HP Service Test

for the Windows operating system

Software Version: 9.50

Installation Guide

hp ®

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Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

To register for an HP Passport ID, go to:

http://h20229.www2.hp.com/passport-registration.html

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Welcome to This Guide

Welcome to the HP Service Test Installation Guide. HP Service Test is a tool for creating test scripts, with a focus on SOA and Web Service testing. This guide describes how to install and set up HP Service Test.

➤ How This Guide Is Organized on page 7

➤ Who Should Read This Guide on page 8

➤ HP Service Test Online Documentation on page 8

➤ Additional Online Resources on page 9

How This Guide Is Organized

This guide contains the following chapters:

Chapter 1   Before You Install

Provides you with the information that helps you prepare for the installation process

Chapter 2   Installing HP Service Test

Describes how to install HP Service Test on a Windows machine.

Chapter 3   Working with Service Test Licenses

Describes the process for requesting and activating a license code for your copy of Service Test.

Chapter 4   Installing a Service Test License Server

Describes how to install the SafeNet Sentinel License Manager server, distributed with Service Test.

Chapter 5   Running Service Test Remotely

Describes how to manually configure the DCOM permissions and the firewall ports to allow remote execution for Service Test.

Who Should Read This Guide

This guide is intended for users who need to install and set up HP Service Test.

Readers of this guide should have some knowledge of system administration.

HP Service Test Online Documentation

Service Test includes the following online documentation:

Readme provides last-minute news and information about Service Test and Virtual User Generator. You access the Readme from the **Start** menu.

Books Online/Printer-Friendly Documentation includes PDF versions of the documents. Click the **Help** button and choose **Books Online**.

Online Help is available from specific Service Test windows by clicking in the window and pressing **F1** or clicking the **Help** button.

Function Reference gives you online access to all of the HP LoadRunner API functions that you can use when creating scripts, including examples of how to use the functions. Check HP's Customer Support Web site for updates to the online *Online Function Reference*.

Additional Online Resources

Troubleshooting & Knowledge Base accesses the Troubleshooting page on the HP Software Support Web site where you can search the Self-solve knowledge base. Choose **Help** > **Troubleshooting & Knowledge Base**. The URL for this Web site is http://h20230.www2.hp.com/troubleshooting.jsp.

HP Software Support accesses the HP Software Support Web site. This site enables you to browse the Self-solve knowledge base. You can also post to and search user discussion forums, submit support requests, download patches and updated documentation, and more. Choose **Help** > **HP Software Support**. The URL for this Web site is www.hp.com/go/hpsoftwaresupport.

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.

To find more information about access levels, go to: http://h20230.www2.hp.com/new_access_levels.jsp

To register for an HP Passport user ID, go to: http://h20229.www2.hp.com/passport-registration.html

HP Software Web site accesses the HP Software Web site. This site provides you with the most up-to-date information on HP Software products. This includes new software releases, seminars and trade shows, customer support, and more. Choose **Help** > **HP Software Web site**. The URL for this Web site is www.hp.com/go/software.

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Before You Install

This chapter provides you with the information that will help you prepare for the installation process. Before you install HP Service Test, please review the requirements.

➤ About Installing HP Service Test on page 12

➤ Requirements on page 12

➤ Licenses on page 12

➤ Troubleshooting on page 13

About Installing HP Service Test

HP Service Test provides you with several tools to test your SOA applications. It contains the following components:

➤ **HP Service Test.** A utility for creating Web Service tests based on WSDL files, recording, and network traffic analysis. This utility is based on HP's Virtual User Generator, VuGen.

➤ **HP Service Emulation.** A tool for creating an emulation of a service in order to test Web Services that are unavailable at the time of your test.

Requirements

The Service Test installation requires the Windows XP, Windows 2003, or WIndows Vista operating system. Windows 2000 is not supported.

Before the setup begins, the installation program checks your system for several required components, such as .NET Framework 3.5, Visual C++ 2005 (distributable), and Microsoft Installer 3.1. If these are not present, then it guides you through their installations.

The target machine should not have an existing LoadRunner installation. If the machine has LoadRunner installed, you need to install the Service Test add-in for LoadRunner. For more information, contact Customer support.

Licenses

When you install Service Test standalone for the first time, it includes a 21-day demo license. To use Service Test beyond the 21-day period, you must request and activate a license code for your copy of Service Test. For more information, see "Working with Service Test Licenses" on page 23.

Troubleshooting

Registry

During installation, HP Service Test writes several entries to the registry. If you ran an incomplete installation, the registry entries may interfere with a new installation.

To avoid registry conflicts, delete all of the problematic registry entries.

Refer to the log file **Prereq_Mgr.HP_Service_Test.log** in the **%temp%** folder to see a list of the registry entries.

Installation Messages

➤ When installing Service Test under a localized version of Windows XP, you may receive a warning when the setup installs MS SQL Server Express. Click **OK** to continue with the installation—this will not affect the setup.

➤ When installing Service Test under Windows Vista, you may receive a warning when the setup installs MS SQL Server Express. Click **Run Program** to continue with the installation.

➤ When installing the Service Test add-in for VuGen and LoadRunner, after you enter the license, you need to manually run the installation file. Run **STAddin.exe** located in the **Additional Components/Service Test Add-in** folder on the installation disk. Alternatively, download the file from the HP support site www.hp.com/go/hpsoftwaresupport.

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Installing HP Service Test

This chapter describes how to install HP Service Test on a Windows machine and provides post installation information.

➤ Running the Setup Program

➤ Post Installation

Running the Setup Program

When installing the Service Test add-in for VuGen and LoadRunner, after you enter the license, you manually run the installation file. Run **STAddin.exe** located in the **Additional Components/Service Test Add-in** folder on the installation disk. Alternatively, download the file from the HP support site www.hp.com/go/hpsoftwaresupport.

The following section describes the wizard that guides you through the installation of the standalone version of HP Service Test.

To install HP Service Test:

1 Insert the media into your drive and wait for the Installation Screen. If it does not open, run the **setup.exe** file in the root directory of the installation media. If you downloaded the installation, run **setup.exe** from the **disc** folder.

Note: If the Service Test installation directory is located on a network drive, the drive needs to be mapped before you run the installation. You cannot use the UNC (Universal Naming Convention) path to run the installation.

Due to a known Microsoft issue, if you are installing Service Test from a mapped network drive and you are using a Remote Desktop connection, you may receive an error that prevents you from running the installation. To install Service Test using a Remote Desktop connection, copy the installation directory to the local drive and run the installation locally.

2 Click the first item, **Service Test Setup**. Service Test requires several prerequisite programs, such as Microsoft Visual C++ run-time components. If the Installation program detects that your machine is lacking one of these programs, it prompts you to install them. You may need to restart your machine after installing the prerequisite programs. After restart, run the setup program again as described in Step 1.

**3** The Service Test Setup Wizard opens. Click **Next** to proceed.
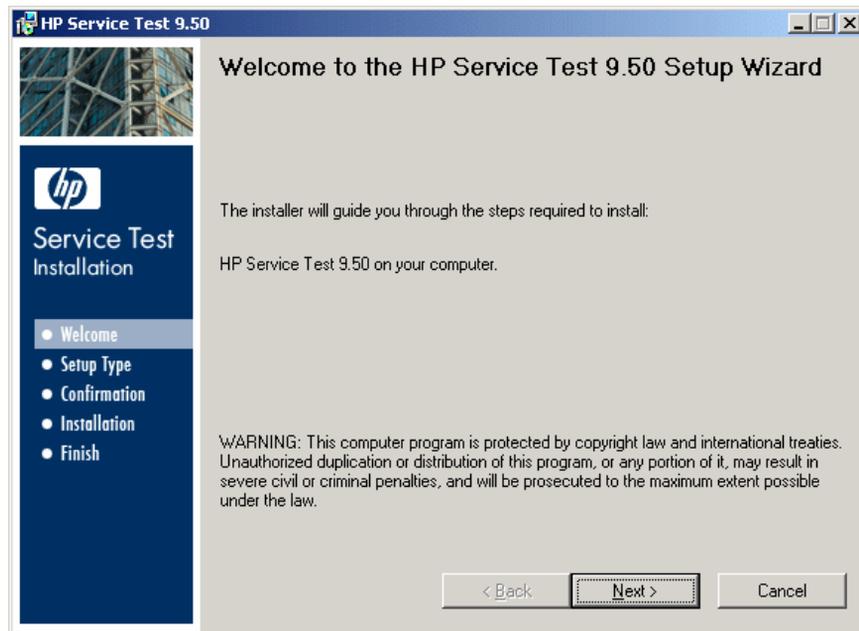
4 Review the license agreement and if the terms are acceptable to you, choose **I Agree**. Click **Next**.

