

# HP Service Test

Software Version: 11.50

## Installation Guide

Document Release Date: May 2013

Software Release Date: December 2012



# Legal Notices

## Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

## Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

## Copyright Notice

© Copyright 1992 - 2013 Hewlett-Packard Development Company, L.P.

## Trademark Notices

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

Google™ and Google Maps™ are trademarks of Google Inc

Intel® and Pentium® are trademarks of Intel Corporation in the U.S. and other countries.

Microsoft®, Windows®, Windows® XP, and Windows Vista® are U.S. registered trademarks of Microsoft Corporation.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

## Documentation Updates

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.
- Software Release Date, which indicates the release date of this version of the software.

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>**

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to:

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

Or click the **New users - please register** link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

# Support

Visit the HP Software Support Online web site at:

**<http://www.hp.com/go/hpsoftwaresupport>**

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- 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](http://h20230.www2.hp.com/new_access_levels.jsp)**

---

# Contents

Installation Guide .....	1
Contents .....	5
About the Installation Guide .....	8
Topic Types .....	8
Service Test Help Contents .....	9
Additional Online Resources .....	9
<b>Chapter 1: Before You Install .....</b>	<b>12</b>
Setting Required Access Permissions .....	12
Considerations When Upgrading from an Earlier Version of Service Test .....	13
Run Results Viewer .....	14
<b>Chapter 2: Setting Up Service Test .....</b>	<b>15</b>
Understanding the Service Test Setup for Different License Types .....	17
Setting Up Service Test with a Seat License .....	17
Setting Up Service Test with a Concurrent License .....	17
Considerations for Installing Service Test .....	18
Installing Service Test .....	18
Working with the Additional Installation Requirements Utility .....	26
Modifying DCOM Permissions Manually to Enable Remote Service Test Execution .....	27
Modifying User Account Control Settings to Connect with ALM (Windows Vista, Windows 7, Windows Server 2008, Windows Server 2008 R2, Windows 8, and Windows Server 2012) .....	31
Service Test Setup Window Options .....	32
Browsing the Service Test Program Folder .....	33
Setting Up a Silent Installation .....	33
Before You Install Service Test Silently .....	33
Prerequisite Software for Service Test .....	34
Installing Service Test Silently .....	35
Service Test User Interface Pack Installation .....	36

Prerequisites for the Service Test User Interface Pack Installation .....	36
Installing the Service Test User Interface Pack .....	36
Troubleshooting and Limitations - Installing Service Test .....	37
Accessing Service Test in Windows 8 Operating Systems .....	38
<b>Chapter 3: Working with Service Test Licenses .....</b>	<b>40</b>
Understanding Service Test License Types .....	42
Requesting a Seat License Key .....	43
Requesting a License Key via the HP Software Licensing Portal .....	44
Installing a Seat License Key .....	44
Working with a Concurrent License .....	49
Modifying License Information .....	53
Working with Commuter Licenses .....	55
Checking Out a Commuter License .....	55
Checking In a Commuter License .....	57
Obtaining a Commuter License Remotely .....	58
Validating Service Test Licenses .....	63
License Information .....	65
Validation Checks .....	65
Copying your License Validation Result to the Clipboard .....	66
Troubleshooting Concurrent Licensing Issues .....	66
There is no network connection between the server and client computers .....	66
The license server is not running .....	67
Licenses are not installed on the license server .....	67
The license key file (lservrc) cannot be found on the server .....	67
The license server is being used by the maximum number of users .....	68
Two or more versions of the license server are running .....	68
The client computer is configured to use a seat license .....	68
The license key does not match the license server locking code .....	68
The client computer cannot identify the license keys on the server computer .....	69
The LSHOST or LSFORCEHOST variables are not set .....	70
The LSERVRC system variable is set on the client computer .....	70
The client computer connects through VPN software .....	70

<b>Chapter 4: Maintaining and Uninstalling Service Test .....</b>	<b>71</b>
Installing and Uninstalling Specific Service Test Features .....	72
Repairing Your Service Test Installation .....	73
Uninstalling Service Test .....	73

# About the Installation Guide

The *HP Service Test Installation Guide* provides a complete, step-by-step instructions on how to install and set up Service Test on a standalone computer.

## Prerequisite Background

This guide is intended for users who need to install and set up UFT and for administrators who want to set up a silent installation for users in their organization.

## Topic Types

The content in the Service Test guides is organized by topics. Three main topic types are in use: **Concepts**, **Tasks**, and **Reference**.

Topic Type	Description	Usage
<b>Concepts</b>	Background, descriptive, or conceptual information.	Learn general information about what a feature does.
<b>Tasks</b>	<p><b>Instructional Tasks.</b> Step-by-step guidance to help you work with the application and accomplish your goals.</p> <p>Task steps can be with or without numbering:</p> <ul style="list-style-type: none"><li>• <b>Numbered steps.</b> Tasks that are performed by following each step in consecutive order.</li><li>• <b>Non-numbered steps.</b> A list of self-contained operations that you can perform in any order.</li></ul>	<ul style="list-style-type: none"><li>• Learn about the overall workflow of a task.</li><li>• Follow the steps listed in a numbered task to complete a task.</li><li>• Perform independent operations by completing steps in a non-numbered task.</li></ul>
	<p><b>Use-case Scenario Tasks.</b> Examples of how to perform a task for a specific situation.</p>	Learn how a task could be performed in a realistic scenario.
<b>Reference</b>	<p><b>General Reference.</b> Detailed lists and explanations of reference-oriented material.</p>	Look up a specific piece of reference information relevant to a particular context.
	<p><b>User Interface Reference.</b> Specialized reference topics that describe a particular user interface in detail. Selecting Help on this page from the Help menu in the product generally open the user interface topics.</p>	Look up specific information about what to enter or how to use one or more specific user interface elements, such as a window, dialog box, or wizard.



Topic Type	Description	Usage
<b>Troubleshooting and Limitations</b>	<b>Troubleshooting and Limitations.</b> Specialized reference topics that describe commonly encountered problems and their solutions, and list limitations of a feature or product area.	Increase your awareness of important issues before working with a feature, or if you encounter usability problems in the software.

## Service Test Help Contents

The Service Test Help includes the following:

Type	Included Documentation
<b>Getting to Know Service Test Documentation</b>	<ul style="list-style-type: none"> <li>• <b>Readme</b> provides the latest news and information about Service Test. Select <b>Start &gt; All Programs &gt; HP Software &gt; HP Service Test &gt; Readme</b>.</li> </ul> <div style="background-color: #f0f0f0; padding: 5px; margin: 5px 0;"> <p><b>Note:</b> For details on accessing Service Test tools and files in Windows 8, see "<a href="#">Accessing Service Test in Windows 8 Operating Systems</a>" on page 38.</p> </div> <ul style="list-style-type: none"> <li>• <b>Installation Guides</b> explain how to install and set up Service Test or the HP Functional Testing Concurrent License Server. Select <b>Help &gt; Service Test Help</b> and click the link to the appropriate guides from the left pane.</li> <li>• <b>Tutorials</b> teach you basic Service Test skills and show you how to design tests for your applications. Select <b>Help &gt; Service Test Tutorial</b>.</li> <li>• <b>Service Test Product Movies</b> provide an overview and step-by-step instructions describing how to use selected Service Test features. Select <b>Help &gt; Product Movies</b> or.</li> </ul>
<b>Feature Documentation</b>	<p><b>Service Test Help</b> includes:</p> <ul style="list-style-type: none"> <li>• <i>HP Service Test User Guide</i> describes how to use Service Test to test your application.</li> <li>• <i>HP Run Results Viewer User Guide</i> describes how to use the Run Results Viewer to view and analyze the run results from your tests or components.</li> </ul> <p>Select <b>Help &gt; HP Service Test Help</b>.</p>

## Additional Online Resources

The following additional online resources are available from the Service Test Help menu:

Resource	Description
<p><b>HP Software Support Site</b></p>	<p>Opens the HP Software Support Web site. This site enables you to browse the HP Software 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 <b>Help &gt; HP Software Support</b>. The URL for this Web site <a href="http://www.hp.com/go/hpssoftwaresupport">www.hp.com/go/hpssoftwaresupport</a>.</p> <ul style="list-style-type: none"> <li>• Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.</li> <li>• To find more information about access levels, go to: <a href="http://h20230.www2.hp.com/new_access_levels.jsp">http://h20230.www2.hp.com/new_access_levels.jsp</a></li> <li>• To register for an HP Passport user ID, go to: <a href="http://h20229.www2.hp.com/passport-registration.html">http://h20229.www2.hp.com/passport-registration.html</a></li> </ul>
<p><b>Testing Forums</b></p>	<p>Opens the testing forums for GUI Testing, API Testing, and Business Process Testing. where you can interact with other users of UFT and discuss topics related to GUI Testing, API Testing, and Business Process Testing.</p> <p>The URLs for these sites are:</p> <ul style="list-style-type: none"> <li>• API Testing: <a href="http://h30499.www3.hp.com/t5/Service-Test-Support-and-News/bd-p/sws-Serv_TEST_SF">http://h30499.www3.hp.com/t5/Service-Test-Support-and-News/bd-p/sws-Serv_TEST_SF</a></li> <li>• Business Process Testing: <a href="http://h30499.www3.hp.com/t5/Business-Process-Validation/bd-p/sws-BPT_SF">http://h30499.www3.hp.com/t5/Business-Process-Validation/bd-p/sws-BPT_SF</a></li> </ul>
<p><b>Service Test Product Page</b></p>	<p>Opens the HP Service Test product page, with information and related links about Service Test.</p>
<p><b>Troubleshooting &amp; Knowledge Base</b></p>	<p>Opens the Troubleshooting page on the HP Software Support Web site where you can search the HP Software Self-solve knowledge base. Choose <b>Help &gt; Troubleshooting &amp; Knowledge Base</b>. The URL for this Web site is <a href="http://h20230.www2.hp.com/troubleshooting.jsp">http://h20230.www2.hp.com/troubleshooting.jsp</a>.</p>
<p><b>HP Software Community Site</b></p>	<p>Opens the HP IT Experts Community site, where you can interact with other HP software users, read articles and blogs on HP software and access downloads of other software products.</p>
<p><b>Manuals Site</b></p>	<p>Opens the HP Software Product Manuals Web site, where you can search for the most up-to-date documentation for a selected HP Software product. The URL for this Web site is <a href="http://support.openview.hp.com/selfsolve/manuals">http://support.openview.hp.com/selfsolve/manuals</a> (requires an HP Passport).</p>
<p><b>What's New</b></p>	<p>Opens the Service Test What's New Help, describing the new features and enhancements in this version of Service Test.</p>
<p><b>Product Movies</b></p>	<p>Opens a page displaying a list of all product movies.</p>

Resource	Description
<b>HP Software Web site</b>	Opens 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 <b>Help &gt; HP Software Web site</b> . The URL for this Web site is <a href="http://www.hp.com/go/software">www.hp.com/go/software</a> .

You can access the following sample applications from the **Start** menu. These applications are the basis for many examples in this guide:

Mercury Flight application. To access from the Start menu, select **All Programs > HP Software > HP Service Test > Sample Applications > Flight API**.

# Chapter 1: Before You Install

---

Welcome to HP Service Test, the advanced keyword-driven testing solution for functional test and regression test automation. Service Test is part of HP ALM. This guide describes everything you need to know to install Service Test on a standalone computer.

**Note:** Unless otherwise specified, references to **Application Lifecycle Management** or **ALM** in this guide apply to all currently supported versions of ALM and Quality Center. Note that some features and options may not be supported in the specific edition of ALM or Quality Center that you are using.

For a list of the supported versions of ALM or Quality Center, see the *HP Service Test Product Availability Matrix*, available from the Service Test Help or the root folder of the Service Test DVD. The most up-to-date product availability matrix is available from the HP Software Product Manuals site, at <http://h20230.www2.hp.com/selfsolve/manuals> (requires an HP Passport).

For details on ALM or Quality Center editions, see the *HP Application Lifecycle Management User Guide* or the *HP Quality Center User Guide*.

Before you install Service Test, confirm that your computer meets all system requirements. For details, see the *HP Service Test Readme*.

You can upgrade to Service Test 11.50 only from ServiceTest version 10.00 or later. If you are using a version earlier than Service Test 10.00, you must first manually uninstall your current Service Test version. For more details, see "[Considerations When Upgrading from an Earlier Version of Service Test](#)" on next page.

You must not run any other installation at the same time as you run the Service Test installation. In addition, you should ensure before you install Service Test that your computer is not in a state that requires a restart. If this is the case, the installation will not run.

This chapter includes:

Setting Required Access Permissions .....	12
Considerations When Upgrading from an Earlier Version of Service Test .....	13
Run Results Viewer .....	14

## Setting Required Access Permissions

You must make sure the following access permissions are set to install and run Service Test.

### Permissions Required to Install Service Test

You must have administrator permissions on the computer on which you are installing Service Test. You also need administrator rights for any other installation tasks, for example, uninstalling Service Test, repairing or modifying the installation, or installing a patch.

In some circumstances, the installation may require a system restart. If a computer restart is required, your administrator permissions must include the part of the installation that occurs after the restart.

**Note:** If you are working with a firewall, it is recommended that you add `Service Test.exe` to the list of firewall exceptions.

### Permissions Required to Run Service Test

You must have the following file system permissions:

- Full read and write permissions for all the files and folders under the folder in which Service Test is installed
- Full read and write permissions to the `Temp` folder
- Read permissions to the `Windows` folder and to the `System` folder

You must have the following registry key permissions:

- Full read and write permissions to all the keys under `HKEY_CURRENT_USER\Software\Mercury Interactive`
- Read and Query Value permissions to all the `HKEY_LOCAL_MACHINE` and `HKEY_CLASSES_ROOT` keys

## Considerations When Upgrading from an Earlier Version of Service Test

- You can automatically install Service Test 11.50 from Service Test 10.00 or later. 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. The previous version of Service Test is uninstalled.
- If you are upgrading to Service Test 11.50 from a version earlier than Service Test 10.00, you must first manually uninstall your current Service Test version. Otherwise, the installation process will not run. At the end of the uninstall process, restart your computer and install the new version and add-in.
- 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. 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 Service Test 10.00 or later. However, if you have not installed a license before the upgrade, you must run the License Wizard as part of the installation.
- Connection settings to ALM are not retained by the upgrade process. If required, you must reconnect to ALM after the installation.

## Run Results Viewer

The Service Test installation includes the Run Results Viewer application to view run results. Following the Service Test installation, the Run Results Viewer is automatically installed.

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 `RunResultsViewer\MSI` folder on any computer.

# Chapter 2: Setting Up Service Test

---

When you install Service Test, you must know whether you want to install all Service Test features or the Service Test run-time features.

You must also know which type of license you want to install. A **Seat** license is a permanent license that is specific to the computer on which the license is installed, and a **Concurrent** license is a per session license that is available only if your company has an HP Functional Testing Concurrent License Server. For more details, see "Understanding the Service Test Setup for Different License Types" on page 17.

You can also set up Service Test to install silently (in the background), and on remote computers.

**Note:** When you open Service Test, a silent check for updates to the application is performed in the background. You can check online for updates to all HP products installed on your computer at any time by choosing **Start > Programs > HP > HP Update**. You can then select which updates you want to download and (optionally) install.

