

WinRunner®
Floating-License Installation Guide
Version 7.01



MERCURY INTERACTIVE

WinRunner Floating-License Installation Guide, Version 7.01

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Part I

Installing the WinRunner License

Installing a Floating License

You can work WinRunner with two types of licenses: local, and floating.

This chapter describes how to install and uninstall a floating license. For information on how to install a local license, refer to the *WinRunner Installation Guide*.

If you are not sure which type of license to install, contact your system administrator or your local Mercury Interactive representative.

Installing a floating license consists of two main steps:

- ▶ Installing a Floating-License Server
- ▶ Installing a Floating License

When you install a floating license, you can install WinRunner on as many machines as you want. However, WinRunner's floating-license server regulates the number of copies of WinRunner that are allowed to run concurrently. This server lets you run at the same time the number of copies of WinRunner you have purchased. You can increase the number of copies of WinRunner you can run at the same time by purchasing additional copies of WinRunner from Mercury Interactive and receiving a new license key.

Installing a Floating-License Server

We recommend that you install the license server on a machine that is running the Windows NT 4.0 Server or Windows 2000.

You should install the license server on a machine that also meets the following criteria:

- ▶ has a fixed IP address, i.e., it is not a laptop
- ▶ has TCP/IP installed

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

Note that once you have installed the license server, it must be running whenever you use WinRunner.

To install the floating-license server:

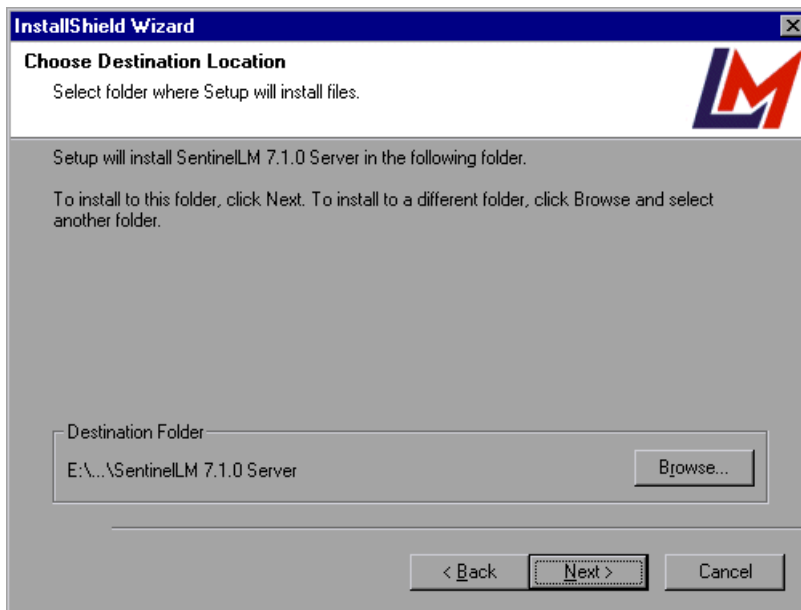
- 1** Insert the WinRunner Floating License Server CD-ROM into the drive from which you want to install. If the CD drive is on your local machine, the

WinRunner License Installation window opens. If you are installing from a network drive, connect to it and run *autorun.exe*



- 2 Click **Install License Server**.
- 3 In the Choose Setup Language dialog box, choose a language for the installation.
- 4 The SentinelLM Server setup program starts, and the License Agreement is displayed. To install the WinRunner floating-license server, you must accept the terms of the license agreement by clicking **Yes**. If you click **No**, the setup program will close.

- 5 Specify the destination folder for the WinRunner floating-license. To choose a different destination, click **Browse**.



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 floating-license server, you must install the floating license before you can use WinRunner. Note that no demo license is available for a floating license.

Installing a Floating License

Once the floating-license server is installed, you must run the floating license installation in order to install your floating license. Installing the floating license consists of two main stages:

- ▶ using the maintenance number to create information which is sent to Mercury Interactive's Customer Support Organization
- ▶ entering the license code provided by Mercury Interactive's Customer Support Organization

Note: If you are installing a floating license on Windows 95, you should restart your floating-license server before installing the floating license.