5 In the Customer Information page, provide your name and organization name. Click **Next**.

6 In the Setup Type page, choose between a **Typical** or **Custom** setup.
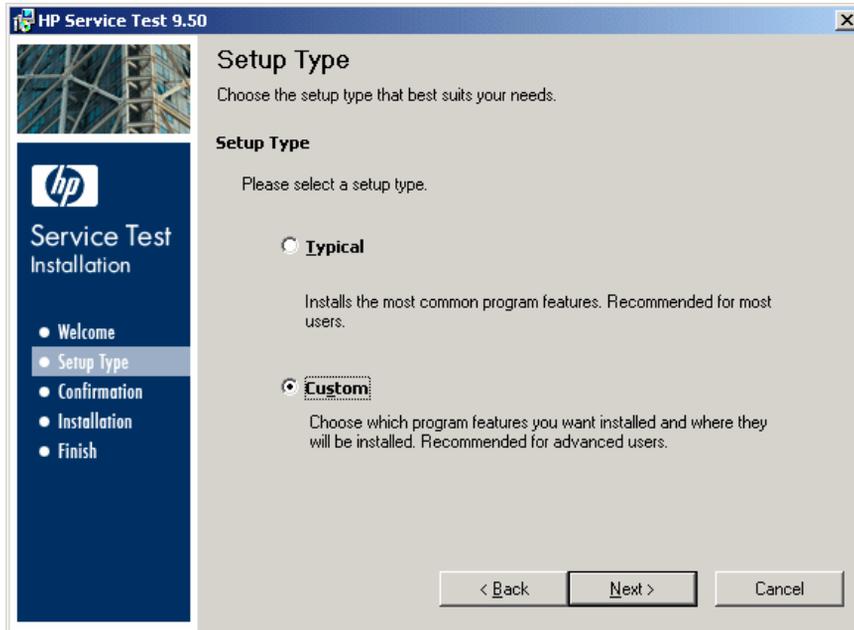
➤ Select **Typical** to install the most common program features.

➤ Select **Custom** to choose the features that you want to install. The following features are available:

  ➤ **HP Service Emulation.** A tool for creating an emulation of a service in order to test Web Services that are unavailable at the time of your test.

 ➤ **HP Service Test.** The complete HP Service Test product.

  Click **Next.**

**7** If you selected a **Custom** installation, the Custom Setup page opens.
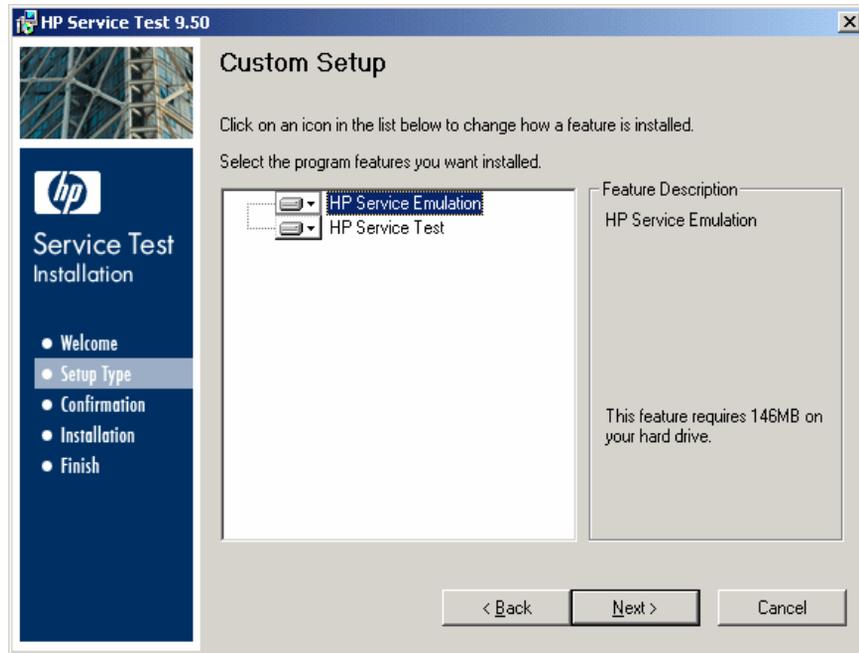
By default, all the features are selected for installation. To exclude a feature, click the arrow next to the feature and, from the menu that opens, select **Entire feature will be unavailable**.

Click **Next** to proceed.

8 Accept the proposed folder for the installation or browse for an alternate folder.
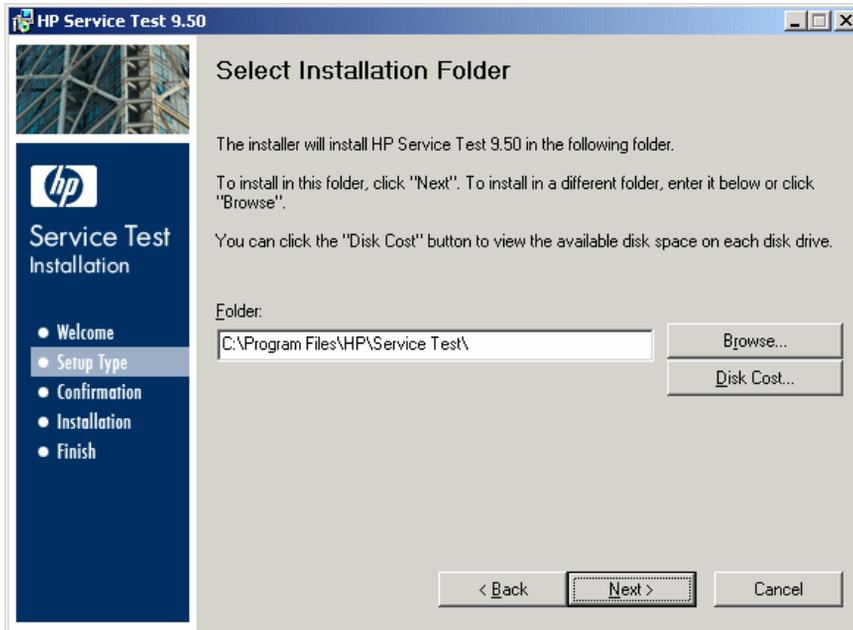
You can check the required and available disk space for each drive, by clicking **Disk Cost**. Click **OK** to close the Disk Cost dialog box.
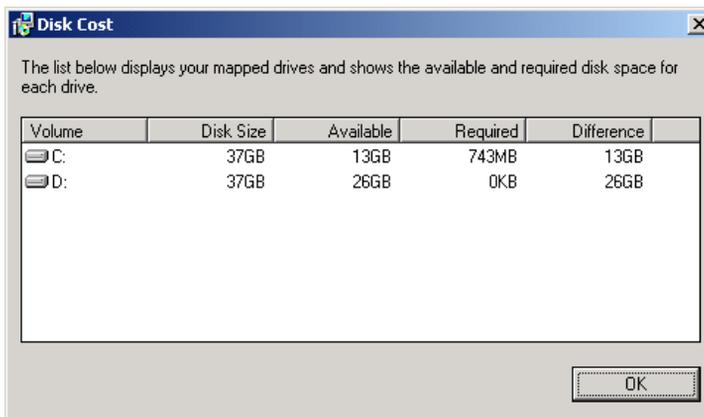
Click **Next** to proceed.

9 The wizard prompts you to confirm the installation.
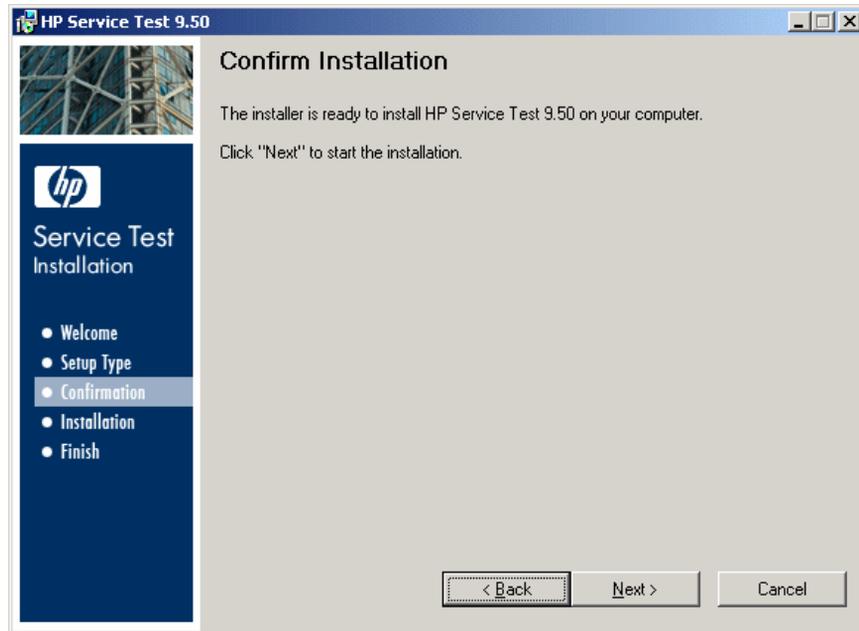
Click **Next** to start the installation.

Note: When you install Service Test for the first time, it includes a 21-day demo license. To use Service Test beyond the 21-day period, you must request and activate a license code for your copy of Service Test. For more information, see "Working with Service Test Licenses" on page 23.

Post Installation

You may need to perform the following

Windows Vista Users

For Windows Vista users: If you intend on running Service Emulation using a non-administrative account, set the startup mode for the Service Emulation service to automatic.

To set the startup mode to automatic:

1 Click on the **My Computer** icon, and select **Manage** from the right-click menu.

2 Select the **Services** node.

3 Locate the **HP Service Emulation** service in the list of services.

4 Double-click on the service to open its properties.

5 Change the startup mode to **Automatic**

Installing SQL Express

The Service Emulation tool uses an SQL Server database to store the rules and their expected values.

The standalone Service Test setup installs this component automatically. For LoadRunner with Service Test, you need to manually install the redistributable version of SQL Microsoft SQL Server Management Studio Express 9.00. Run the installation file, **install_MSSQL2005Express.bat**, located in the **Additional Components\MSSQL2005Express** folder on the HP LoadRunner media.