For details on accessing Service Test tools and files in Windows 8, see "Accessing Service Test in Windows 8 Operating Systems" on page 38.

This chapter includes:

Understanding the Service Test Setup for Different License Types .....	17
Setting Up Service Test with a Seat License .....	17
Setting Up Service Test with a Concurrent License .....	17
Considerations for Installing Service Test .....	18
Installing Service Test .....	18
Working with the Additional Installation Requirements Utility .....	26
Modifying DCOM Permissions Manually to Enable Remote Service Test Execution .....	27
Modifying User Account Control Settings to Connect with ALM (Windows Vista, Windows 7, Windows Server 2008, Windows Server 2008 R2, Windows 8, and Windows Server 2012) ...	31
Service Test Setup Window Options .....	32
Browsing the Service Test Program Folder .....	33
Setting Up a Silent Installation .....	33
Before You Install Service Test Silently .....	33
Installing Service Test Silently .....	35
Service Test User Interface Pack Installation .....	36
Prerequisites for the Service Test User Interface Pack Installation .....	36
Installing the Service Test User Interface Pack .....	36
Troubleshooting and Limitations - Installing Service Test .....	37

Accessing Service Test in Windows 8 Operating Systems .....38



# Understanding the Service Test Setup for Different License Types

The general procedures for installing Service Test and activating a license differ for the various license types: **Seat**, and **Concurrent**. This section summarizes the procedures required for the different license types and directs you to the detailed information for each step.

## Setting Up Service Test with a Seat License

This section summarizes the procedure for setting up Service Test with a seat license. A seat license is a permanent license that is specific to the computer on which the license is installed. The seat license includes a 30-day demo period, during which you may use all of the available Service Test features. Before the demo period ends, you must contact HP to obtain a permanent seat license key.

**Note:**

If you want to run Service Test using the demo license, do not run the License wizard. The first time you open Service Test, you are notified that the demo period started.

Seat licenses are not available for operating systems with session capabilities, such as Windows servers or Citrix.

**To set up Service Test with a seat license:**

1. After you install Service Test, the Additional Installation Requirements screen opens. When the additional installations are complete, the License Wizard automatically opens.
2. When the License Installation wizard opens to the License Type screen, select **Seat**. For more details, see "[Installing Service Test](#)" on next page.
3. Run Service Test. Click **Install License** on the displayed warning message and request a seat license key from HP, as described in "[Requesting a Seat License Key](#)" on page 43.
4. After you receive the license key from HP, run the license installation wizard again to install your license key. For more details, see "[Installing a Seat License Key](#)" on page 44.

## Setting Up Service Test with a Concurrent License

This section summarizes the procedure for setting up Service Test with a concurrent license. A concurrent license is a per session license that is available only if your company has an HP Functional Testing Concurrent License Server, your computer has access to that server, and a free concurrent license is available for your use.

**To set up Service Test with a concurrent license:**

1. Install the HP Functional Testing Concurrent License Server on a network computer and activate the HP Functional Testing Concurrent License Server license. For more details, see the *HP Functional Testing Concurrent License Server Installation Guide*. This guide is installed on the computer where the HP Functional Testing Concurrent License Server is installed, and

is called *UFTLicSvr.pdf*.

2. Run the Service Test setup program on each client computer. In the License Type screen, select **Concurrent License**. For more details, see "[Installing Service Test](#)" below.
3. Begin using Service Test. When Service Test opens, it automatically searches for the specified license server and connects to it.

**Note:** If your computer cannot find and connect to the license server, you may need to set the LSHOST or LSFORCEHOST variable. For more details, see the *HP Functional Testing Concurrent License Server Installation Guide*.

## Considerations for Installing Service Test

- If you are upgrading to Service Test from Service Test 10.00 or earlier, you need to first uninstall your current Service Test version. Otherwise, the installation process will not run. At the end of the uninstall process, restart your computer and install the new version and add-in.
- If you are upgrading to Service Test from Service Test 10.00 or later, the installation wizard uninstalls your previous version of Service Test and installs Service Test.
- 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. For details on setting up a concurrent license server, see the *HP Functional Testing Concurrent License Server Installation Guide*.
- If the HP Service Test Files in Use dialog box is displayed during the installation process:
  - Close the applications listed in the dialog box and click **Try Again**.
  - If the HP Service Test Files in Use dialog box is displayed again, click the **Exit Installation** button and restart your computer. After the restart is complete, do not open any applications. Run the Service Test Setup program again.
  - If after restarting, the HP Service Test Files in Use dialog box lists Explorer as the open application, click **Continue**. If prompted, restart your computer at the end of the installation.

## Installing Service Test

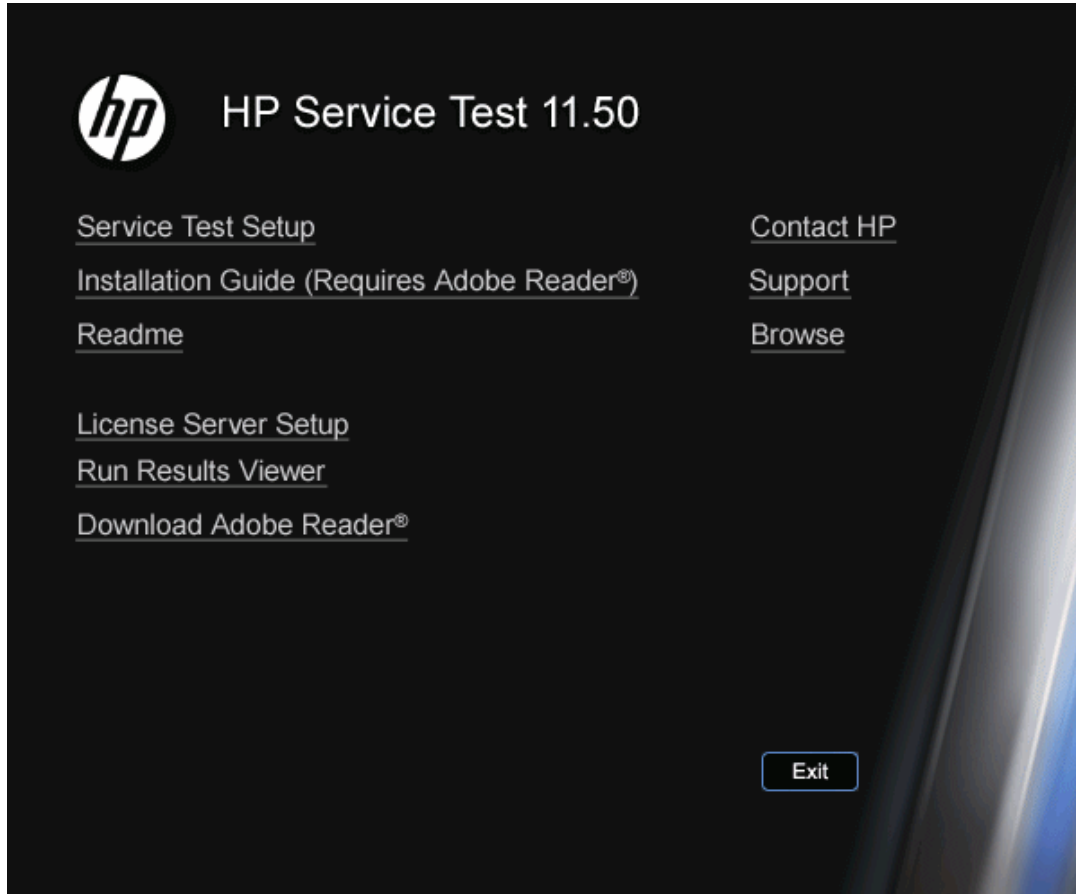
Your Service Test DVD includes an installation program that guides you through the installation process.

### 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.)
2. Insert the Service Test installation DVD into the DVD drive.

- If the DVD drive is on your local computer, and Autoplay is enabled, the Service Test Setup window opens. If Autoplay is disabled on your computer, right-click the DVD drive and select **Autoplay**.
- If you are installing from a network drive, double-click `setup.exe` in the root folder of the DVD.

The Setup window opens.



See "[Service Test Setup Window Options](#)" on page 32 for more details on the various options available in the Service Test setup window.

**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 **Service Test Setup** to start the Service Test Setup program.
4. Service Test requires specific software, for example, Microsoft Visual C++ Runtime

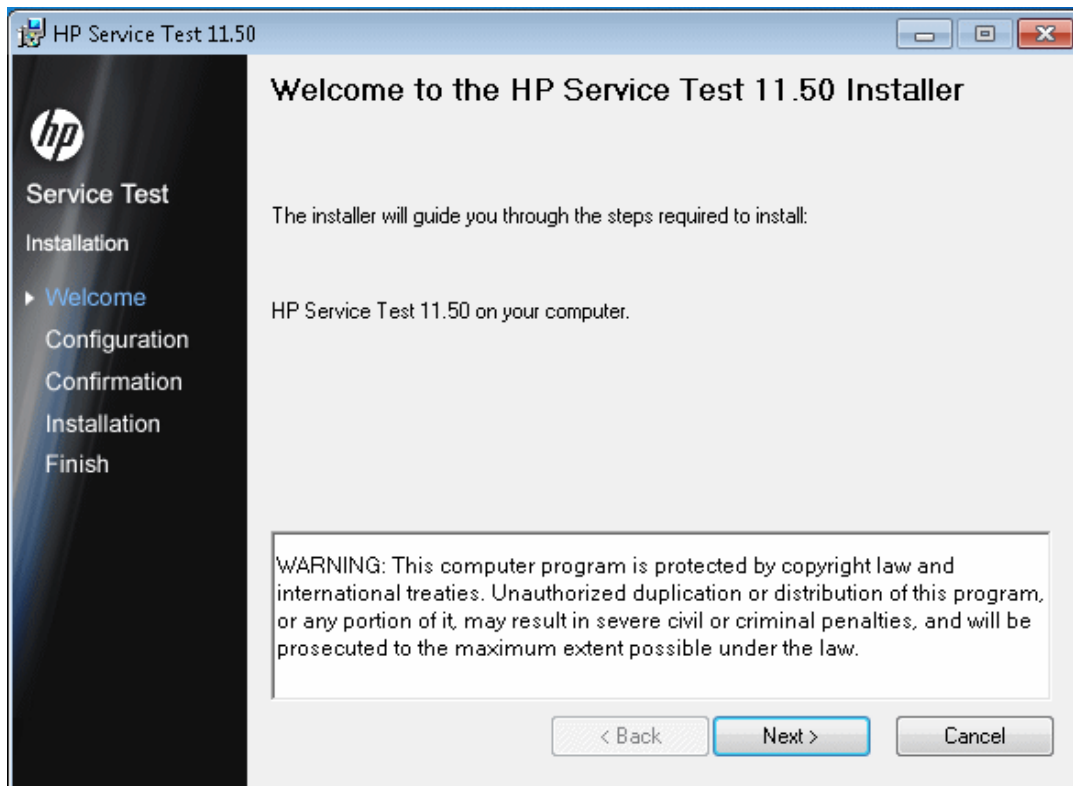
components, to be installed before you install Service Test. If Setup finds that the prerequisite software is not already installed on your computer, a screen opens listing the prerequisite programs.

**Tip:** Select an item in the list to display a description of the program.

Click **OK** and follow the on-screen instructions to install the listed software before continuing with the Service Test installation. If you click **Cancel**, Setup stops because Service Test cannot be installed without the prerequisite software.

In some situations, you may be prompted to restart your computer after installing the prerequisite software. To continue with the installation after restarting your computer, run the Setup program again.

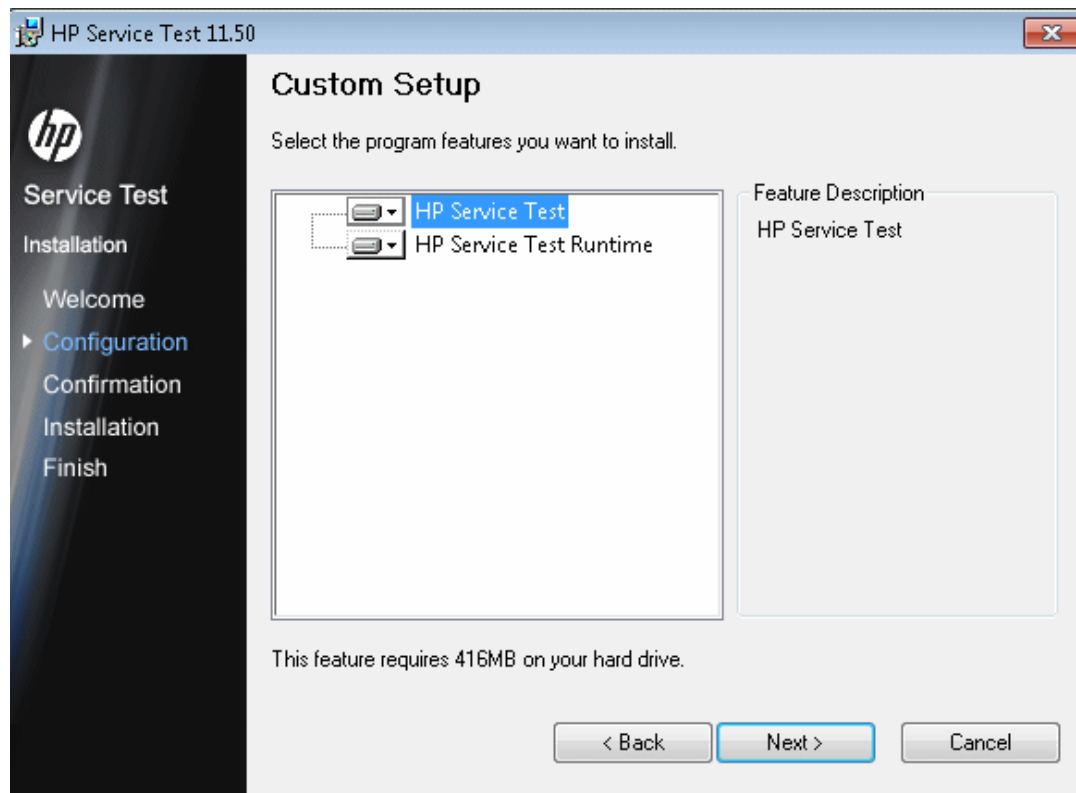
5. The Welcome to the HP Service Test Setup Wizard opens. Click **Next** to proceed.
6. The License Agreement screen opens. Read the agreement.



To install Service Test, you must accept the terms of the license agreement by selecting **I Agree** and clicking **Next**.




7. In the Customer Information screen, type your name and the name of your organization. Click **Next** to proceed.
8. 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.



