run. Used to determine the IPX address of a license server.
lsdecode.exe LSDECODE Utility	Displays the license code information, which enables you to check that you are installing the correct license type. It decodes a Mercury Functional Testing concurrent license code (lservrc) and retrieves license information, for example, the license type, the maximum number of concurrent users, and so forth. Make sure that the server utilities application ( <b>SrvUtils.exe</b> ) and the LSDECODE utility ( <b>lsdecode.exe</b> ) are in the same directory as the <b>lservrc</b> file.

Utility	Description/Example of Usage
lslic.exe LSLIC Utility	<ul> <li>Adds or removes a license code. You can use the following command line options: <ul> <li>-a (add) -f (file name): adds a license code from a license file</li> <li>-removeall removes all licenses from a Mercury Functional Testing Concurrent License Server</li> </ul> </li> <li>Either use the LSHOST environment variable to specify the license server or ensure that the server utilities application (SrvUtils.exe) and the LSLIC utility (Islic.exe) are in the same directory as the Iservrc file.</li> </ul>
lsmon.exe LSMON Utility	Monitors a Mercury Functional Testing Concurrent License Server computer. You can run the LSMON utility on a client computer (running QuickTest or WinRunner, and connected to a concurrent license server) or the host computer (the license server). To monitor a remote Mercury Functional Testing Concurrent License Server, specify <host name=""> or <ip address="">. For example, c:\\smon.exe saturn monitors the saturn host. For additional information on this utility, see "Displaying Current Concurrent License Server Users" on page 26.</ip></host>
lsrvdown.exe LSRVDOWN Utility	Shuts down the license server. Specify the license server host name as the command line option for this utility. You can also shut down the license server by stopping the service. For more information, see "Turning Off and Restarting the Concurrent License Server" on page 15.
lsusage.exe LSUSAGE Utility	<ul> <li>Displays usage information generated by the license server.</li> <li>The license server logs all license codes issued or denied, but it does not record license code updates.</li> <li>For example, lsusage.exe -I Usage-log-file <ul> <li>[-c CSV-Format-New-log-file]</li> <li>[-f Feature-Name1, Version: Feature-Name2, Version]</li> <li>[-y Start-Year(YYYY) [-m Start-Month(MM) [-a Start-Day(DD)]]]</li> <li>[-Y End-Year(YYYY) [-M End-Month(MM)] [-A End-Day(DD)]]]</li> </ul> </li> </ul>

Utility	Description/Example of Usage
lswhere.exe LSWHERE Utility	Searches for Mercury Functional Testing Concurrent License Servers on the network and displays the names of all the computers running license servers. You can run this utility on a client computer (running QuickTest or WinRunner, and connected to a concurrent license server) or the host computer (the license server). The parameter - <ip address=""> searches for a specific network host. For additional information on this utility, see "Displaying License Servers" on page 26.</ip>
slmdemo.exe SLMDEMO Utility	Simulates license usage. This utility can "add" or "remove" licenses to or from a specific server and produce a log file. You can use this utility to check that the license key is installed correctly on the license server host and that you have the correct number of concurrent licenses.
WLMAdmin.exe WLMADMIN Utility	Monitors Mercury Functional Testing Concurrent License Server transactions and provides information on license servers, users, and computers running QuickTest or WinRunner using a concurrent license server. You can use this utility to check that a Mercury Functional Testing Concurrent License Server is running, and to monitor its usage. For additional information on this utility, see "Monitoring License Servers" on page 27.
WCommute.exe	Enables a concurrent license user to check out and check in a commuter license for QuickTest or WinRunner (either on the local computer or on a remote computer). A commuter license enables concurrent license users to temporarily use QuickTest or WinRunner on a computer that is temporarily not connected to the network. For additional information on this utility, refer to the <i>QuickTest Professional Installation Guide</i> or the <i>WinRunner Installation Guide</i> . Note that this utility can be activated only from the command line, and not from within the Server Utilities Tool window.

Utility	Description/Example of Usage
WRCommute.exe	Enables a concurrent license user to generate a locking code for a remote computer, which can be used to obtain and install a commuter license for QuickTest or WinRunner. For additional information on this utility, refer to the <i>QuickTest Professional Installation Guide</i> or the <i>WinRunner</i> <i>Installation Guide</i> . Note that this utility can be activated only from the command line, and not from within the Server Utilities Tool window.

