HP Service Test

Software Version: 11.50

Installation Guide

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The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
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To check for recent updates, or to verify that you are using the most recent edition of a document, go to:

http://h20230.www2.hp.com/selfsolve/manuals

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- Look up HP support contacts
- Review information about available services
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- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

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

To find more information about access levels, go to:

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

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Welcome to This Guide

Welcome to the HP Service Test Installation Guide. Service Test is a tool for creating tests for GUI-less components such as Web and REST services. This guide describes how to install and set up Service Test.

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 Service Test

Describes how to install Service Test on a Windows computer.

Chapter 3   Working with Service Test Licenses

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

Who Should Read This Guide

This guide is intended for users who need to install and set up Service Test. Readers of this guide should have some knowledge of system administration.

Service Test Online Documentation

Service Test includes the following online documentation:

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

Books Online/Printer-Friendly Documentation enables you to open PDF versions of the documents.

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

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** > **Useful Links** > **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 Site**. 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.

1

Before You Install

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

About Installing Service Test

Service Test provides you with a user interface to test all types of services, such as WSDL-based and REST services. A wizard guides you through the installation process.

Requirements

For a complete list of supported operating systems and integrations, see the *HP Service Test Product Availability Matrix*, **hpst_pam.pdf**, in the product's **help** folder or in the **Start** menu (**Start** > **All Programs** > **HP Software** > **HP Service Test** > **Documentation** > *HP Service Test Product Availability Matrix*).

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.

Important: If you are working with a firewall, it is recommended that you add **ServiceTest.exe** to the list of firewall exceptions.

Integrations

Service Test integrates with ALM (Application Lifecycle Management) projects. For full integration, you must have the Service Test Management 10.50 extension for HP ALM or higher.

The Service Test Management Extension is available on the Service Test DVD in the **STMSetup** folder. For details, see the *HP Service Test Management Installation Guide*, **hpstm_install.pdf**, under that folder.

Note: When working with Service Test Management version 10.50, connect to the ALM server through Internet Explorer at least once before connecting through the Service Test interface.

Service Test Management version 10.50 with patch 1 does not require this step.

Considerations When Upgrading from an Earlier Version of Service Test

➤ You can automatically install Service Test 11.50 from versions of Service Test later than 10.00. You are prompted to accept the automatic installation. If you click **Yes**, the installer automatically uninstalls the previous version of Service Test and reinstalls Service Test 11.50.

➤ Service Test supports the Sentinel RMS License Manager version 8.4.0 as its concurrent license server. If you are upgrading to Service Test 11.50 with a concurrent license, you must also upgrade your concurrent license server. For details on setting up a concurrent license server, see the *HP Functional Testing Concurrent License Server Installation Guide*.

➤ License data is retained when upgrading from older versions of Service Test. However, if you have not installed a license before the upgrade, you will be required to enter license information as part of the installation. For more details, see step 13 on page 24.

➤ Connection settings to ALM are not retained by the upgrade process. If required, you must reconnect to ALM after the installation.

Upgrading Tests

This section describes limitations for opening tests created with earlier versions of Service Test.

➤ REST methods created in Service Test version 11.00 are not supported by Service Test 11.50.

➤ When Service Test upgrades a test from version 11.00 to 11.50, it does not retain the security settings.

➤ For certain upgrades, you may need to modify the event user code manually to make it compatible with version 11.50.

➤ Service Test 11.50 contains an upgrade tool, **STBatchUpgrader**, located in the product's **bin** folder. This tool lets you run a batch file to upgrade tests created in earlier versions. For details, see the *HP Service Test User Guide*.

For details and workarounds, see the **Upgrading Tests** section in the *HP Service Test User Guide*.

Run Results Viewer

The Service Test installation includes the Run Results Viewer application to view run results. You can also install the Run Results Viewer independently of Service Test on any computer.

To install the Run Results Viewer, run the HP_Run_Results_Viewer.msi file in the DVD's STSetup\MSI\ThirdPartyInstallations folder on any computer.

After you install the Run Results Viewer, open the results file or the XML file created through an export operation.

Licenses

Before using Service Test, you must request and activate a license code. For more details, see "Working with Service Test Licenses" on page 29.

Troubleshooting

Registry

During installation, 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.

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

.Net 3.5 Prerequisite

In a German language 64 bit Windows Server 2008 R2, you cannot install .NET 3.5 SP1 manually. To install this prerequisite, run the Service Test setup program. Alternatively, open the Server Management tool (available on most operating systems) and select the .NET 3.5 SP1 feature.

Microsoft Office Integration

You cannot install Microsoft Office 64-bit on a computer with Service Test.

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 does not affect the setup.

➤ When installing Service Test under Windows Vista or 2008, you may receive a warning when the setup installs MS SQL Server Express. Click **Run Program** to continue with the installation.

Remote Execution in ALM

To run a Service Test test from in ALM on a remote Windows Server machine, you must configure the COM settings. The following procedures describe how to configure a Windows 2003 server. Use the same guidelines for other operating systems. For example, in Windows 2008 Server R2, you enable the Application Server Role in the **Turn Windows Features On/Off** console.

Install COM+ remote access:

  a Select **Control Panel** > **Add or Remove Programs**.

  b Select **Add/Remove Windows Components** (left pane).

  c Select the check box adjacent to the **Application Server** in the WIndows Component Wizard screen and click the **Details** button.

  d Select the check box adjacent to **Enable network COM+ access**.

  e Click **OK**, and restart the computer.

Modify COM+ specific permissions:

  a Select **Start** > **Run**.

  b Type **dcomcnfg** and press ENTER. The Component Services console opens.

  c Open the following node:
Component Services > **Computers** > **My Computer** > **COM+ Applications**.

  d Click **Service Test Remote Agent** and select **Properties** from the context menu.

  e Click the **Identity** tab and select **This user**.

  f Enter the credentials of the user you want to run the test in the remote computer. Make sure that user is part of the administrators group.

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Installing Service Test

When you install Service Test, you must know whether you want to install all Service Test features or select Service Test features. You must also know which type of license you want to install: a **Seat** license specific to the computer on which the installation is performed or a **Concurrent** used on a per-session basis. For more details on the types of **Service Test** license, see "Understanding Service Test License Types" on page 30.

You can also set up Service Test to install silently (in the background).

This chapter includes:

➤ Installing Service Test on page 17

➤ Setting Up a Silent Installation on page 25

Troubleshooting and Limitations - Installing Service Test on page 28
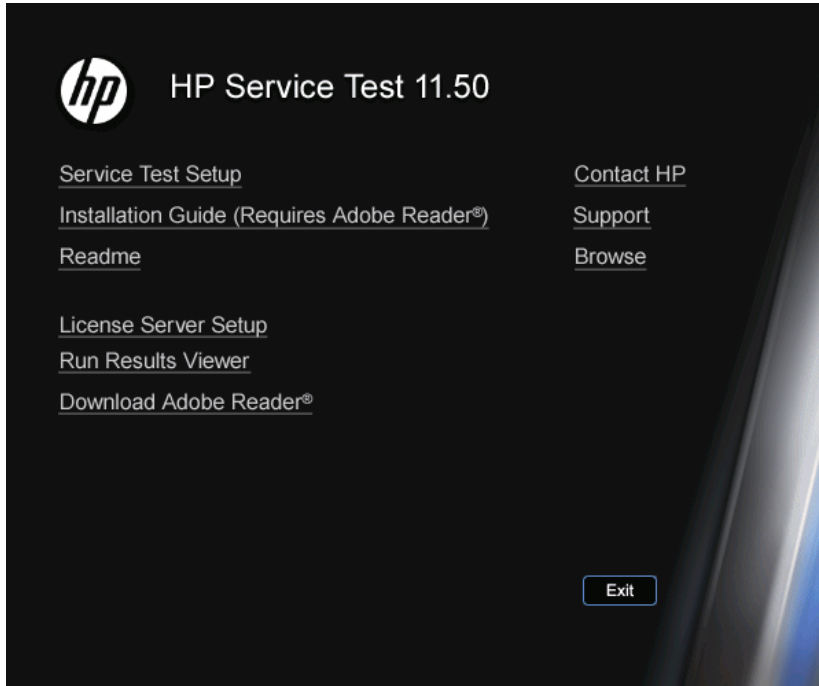
Installing Service Test

Your Service Test DVD includes an installation program that guides you through the installation process.

To install Service Test:

1 Prerequisites:

   a Make sure you are logged on with Administrator privileges.

   b Select a local drive on which to install Service Test.
   (Do not install Service Test on a network drive).

   c Close any instances of Service Test. It is also recommended to close all other open applications.

2 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 **DVD** directory.


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.

3 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 computer is lacking one of these programs, it prompts you to install them. You may need to restart your computer after installing the prerequisite programs. After restart, run the setup program again as described in Step 1.

