

Silk Test 21.0.1

Installation Guide

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Introduction

This Help provides all the information you need to install and uninstall Silk Test. It describes hardware and software requirements and details the various setup options.

System Requirements and Prerequisites

The following section identifies the system requirements for installing and running Silk Test.

Hardware Requirements

Micro Focus recommends the following hardware:

System Area	Requirement
Processor	Intel or AMD dual-core processor running at 2 GHz.
RAM	4 GB free memory.
Hard disk space	4 GB of free disk space.



Note: The recommended hardware reflects the minimum requirements for Silk Test. Depending on the requirements of the application under test or the requirements of your test environment, you might require additional hardware.

When testing on an iOS device, Micro Focus recommends using a device with 1 GB RAM or more.

To test a web application on Apple Safari or a mobile application on iOS, a Mac with the following hardware is required:

System Area	Requirement
Operating system	OS X El Capitan 10.11.3 or later.
Hard disk space	1 GB of free disk space.

Software Requirements

To install and execute Silk Test, the following software needs to be installed:

- Microsoft .NET Framework 4.8 or later (Full setup).
- Windows Update 3118401 for Universal C RunTime in Windows.
- Depending on the bitness of the operating system of the machine on which you want to install Silk Test, you require the corresponding 32bit or 64bit Silk Test setup package.

Tested Software

This section lists the software with which Silk Test 21.0 has been tested.

Operating Systems

Silk Test 21.0 has been tested with the following operating systems:

Microsoft Windows 8.1 (No Windows Store apps)

- Microsoft Windows Server 2012
- Microsoft Windows Server 2012 R2
- Microsoft Windows 10
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019

Web Applications

For the Open Agent, Silk Test 21.0 has been tested with the following browsers and web technologies:

Technology Type	Tested Version
Mozilla Firefox**	70-91***
Google Chrome**	79-92
Chrome for Android	
Original Stock Android Browser (AOSP)	
Apple Safari on iOS	9, 10.1, 11, 12, 13, 14
Apple Safari on Mac	9, 10.1, 11, 12, 13, 14
Mac OS (Used for testing Apple Safari or iOS)	10.12.6, 10.13, 10.14, 10.15
Internet Explorer	10, 11
Microsoft Edge Legacy	Windows 10 October 2018 Update (44.17763)
	Windows 10 May 2019 Update (44.18362)
Microsoft Edge (Chromium-based)	81-92
Opera	71
Android	5.x, 6.x, 7.x, 8.x, 9.x, 10.x, 11.x
iOS	11.x, 12.x, 13.x, 14.x
	Note: up to (including) 14.3
Xcode	Xcode 10.x, Xcode 11.x, Xcode 12.x
	Note: up to (including) 12.3
Silverlight	3 (Silverlight Runtime 4), 4 (Silverlight Runtime 4 and Silverlight Runtime 5)
	Note: Microsoft has committed to support Silverlight 5.0 until 2021, but has made no concrete announcement about the future roadmap of Silverlight. Whilst we endeavour to maintain the highest levels of support for our customers, we are occasionally limited in the support we can obtain from Microsoft on this platform.
Apache Flex (Only for Internet Explorer)	Silk Test 21.0 has been tested with Apache Flex version 3.5 to Apache Flex version 4.14.1, and with Adobe AIR 2.0 or later (built with Apache Flex 4.x)
Java Applets (Only for Internet Explorer)	Silk Test supports Applets for web applications running in Internet Explorer.
HTML5	
Oracle Forms	10g and 11g for Internet Explorer.

^{*} Extended Support Release.

Native Mobile Applications

For the Open Agent, Silk Test 21.0 has been tested with the following mobile operating systems:

Technology Type	Tested Version
Mac OS (Used for testing Apple Safari or iOS)	10.12.6, 10.13, 10.14, 10.15
Android	5.x, 6.x, 7.x, 8.x, 9.x, 10.x, 11.x
iOS	10.x, 12.x, 13.x, 14.x
	Note: up to (including) 14.3

Desktop Applications

For the Open Agent, Silk Test 21.0 has been tested with desktop applications that are developed in one of the following technologies:

Technology Type	Tested Version
Java AWT/Swing (including Java Foundation Classes)	Java 6, Java 7, Java 8, Java 11, Java 13, Java 14, Java 15
Java SWT	Java 6, Java 7, Java 8, Java 11, Java 13, Java 14, Java 15
	Silk Test 21.0 has been tested with Java SWT version 3.2 or later.
	Silk Test supports standalone and Rich Client Platform (RCP) applications.
JavaFX	Microsoft Windows 8 or later.
SAP*	SAPGUI client 7.10, SAPGUI client 7.20, SAPGUI client 7.30, SAPGUI client 7.40, SAPGUI client 7.50, SAPGUI client 7.60
Rumba	8.1, 8.2, 8.3, 9.0, 9.1, 9.2, 9.3, 9.4, 9.5
MFC	14.11
Visual COBOL	
Win 32	any
WinForms	.NET 3.5 SP1, 4.0, 4.5, 4.6, 4.7, 4.8
WPF	.NET 3.5 SP1, 4.0, 4.5, 4.6, 4.7, 4.8

^{*} To avoid issues when testing SAP applications, Micro Focus recommends installing the latest patch set.

Silk Test Workbench

Silk Test 21.0 has been tested with the following databases for Silk Test Workbench asset storage:

- Microsoft SQL Server 2012 SP1
- Microsoft SQL Server 2014
- Microsoft SQL Server 2016

^{**} This list includes the browser versions that have been tested with Silk Test 21.0 until the release date of Silk Test 21.0. Nevertheless, Silk Test 21.0 should be able to support the newest versions of these browsers, as soon as they are available.

^{***} In comparison to the previous versions of Mozilla Firefox, testing on Mozilla Firefox 52 and later versions includes some additional limitations. For detailed information on the limitations, refer to the documentation of your Silk Test client.

- Microsoft SQL Server 2017
- Oracle 11.1.



Note: The Oracle 11 ODBC driver needs to be at least at patch level 4 (11.2.0.4.0). Oracle patch 13390677 includes the correct driver. You can download the patch from *Here*.

Oracle 11.2



Note: The Oracle 11 ODBC driver needs to be at least at patch level 4 (11.2.0.4.0). Oracle patch 13390677 includes the correct driver. You can download the patch from *Here*.

- Oracle 12.1. Silk Test Workbench supports Oracle 12.1 databases with the AL32UTF8 character encoding.
- **Note:** Version 19 of the Oracle ODBC driver is not supported.
- Microsoft Access 2000 (as a single-user database)



Note: Micro Focus recommends using Microsoft SQL Server.

Silk4J

You can integrate Silk4J in Eclipse 4.4.2 or later, both 32 and 64 bit. Version 4.9 is shipped with Silk Test. To work with Silk4J, Java 8 or later is required to be installed on the system where Silk4J is installed.

Silk4NET

You can integrate Silk4NET into the following editions of Microsoft Visual Studio:

Version	Editions	
Visual Studio 2017	CommunityProfessionalEnterprise	
Visual Studio 2019	CommunityProfessionalEnterprise	

Silk Test Classic

Silk Test Classic's Data Driven Workflow has been tested with:

- Text files and comma separated value files (*.txt and *.csv files)
- MS Excel
- MS Access
- MS SQL Server
- Oracle (partial support)
- SyBase SQL Anywhere

Silk Test Classic accesses the preceding databases using ODBC and therefore has been tested with the versions of those databases that have a working ODBC driver.

The Silk Test Classic Select Data Source dialog box allows you to choose either the Silk DDA Excel or the Seque DDA Excel data source. For new data driven test cases, choose the Silk DDA Excel data source. Choose the Segue DDA Excel data source for backward compatibility. This allows existing .g.t files that reference Segue DDA Excel to continue to work.



Important: Whilst we endeavour to keep pace with new releases and runtime versions of supported software and technology, the information given in this document is limited to what was known and

could be tested at the point in time when this version of Silk Test was released. If you have questions about newer releases and versions of supported software or generally about software not mentioned here, please don't hesitate to contact Micro Focus for guidance.

Administrator Privileges

You must have local administrator privileges to install Silk Test. Once Silk Test is properly installed, you must also have administrator privileges in order to perform the following tasks:

- Run Silk Test Classic.
- Configure a database for Silk Test Workbench.

Items Included with Silk Test

When you install Silk Test, the following items are available:

- Silk Test Start Screen, which has direct links to all clients.
- Silk Test Workbench
- Silk Test Classic
- Silk Test Agents
- Silk4NET
- Silk4J
- Product documentation

Access the documentation from within each product from the **Help** menu.

Release Notes

For information about new features, supported platforms, and tested versions, refer to the Release Notes.

Tutorials

Access the tutorials from (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > **Documentation > Tutorials** or **Help > Tutorials**.