The following table provides a description of variables used on QuickTest or WinRunner client computers to designate or control which concurrent license server(s) can be used:

Utility	Description/Example of Usage
LSFORCEHOST variable	Restricts a QuickTest or WinRunner client to a specific concurrent license server. (You can specify the license server by either host name or IP address.) For information on setting this variable, see "Setting the LSHOST or LSFORCEHOST Variable" on page 28.
LSHOST variable	Specifies the preferred concurrent license server for a QuickTest or WinRunner client. If the specified concurrent license server cannot be found, then a search is conducted on the entire network. Use this variable in order to contact a server in a remote subnet. For information on setting this variable, see "Setting the LSHOST or LSFORCEHOST Variable" on page 28.

## **Displaying Current Concurrent License Server Users**

You can run the LSMON utility on a client computer (running QuickTest or WinRunner, and connected to the concurrent license server) or the host computer (the concurrent license server).

The LSMON utility is a DOS-based program that displays:

- the maximum number of concurrent QuickTest or WinRunner users allowed.
- the number of computers currently connected to the concurrent license server.
- the IDs of the computers currently connected to the concurrent license server.
- ► the number of licenses currently not in use.

**Note:** To run the LSMON utility from a client computer and display information for all the computers in the network, type LSMON license server host name>.

## **Displaying License Servers**

You can run the LSWHERE utility on a client computer (running QuickTest or WinRunner, and connected to the concurrent license server) or the host computer (the concurrent license server). It is a Windows-based program that displays the network names of all computers running the Mercury Functional Testing Concurrent License Server.

## **Monitoring License Servers**

You can run the WLMADMIN utility on a client computer (running QuickTest or WinRunner, and connected to the concurrent license server) or the host computer (the concurrent license server). It enables you to monitor license server transactions for each Mercury Interactive product connected to the server and provides information on license servers, users, and computers running Mercury products using concurrent licenses. You can use this utility to monitor license server activity.

<b>₩</b> WImAdmin	
File Edit View Help	
Cuic view neip      Coic view neip      Subnet Servers      Subnet Servers      CuickTestPro 6.0      M neil      m neil      m mary      WR cose 7	Server information         Server name:       cargo.mercury.com         IP address:       999.999.99.999         Feature information         Feature name:       QuickTestPro         Version:       6.0
m dan m tim m tom	Jordiauss       In use:       Total:       Queued:         Total users:       1       3       0         Reserved:       0       0       0         Commuter:       0       0       0         Redundant:       No       Number of servers:       1         Detailed information       Iccense type:       Normal license       Start date:       Sat Jun 01 09:00:00 2002         Allow commuter license:       No       End date:       License has no expiration         Criteria       Value       Iccense type:       No         Holding criteria       Vendor specified       Key lifetime       900 secs
Ready	

Note that in the above example, QuickTest and WinRunner share the same concurrent license server.

# Setting the LSHOST or LSFORCEHOST Variable

You set the LSHOST or LSFORCEHOST variable to enable QuickTest or WinRunner to search for a specific Mercury Functional Testing Concurrent License Server on the network. The LSHOST variable sets the preferred concurrent license server for a QuickTest or WinRunner client. If the specified concurrent license server cannot be found, then a search is conducted on the entire network. The LSFORCEHOST variable restricts QuickTest or WinRunner to a specific concurrent license server. The LSHOST and LSFORCEHOST variables are described on page 25.

You may need to set the LSHOST or LSFORCEHOST variable if the Mercury Functional Testing Concurrent License Server is installed on a different domain than the QuickTest or WinRunner clients, as described in "Known Problems and Workarounds" on page 17.

You set these variables differently for different operating systems.

# To set the LSHOST or LSFORCEHOST variables if the client computer is running Windows NT:

- 1 Click Start > Settings > Control Panel.
- **2** Double-click **System**. The System Properties dialog box opens.
- **3** Click the **Environment** tab.
- **4** Under **System Variables**, select any variable name.
- **5** In the **Variable** box, highlight the selected variable name, and type LSHOST or LSFORCEHOST.
- **6** In the **Value** box, highlight the value name, and type the full name of the license server. Alternatively, you may enter the IP address of the host computer.

**Note:** For multiple host names (i.e., where there are multiple Mercury Functional Testing Concurrent License Servers running on one network), use a semicolon (;) to separate the hosts' names or IP addresses in the Value box.

