

WinRunner®
Installation Guide
Version 7.0



MERCURY INTERACTIVE

WinRunner Installation Guide, Version 7.0

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Part I

Installing WinRunner

Before You Install

Welcome to WinRunner, Mercury Interactive's enterprise functional testing tool for Windows 95, Windows 98, Windows NT 4.0, Windows 2000, and Windows ME. This guide describes everything you need to know to install WinRunner on a standalone computer or on a network. It describes the WinRunner package contents, system configuration, registration and backup procedures, and how to run the setup program.

Before you begin to install WinRunner, please review the following pre-installation procedures.

Registering Your Copy of WinRunner

Register your copy of WinRunner to become a licensed user with all rights and privileges. Registered users can access technical support and information on all Mercury Interactive products, and are eligible for updates and upgrades.

Note: You can register your copy of WinRunner on Mercury Interactive's Customer Support site (<http://support.mercuryinteractive.com>).

You can also register your copy of WinRunner by filling out the Mercury Interactive Software Registration card.

- If you are in the United States, fill out the USA Owners portion of the card. Send the card to the Sunnyvale, California address printed on the card. No postage is necessary.
- If you are outside the United States, fill out the non-USA portion of the registration card and mail it to the appropriate international address using correct postage.

If your address changes, notify Mercury Interactive or your local representative, so that you can continue to receive product information and updates.

System Requirements

In order to successfully run WinRunner, you need the following minimum system requirements:

Platform	An IBM-PC or compatible with a Pentium® /100MHz or higher microprocessor.
Memory	A minimum of 32 MB of RAM memory.
Disk Space	54 MB of free disk space for a compact installation or 160 MB for a typical or complete installation. You may need an additional 9 to 6 MB on the drive where Windows is installed, depending on the shared components already installed on the machine. (An additional 5 MB of free disk space is required during the installation process.)
Operating System	Windows 95, Windows 98, Windows NT 4.0, Windows 2000, and Windows ME.

Upgrading from a Previous Version

You can install a standalone version of WinRunner over a previous version. Note that any changes made to the tests in the `\lib` directory or in any other files will be overwritten. However, the existing `\lib` directory will be backed up as `\lib.bak`. Note that if `lib.bak` already exists, the existing `\lib` directory will not be backed up. You should separately save any files you added or changed manually before installing WinRunner 7.0 over a previous WinRunner installation. Note that configuration changes made in the `wrun.ini` file will not be overwritten when installing WinRunner 7.0.

Note: There are documented backward compatibility problems with Microsoft ODBC 4, which is installed by WinRunner, Microsoft Office 2000, and other applications. When any of these programs is installed on a machine where TestDirector 5.0 is installed, TestDirector may behave unexpectedly.

Note: When upgrading to WinRunner 6.0 or higher, make sure to upgrade to TestDirector 6.0 or higher, or install the software that installs ODBC 4 on another machine.

Note that you cannot install WinRunner over WinRunner 2000 or WinRunner EURO. You must uninstall WinRunner 2000 or WinRunner EURO before installing WinRunner. For more information, see “Uninstalling WinRunner” on page 31.

Installing on Windows NT or Windows 2000

If you are installing WinRunner on Windows NT or Windows 2000, make sure you have administrator permissions before you run the setup program.

Otherwise, you will receive a warning message and the setup program will close.

Installing WinRunner

WinRunner is installed with a temporary 30-day license that can only be installed once on each machine. If you do not install the permanent software license within 30 days, you will not be able to continue using WinRunner once the temporary license expires.

You can install WinRunner on a local computer or on a network drive. The main steps for a WinRunner installation are as follows:

Standalone Installation

- ▶ Install WinRunner using the Standalone option.
- ▶ If you plan to test a Visual Basic application, configure Visual Basic support.
- ▶ Within 30 days of installing WinRunner, install the license. For additional information, see “Installing the License” on page 35.

Network Installation

- ▶ Install WinRunner using the Network option.
- ▶ Run the workstation installation on each user workstation.
- ▶ If you plan to test a Visual Basic application, configure Visual Basic support.

Note: If you add WinRunner add-ins to a network installation after installing workstations from that network installation, you need to re-run the workstation setup to update each workstation with the list of available add-ins.

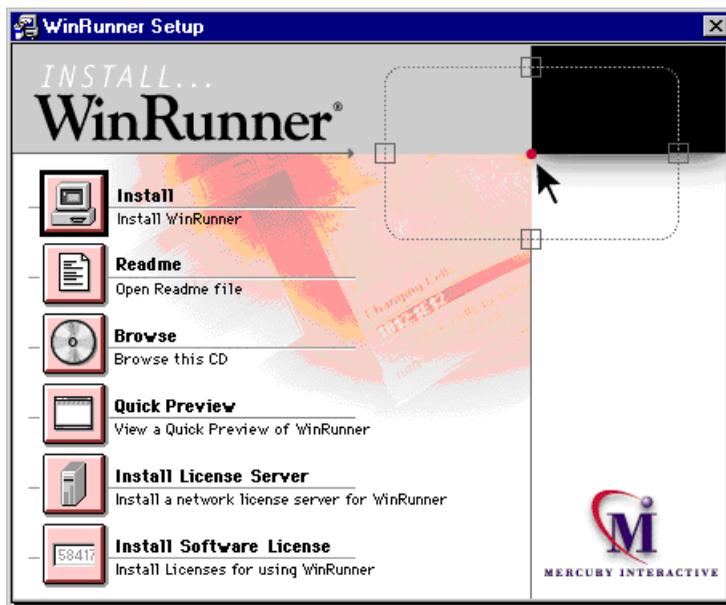
- ▶ Within 30 days of installing WinRunner, install the license. For additional information, see “Installing the License” on page 35.

Running a Standalone or Network Installation

You use the following procedure in order to install WinRunner on a standalone computer or on a network drive. If you are performing a network installation, follow the procedure below, and then run the workstation installation on each user workstation as described on page 18.

To install WinRunner:

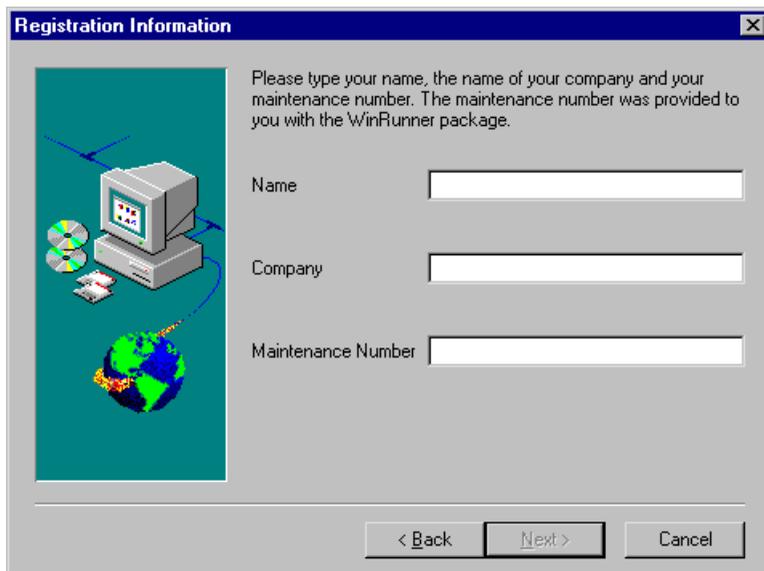
- 1 Insert the CD-ROM into the CD-ROM drive. If the CD-ROM drive is on your local machine, the WinRunner Setup window opens. If you are installing from a network drive, connect to it and run *autorun.exe* under the *\setup* subdirectory.



If you want to view the Readme file, click **Readme**. If you want to browse the WinRunner Installation CD-ROM, click **Browse**. If you want to open an overview of WinRunner, click **Quick Preview**.

- 2 Click **Install**. The WinRunner Setup splash screen and the Setup progress bar open.

- 3 The software license agreement is displayed. To install WinRunner, you must accept the terms of the license agreement by clicking **Yes**. If you click **No**, the setup program will close.
- 4 In the **Registration Information** screen, type your name, the name of your company, and a WinRunner maintenance number. This number 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 replaces what was formerly a serial number for each purchased copy of WinRunner. The maintenance number, which identifies the customer, determines how many licenses are generated.)

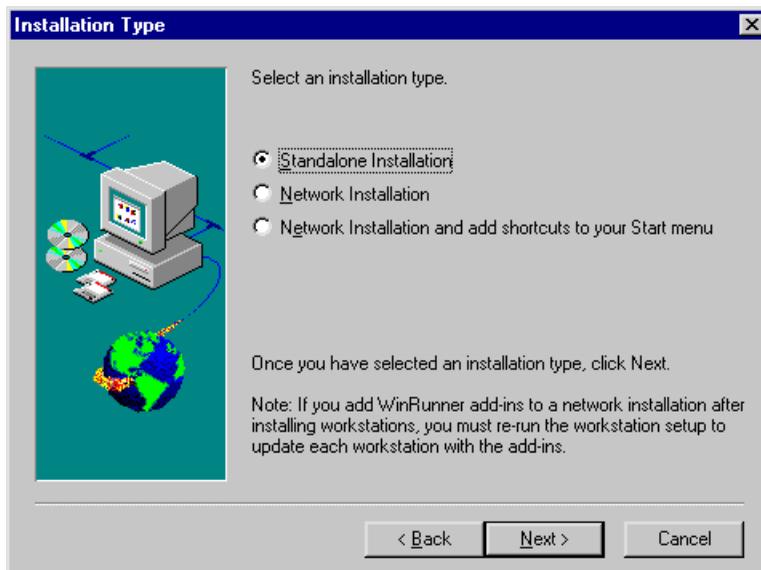


Click **Next**.

- 5 Click **Yes** to confirm the registration information.

- 6 Do one of the following:
- To install on a hard disk of a local computer, click **Standalone Installation**.
 - To install on a network drive, click **Network Installation**.
 - To install on a network drive and configure your workstation to run WinRunner from the network, click **Network Installation and add shortcuts to your Start menu**.

Note: You cannot install a network installation over a previous version of WinRunner.