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Working with Service Test Licenses

You can install Service Test using a *Seat* license or a *Concurrent* license.

This chapter includes:

Understanding License Types

To use Service Test, you must have a valid license. There are two types of licenses: Seat and Concurrent. The table below summarizes the differences between the two license types.

Topic	Seat License	Concurrent License
General description	The license is specific to the computer on which it is installed.	Each license entitles the organization to one additional concurrent user.
Number of installations per license code	Each installation of Service Test requires a distinct license code.	There is no limit to the number of Service Test installations on the network, but a special license server regulates the number of computers that can run a copy of Service Test at any time.
Maintenance number	The license code is not based on the maintenance number.	The license code is based partially on the maintenance number. The maintenance number identifies the customer and indicates how many concurrent users the license supports.

Topic	Seat License	Concurrent License
Other issues	The license code is based partially on the locking code, which is a code that identifies the computer on which Service Test is installed. The supplied license code works only for the computer on which the locking code was generated. **Note:** A computer with multiple bootable partitions may generate a different locking code for each partition. If a different locking code is generated for a partition, you will need to request a unique license string for it. When you are working with a Windows 2000/2003 Server, the Seat license does not work if you access the server machine using a remote desktop connection.	Not supported for Unix networks. It is recommended that the license server have a fixed IP address. Service Test client computers must have TCP/IP installed. To use Concurrent licenses across networks, UDP port 5093 must be open on the server. For information about Commuter licenses for Concurrent types, see "Working with Commuter Licenses" on page 35.
Entering license code	To set or modify a new license, run the License Manager utility. See "Activating a Seat License Code" on page 27.	Each time Service Test opens, it automatically searches the same subnet for the license server. You do not need to enter a license code for your Service Test client installation.

Requesting a License Code

During the Service Test installation, if Service Test does not detect an existing valid license on your computer, you are automatically granted a 21-day demo Seat license. To use Service Test beyond the 21-day period, you must request and activate a license code for your copy of Service Test.

For LoadRunner or Virtual User Generator (VuGen) users, there is no demo-license. Once you activate your license code for Service Test, your license is permanent.

To request a license code:

1 Choose **Start** > **HP Service Test** > **Service Test License Manager**. The License Summary dialog box opens. Click **Modify License**.

The License Type screen opens. Choose **Seat license** and click **Next.** Click **Yes** to install a new license key code. The Welcome screen opens.
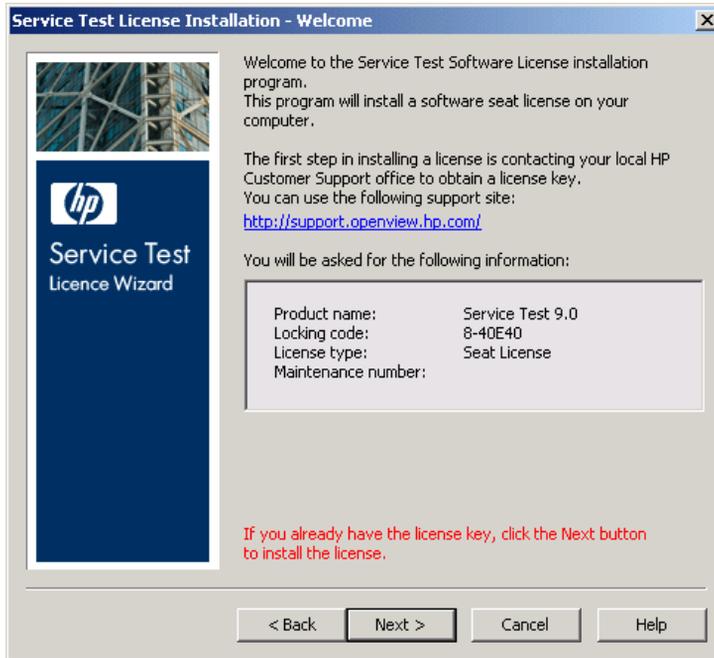
2 Use the URL displayed in the screen to open the Customer Service license request page. Copy and paste the locking code, license type, and maintenance number from the Welcome screen. Supply the other required information and submit the form. You will receive your license code via e-mail.

Wait for your license code to arrive via e-mail. When it arrives activate your license.

➤ To activate a Seat license, see "Activating a Seat License Code" on page 27.

➤ To set up and activate a Concurrent license, see "Using a Concurrent License" on page 29.

Activating a Seat License Code

Once you receive your license code from HP Software Customer Support, you must activate it.
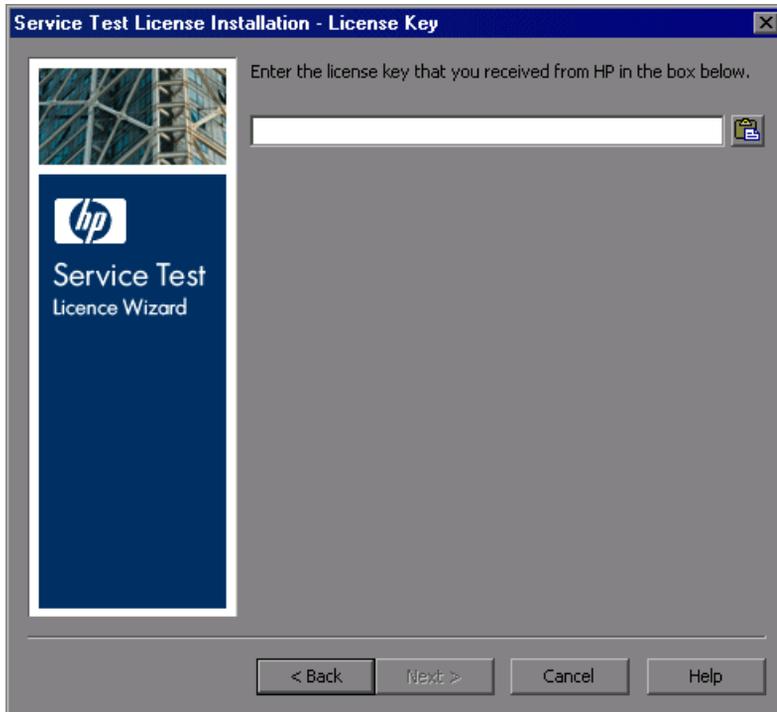
To activate a Seat license code:

1 Choose **Start** > **HP Service Test** > **Service Test License Manager**. The License Summary dialog box opens. Click **Modify License**.

The License Type screen opens. Choose **Seat license** and click **Next.** Click **Yes** to install a new license key code. The Welcome screen opens.
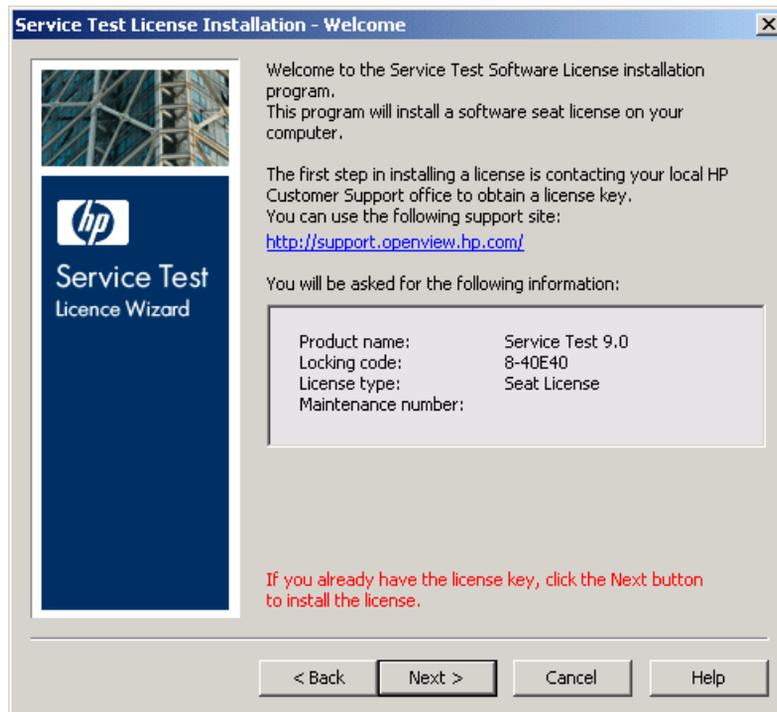
2 Click **Next** to enter the license key. The License Key dialog box opens.

3 Enter the license key you received from HP Software, and click **Next** to begin the activation process.

Notes:

The Seat license code is valid only for the computer with the locking code that you provided to HP Customer Support.

A computer with multiple bootable partitions may generate a different locking code for each partition. If a different locking code is generated for a partition, you will need to request a unique license string for it.

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4 If you entered a valid license code, the Status screen confirms that your license code was successfully installed. Click **Next**.

5 The Finished screen opens and displays customer support information. Click **Finish** to complete the license activation process.

You can also modify a license using the above procedure.

Using a Concurrent License

A concurrent license is a license that is hosted on a server machine. Instead of obtaining a seat license code for each machine, you can install a single concurrent license and make it available to multiple machines.

Before you install a Concurrent license, you need to make sure that you have access to a license manager server and that it has the Service Test feature enabled. For information about the license manager server provided with Service Test, see Chapter 4, "Installing a Service Test License Server."

This section describes how to activate a Concurrent license and includes the following topics.