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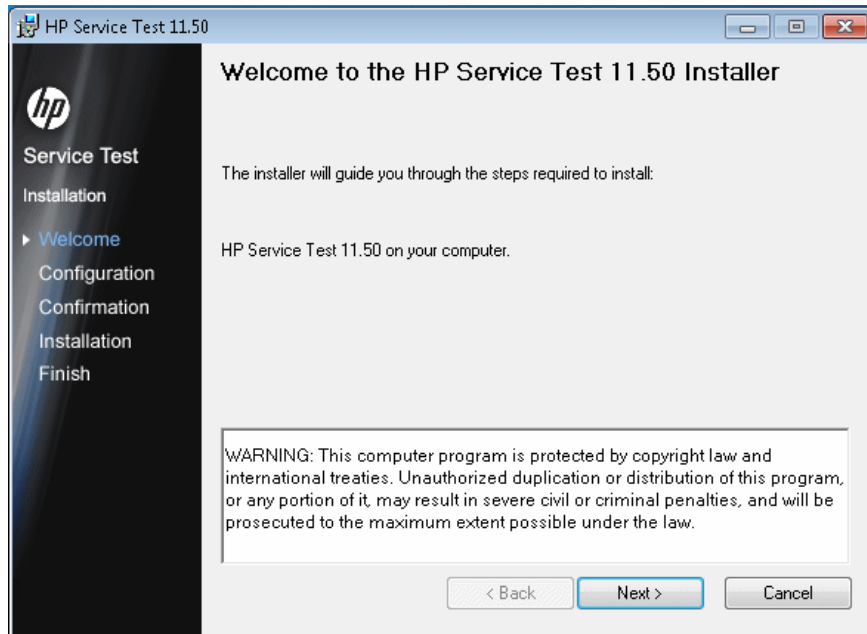
5 Review the license agreement and if the terms are acceptable to you, select **I Agree**. Click **Next**.

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

7 The Custom Setup page displays the installation options.

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

➤ **HP Service Test Runtime.** This enables you to install only those components of Service Test which allow you to run Service Test tests, but not edit them.
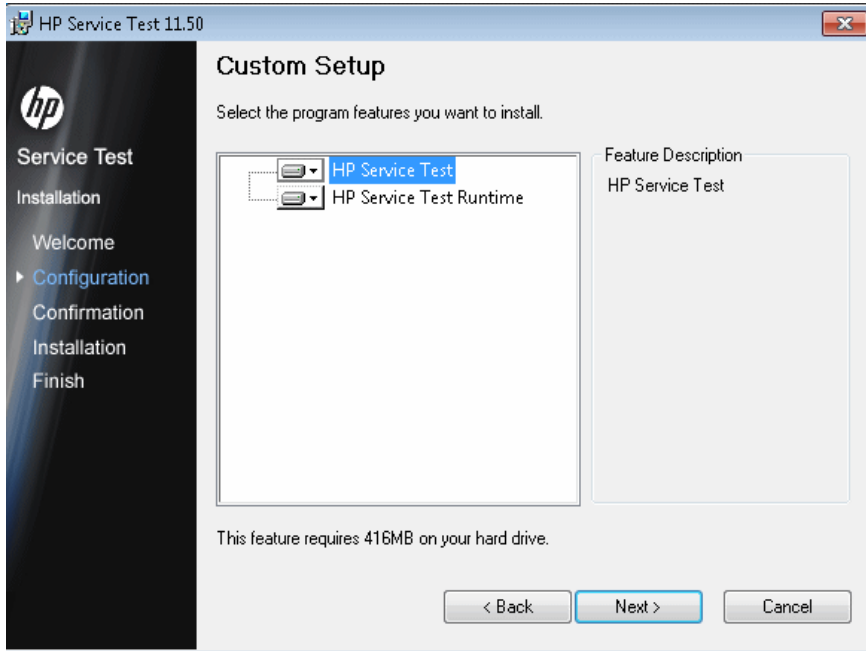
Click **Next** to proceed.

8 Accept the default installation folder or browse for an alternate one.
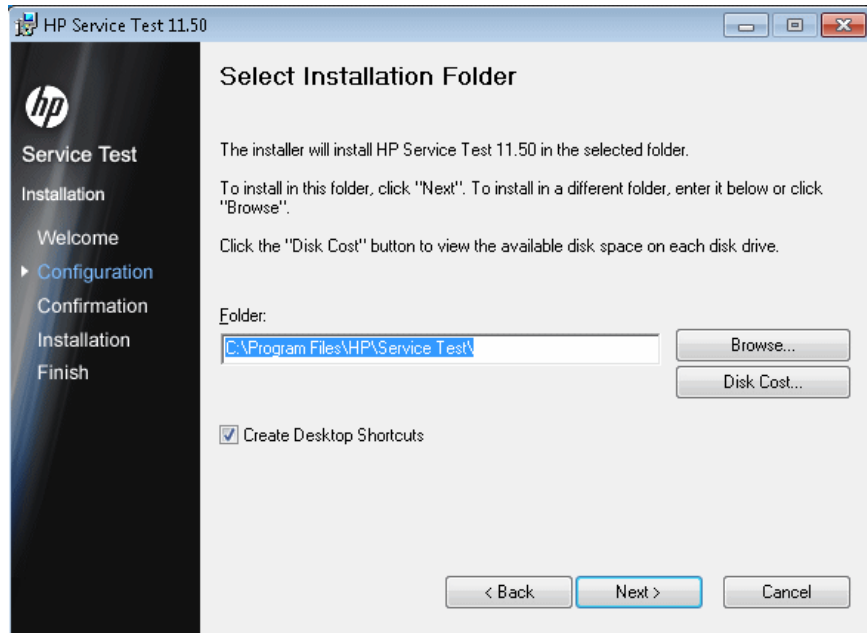
You can check the required and available disk space for each drive, by clicking **Disk Cost**.

The disk cost amount only indicates the space in the installation folder. You should add another 300 MB that are required for additional system files and utilities installed with Service Test.

Click **OK** to close the Disk Cost dialog box.

Click **Next** to move to the next step.

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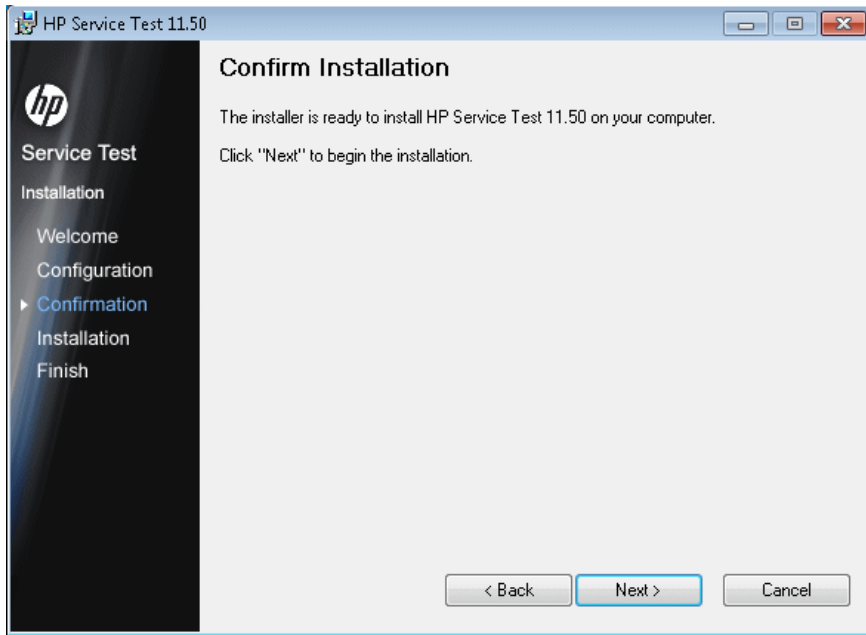
10 Click **Next** to begin the installation.

11 When the installation is complete, click **Finish.**

12 The installation wizard prompts you to install a license.
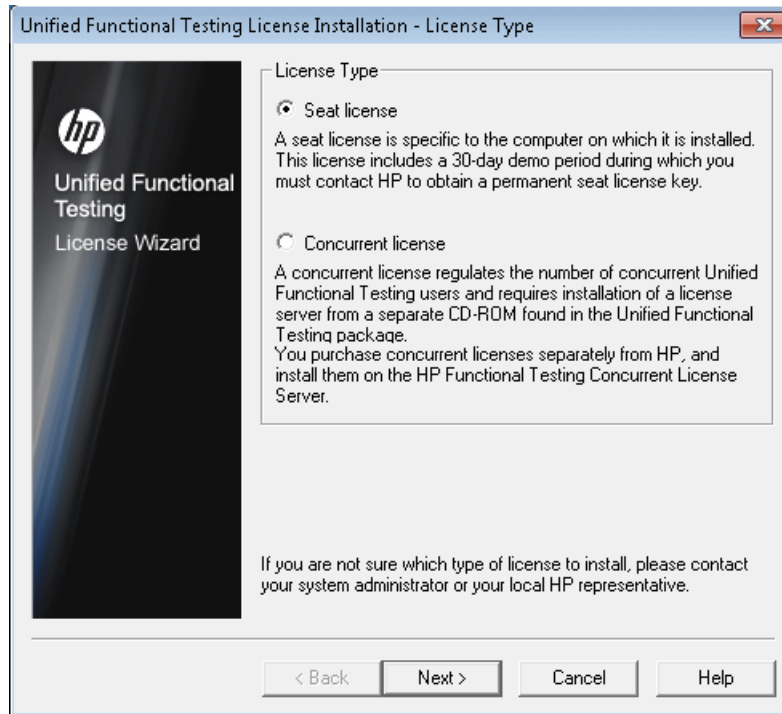
Select a license type and click **Next**. Provide the license information. For details, click **Help**.