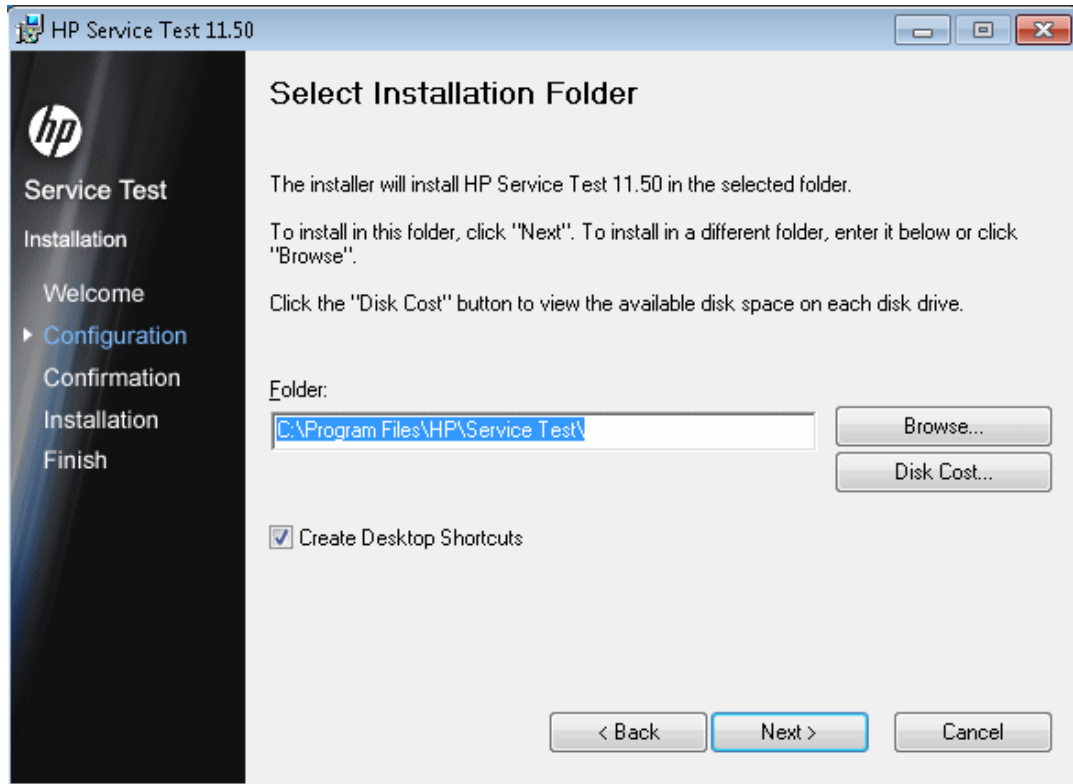
You can select an item in the list to see a description of the feature as well as the space requirement for the feature on your drive.

Click an icon to view a menu and select how that feature is installed on your computer. The following options are available, depending on the feature:

-  **Will be installed on local hard drive.** Installs the selected feature on your local hard drive. Sub-features of the selected feature are not installed.
-  **Entire feature will be installed on local hard drive.** Installs the entire selected feature and its sub-features on your local hard drive.
-  **Entire feature will be unavailable.** Excludes the feature from the installation and it is not available in Service Test.

Click **Next**. If you are upgrading from Service Test 10.00 or later, the upgrade installation automatically installs Service Test in the same folder in which the previous version of Service Test was installed. Skip the next step and continue to the Confirm Installation screen.

9. In the Select Installation Folder screen, select the location where you want to install Service Test.



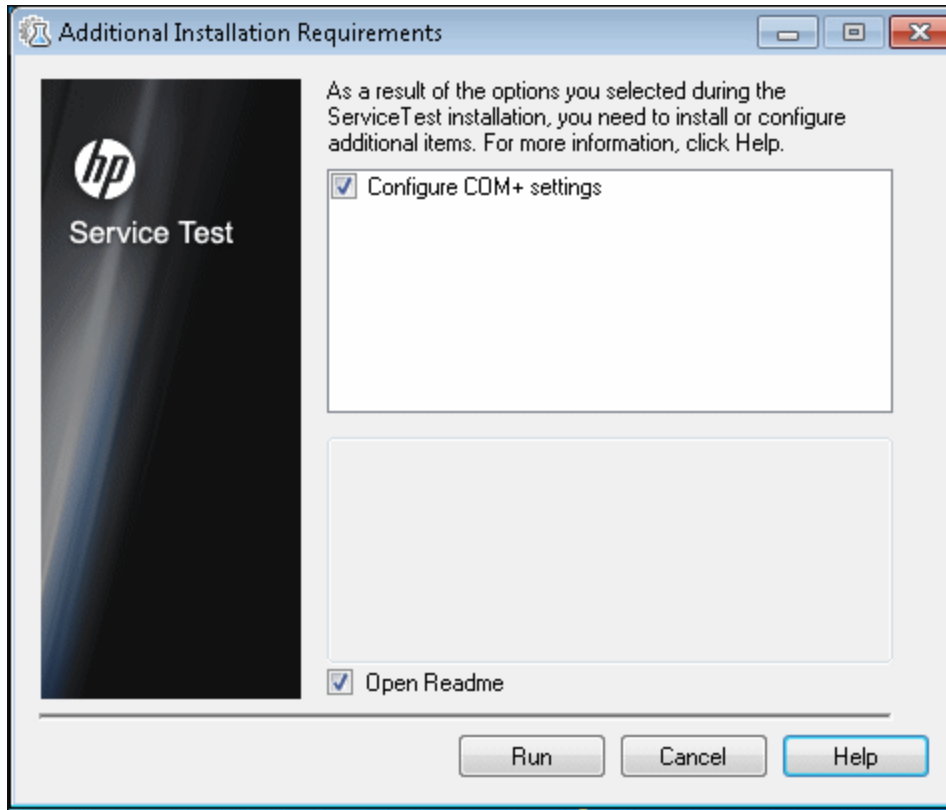
- To select a different location, click **Browse**, select a folder, and then click **OK**. You must specify a folder on a mapped drive (not a UNC path). If the destination folder does not exist, the setup program creates it.
- To view the required and available space on each of your mapped drives, click **Disk Cost**.

Ensure that you install Service Test on a drive with a sufficient amount of free disk space. For more details, see the system requirements, as described in the *HP Service Test Readme*.

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 **Next** to proceed.

10. The Confirm Installation screen opens. Click **Next** to proceed, and the installation process begins. The Installing HP Service Test screen displays the progress of the installation.
11. When the installation is complete, click **Finish**.  
The Additional Installation Requirements screen opens.

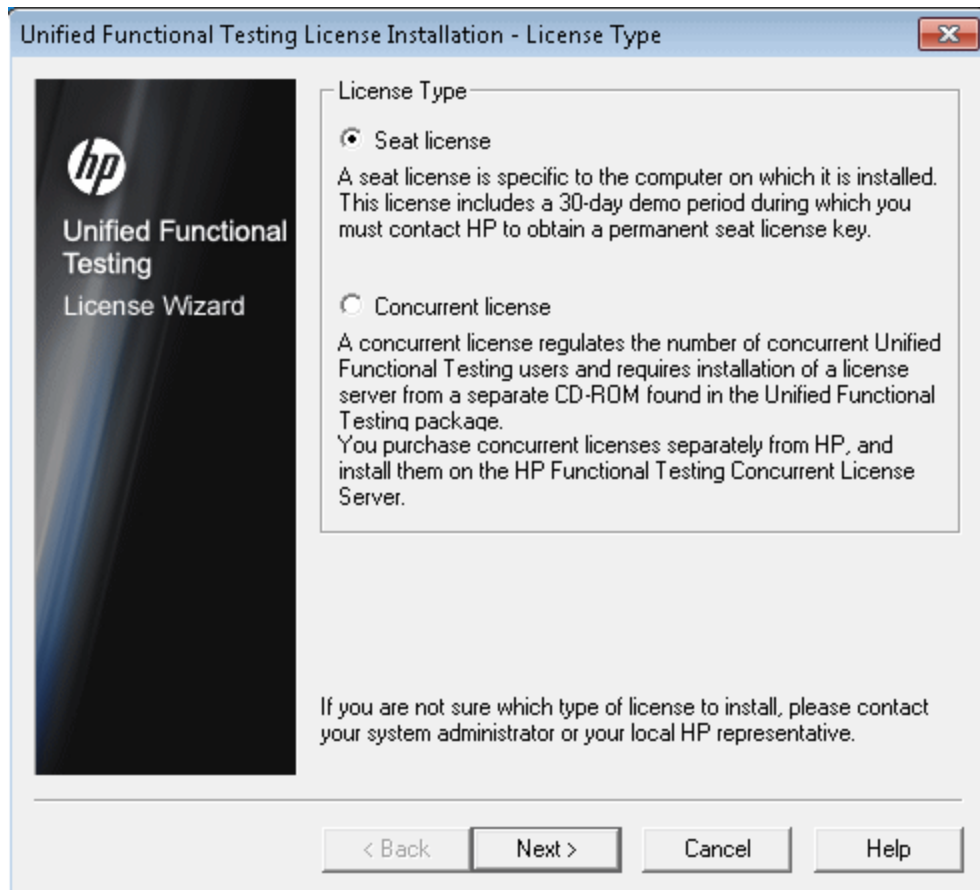


**Note:**

- After the Service Test installation is complete, the HP Run Results Viewer installation is performed in the background. Therefore, it may take some time before the Additional Installation Requirements screen opens.
- 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**.

For details on accessing Service Test tools and files in Windows 8, see "[Accessing Service Test in Windows 8 Operating Systems](#)" on page 38.

12. Click **Run** in the Additional Installation Requirements screen to install or configure your selections.
13. After the Additional Installation Requirements are finished, the Service Test License Installation - License Type screen opens.



Select a license type. (For details on the process required to set up various license types, see ["Understanding the Service Test Setup for Different License Types"](#) on page 17. For details on working with licenses, see ["Working with Service Test Licenses"](#) on page 40.)

- **Seat license.** Uses a license created for this computer.

A seat license is a permanent license that is specific to the computer on which the license is installed. When you select this option, you also get a 30-day demo period during which you must request a permanent seat license key from the HP Webware License Key Delivery Service. After you receive the seat license key, you can activate the license to work with Service Test permanently. For more details, see ["Requesting a Seat License Key"](#) on page 43.

If you select **Seat license**, proceed to the next step and the Welcome screen.

- **Concurrent license.** Uses a network-based license.

A license server on the network regulates the number of concurrent Service Test users. You can work with a concurrent license only if a concurrent license server is installed on your local network, and that license server has at least one available license that is not currently in use.

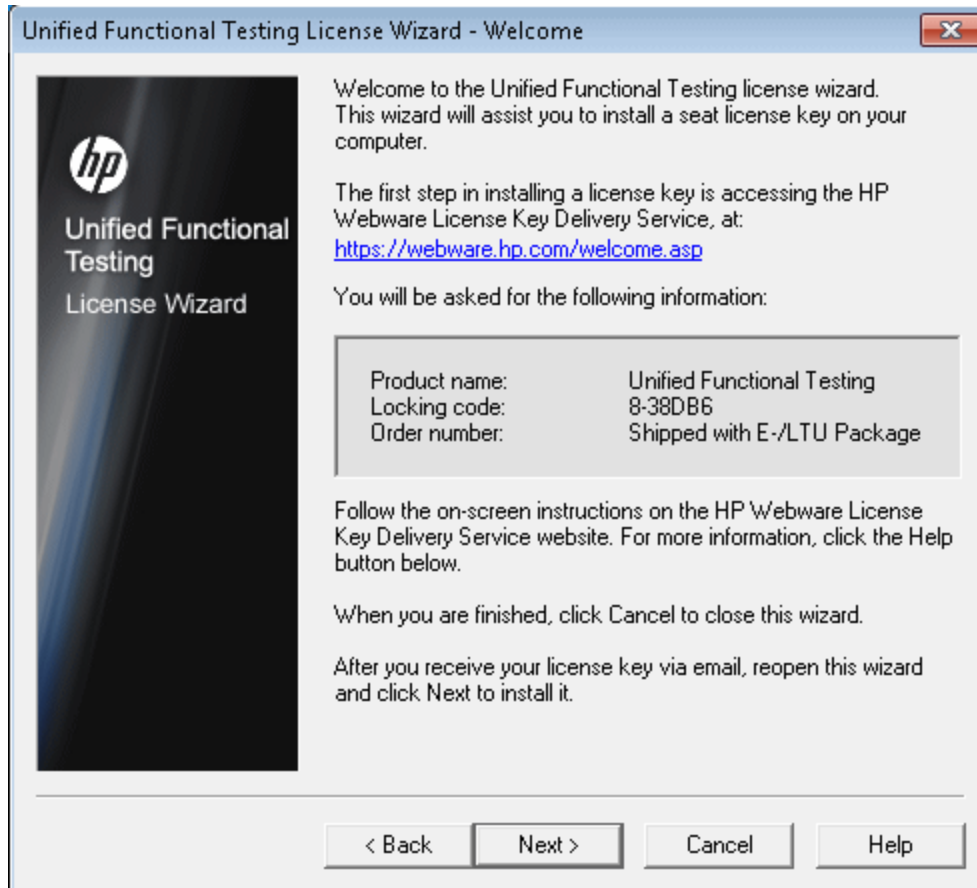
Click **Next** to open the License Installation - Concurrent License Server dialog box and, if you know the name of the concurrent license server to which you want to connect, you can specify the server in the text box. You can click **Check Connection** to verify that the license server is accessible from your network.



If you select this option but do not specify a concurrent license server, Service Test tries to locate one for you when you open Service Test.

For more details, see the *HP Functional Testing Concurrent License Server Installation Guide*.

14. If you chose to install Service Test with a seat license, the Service Test License Installation - Welcome screen opens.



If you have a seat license key, install it using the the License Key screen, as described in "Installing a Seat License Key" on page 44.

If you do not have a license key, make a record of the displayed locking code for your computer. You will need the locking code to request your license key. Click the link on the Service Test License Installation - 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 Software Licensing Portal" on page 44 and then click **Cancel**. (You will be prompted later to install the seat license when you open Service Test.)

15. The installation continues with installing the options you selected in the Additional Installation Requirements screen. When these options are installed and configured on your computer, the screen reopens.

A checkmark is displayed next to the options that were successfully installed or configured.

16. Click **Show Readme** if you want the to open at the end of the installation.

17. Click **Close**. The Installation Complete screen opens.
18. Click **Finish**.

**Note:** In some situations, you may be prompted to restart your computer after you have installed Service Test. It is recommended that you restart your computer as soon as possible if you are prompted to do so. Delaying the system restart may result in unexpected Service Test behavior.

## Working with the Additional Installation Requirements Utility

Several prerequisites for working with Service Test must be installed and configured after Service Test is installed. In addition, to take advantage of Service Test debugging and remote access features and DCOM settings need to be configured.

The Additional Installation Requirements screen displays any prerequisite software that must be installed or configured to work with Service Test, according to the options selected when Service Test is installed or the installation is modified. For more information, see the section on Additional Installation Prerequisites in the *HP Unified Functional Testing Installation Guide*.

The Additional Installation Requirements utility enables you to configure the required settings automatically.

- Select an option name in the Additional Installation Requirements dialog box to display a description of the feature.
- Select the check box of one or more required options and click **Run**.

You can run the Additional Installation Requirements utility at any time by choosing **Start > All Programs > HP Software > HP Service Test > Tools > Additional Installation Requirements**. In addition to the options to configure Internet Explorer and DCOM settings, and to run the License Wizard, the dialog box displays any prerequisite software that is still required to be installed to work with Service Test.

**Note:** For details on accessing Service Test tools and files in Windows 8, see "[Accessing Service Test in Windows 8 Operating Systems](#)" on page 38.