➤ "Activating a Concurrent License" on page 30

➤ "Setting the LSHOST or LSFORCEHOST Variable Manually" on page 32

Activating a Concurrent License

Once you install your license code on the server, you can install a Concurrent license. This is described in detail in "Setting up a Concurrent License on the Server" on page 53. The Concurrent License screen has the following controls:

➤ **Concurrent License Server**. The license server to which you want to connect. The server must be accessible from the network. You can enter the server's:

  ➤ host name, for example, MyServer or MyServer.com

  ➤ IP address, for example, 191.191.19.1

➤ **Check Connection.** Checks that the Concurrent license server is accessible.

If you do not click the Check Connection button, Service Test checks the connection for you when you click **Next**.

To activate a Concurrent license:

1 Choose **Start** > **HP Service Test** > **Service Test License Manager**. The License Summary dialog box opens. Click **Modify License**.

Note: If a Service Test computer cannot find and connect to the Concurrent License Server, you may need to set the LSHOST or LSFORCEHOST variable. For more information, see "Setting the LSHOST or LSFORCEHOST Variable Manually" on page 32.

2 The License Type screen opens. Choose **Concurrent license** and click
Next. The Concurrent License Server screen opens.
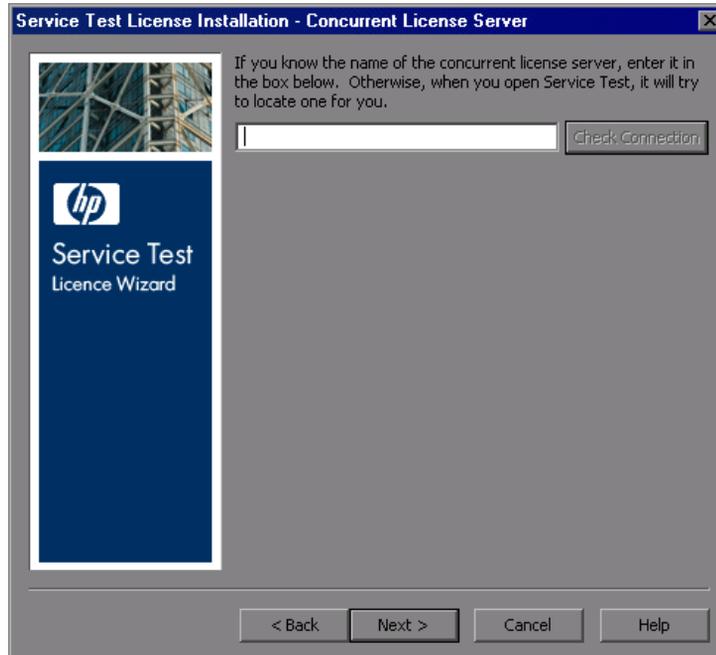
3 Specify the Concurrent license server to which you want to connect.

4 Click **Check Connection** to verify that the server is accessible to Service
Test.

5 Click **Next**. The License Manager informs you that the license was
installed successfully.

You can specify a different concurrent license server at any time by
rerunning the License Manager, or by modifying the LSHOST or
LSFORCEHOST environment variable.

Notes:

➤ You can use the Sentinel License Manager to set a new license key (for a seat license), change the license type from concurrent to seat and vice versa, or select/change name of license server.

➤ Seat licenses are not supported when working on Windows 2000/2003 servers machines through remote desktop access—they are only functional only when working on directly on these machines.

Setting the LSHOST or LSFORCEHOST Variable Manually

If a Service Test computer cannot find and connect to the Concurrent License Server, you may need to set the LSHOST or LSFORCEHOST variable manually. You may also need to set the LSHOST or LSFORCEHOST variable manually if the Concurrent License Server is installed on a different subnet or domain than the Service Test client.

You set the LSHOST or LSFORCEHOST variable to enable Service Test to search for a specific Concurrent License Server on the network. The LSHOST variable sets the preferred Concurrent License Server for a Service Test client. If the specified Concurrent License Server cannot be found in the local subnet, then a search is conducted on the entire network. The LSFORCEHOST variable restricts Service Test to a specific Concurrent license server.

To set the LSHOST or LSFORCEHOST variables:

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

2 Double-click **System**. The System Properties dialog box opens.

3 Click the **Advanced** tab.

4 Click the **Environment Variables** button. The Environment Variables dialog box opens.

5 Under **System variables**, click **New**. The New System Variable dialog box opens.

6 In the **Variable Name** box, type LSHOST or LSFORCEHOST.

7 In the **Variable Value** box, type the full name of the license server. Alternatively, enter the IP address of the host computer.

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

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8 Click **OK** to close the New System Variable dialog box.

9 Click **OK** to close the Environment Variables dialog box.

10 Click **OK** to close the System Properties dialog box.

Modifying License Information

After you install Service Test, you can modify your license key and/or change your license type at any time.

Note: You must be logged in with administrator privileges to change the license type used by your Service Test installation from seat to concurrent or vice versa.

To modify your license information:

1 Select **Start** > **Programs** > **HP Service Test** > **Service Test License Manager**. The Service Test License Summary dialog box opens.

2 Click **License**. The License Summary dialog box opens.
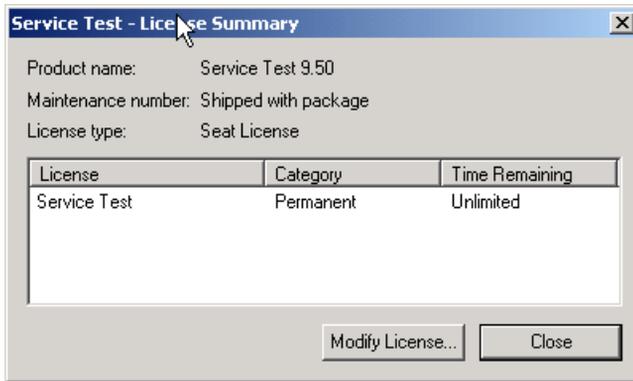
3 Click **Modify License**. The License Type screen opens.

> ➤ To change your license type from concurrent to seat, select **Seat license** and click **Next**. A confirmation box opens.
>
> > ➤ If you already have a valid seat license key installed, click **No** to save your selected license type.
> >
> > ➤ If you checked out a commuter license and want to use it now, click **No**.
> >
> > ➤ If you do not have a seat license key installed, click **Yes**.
>
> The Welcome screen opens. Activate the license as described in "Activating a Seat License Code" on page 27.

4 To change your license type from seat to concurrent, select **Concurrent license** and click **Next**. Set up the license as described in "Using a Concurrent License" on page 29.

> **Note:** To work with a concurrent license, a concurrent license server must be installed on and accessible from the network, and a concurrent license must be available. For information on installing a concurrent license server, see the *HP Functional Testing Concurrent License Server Installation Guide.*

5 Restart Service Test to apply your changes.

Working with Commuter Licenses

If you use Service Test with a concurrent license, but cannot connect your computer to your network (for example, during a business trip), you can install a commuter license to work in conjunction with that license.

For example, suppose you need to travel on business with your laptop computer and you want to use Service Test while you are away. You can check out a Service Test license from the concurrent license server to use for the duration of your trip, and then check the license back in upon your return. Commuter licenses are valid for up to 30 days, according to your requirements.

Tip: If you have a concurrent license and are far from the server, you can also use a commuter license to circumvent network traffic.

For more information, see "Checking Out a Commuter License" below, and "Checking In a Commuter License" on page 39.

Note: Installing a commuter license requires administrator permissions for the computer on which you want to use the license.

In addition, if you are unable to check out a license before you disconnect from the network (that is, leave for your trip), or if you checked out a license but it expired because your return was delayed, you can ask a local network user to check out a commuter license and send it to you remotely. For more information, see "Obtaining a Commuter License Remotely" on page 40.

Note: Commuter licensing is supported by Concurrent License Server version 7.6 and later. If you have upgraded to Concurrent License Server version 7.6 or later, you need to request a new server license key to enable the commuter licensing functionality. For details, contact HP Software Support or your local representative.

Checking Out a Commuter License

Before you check out a commuter license, ensure that the computer (for example, a laptop) on which you want to install the commuter license has Service Test installed, is connected to the network, and has access to a concurrent license server with an available Service Test license. After you have checked out the license, you can disconnect the computer from the network.

To check out a commuter license:

1 Open the **WCommute** tool. Double-click **WCommute.exe** in the HP Service Test installation's **bin** folder. The WCommute dialog box opens.
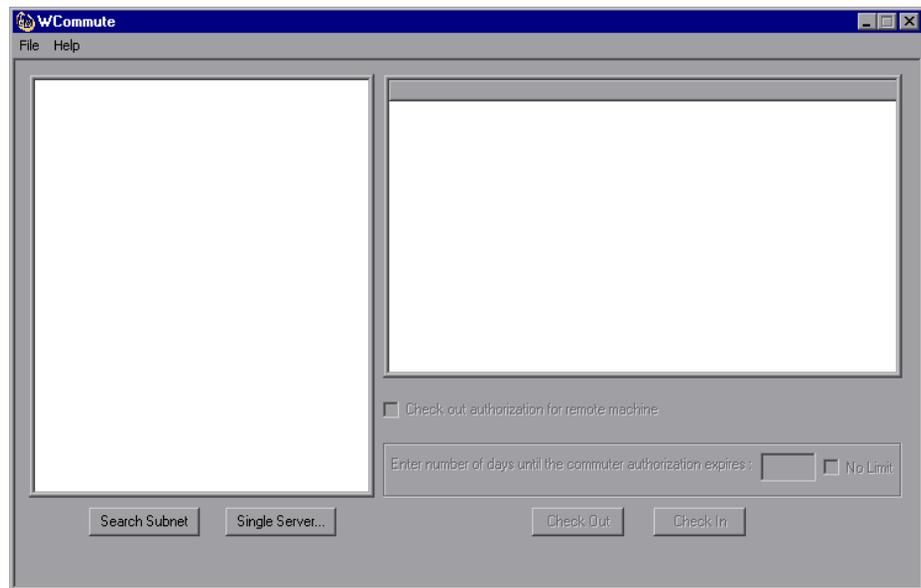
2 To see commuter licenses available on all concurrent license servers located within your subnet, click **Search Subnet**. If you want to specify a particular concurrent license server, or if you want to select a concurrent license server outside of your subnet, click **Single Server**.