You must have Adobe Acrobat Reader[™] to view PDF documents.

You can access the following sample applications online:

Adobe Flex sample applications	http://demo.borland.com/flex/SilkTest20.0/index.html
Insurance Company web application	You can access the web application at http://demo.borland.com/lnsuranceWebExtJS/ .
Green Mountain Outpost (GMO) web application	Use the GMO application with the tutorials for Silk Test Classic. You can access the web application at http://demo.borland.com/gmopost .
Green Mountain Outpost (GMO) AJAX store implementation	An AJAX-based version of the GMO sample application, enabling you to test AJAX synchronization and other aspects of modern web applications. You can access the web application at http://demo.borland.com/gmoajax .

Licensing Information

Unless you are using a trial version, Silk Test requires a license.



Note: A Silk Test license is bound to a specific version of Silk Test. For example, Silk Test 21.0 requires a Silk Test 21.0 license.

The licensing model is based on the client that you are using and the applications that you want to be able to test. The available licensing modes support the following application types:

Licensing Mode	Application Type
Mobile Native	 Mobile web applications. Android iOS Native mobile applications. Android iOS
Full	 Web applications, including the following: Apache Flex Java-Applets Mobile web applications. Android iOS Apache Flex Java AWT/Swing, including Oracle Forms Java SWT and Eclipse RCP .NET, including Windows Forms and Windows Presentation Foundation (WPF) Rumba Windows API-Based Note: To upgrade your license to a Full license, visit http://www.microfocus.com.
Premium	All application types that are supported with a <i>Full</i> license, plus SAP applications. Note: To upgrade your license to a Premium license, visit http://www.microfocus.com .
Mobile Native Add-On	In addition to the technologies supported with a Full or Premium license, the mobile native add-on license offers support for testing native mobile applications on Android and iOS.

Silk Test Licensing

This section describes how to obtain a license for Silk Test.

If you have multiple license servers, you need multiple license files, each one tied to a particular license server. A single license server can administer license policies for multiple products.

If you have received a Silk Test license, install the license on your license server. If you have not received a license, generate one.

Generating a Silk Test License Policy

You need a license policy to run Silk Test. You can use our online license generator to generate a license policy. The online license generator requires an SSL-capable browser, such as Firefox or Internet Explorer. You will receive an email with instructions on how to generate your license policy. If you did not receive these instructions, contact customer care at http://support.microfocus.com.

Finding the Host ID

To bind a license, a so-called host ID is required. In case of Silk Meter, the host ID is the MAC address of a LAN card, which can be obtained as follows:

- 1. On the machine you want to generate the license for, open a command prompt and enter the command ipconfig/all. The network adapters and additional information is listed.
- 2. Note the host ID, which is the MAC Address or Physical Address of your LAN card, for example 00-BF-00-1C-D3-3D.



Tip: Depending on your system setup, including virtual machines and VPN connections, your computer might have several network adapters with different MAC addresses. Be sure to note the host ID of your physical LAN card.

In case of the AutoPass license server the host ID is called lock code and is displayed under LICENSE menu in the INSTALL tab. For further details about AutoPass license server installation and usage refer to the corresponding product page on the Micro Focus Marketplace.

Silk Meter Installation

If you already have a Silk Test license file, you can install it when you install Silk Meter. If you do not have a valid Silk Test license, access the online License Generator to generate a license file.

To install and run Silk Meter on your license server, no license file is required. However, you must import a license file before you can run Silk Test. You can import a license file using the Silk Meter Policy Administrator.

If you have multiple license servers, you need multiple license files, each one containing licenses tied to a particular license server. A single Silk Meter license server can administer licenses for multiple products.

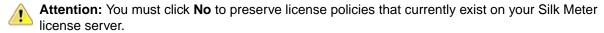
Silk Meter License Server Requirements

Before installing Silk Meter, refer to the Release Notes to ensure that the license server meets the requirements.

Uninstalling a Previous Version of Silk Meter

If a previous version of Silk Meter is installed on your license server, you must uninstall it before the latest version of Silk Meter can be installed.

- 1. Choose Start > Programs > Silk > Silk Meter > Uninstall .
- 2. Click Yes to uninstall Silk Meter. The Remove Settings dialog box opens.
- 3. Click No to keep your Silk Meter settings.



Reboot your computer.

Silk Meter is now uninstalled, and you can install the latest version of Silk Meter.

Installing Silk Meter on Your License Server

Before installing Silk Meter, verify the following information:

- Your user account possesses administrator privileges.
- An instance of Silk Meter is not installed on your license server.
- 1. Visit the *product updates site* and search for Silk Meter.
- 2. Download and save the latest Silk Meter Installation Files.
- 3. Navigate to the location where you saved the .exe file and double-click it. For a standard installation, follow the Silk Meter installation wizard by using the default options.



Important: If setup prompts you to restart the computer, make sure to do so.

Modifying Your License Server Configuration

Use the **Licensing Configuration Tool** to modify or repair your license server configuration. This utility is installed with your Silk Test installation.

- Choose Start > Programs > Silk > Silk Test > Licensing Configuration Tool
- 2. In the Application list box, select the product for which you want to modify the license configuration.
- 3. Choose between the license technologies Silk Meter and AutoPass depending on which technology you want to use.
- 4. Under Licensing mode select either Use a license server or Use standalone licensing.



Note: Standalone licensing is available for Silk Meter only.

5. When using a license server, type the computer name of the Silk Meter or AutoPass license server in the **Host** field.

Unless your network administrator has defined a different port, do not change the **Port Number**. Default ports are 5416 for Silk Meter and 5814 for AutoPass.

- 6. Click Apply to activate the license configuration.
- 7. If you use a license server, click **Test Connection** to verify that the specified license server is accessible on the specified host and port. If the connection is successful, the **Status** field displays a SUCCESS message.



Note: In some cases, specifying the simple name of the license server in the **Host** field, such as licenseserver, might not work. A message box stating Connection to Silk Meter

license server failed opens. To resolve this issue, specify the hostname by using a fully $\begin{picture}(100,00) \put(0,0){\line(0,0){100}} \put(0,0){\line(0,0){1$

8. Click **Close** to complete the license configuration.

Installing Silk Test

This section explains the setup options that are available when installing Silk Test.

Installation Prerequisites

Before installing Silk Test, perform the following tasks:

- Ensure that your user account possesses local administrator privileges.
- Ensure that Windows Defender is disabled during the Silk Test installation process. If Windows Defender is enabled on your system during the installation, you might not be able to start the Open Agent after the installation is complete. Windows Defender might prevent the Silk Test setup from performing some required actions.
- Ensure that the file msvcp60.d11 is installed in the Windows System32 directory (windows \system32 or winnt\system32).

This file is installed automatically as part of the standard Windows installation. If msvcp60.dll is not in your System32 directory, use Windows Explorer to search for the file, then copy it to the System32 directory. If you cannot find this file on your system, upgrade to the latest service pack.

- Note: To use .NET Framework with a server system, for example Windows Server 2008, enable the .NET Framework in Server Manager. If you do not enable the .NET Framework, a dialog box opens, which states that you must use the Role Management Tool, and the Silk Test setup process stops.
- Close the following applications:
 - Microsoft Visual Studio
 - Eclipse
 - Silk Central Execution Server
 - Silk Test agent
- If you are installing without an internet connection and if you get an error stating that the Visual C++ Redistributable cannot be installed, see https://support.microsoft.com/kb/3149737 for possible solutions.

Resetting the *TEMP* Environment Variable

If your Windows TEMP environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your TEMP environment variable must point to a valid directory.

- 1. Choose Start > Settings > Control Panel.
- 2. Double-click System.
- 3. Click the Advanced tab, and then click Environment Variables.
- Under User Variables or System Variables, double-click the TEMP variable.
- 5. Enter a valid directory, and then click **OK**.
- 6. Restart the Silk Test installation by double-clicking the EXE file.

Downloading the Silk Test Executable File

Download the Silk Test executable file to install Silk Test.

- 1. Navigate to http://supportline.microfocus.com/.
- 2. Type your customer ID and password in the User Name and Password text boxes.
- 3. Click Submit and then navigate to Silk Test and select the version that you want to install.
- Specify the location to which you want to save this file, and then click Save. Alternative: Run the file from your browser by double-clicking the EXE file.

Use the executable file to install Silk Test.

Installing the Standard Suite of Silk Test Products

Before you start, download the Silk Test executable file.

Install the standard installation of Silk Test, including Silk Test Workbench, the Open Agent, Silk Test Recorder, Silk4J, and Silk4NET. The standard installation enables you to record, script, execute, and view the results of tests.

1. Locate and double-click the Silk Test executable file.



Note: If your Windows TEMP environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your TEMP environment variable must point to a valid directory.