#### 7 Click Set.

System Properties	? ×				
Startup/Shutdown General	Hardware Profiles User Profiles Performance Environment				
<u>S</u> ystem Variables:					
Variable	Value				
IBM_JAVA_OPTIO LSERVRC	-Dawt.toolkit=mercury.awt.awtSW -Xrunmics E:\Program Files\Common Files\Mercury Inte				
MIC_CLASSES MSJAVA_ENABLE	saturn;venus;mars;pluto E:\PROGRA~1\COMMON~1\MERCUR~1\ 1				
User Variables for jackieros:					
Variable	Value				
LSERVRC TEMP TMP	E:\Program Files\Common Files\Mercury Inte E:\TEMP E:\TEMP				
⊻ariable: LSHOST					
Value: saturn;ven	us;mars;pluto				
	S <u>e</u> t <u>D</u> elete				
	OK Cancel Apply				

- **8** In the **User Variables for <user name>** list, select any variable name.
- **9** Repeat steps 5 7.
- **10** Click **OK**.

To set the LSHOST or LSFORCEHOST variables if the client computer is running Windows 2000 or Windows XP:

- 1 Click Start > Settings > Control Panel.
- **2** Double-click **System**. The System Properties dialog box opens.
- **3** Click the **Advanced** tab.
- **4** Click the **Environment Variables** button. The Environment Variables dialog box opens.
- 5 In the User Variables for <user name> list, click New. The New User Variable dialog box opens.
- 6 In the Variable Name box, type LSHOST or LSFORCEHOST.
- **7** In the **Variable Value** box, type the full name of the license server. Alternatively, you may enter the IP address of the host computer.

**Note:** For multiple host names (i.e., where there are Mercury Functional Testing Concurrent License Servers running on one network), use a semicolon (;) to separate the hosts' names or IP addresses in the Value box.

Click **OK** to close the New User Variable dialog box.

E	Environment Variables			
[	-User variables for nic	ole		
	Variable	Value		
	LSHOST PERLLIB SDEHOME TEMP TMP	saturn ;venus;mars;pluto c:\Sde\client\lib;c:\Sde\perllib;c:\Sde\bu c:\Sde C:\Documents and Settings\nicole\Local C:\Documents and Settings\nicole\Local New Edit Delete		
	System variables			
	Variable	Value		
	classpath ComSpec LSERVRC NUMBER_OF_PR OS	C:\Program Files\Common Files\Mercury C:\WINNT\system32\cmd.exe C:\PROGRA~1\COMMON~1\MERCUR~ 1 Windows_NT	-	
		New Edit Delete		
		OK Cano	el	

- **9** Under **System variables**, click **New**. The New System Variable dialog box opens.
- Repeat steps 6 and 7.
- Click **OK** to close the New System Variable dialog box.
- Click **OK** to close the Environment Variables dialog box.
- Click **OK** to close the System Properties dialog box.

To set the LSHOST or LSFORCEHOST variables if the client computer is running Windows 98/Me:

- 1 Click Start > Run.
- **2** In the **Open** box, type sysedit. The System Configuration Editor opens, displaying system files.
- **3** Make the following addition to the **AUTOEXEC.BAT** file:

Set LSHOST=<full name or IP address of server>



**Note:** For multiple host names (i.e., where there are multiple QuickTest Professional license servers on one network), use a semicolon (;) to separate the hosts' names or IP addresses in the Value box.

**4** Save and close the **AUTOEXEC.BAT** file.

# **Uninstalling a Concurrent License Server**

You can uninstall the concurrent license server.

#### Notes:

If you uninstall a concurrent license server, computers that previously used concurrent licenses from this server will not be able to run their QuickTest or WinRunner clients. To run a QuickTest or WinRunner client, you must install a seat license on each QuickTest and WinRunner computer, or set up the computers to access a different concurrent license server. For more information about changing a concurrent license to a seat license, refer to the *QuickTest Professional Installation Guide* or the *WinRunner Installation Guide*.

If you want to uninstall the license server in order to reinstall it on a different computer, contact Mercury Interactive Customer Support to receive a new license code that matches the locking code for the computer on which you want to install the license server.

#### To uninstall the license server:

1 Click Start > Settings > Control Panel > Add/Remove Programs.

The Add/Remove Programs dialog box opens.

2 Remove the SentinelLM 7.2.0 Server.

Mercury Functional Testing Concurrent License Server Installation Guide



Mercury Interactive Corporation 1325 Borregas Avenue Sunnyvale, CA 94089 USA

Main Telephone: (408) 822-5200 Sales & Information: (800) TEST-911, (866) TOPAZ-4U Customer Support: (877) TEST-HLP Fax: (408) 822-5300

Home Page: www.mercuryinteractive.com Customer Support: support.mercuryinteractive.com