Note: To install a license after installation, run the license manager. Select **Start** > **All Programs** > **HP Software** > **HP Service Test** > **Service Test License Manager**.

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13 The installation wizard prompts you to run additional configurations required for Service Test. Click **Run** to continue the configuration process.
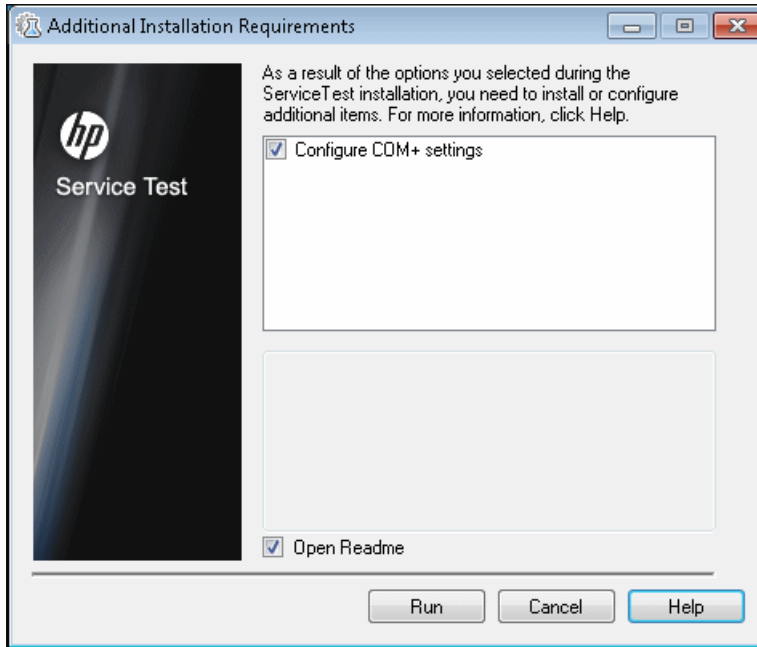
Note: If you do not run this dialog as part of the installation, you can run the Additional Installation Requirements by selecting **Start** > **All Programs** > **HP Software** > **HP Service Test** > **Tools** > **Additional Installation Requirements.**

14 When the setup program completes the configuration, it issues a message indicating that the installation is complete.Click **Close** to end the installation program.

Setting Up a Silent Installation

A *silent installation* (or *quiet installation*) is an installation that is performed in the background. You can install Service Test silently on your computer without the need to navigate through setup screens or for user interaction. You can also install Service Test on remote computers.

Note: You cannot use a silent installation to upgrade from previous versions of Service Test.

For more details, see:

➤ "Before You Install Service Test Silently" on page 25

➤ "Prerequisite Software for Service Test" on page 26

➤ "Installing Service Test Silently" on page 27

Before You Install Service Test Silently

You must have administrator privileges to install . (You also need administrator rights for any other installation tasks, for example, uninstalling Service Test, repairing or modifying the installation, or installing a patch.)

The following sections list the prerequisite software that must be installed on your computer before running a silent installation of Service Test.

Prerequisite Software for Service Test

The following prerequisite software is required to be installed on your computer before you install Service Test. This software is available on the Service Test installation DVD, and can be installed from the command line.

Prerequisite	Silent Command Syntax
Windows Installer 3.1	DVD\STSetup\EN\prerequisites\msi31\ WindowsInstaller-KB893803-v2-x86.exe/q /norestart
.NET Framework v.35 SP1	DVD\STSetup\EN\prerequisites\dotnet35_sp1\ dotnetfx35_sp1.exe/qb
Windows Imaging Component	DVD\STSetup\EN\prerequisites\dotnet40\ wic_x86_enu.exe/q /norestart
.NET Framework 4.0	DVD\STSetup\EN\prerequisites\dotnet40\ dotnetfx40.exe/q /norestart /c:"install /q" /LCID
Microsoft Office Access database engine	DVD\STSetup\EN\prerequisites\msade2007\ AccessDatabaseEngine.exe/quiet
Visual Studio Tools for the Office system 3.0 Runtime	DVD\STSetup\EN\prerequisites\vstor30\ vstor30.exe/q
Microsoft WSE 2.0 SP3 Runtime	DVD\STSetup\EN\prerequisites\wse30\ MicrosoftWSE3.0Runtime.msi/quiet /norestart
Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package	DVD\STSetup\EN\prerequisites\ vc2005_sp1_redist_vcredist_x86.EXE/q:a / c:"msiexec /i vcredist.msi /qn"" "
Microsoft Visual C++ 2008 SPI1 Run-time Components	DVD\STSetup\EN\prerequisites\ vc2008_sp1_redist_V9030729\vcredist_x86.exe/ q /norestart
Microsoft Visual C++ 2010 Runt-time Components	DVD\STSetup\EN\prerequisites\vc2010_redist\ vcredist_x86.exe/q /norestart
Microsoft XML Core Services	DVD\STSetup\EN\prerequisites\msxm16\ msxm16.msi/quiet /norestart
Microsoft XML Core Services 3 Service Pack 4	DVD\STSetup\EN\prerequisites\msxm13sp4\ msxml3usa.msi/quiet /norestart

Caution: The prerequisite software must be installed locally, even if the silent installation is performed remotely. You can begin the silent installation only after all the required software is installed.

Installing Service Test Silently

This section describes how to install Service Test on your computer.

Prerequisites

1 It is recommended to save any open files and close all applications before running the silent installation.

2 Install the prerequisite software for Service Test. For the full list of prerequisite software, see "Before You Install Service Test Silently" on page 25. You can begin the silent installation only after all the required prerequisite software is installed.

Performing a standard installation of Service Test

In the command line, run the native MSI command for the Service Test installation, using the following format:

msiexec/ I <SERVICETEST_DVD_PATH>\STSETUP\MSI\ HP_Service_Test.msi/qb

Additional installation requirements limitations

The additional installation requirements (configure DCOM settings and set a license) is not run automatically after a silent installation.

These requirements can be installed by running the Additional Installation Requirements found under the Start menu (**Start** > **Programs** > **HP Software** > **HP Service Test** > **Tools** > **Additional Installation Requirements**).

Troubleshooting and Limitations - Installing Service Test

This section describes troubleshooting and limitations for installing Service Test.

➤ The security settings in Windows Vista, Windows 7, Server 2008, or Server 2008 R2, may prevent you from performing a Service Test-related installation, such as a patch installation, or connecting to an ALM project (either directly or from Service Test). This can occur when the UAC (User Account Control) option is set to ON, and you have not yet connected to an ALM project (if relevant).
Workaround: You must turn off the UAC option before installation.

➤ To run a Service Test test on a remote ALM server, you must first enable COM+.

To enable COM+ on a Windows 2008 server:

1 Open the Server Manager.

2 Install the **COM+ Network Access** feature in the **Application Server** role.

To enable COM+ on a Windows 2003 server:

1 Select **Start** > **Control Panel** > **Add or Remove Programs**.

2 Click **Add/Remove Windows Components**.

3 Select **Application Server**, and click **Details**.

4 Select **Enable network COM+ access**, and click **OK**.

5 Click Next and then **Finish**.

6 Restart the computer.

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Working with Service Test Licenses

You can install Service Test using a *seat* license (formerly known as a local or standalone license) or a *concurrent* license.

This chapter includes:

Understanding Service Test 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 key	Each installation of Service Test requires a distinct license key.	There is no limit to the number of Service Test installations on the network, but a special concurrent license server regulates the number of computers that can run a copy of Service Test at any time.

| Topic	Seat License	Concurrent License
Other issues	The license key is based partially on the locking code, which is a code that identifies the computer on which Service Test is installed. The supplied license key 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 key for it.	Not supported for Unix networks. It is recommended that the concurrent license server has 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.
Entering license key	At the end of the installation procedure, Service Test asks you to enter the license key. If you do not have a license key at that point, it asks you to enter the key the first time you open Service Test.	Each time Service Test opens, it automatically searches the same subnet for the concurrent license server. You do not need to enter a license key for your Service Test client installation.

You can view and copy license information and license validation information, if needed. For example, you may want to retrieve license information for administrative or troubleshooting purposes. For more details, see "Validating Service Test Licenses" on page 57.

Requesting a Seat License Key

When you install Service Test, you must request and activate a license key.