To install the floating license:

- 1 Insert the WinRunner Floating License Server CD-ROM into the drive from which you want to install. If the CD drive is on your local machine, the

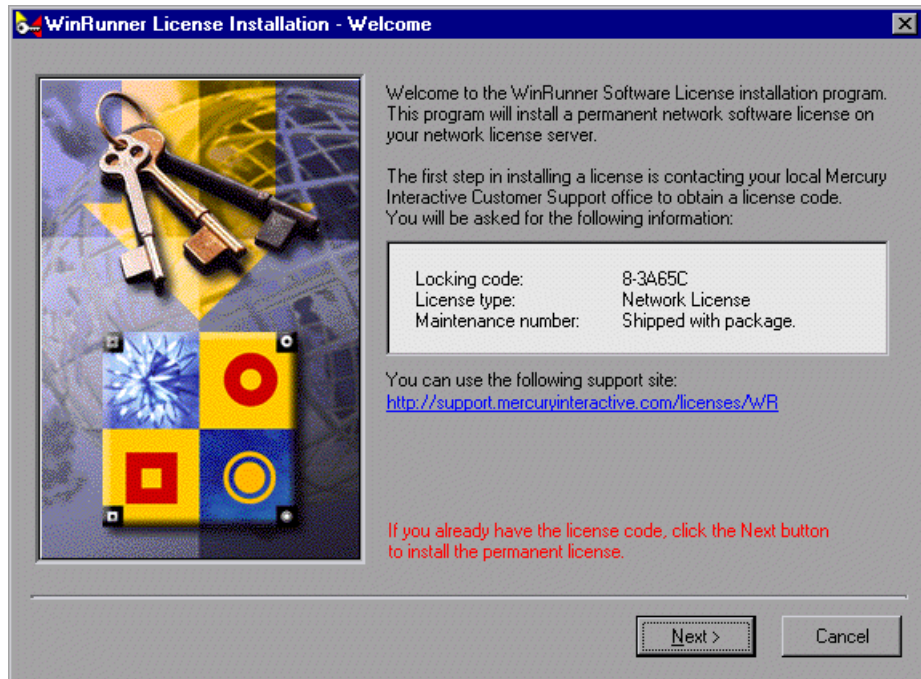
WinRunner License Installation window opens. If you are installing from a network drive, connect to it and run *autorun.exe*



2 Click **Install Floating License**.

The WinRunner License Installation program starts, and the Welcome screen opens, displaying the locking code for the machine and the license type. Note that when you contact Mercury Interactive customer support, you will also require the WinRunner maintenance number, which can be found in the Maintenance Pack Number envelope or on the bill of lading you received when you purchased WinRunner. Note that there is a single maintenance number for each team of users. (The maintenance number

identifies the customer and replaces what was formerly a serial number for each purchased copy of WinRunner.)



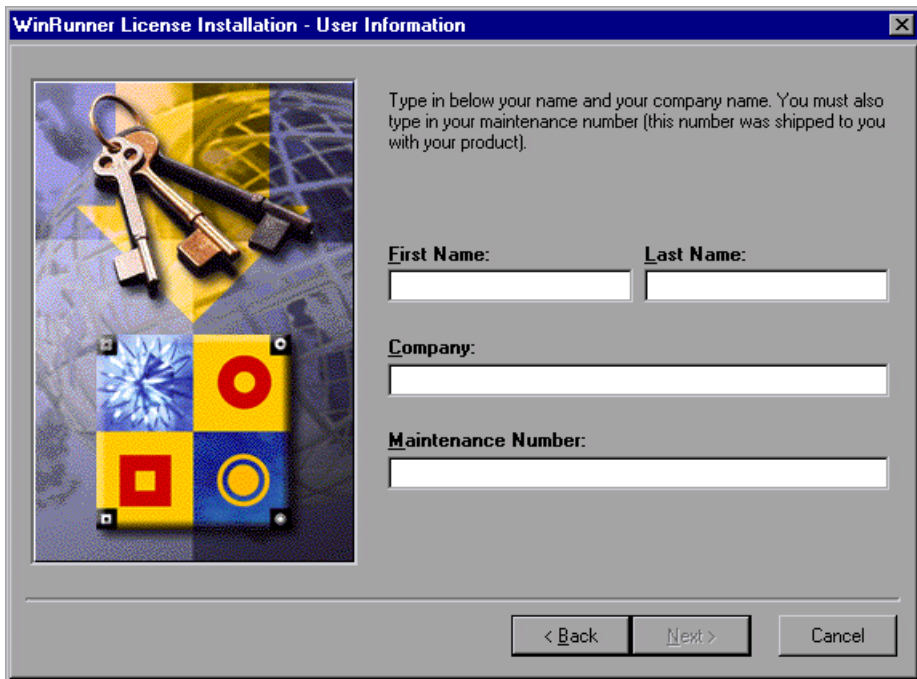
Tip: If you already received the license code for your computer from Mercury Interactive Customer Support and are now running the license installation program for a second time to enter the license code, verify the information on the screen is correct and click **Next** to install the license.