The Additional Installation Requirements utility enables you to perform the following:

- **Configure DCOM settings.** Select this check box to automatically change DCOM permissions and security settings and open a firewall port on your Service Test computer.

These changes are only required if you want to run Service Test tests remotely from ALM, and are running Service Test on Windows XP Service Pack 2 or later, Windows 2003 Server, Windows Vista, or Windows 7.

For more information about the changes that Service Test makes when you choose to set these options automatically, see the *HP Service Test Installation Guide*.

If you choose not to automatically set remote execution options during the Service Test installation, you can, before attempting to remotely run Service Test tests from ALM:

- Run the Additional Installation Requirements utility at a later time from **Start > All Programs > HP Software > HP Service Test > Tools > Additional Installation Requirements**.

**Note:** For details on accessing Service Test tools and files in Windows 8, see "[Accessing Service Test in Windows 8 Operating Systems](#)" on page 38.

- Make the required changes manually. For more information on making these changes manually, see the *HP Service Test Installation Guide*.

**Note:** Contact Microsoft Support if you have questions regarding changes in DCOM securities on Windows XP Service Pack 2 or later, Windows 2003 Server, or Windows Vista.

- **Run License Installation Wizard.** Select this check box to run the Service Test License Wizard. If you want to run Service Test using the demo license for up to 30 days, do not select this check box.

## Modifying DCOM Permissions Manually to Enable Remote Service Test Execution

This section describes how to manually change DCOM permissions and open firewall ports to enable remote execution of Service Test. 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, Windows Vista, Windows 7, or Windows 8.

If you chose to automatically make these changes during the Service Test installation, you do not need to make these manual changes. If you do not intend to execute Service Test tests remotely from ALM, you do not need to make these manual changes.

**Note:** The security changes described in this section should be performed by your System Administrator. Please contact Microsoft Support if you have questions regarding changes in DCOM securities on Windows XP Service Pack 2, Windows 2003 Server Service Pack 1 or later, or Windows Vista.

**Tip:** The HP Support Knowledge Base provides utilities to assist you in making DCOM changes. For more details, see the HP Software Self-solve knowledge base (<http://h20230.www2.hp.com/selfsolve/document/KM196144>) and search for Problem ID 43245. The Knowledge Base area requires that you register as an HP Passport user and sign in.

To manually enable remote execution of Service Test, perform the following procedures:

- Enable Windows to authenticate the remote user (described on page 28)
- Configure the Windows Firewall to enable port 135 for DCOM (described on page 28)

- Modify DCOM security properties (described on page 28)
- Configure security settings for the Service Test Remote Agent DCOM applications (described on page 30)
- Enable COM+ Access

In addition, before remotely running a test you must also make sure that the **Allow other HP products to run tests and components** option is selected in the **Run Sessions** pane (**Tools > Options > General tab > Run Sessions** node) of the Service Test Options dialog box. For more details, see the *HP Unified Functional Testing User Guide*.

#### To enable Windows to authenticate the remote user:

1. Add both computers to the same domain.
2. For domain users logged into both computers, 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.

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

**Note:** If you disabled the firewall installed with Windows XP Service Pack 2, Windows 2003 Server, or Windows Vista, you do not need to open port 135 for DCOM, as described in this procedure.

1. On the Service Test computer, select **Control Panel > System and Security > Windows Firewall**. The Windows Firewall options open.
2. Select the **Allow a program or feature through Windows Firewall** option on the left sidebar.
3. Click **Allow another program**. The Add a Program dialog box opens.
4. Select or browse to the Remote Agent (`<Service Test installation>\bin\AQTRmtAgent.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 display while running a test remotely. Click **Unblock** to solve this problem. The next time you remotely execute an automated test, the warning does not display.

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

**Note:** For more details, a list of port assignments for commonly-used services can be found at: <http://technet.microsoft.com/en-us/library/cc959833.aspx>.

#### To modify DCOM security properties:

1. Select **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 computer 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 ALM 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**.

#### **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**.

## Installation Guide

### Modifying DCOM Permissions Manually to Enable Remote Service Test Execution

---

2. Right-click the **AQTRmtAgent** item and select **Properties**. The AQTRmtAgent Properties dialog box opens.
3. 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.
4. Select the **Security** tab.
5. In the Launch and Activation Permissions area, select **Customize** and click **Edit**. The Launch Permission dialog box opens.
6. Click **Add**. The Select Users or Groups dialog box opens.
7. Click **Advanced**.
8. Click **Locations**. In the displayed dialog box, select your computer name and click **OK**.
9. Click **Find Now**.
10. Select the following users and groups from the local computer and click **OK**:
  - Administrator
  - Administrators
  - Authenticated Users
  - Anonymous Logon
  - Everyone
  - Interactive
  - Network
  - System
11. Add the following users from the domain and click **OK**:
  - <domain user logged into the Service Test computer>
  - <domain user logged into the ALM computer that is performing the remote execution>
12. In the Launch Permission dialog box, for all the groups and users in the list, select **Allow** for all permissions and click **OK**.
13. In the Access Permissions area, select **Customize** and click **Edit**. The Access Permission dialog box opens.
14. Repeat steps 6 to 12.
15. Click **Apply** to save the changes and click **OK** to close the dialog box.
16. Close the Component Services window.

#### **To enable COM+ on a Windows 2008 or Windows 2012 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.

You can now remotely execute a Service Test test from ALM.

**Note:** Before remotely running a test, you must also make sure that the **Allow other HP products to run tests and components** option is selected in the **Run Sessions (Tools > Options > General tab > Run Sessions node)** pane of the Service Test Options dialog box. For more details, see the *HP Unified Functional Testing User Guide*.

## Modifying User Account Control Settings to Connect with ALM (Windows Vista, Windows 7, Windows Server 2008, Windows Server 2008 R2, Windows 8, and Windows Server 2012)

If you are running Service Test on Windows Vista, Windows 7, Server 2008, or Server 2008 R2, you must disable User Account Control (UAC) and restart your computer before you connect with ALM for the first time. After you have connected with ALM for the first time, you can enable User Account Control (UAC) again if required.

This change is required only if you are running Service Test on one of the operating systems listed above. If you do not intend to execute Service Test tests remotely from ALM, you do not need to make these changes.

**Note:** The security changes described in this section should be performed by your System Administrator. Please contact Microsoft Support if you have questions regarding changes in User Account Control (UAC) on any of these operating systems.

To temporarily turn off the UAC option, do the following:

#### **For Microsoft Windows Vista and Windows Server 2008:**

1. Log in as an administrator.
2. From the Control Panel, select **User Accounts > Change Security Settings**, and clear the **Use User Account Control (UAC) to help protect your computer** check box.
3. Restart the computer to enable this setting to take effect.

#### **For Microsoft Windows 7 and Windows Server 2008 R2:**

1. Log in as an administrator.
2. From the Control Panel, select **User Accounts > User Accounts > Change User Account Settings**.
3. In the User Account Control Settings window, move the slider to **Never notify**.
4. Restart the computer to enable this setting to take effect.

**For Microsoft Windows 8 and Windows Server 2012:**

1. Log in as an administrator.
2. From the Control Panel, select **User Accounts and Family Safety > User Accounts > Change User Account Control Settings**.
3. In the User Account Control Settings window, move the slider to **Never notify**.
4. In the Control Panel, select **System and Security > Administrative Tools > Local Security Policy**.
5. In the Local Security Policy window, in the left pane, select **Local Policies**.
6. In the Local Policies tree, select **Security Options**.
7. In the right pane, select the **User Account Control: Run all administrators in Admin Approval mode** option.
8. Select **Action > Properties** from the menu bar.
9. In the dialog that opens, select **Disabled**.
10. Restart the computer for your changes to take effect.
11. After working with the desired tool, return to the User Account Control Settings window, and restore the slider to its previous position to turn the UAC option on again.
12. Restart the computer for your changes to take effect.

## Service Test Setup Window Options

The Service Test Setup window contains the following options:

Option	Description
<b>Service Test Setup</b>	Starts the Service Test Setup program.
<b>Installation Guide</b>	Opens a PDF copy of the this guide, which is suitable for printing. To download Adobe, Reader click <b>Download Adobe Reader</b> .
<b>Readme</b>	Opens the file.
<b>License Server Setup</b>	Enables you to install the HP Functional Testing Concurrent License Server or a concurrent license on the server. From the dialog box that opens you can also open a PDF copy of the <i>HP Functional Testing Concurrent License Server Installation Guide</i> .



Option	Description
<b>Run Results Viewer Setup</b>	Enables you to install the Run Results Viewer on your computer.
<b>Download Adobe Reader.</b>	Downloads Adobe Reader.
<b>Contact HP</b>	Opens the Enterprise software page on the HP Web site ( <a href="http://www8.hp.com/us/en/software/enterprise-software.html?jumpid=ex_r11374_us/en/large/eb/go_software">http://www8.hp.com/us/en/software/enterprise-software.html?jumpid=ex_r11374_us/en/large/eb/go_software</a> ). Click <b>Contact us</b> in the upper right corner.
<b>Support</b>	Opens the HP Software Support Web site ( <a href="http://support.openview.hp.com/">http://support.openview.hp.com/</a> ).
<b>Browse DVD</b>	Enables you to view the contents of the Service Test DVD.

## Browsing the Service Test Program Folder

After the Service Test setup process is complete, a number of items are added to your Service Test program folder (**Start > All Programs > HP Software > HP Service Test**).

For a description of each of these items, see the *HP Service Test User Guide*.

### Note:

- If you uninstalled a previous version of Service Test before installing this version, you may have additional (outdated) items in your Service Test program folder.
- For details on accessing Service Test tools and files in Windows 8, see "[Accessing Service Test in Windows 8 Operating Systems](#)" on page 38.

## 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.

For more details, see:

Before You Install Service Test Silently .....	33
Prerequisite Software for Service Test .....	34
Installing Service Test Silently .....	35

## Before You Install Service Test Silently

You must have administrator privileges to install Service Test. (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
<b>Windows Installer 3.1</b>	DVD\STSetup\EN\prerequisites\ msi31\WindowsInstaller-KB893803-v2- x86.exe/q /norestart
<b>.NET Framework v.35 SP1</b>	DVD\STSetup\EN\prerequisites\ dotnet35_sp1\dotnetfx35_sp1.exe/qb
<b>Windows Imaging Component</b>	DVD\STSetup\EN\prerequisites\ dotnet40\wic_x86_enu.exe/q /norestart
<b>.NET Framework 4.0</b>	DVD\STSetup\EN\prerequisites\ dotnet40\dotnetfx40.exe/q /norestart /c:"install /q" /LCID
<b>Microsoft Office Access database engine</b>	DVD\STSetup\EN\prerequisites\ msade2007\AccessDatabaseEngine.exe/ quiet
<b>Visual Studio Tools for the Office system 3.0 Runtime</b>	DVD\STSetup\EN\prerequisites\ vstor30\vstor30.exe/q
<b>Microsoft WSE 2.0 SP3 Runtime</b>	DVD\STSetup\EN\prerequisites\ wse30MicrosoftWSE3.0Runtime.msi/ quiet /norestart
<b>Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package</b>	DVD\STSetup\EN\prerequisites\ vc2005_sp1_redist\vcredist_ x86.EXE/q
<b>Microsoft Visual C++ 2008 SP1 Runtime Components</b>	DVD\STSetup\EN\prerequisites\ vc2008_sp1_redist_V9030729\ vcredist_x86.exe/q /norestart
<b>Microsoft Visual C++ 2010 Runtime Components</b>	DVD\STSetup\EN\prerequisites\ vc2010_redist\vcredist_x86.exe/q /norestart

Prerequisite	Silent Command Syntax
<b>Microsoft XML Core Services</b>	<code>msiexec /i DVD\STSetup\EN\prerequisites\msxml6\msxml6.msi /quiet /norestart</code>
<b>Microsoft XML Core Services 3 Service Pack 4</b>	<code>DVD\STSetup\EN\prerequisites\msxml3sp4\msxml3usa.msi/quiet /norestart</code>

**Note:** 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 the following Service Test items silently on your computer.

**Note:** You can use most standard MSI command line options when installing Service Test from the command line. For more details about performing a silent, or quiet, MSI installation, see the relevant Microsoft documentation.

### Prerequisites

1. It is recommended to save any open files and close all open 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 33](#). You can begin the silent installation only after all the required prerequisite software is installed.

**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 prerequisite software is installed.

### Performing a standard installation of Service Test silently

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**).

**Note:** For details on accessing Service Test tools and files in Windows 8, see "[Accessing Service Test in Windows 8 Operating Systems](#)" on page 38.

## Service Test User Interface Pack Installation

The Service Test User Interface Pack enables you to view Service Test and theRun Results Viewer program user interface in your local language. You install the User Interface Pack from the **<Language> User Interface Pack** CD-ROM.

The User Interface Pack installation also enables you to install a localized version of the HP Functional Testing Concurrent License Server.

This section includes:

Prerequisites for the Service Test User Interface Pack Installation .....	36
Installing the Service Test User Interface Pack .....	36

## Prerequisites for the Service Test User Interface Pack Installation

You must have Service Test installed before installing the User Interface Pack. For more details, see "[Installing Service Test](#)" on page 18.

**Note:** If you are installing the HP Functional Testing Concurrent License Server (<Language> Edition), you do not need to first install the English edition of the HP Functional Testing Concurrent License Server.

## Installing the Service Test User Interface Pack

The following describes how to install a User Interface Pack for Service Test andRun Results Viewer, and how to install the localized HP Functional Testing Concurrent License Server.

### To install the User Interface Pack:

1. Make sure that the prerequisites are met, as described in "[Prerequisites for the Service Test User Interface Pack Installation](#)" above.
2. Insert the **<Language> User Interface Pack** CD into the CD-ROM drive. The **Service Test <Language> User Interface Pack Setup** window opens.

**Note:** If the CD-ROM drive is on a network computer, map the network drive, navigate to the root folder of the mapped network path, and double-click `setup.exe`.

3. In the main **Service Test <Language> User Interface Pack** setup window, do one or more of

the following:

- Click the **Service Test User Interface Pack Setup** link and follow the on-screen instructions.

The **<Language> User Interface Pack** is installed in the `<Service Test installation>` folder.

- Click the **Run Results Viewer User Interface Pack Setup** link and follow the on-screen instructions.

The **<Language> User Interface Pack** is installed in the `<Run Results Viewer installation>` folder.

- Click the **Functional Testing License Server Setup (<Language> Edition)** link and follow the on-screen instructions.

The **Functional Testing License Server (<Language> Edition)** is installed in `<Functional Testing License Server installation folder>`.

## Troubleshooting and Limitations - Installing Service Test

This section describes troubleshooting and limitations for installing Service Test, and contains the following sections:

- ["General Limitations" below](#)
- ["Operating Systems" below](#)
- ["User Interface Pack" on next page](#)
- ["Microsoft Office Integration" on next page](#)

### General Limitations

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.

### Operating Systems

The security settings in Windows Vista, Windows 7, Server 2008, Server 2008 R2, Windows 8, or Windows Server 2012, may prevent you from performing a Service Test-related installation, such as a patch installation, or connecting to a 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 a ALM project (if relevant).