To request a seat license key:

1 Run the License Wizard (<**Service Test** installation>**bin**\\inst_key.exe).

2 The License Type screen opens. Select **Seat license** and click **Next.** Click **Yes** to install a new license key. The Welcome screen opens.
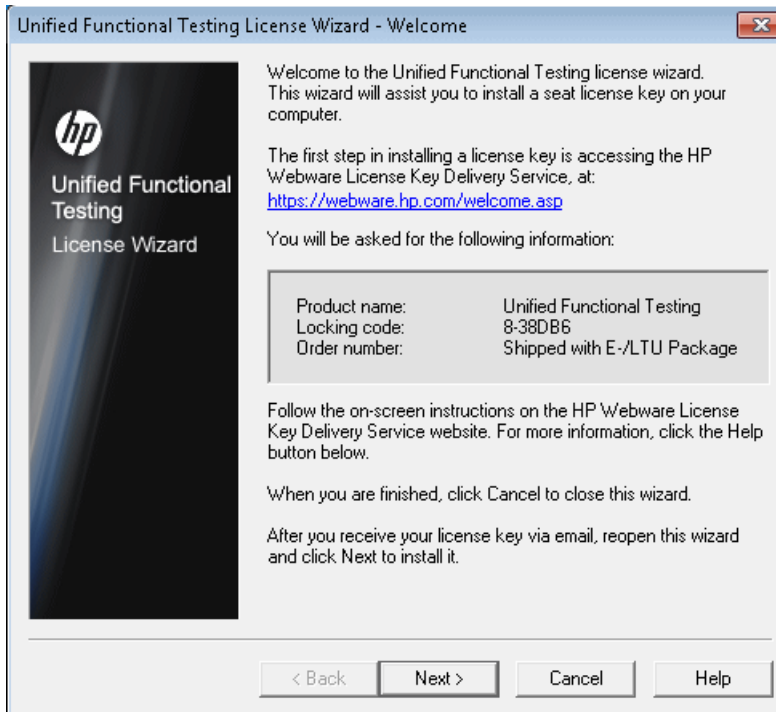
3 Make a record of the displayed locking code for your computer. You will need it to request your license key. Click the link on the License Wizard - Welcome screen for the **HP Webware License Key Delivery Service** to request your license key. Follow the instructions as described in "Requesting a License Key via the HP Webware License Key Delivery Service" on page 33.

Requesting a License Key via the HP Webware License Key Delivery Service

The HP Webware License Key Delivery Service assists you in requesting a license key. This procedure provides an overview of this process as it specifically relates to requesting Service Test license keys.

For details on the individual fields in the License Key Delivery Service form, download the ESD and Webware License Management Guide. (Click the **Webware User Guide** link in the **Support** section of the HP License Key Delivery Service Welcome page.)

To request a license key:

1 Click the link on the License Installation - Welcome screen for the **HP Webware License Key Delivery Service**. A browser opens to the HP License Key Delivery Service Welcome page.

2 Click the **Generate New Licenses** icon. The HP Passport sign-in page opens.

3 If you have used the HP Passport or Webware Licensing service before, enter your e-mail address and password. Otherwise, log in as a new user.

4 Click **Sign-in**. The Address information page is displayed. If you are a returning user, Webware automatically populates the fields with your information. If you are a new user, fill in the information according to the on-screen instruction. For details on filling in the Address information page, see the ESD and Webware License Management Guide.

5 Enter the order number from the Software Entitlement Certificate you received in your LTU or ELTU package.

6 Click **Next**. The Product Selection page is displayed.

7 Select the check box next to the product for which you are requesting a license key.

8 Click **Next**. The Order Product Detail(s) page is displayed.

9 Enter the locking code for your computer. The locking code is found in the Service Test License Installation - Welcome screen.

10 If you are a customer representative requesting a license key on behalf of a customer and do not want them to receive a copy of the transaction, clear the **E-mail a copy of this license transaction to the license owner** check box.

11 If you are the end-user customer select the **I am the License owner** check box. The **License owner (End-user) information** section is disabled.

12 If you are a customer representative requesting a license key on behalf of a customer, clear the **I am the License owner** check box. Complete the information requested in the **License owner (End-User) information** section.

13 Click **Next**. The License/Password page is displayed. Keep a record of your **Session ID** and click **Main Menu** to return to the Welcome page. A Permanent Password Certificate will be e-mailed to the address you provided, containing your license key.

14 Click **Cancel** and wait for your Permanent Password Certificate to arrive by e-mail. When it arrives, follow the instructions as described in "Installing a Seat License Key" on page 34.

Installing a Seat License Key

In the License Key screen, you enter the license key you received from HP. The license key is included in the **.dat** file attached to the e-mail containing your Permanent Password Certificate.


Caution:

➤ You must have Administrator privileges to install a license key.

➤ After installing the seat license key, do not change your computer's date or time. This triggers a **Clock Tamper** lock on the license information, preventing you from using the license.

To install a seat license key:

1 Open the **.dat** file attached to the email containing your Permanent Password Certificate using any text editor. The license key is also included in the Permanent Password Certificate.

2 Select and copy the license key including the # character from the **.dat** file to the clipboard.

3 Run the License Wizard (**<Service Test installation>\bin\inst_key.exe**).

The License Type screen opens.
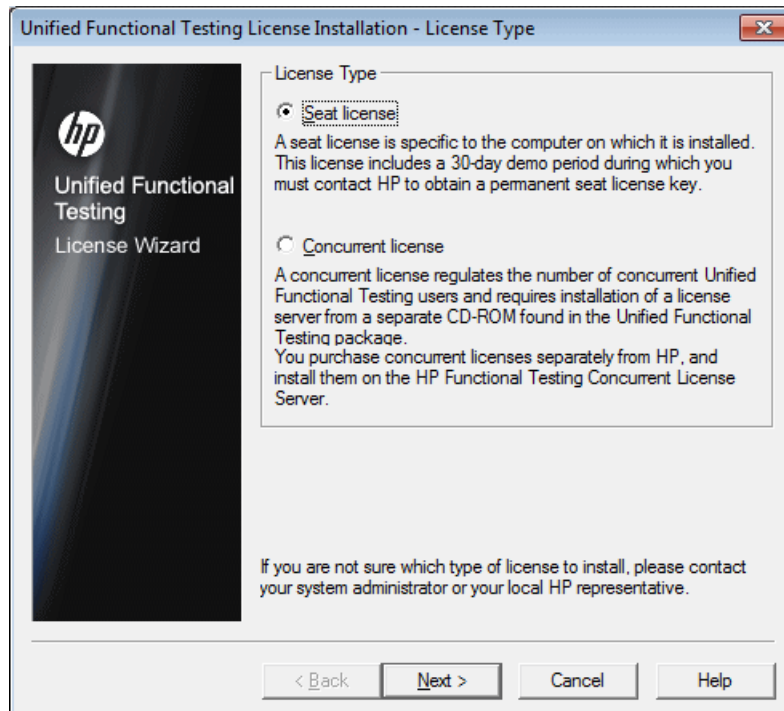
4 Select **Seat license** and click **Next.**
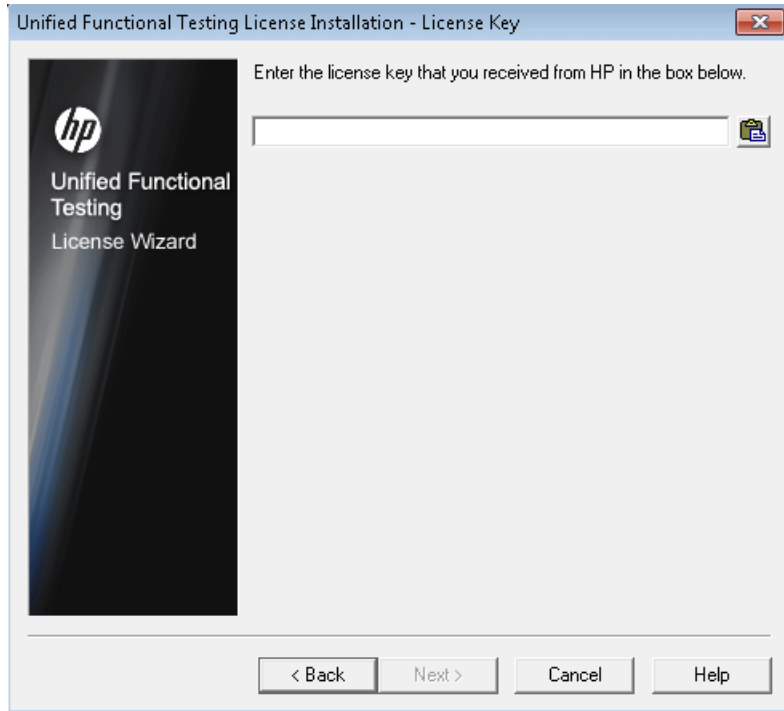
5 Paste the key into the License Installation - License Key screen by clicking the **Paste From Clipboard** button.

Notes:

➤ The license key is valid only for the computer with the locking code that you entered in the HP Software Support license request form.

➤ 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 key for it.

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6 Click **Next**. The Install Summary screen opens.