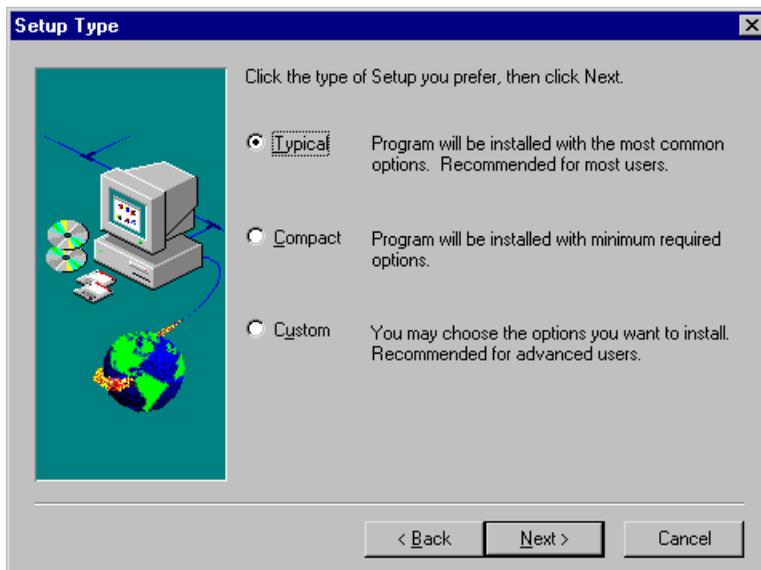


Click **Next**.

- 7** Setup prompts you to install DCOM if you:
- are installing WinRunner on Windows 95, and
 - do not have DCOM version 4,71,0,2618 installed, and
 - are performing one of the following:
 - a standalone installation
 - a network installation which adds shortcuts to your Start menu
 - a workstation installation

Note that DCOM must be installed on your machine in order to install WinRunner.

If you click **Next** to install DCOM, the WinRunner setup program closes and the DCOM installation begins. Once you finish installing DCOM, you must reboot your computer and then restart the WinRunner setup program.

8 Choose the type of installation: **Typical**, **Compact**, or **Custom**.

Typical Installation installs commonly used program files, including online documentation and samples, WebTest add-in support, and add-in support for PowerBuilder and Visual Basic applications and ActiveX controls. Note that you can choose which add-ins to load at the beginning of each WinRunner session. For additional information on loading add-in support, refer to Chapter 2, “WinRunner at a Glance,” in the *WinRunner User's Guide*.

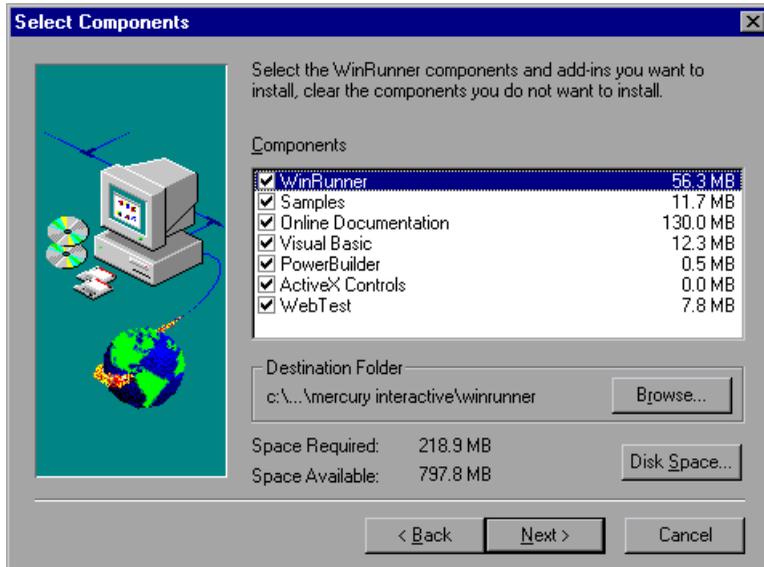
Compact Installation installs only the required WinRunner program files, without online documentation, samples, WebTest add-in support, or add-in support for PowerBuilder and Visual Basic applications and ActiveX controls.

Custom Installation enables you to select which components to install.

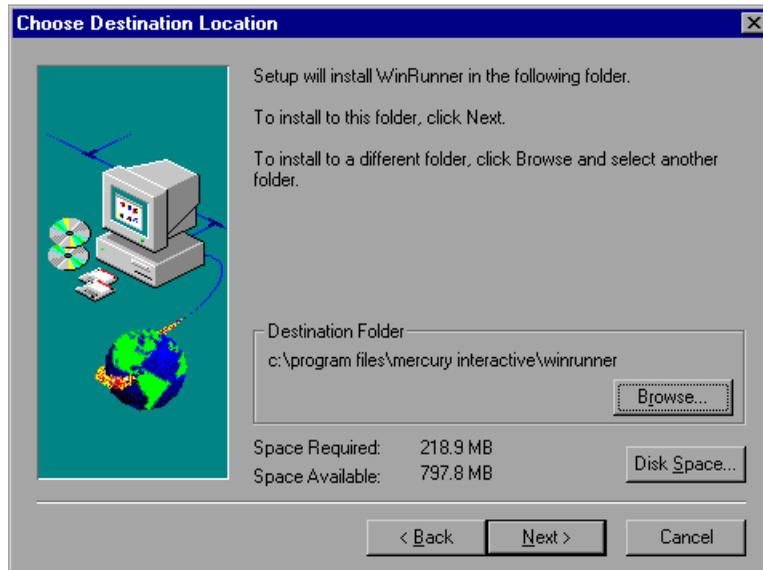
Note: When you install a standalone installation of WinRunner, Microsoft ODBC version 4.0 is installed on your machine.

Click **Next**.

- 9 If you chose Custom Installation, the Select Components screen opens. Select the components you want to install. You can also specify the destination folder using the **Browse** button. To check the space available on a disk drive, click **Disk Space**.

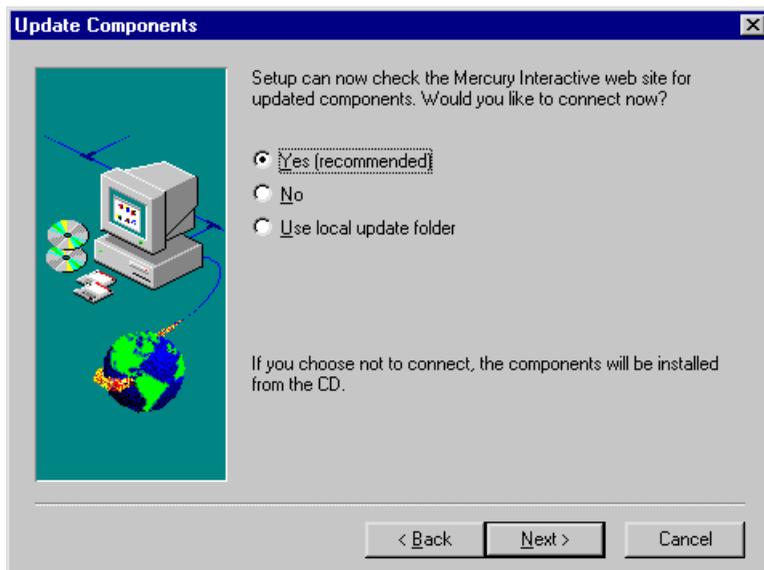


- 10** If you chose Typical or Compact Installation the Choose Destination Location screen opens. Specify the destination folder. To check the space available on a disk drive, click **Disk Space**.



Click **Next**.

- 11 If you have Microsoft Internet Explorer version 3.0 or higher installed (or any other software that installs *wininet*), you can check the Mercury Interactive Web site for updated components.



Click **Yes** to check the Mercury Interactive Web site for updated components. Click **No**, if you want to install the components from the CD-ROM without checking for updated components. Click **Use local update folder** only if you know that updated components have already been downloaded to a folder on your local network. See page 21 for more information on this option.

Click **Next**.

- 12 If you chose **Yes** in the previous screen, the installation checks the Mercury Interactive Web site for updated components. If there are components on the Web site that are newer than components on the CD-ROM, setup prompts you to overwrite the CD-ROM components with the Web site components. If no newer components are found on the Web site, then setup installs all components from the CD-ROM.

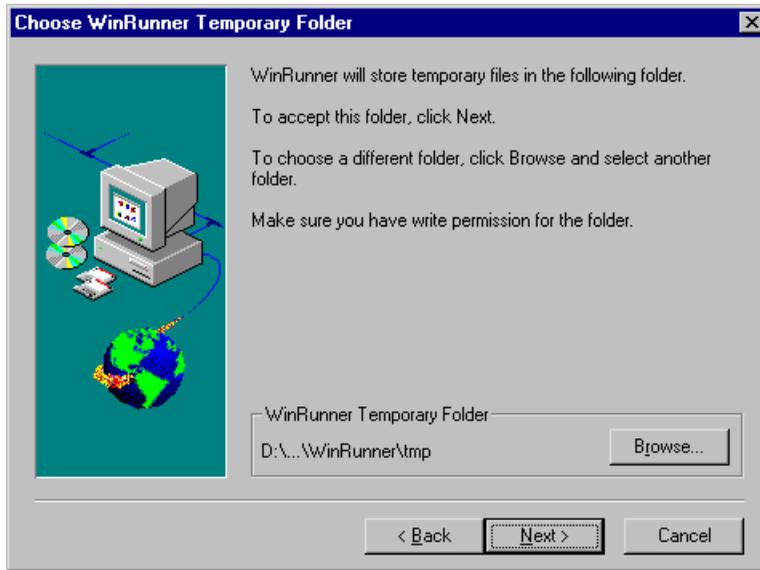
If the installation cannot access the Web site, you can click **Retry** to try to connect to the Web site again. If you click **Cancel**, setup installs the WinRunner components from the CD-ROM.

- 13** If you selected **Network Installation and add shortcuts to your Start menu** earlier in the setup, the Choose local WinRunner Folder screen opens. Select a location for the local WinRunner folder. This folder will allow you to configure WinRunner to meet your specific testing requirements, while running a shared version over the network.



Click **Next**.