**Workaround:** You must turn off the UAC option before installation, as described in ["Modifying User Account Control Settings to Connect with ALM \(Windows Vista, Windows 7, Windows Server 2008, Windows Server 2008 R2, Windows 8, and Windows Server 2012\)" on page 31](#).

## User Interface Pack

- If you are working with a Service Test User Interface Pack, install the User Interface Pack before running Service Test for the first time, if possible.

If you install a Service Test User Interface Pack after running Service Test, some items may remain in English after installing the User Interface Pack:

- When working on an operating system using a Spanish locale, you may get an assertion error message at the beginning of the Service Test installation.

**Workaround:** Modify the **sLanguage** registry key value as follows:

- a. In the **Start > Run** dialog box, type: **regedit**.
  - b. Go to the registry path: `HKEY_CURRENT_USER\Control Panel\International`
  - c. Change the **sLanguage** value from **ES** to **ESN**
  - d. If the above steps do not solve the problem, restart your computer and run the Service Test installation again.
- 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.
  - 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.

## Microsoft Office Integration

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

# Accessing Service Test in Windows 8 Operating Systems

Service Test applications and files that were accessible from the **Start** menu in previous versions of Windows are accessible in Windows 8 from the **Start** screen or the **Apps** screen.

- **Applications (.exe files).** You can access Service Test applications in Windows 8 directly from the **Start** screen. For example, to start Service Test, double-click the **HP Service Test** shortcut



Other examples of applications accessible from the **Start** screen include:

- The Run Results Viewer
- All Service Test tools, such as the Password Encoder and the License Validation Utility

- The API testing sample Flight applications
- **Non-program files.** You can access documentation from the **Apps** screen.

**Note:** By default, the Start and Apps screens on Windows 8 are set to open Internet Explorer in Metro Mode. However, if User Account Control is turned off on your computer, Windows 8 will not open Internet Explorer in Metro mode. Therefore, if you try to open an HTML shortcut from the Start or Apps screen, such as the Service Test Help or Readme file, an error will be displayed.

To solve this, you can change the default behavior of Internet Explorer so that it never opens in Metro mode. In the **Internet Properties** dialog box > **Programs** tab, select **Always in Internet Explorer on the desktop** for the in the **Choose how you open links** option. For more details, see <http://support.microsoft.com/kb/2736601> and <http://blogs.msdn.com/b/ie/archive/2012/03/26/launch-options-for-internet-explorer-10-on-windows-8.aspx>.

# Chapter 3: 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 (formerly known as a floating license).

This chapter includes:

Understanding Service Test License Types .....	42
Requesting a Seat License Key .....	43
Requesting a License Key via the HP Software Licensing Portal .....	44
Installing a Seat License Key .....	44
Working with a Concurrent License .....	49
Modifying License Information .....	53
Working with Commuter Licenses .....	55
Checking Out a Commuter License .....	55
Checking In a Commuter License .....	57
Obtaining a Commuter License Remotely .....	58
Validating Service Test Licenses .....	63
License Information .....	65
Validation Checks .....	65
Copying your License Validation Result to the Clipboard .....	66
Troubleshooting Concurrent Licensing Issues .....	66
There is no network connection between the server and client computers .....	66
The license server is not running .....	67
Licenses are not installed on the license server .....	67
The license key file (lservrc) cannot be found on the server .....	67
The license server is being used by the maximum number of users .....	68
Two or more versions of the license server are running .....	68
The client computer is configured to use a seat license .....	68
The license key does not match the license server locking code .....	68
The client computer cannot identify the license keys on the server computer .....	69
The LSHOST or LSFORCEHOST variables are not set .....	70
The LSERVRC system variable is set on the client computer .....	70



The client computer connects through VPN software .....70

# 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 the license 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.
Maintenance number	The license key is based partially on the maintenance number. The maintenance number identifies the customer.	The license key is based partially on the maintenance number. The maintenance number identifies the customer and indicates how many concurrent users the license supports.
Other issues	<p>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.</p> <p><b>Note:</b> 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 need to request a unique license key for it.</p>	<p>Not supported for Unix networks.</p> <p>It is recommended that the concurrent license server has a fixed IP address.</p> <p>Service Test client computers must have TCP/IP installed.</p> <p>To use concurrent licenses across networks, UDP port 5093 must be open on the server.</p>
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, Service Test 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 63.

## Requesting a Seat License Key

When you install Service Test with a seat license for the first time, it includes a 30-day demo license. To use Service Test beyond the 30-day period, you must request and activate a license key for your copy of Service Test.

### To request a seat license key:

1. Perform one of the following:
  - From the license warning message displayed when you start Service Test, click **Install License**.
  - From within Service Test, select **Help > License Wizard**. The Service Test License Wizard dialog box opens.

Select **Seat license** and click **Next**. Click **Yes** to install a new license key. The Welcome screen opens.



2. Make a record of the displayed locking code for your computer. You will need the locking code to request your license key. Click the link on the Service Test License Installation - 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 Software Licensing Portal" on next page.

## Requesting a License Key via the HP Software Licensing Portal

The HP Software Licensing Portal assists you in requesting a license key.

For details on the various areas of the portal, see the links under the **Resources** section on the left side of the Web page, such as the tutorial or the how-to demos.

### To request a license key:

Request your license key as described in the HP Software License Activation Quick Start Guide, available from the **Resources** area of the HP Software Licensing Portal.

## 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:

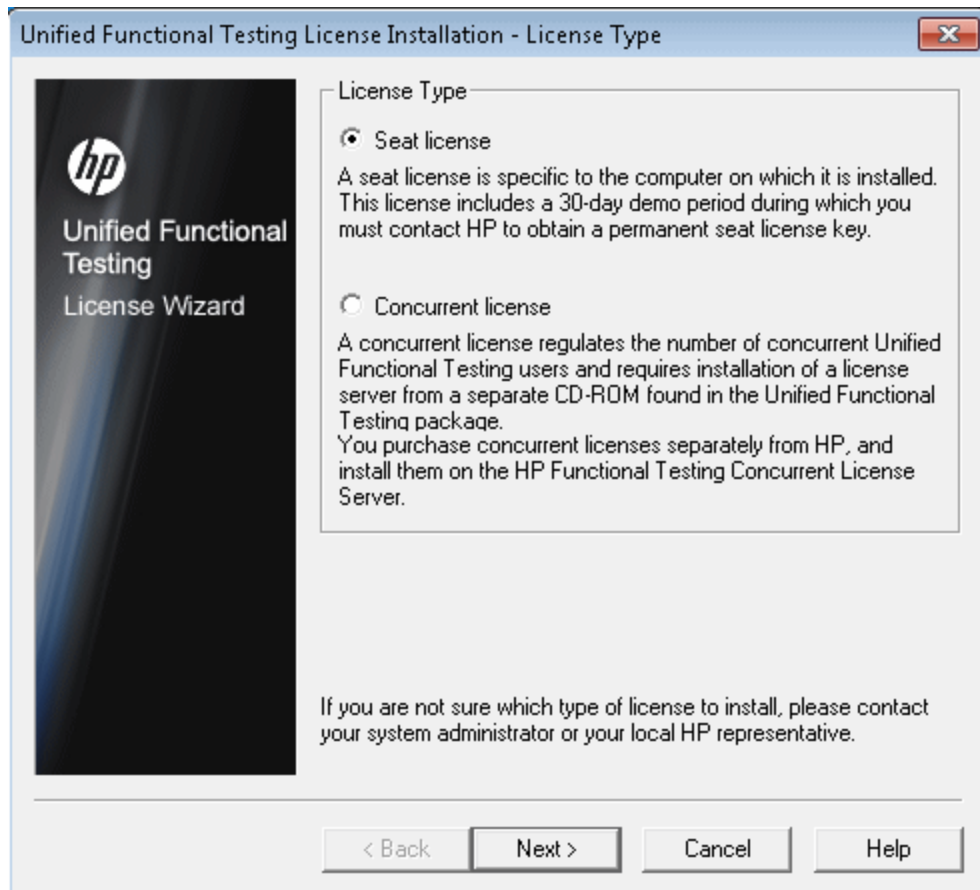
- You must have Administrator privileges to install a license key.
- After installing the seat license key, do not change your computer's date or time. This triggers a **Clock Tamper** lock on the license information, preventing you from using the license.

### To install a seat license key:

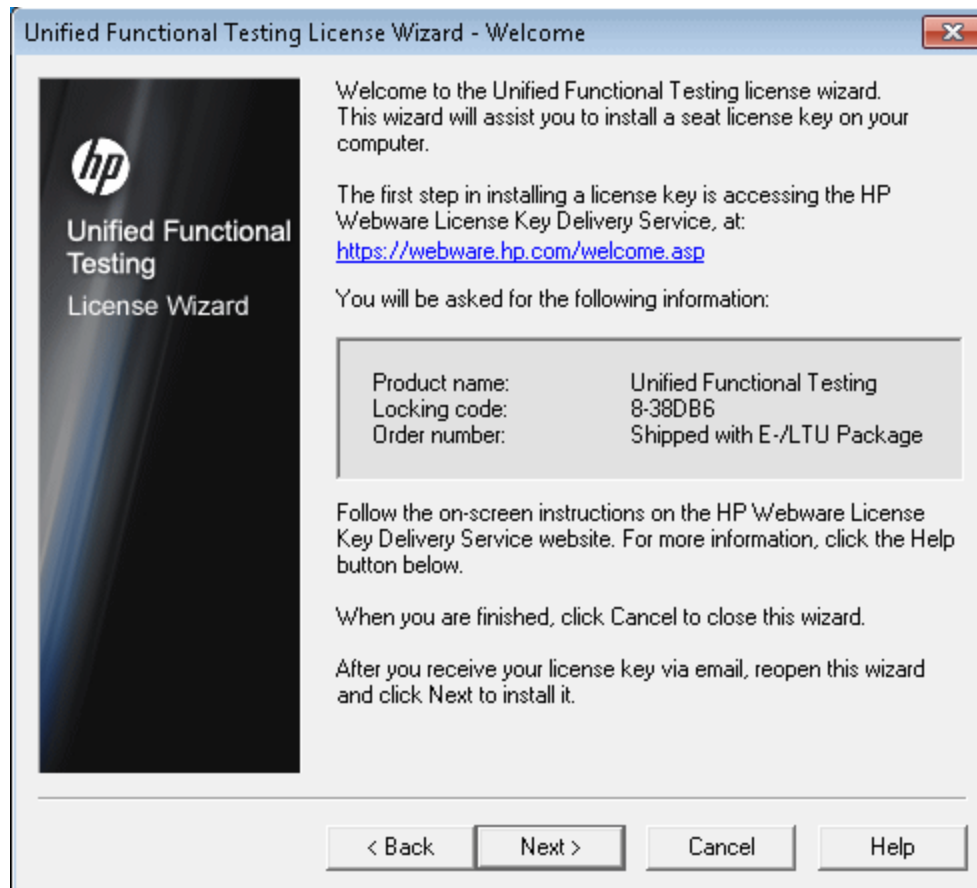
1. Perform one of the following:
  - From the warning message displayed when you start Service Test, click **Install License**.
  - From within Service Test, select **Help > License Wizard**.

**Note:** You can also activate the seat license as part of the Service Test installation. After you click **Finish** in the final installation screen, the Service Test License Installation - Welcome screen opens, as described below.

The License Type screen opens.



2. Select **Seat license** and click **Next**. In the confirmation box, click **Yes** to install a new license key. The Welcome screen opens.



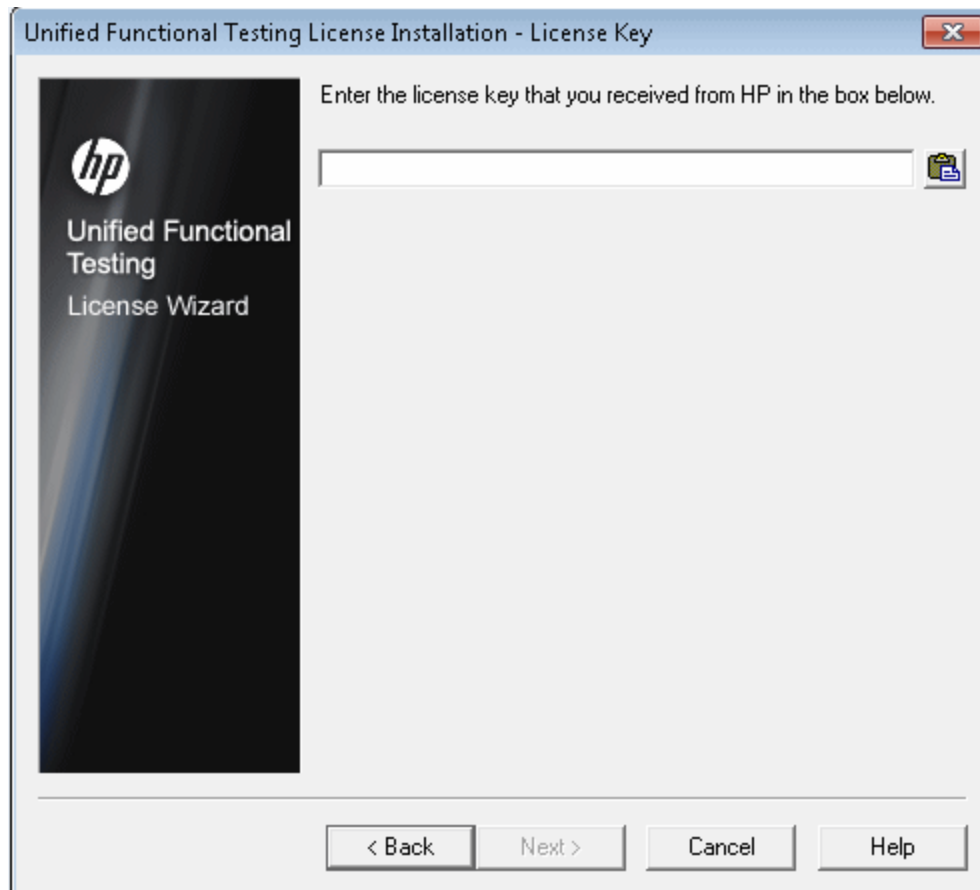
**Tip:** Check that the locking code in the above screen matches the locking code you sent to HP when you requested a license key.

3. Click **Next** to begin installing the license. The License Key screen opens.


## Installation Guide

### Installing a Seat License Key

---



#### 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 need to request a unique license key for it.
  - i. 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.
  - ii. Copy the license key (with or without the `#` character) from the `.dat` file to the clipboard.
  - iii. Paste the key into the License Installation - License Key screen by clicking the **Paste From Clipboard** button .