Use the Web site displayed in the screen to send the locking code, license type, and maintenance number to Mercury Interactive Customer Support, and click **Next** to continue.

Note: If you do not have Web access from the computer where you are installing WinRunner, you can send an e-mail to Customer Support. You can find this e-mail address at the Mercury Interactive Customer Support Web site.

Tip: You can copy and paste the locking code from the Welcome screen into the license request form at the Mercury Interactive Customer Support Web site or an e-mail message.

- 3 Read a message about exiting all Windows programs before continuing with the installation. Exit all Windows programs and click **Next**.
- 4 The User Information screen opens.



The image shows a Windows-style dialog box titled "WinRunner License Installation - User Information". The dialog has a blue title bar with a close button (X) in the top right corner. On the left side, there is a graphic showing several keys on a yellow surface, with a 2x2 grid of colored squares (blue, yellow, red, blue) below them. On the right side, there is instructional text: "Type in below your name and your company name. You must also type in your maintenance number (this number was shipped to you with your product)." Below the text are three input fields: "First Name:" and "Last Name:" (each with a text box), "Company:" (with a text box), and "Maintenance Number:" (with a text box). At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel".

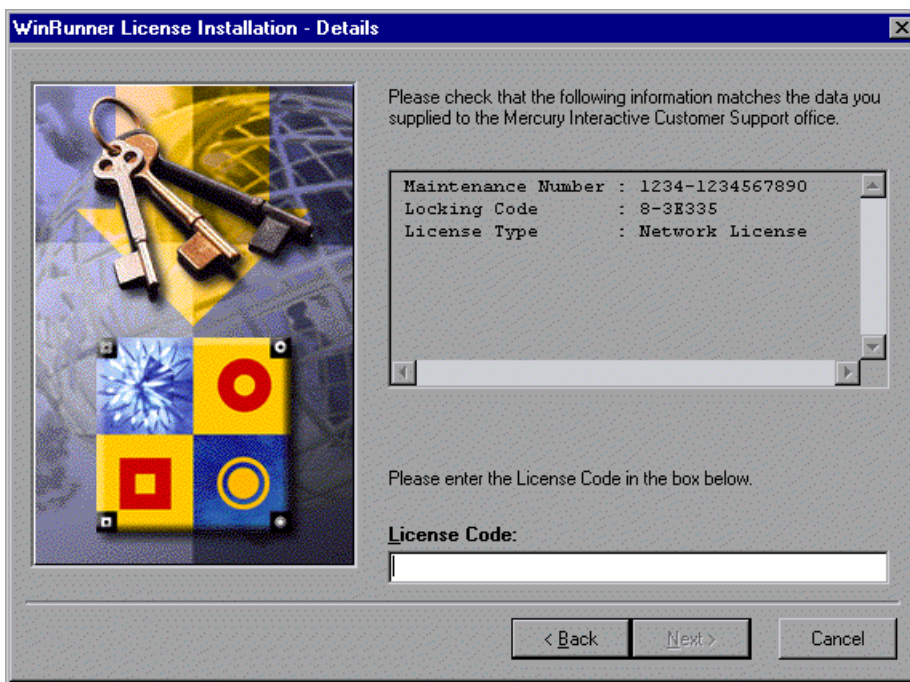
Enter your first name, last name, and company name in the appropriate boxes. In the **Maintenance Number** box, enter your maintenance number, which you received from Mercury Interactive when you purchased WinRunner. This number can be found in the Maintenance Pack Number envelope or on the bill of lading. Note that there is a single maintenance number for each team of users. The maintenance number replaces what was formerly a serial number for each purchased copy of WinRunner. The maintenance number, which identifies the customer, determines the type of license and how many concurrent users the floating license allows.

Click **Next** to proceed.