➤ If you click **Search Subnet**, the WCommute utility searches the subnet for concurrent license servers that support commuter licensing and displays them in the WCommute dialog box. Note that this process may take several minutes.

➤ If you click **Single Server**, a dialog box opens enabling you to specify the concurrent license server you want to locate. Enter the concurrent license server computer's host name, IP address, or IPX address and click **OK**. The specified concurrent license server is located and displayed in the WCommute dialog box.

For each concurrent license server, a list of available commuter licenses is displayed. A red check mark next to a commuter license means that the license is already checked out to your computer. You cannot check out multiple licenses for the same application to the same computer. Click a license to view the license details in the right pane of the dialog box.

3 Select the license that you want to check out.

4 In the **Enter number of days until the commuter authorization expires** box, specify the maximum number of days to check out the license (up to a maximum of 30 days).

Note: When you check out a license, it decreases the number of licenses available for use by others. Therefore, you should specify the absolute minimum number of days that you require.

5 Click **Check Out**. The selected license is saved locally on your computer.

6 To use the new checked-out license, open Service Test and change your license type from concurrent to seat. Click **Modify License**. In the confirmation message that opens after you change the license type, click **No** to use the commuter license. Do not click **Yes**, as this will clear the license information.

Checking In a Commuter License

When you finish using the commuter license, you should check it in from your computer to the concurrent license server from which you checked it out. This makes the license available to other users.

Note: If your license expires, you do not need to check it in. When a license expires, you can no longer use it. The license is automatically returned to the concurrent license server, even if your computer is not connected to the concurrent license server network.

To check in a commuter license:

1 Open the **WCommute** tool. Double-click **WCommute.exe** in the HP Service Test installation's **bin** folder. The WCommute dialog box opens.

2 Locate the concurrent license server for the commuter license you want to check in, as described in step 2 of "Checking Out a Commuter License" on page 37. You must check in the license to the same concurrent license server from which you checked it out.

3 Select the license you previously checked out.

   Tip: The checked-out license is indicated by a red check mark.

4 Click **Check In**. The license is returned to the concurrent license server, and is made available for use by others.

   Note: Before you can use Service Test again, you must change your license type: either a valid seat or concurrent license. For more information, see "Modifying License Information" on page 33.

Obtaining a Commuter License Remotely

A local network user can locally check out a Service Test commuter license and send it to you for installation on a remote computer. This is useful in situations in which you are currently not connected to the concurrent license server network. For example, you may be out of the office on an extended business trip, but need to be able to use Service Test.

To obtain a commuter license remotely:

1 Run the **WRCommute** utility (**Start** > **All Programs** > **HP Service Test** > **Commuter License Tool**) to generate a commuter locking code for your computer and send the commuter locking code to a local user who has access to the concurrent license server. For more information, see "Step 1: Generating a Remote Computer Locking Code" on page 41.

2 Ask the local user to run the **WCommute** utility (entering the commuter locking code you generated) to check out a remote commuter license, and send it to you. For more information, see "Step 2: Checking Out a Commuter License for a Remote Computer" on page 42.

3 Run the **WRCommute** utility to install the remote commuter license on your computer. For more information, see "Step 3: Installing a Commuter License on a Remote Computer" on page 44.

4 Open the Service Test License Manager (**Start** > **All Programs** > **HP Service Test** > **Service Test License Manager**) and change your license type from Concurrent to Seat. In the confirmation message that opens after you change the license type, click **No** to use the commuter license. For more information, see "Modifying License Information" on page 33.

Step 1: Generating a Remote Computer Locking Code

The first step in remotely obtaining a commuter license is to generate a locking code on your computer using the **WRCommute** utility, and transfer it (by e-mail) to a network user who has access to the concurrent license server.

Note: The remote computer locking code used to lock a commuter license is not the same as the locking code displayed by the **ECHOID** utility. You must use the **WRCommute** utility to obtain the commuter license locking code.

To generate a locking code on a remote computer:

1 Open the Commuter License tool. Choose **Start** > **All Programs** > **HP Service Test** > **Commuter License Tool**. The WRCommute dialog box opens.
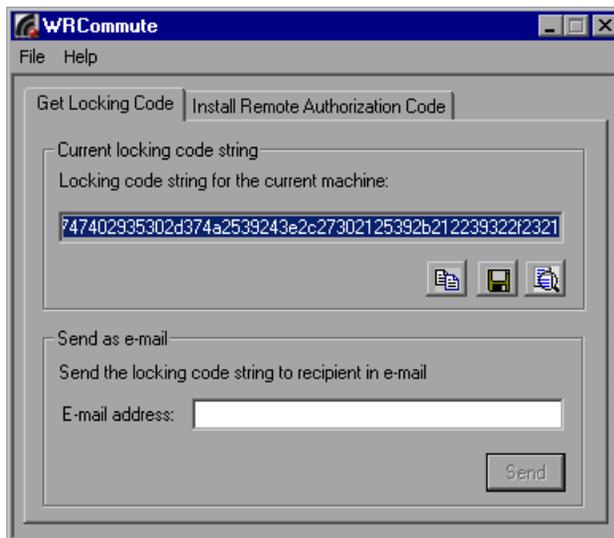
The **Locking code string for the current machine** box contains the locking code that you need to e-mail to a network user who has access to the concurrent license server containing the QuickTest licenses.

2 Send the locking code to the local network user in one of the following ways:

➤ Select the locking code string and click the **Copy to clipboard** button to copy the string to your Windows clipboard. Then open your e-mail program and paste the string into a new e-mail message and e-mail it to the local network user.

➤ Click the **Save lock code string to file** button to save the locking code in a file. Specify the name and location for the file, and then attach the file to a new e-mail message and e-mail it to the local network user.

➤ Click the **Display locking code string** button to display the entire locking code in another dialog box. You can then select the locking code string, right-click it and select **Copy** to copy it to your Windows clipboard. Then open your e-mail program and paste the string into a new e-mail message and e-mail it to the local network user.

➤ In the **E-mail address** box, enter the e-mail address of the local network user and click **Send**. Note that this option is supported only if Microsoft Outlook is set up as your e-mail client.

Step 2: Checking Out a Commuter License for a Remote Computer

After a local network user receives the locking code, the user can check out the license and transfer it to you (by e-mail). To do this, the user must have Service Test installed on his or her computer and also have access to the concurrent license server with an available Service Test license.

To check out a commuter license for a remote computer:

1 Open the **WCommute** tool. Double-click **WCommute.exe** in the HP Service Test installation's **bin** folder. The WCommute dialog box opens.

2 Locate the concurrent license server from which you want to check out a remote commuter license, as described in step 2 of "Checking Out a Commuter License" on page 37.

For each concurrent license server, a list of commuter licenses that you can check out is displayed.

3 Select the license that you want to check out.

4 Select the **Check out authorization for remote machine** check box.

5 In the **Enter the number of days until the authorization expires** box, specify the number of days to check out the license (up to a maximum of 30 days).

Note: When you check out a license for a remote computer, it cannot be checked in and remains in use (unavailable to other users) for the number of days specified. Therefore, you should specify the absolute minimum number of days required.

6 Click **Check Out**. The Locking Code for Remote Machine dialog box opens.
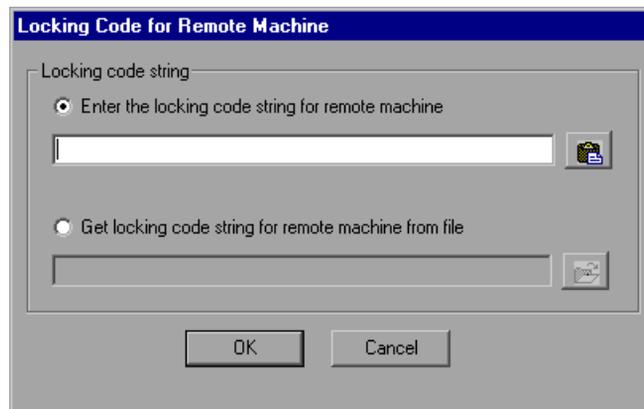
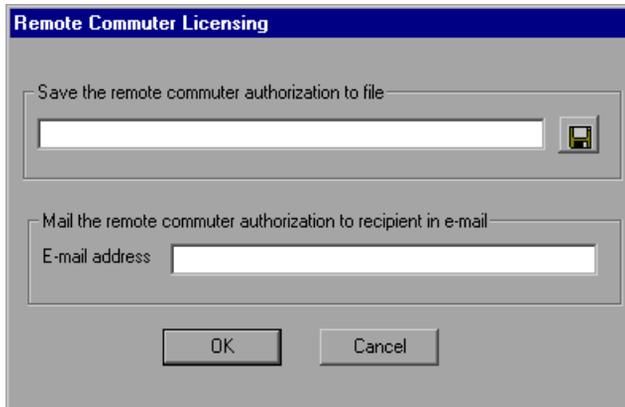**7** Enter the locking code that the remote user e-mailed you in one of the following ways:

➤ If the locking code was e-mailed to you in the body of an e-mail, copy it to your Windows clipboard. In the Locking Code for Remote Machine dialog box, select **Enter the locking code string for remote machine** and then click the **Paste from clipboard** button.