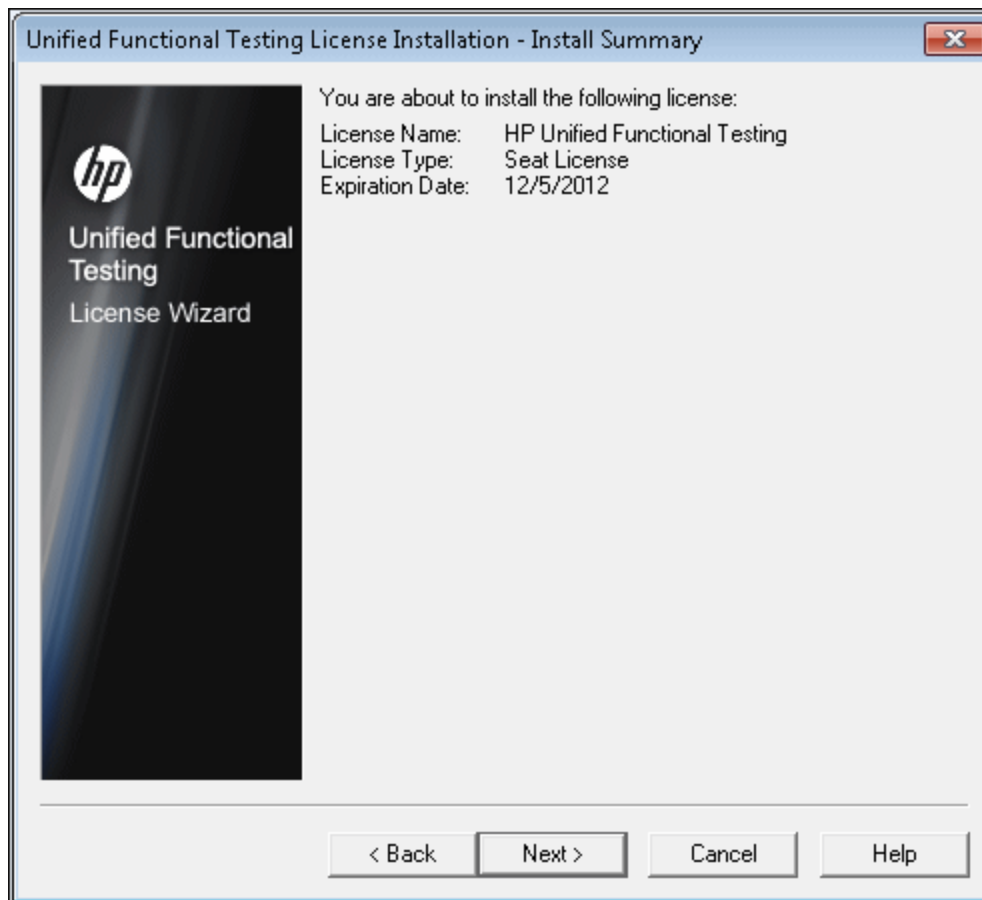
Do the following:

## Installation Guide

### Installing a Seat License Key

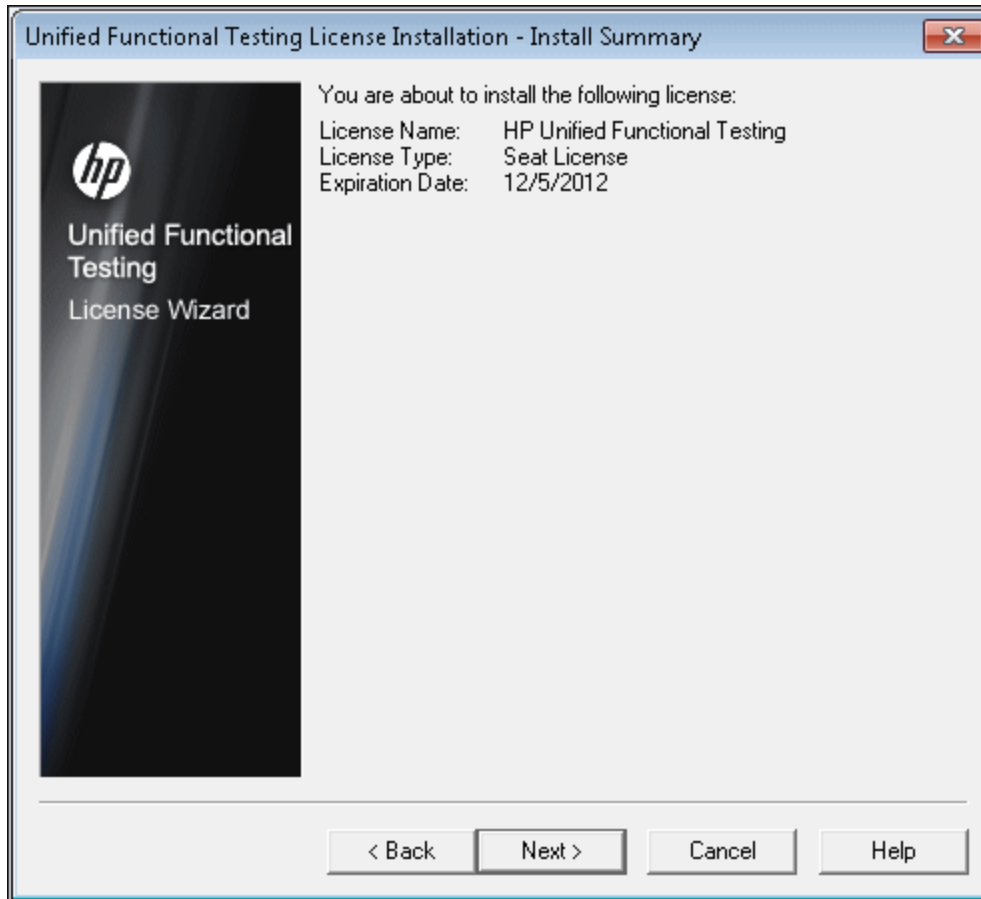
---

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



8. 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 the email 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, clicking **Finish** and performing this task again.

9. 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

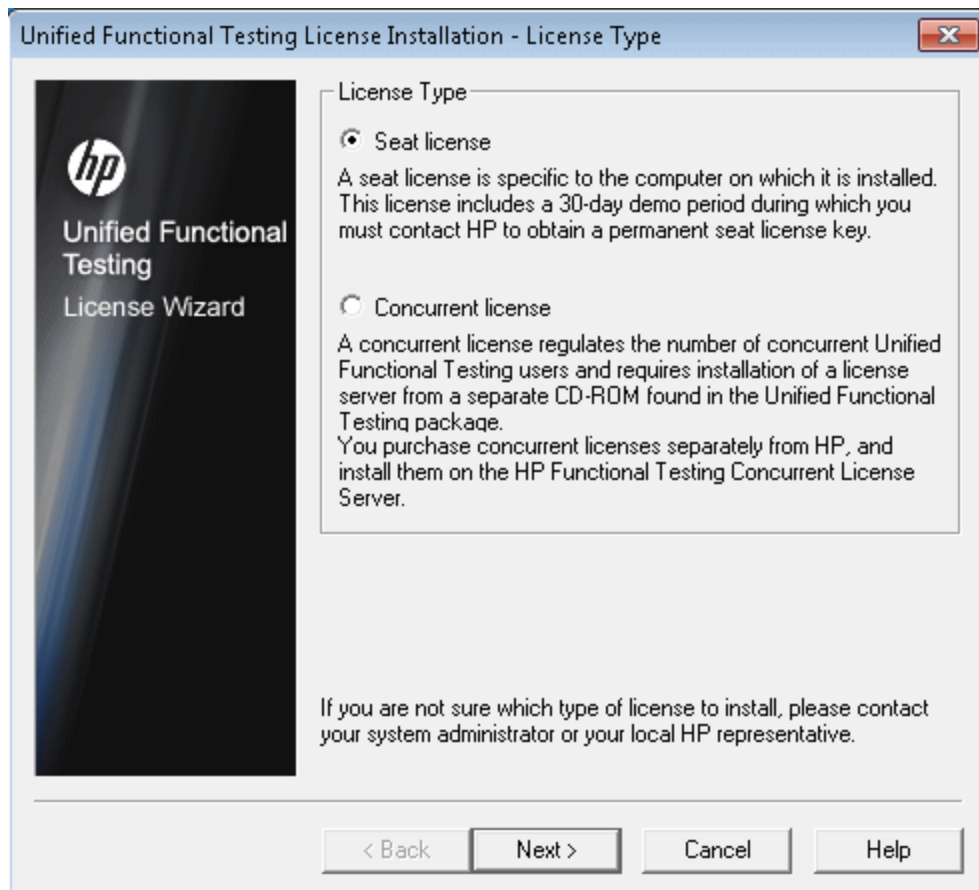
If there is an accessible concurrent license server on your network with an available license, you can connect to it. This enables you to use a concurrent license instead of a seat license. For more details on working with concurrent license servers, and the supported versions, see the *HP Functional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

**Note:** You can also specify a concurrent license server during the Service Test installation procedure. For more details, see "Installing Service Test" on page 18.

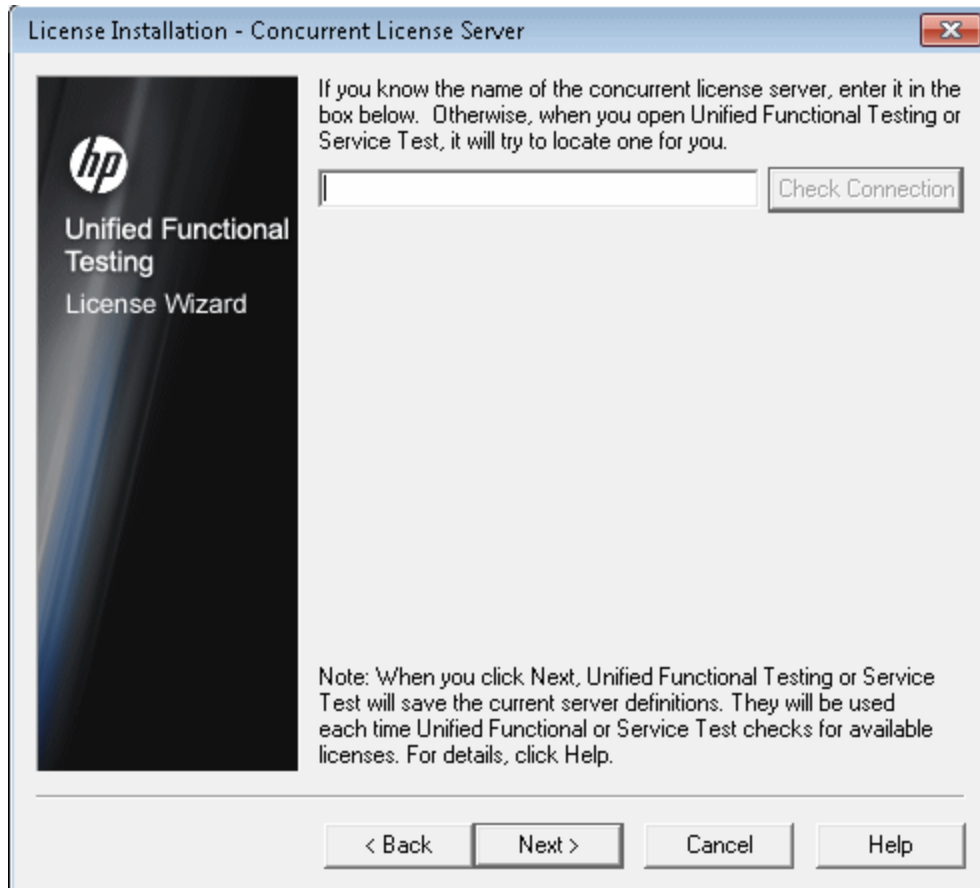
#### To work with a concurrent license:

1. Perform one of the following:
  - From the license warning message displayed when you start Service Test, click **Install License**.
  - From within Service Test, select **Help > License Wizard**.

The License Type screen opens.



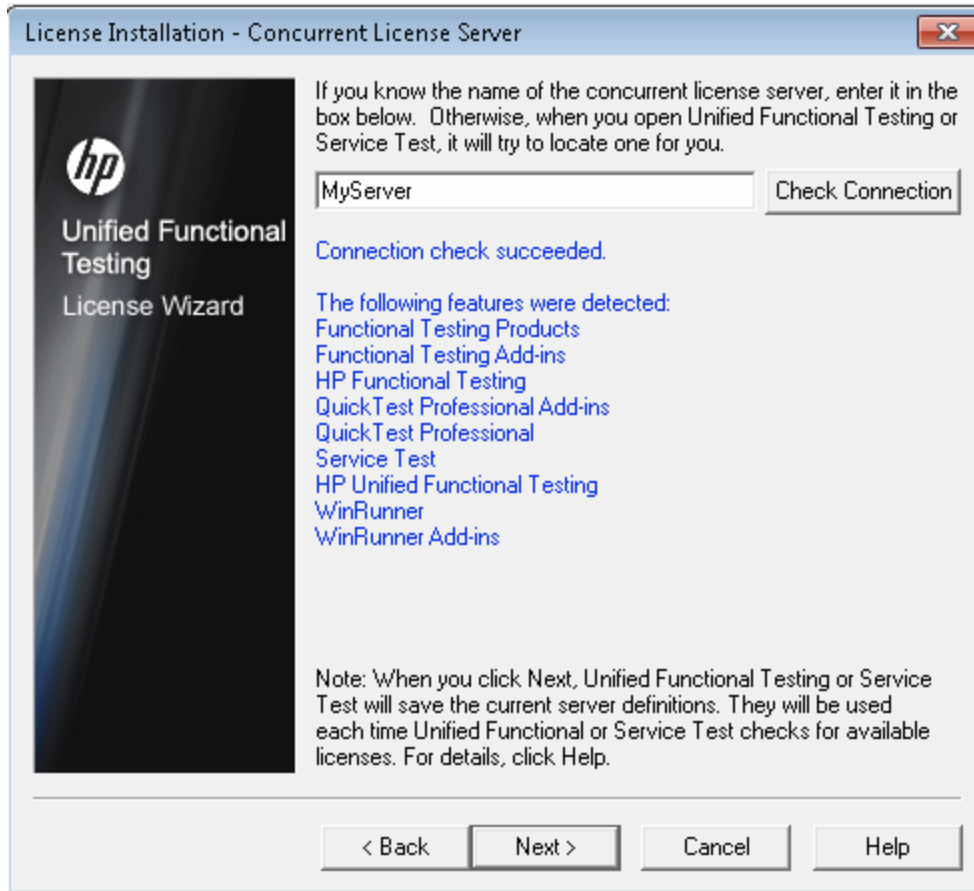
2. Select **Concurrent license** and click **Next**. The Concurrent License Server screen opens.



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*.