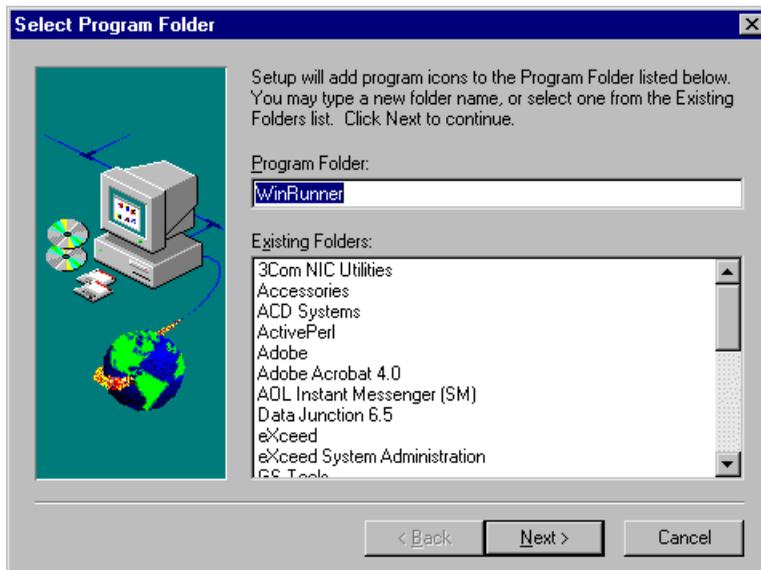
14 Choose the location of your WinRunner temporary folder.



Click **Next**.

15 Review the settings you selected. To select different settings, click **Back**. To confirm the settings, click **Next**.

- 16 Select the program folder for the WinRunner icons.



Click **Next** to proceed.

- 17 The installation settings you selected are displayed in a read-only window. Review the settings. If you want to select different settings, click **Back**. If you are satisfied with the settings, click **Next**.

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

- 18 Read the information about accessing online documentation. If you installed add-in support for Visual Basic applications, additional information appears on your screen. Click **Next** to proceed.
- 19 Read the information about Mercury Interactive's Customer Support. Click **Next**.

The installation process is complete.

- 20 Choose whether or not to restart your computer and click **Finish**.

Note: If you try to start WinRunner before restarting your computer, WinRunner will not run properly.

Note: If you installed WinRunner on Windows NT or Windows 2000, then after restarting your computer, you must log in (for the first time) with the same login name that was used when installing WinRunner.

If you installed WinRunner on the network, run a workstation installation on all workstations. See the next section for details.

- ▶ To read any last-minute information, click **Start > Programs > WinRunner > Read Me**. The Readme file opens in Microsoft Wordpad.
- ▶ To view the WinRunner online books, you must have Acrobat Reader 4.0 installed. You can install it by clicking **Start > Programs > WinRunner > Documentation > Acrobat Reader Setup** and following the on-screen instructions. To view online books, click **Start > Programs > WinRunner > Documentation > WinRunner Books Online**.



- ▶ To start WinRunner, click **Start > Programs > WinRunner > WinRunner**.

Running a Workstation Installation

A workstation installation should be performed for each user running WinRunner from the network. This installation can be performed only after the network installation is successfully completed.

- 1 Click **Start > Run**.
- 2 Type `<network installation_directory>\setup\setup.exe` and click **OK**.

The WinRunner setup program starts. The WinRunner Setup splash screen and the Setup progress bar open.

- 3** The software license agreement appears. To install WinRunner, you must accept the terms of the license agreement by clicking **Yes**. If you click **No**, the setup program will close.
- 4** In the **Registration Information** dialog box, type your name and click **Next**.
- 5** Click **Yes** to confirm the registration information.
- 6** Confirm the Workstation Installation message and click **Next**.
- 7** Define the location for the local WinRunner folder.

The WinRunner folder on your hard drive is used to store configuration files you create during the testing process. Configuration files in this folder override configuration files of the same name on the network, so that you can configure WinRunner to your specific testing requirements.

Click **Next**.

- 8** Select the location of your WinRunner temporary folder.
Setup updates and installs system files.
Click **Next**.
- 9** Select the program folder for the WinRunner icons.
Click **Next**.
- 10** Restart your computer.

Note: If you try to start WinRunner before restarting your computer, WinRunner will not run properly.

Note: If you installed WinRunner on Windows NT or Windows 2000, then after restarting your computer, you must log in (for the first time) with the same login name that was used when installing WinRunner.

The WinRunner program folder is added to your Start menu.

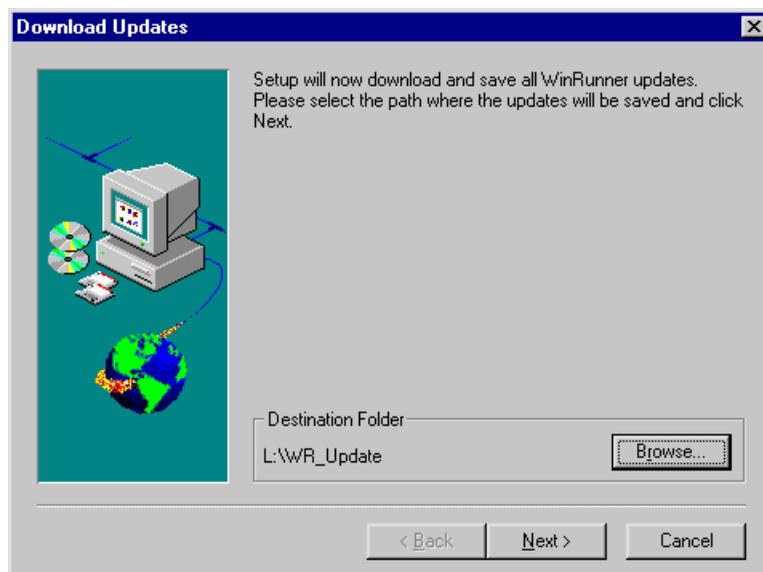
- To read what's new in WinRunner and any last-minute information, click **Start > Programs > WinRunner > Read Me**. The Readme file opens in Microsoft Wordpad.
- To view the WinRunner online books, you must have Acrobat Reader 4.0 installed. You can install it by clicking **Start > Programs > WinRunner > Documentation > Acrobat Reader Setup** and following the on-screen instructions. To view online books, click **Start > Programs > WinRunner > Documentation > WinRunner Books Online**.
-  ➤ To start WinRunner, click **Start > Programs > WinRunner > WinRunner**.

Using a Local Network Drive for Updates

You can download WinRunner installation updates from the Mercury Interactive Web site to a network drive and then access the local network drive to update your WinRunner installations.

To download updates to a local network drive:

- 1 Insert the CD-ROM into the CD-ROM drive and run `<CD drive>\update.exe`.
- 2 The Download Updates screen opens.



Choose the local network drive for the WinRunner update files. Click **Next**.

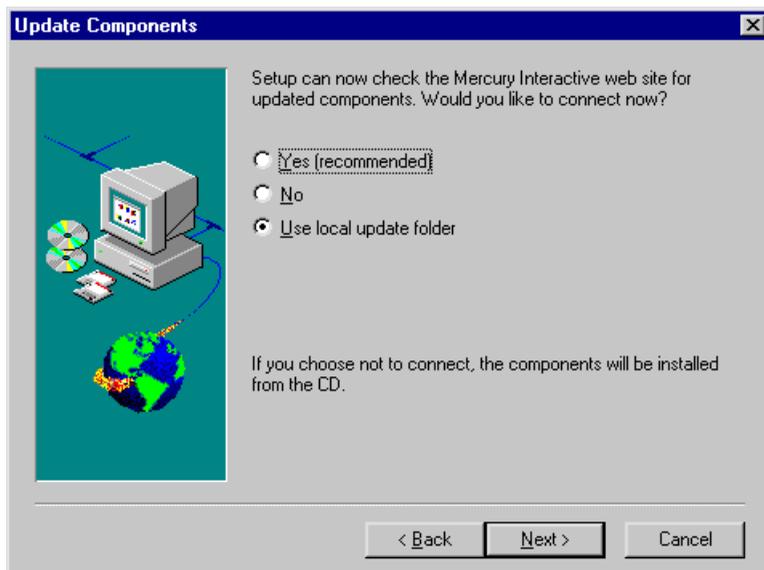
- 3 Setup begins to download the files. When the download is complete, the Updates Download Complete screen opens. Click **Finish**.

Note: When you run *update.exe*, the program downloads all posted updates, regardless of their contents and versions. When installing updates from a local path, however, the setup program downloads in the same way as it downloads from the Web site, installing only those components that are part of the current installation and newer than the components on the CD.

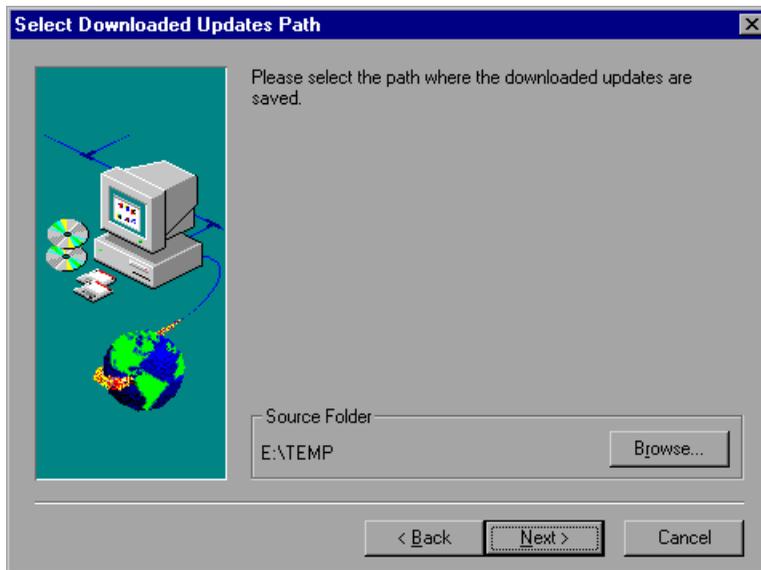
Once the updates have been downloaded to a local network drive, you can link to that drive from the WinRunner installation in order to download the updates locally.

To download updates from a local network drive:

- 1 When the Update Components screen of the WinRunner installation opens, select **Use local update folder**.



2 The Select Downloaded Updates Path screen opens.



Use the **Browse** button to select the path where the updates are stored. Click **Next**. The installation program checks the specified network folder for updated components. If there are components in the update folder that are newer than components on the CD-ROM, setup prompts you to overwrite the CD-ROM components with the update folder components. When the check is complete, the installation program continues as described in step 13 on page 15.

Configuring Visual Basic 4.0 Support

Before you can start using WinRunner's extended support for Visual Basic 4.0 in Windows 95, Windows 98, Windows NT, Windows 2000, or Windows ME Visual Basic applications (32-bit), you need to compile the WinRunner OCX (wrvb40.ocx) in the application under test.