➤ If the locking code was e-mailed to you as an attached file, save the attachment and then select **Get locking code string for remote machine from file**. Click the **Load** button. Select the file that contains the locking code and click **Open**.

8 Click **OK**. The Remote Commuter Licensing dialog box opens.

9 Send the commuter license to the remote user in one of the following ways:

➤ Click the **Save** button to save the locking code in a file. Specify the name and location for the file, click **Save** and then click **OK**. Attach the file to a new e-mail message and e-mail it to the remote user.

➤ In the **E-mail address** box, enter the e-mail address of the remote user. Click **Send** and then click **OK**. Note that this option is supported only if Microsoft Outlook Express is set up as your e-mail client.

Step 3: Installing a Commuter License on a Remote Computer

The final step in remotely obtaining a commuter license is to install the license that was sent to you by the network user on your computer.

To install a commuter license on a remote computer:

1 Ensure that you are logged in to your computer with administrator privileges.

2 Open the Commuter License tool. Choose **Start** > **All Programs** > **HP Service Test** > **Commuter License Tool**. The WRCommute dialog box opens.

3 Select the **Install Remote Authorization Code** tab.
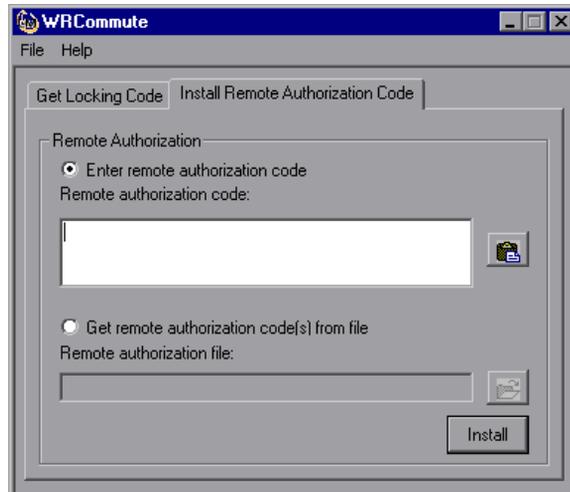
4 Enter the commuter license that the network user e-mailed you, as follows:

➤ If the commuter license was e-mailed to you in the body of an e-mail, copy it to your Windows clipboard. In the Install Remote Authorization Code tab of the WRCommute dialog box, select **Enter remote authorization code** and then click the **Paste from clipboard** button.

➤ If the commuter license was e-mailed to you as an attached file, save the attachment and then select **Get remote authorization code(s) from file.** Click the **Load** button. Select the file that contains the locking code and click the **Open** button.

5 Click **Install**. The new license code is installed on your computer.

Step 4: Modifying the License Type on the Remote Computer

Open the License Manger and change your license type from concurrent to seat. In the confirmation message that opens after you change the license type, click **No** to use the commuter license. For more information, see "Modifying License Information" on page 33.

Note: A remote commuter license cannot be checked in to the concurrent license server when you have finished using it—it simply expires on the remote computer. After you return to your office and are reconnected to the network, you should change your license type from seat to concurrent. For more information, see "Modifying License Information" on page 33.

4

Installing a Service Test License Server

To use a Service Test Concurrent license, you must have access to a license server. Service Test is distributed with the Sentinel License Manager installation program.

Firstly, you should obtain your license code from HP support, as described in "Requesting a License Code" on page 25.

Once you have a license code, you install the license manager server and enable the Service Test feature on the server.

This chapter includes:

➤ Installing the Sentinel License Manager on page 48

➤ Obtaining a License Code on page 53

➤ Setting up a Concurrent License on the Server on page 53

Installing the Sentinel License Manager

The following section describes how to install the license server. Typically, you only install the server software on one machine.

To install the license server:

1 Insert the installation disk into your drive and wait for the Installation Screen. If it does not open, run the **setup.exe** file in the root directory of the installation media.

2 Click the second item, **SafeNet License Server Setup**. The Installation wizard opens. Click **Next.**

3 Review the license agreement and if the terms are agreeable, accept them and click **Next**.

4 Enter your customer information and click **Next**.

**5** Confirm the destination folder and click **Next**.

6 Select a **Complete** installation type. Click **Next** to continue.

7 Click **Next** to confirm the settings.

8 If you are running XP, the setup program may warn you about firewall settings. We recommend that you accept the default settings, to disable the firewall for the Sentinel server.

9 Click **Install** to begin the installation.
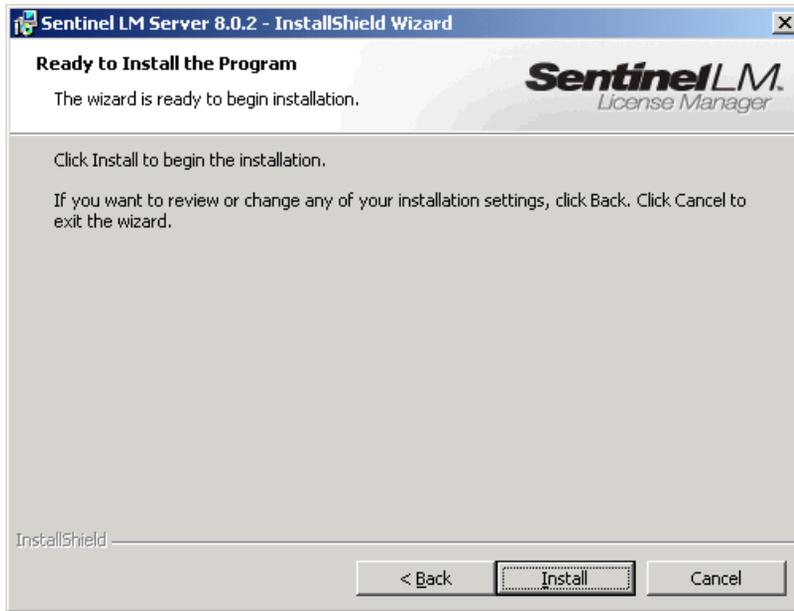
The setup program displays the installation progress.

10 Click **Finish** to complete the installation.

Note: You can repair or remove your installation at any time by running the setup program from the installation media.

Obtaining a License Code

In order to receive a Concurrent license code from HP, you need to provide the locking code of the machine hosting the server. The Service Test installation provides a utility for obtaining the locking code.

To retrieve the locking code of a machine:

1 Locate the **echoid.exe** program in the Service Test installation's **bin** folder. If you are installing the license server on another machine, copy the file to that machine.

2 Choose **Start** > **Run** and type **cmd** to open a command line window.

3 Run the **echoid.exe** file in the command line window. The command line window displays the locking code.

4 Submit the locking code to HP support. You can access the support Web site at http://support/openview.hp.com.

5 Save the License code that you receive from support to a text file, in order to install it on the server.

# Setting up a Concurrent License on the Server

In order to run Service Test with a Concurrent license, you need to install the Service Test feature on your license server. The license server must be version 8.0 or higher.

For information about installing the License Server, see "Installing the Sentinel License Manager" on page 48.

To add the Service Test feature to your license server:

1 Choose **Start** > **Control Panel** > **Administrative Tools** > **Services** and verify that the Sentinel LM service is running with **Automatic** Startup.

2 Open the license server's administration utility. Choose **Start** > **Programs** > **HP Service Test** > **License Server Administration Tool**. The WlmAdmin window opens.