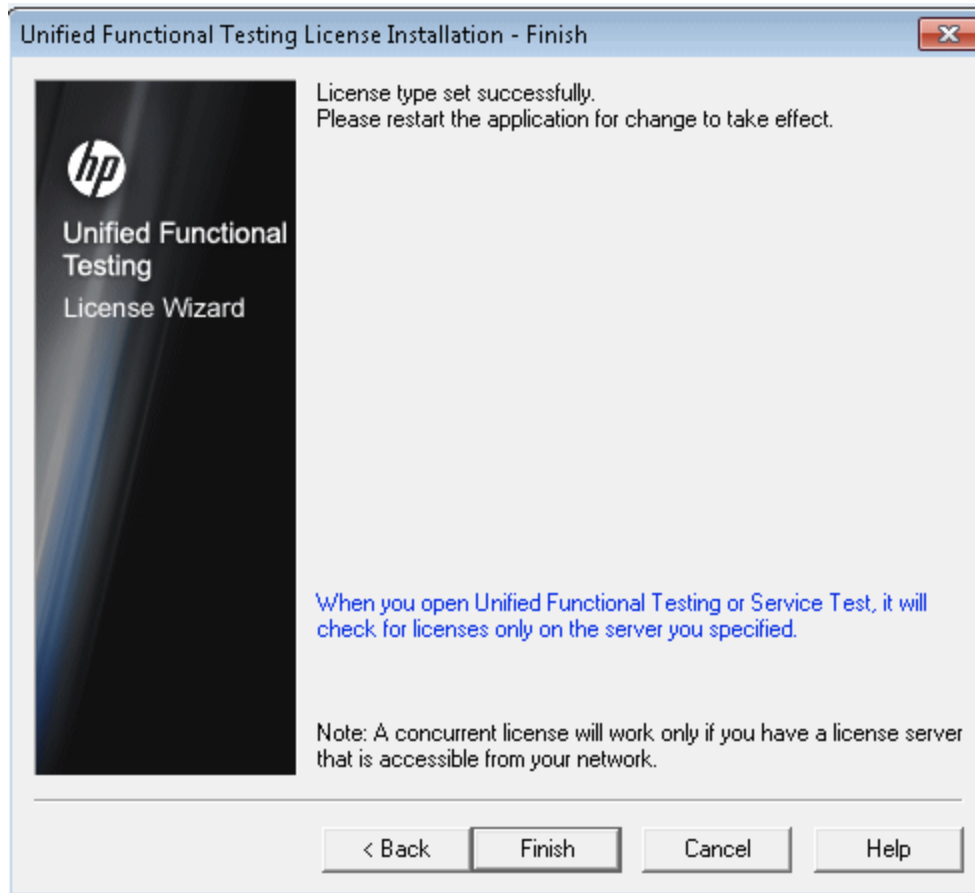
4. Click **Check Connection**. If Service Test can connect to the concurrent license server, a success message is displayed



**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 to use the concurrent license server.

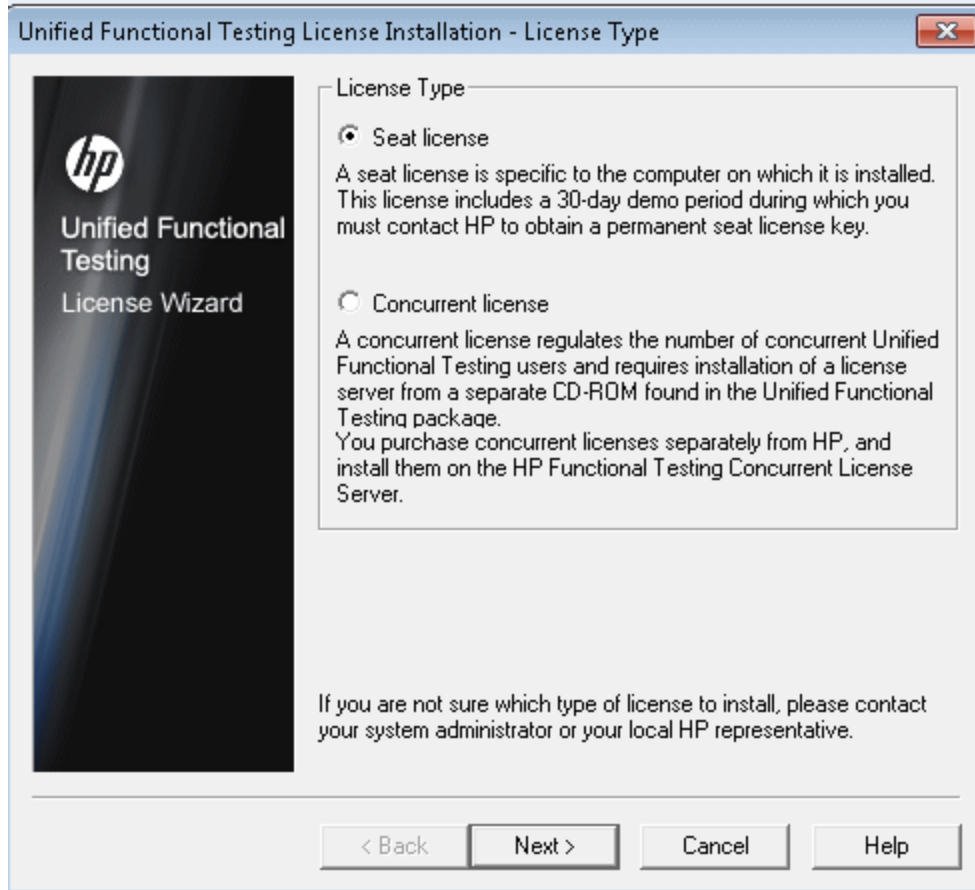
## Modifying License Information

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 43](#).

**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. Open Service Test.
2. Click **Help > License Wizard**. The Service Test License Installation - License Type dialog box opens.



To change your license type from concurrent to seat, select **Seat license** and click **Next**.

- 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. Follow steps 4 to 9 in "Installing a Seat License Key" on page 44.

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" on page 49.

**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*.

3. Click **Close** to close the About Service Test dialog box.
4. 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. 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 57](#).

**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 58](#).

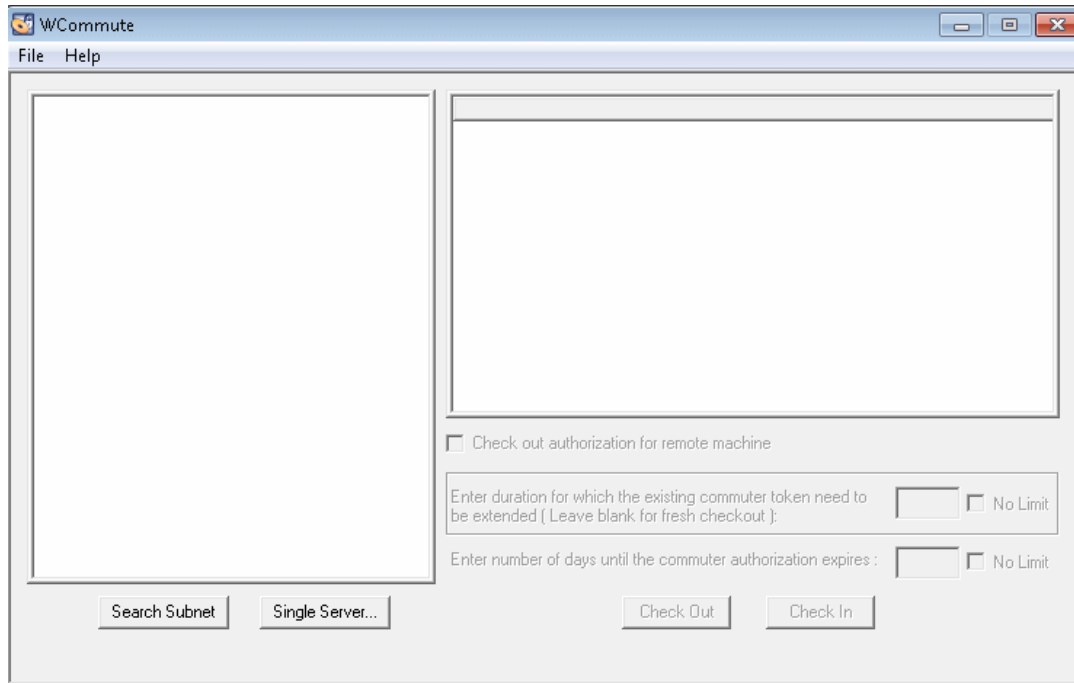
**Note:** If you have upgraded to HP Functional Testing Concurrent License from a version earlier than 7.6, you need to request a new server license key to enable the commuter licensing functionality. For details, contact HP Software Support or your local representative.

## 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. Run the `WCommute.exe` file located in `<Service Test installation folder>\bin`. 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:** 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.

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 53.

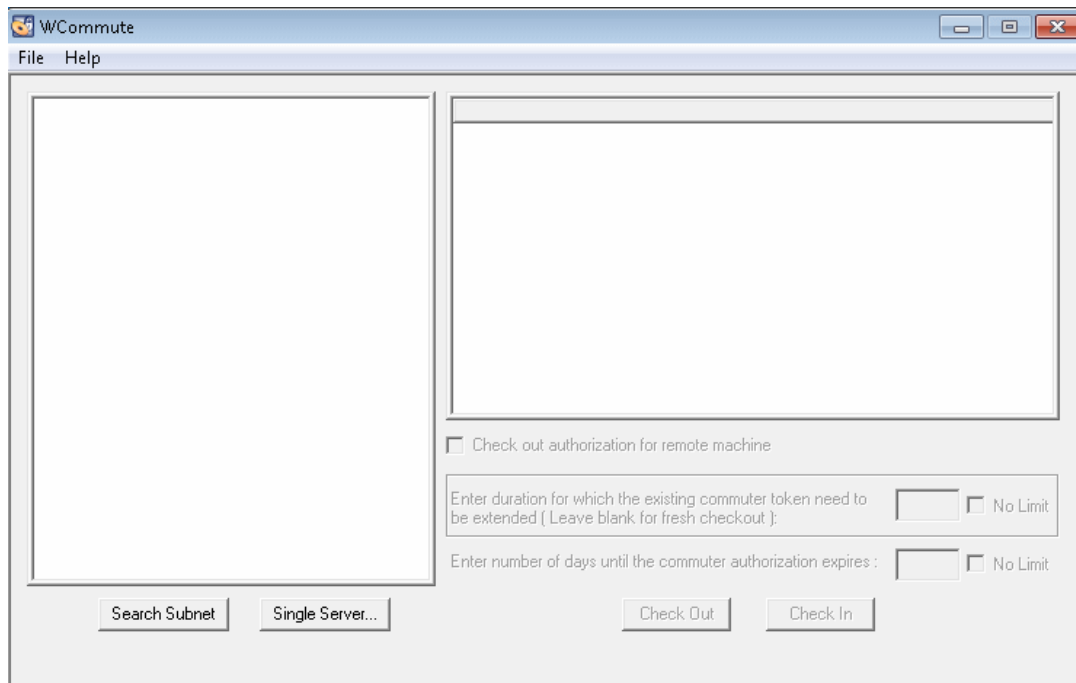
## Checking In a Commuter License

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. Run the `WCommute.exe` file located in `<Service Test installation folder>\bin`. The `WCommute` dialog box opens.



2. Locate the concurrent license server for the commuter license you want to check in, as described in "[Checking Out a Commuter License](#)" on page 55. 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 53.

## 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 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 details, see "[Step 1: Generating a Remote Computer Locking Code](#)" below.
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 the license to you. For more details, see "[Step 2: Checking Out a Commuter License for a Remote Computer](#)" on next page.
3. Run the WRCommute utility 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 62.
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 53.

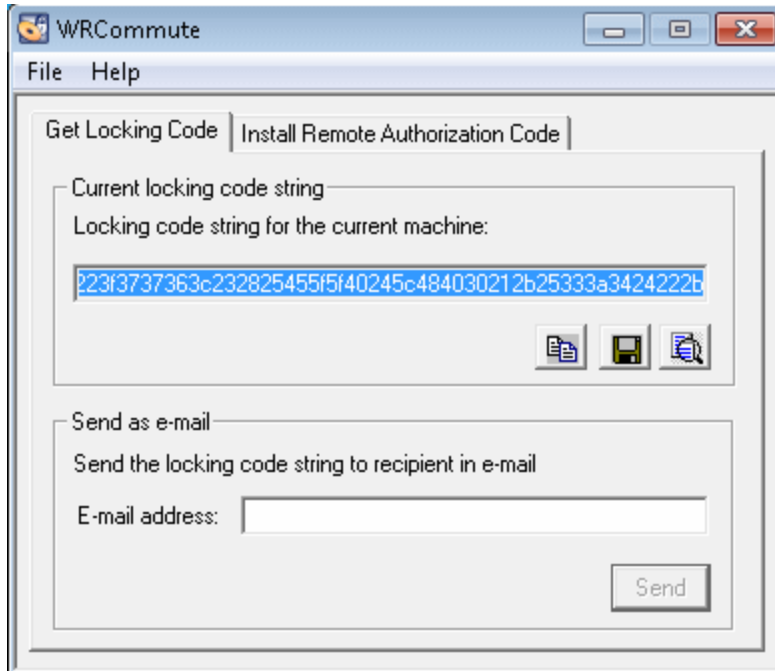
### Step 1: Generating a Remote Computer Locking Code

The first step in remotely obtaining a commuter license is to generate a locking code on your computer using the WRCommute utility, and transfer the code (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 folder>\bin`. 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:** This option is supported only if Microsoft Outlook Express is set up as your e-mail client.

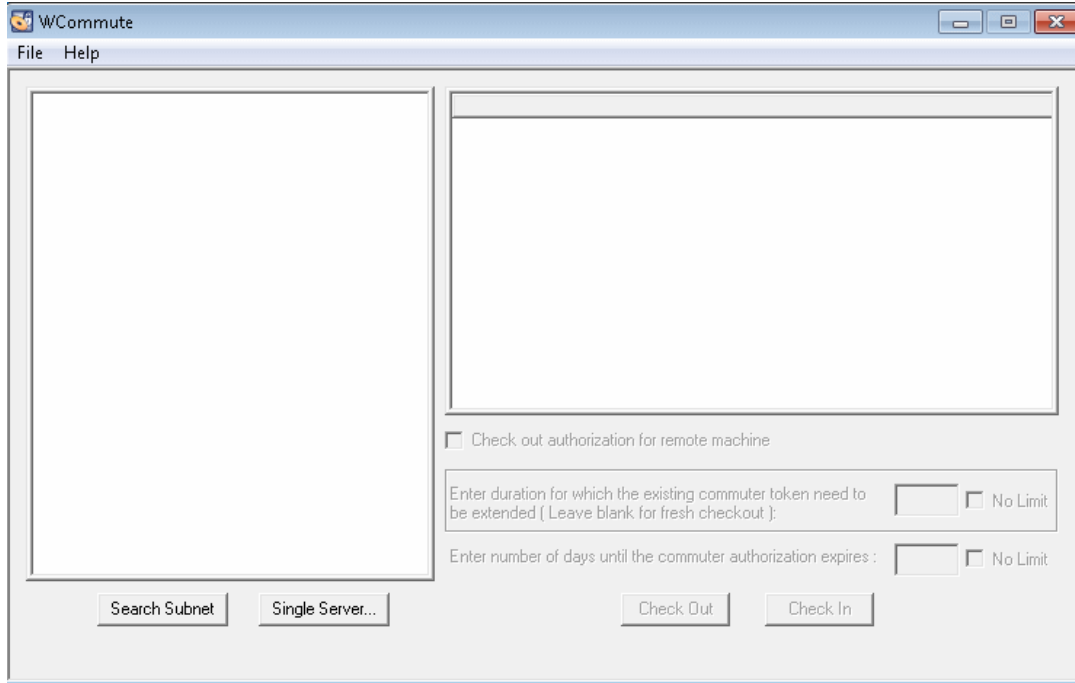
## Step 2: Checking Out a Commuter License for a Remote Computer

After a local network user receives the locking code, the user can check out the license and transfer the license 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 folder>\bin`. The `WCommute` dialog box opens.\

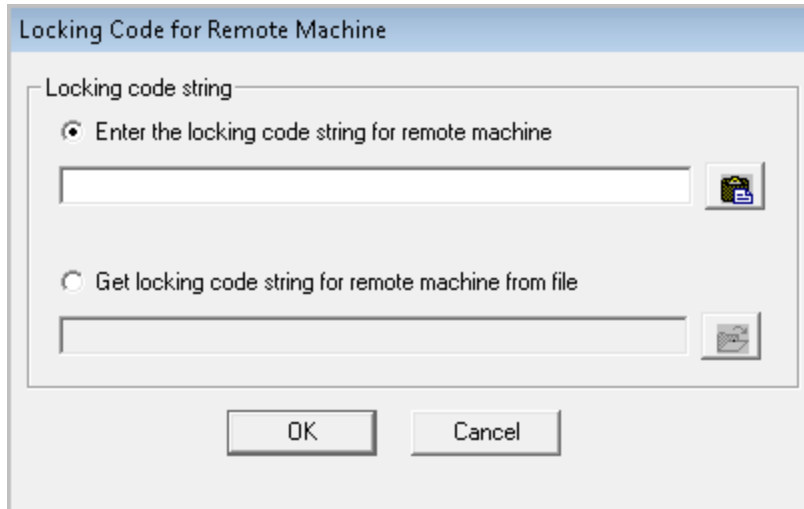




2. Locate the concurrent license server from which you want to check out a remote commuter license, as described in "[Checking Out a Commuter License](#)" on page 55.  
For each concurrent license server, a list of commuter licenses that you can check out is displayed.
3. Select the license that you 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.