The InstallAnywhere wizard opens.

2. If a previous version of Silk Test is installed, click Uninstall and then click Next to remove all installed features.

You must uninstall any earlier versions before you install a new version.

- 3. Click Next. The License Agreement opens.
- 4. Read the license agreement carefully. If you accept the terms of the agreement, click I accept the terms of the License Agreement.

By accepting the terms of the License Agreement while installing Silk Test, you agree to allow Micro Focus to collect information about how you use Silk Test and about the computer system on which Silk Test is installed. Micro Focus does not collect any personally identifiable information, for example your name or address, or any of your data files, for example scripts or passwords. You can disable this data collection from the About dialog of your Silk Test client. For additional information, refer to the client Help.

- 5. Click Next. The Choose Install Set page opens.
- 6. Select Standard from the list.
- 7. To add a shortcut icon for Silk Test to the desktop, check the Create desktop shortcut check box.
- 8. Click Next. The Choose Install Folder page opens.
- **9.** To change the default installation directory, perform the following steps:
 - a) Click Choose. The Browse For Folder dialog box opens.
 - b) Specify the folder in which you want to install Silk Test, and then click **OK** to return to the **Choose** Install Folder page.



Note: Silk Test must be installed on a local drive. Additionally, Micro Focus recommends installing Silk Test to C: /Program Files, because otherwise some features of Silk Test might not work as expected. If you specify an invalid installation destination, an error message displays.

The location displays in the text field.

- 10.Click Next. The Welcome to Silk4J page opens.
- 11. Specify whether you want to install a new Eclipse environment when you install Silk4J.
 - a) Click one of the following option buttons:

- **Download Eclipse (200MB) and install Silk4J** To install Silk4J and an Eclipse environment, click this option.
- Install Silk4J and use an existing Eclipse environment (version 4.4 or later) To use an existing Eclipse environment with Silk4J, click this option. Click Browse and navigate to the Eclipse environment that you want to use.
- Install Silk4J manually To install Silk4J into an Eclipse environment manually, click this option. A folder named dropins is created in the Silk Test installation directory. Copy this folder into a valid Eclipse directory to use Silk4J.

b) Click Next.

When installation completes, access the Eclipse environment by choosing (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Clients > Silk4J or (in Microsoft Windows 10) Start > Silk > Silk4J. For instructions for using the plug-in, refer to the online help within the plug-in.

12. Specify whether you want to install Silk4NET for use with an existing Visual Studio environment. The Silk4NET Visual Studio plug-in enables you to create VB.NET or C# test scripts directly in Visual Studio.



Note: Ensure that the Visual Studio components for VB .NET or C# development are available in the Visual Studio installation with which you want to use Silk4NET.

- a) Click one of the following option buttons:
 - Install Silk4NET and use an existing Visual Studio 2017 or later To use an existing Visual Studio 2017 or later environment, click this option.
 - Install Silk4NET manually To complete the installation of Silk4NET at a later time, click this option. If Visual Studio 2017 or later is not installed on your machine, you must choose this option. For additional information, see Installing the Silk4NET Visual Studio Plug-in Manually.
- b) Click Next.

When you start Visual Studio, a menu option appears for Silk4NET and the Silk4NET project is available from the Installed Templates list.

13. To test Apple Safari on a Mac or mobile native applications on an iOS device, check the **Download OS** X setup for Silk Test check box.



Note: When the Silk Test installation is complete, you will need to install the OS X setup on a Mac. For additional information, see *Installing the Silk Test Infoservice on a Mac*.

- **14.**Click **Next**. The **Firewall Exceptions** page opens.
- 15. Check the Add Windows firewall exceptions check box to create Windows firewall exceptions for all Silk Test executable files.



Note: Checking this check box enables remote testing with Silk Test. If you leave the check box unchecked, you will not be able to perform remote testing and you will be prompted to block or allow the Silk Test executable files each time that you launch Silk Test.



Important: Remote testing of applications is a potential security risk. Remote testing should only be performed in a trusted development environment, and only on a network that you control. Perform remote testing at your own risk.

16.Click Next.

17. Review the provided information and perform one of the following steps:

- To change any settings, click **Previous** to return to the appropriate page.
- If you are satisfied with the settings, click **Install** to start the installation process.



Tip: If a message appears stating that there is not enough space while files are copying, redefine the TEMP area to a drive that contains more space. The installer uses the TEMP area for unzipping files. For example, if your TEMP area is d:\temp and you are installing to e: \SilkTest, the E drive may contain enough space for the installation, but the D drive is the limiting factor.

The status bar provides information about the installation process.

- **18.** Optional: In the **Usage Data Collection** page, click one of the following:
 - Click Yes, I am willing to participate to allow Micro Focus to collect usage statistics.
 - Click No, I would not like to participate to prevent Micro Focus from collecting usage statistics.

19.Click Next.

20.Click one of the following option buttons:

- Evaluation Installs an evaluation version of Silk Test, which enables you to explore the full product functionality for 45 days.
- Full version Installs an unrestricted version of Silk Test, which requires a license.
- 21. The Select Silk Meter License Server dialog box opens. This utility checks your local system for the existence of Silk Meter license server configuration files. If the files are found, the configuration and type of license server are displayed and are used for licensing. If no configuration data is found, the Select SilkMeter License Server dialog box is displayed with the default settings. Click one of the following option buttons:

Using local or In the License server host text box, enter the name of the computer on which Silk remote server Meter is installed. The default Port, 5461, should not be changed, unless your network administrator has defined a different port. Click **Test Connection** to verify that a Silk Meter server is accessible on the specified host and port. Testing the connection to the license server may fail during installation as required system libraries, which will be installed later with the software package, may not yet be available.



Note: In some cases, specifying the simple name of the license server in the License server host text box, such as licenseserver, might not work. A message box stating there is no license server running on the hostname you specified opens. To resolve this issue, specify the hostname by using a fully qualified name, such as licenseserver.mycompany.com.

Using a standalone license

Runs Silk Test standalone. Click **Choose** and select your license file.



Note: You can import your license file later. Click Close to skip this step. The Silk Standalone License Installer is installed with Silk Test, under Start > All Programs > Silk > Silk Test > Administration.

22.Click Next.



Fastpath: A working network connection is required when running Silk Test with a remote Silk Meter license server. If you need to verify that the network is working, choose **Start** > **Run**, and then type ping localhost or ping cense server name>, or open a command prompt and type either of those commands.

23.Click Done.

Installing the Complete Suite of Silk Test Products

Before you start, download the Silk Test executable file.

Install the complete installation of Silk Test. The complete installation includes Silk Test Classic, Classic Agent, and Silk TrueLog Explorer in addition to Silk Test Workbench, the Silk Test Open Agent, Silk Test Recorder, Silk4J, and Silk4NET.

Locate and double-click the Silk Test executable file.



Note: If your Windows *TEMP* environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your TEMP environment variable must point to a valid directory.

The InstallAnywhere wizard opens.

2. If a previous version of Silk Test is installed, click Uninstall and then click Next to remove all installed features.

You must uninstall any earlier versions before you install a new version.

- 3. Click Next. The License Agreement opens.
- 4. Read the license agreement carefully. If you accept the terms of the agreement, click I accept the terms of the License Agreement.

By accepting the terms of the License Agreement while installing Silk Test, you agree to allow Micro Focus to collect information about how you use Silk Test and about the computer system on which Silk Test is installed. Micro Focus does not collect any personally identifiable information, for example your name or address, or any of your data files, for example scripts or passwords. You can disable this data collection from the About dialog of your Silk Test client. For additional information, refer to the client Help.

- 5. Click Next. The Choose Install Set page opens.
- Select Complete from the list.

The complete installation enables you to record, script, execute, and view the results of tests. Checkmarks display next to each option.



Note: The complete installation includes the Silk Test Windows and .NET extension kits, which are included as part of the Silk Test Classic Agent installation.

- 7. To add a shortcut icon for Silk Test to the desktop, check the Create desktop shortcut check box.
- Click Next. The Enable Classic Agent page opens.
- 9. If you have legacy tests that are using the Classic Agent, check the Enable Classic Agent check box.

By default, the check box is unchecked. Enabling the Classic Agent might have a negative impact on the performance of Silk Test. If you have no legacy tests that are using the Classic Agent, or you are unsure about whether you have such legacy tests, Micro Focus recommends leaving the check box unchecked. Whenever required, you can enable the Classic Agent through the Silk Test UI.

- 10.Click Next. The Choose Install Folder page opens.
- 11. To change the default installation directory, perform the following steps:
 - a) Click Choose. The Browse For Folder dialog box opens.
 - b) Specify the folder in which you want to install Silk Test, and then click **OK** to return to the **Choose** Install Folder page.