- 5** Send all the information that appears in the read-only box to your local Mercury Interactive Customer Support office by e-mail, or paste it into the license request form at the Mercury Interactive Customer Support Web site. The easiest way to obtain your WinRunner license is from the Mercury Interactive Customer Support Web site.

If you already sent the locking code, license type, and maintenance number to Mercury Interactive Customer Support, and already received the license code, then verify that the information on the screen is correct. There is no need to send the information again. Click **Next** to install the license code.

Tip: You can copy and paste the locking code from the Welcome screen into the license request form at the Mercury Interactive Customer Support Web site.



- 6 Insert the license code provided by Mercury Interactive's Customer Support Organization into the **License Code** box.

Note: If you do not receive the license code immediately from Mercury Interactive, you can click Cancel to quit the installation. You can run the installation again, using the above steps, once you receive the license code.

Click **Next** to proceed.

The installation program is complete.

Uninstalling a Floating-License Server

If you uninstall the license server, you will not be able to use WinRunner.

To uninstall the license server:

1 Click **Start > Settings > Control Panel**.

2 Double-click **Add/Remove Programs**.

The Add/Remove Programs dialog box opens.

3 In the **Install/Uninstall** tab, select “SentinelLM”.

4 Click **Add/Remove**.

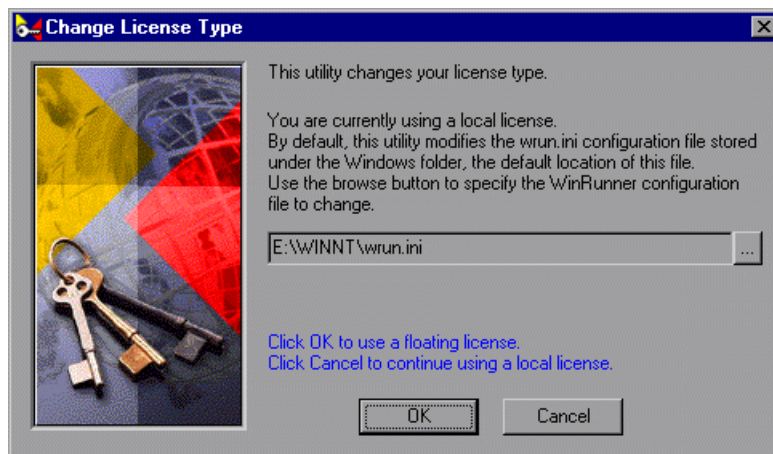
If you want to uninstall the license server in order to reinstall it on a different machine, you must follow the directions described above in “We recommend that you install the license server on a machine that is running the Windows NT 4.0 Server or Windows 2000.” on page 3 and “Installing a Floating License” on page 7 for your new machine. You must contact Mercury Interactive’s Customer Support Organization in order to receive a new license code for the machine on which you want to install the license server.

Changing the License Type

You can change your WinRunner license type from local to floating or from floating to local. By default, this utility modifies the *wrun.ini* configuration file stored under the Windows folder. (This is the default location of the *wrun.ini* configuration file.) If the *wrun.ini* configuration file you are using is stored in a different location, you need to use the browse button to specify the correct configuration file to modify.

To change your license type:

- 1 In WinRunner, choose **Help > Change License Type**. The Change License Type utility opens.



A sentence at the top of the screen describes your license type.

- 2 If your copy of WinRunner does not use the *wrun.ini* configuration file under the Windows folder, click the browse button to choose the *wrun.ini* configuration file it uses.
- 3 Click **OK** to change your license type, or click **Cancel** to continue using the existing license type.

Note that you must restart WinRunner for the change in license type to take effect.

Note: If you mistakenly changed your license type from local to floating, but there is no floating-license server installed on your network, you will not be able to restart WinRunner. If this happens, you can open the Change License Type utility by running *LicTypeDlg.exe* in your <WinRunner installation\arch> directory.

Floating-License Server Tips and Tricks

This chapter describes:

- ▶ General Tips
- ▶ Troubleshooting
- ▶ Locking Codes
- ▶ Frequently Asked Questions
- ▶ Known Problems and Workarounds

General Tips

When the client machines (running WinRunner) are on multiple domains, you should install a license server on each domain.

We recommend installing the license server on a machine running the Windows NT 4.0 Server.