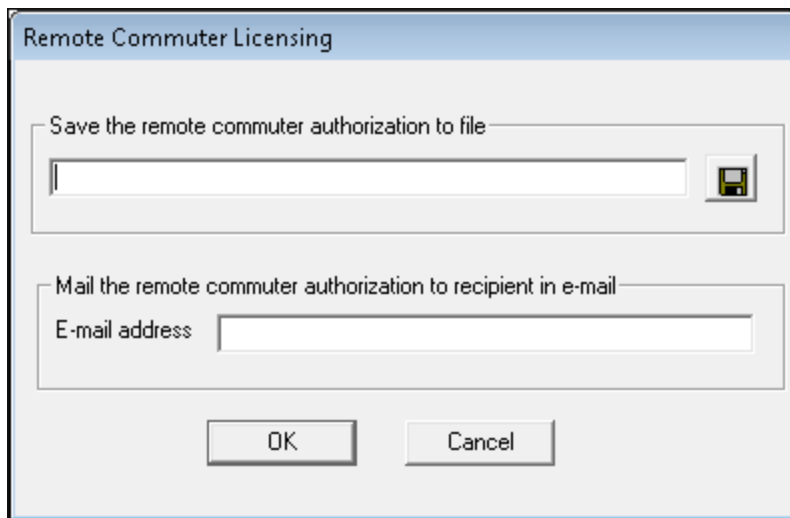
#### Note:


- 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 for a remote computer, the license 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.

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**.

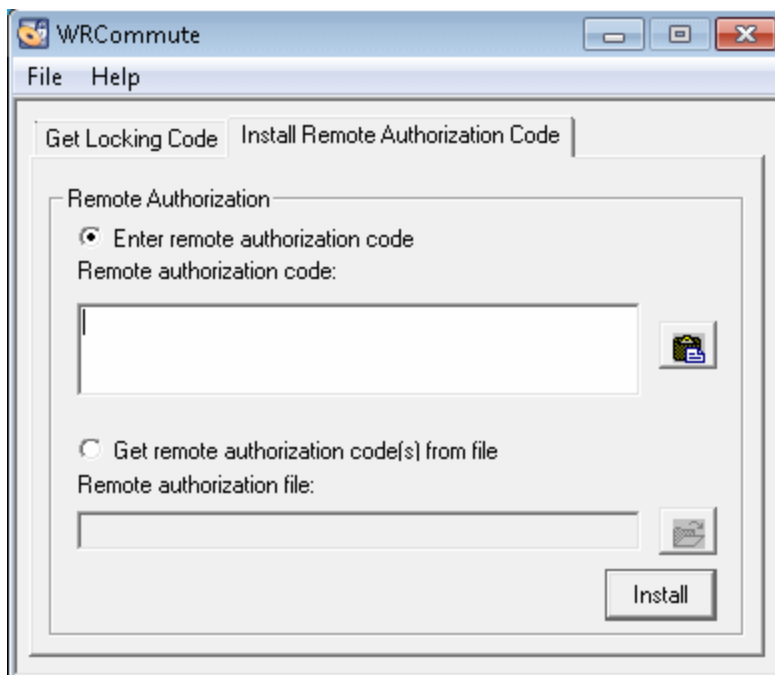
**Note:** This option is supported only if Microsoft Outlook Express is set up as your e-mail client.



### 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 53](#).

**Note:** A remote commuter license cannot be checked in to the concurrent license server when you have finished using it—the license 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 53](#).

## 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:

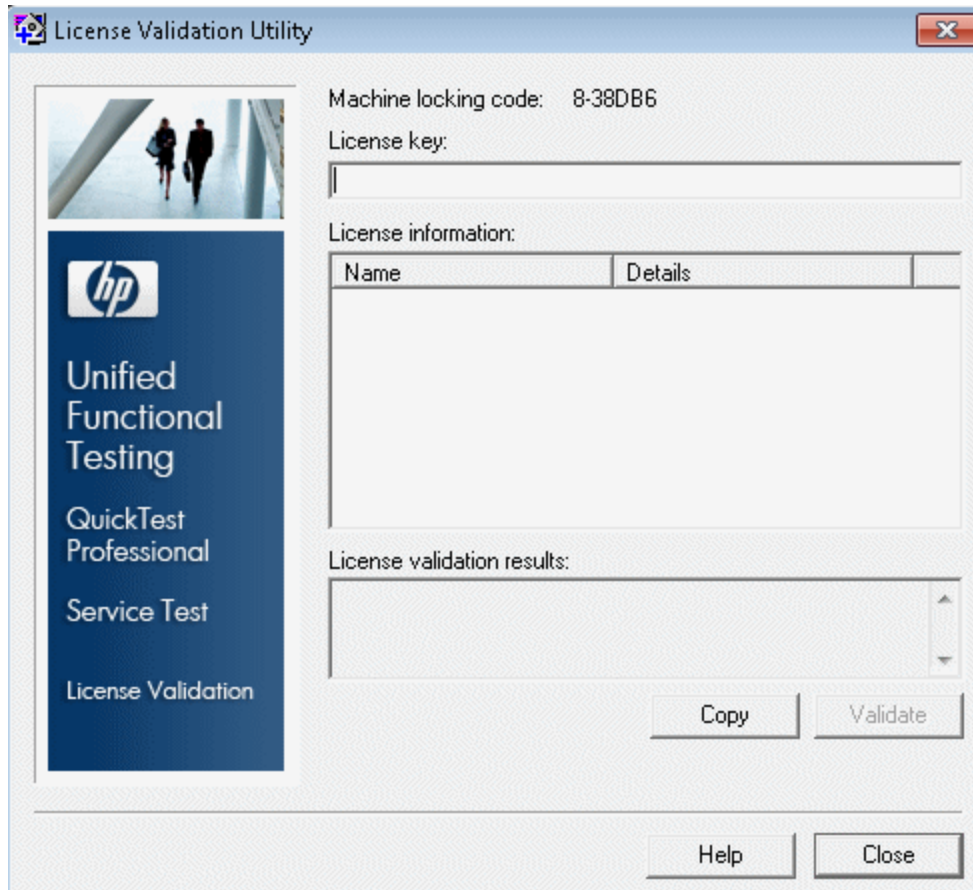
- ["To decode and validate a license:" below](#) and retrieves important information regarding the license. For more details, see ["License Information" on page 65](#).
- ["To decode and validate a license:" below](#) according to a predefined set of checks. For more details, see ["Validation Checks" on page 65](#).

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 66](#).

#### To decode and validate a license:

1. Select **Start > Programs > HP Software > HP Service Test > Tools > License Validation Utility**.

**Note:** For details on accessing Service Test tools and files in Windows 8, see ["Accessing Service Test in Windows 8 Operating Systems" on page 38](#).



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 `lserverc` file. The location of this file is specified by the `lserverc` environment variable.

**Tip:**

- 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 `lserverc` file in the environment variable, right-click **My Computer** and select **Properties**. In the System Properties dialog box, 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, `%CommonProgramFiles%\HP\License Manager\lserverc`.

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

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



The result of the validation is displayed in the **License validation results** area. For more details, see ["Validation Checks"](#) below.

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 next page.
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 the license is installed, or a **Concurrent** license, which references a current license server that can be used by multiple Service Test users.
- **Trial/Normal.** The license type. It can be either a **Trial** license, which is a demo license that has a limited period of use, or a **Normal** license.
- **Trial Days Count.** Applicable only for trial licenses. Specifies the number of days until the trial period is over. The count is started from the date the Service Test core components are installed.
- **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 55.

## 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 .....	66
The license server is not running .....	67
Licenses are not installed on the license server .....	67
The license key file (lserverc) cannot be found on the server .....	67
The license server is being used by the maximum number of users .....	68
Two or more versions of the license server are running .....	68
The client computer is configured to use a seat license .....	68
The license key does not match the license server locking code .....	68
The client computer cannot identify the license keys on the server computer .....	69
The LSHOST or LSFORCEHOST variables are not set .....	70
The LSERVRC system variable is set on the client computer .....	70
The client computer connects through VPN software .....	70

## 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.

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 (`lserverc`) 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 (lserverc) cannot be found on the server

The `lserverc` 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 is not able to 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 is not able to 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 at <http://h20230.www2.hp.com/selfsolve/document> (requires an HP Passport user name and password).

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 53.

## 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.

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 at <http://h20230.www2.hp.com/selfsolve/document> (requires an HP Passport user name and password).

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.

# Chapter 4: Maintaining and Uninstalling Service Test

---

You can install and uninstall individual Service Test features, or uninstall all Service Test software and files. You can also repair a Service Test installation that has become corrupted.

**Note:** In some situations, you may be prompted to restart your computer after you have installed or made changes to the Service Test installation. It is recommended that you restart your computer as soon as possible if you are prompted to do so. Delaying the system restart may result in unexpected Service Test behavior.

This chapter includes:

Installing and Uninstalling Specific Service Test Features .....	72
Repairing Your Service Test Installation .....	73
Uninstalling Service Test .....	73

# Installing and Uninstalling Specific Service Test Features

Your Service Test DVD enables you to install or uninstall specific Service Test features.

**Note:** You can also install or uninstall specific Service Test features by choosing **Control Panel > Add or Remove Programs**, and then clicking the **Change** button for Service Test.

The procedure for installing or uninstalling features is similar to the procedure for performing a Custom installation. For more details on the specific screens mentioned in the procedure below, see "[Installing Service Test](#)" on page 18.




**Note:** Before uninstalling Service Test features, make sure that you have a minimum of 50 MB free disk space.

## To install or uninstall Service Test features:

1. Insert the Service Test DVD into the DVD drive. If the DVD drive is on your local computer, the Service Test Setup window opens.

If the DVD is in a network drive, double-click `setup.exe` in the root folder of the DVD. The Service Test Setup window opens.

**Note:** You must use the same Service Test version that you used for the original installation.

2. Click **Service TestSetup**. The Welcome to the HP Service Test Setup Wizard opens. Click **Next** to proceed.
3. The Maintenance Type screen opens. Select **Modify** and click **Next**.
4. In the Custom Setup screen, click an icon to view a menu and select how that feature is installed on your computer. The following options are available, depending on the feature:
  -  **Will be installed on local hard drive.** Installs the selected feature on your local hard drive.
  -  **Entire feature will be installed on local hard drive.** Installs the entire selected feature on your local hard drive.
  -  **Entire feature will be unavailable.** Excludes the feature from the installation and it is not available in Service Test.

You can select an item in the list to see a description of the feature as well as the space requirement on your drive for the feature, or how much space will be freed up if the feature is uninstalled.

Click **Next** to proceed.

5. Click **Next** in the Confirm Installation screen. The Installing HP Service Test screen displays



the progress of the application modification.

6. The Installation Complete screen opens. Click **Finish**.

## Repairing Your Service Test Installation

Your Service Test DVD enables you to repair an existing Service Test installation, by replacing any missing or damaged files from your previous Service Test installation.

**Note:** You can also repair an existing Service Test installation by choosing **Start > Settings > Control Panel > Add or Remove Programs**, and then clicking the **Change** button for Service Test.

### To repair your Service Test installation:

1. Insert the Service Test DVD into the DVD drive. If the DVD drive is on your local computer, the Service Test Setup window opens.

If the DVD is in a network drive, double-click `setup.exe` in the root folder of the DVD. The Service Test Setup window opens.

**Note:** You must use the same Service Test version that you used for the original installation.

2. Click **Service TestSetup**. The Welcome to the HP Service Test Setup Wizard opens.
3. Click **Next** to proceed. The Maintenance Type screen opens.
4. Select **Repair** and click **Next**. Then click **Next** on the Confirm Repair screen. The Setup Status screen displays the progress of the repair process.

**Note:** The repair process might take some time to start. During this time, the wizard might not respond. Afterwards, the Run Setup screens open and the repair process continues.

5. Click **Finish** in the Installation Complete screen.

## Uninstalling Service Test

You can uninstall Service Test using the **Add or Remove Programs** option in the Windows Control Panel or using the Service Test DVD.

You can save your existing customization settings and registry keys before you uninstall Service Test, and then if required, restore them after you install a new version.

Before uninstalling Service Test, make sure that you have a minimum of 50 MB free disk space.

### Notes:

- You can uninstall specific Service Test features as described in "[Installing and Uninstalling Specific Service Test Features](#)" on previous page.

- You can uninstall individual Service Test hotfixes (patches) using the **Add or Remove Programs** option in the Windows Control Panel.

### **To uninstall Service Test using the Add or Remove Programs option in the Windows Control Panel:**

1. Select **Control Panel > Add or Remove Programs**. The list of currently installed programs opens.
2. Select **Service Test** and click **Remove**. A message prompts you to confirm your decision to uninstall Service Test. Click **Yes** and follow the on-screen instructions to uninstall Service Test. Click **No** to keep Service Test installed on your computer.

The uninstall program removes all Service Test features from your computer.

### **To uninstall Service Test using the Service Test DVD:**

1. Insert the Service Test DVD into the DVD drive. If the DVD drive is on your local computer, the Service Test Setup window opens.

If the DVD is in a network drive, double-click `setup.exe` in the root folder of the DVD. The Service Test Setup window opens

**Note:** You must use the same Service Test version that you used for the original installation.

2. Click **Service Test Setup**. The Welcome to HP Service Test Setup Wizard opens.
3. Click **Next**. The Maintenance Type screen opens.
4. Select **Remove** and click **Next**. Click **Next** in the Confirm Uninstall screen.
5. The uninstall program removes all Service Test features from your computer.
6. Click **Finish** in the Removal Complete screen.

**Note:** Uninstalling Service Test does not uninstall any non-HP applications that you install as part of the Service Test installation, for example, the Microsoft .NET Framework. You can uninstall these applications using the Add or Remove Programs dialog box in the **Control Panel**.