7 Verify that the information is correct and click **Next**. The Finish screen opens.

If you entered a valid license key, the Finish screen confirms that your license key was successfully installed.

If the license could not be installed successfully, a message is displayed describing why. For example, if a seat license was previously installed on your computer, and you try to install a seat license again using the same license key, the license installation will not succeed.

If the license could not be installed, a **Send to Support** button is displayed. You can click **Send to Support** to create an e-mail with licensing information and send it to your nearest HP Software Support location. Make sure that you fill in the required information in the e-mail so that Software Support can assist you.

Tip: You can install another license by selecting the **Install another license** check box.

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8 If you do not want to install another Service Test license, click **Finish** to complete the license activation process and close the wizard.

Working with a Concurrent License

If there is an accessible concurrent license server on your network with an available license, you can connect to it. This enables you to use a concurrent license instead of a seat license. For more details on working with concurrent license servers, and the supported versions, see the *HP Functional Testing Concurrent License Server Installation Guide*.

To work with a concurrent license:

1 Perform one of the following:

➤ From the license warning message displayed when you start Service Test, click **Install License**.

➤ From the Start menu, select **Start** > **Programs** > **HP Software** > **HP Service Test** > **Tools** > **Service Test License Manager**.

The License Type screen opens.
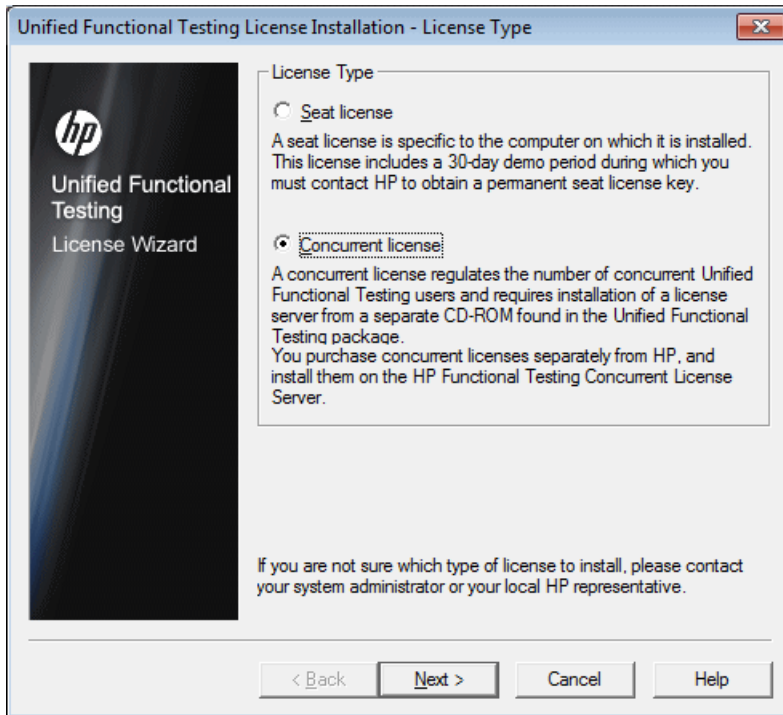
2 Select **Concurrent license** and click **Next.** The Concurrent License Server screen opens.
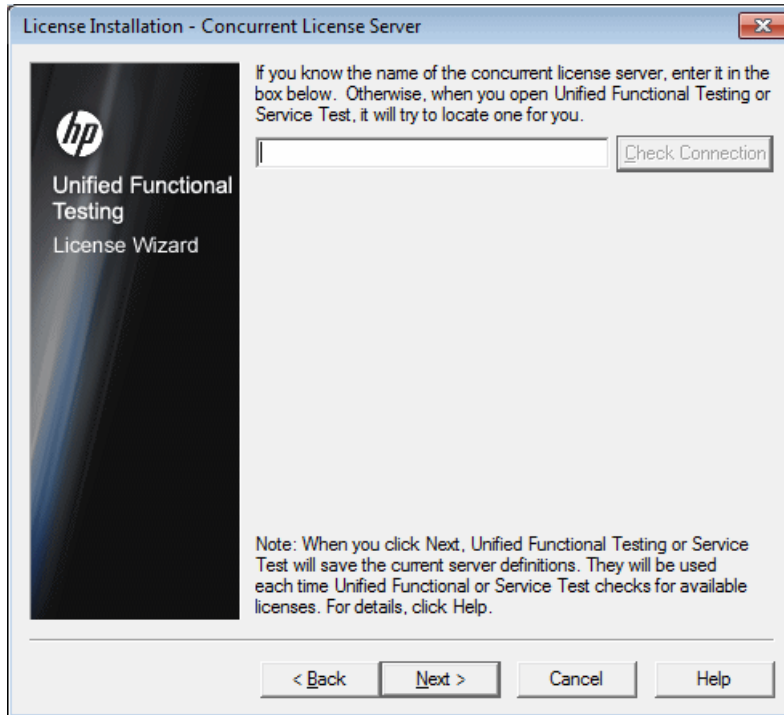
3 In the edit box, either enter the name or IP address of the concurrent
license server to which you want to connect, or leave the box blank to
instruct Service Test to search for an available server on your local
network.

Tip: When you activate a concurrent license using the License Wizard and
specify a single server name, the LSFORCEHOST user variable is
automatically defined with the concurrent license server you specified.
You can modify the concurrent license server either by running the
License Wizard or by setting the LSHOST or LSFORCEHOST user variable.
For more details, see the *HP Functional Testing Concurrent License Server
Installation Guide*.

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4 Click **Check Connection**. If Service Test can connect to the concurrent license server, a success message is displayed.

Note: If the installation cannot connect to a concurrent license server, the Concurrent License Server screen informs you of this.
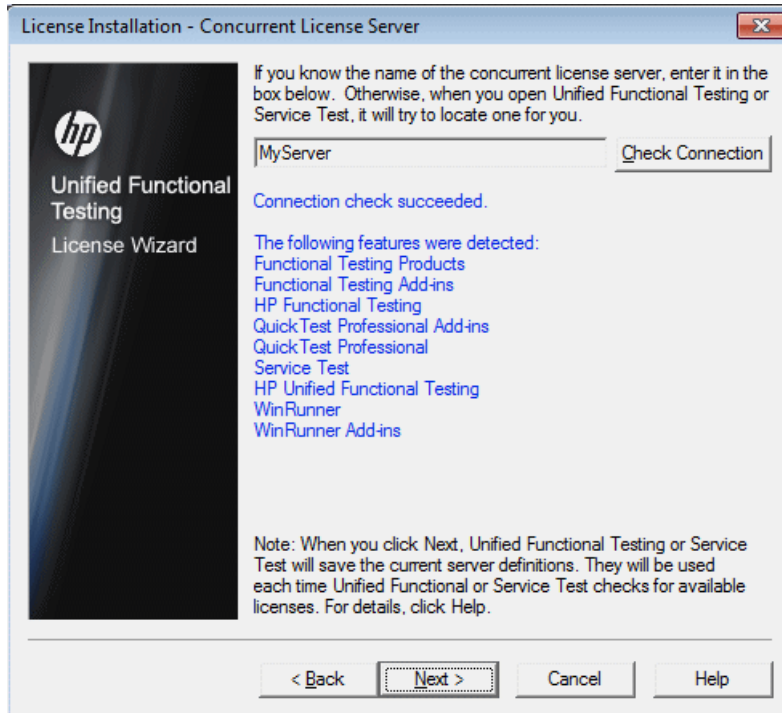
Tip: If you want to specify the name of a concurrent license server that is currently unavailable, but will be available later, you can enter the name of the concurrent license server in the edit box. Even though the Concurrent License Server screen informs you that the specified server is not available for connection, the next time you open Service Test, Service Test will try to locate the server you specified.

5 Click **Next**. The installation informs you that the concurrent license activation was successful.
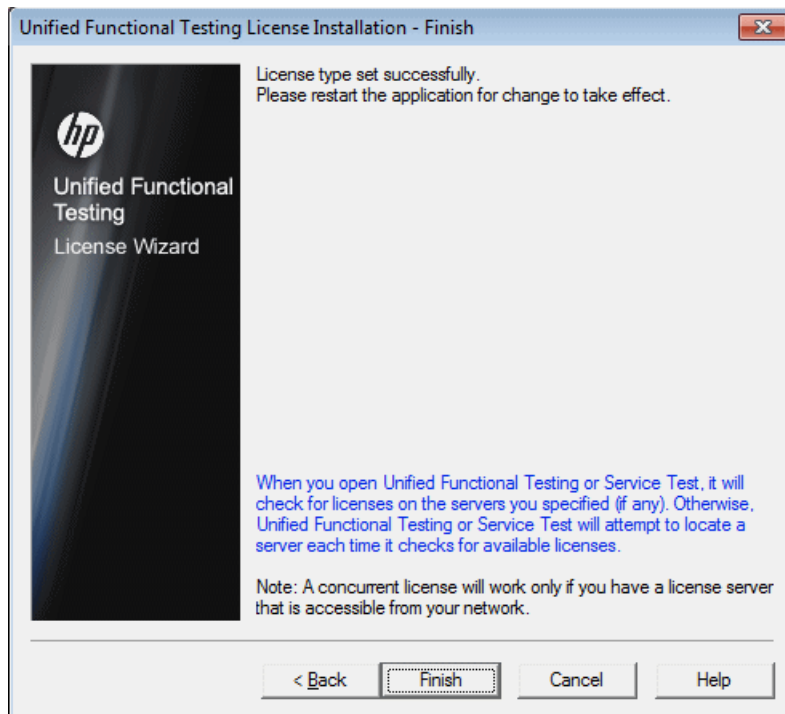
6 Click **Finish** to close the wizard. If Service Test is open, you must close and restart it to use the concurrent license server.