To configure 32-bit Visual Basic 4.0 support:

- 1** Start Visual Basic 4.0 and open the project.
- 2** Select **Tools > Custom Controls**.
- 3** In the **Custom Controls** dialog box, select the **Wrvb40 OLE Custom Control Module** item. Click **OK**. The item is added to the toolbar.
- 4** Drag the new item onto the main application form.
- 5** Right-click this object and select **View Code**.
- 6** Select **Object > Form**.
- 7** Insert the following line into the beginning of the Form_Load function:

```
Wrvb1.Init Forms
```

For example:

```
Private Sub Form Load ()  
...  
Wrvb1.Init Forms  
...  
End Sub
```

- 8** Run or recompile your application and run the *.exe* file.

Configuring Visual Basic 5.0 and 6.0 Support

WinRunner's add-in support for Visual Basic 5.0 and 6.0 applications includes all the support provided for Visual Basic 4.0 applications, plus:

- all standard Visual Basic 5.0 and 6.0 controls
- Visual Basic projects that create ActiveX controls

Preparing Your Visual Basic Application

Before you can start testing a Visual Basic application using WinRunner's add-in support for Visual Basic 5.0 and 6.0, the application developer must add the WinRunner agent to the application. To do so, the developer runs the `setup.exe` program from the `\vbdev` directory on the WinRunner installation CD-ROM.

Note that if the application currently references the WinRunner OCX, you must first remove all references from forms, as well as the associated code (Wrb1.Init Forms).

The WinRunner agent installation installs an AddIn to your Visual Basic IDE. The name of this AddIn is `WinRunnerAddIn.Connect`. It adds lines of code to your Visual Basic source code.

`WinRunnerAddIn.Connect`

- adds a reference to the `wrvbasr.dll` component
- adds a new code Module to the Visual Basic project called "WinRunnerSupport"
- adds a line to the WinRunnerSupport Module:
`Global asr As New WRVBASRLib.VbMod`

- adds code to the StartUp object:

If the Startup Object is a Form, the AddIn adds the following line of code to the Form_Load event: `asr.Init Forms`

If the Startup Object is Sub Main, the AddIn adds the following line of code to the Main() method: `asr.Init Forms`

- For all Class modules in the project, the AddIn adds the following line of code to the Class_Initialize event: `asr.Init Forms`
- For all UserControl modules in the project, the AddIn adds the following line of code to the UserControl_Initialize event: `asr.Init Forms, UserControl`
- For all UserDocument modules in the project, the AddIn adds the following line of code to the UserControl_Initialize event: `asr.Init Forms, UserDocument`

Note: If the error message “DllRegisterServer in <windows directory>\system\wrvbasr.dll failed” appears during the WinRunner agent installation, copy the file `oleaut32.dll` (version 2.20.4054.1 or higher) to your system directory and re-install the WinRunner agent.

Do not run WinRunner and the Visual Basic IDE together.

Note: Test your application only as a running executable.

Enabling Table Contents Checks for an ActiveX Control

To enable support for contents verification on any ActiveX control that can be viewed as a table object, you must implement a capture function for the ActiveX control in Visual Basic and then execute a TSL function.

WinRunner includes Visual Basic project files (*wrvbsrv4.vbp* for Visual Basic 4.0 and *wrvbsrv5.vbp* for Visual Basic 5.0 and 6.0) that compile into an OLE Automation Server. WinRunner uses this server to capture table contents.

Follow these steps to enable contents verification on an ActiveX control that can be viewed as a table object:

- 1 Start Visual Basic 4.0/5.0/6.0.
- 2 In Visual Basic, open the appropriate wrvbsrv project file (*wrvbsrv4.vbp* or *wrvbsrv5.vbp*) located in the WinRunner installation folder under *custom\wrvbsrv*.
- 3 Open *capture.cls* and add a Sub with the following prototype:

```
Public Sub<CaptureFunctionName>(ByVal <tab_ctrl> As Object, ByVal  
<file_name> As String)
```

The function should dump the table contents of the ActiveX control into <file_name> in the following format:

cells separated by Tab(Chr(9)), rows separated by Newline.

Note: Cell data should not contain escape characters such as Tabs or Newlines. Cells in the first row (Column Titles) should not contain either escape characters or space characters. See the MSGridCapture Sub for an example.

4 Compile the project into a .dll.

For Visual Basic 4.0, from the File menu select **Make OLE DLL file**.

For Visual Basic 5.0 or 6.0, from the File menu select **Make WRVBSRV DLL file**.

5 In WinRunner, execute the **add_table_capture_function** statement. Set the second argument to the name of the Sub you implemented in the Visual Basic function. For example:

```
add_table_capture_function ("MSGrid.Grid", "MSGridCaptureFunc");
```

Adding WinRunner Components

Once you install WinRunner, you can run the setup program at any time to add program components, such as an additional development environment or control support, samples, or online documentation.

To add components:

- 1** Insert the CD-ROM into the drive from which you want to add WinRunner components. If the CD drive is on your local machine, the WinRunner Setup window opens. If you are installing from a network drive, connect to it and run *autorun.exe* under the *\setup* subdirectory.
- 2** Click **Install**. The WinRunner setup program starts. The WinRunner Setup splash screen and the Setup progress bar open.
- 3** The software license agreement appears. To accept the terms of the license agreement, click **Yes**. If you click **No**, the setup program will close. To install additional WinRunner components, you must accept the license agreement.
- 4** In the **Registration Information** dialog box, type your name, the name of your company, and a WinRunner maintenance number. You can find this number on the outside of your WinRunner box. Click **Next** to proceed.
- 5** Click **Yes** to confirm the registration information.
- 6** Select your installation type: **Standalone Installation**, **Network Installation**, or **Network Installation and add shortcuts to your Start menu**. Click **Next** to proceed.
- 7** Choose **Custom Installation**. Click **Next** to proceed.
- 8** Select the components you want to install and specify the destination folder. Click **Next** to proceed.
- 9** Select **Yes**, **No**, or **Use local update folder** to set your update components preferences. Click **Next** to proceed.

- 10** If you select a component that is already installed, you are prompted to overwrite it. To overwrite existing components of WinRunner, click the **Overwrite** button. If you do not want to overwrite existing components of WinRunner, click **Cancel**. The previous window reopens and you can modify your selection.
- 11** If you chose **Network Installation and add shortcuts to your Start menu** in step 6, select a location for the local WinRunner folder. Click **Next** to proceed.
- 12** Select a location for temporary WinRunner files. Click **Next** to proceed.
- 13** Select a program folder for WinRunner icons. Click **Next** to proceed.
- 14** The installation settings you selected are displayed in a read-only window. Review the settings. If you want to select different settings, click **Back**. If you are satisfied with the settings, click **Next**.

The installation process begins.

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

Uninstalling WinRunner

Your WinRunner installation includes an uninstall program that uninstalls WinRunner software and files from your computer and removes WinRunner shortcuts from your Start menu.

To uninstall WinRunner:

- 1** Click **Programs > WinRunner > Uninstall WinRunner** on your **Start** menu.
The Uninstall Shield window opens.
- 2** You may be prompted to remove shared files that are not in use by any program. If you are not sure what to do, click **No to All**.
UninstallShield removes WinRunner from your computer.
- 3** When the Uninstall program is completed, the OK button is enabled. Click **OK**.
- 4** You must reboot your machine to complete the uninstall process or before reinstalling WinRunner.

Part II

Installing the WinRunner License

Installing the License

When you install WinRunner for the first time, it includes an automatic 30-day temporary license. During this time period, you must contact Mercury Interactive's Customer Support Organization to obtain a permanent license.

There are two types of permanent licenses:

- a network license
- a standalone license

A network license enables you to run WinRunner on any machine on your network. A standalone license enables you to run WinRunner on one specific machine only.

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

Installing the Network License

This chapter discusses how to install and uninstall a network license. For information on how to install a standalone license, see “Installing a Standalone License” on page 47.

Installing a network license consists of two main steps:

- ▶ We recommend that you install the license server on a machine that is running the Windows NT 4.0 Server.
- ▶ Installing the Software License

When you install a network license, you can install WinRunner on as many machines as you want. However, WinRunner’s license server regulates the number of copies of WinRunner that are allowed to run concurrently. The license manager 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.

Once you install the license server and install the software license, your permanent license overrides your temporary license(s).

Note: Do not change the date on a computer running WinRunner with a temporary license.

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

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

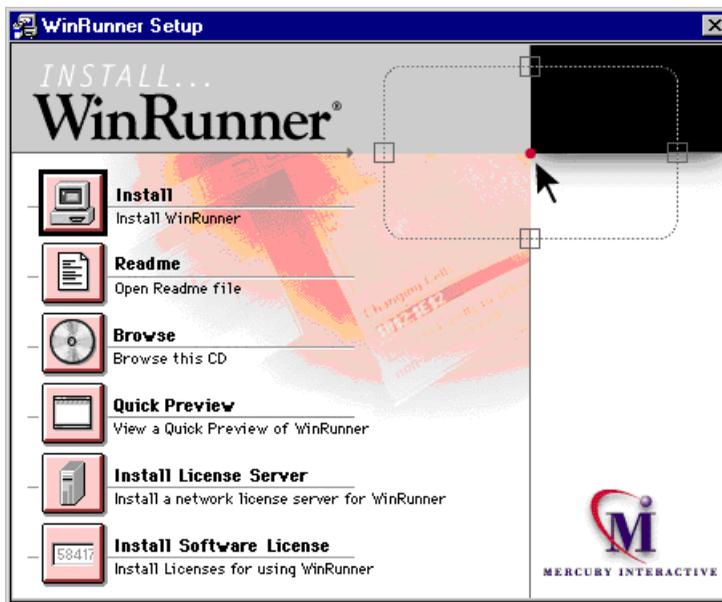
- has a fixed IP address, i.e., it is not a laptop
- has TCP/IP installed

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.