Note: You cannot install Silk Test and Silk Test Runtime on the same machine.



Note: Silk Test must be installed on a local drive. Additionally, Micro Focus recommends installing Silk Test to C: /Program Files, because otherwise some features of Silk Test might not work as expected. If you specify an invalid installation destination, an error message displays.

The location displays in the text field.

- 12.Click Next. The Welcome to Silk4J page opens.
- 13. Specify whether you want to install a new Eclipse environment when you install Silk4J.
 - a) Click one of the following option buttons:
 - Download Eclipse (200MB) and install Silk4J To install Silk4J and an Eclipse environment, click this option.
 - Install Silk4J and use an existing Eclipse environment (version 4.4 or later) To use an existing Eclipse environment with Silk4J, click this option. Click **Browse** and navigate to the Eclipse environment that you want to use.

 Install Silk4J manually – To install Silk4J into an Eclipse environment manually, click this option. A folder named dropins is created in the Silk Test installation directory. Copy this folder into a valid Eclipse directory to use Silk4J.

b) Click Next.

When installation completes, access the Eclipse environment by choosing (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Clients > Silk4J or (in Microsoft Windows 10) Start > Silk > Silk4J. For instructions for using the plug-in, refer to the online help within the plug-in.

14. Specify whether you want to install Silk4NET for use with an existing Visual Studio environment. The Silk4NET Visual Studio plug-in enables you to create VB.NET or C# test scripts directly in Visual Studio.



Note: Ensure that the Visual Studio components for VB .NET or C# development are available in the Visual Studio installation with which you want to use Silk4NET.

- a) Click one of the following option buttons:
 - Install Silk4NET and use an existing Visual Studio 2017 or later To use an existing Visual Studio 2017 or later environment, click this option.
 - Install Silk4NET manually To complete the installation of Silk4NET at a later time, click this option. If Visual Studio 2017 or later is not installed on your machine, you must choose this option. For additional information, see Installing the Silk4NET Visual Studio Plug-in Manually.
- b) Click Next.

When you start Visual Studio, a menu option appears for Silk4NET and the Silk4NET project is available from the Installed Templates list.

15. To test Apple Safari on a Mac or mobile native applications on an iOS device, check the **Download OS** X setup for Silk Test check box.



Note: When the Silk Test installation is complete, you will need to install the OS X setup on a Mac. For additional information, see *Installing the Silk Test Infoservice on a Mac*.

- 16.Click Next. The Firewall Exceptions page opens.
- 17. Check the Add Windows firewall exceptions check box to create Windows firewall exceptions for all Silk Test executable files.



Note: Checking this check box enables remote testing with Silk Test. If you leave the check box unchecked, you will not be able to perform remote testing and you will be prompted to block or allow the Silk Test executable files each time that you launch Silk Test.



Important: Remote testing of applications is a potential security risk. Remote testing should only be performed in a trusted development environment, and only on a network that you control. Perform remote testing at your own risk.

18.Click Next.

19.Review the provided information and perform one of the following steps:

- To change any settings, click **Previous** to return to the appropriate page.
- If you are satisfied with the settings, click **Install** to start the installation process.



Tip: If a message appears stating that there is not enough space while files are copying, redefine the TEMP area to a drive that contains more space. The installer uses the TEMP area for unzipping files. For example, if your TEMP area is d:\temp and you are installing to e: \SilkTest, the E drive may contain enough space for the installation, but the D drive is the limiting factor.

The status bar provides information about the installation process.

- **20.** Optional: In the Usage Data Collection page, click one of the following:
 - Click Yes, I am willing to participate to allow Micro Focus to collect usage statistics.
 - Click No, I would not like to participate to prevent Micro Focus from collecting usage statistics.

21.Click Next.

22.Click one of the following option buttons:

- Evaluation Installs an evaluation version of Silk Test, which enables you to explore the full product functionality for 45 days.
- Licensed Installs an unrestricted version of Silk Test, which requires a license.
- 23. The Select Silk Meter License Server dialog box opens. This utility checks your local system for the existence of Silk Meter license server configuration files. If the files are found, the configuration and type of license server are displayed and are used for licensing. If no configuration data is found, the Select SilkMeter License Server dialog box is displayed with the default settings. Click one of the following option buttons:

Using local or In the License server host text box, enter the name of the computer on which Silk remote server Meter is installed. The default Port, 5461, should not be changed, unless your network administrator has defined a different port. Click **Test Connection** to verify that a Silk Meter server is accessible on the specified host and port. Testing the connection to the license server may fail during installation as required system libraries, which will be installed later with the software package, may not yet be available.



Note: In some cases, specifying the simple name of the license server in the **License server host** text box, such as licenseserver, might not work. A message box stating there is no license server running on the hostname you specified opens. To resolve this issue, specify the hostname by using a fully qualified name, such as licenseserver.mycompany.com.

Using a standalone license

Runs Silk Test standalone. Click **Choose** and select your license file.



Note: You can import your license file later. Click Close to skip this step. The Silk Standalone License Installer is installed with Silk Test, under Start > All Programs > Silk > Silk Test > Administration.

24.Click Next.



Fastpath: A working network connection is required when running Silk Test with a remote Silk Meter license server. If you need to verify that the network is working, choose **Start > Run**, and then type ping localhost or ping cense server name>, or open a command prompt and type either of those commands.

25. Specify whether you want to restart the system to complete the installation and then click Done.



Attention: You must restart your computer for Silk Test Classic to work properly.

Installing Silk Test Workbench

Silk Test Workbench is the quality testing environment that offers .NET scripting for power users and easy to use visual tests to make testing more accessible to a broader audience. Silk Test Workbench is automatically installed when you choose a complete or standard installation. If you choose a basic installation, you can install Silk Test Workbench without any other components. When you install Silk Test Workbench, the Open Agent is also installed. The Open Agent is required to run Silk Test Workbench.

1. Locate and double-click the Silk Test executable file.



Note: If your Windows TEMP environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your TEMP environment variable must point to a valid directory.

The InstallAnywhere wizard opens.

2. If a previous version of Silk Test is installed, click Uninstall and then click Next to remove all installed features.

You must uninstall any earlier versions before you install a new version.

- Click Next. The License Agreement opens.
- 4. Read the license agreement carefully. If you accept the terms of the agreement, click I accept the terms of the License Agreement.

By accepting the terms of the License Agreement while installing Silk Test, you agree to allow Micro Focus to collect information about how you use Silk Test and about the computer system on which Silk Test is installed. Micro Focus does not collect any personally identifiable information, for example your name or address, or any of your data files, for example scripts or passwords. You can disable this data collection from the About dialog of your Silk Test client. For additional information, refer to the client Help.

- 5. Click Next. The Choose Install Set page opens.
- Select Basic from the list.

The basic installation installs Silk Test Workbench, Silk Test Recorder, and the Open Agent.

- 7. To add a shortcut icon for Silk Test to the desktop, check the Create desktop shortcut check box.
- 8. Click Next. The Choose Install Folder page opens.
- **9.** To change the default installation directory, perform the following steps:
 - a) Click Choose. The Browse For Folder dialog box opens.
 - b) Specify the folder in which you want to install Silk Test, and then click **OK** to return to the **Choose** Install Folder page.



Note: You cannot install Silk Test and Silk Test Runtime on the same machine.



Note: Silk Test must be installed on a local drive. Additionally, Micro Focus recommends installing Silk Test to C: /Program Files, because otherwise some features of Silk Test might not work as expected. If you specify an invalid installation destination, an error message displays.

The location displays in the text field.

- 10.Click Next. The Download OS X Setup page opens.
- 11. To test Apple Safari on a Mac or mobile native applications on an iOS device, check the Download OS X setup for Silk Test check box.



Note: When the Silk Test installation is complete, you will need to install the OS X setup on a Mac. For additional information, see *Installing the Silk Test Infoservice on a Mac*.

- 12.Click Next. The Firewall Exceptions page opens.
- 13. Check the Add Windows firewall exceptions check box to create Windows firewall exceptions for all Silk Test executable files.



Note: Checking this check box enables remote testing with Silk Test. If you leave the check box unchecked, you will not be able to perform remote testing and you will be prompted to block or allow the Silk Test executable files each time that you launch Silk Test.



Important: Remote testing of applications is a potential security risk. Remote testing should only be performed in a trusted development environment, and only on a network that you control. Perform remote testing at your own risk.

14.Click Next.

15.Review the provided information and perform one of the following steps:

- To change any settings, click **Previous** to return to the appropriate page.
- If you are satisfied with the settings, click **Install** to start the installation process.



Tip: If a message appears stating that there is not enough space while files are copying, redefine the TEMP area to a drive that contains more space. The installer uses the TEMP area for

unzipping files. For example, if your TEMP area is d: \temp and you are installing to e: \SilkTest, the E drive may contain enough space for the installation, but the D drive is the limiting factor.