3 In the **Subnet Servers** subtree, locate the computer running the server.

4 Right click on the computer name and select **Add Feature** > **From a File** > **To Server and its File**. Indicate the file containing the license key that you received from HP support.
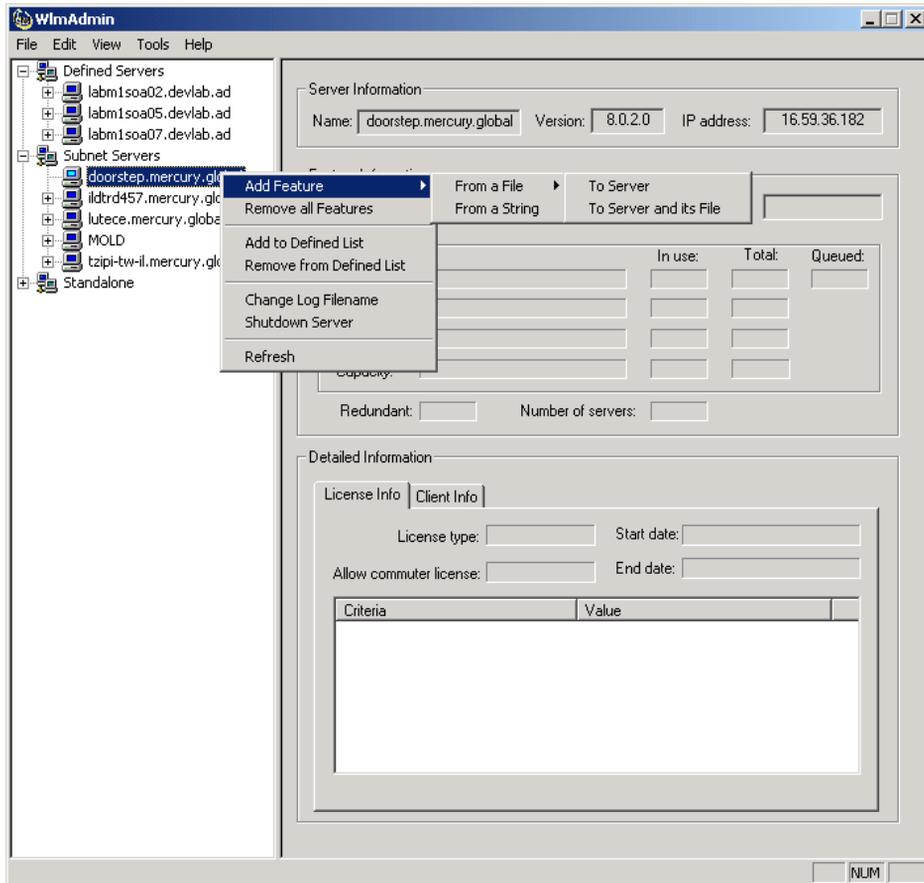
To add the Service Test feature directly from the license string, choose the **Add Feature > From a String** option. Copy in the license code and enable the **Add feature to server's file** option. Click **Add**.
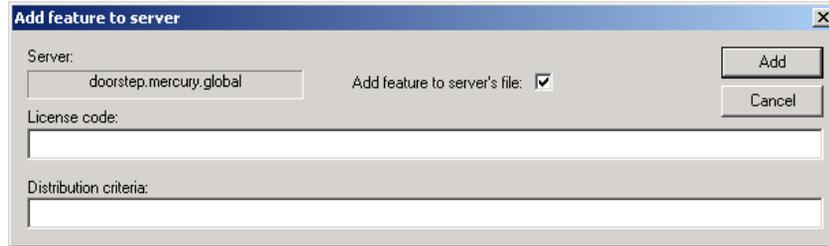
5 Verify that the Service Test license appears below the server node in the Subnet Server tree.

5

Running Service Test Remotely

If you want to execute Service Test remotely, you need to modify several settings.

This chapter includes:

➤ About Running Service Test Remotely on page 57

➤ Enabling Authentication on page 58

➤ Configuring the Firewall Port on page 58

➤ Setting the DCOM Permissions on page 59

About Running Service Test Remotely

To run Service Test remotely, you need to configure the DCOM permissions and open firewall ports to enable remote execution. During Service Test installation, you can choose to enable the remote execution. This section describes how to manually make the required changes if you did not do so during installation.

These changes are only required if you are running Service Test on Windows XP Service Pack 2, Windows 2003 Server Service Pack 1 or later, or Windows Vista.

If you do not intend to execute Service Test tests remotely from Quality Center, you do not need to make these manual changes.

> **Note:** The security changes described in this section should be performed by your System Administrator. If you have questions regarding changes in DCOM securities on your operating system, contact Microsoft Support.

> **Tip:** The HP Support Knowledge Base provides utilities to assist you in making these changes. For more information, refer to the QuickTest Professional Knowledge Base (http://support.mercury.com/cgibin/portal/CSO/kbBrowse.jsp) and search for Problem ID **43245**.

Enabling Authentication

To enable Windows to authenticate the remote user:

1 Add both machines to the same domain.

2 For domain users logged into both machines, add these domain users to the Local Administrators group on the Service Test computer. This enables Windows to authenticate the remote user executing the tests against the DCOM objects.

Configuring the Firewall Port

If you disabled the firewall installed with your operating system, you do not need to open port 135 for DCOM, as described in this procedure.

To configure the Windows Firewall to enable port 135 for DCOM:

1 On the Service Test computer, choose **Start** > **Settings** > **Control Panel** > **Windows Firewall**. The Windows Firewall dialog box opens.

2 Select the **Exceptions** tab.

3 Click **Add Program**. The Add a Program dialog box opens.

4 Select or browse to the Remote Agent (**<Service Test installation>\bin\VugenRemoteAgent.exe**) and click **OK**.

Note: If you do not configure the Remote Agent as an exception as described above, a Windows Security Alert message will appear while running a test remotely. Click **Unblock** to solve this problem. The next time you remotely execute an automated test, the warning will not appear.

5 For BPT remote execution from Quality Center, open the project on the remote machine. Select or browse to the Business Process Based Remote Agent **bp_exec_agent.exe** file locate under the Quality Center installation and click **OK** to activate the agent.

6 Click **OK** to close the Windows Firewall dialog box.

Tip: For more information, a list of port assignments for commonly-used services can be found at:
http://www.microsoft.com/resources/documentation/Windows/2000/server /reskit/en-
us/Default.asp?url=/resources/documentation/windows/2000/server/reskit/e n-us/cnet/cnfc_por_SIMW.asp.
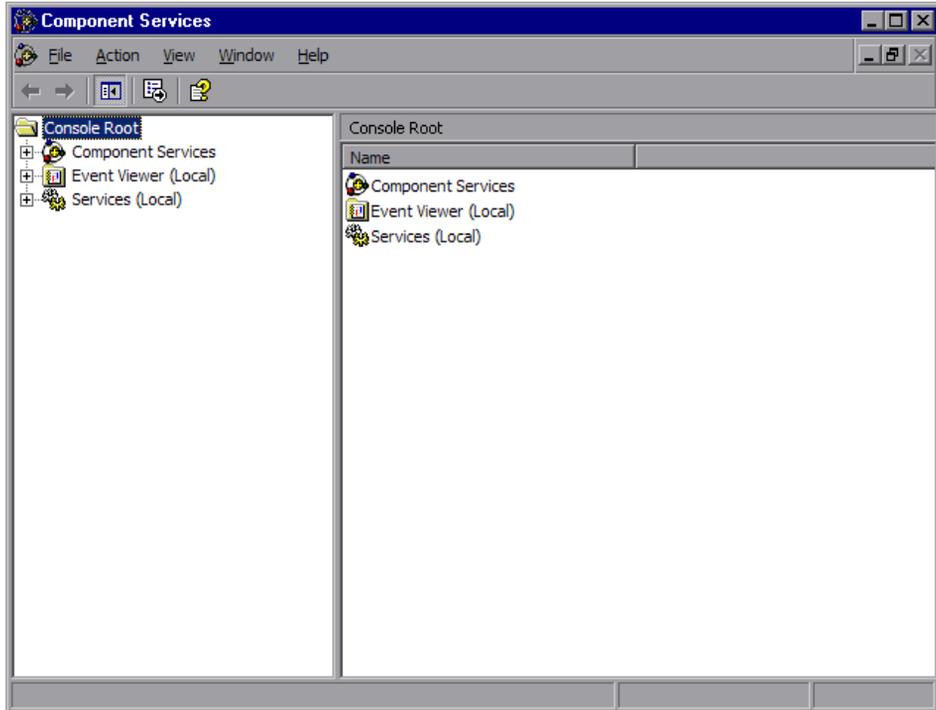

Setting the DCOM Permissions

When configuring the DCOM properties, you need to modify the settings in two areas:

➤ The DCOM Security Properties

➤ The Service Test Remote Agent DCOM Permissions

The DCOM Security Properties

To modify DCOM security properties:

1 Choose **Start** > **Run**, type **dcomcnfg**, and press ENTER. The Component Services window opens.
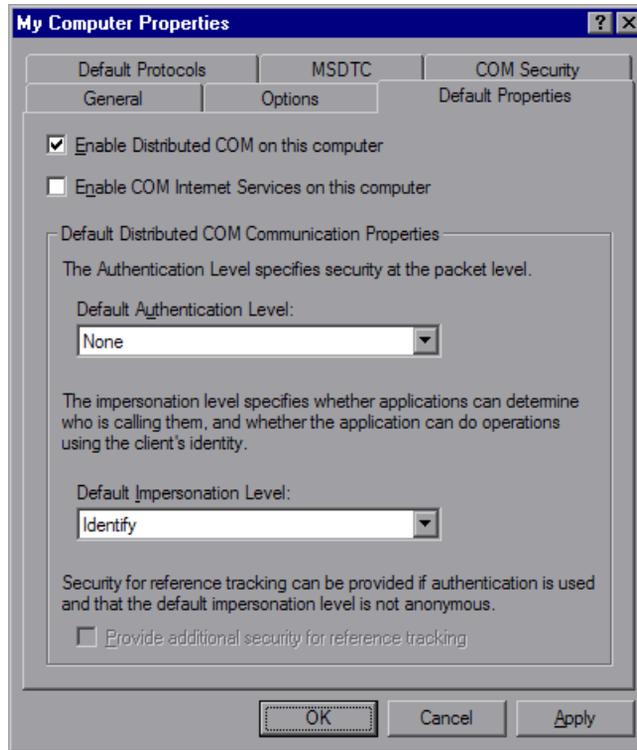

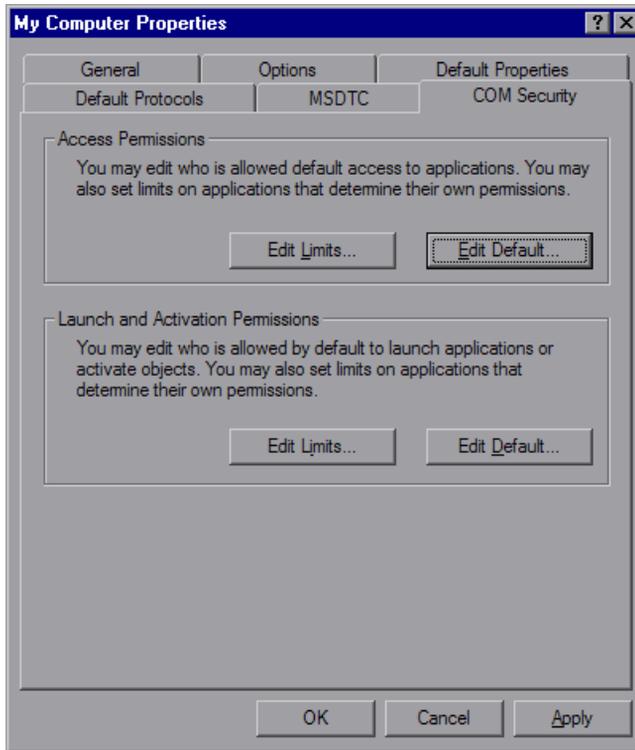**2** Navigate to **Console Root** > **Component Services** > **Computers** > **My Computer**.