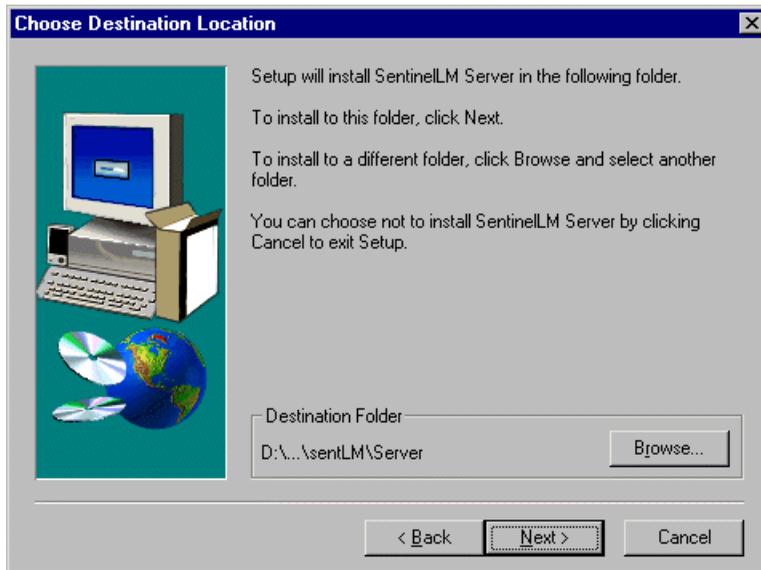
To install the license server:

- 1 Insert the CD-ROM into the drive from which you want to install. If the CD drive is on your local machine, the WinRunner Setup window opens. If you are installing from a network drive, connect to it and run *autorun.exe* under the *\setup* subdirectory.



- 2 Click **Install License Server**.
- 3 The SentinelLM Server setup program starts.
- 4 Make sure that you have exited all Windows programs. Click **Next** to proceed.

- 5 Specify the destination folder. 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 license server, you must run the software license installation in order to obtain your permanent license.

Installing the Software License

Once the license server is installed, you must run the software license installation in order to obtain your permanent license. Installing the software license consists of two main stages:

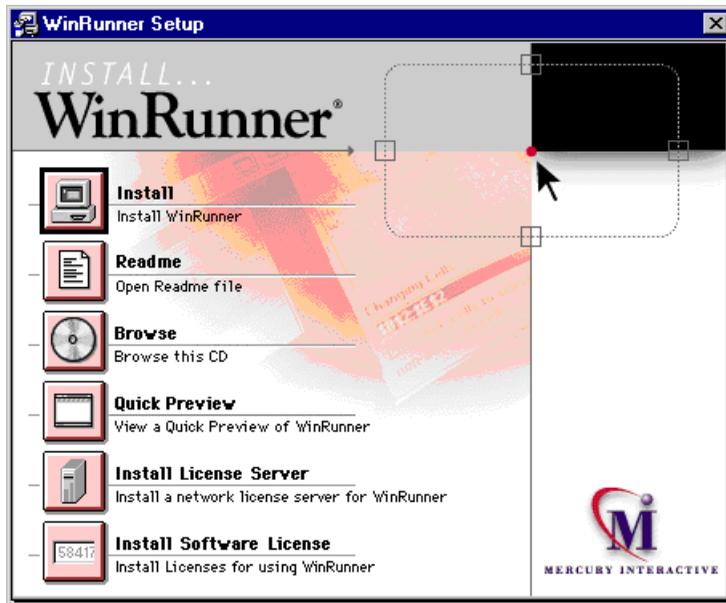
- using the maintenance number to create information which is sent to Mercury Interactive's Customer Support Organization
- entering the license code provided by Mercury Interactive's Customer Support Organization

If you are installing a network license, you must install the software license on the license server. If you are installing a standalone license, you can install the software license on the machine where you want to run WinRunner.

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

To install the software license:

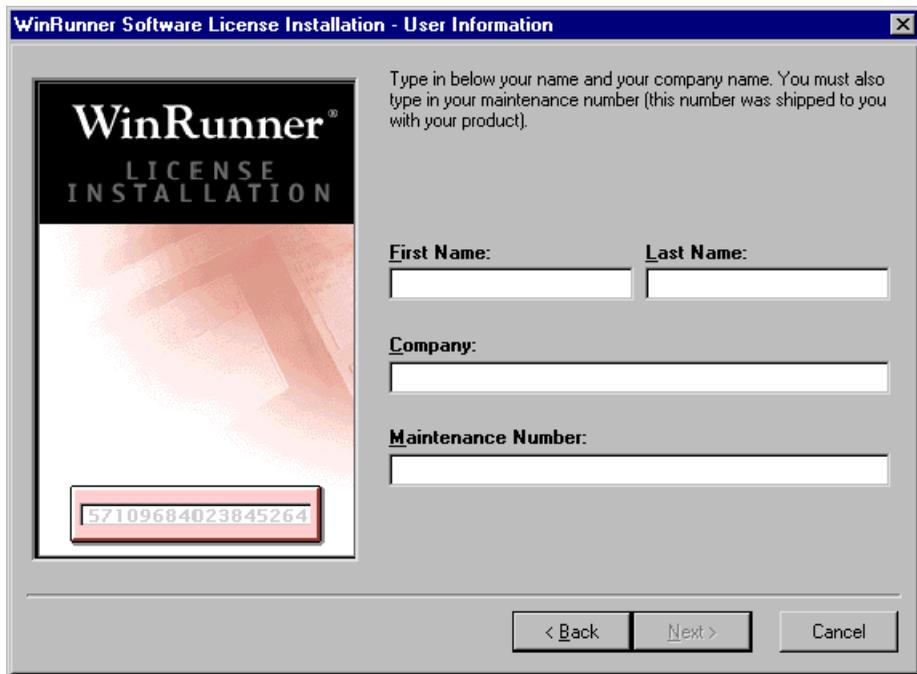
- 1 Insert the CD-ROM into the drive from which you want to install. If the CD drive is on your local machine, the WinRunner Setup window opens. If you are installing from a network drive, connect to it and run *autorun.exe* under the *\setup* subdirectory.



- 2 Click **Install Software License**.
- 3 The WinRunner Software License Installation program starts.

Make sure that you have exited all Windows programs. Click **Next** to proceed.

4 The User Information screen opens.

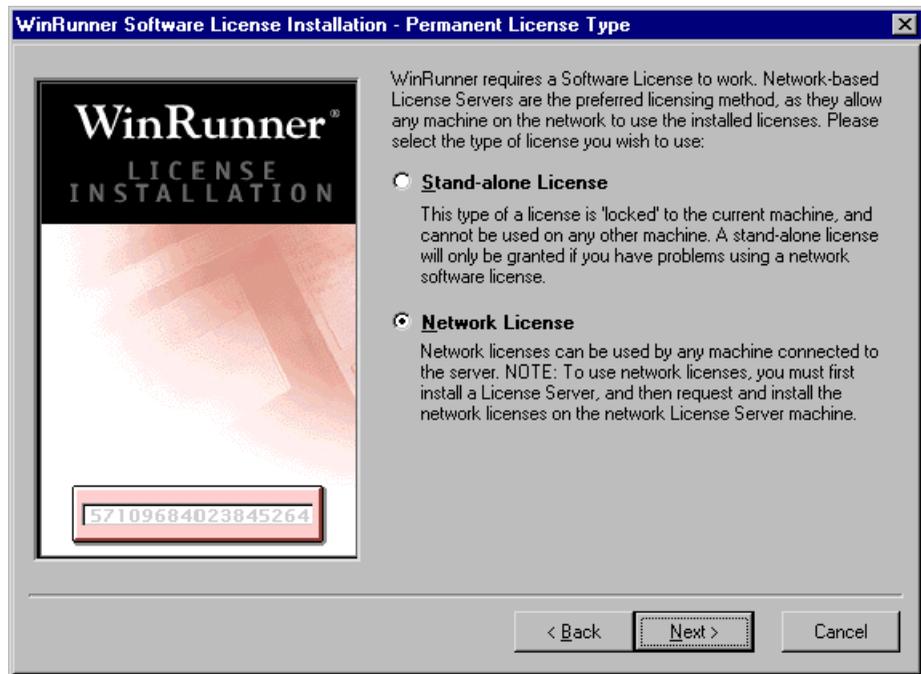


The image shows a Windows-style dialog box titled "WinRunner Software License Installation - User Information". On the left side, there is a graphic with the text "WinRunner LICENSE INSTALLATION" and a red-bordered box containing the number "57109684023845264". On the right side, there is instructional 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 this text are four 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 right, 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 licenses are generated.

Click **Next** to proceed.

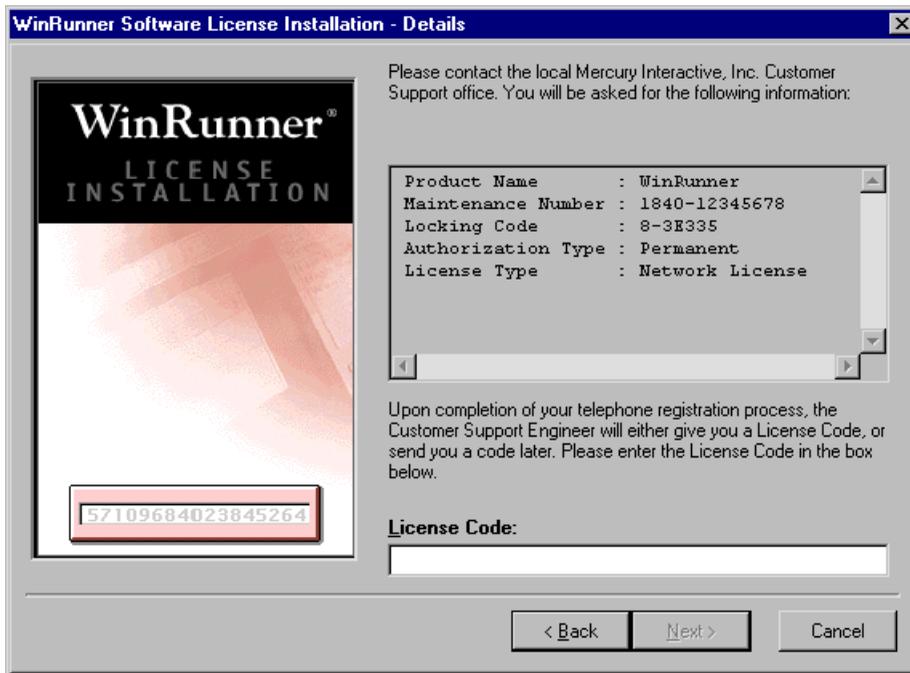
5 The Permanent License Type screen opens.



WinRunner's license server requires either a standalone license or a network license. A network license enables you to run WinRunner on any machine on your network.