Modifying License Information

After you install Service Test, you can modify your license key and/or change your license type at any time. For more details on requesting a new license key, see "Requesting a Seat License Key" on page 32.
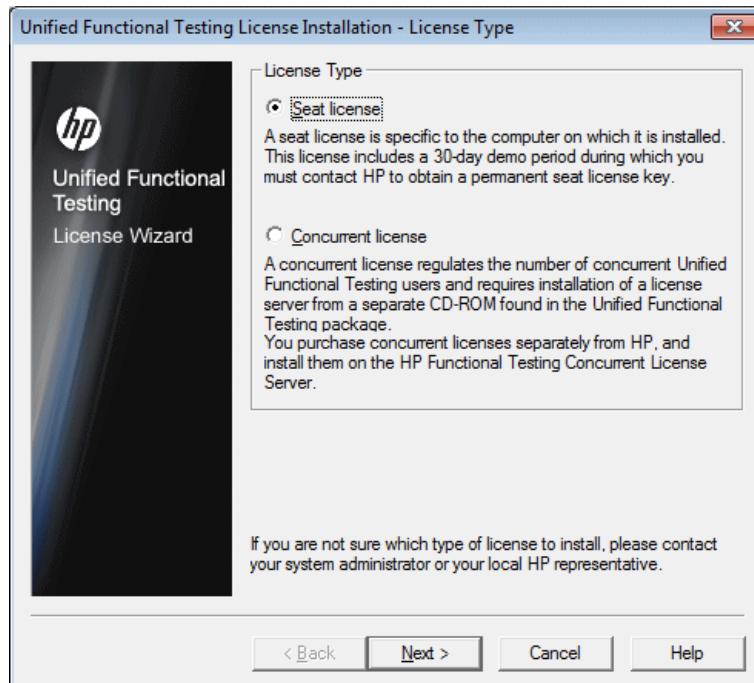

Note: You must be logged in with administrator privileges to change the license type used by your Service Test installation from seat to concurrent or vice versa.

To modify your license information:

1 From the Start menu, select **Programs** > **HP Software** > **HP Service Test** > **Tools** > **Service Test License Manger**. The License Type screen opens.

2 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**.

3 To change your license type from seat to concurrent, select **Concurrent license** and click **Next**. Follow steps 2 to 6 in Working with a Concurrent License.

4 Restart Service Test to apply your changes.

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 details on installing a concurrent license server, see the *HP Functional Testing Concurrent License Server Installation Guide.*

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. Commuter licenses are available in companies that have only concurrent licenses (not seat licenses).

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 180 days, according to your requirements.

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

For more details, see "Checking Out a Commuter License" below, and "Checking In a Commuter License" on page 48.

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 details, see "Obtaining a Commuter License Remotely" on page 50.

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 Select **Program Files** > **HP Software** > **HP Service Test** > **Tools** > **Commuter License Tool**. The WCommute dialog box opens.
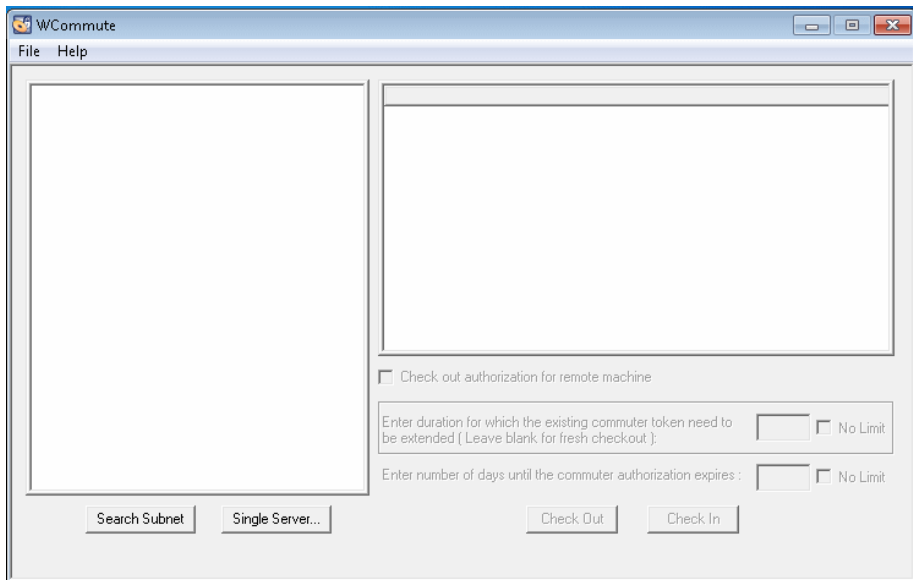
2 To see commuter licenses available on all concurrent license servers located within your subnet, click **Search Subnet**. If you want to specify a particular concurrent license server, or if you want to select a concurrent license server outside of your subnet, click **Single Server**.

➤ If you click **Search Subnet**, the Commuter License Tool, WCommute, 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. The maximum number of days is 180.

Note:

➤ Service Test supports the Sentinel RMS License Manager version 8.4.0 as its concurrent license server. If you are upgrading to Service Test with a concurrent license, you must also upgrade your concurrent license server.

➤ 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.

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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. In the confirmation message that opens after you change the license type, click **No** to use the commuter license. For more details, see "Modifying License Information" on page 43.

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 Select **Program Files** > **HP Software** > **HP Service Test** > **Tools** > **Commuter License Tool**. The WCommute dialog box opens.
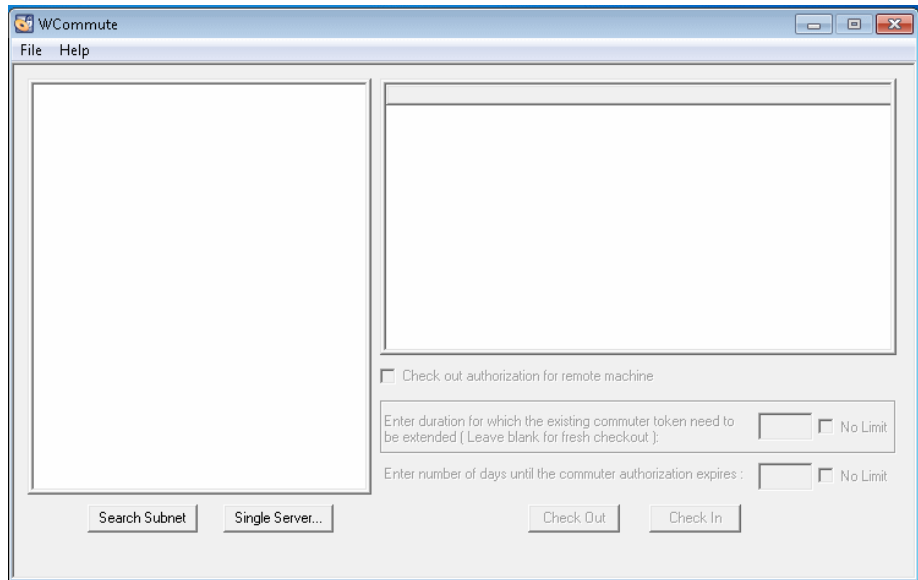
2 Locate the concurrent license server for the commuter license you want to check in, as described in step 2 of "Checking Out a Commuter License" on page 46. You must check in the license to the same concurrent license server from which you checked it out.

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 from seat to concurrent. For more details, see "Modifying License Information" on page 43.

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 from the <**Service Test installation**>\ **bin** directory to generate a commuter locking code for your computer and send it to a local user with access to the concurrent license server. For more details, see "Step 1: Generating a Remote Computer Locking Code" on page 51.

2 Ask the local user to run the **Commuter License Tool** entering the commuter locking code you generated, to check out a remote commuter license, and send it to you. For more details, see "Step 2: Checking Out a Commuter License for a Remote Computer" on page 53.

3 Run the WRCommute utility from the <**Service Test installation**>\ **bin** directory to install the remote commuter license on your computer. For more details, see "Step 3: Installing a Commuter License on a Remote Computer" on page 55.

4 Open Service Test 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 details, see "Modifying License Information" on page 43.