The status bar provides information about the installation process.

16. Optional: In the **Usage Data Collection** page, click one of the following:

- Click Yes, I am willing to participate to allow Micro Focus to collect usage statistics.
- Click No, I would not like to participate to prevent Micro Focus from collecting usage statistics.

17.Click Next.

18.Click one of the following option buttons:

- Evaluation Installs an evaluation version of Silk Test, which enables you to explore the full product functionality for 45 days.
- Licensed Installs an unrestricted version of Silk Test, which requires a license. Select Silk Meter or Autopass as your license type.
- 19. The Select Silk Meter License Server dialog box opens. This utility checks your local system for the existence of Silk Meter license server configuration files. If the files are found, the configuration and type of license server are displayed and are used for licensing. If no configuration data is found, the **Select** SilkMeter License Server dialog box is displayed with the default settings. Click one of the following option buttons:

Using local or In the License server host text box, enter the name of the computer on which Silk remote server Meter is installed. The default Port, 5461, should not be changed, unless your network administrator has defined a different port. Click Test Connection to verify that a Silk Meter server is accessible on the specified host and port. Testing the connection to the license server may fail during installation as required system libraries, which will be installed later with the software package, may not yet be available.



Note: In some cases, specifying the simple name of the license server in the License server host text box, such as licenseserver, might not work. A message box stating there is no license server running on the hostname you specified opens. To resolve this issue, specify the hostname by using a fully qualified name, such as licenseserver.mycompany.com.

Using a standalone license

Runs Silk Test standalone. Click Choose and select your license file.



Note: You can import your license file later. Click Close to skip this step. The Silk Standalone License Installer is installed with Silk Test, under Start > All Programs > Silk > Silk Test > Administration.

20.Click Next.



Fastpath: A working network connection is required when running Silk Test with a remote Silk Meter license server. If you need to verify that the network is working, choose **Start** > **Run**, and then type ping localhost or ping cense server name>, or open a command prompt and type either of those commands.

21.Click Done.

Installing Silk4J

The Silk4J Eclipse plug-in enables you to create Java based test scripts directly in your Eclipse environment. Silk4J is automatically installed when you choose a standard or complete installation. If you choose a basic or custom installation, you can install Silk4J at a later time. When you install Silk4J, the Open Agent is also installed. The Open Agent is required to run Silk4J.



To work with Silk4J 19.0 or later, Java 8 or later is required to be installed on the system where Silk4J is installed.

1. Locate and double-click the Silk Test executable file.



Note: If your Windows *TEMP* environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your *TEMP* environment variable must point to a valid directory.

The InstallAnywhere wizard opens.

If a previous version of Silk Test is installed, click Uninstall and then click Next to remove all installed features.

You must uninstall any earlier versions before you install a new version.

- 3. Click Next. The License Agreement opens.
- 4. Read the license agreement carefully. If you accept the terms of the agreement, click I accept the terms of the License Agreement.

By accepting the terms of the License Agreement while installing Silk Test, you agree to allow Micro Focus to collect information about how you use Silk Test and about the computer system on which Silk Test is installed. Micro Focus does not collect any personally identifiable information, for example your name or address, or any of your data files, for example scripts or passwords. You can disable this data collection from the **About** dialog of your Silk Test client. For additional information, refer to the client Help.

- 5. Click Next. The Choose Install Set page opens.
- **6.** From the drop-down list, select **Custom** and then check the **Silk4J** check box. Silk4J, Silk Test Recorder, and the Open Agent will be installed.
- 7. Click Next. The Choose Install Folder page opens.
- **8.** To change the default installation directory, perform the following steps:
 - a) Click Choose. The Browse For Folder dialog box opens.
 - b) Specify the folder in which you want to install Silk Test, and then click **OK** to return to the **Choose Install Folder** page.

The location displays in the text field.

- 9. Click Next. The Welcome to Silk4J page opens.
- 10. Specify whether you want to install a new Eclipse environment when you install Silk4J.
 - a) Click one of the following option buttons:
 - Download Eclipse (200MB) and install Silk4J To install Silk4J and an Eclipse environment, click this option.
 - Install Silk4J and use an existing Eclipse environment (version 4.4 or later) To use an existing Eclipse environment with Silk4J, click this option. Click **Browse** and navigate to the Eclipse environment that you want to use.
 - Install Silk4J manually To install Silk4J into an Eclipse environment manually, click this option. A folder named dropins is created in the Silk Test installation directory. Copy this folder into a valid Eclipse directory to use Silk4J.
 - b) Click Next.

When installation completes, access the Eclipse environment by choosing (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Clients > Silk4J or (in Microsoft Windows 10) Start > Silk > Silk4J. For instructions for using the plug-in, refer to the online help within the plug-in.

11. To test Apple Safari on a Mac or mobile native applications on an iOS device, check the **Download OS X setup for Silk Test** check box.



Note: When the Silk Test installation is complete, you will need to install the OS X setup on a Mac. For additional information, see *Installing the Silk Test Infoservice on a Mac*.

- **12.**Click **Next**. The **Firewall Exceptions** page opens.
- 13. Check the Add Windows firewall exceptions check box to create Windows firewall exceptions for all Silk Test executable files.



Note: Checking this check box enables remote testing with Silk Test. If you leave the check box unchecked, you will not be able to perform remote testing and you will be prompted to block or allow the Silk Test executable files each time that you launch Silk Test.



Important: Remote testing of applications is a potential security risk. Remote testing should only be performed in a trusted development environment, and only on a network that you control. Perform remote testing at your own risk.

14.Click Next.

15.Review the provided information and perform one of the following steps:

- To change any settings, click **Previous** to return to the appropriate page.
- If you are satisfied with the settings, click Install to start the installation process.



Tip: If a message appears stating that there is not enough space while files are copying, redefine the TEMP area to a drive that contains more space. The installer uses the TEMP area for unzipping files. For example, if your TEMP area is d:\temp and you are installing to e: \SilkTest, the E drive may contain enough space for the installation, but the D drive is the limiting factor.

The status bar provides information about the installation process.

- **16.** Optional: In the **Usage Data Collection** page, click one of the following:
 - Click Yes, I am willing to participate to allow Micro Focus to collect usage statistics.
 - Click No, I would not like to participate to prevent Micro Focus from collecting usage statistics.

17.Click Next.

- **18.**Click one of the following option buttons:
 - Evaluation Installs an evaluation version of Silk Test, which enables you to explore the full product functionality for 45 days.
 - Full version Installs an unrestricted version of Silk Test, which requires a license.
- 19. The Select Silk Meter License Server dialog box opens. This utility checks your local system for the existence of Silk Meter license server configuration files. If the files are found, the configuration and type of license server are displayed and are used for licensing. If no configuration data is found, the **Select** SilkMeter License Server dialog box is displayed with the default settings. Click one of the following option buttons:

Using local or In the License server host text box, enter the name of the computer on which Silk remote server Meter is installed. The default Port, 5461, should not be changed, unless your network administrator has defined a different port. Click **Test Connection** to verify that a Silk Meter server is accessible on the specified host and port. Testing the connection to the license server may fail during installation as required system libraries, which will be installed later with the software package, may not yet be available.



Note: In some cases, specifying the simple name of the license server in the License server host text box, such as licenseserver, might not work. A message box stating there is no license server running on the hostname you specified opens. To resolve this issue, specify the hostname by using a fully qualified name, such as licenseserver.mycompany.com.

Using a standalone license

Runs Silk Test standalone. Click **Choose** and select your license file.



Note: You can import your license file later. Click Close to skip this step. The Silk Standalone License Installer is installed with Silk Test, under Start > All Programs > Silk > Silk Test > Administration.

20.Click Next.



Fastpath: A working network connection is required when running Silk Test with a remote Silk Meter license server. If you need to verify that the network is working, choose **Start** > **Run**, and then type ping localhost or ping cense server name>, or open a command prompt and type either of those commands.

21.Click Done.

22. Restart Eclipse if it was running when you performed the Silk4J installation.

When installation completes, access the Eclipse environment by clicking (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Clients > Silk4J or (in Microsoft Windows 10) Start > Silk > Silk4J. For instructions for using the plug-in, refer to the online help within the plug-in.

Installing the Silk4J Eclipse Plug-in Manually

The Silk4J Eclipse plug-in enables you to create Java-based test scripts directly in your Eclipse environment. You can install the Silk4J Eclipse plug-in when you install Silk Test using the Silk Test installation wizard.