Make sure that **Network License** is selected and click **Next** to proceed.

- 6 Send all the information that appears in the read-only box to your local Mercury Interactive Customer Support office. You may contact your local organization by phone or e-mail. It may be easiest to copy the information from this screen and paste it into an e-mail message.



- 7 Mercury Interactive's Customer Support Organization will provide you with the license code, which you should insert 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.

- 8 Click **Next** to proceed.
The installation program is complete.

When the License Manager is functioning properly, WinRunner detects the license automatically: You should not receive any messages about your licenses. However, the first time you start WinRunner after installing the license server, you may receive one of the following messages:

"The software license in use will expire in x days."

"The software license in use expires today!"

"This is a 30-day evaluation version of the product."

"Click the Retry button to search for a permanent license on the network, or click Cancel to work with current license."

If you receive one of these messages, click Retry. Once WinRunner finds the permanent license that you have installed, you should not receive any more messages.

Note: If you receive messages after installing the License Manager, please see "Troubleshooting" on page 54. If you are still having difficulties, please contact Mercury Interactive's Customer Support Organization for assistance.

Uninstalling the 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 manager 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.” on page 36 and “Installing the Software License” on page 40 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.

Installing a Standalone License

This chapter discusses how to install and uninstall a standalone software license. For information on how to install a network license, see “Installing the Network License” on page 36.

Once you install your permanent license, it overrides your temporary license(s).

Note: Do not change the date on a computer running WinRunner with a temporary license.

Installing the Software License

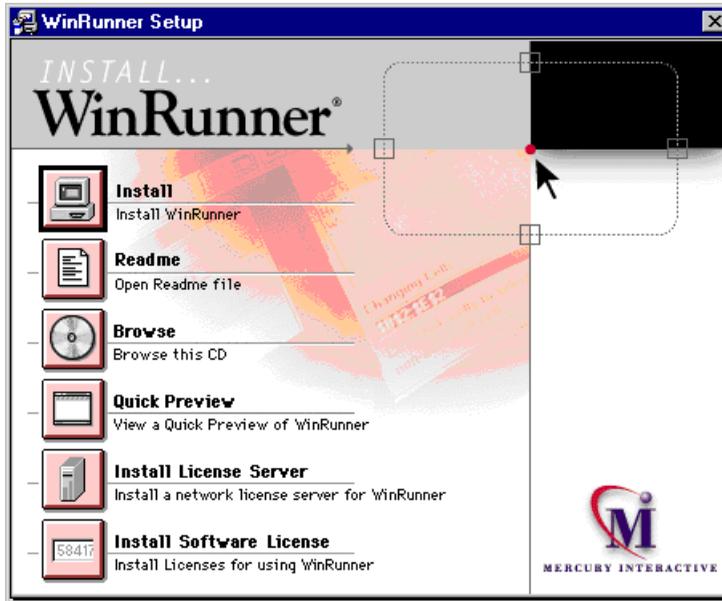
Once WinRunner is installed, you must run the software license installation in order to obtain your permanent license. Installing the software license consists of two main stages:

- ▶ 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

If you are installing a standalone license, you can install the software license on the machine where you want to run WinRunner.

To install the software license:

- 1 Insert the CD-ROM into the drive from which you want to install. If the CD drive is on your local machine, the WinRunner Setup window opens. If you are installing from a network drive, connect to it and run *autorun.exe* under the *\setup* subdirectory.



- 2 Click **Install Software License**.
- 3 The WinRunner Software License Installation program starts.
Make sure that you have exited all Windows programs. Click **Next** to proceed.

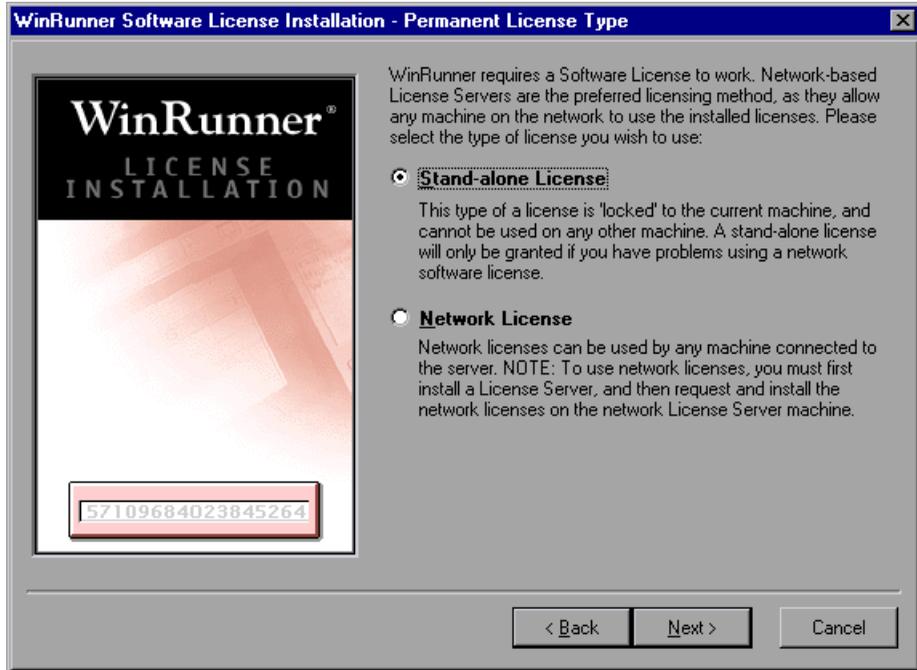
4 The User Information screen opens.

The image shows a Windows-style dialog box titled "WinRunner Software License Installation - User Information". On the left side, there is a graphic with the text "WinRunner[®] LICENSE INSTALLATION" and a red-bordered box containing the number "57109684023845264". 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 this text are four 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 right, 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 generated.

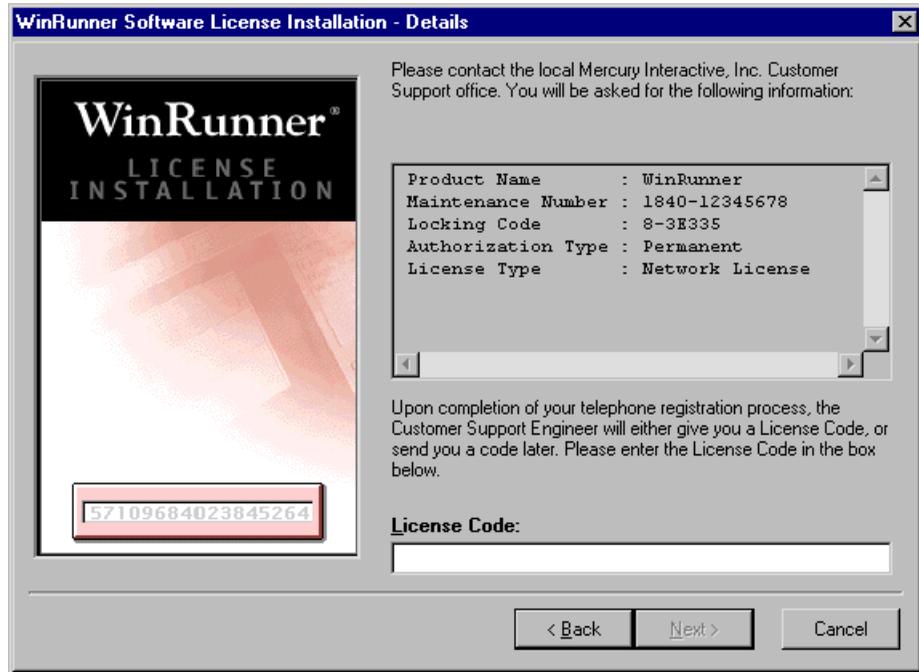
Click **Next** to proceed.

5 The Permanent License Type screen opens.



A standalone license enables you to run WinRunner only on one specific machine. Choose **Stand-alone License** and click **Next** to proceed.

- 6 Send all the information that appears in the read-only box to your local Mercury Interactive Customer Support office. You may contact your local organization by phone or e-mail. It may be easiest to copy the information from this screen and paste it into an e-mail message.



- 7 Mercury Interactive's Customer Support Organization will provide you with the license code, which you should insert 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.

- 8 Click **Next** to proceed.
The installation program is complete.

When the License Manager is functioning properly, WinRunner detects the license automatically: You should not receive any messages about your licenses. However, the first time you start WinRunner after installing the license server, you may receive one of the following messages:

"The software license in use will expire in x days."

"The software license in use expires today!"

"This is a 30-day evaluation version of the product."

"Click the Retry button to search for a permanent license on the network, or click Cancel to work with current license."

If you receive one of these messages, click Retry. Once WinRunner finds the permanent license that you have installed, you should not receive any more messages.

Note: If you receive messages after installing the License Manager, please see "Troubleshooting" on page 54. If you are still having difficulties, please contact Mercury Interactive's Customer Support Organization for assistance.

Uninstalling a Standalone License

If you uninstall the license, you will not be able to use WinRunner. If you want to uninstall the software license in order to reinstall it on a different machine, you must follow the directions described above in "Installing a Standalone License" on page 47 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 software license.

License Manager Tips and Tricks

This chapter describes:

- General Tips
- Locking Codes
- Troubleshooting
- 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 do not receive any error messages, but when I start WinRunner, I receive one of the following temporary license messages:

"The software license in use will expire in x days."

"The software license in use expires today!"

"This is a 30-day evaluation version of the product."

"Click the Retry button to search for a permanent license on the network, or click Cancel to work with current license."

Problem: WinRunner is not identifying the host license server, and is still using the temporary license. There could be several explanations for this:

Explanation	Solution
<p>You used WinRunner with the temporary license before you installed the license server with the proper software license. WinRunner is not searching the network for the software licenses.</p>	<p>Click Retry. WinRunner will search the network for the license server and the permanent license.</p>
<p>You installed the license server (host) on a different subnet mask from one or more client machines running WinRunner. WinRunner is not searching outside the subnet for the License Manager.</p>	<p>Check that the client machine (running WinRunner) can identify the host (license server) on the network. In the client machine, click Start > Run. In the Open box, type "ping [name of the machine with the license server installed]". Click OK. If the client can identify the host on the network, an MS-DOS window opens and four successful reply messages appear. If the client cannot identify the host on the network, an MS-DOS window opens, but there are no successful reply messages.</p>

If the client is connected to the network, but cannot identify the host, they may be in different subnets. In order for the client to see the host, you must make the change in the client machine, as described in “Setting LSHOST for a Network License Server” on page 71.