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 Run the **WRCommute.exe** file located in **<Service Test installation>\bin** folder. The WRCommute dialog box opens.
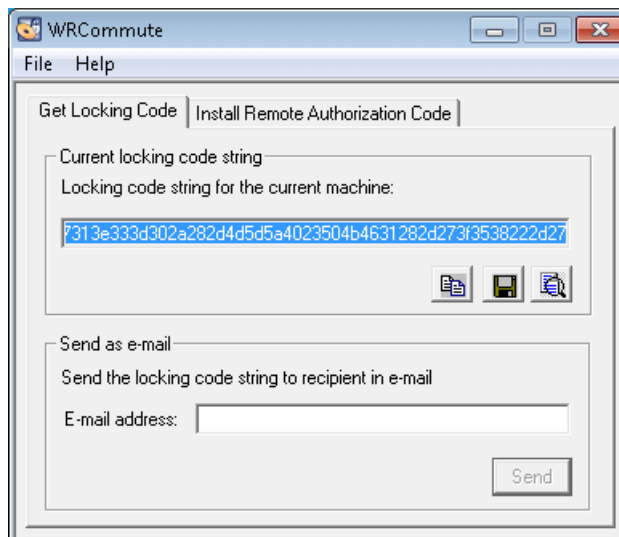
The **Locking code string for the current machine** box contains the locking code that you need to e-mail to a network user who has access to the concurrent license server containing the Service Test licenses.

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 Express 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 Run the **WCommute.exe** file located in **<Service Test installation>\bin** folder. The WCommute dialog box opens.
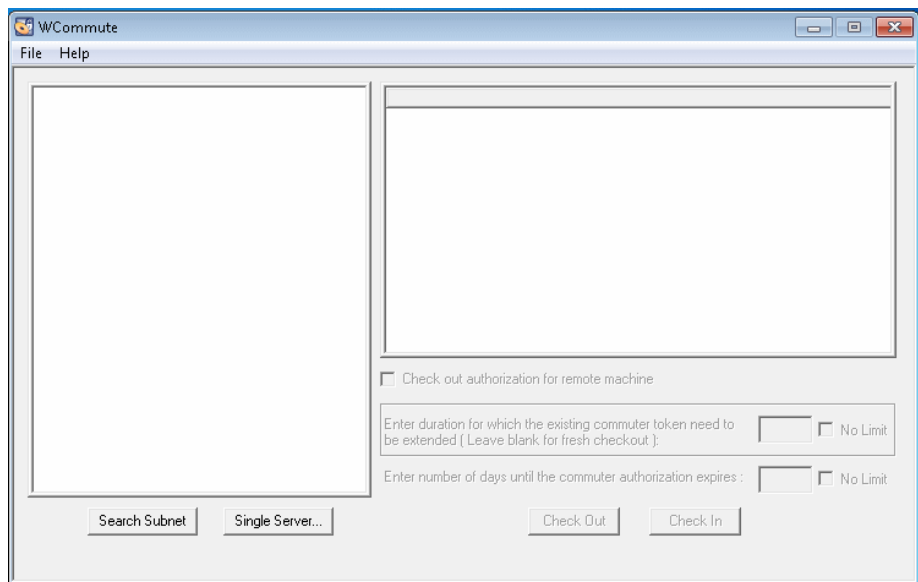
2 Locate the concurrent license server from which you want to check out a remote commuter license, as described in step 2 of "Checking Out a Commuter License" on page 46.

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. The maximum number of days is 180.

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 entire number of days specified. Therefore, you should specify the absolute minimum number of days required.

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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 **Install**. The Remote Commuter Licensing dialog box opens.
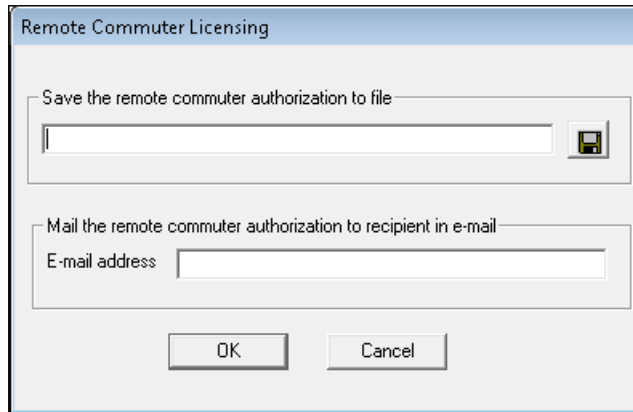
9 Send the commuter license to the remote user in one of the following ways:

➤ 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 Run the **WRCommute.exe** file located in **<Service Test installation folder>\bin**. The WRCommute dialog box opens.

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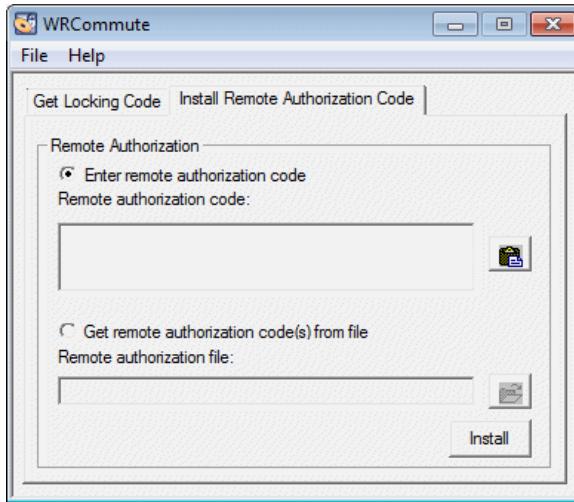
4 Enter the commuter license that the network user e-mailed you, as follows:

➤ 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 Service Test 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 details, see "Modifying License Information" on page 43.

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 details, see "Modifying License Information" on page 43.

Validating Service Test Licenses

The License Validation Utility decodes and validates Service Test license strings. This enables you to view and copy license information and license validation information for troubleshooting purposes.

The License Validation Utility performs the following operations:

➤ Decodes the license string and retrieves important information regarding the license. For more details, see "License Information" on page 60.

➤ Validates the license according to a predefined set of checks. For more details, see "Validation Checks" on page 60.

If required, you can copy the decoding and validation results to the clipboard. For more details, see "Copying your License Validation Result to the Clipboard" on page 61.

To decode and validate a license:

1 Run the License Validation utility (**Start** > **All Programs** > **HP Software** > **HP** Service Test > **Tools** > **License Validation Utility**.
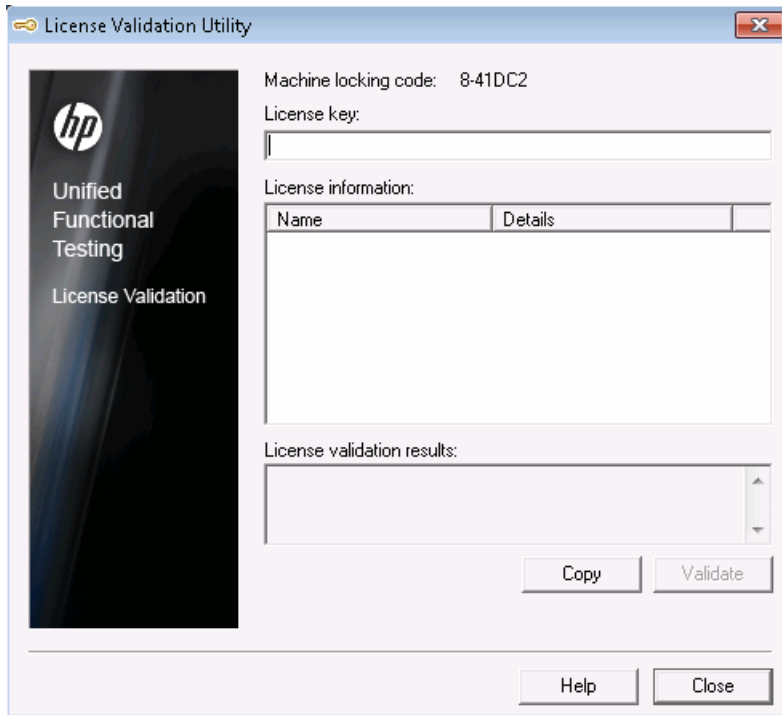
2 In the **License Key** box, enter the license code you want to decode and validate. You can find the license code already installed on a Service Test computer in the **lservrc** file. The location of this file is specified by the **lservrc** environment variable.

Tips:

➤ When you enter the license code, ensure that a # character is inserted at the end of the license code, or an error is reported in the **License validation results** area. The # indicates the end of the license code, and any string after the # character is ignored by the License Validation Utility.

➤ To find the path of the **lservrc** file in the environment variable, open the System Properties dialog box in the System pane in the Control Panel (under **System** for Windows XP users and **System and Security** > **System** > **Advanced system settings** for Vista and Windows 7 users). In the System Properties dialog box (Windows XP users), select the **Advanced** tab, and then click **Environment Variables**. The path is displayed in the **User variables for <user>** box of the Environment Variables window for the LSERVRC variable. For example, C:\Program Files\Common Files\HP\License Manager\lservrc.

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3 Click **Validate**. The license string is decoded.

License information is displayed in the **License information** area. For more details, see "License Information" on page 60.