Use this procedure:

- If you upgrade your version of Eclipse after you install the Silk4J plug-in.
- If you chose the **Install Silk4J manually** option during installation.
- If you did not install the Silk4J Eclipse plug-in when you installed Silk Test, and you want to install it manually.
- 1. If you chose the Install Silk4J Manually option during installation, locate the dropins folder in the Silk Test installation directory.
 - By default the location is C:\Program Files (x86)\Silk\Silk Test\dropins.
- 2. Copy the Silk4J.link file and paste it into the Eclipse dropins folder.
 - For example, if your Eclipse environment is installed at C:\Eclipse, copy the Silk4J.link file to C: \Eclipse\dropins.
- 3. Restart Eclipse if it was running when you performed the Silk4J installation.
 - When installation completes, access the Eclipse environment by clicking (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Clients > Silk4J or (in Microsoft Windows 10) Start > Silk > Silk4J. For instructions for using the plug-in, refer to the online help within the plug-in.



Tip: If you encounter problems starting Silk4J, start Eclipse with the parameter -clean one time.

Enabling and Disabling Rumba

Rumba is the world's premier Windows desktop terminal emulation solution. Rumba provides connectivity solutions to mainframes, mid-range, UNIX, Linux, and HP servers.

Enabling Support

Before you can record and replay Rumba scripts, you need to enable support:

- 1. Install Rumba desktop client software version 8.1 or later.
- Click (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Administration > Rumba plugin > Enable Silk Test Rumba plugin or (in Microsoft Windows 10) Start > Silk > Enable Silk Test Rumba plugin.

Disabling Support

Click (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Administration > Rumba plugin > Disable Silk Test Rumba plugin or (in Microsoft Windows 10) Start > Silk > Disable Silk Test Rumba plugin.

Installing Silk4NET

The Silk4NET Visual Studio plug-in enables you to create VB.NET or C# test scripts directly in Visual Studio. Silk4NET is automatically installed when you choose a standard or complete installation. If you choose a basic or custom installation, you can install Silk4NET at a later time. When you install Silk4NET, the Open Agent is also installed.

- 1. Ensure that the Visual Studio components for VB .NET or C# development are available in the Visual Studio installation with which you want to use Silk4NET.
- 2. Locate and double-click the Silk Test executable file.



Note: If your Windows *TEMP* environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your *TEMP* environment variable must point to a valid directory.

The InstallAnywhere wizard opens.

If a previous version of Silk Test is installed, click Uninstall and then click Next to remove all installed features.

You must uninstall any earlier versions before you install a new version.

- 4. Click Next. The License Agreement opens.
- 5. Read the license agreement carefully. If you accept the terms of the agreement, click I accept the terms of the License Agreement.

By accepting the terms of the License Agreement while installing Silk Test, you agree to allow Micro Focus to collect information about how you use Silk Test and about the computer system on which Silk Test is installed. Micro Focus does not collect any personally identifiable information, for example your name or address, or any of your data files, for example scripts or passwords. You can disable this data collection from the **About** dialog of your Silk Test client. For additional information, refer to the client Help.

- 6. Click Next. The Choose Install Set page opens.
- 7. From the drop-down list, select **Custom** and then check the Silk4NET check box. Silk4NET, Silk Test Recorder, and the Open Agent will be installed.
- 8. Specify whether you want to install Silk4NET for use with an existing Visual Studio environment.

 The Silk4NET Visual Studio plug-in enables you to create VB.NET or C# test scripts directly in Visual Studio.



Note: Ensure that the Visual Studio components for VB .NET or C# development are available in the Visual Studio installation with which you want to use Silk4NET.

- a) Click one of the following option buttons:
 - Install Silk4NET and use an existing Visual Studio 2017 or later To use an existing Visual Studio 2017 or later environment, click this option.
 - Install Silk4NET manually To complete the installation of Silk4NET at a later time, click this option. If Visual Studio 2017 or later is not installed on your machine, you must choose this option. For additional information, see *Installing the Silk4NET Visual Studio Plug-in Manually*.

b) Click Next.

When you start Visual Studio, a menu option appears for Silk4NET and the Silk4NET project is available from the Installed Templates list.

- 9. To add a shortcut icon for Silk Test to the desktop, check the Create desktop shortcut check box.
- 10.Click Next. The Choose Install Folder page opens.
- 11. To change the default installation directory, perform the following steps:
 - a) Click Choose. The Browse For Folder dialog box opens.
 - b) Specify the folder in which you want to install Silk Test, and then click OK to return to the Choose Install Folder page.

The location displays in the text field.

12.Click Next.

13. To test Apple Safari on a Mac or mobile native applications on an iOS device, check the **Download OS** X setup for Silk Test check box.



Note: When the Silk Test installation is complete, you will need to install the OS X setup on a Mac. For additional information, see Installing the Silk Test Infoservice on a Mac.

- **14.**Click **Next**. The **Firewall Exceptions** page opens.
- 15. Check the Add Windows firewall exceptions check box to create Windows firewall exceptions for all Silk Test executable files.



Note: Checking this check box enables remote testing with Silk Test. If you leave the check box unchecked, you will not be able to perform remote testing and you will be prompted to block or allow the Silk Test executable files each time that you launch Silk Test.



Important: Remote testing of applications is a potential security risk. Remote testing should only be performed in a trusted development environment, and only on a network that you control. Perform remote testing at your own risk.

16.Click Next.

17.Review the provided information and perform one of the following steps:

- To change any settings, click **Previous** to return to the appropriate page.
- If you are satisfied with the settings, click Install to start the installation process.



Tip: If a message appears stating that there is not enough space while files are copying, redefine the TEMP area to a drive that contains more space. The installer uses the TEMP area for unzipping files. For example, if your TEMP area is d: \temp and you are installing to e: \SilkTest, the E drive may contain enough space for the installation, but the D drive is the limiting factor.

The status bar provides information about the installation process.

- 18. Optional: In the Usage Data Collection page, click one of the following:
 - Click Yes, I am willing to participate to allow Micro Focus to collect usage statistics.
 - Click No, I would not like to participate to prevent Micro Focus from collecting usage statistics.

19.Click Next.

20.Click one of the following option buttons:

- Evaluation Installs an evaluation version of Silk Test, which enables you to explore the full product functionality for 45 days.
- **Full version** Installs an unrestricted version of Silk Test, which requires a license.
- 21. The Select Silk Meter License Server dialog box opens. This utility checks your local system for the existence of Silk Meter license server configuration files. If the files are found, the configuration and type of license server are displayed and are used for licensing. If no configuration data is found, the Select SilkMeter License Server dialog box is displayed with the default settings. Click one of the following option buttons:

Using local or In the License server host text box, enter the name of the computer on which Silk remote server Meter is installed. The default Port, 5461, should not be changed, unless your network administrator has defined a different port. Click **Test Connection** to verify that a Silk Meter server is accessible on the specified host and port. Testing the connection to the license server may fail during installation as required system libraries, which will be installed later with the software package, may not yet be available.



Note: In some cases, specifying the simple name of the license server in the License server host text box, such as licenseserver, might not work. A message box stating there is no license server running on the hostname you specified opens. To resolve this issue, specify the hostname by using a fully qualified name, such as licenseserver.mycompany.com.

Using a standalone license

Runs Silk Test standalone. Click **Choose** and select your license file.



Note: You can import your license file later. Click Close to skip this step. The Silk Standalone License Installer is installed with Silk Test, under Start > All Programs > Silk > Silk Test > Administration.

22.Click Next.



Fastpath: A working network connection is required when running Silk Test with a remote Silk Meter license server. If you need to verify that the network is working, choose **Start > Run**, and then type ping localhost or ping cense server name>, or open a command prompt and type either of those commands.

23.Click Done.

24.Restart Visual Studio if it was running when you performed the Silk4NET installation.

When installation completes, a menu option appears for Silk4NET and the Silk4NET project is available from the **Installed Templates** list.

Installing the Silk4NET Visual Studio Plug-in Manually

The Silk4NET Visual Studio plug-in enables you to create Visual Basic or C# test scripts directly in Visual Studio.

You can install the Silk4NET Visual Studio plug-in when you install Silk Test using the Silk Test installation wizard.

Use this procedure:

- If you upgrade your version of Visual Studio after you install the Silk4NET plug-in.
- If you chose the **Install Silk4NET manually** option during installation.
- 1. Ensure that the Visual Studio components for VB .NET or C# development are available in the Visual Studio installation with which you want to use Silk4NET.
- 2. Execute MicroFocus.SilkTest.Silk4NET.vsix in the folder <Silk Test installation directory>\ng\Silk4NET.

By default the location is C:\Program Files\Silk\Silk Test\ng\Silk4NET.



Note: If the following message is displayed during the installation, you can safely ignore the message and resume: This extension contains an invalid digital signature.