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 the license manager server or a standalone 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 is the following error message displayed after installing a standalone license code and starting WinRunner? "License Manager Error: No License Server is found on the network".	<ol style="list-style-type: none"> 1 Click Start > Run. In the Run dialog box, type <code>lslic.exe -removeall</code>. Make sure that <code>lslic.exe</code> is in the same root directory as <code>lserverc</code>. 2 Delete all <code>lserverc</code> files from the machine. 3 Reinstall the license code. <p>Note: If you are using a non-locked standalone temporary license code, please reissue the license for a locked standalone license code.</p>
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 Manager Utilities."

Known Problems and Workarounds

The following is a list of known problems and workarounds:

Problems	Workarounds
<p>The WinRunner license server is installed on a different domain than the WinRunner clients.</p>	<p>Open UDP port 5093 between domains. Set the LSHOST and LSFORCEHOST parameters on the WinRunner client machines. For additional information, see Appendix B, "License Manager Utilities."</p> <p>To check the connection, use "ping -a" from the Windows command line.</p> <p>If this is successful, it should display: Reply from <server i.p. address> : <byte size> < time ></p>
<p>The WinRunner license server is installed, and the user wants to install a standalone license, e.g. on a laptop, so that WinRunner will not look for and use a network license (which would then be unavailable to other users).</p>	<p>Prevent WinRunner from searching for a network license, as described in "Setting LSHOST to a Standalone License Code" on page 75.</p>
<p>The user wants to switch from using a network license to a standalone license.</p>	<p>Prevent WinRunner from searching for a network license, as described in "Setting LSHOST to a Standalone License Code" on page 75.</p>

Problems	Workarounds
<p>WinRunner was configured to use a standalone license code, but now the user wants to install a license server on the network and use a network license.</p>	<ol style="list-style-type: none"> 1 Install the license server on a different subnet as the WinRunner client. 2 Determine whether the client and the server are located on different subnets. <ul style="list-style-type: none"> ▶ From the WinRunner client machine, click Start > Programs > Command Prompt. ▶ In the MS-DOS window that opens, type ping <WinRunner License server name> and press Enter. ▶ Write down the IP address that is returned, e.g. 199.203.74.175. ▶ Type ipconfig and press Enter. ▶ Write down the IP address that is displayed, e.g. 199.203.74.189. ▶ In order to check whether the client and the server are located on different subnets, compare the first 3 groups of numbers in both IP addresses. ▶ In the above examples, 199.203.74 are the same on both machines. Therefore, they are on the same subnet. 3 If the first 3 groups of numbers in both IP addresses are different, set the LSHOST variable as described in "Setting LSHOST for a Network License Server" on page 71. <p>Note: If the client and the server are located on the same subnet, you do not need to define LSHOST.</p>
<p>The WinRunner license installation utility does not accept the correct license code (error 19), or the wrong license code was entered.</p>	<ol style="list-style-type: none"> 1 Close and reopen the WinRunner license installation utility and re-enter the license code. If the problem continues: 2 Close the license installation utility. 3 Delete the <i>lservrc</i> file (from <i>Program Files\Common Files\Mercury Interactive\License Manager</i>). 4 Restart the license installation utility from WinRunner's autorun screen. 5 Re-enter the correct license code.

Problems	Workarounds
The WinRunner license server was installed instead of a standalone license (error 19).	<ol style="list-style-type: none"> 1 Click Start > Run. In the Run dialog box, type <code>lslic.exe -removeall</code>. Make sure that <code>lslic.exe</code> is in the same root directory as <code>lserverc</code>. 2 Uninstall SentinelLM. (Click Start > Settings > Control Panel. Double-click Add/Remove Programs. The Add/Remove Programs dialog box opens. In the Install/Uninstall tab, select "SentinelLM". Click Add/Remove.)
The license installation utility does not accept a temporary license generated by the Start now feature.	Contact Mercury Interactive Customer Support to reissue the license code.
If the <code>lserverc</code> file is in the <i>Program Files\</i> <i>Common Files\</i> <i>Mercury Interactive\</i> <i>License Manager</i> folder, WinRunner may not be able to locate the license server.	Delete the <code>lserverc</code> file from the local drive.
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.
Although a standalone license code was entered on the client machine, WinRunner still looks for a network license.	Decode the problematic standalone license code using <code>lsdecode.exe</code> . For more information, see Appendix B, "License Manager Utilities." If the license code does not match the locking code, contact Mercury Interactive Customer Support to reissue the license.

WinRunner Installation Guide • Installing the WinRunner License

Problems	Workarounds
When creating a new temporary license code in the WinRunner license generator, the year 2000 is not available to select from the drop down list.	Type 2000 manually into the WinRunner license generator.
The license code sent to the customer is legal, but the customer cannot start WinRunner.	The customer may not be using the WinRunner license installation utility from the WinRunner CD-ROM's autorun screen. Make sure that the customer is running <i>inst_key.exe</i> (not <i>wrls_ins.exe</i>) from the <i>WinRunner CD-ROM\LicenseManager</i> directory.
The customer has changed the date on the license machine, for example due to Year 2000 compliance testing. This locked the WinRunner license.	Restore the machine's clock to the original date. Reissue the license code.

Part III

Appendixes

A

License Manager 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 manager 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 manager 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 .
The computer name is illegal.	<ul style="list-style-type: none"> ▶ Ensure that the names of both the WinRunner machine and the License Server do not contain extended characters (such as á, ç, ü, æ) or multi-byte characters (such as Kanji letters). To check this, choose Start > Settings > Control Panel > Network > Identification. If necessary, change the names of the machines. ▶ Ensure that the user name and password used to log into the License Server do not contain extended characters (such as á, ç, ü, æ) or multi-byte characters (such as Kanji letters). If necessary, change the names of the user name and password.
A previous version of WinRunner 6.x has been installed and its demo license already expired. You can only install the demo key once on each machine.	Reissue a temporary license code (depending on the locking code) with help of Mercury Interactive customer support.

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 standalone 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 network 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
Installing a standalone license code sets the LSHOST or LSFORCEHOST system variable.	Ensure that an LSHOST or LSFORCEHOST system variable has not been defined. If one has been defined, delete it. In Windows NT/2000: Choose Start > Settings > Control Panel > System > Environment . Highlight the system variable and click Delete . In Windows 95/98/ME: Edit the <i>autoexec.bat</i> file, which is located in the Windows drive root directory. Look for Set LSHOST= < > or set LSFORCEHOST= < > . Delete the line containing this variable, and save the file. For additional information, see "Setting the LSHOST System Variable," on page 70.
The license code is nodelocked and does not match the locking code of the PC where the license manager is being installed.	Contact Mercury Interactive Customer Support to reissue the license with the correct license code.

Possible Causes	Possible Solutions
<p>When you try to install a standalone license, the license code is for a network license.</p>	<p>Copy <i>Isdecode.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.</p>
<p>The license code was entered incorrectly.</p>	<p>Copy <i>Isdecode.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.</p>
<p>The license code has already been installed.</p>	<p>Check that the <i>Iservrc</i> file exists in <i>Program Files\Common Files\Mercury Interactive\License Manager</i>, <i>Program Files\Rainbow Technologies\sentLM\Server\Iservrc</i>, or the Rainbow Technologies installation path. Note: If you want to reinstall the license code, delete the <i>Iservrc</i> file before doing so.</p>

B

License Manager Utilities

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

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

Overview

The following table provides a description of the WinRunner License Manager utilities and short examples to facilitate usage.

Utility	Description/Example of Usage
echoid.exe	Generates a WinRunner machine's locking code.
lsdecode.exe	Decodes a WinRunner license code (<i>lservrc</i>) in order to retrieve license information, e.g. expiration time, temporary/permanent, network /standalone etc. Copy <i>lsdecode.exe</i> to the same path as the <i>lservrc</i> file and execute it.

Utility	Description/Example of Usage
lslic.exe	<p>Adds or removes a license code. You can use the following parameters:</p> <p><i>-a</i> (add) <i>-f</i> (file name): adds a license code from a license file.</p> <p><i>-removeall</i> removes all licenses from a WinRunner license server.</p>
lsmon.exe	<p>Monitors a WinRunner license server machine. To monitor a remote WinRunner server, use <host name> or <IP address> in order. For example: <code>c:\lsmon.exe saturn</code> monitors the “saturn” host. For additional information on this utility, see “Displaying Current WinRunner Users” on page 69.</p>
lswhere.exe	<p>Searches for license servers on the network. The parameter <code>-<IP address></code> searches for a specific network host. For additional information on this utility, see “Displaying License Servers” on page 70.</p>
wlsquery.exe	<p>Similar to lsmon.exe described above. The WLSQUERY utility is effective only in cases where multiple WinRunner license servers are running. In addition to displaying the information displayed by lsmon.exe, it also displays the host name of the WinRunner license server from which the client is currently running WinRunner. For additional information on this utility, see “Displaying Current WinRunner Users” on page 69.</p>

The following table provides a description of system variables used with the WinRunner License Manager:

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 65.
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 65. For information on setting this variable, see “Setting the LSHOST System Variable” on page 70.

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>`.

WLSQUERY

You can run the *WLSQUERY* utility on a client machine (running WinRunner) or the host machine (the license server). The *WLSQUERY* utility is effective only in cases where multiple WinRunner license servers are running. It is a Windows-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
- ▶ the host name of the WinRunner license server from which the client is currently running WinRunner

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 67) in order to solve one of the problems described below:

- ▶ “Error 19: Cannot install a license code.” on page 65.
- ▶ The WinRunner client machine cannot find the WinRunner server on the network, described in “Frequently Asked Questions” on page 56.
- ▶ The WinRunner license server is installed on a different domain than the WinRunner clients, described in “Known Problems and Workarounds” on page 57.

- WinRunner was configured to use a standalone license code, but now the user wants to install a license server on the network and use a network license, described in “Known Problems and Workarounds” on page 57.