You should install the license server on a machine that also meets the following criteria:

- ▶ has a fixed IP address
- ▶ has TCP/IP installed

Troubleshooting

I want to turn off or reset the license server.

If you want to reset the license server, we recommend rebooting the machine. You can also turn off the license server without rebooting the machine by following the instructions below:

Note that the license server starts at startup on the host machine.

To turn off the license server if the host machine 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 machine is running Windows 95:

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 machine.

Note: We do not recommend running the license server on a machine running on Windows 95 or Windows 98. We recommend running the license server on a machine running on the Windows NT 4.0 Server.

Locking Codes

A locking code is a number generated by a license server or a local license host. Every machine has its own locking code. A locking code from one machine cannot be used on another machine.

Frequently Asked Questions

The following are the most commonly encountered questions:

Question	Explanation/Solution
Why does the WinRunner license code not match the locking code of the license server or the standalone license? (error 19)	If the license code does not match, the user is trying to use a license code generated according to a specific locking code on a different machine. Determine whether the user is inserting the correct license code.
Why does the WinRunner client machine not find the WinRunner server on the network?	LSHOST and LSFORCEHOST were not defined even though WinRunner's license server is on a different subnet. Set LSHOST on your client machine. For additional information on the LSHOST system variable, see Appendix B, "License Server Utilities."

Known Problems and Workarounds

The following is a list of known problems and workarounds:

Problems	Workarounds
The WinRunner license server is installed on a different domain than the WinRunner clients.	Open UDP port 5093 between domains. Set the LSHOST and LSFORCEHOST parameters on the WinRunner client machines. For additional information, see Appendix B, "License Server Utilities." To check the connection, use "ping -a" from the Windows command line. If this is successful, it should display: Reply from <server i.p. address> : <byte size> <time >
Customer wants to install WinRunner license servers on Novell or Unix machines.	Generate a standalone license code for each WinRunner client machine. Alternatively, use a Windows platform network machine as a WinRunner license server.

Problems	Workarounds
Although you have a legal license code, you cannot start WinRunner.	You may not be using the WinRunner license installation utility from the WinRunner Installation CD-ROM's autorun screen. Make sure that you start the WinRunner license installation utility from the WinRunner Installation CD-ROM's autorun screen.
You have changed the date on the license machine, for example, due to date operations testing. This locked the WinRunner license.	Restore the machine's clock to the original date. Contact Mercury Interactive's Customer Support Organization for the license code.

Part II

Appendixes

A

License Server Error Codes

This appendix describes the following error codes:

- ▶ Error 5: Cannot talk to the license manager. “LocalHost” server not running.
- ▶ Error 8: Failed to install temporary license (error code 8).
- ▶ Error 19: Cannot install a license code.

Error 5: Cannot talk to the license manager. “LocalHost” server not running.

The license server has stopped. For Windows NT and Windows 2000, choose **Start > Settings > Control Panel > Services**. Locate the Sentinel LM service and click **Start**. If the license server does not start, then contact your local Mercury Interactive Customer Support office.

Error 8: Failed to install temporary license (error code 8).

A temporary license cannot be installed because the License Manager library cannot be found. This library is normally called *lsapiw32.dll*. It should be in the same directory as the running executable.

Possible Causes	Possible Solutions
The host name does not match the computer name.	Ensure that the host name matches the computer name: Choose Start > Settings > Control Panel > Network > Identification to see the computer name. The computer name must be the same as the host name displayed when you choose Start > Settings > Control Panel > Network > Protocols > TCP/IP Protocol > DNS .

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 local license cannot be installed on the server running on the specified machine.
- ▶ **Failed to add license string UNKNOWN to the license server on "Local-host."**
A floating license cannot be installed on the server running on the specified machine.

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 local license, the license code is for a floating license.	Copy <i>lsdecode.exe</i> from <i>WinRunner CD-ROM\LicenseManager\utils</i> to <i>Program Files\Common Files\Mercury Interactive\License Manager</i> and execute the 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 <i>lsdecode.exe</i> from <i>WinRunner CD-ROM\LicenseManager\utils</i> to <i>Program Files\Common Files\Mercury Interactive\License Manager</i> and execute the 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 that the <i>lservc</i> file exists in <i>Program Files\Common Files\Mercury Interactive\License Manager</i> , <i>Program Files\Rainbow Technologies\sentLM\Server\lservc</i> , or the Rainbow Technologies installation path. Note: If you want to reinstall the license code, delete the <i>lservc</i> file before doing so.