- 3. Depending on the version of Visual Studio, copy the following files:
 - For Visual Studio 2017, copy the file <Silk Test installation directory>\ng\NTF\ SilkTest.Ntf.VisualStudio2017.DataCollector.dll to the folder \Common7\IDE

\PrivateAssemblies\DataCollectors\ in the Visual Studio installation directory. Then copy the file <Silk Test installation directory>\ng\NTF\ SilkTest.Ntf.VisualStudio2017.UnitTestingExtension.dll to the folder \Common7\IDE\CommonExtensions\Microsoft\TestWindow\Extensions\ in the Visual Studio installation directory. Finally, copy the file <Silk Test installation directory>\ng \Silk4NET\Silk4NET_2017.pkgdef to the folder \Common7\IDE\Extensions in the Visual Studio installation directory.

- For Visual Studio 2019, copy the file <Silk Test installation directory>\ng\NTF\ SilkTest.Ntf.VisualStudio2019.DataCollector.dll to the folder \Common7\IDE \PrivateAssemblies\DataCollectors\ in the Visual Studio installation directory. Then copy the file <Silk Test installation directory>\ng\NTF\ SilkTest.Ntf.VisualStudio2019.UnitTestingExtension.dll to the folder \Common7\IDE\CommonExtensions\Microsoft\TestWindow\Extensions\ in the Visual Studio installation directory. Finally, copy the file <Silk Test installation directory>\ng \Silk4NET\Silk4NET_2019.pkgdef to the folder \Common7\IDE\Extensions in the Visual Studio installation directory.
- 4. In Visual Studio, verify that the menu option for Silk4NET appears and that the Silk4NET project is available from the Installed Templates list.

Integrating Silk4NET with a Visual Studio 2017 Agent

If you want to run Silk4NET tests on a machine which has only the Visual Studio 2017 Agent installed, perform the following actions:

- 1. Copy the file <Silk Test installation directory>\ng\Silk4NET \Silk4NET_2017.pkgdef to the folder \Common7\IDE\Extensions in the Visual Studio Agent installation directory.
- 2. If the file privateregistry.bin exists in the folder %localappdata%/ Microsoft \VisualStudio\15.0_<some ID>, delete the file.

When you execute the next test, the Visual Studio Agent is reconfigured and recognizes Silk4NET.

Installing Silk Test Classic

Before you start, download the Silk Test executable file.

Silk Test Classic is automatically installed when you choose a complete installation. If you choose a custom installation, you can install Silk Test Classic to use only the traditional 4Test interface and tools. When you install Silk Test Classic, Silk Test Recorder, Silk Test Classic Agent, and the Open Agent are also installed. Silk Test Recorder enables you to record tests rather than manually coding them. Silk Test Classic uses the Classic Agent or the Open Agent to connect to supported technology domains. While the Open Agent is required for the Silk Test Recorder.



Note: If User Account Control (UAC) is activated on your system, we recommend that you install Silk Test Classic into a different location than the Program Files folder.

1. Locate and double-click the Silk Test executable file.



Note: If your Windows TEMP environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your TEMP environment variable must point to a valid directory.

The InstallAnywhere wizard opens.

2. If a previous version of Silk Test is installed, click Uninstall and then click Next to remove all installed features.

You must uninstall any earlier versions before you install a new version.

- 3. Click Next. The License Agreement opens.
- 4. Read the license agreement carefully. If you accept the terms of the agreement, click I accept the terms of the License Agreement.

By accepting the terms of the License Agreement while installing Silk Test, you agree to allow Micro Focus to collect information about how you use Silk Test and about the computer system on which Silk Test is installed. Micro Focus does not collect any personally identifiable information, for example your name or address, or any of your data files, for example scripts or passwords. You can disable this data collection from the About dialog of your Silk Test client. For additional information, refer to the client Help.

- 5. Click Next. The Choose Install Set page opens.
- 6. From the drop-down list, select Custom and check the check box for Silk Test Classic IDE. When you install Silk Test Classic, Silk Test Recorder, the Classic Agent, and the Open Agent are also installed.
- 7. To add a shortcut icon for Silk Test to the desktop, check the Create desktop shortcut check box.
- 8. Click Next. The Enable Classic Agent page opens.
- 9. If you have legacy tests that are using the Classic Agent, check the Enable Classic Agent check box.

By default, the check box is unchecked. Enabling the Classic Agent might have a negative impact on the performance of Silk Test. If you have no legacy tests that are using the Classic Agent, or you are unsure about whether you have such legacy tests, Micro Focus recommends leaving the check box unchecked. Whenever required, you can enable the Classic Agent through the Silk Test UI.

- 10. Click Next. The Choose Install Folder page opens.
- **11.**To change the default installation directory, perform the following steps:
 - a) Click Choose. The Browse For Folder dialog box opens.
 - b) Specify the folder in which you want to install Silk Test, and then click **OK** to return to the **Choose** Install Folder page.



Note: You cannot install Silk Test and Silk Test Runtime on the same machine.



Note: Silk Test must be installed on a local drive. Additionally, Micro Focus recommends installing Silk Test to C: /Program Files, because otherwise some features of Silk Test might not work as expected. If you specify an invalid installation destination, an error message displays.

The location displays in the text field.

- 12.Click Next.
- 13. To test Apple Safari on a Mac or mobile native applications on an iOS device, check the Download OS X setup for Silk Test check box.



Note: When the Silk Test installation is complete, you will need to install the OS X setup on a Mac. For additional information, see *Installing the Silk Test Infoservice on a Mac*.

- **14.**Click **Next**. The **Firewall Exceptions** page opens.
- 15. Check the Add Windows firewall exceptions check box to create Windows firewall exceptions for all Silk Test executable files.



Note: Checking this check box enables remote testing with Silk Test. If you leave the check box unchecked, you will not be able to perform remote testing and you will be prompted to block or allow the Silk Test executable files each time that you launch Silk Test.



Important: Remote testing of applications is a potential security risk. Remote testing should only be performed in a trusted development environment, and only on a network that you control. Perform remote testing at your own risk.

16.Click Next.

17.Review the provided information and perform one of the following steps:

- To change any settings, click **Previous** to return to the appropriate page.
- If you are satisfied with the settings, click Install to start the installation process.



Tip: If a message appears stating that there is not enough space while files are copying, redefine the TEMP area to a drive that contains more space. The installer uses the TEMP area for unzipping files. For example, if your TEMP area is d:\temp and you are installing to e: \SilkTest, the E drive may contain enough space for the installation, but the D drive is the limiting factor.

The status bar provides information about the installation process.

18. Optional: In the **Usage Data Collection** page, click one of the following:

- Click Yes, I am willing to participate to allow Micro Focus to collect usage statistics.
- Click No, I would not like to participate to prevent Micro Focus from collecting usage statistics.

19.Click Next.

20.Click one of the following option buttons:

- Evaluation Installs an evaluation version of Silk Test, which enables you to explore the full product functionality for 45 days.
- Licensed Installs an unrestricted version of Silk Test, which requires a license.
- **21.**Click **Next** to continue. The **Silk Test licensing** dialog box opens.

This dialog box provides generic information about Silk Meter licensing. For detailed information on Silk Meter licensing, click Open SilkMeter ReadMe. This opens the Silk Meter documentation in your default browser.



Note: Open SilkMeter ReadMe is disabled if the document is not available in the installation source directory. This is usually the case when installing a Silk Test Web package.

Provided that you have already installed a Silk Meter license server on your computer network, or you know which computer on your network will become the Silk Meter license server, or you want to run Silk Meter in standalone mode, you can open the Select Silk Meter License Server dialog box by clicking OK.

Click **Cancel** to continue the installation without specifying a Silk Meter license server.

22.Click Next.



Fastpath: A working network connection is required when running Silk Test with a remote Silk Meter license server. If you need to verify that the network is working, choose **Start** > **Run**, and then type ping localhost or ping cense server name>, or open a command prompt and type either of those commands.

23. Specify whether you want to restart the system to complete the installation and then click Done.



Attention: You must restart your computer for Silk Test Classic to work properly.

Installing Silk Test Runtime or the Silk Test Agents

Before you start, download the Silk Test executable file.

To install the Silk Test agents or the Silk Test Runtime:

1. Locate and double-click the Silk Test executable file.



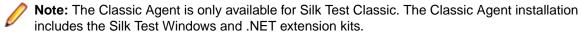
Note: If your Windows TEMP environment variable does not point to a valid directory, an error message is displayed. To successfully install Silk Test, your TEMP environment variable must point to a valid directory.

The InstallAnywhere wizard opens.

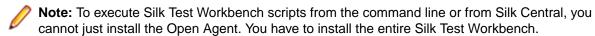
2. If a previous version of Silk Test is installed, click Uninstall and then click Next to remove all installed features.

You must uninstall any earlier versions before you install a new version.