Setting LSHOST for a Network License Server

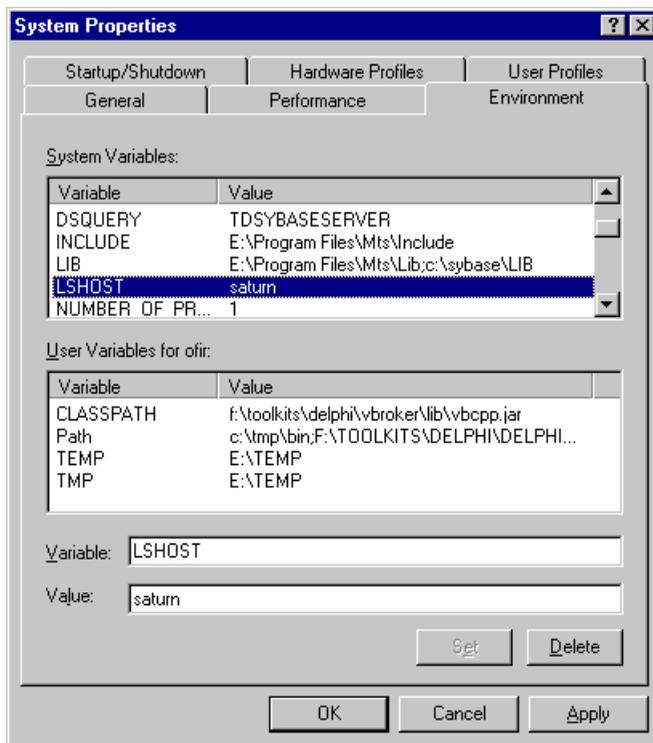
You set the LSHOST system variable to enable WinRunner to search for a license on the network. You set this system variable differently for different operating systems.

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.

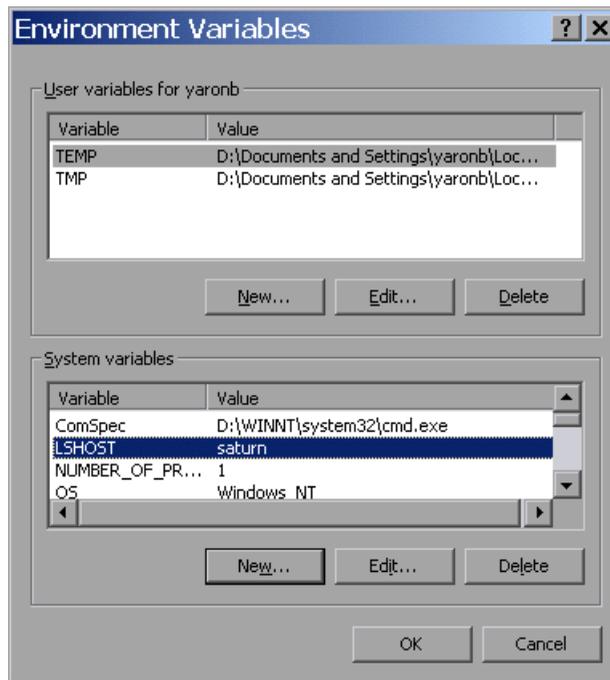
5 Under **System variables**, click **New**.

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**.

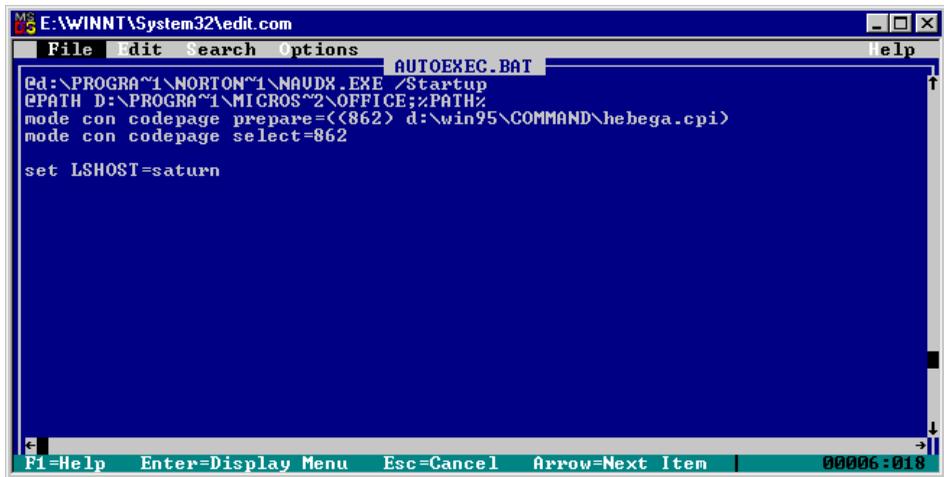
2 In the **Open** box, type `sysedit`.

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.



The screenshot shows a Windows 95/98/ME System Configuration Editor window titled "E:\WINNT\System32\edit.com". The window has a menu bar with "File", "Edit", "Search", "Options", and "Help". The active file is "AUTOEXEC.BAT". The text in the editor is as follows:

```
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
```

The status bar at the bottom of the window displays "F1=Help", "Enter=Display Menu", "Esc=Cancel", "Arrow=Next Item", and a timer showing "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.

Setting LSHOST to a Standalone License Code

You set the LSHOST system variable differently for different operating systems, as described below.

If the client machine is running Windows NT:

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

2 Double-click **System**.

The System Properties dialog box opens.

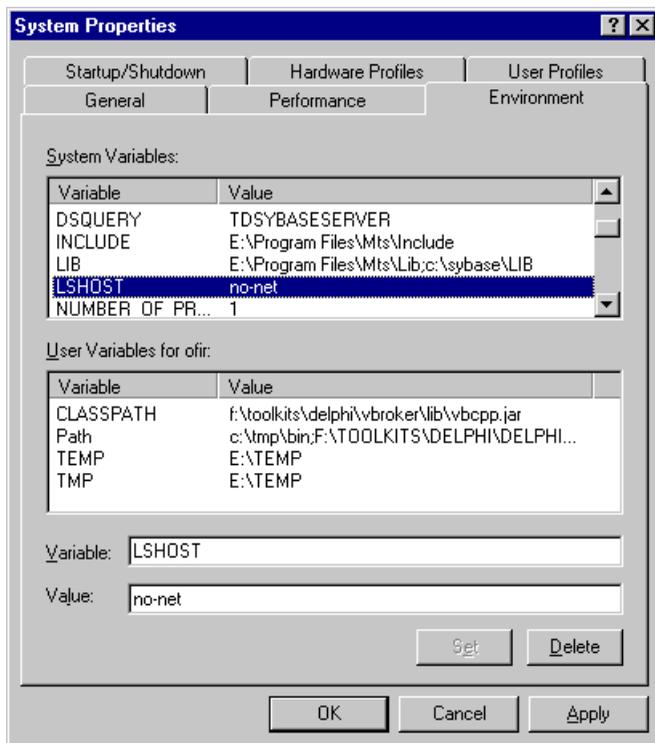
3 Click the **Environment** tab.

4 In the **Variable** box, type LSHOST.

5 In the **Value** box, type no-net.

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.

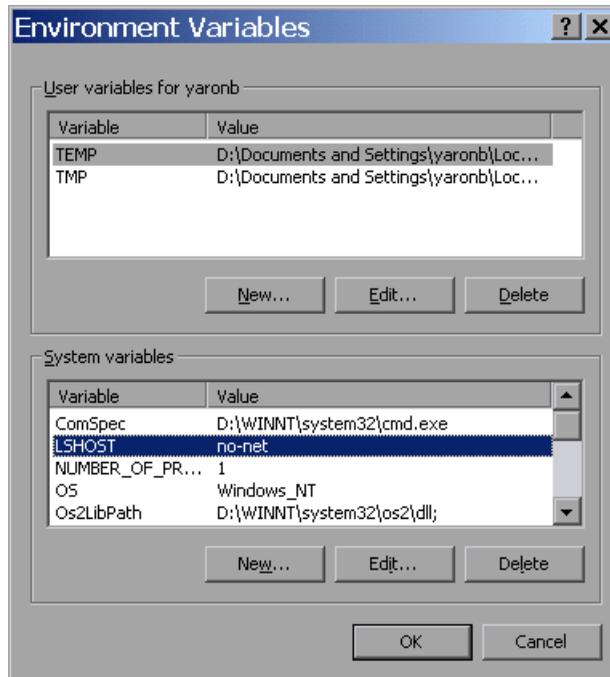
4 Click the **Environment variables** button.

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 no-net.
- 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.

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.

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

1 Click **Start > Run**.

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

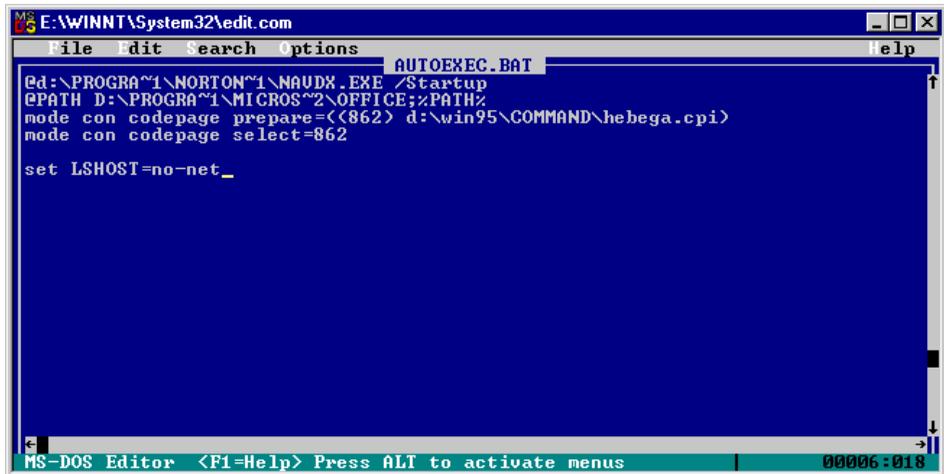
The System Configuration Editor opens, displaying 5 systems files.

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

➤ Look for `Set LSHOST= < >` or `set LSFORCEHOST= < >`. Delete the line containing this variable.

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

➤ Add `Set LSHOST= no-net`.



The screenshot shows a window titled "E:\WINNT\System32\edit.com" with a menu bar (File, Edit, Search, Options, Help) and a text area containing the following text:

```
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=no-net_
```

The status bar at the bottom of the window displays "MS-DOS Editor <F1=Help> Press ALT to activate menus" and a timer showing "00006:018".

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



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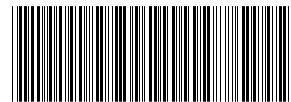
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