B

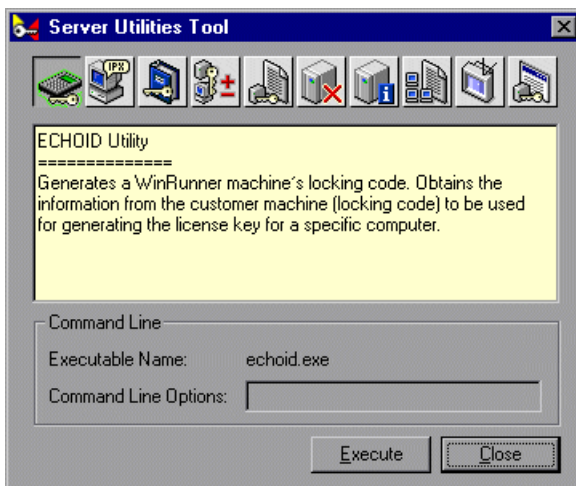
License Server Utilities

This appendix describes the utilities included with WinRunner's license management that assist you in managing your WinRunner licenses. The license management utilities are in the *WinRunner Floating-License Installation CD-ROM\utils* folder. It is divided into the following sections:

- ▶ Overview
- ▶ Displaying Current WinRunner Users
- ▶ Displaying License Servers
- ▶ Setting the LSHOST System Variable

Overview

You can start all WinRunner License Management utilities from a Windows user interface by running *SrvUtils.exe* in the *WinRunner Floating-License Installation CD-ROM\utils* folder.



The following table provides a brief description of the WinRunner license management utilities and short examples to facilitate usage.

Utility	Description/Example of Usage
echoid.exe ECHOID Utility	Generates a WinRunner machine's locking code. Obtains the information from the customer machine (locking code) to be used for generating 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.

Utility	Description/Example of Usage
lsdecode.exe LSDECODE Utility	<p>Displays the license code information, which enables you to check that you are installing the correct license type.</p> <p>It decodes a WinRunner license code (lserverc) and retrieves license information, e.g. expiration time, temporary/permanent, floating/local etc.</p> <p>Make sure the lserverc file and this utility are in the same directory.</p>
lslic.exe LSLIC Utility	<p>Adds or removes a license code. You can use the following command line options:</p> <ul style="list-style-type: none"> • <i>-a</i> (add) <i>-f</i> (file name): adds a license code from a license file. • <i>-removeall</i> removes all licenses from a WinRunner license server. <p>Either use the LSHOST environment variable to specify the license server or make sure that this Server Utilities program (SrvUtils.exe) and lslic.exe are in the same directory as the lserverc file.</p>
lsmon.exe LSMON Utility	<p>Monitors a WinRunner license server machine. You can run the LSMON utility on a client machine (running WinRunner) or the host machine (the license server). This DOS-based program displays:</p> <ul style="list-style-type: none"> • the maximum number of concurrent WinRunner users allowed • the number of machines currently running WinRunner • the IDs of the machines currently running WinRunner • the number of WinRunner licenses currently not in use <p>Note: To monitor a remote WinRunner server, use <host name> or <IP address>. For example: c:\smon.exe saturn monitors the "saturn" host. For additional information on this utility, see "Displaying Current WinRunner Users" on page 31.</p>

Utility	Description/Example of Usage
lsrvdown.exe LSRVDOWN Utility	Shuts down the license server. Specify the license server host name as the command line option for this utility.
lsusage.exe LSUSAGE Utility	Displays usage information generated by the license server. The license server logs all license codes issued or denied, but it does not record license code updates. e.g. lsusage.exe -l Usage-log-file <ul style="list-style-type: none"> • [-c CSV-Format-New-log-file] • [-f Feature-Name1,Version:Feature-Name2,Version ...] • [-y Start-Year(YYYY) [-m Start-Month(MM) [-a Start-Day(DD)]]] • [-Y End-Year(YYYY) [-M End-Month(MM)] [-A End-Day(DD)]]]
lswhere.exe LSWHERE Utility	Displays the network names of all machines running WinRunner license servers. It searches for license servers on the network. You can run this utility on a client machine (running WinRunner) or the host machine (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 32.
lsdemo.exe LSDEMO Utility	Simulates WinRunner license usage. This utility can "add" or "remove" licenses 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 WinRunner license server transactions and provides information on license servers, WinRunner users, and machines running WinRunner. You can use this utility to check that a WinRunner license server is running.