The result of the validation is displayed in the **License validation results** area. For more details, see "Validation Checks" on page 60.

4 If required, click **Copy** to copy the information to the clipboard. The copied information includes the current computer locking code, the license string that was decoded, and the decoding and validation results. For more details, see "Copying your License Validation Result to the Clipboard" on page 61.

5 Click **Close** to close the utility.

License Information

The result of the decoding operation includes the following information about the license.

Note: Some information provided by the operation is intended for HP Software Support only and is not described here.

➤ **Feature Name.** The Service Test feature name specified when the license was created.

➤ **Feature Version.** The license version specified when the license was created. This is not the Service Test version number.

➤ **Seat/Concurrent.** The license type. This can be either a **Seat** license that is specific to the computer on which it is installed, or a **Concurrent** license, which references a current license server that can be used by multiple Service Test users.

➤ **Locking Code.** The locking code specified when the license was created. This code uniquely identifies the computer on which Service Test is installed.

➤ **Clock Tamper.** Indicates whether a license can be issued, based on whether any date changes have been made to the computer on which Service Test is installed.

➤ **Commuter License.** Indicates whether commuter licenses are supported. A commuter license enables you to work with Service Test when you are not connected to the Service Test concurrent license server. Commuter licenses are available only with concurrent licenses. For more details, see "Working with Commuter Licenses" on page 45.

Validation Checks

The validation checks performed by the License Validation Utility include the following:

1 Does the Service Test feature name match one of the existing features?

2 Does the license version match one of the existing versions?

3 Does the locking code match the locking code of the computer on which Service Test is installed?

4 Has the trial period specified in the license string ended?

5 If the license is a concurrent license, does it support commuter licenses?

Copying your License Validation Result to the Clipboard

In some cases, you may need a copy of the information provided by this utility. For example, you may need to forward this information to HP Software Support.

When the validation operation is complete, click the **Copy** button to copy the information to the clipboard. Then paste the information as required.

Troubleshooting Concurrent Licensing Issues

In certain circumstances, Service Test cannot connect to the license server, and a License Error message opens.

Check whether one or more of the following are causing the error:

➤ "There is no network connection between the server and client computers" on page 62

➤ "The license server is not running" on page 63

➤ "Licenses are not installed on the license server" on page 63

➤ "The license key file (lservrc) cannot be found on the server" on page 64

➤ "The license server is being used by the maximum number of users" on page 64

➤ "Two or more versions of the license server are running" on page 65

➤ "The client computer is configured to use a seat license" on page 65

➤ "The license key does not match the license server locking code" on page 65

➤ "The client computer cannot identify the license keys on the server computer" on page 66

➤ "The LSHOST or LSFORCEHOST variables are not set" on page 67

➤ "The LSERVRC system variable is set on the client computer" on page 67

➤ "The client computer connects through VPN software" on page 67

There is no network connection between the server and client computers

You can check the network connection between the client and server machines by pinging the license server machine in a command prompt window.

For example: c:\ ping <license server name>

If there are no replies from the ping command, or if there are timeouts in the replies, there may be a network problem. If required, contact your Computer or Network Administrator.

The license server is not running

You may need to start or restart the license server service.

To start or restart the license server service:

1 Open the Control Panel (**Start** > **Settings** > **Control Panel**).

2 Select **Services**.

Note: On some operating systems, such as Windows 2000, the Services utility is located in the Administrative Tools section (folder) of the Control Panel.

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3 Select **SentinelRMS** service.

4 Click **Start the Service** (or **Restart the Service)**, or right-click and select **Start** (or **Restart**).

Licenses are not installed on the license server

Use the WlmAdmin utility to check that licenses are installed on the license server. For more details on the WlmAdmin utility, see the **Utilities** chapter in the *HP Functional Testing Concurrent License Server Installation Guide*.

To check licenses on the license server:

1 Run **SrvUtils.exe** in the **LicenseServer\utils** folder of the Service Test installation DVD.

2 Select **WlmAdmin**.

3 Enter the license server name as a defined server.

4 Try to expand the license server branch.

If no license key information is displayed, then the installed licenses are invalid, or the license key file (lservrc) cannot be found. If license key information is displayed, then the installed licenses are valid. You can check whether the licenses are all in use by selecting a license and checking the **Statistics** pane in the WlmAdmin utility.

The license key file (lservrc) cannot be found on the server

The lservrc file should be located in the following directory:

<drive>\Program Files\Common Files\SafeNet Sentinel\Sentinel RMS License Manager\WinNT

If the file is not there, the license server cannot locate licenses. Search the license server computer for the file. If found, move the file to the correct directory and restart the SentinelLM service. If the file is not found, licenses are not installed.

The license server is being used by the maximum number of users

➤ If all licenses are in use, the License Server Manager cannot issue another license until a license is released. You can use the WlmAdmin utility to determine which users are currently using the licenses. Run **SrvUtils.exe** in the **LicenseServer\utils** folder of the Service Test installation DVD, and select **WlmAdmin**.

For more details on the WlmAdmin utility, see the **Utilities** chapter in the *HP Functional Testing Concurrent License Server Installation Guide*.

➤ There may be cases where Service Test closes unexpectedly and does not release the license automatically. If this happens, you can wait for the license to timeout, or you can restart the license server.

For more details, see the HP Software Self-solve knowledge base (http://h20230.www2.hp.com/selfsolve/document) (the Knowledge Base area requires that you register as an HP Passport user and sign in). In the knowledge base, search for:

Document ID 18428. "What happens if AQT/QTP crashes on a client machine while using a Floating license".

Two or more versions of the license server are running

Only one version of the license server should be installed and running on the same computer. If there are more versions, use Add/Remove Programs to uninstall all of the license server instances. Then install the latest version of the license server software and reinstall the license code keys.

The client computer is configured to use a seat license

For details on how to check and modify concurrent license or seat license configuration, see "Modifying License Information" on page 43.

The license key does not match the license server locking code

Use the lsdecode.exe utility to check the locking code for a license key.

To check the license key locking code:

1 Copy the **lsdecode.exe** utility from the **LicenseServer\utils** folder of the Service Test installation DVD to the location of the lservrc file (<**drive**>**Program Files\Common Files\SafeNet Sentinel\Sentinel RMS License Manager\WinNT**).

2 Run the **lsdecode.exe** utility. A command prompt window opens with the decoded key information.

The locking code for the license key is displayed on the **Server locking code** line.

3 Run the **inst_key.exe** utility from the **LicenseServer\KeyInstallation** folder of the Service Test installation DVD.

The license server computer's locking code is displayed on the Welcome screen.

Note: This step must be done on the license server computer. Accessing the license server computer remotely can generate an invalid license code.

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4 Compare the locking code for the license key and from the server computer.

If the locking codes do not match, you need to determine why the locking code has changed. Reinstalling the operating system, renaming the computer, using a dynamic IP address, retrieving the locking code through a terminal session, or installing the license keys through a terminal session can cause the locking code to be changed and the license keys to become invalid.

After you have determined why the locking code has changed, you can submit a License Request to have a new license key generated.

The client computer cannot identify the license keys on the server computer

Use the WlmAdmin utility to check the licenses on the client computer. For more details on the WlmAdmin utility, see the **Utilities** chapter in the *HP Functional Testing Concurrent License Server Installation Guide*.

To check licenses on the client computer:

1 Run **SrvUtils.exe** in the **LicenseServer\utils** folder of the Service Test installation DVD.

2 Select **WlmAdmin**.

3 Enter the license server name as a defined server.

4 Try to expand the license server branch.

If license keys are not identified, then either UDP Port 5093 is blocked between the client and server, or the IP address of the license server is using Network Address Translation (NAT), which is not supported. If required, contact your Computer or Network Administrator.

For more details, see the HP Software Self-solve knowledge base (http://h20230.www2.hp.com/selfsolve/document) (the Knowledge Base area requires that you register as an HP Passport user and sign in). In the knowledge base, search for:

➤ **Document ID 18402.** "What is port 5093 in the license mechanism used for?"

➤ **Document ID 41449.** "Does UDP port 5093 need to be bi-directional?"

➤ **Document ID 18424**. "How to set up the License Manager for machines running on different subnets."

The LSHOST or LSFORCEHOST variables are not set

For details on how to set these variables, see the *HP Functional Testing Concurrent License Server Installation Guide*.

The LSERVRC system variable is set on the client computer

The LSERVRC variable is used for seat licenses and may have been created for the demo license when Service Test was installed. If this variable exists, it must be removed so it does not interfere with locating the license server.

To remove The LSERVRC system variable:

1 On your desktop, right-click **My Computer** and select **Properties**.

2 Select the **Advanced** tab and click **Environment Variables**.

3 Check the System Variables list for the LSERVRC variable. If it exists, click **Delete**.

4 Click **OK** to close the windows.

5 Reboot the client computer to implement the changes.

The client computer connects through VPN software

If the client computer is connecting through VPN software, verify that VPN has **not** been configured to use **IPSec over UDP**. This configures the network to use Network Address Translation (NAT), which is not supported.