Note: If a Windows Security Alert message opens, click **Ask me later** or **Unblock**.

3 Right-click My Computer and select **Properties**.

4 Select the **Default Properties** tab.

5 Make sure the Default Impersonation Level is **Identify** and click **Apply**.

6 Select the **COM Security** tab.

7 In the **Access Permissions** area, click **Edit Limits**. The Access Permission dialog box opens.

8 Click **Add**. The Select Users or Groups dialog box opens.

9 Click **Advanced**.

10 Click **Locations**. In the displayed dialog box, select your computer name and click **OK**.

**11** Click **Find Now**.

12 Select the following users and groups from the local machine and click **OK**:

➤ Administrator

➤ Administrators

➤ Authenticated Users

➤ Anonymous Logon

➤ Everyone

➤ Interactive

➤ Network

➤ System

13 Add the following users from the domain and click **OK**:

➤ <domain user logged into the Service Test computer>

➤ <domain user logged into the Quality Center computer that is performing the remote execution>

14 In the Access Permission dialog box, assign **Local Access** and **Remote Access** permissions to the groups and users in the list and click **OK**.

15 In the **Launch and Activation Permissions** area, click **Edit Limits**. The Launch Permission dialog box opens.

16 Repeat steps 8 to 13.

17 In the Access Permission dialog box, assign **Local Launch**, **Remote Launch**, **Local Activation**, and **Remote Activation** permissions to the groups and users in the list and click **OK**.

### The Service Test Remote Agent DCOM Permissions

To configure security settings for the Service Test Remote Agent DCOM applications:

 1 In the Component Services window, navigate to **Console Root** > **Component Services** > **Computers** > **My Computer** > **DCOM Config**.
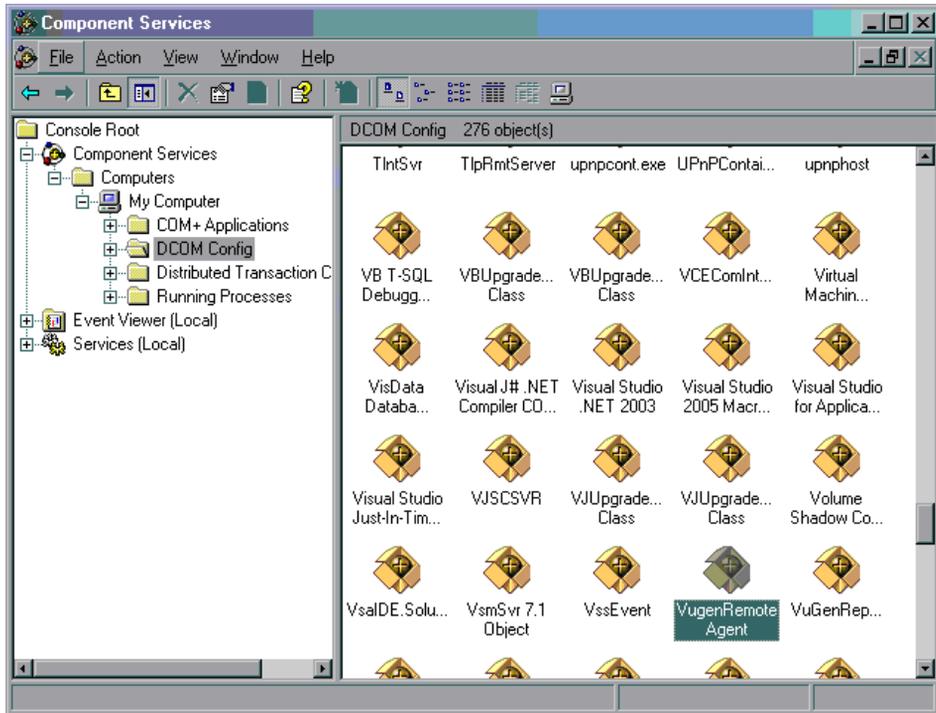

 2 Right-click the **VugenRemoteAgent** item and select **Properties**. The VugenRemoteAgent Properties dialog box opens.

 3 For BPT remote execution, right-click the application ID for the BP execution agent, **6108A56C-6239-41F6-8C0F-94D9CE0D4B61** item and select **Properties**. The **6108A56C-6239-41F6-8C0F-94D9CE0D4B61** Properties dialog box opens.

4 In the **Identity** tab, select **The interactive user**. This enables the DCOM application to authenticate the process against the logged-in Windows user and run the process in that security context.
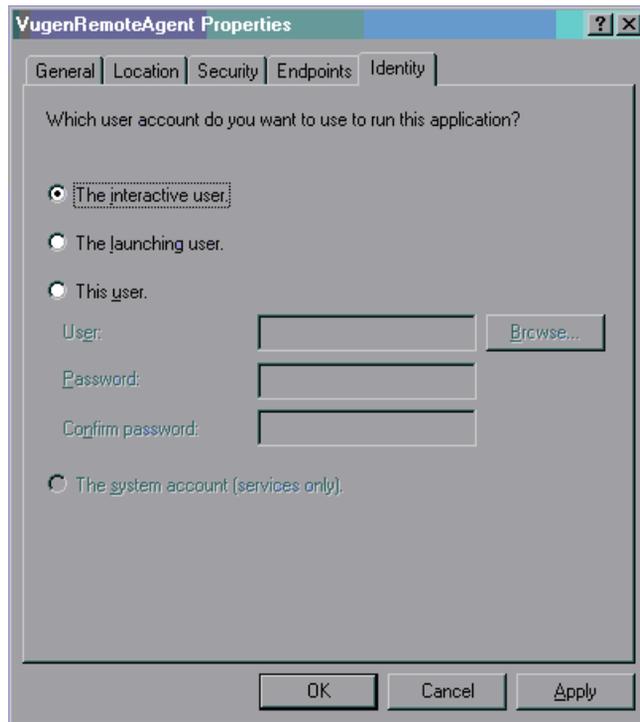
5 Select the **Security** tab.

6 In the Launch and Activation Permissions area, select **Customize** and click **Edit**. The Launch Permission dialog box opens.
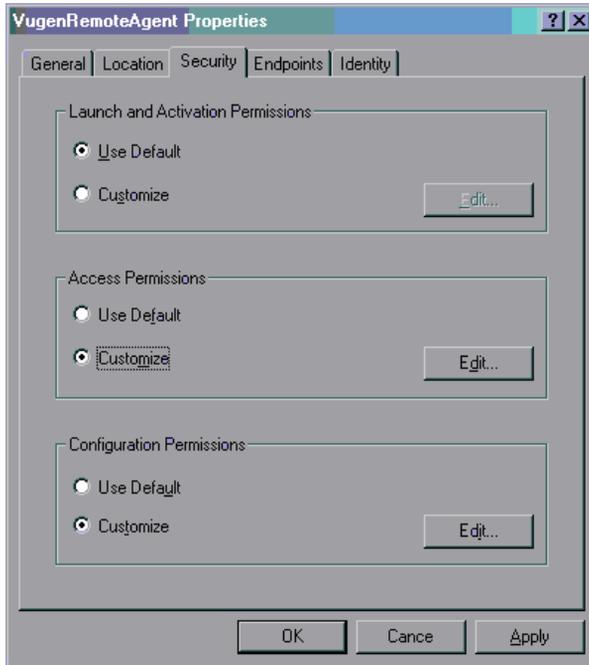
7 Click **Add**. The Select Users or Groups dialog box opens.

8 Click **Advanced**.

9 Click **Locations**. In the displayed dialog box, select your computer name and click **OK**.

10 Click **Find Now**.

11 Select the following users and groups from the local machine and click **OK**:

> ➤ Administrator

> ➤ Administrators

> ➤ Authenticated Users

> ➤ Anonymous Logon

> ➤ Everyone

> ➤ Interactive

> ➤ Network

> ➤ System

12 Add the following users from the domain and click **OK**:

> ➤ <domain user logged into the Service Test computer>

> ➤ <domain user logged into the Quality Center computer that is performing the remote execution>

13 In the Launch Permission dialog box, for all the groups and users in the list, select Allow for all permissions and click OK.

14 In the Access Permissions area, select **Customize** and click **Edit**. The Access Permission dialog box opens.

15 Repeat steps 6 to 12.

16 Click **Apply** to save the changes and click **OK** to close the dialog box.

17 Close the Component Services window.

You can now remotely execute a Service Test test from Quality Center.