The following table provides a description of system variables used with the WinRunner license server:

Utility	Description/Example of Usage
LSFORCEHOST system variable	Restricts WinRunner to a specific LM server. (You can specify the server by either host name or IP address.) For more information, see the first reason in “Reasons that Error 19 Occurs,” on page 25.
LSHOST system variable	Sets the server list to search for a license server using a colon separator (:). You should use this variable in order to contact a server in a remote sub net. For more information, see the first reason in “Reasons that Error 19 Occurs,” on page 25. For information on setting this variable, see “Setting the LSHOST System Variable” on page 32.

Displaying Current WinRunner Users

LSMON

You can run the *LSMON* utility on a client machine (running WinRunner) or the host machine (the license server). It is a DOS-based program that displays:

- ▶ the maximum number of concurrent WinRunner users allowed by the license
- ▶ the number of machines currently running WinRunner
- ▶ the IDs of the machines currently running WinRunner
- ▶ the number of WinRunner licenses currently not in use

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

Note for TestDirector users: If you are working with TestDirector, you can monitor the number of WinRunner licenses in use from the Licenses tab of the TestDirector Server Manager. Note that this displays only the number of WinRunner licenses in use by machines currently connected to TestDirector. For additional information, refer to the *TestDirector Administrator's Guide*.

Displaying License Servers

LSWHERE

You can run the *LSWHERE* utility on a client machine (running WinRunner) or the host machine (the license server). It is a Windows-based program that displays the network names of all machines running WinRunner license servers.

Setting the LSHOST System Variable

You may need to set the LSHOST system variable (described above on page 31) in order to solve one of the problems described below:

- ▶ “Error 19: Cannot install a license code.” on page 24.
- ▶ The WinRunner client machine cannot find the WinRunner server on the network, described in “Frequently Asked Questions” on page 18.
- ▶ The WinRunner license server is installed on a different domain than the WinRunner clients, described in “Known Problems and Workarounds” on page 18.
- ▶ WinRunner was configured to use a local license code, but now the user wants to install a license server on the network and use a floating license, described in “Known Problems and Workarounds” on page 18.

Setting LSHOST for a Floating License Server

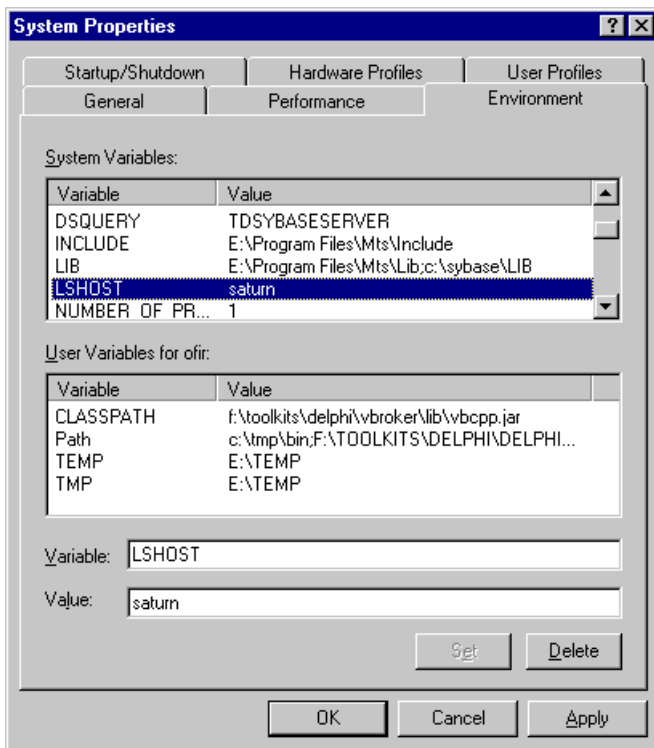
You set the LSHOST system variable to enable WinRunner to search for a license on the network. You set this system variable differently for different operating systems.

If the client machine 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 In the **Variable** box, type LSHOST.
- 5 In the **Value** box, type the full name of the license server. Alternatively, you may enter the IP address of the host machine.

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

6 Click **Set**.



7 Click **OK**.

If the client machine is running Windows 2000:

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 Variable dialog box opens.

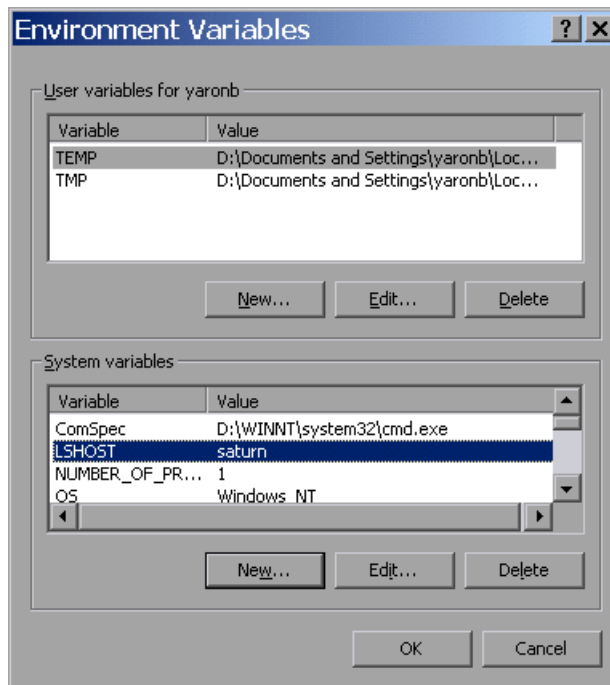
5 Under **System variables**, click **New**.

The New System Variable dialog box opens.

- 6 In the **Variable Name** box, type LSHOST.
- 7 In the **Variable Value** box, type the full name of the license server. Alternatively, you may enter the IP address of the host machine.

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

- 8 Click **OK** to close the New System Variable dialog box. The Environment Variables dialog box is displayed as follows:



- 9 Click **OK** to close the Environment Variables dialog box.
- 10 Click **OK** to close the System Properties dialog box.

If the client machine is running Windows 95/98/ME:

1 Click **Start > Run**.

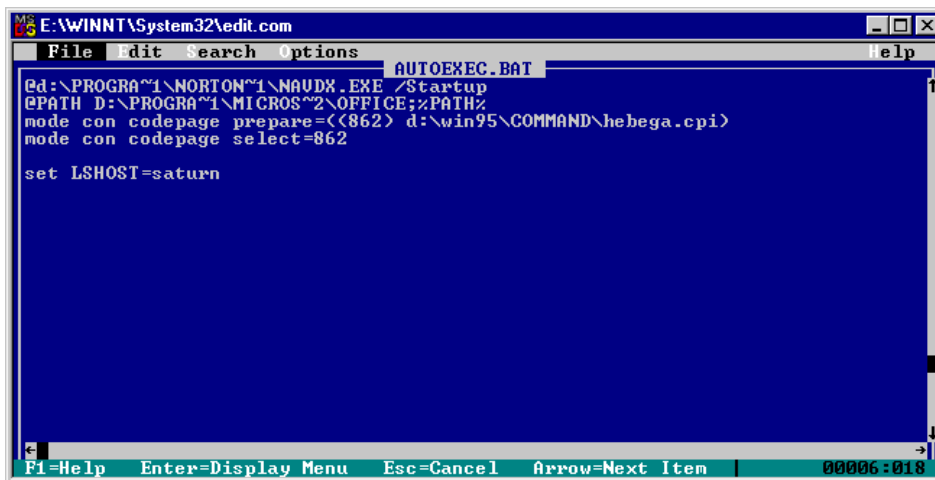
2 In the **Open** box, type `sysedit`.

The System Configuration Editor opens, displaying 5 systems files.

3 Make the following addition to the `AUTOEXEC.BAT` file:

Set `LSHOST=[full name of server]`

Alternatively, you may substitute the IP address of the host machine.



```
E:\WINNT\System32\edit.com
File Edit Search Options AUTOEXEC.BAT Help
Ed:\PROGRA~1\NORTON~1\NAUDX.EXE /Startup
@PATH D:\PROGRA~1\MICROS~2\OFFICE;%;PATH%
mode con codepage prepare=<<862> d:\win95\COMMAND\hebega.cpi>
mode con codepage select=862

set LSHOST=saturn

F1=Help Enter=Display Menu Esc=Cancel Arrow=Next Item 00006:018
```

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

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



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