- Click Next. The License Agreement opens.
- 4. Read the license agreement carefully. If you accept the terms of the agreement, click I accept the terms of the License Agreement.
- 5. Click Next. The Choose Install Set page opens.
- 6. From the drop-down list, select Agent/Runtime Only and check the check boxes for the components that you want to install.
 - Check the Silk Test Open Agent check box to perform distributed testing on tests in Silk4J, Silk4NET, and most of the technology types for Silk Test Classic.
 - Check the Silk Test Classic Agent check box to perform distributed testing in a traditional 4Test environment. The Classic Agent includes the Silk Test Unix Agent.



Check the Silk Test Classic Runtime check box to execute a set of tests and view the results.



- 7. Click Next. The Choose Install Folder page opens.
- **8.** To change the default installation directory, perform the following steps:
 - a) Click Choose. The Browse For Folder dialog box opens.
 - b) Specify the folder in which you want to install Silk Test, and then click **OK** to return to the **Choose** Install Folder page.



Note: You cannot install Silk Test and Silk Test Runtime on the same machine.



Note: Silk Test must be installed on a local drive. Additionally, Micro Focus recommends installing Silk Test to C: /Program Files, because otherwise some features of Silk Test might not work as expected. If you specify an invalid installation destination, an error message displays.

- 9. Click Next.
- 10. To test Apple Safari on a Mac or mobile native applications on an iOS device, check the **Download OS** X setup for Silk Test check box.



- 11.Click Next. The Firewall Exceptions page opens.
- 12. Check the Add Windows firewall exceptions check box to create Windows firewall exceptions for all Silk Test executable files.



Note: Checking this check box enables remote testing with Silk Test. If you leave the check box unchecked, you will not be able to perform remote testing and you will be prompted to block or allow the Silk Test executable files each time that you launch Silk Test.



Important: Remote testing of applications is a potential security risk. Remote testing should only be performed in a trusted development environment, and only on a network that you control. Perform remote testing at your own risk.

- 13.Click Next.
- **14.**Review the provided information and perform one of the following steps:
 - To change any settings, click **Previous** to return to the appropriate page.
 - If you are satisfied with the settings, click **Install** to start the installation process.

Tip: If a message appears stating that there is not enough space while files are copying, redefine the TEMP area to a drive that contains more space. The installer uses the TEMP area for unzipping files. For example, if your TEMP area is d:\temp and you are installing to e: \SilkTest, the E drive may contain enough space for the installation, but the D drive is the limiting factor.

The status bar provides information about the installation process.

15. Optional: In the **Usage Data Collection** page, click one of the following:

- Click Yes, I am willing to participate to allow Micro Focus to collect usage statistics.
- Click No, I would not like to participate to prevent Micro Focus from collecting usage statistics.

16.Click Next.

17.Click one of the following option buttons:

- Evaluation Installs an evaluation version of Silk Test, which enables you to explore the full product functionality for 45 days.
- Licensed Installs an unrestricted version of Silk Test, which requires a license.
- 18. The Select Silk Meter License Server dialog box opens. This utility checks your local system for the existence of Silk Meter license server configuration files. If the files are found, the configuration and type of license server are displayed and are used for licensing. If no configuration data is found, the Select SilkMeter License Server dialog box is displayed with the default settings. Click one of the following option buttons:

Using local or In the License server host text box, enter the name of the computer on which Silk remote server Meter is installed. The default Port, 5461, should not be changed, unless your network administrator has defined a different port. Click **Test Connection** to verify that a Silk Meter server is accessible on the specified host and port. Testing the connection to the license server may fail during installation as required system libraries, which will be installed later with the software package, may not yet be available.



Note: In some cases, specifying the simple name of the license server in the License server host text box, such as licenseserver, might not work. A message box stating there is no license server running on the hostname you specified opens. To resolve this issue, specify the hostname by using a fully qualified name, such as licenseserver.mycompany.com.

Using a standalone license

Runs Silk Test standalone. Click **Choose** and select your license file.



Note: You can import your license file later. Click Close to skip this step. The Silk Standalone License Installer is installed with Silk Test, under Start > All Programs > Silk > Silk Test > Administration.

19.Click Next.



Fastpath: A working network connection is required when running Silk Test with a remote Silk Meter license server. If you need to verify that the network is working, choose **Start > Run**, and then type ping localhost or ping cense server name>, or open a command prompt and type either of those commands.

20. Specify whether you want to restart the system to complete the installation and then click **Done**.



Attention: You must restart your computer for Silk Test Classic to work properly.



Note: If you have purchased a license for a Silk Test agent, but not for Silk Test itself, then only the agent, the documentation, and the Silk Test Bitmap Tool are accessible after installation.

Installing the Classic Agent for Unix

After you install the Silk Test Agent software, additional steps are required if you want to use the Silk Test Classic Agent for Unix.

1. On the computer where you installed the Silk Test Classic Agent software, locate the directory where the Silk Test Unix Agent TAR files are.

By default, this location is c:\Program Files\Silk\Silk Test\unix_agent.

2. Copy the TAR file that is appropriate for your Unix machine.

Silk Test provides the following files:

- linux21_sp3.tar.gz For Linux 2.1
- linux30_sp3.tar.gz For Linux 3.0
- solaris_sp3.tar.gz For Solaris 9 and 10
- 3. Extract the TAR file on your Unix machine by typing tar xzf <filename>.tar.gz.

where <filename> is the appropriate file name for your version of Unix.

4. Change to the bin directory and then run a shell or cshell script.

For instance, type:

```
cd bin
csh <filename>
```

5. Start the Agent.

Uninstalling Silk Test

When you install a new version of Silk Test, the wizard prompts you to uninstall any existing versions of Silk Test. You can also uninstall Silk Test from the programs menu at any time.

- Click (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Administration > Silk Test Uninstall or (in Microsoft Windows 10) Start > Silk > Silk Test Uninstall. The InstallAnywhere wizard opens the **Uninstall** Silk Test <version> page.
- Click Uninstall.

The following items or folders are removed:

- · The Access database and samples.
- The contents of [AppDATA]/Silk/Silk Test.

For example, on Windows 7 this directory is located at: C:\Users\[username]\AppData \Roaming\Silk\Silk Test.

• The contents of [commonAppData]/Silk/Silk Test.

For example, on Windows 7 this directory is located at: C:\ProgramData\Silk Test.

• The contents of [commonAppData]/Silk/Silk Test Workbench.

For example, on Windows 7 this directory is located at: C:\ProgramData\Silk Test Workbench.

If any files were not removed, a list of the files is provided.

3. Click Done.

Silk Test Silent Mode Installation

During a typical user-driven installation, the install process gets its information from a user responding to dialog boxes. However, during a silent installation, the installation process gets its information from a properties file. Silent installation is especially useful if you want to distribute software over a LAN or the Internet by using remote installation tools. You can execute silent installs of the following types:

- Complete Installs Silk Test Workbench, the Silk Test Agents, Silk Test Recorder, Silk4J, Silk4NET, and Silk Test Classic.
- Standard Installs Silk Test Workbench, the Silk Test Open Agent, Silk Test Recorder, Silk4J, and Silk4NET.
- Basic Installs Silk Test Workbench and the Silk Test Open Agent.
- Agent/Runtime Installs Silk Test Runtime and the Silk Test Agents.

Creating a Silent Installation Properties File

Before you can run the installation package in silent mode, you must create a properties file that includes the settings for the installation.

- 1. Open a text editor, such as Notepad.
- 2. Paste the following example into the text editor, name the file, and then save the file with a .properties extension.

For example, you might call the file SilentInstall.properties.

```
# Silent Installation Execution Instructions:
###################################
# Start the Install.exe (not Setup.exe) with the following arguments:
# -i silent -f [path to properties file][properties file]
# (You may use the direct or the relative path to the properties file)
# example: install.exe -i silent -f SilentInstall.properties
# SilkTest installation path - use "\\" to separate directories
# (default: [System_Programs_Folder]\\Silk\\Silk Test)
# USER_INSTALL_DIR_CHOSEN=C:\\Program Files\\Silk\\Silk Test
# Select an install set:
# (default: complete)
####################################
# basic - Basic (Workbench)
# standard - Standard (Workbench, Silk4J, Silk4NET)
# complete - Complete
# agent_runtime - Agent/Runtime Only
# NONE - Custom mode
# SELECTED_INSTALL_SET=complete
# Shortcut locations: enter the location(s) for icons.
# (allowed: Desktop, QuickLaunch)
# (default: no shortcuts)
################################
# SHORTCUT_LOCATIONS=Desktop, QuickLaunch
# Allows to disable the Silk Test Classic Agent
# (default: 1 - enabled)
################################
# USER_INPUT_ENABLE_CA=0
# Path to the existing Eclipse directory (containing eclipse.exe) into
```

```
# which Silk4J will be integrated
# (default: USER_INSTALL_DIR_CHOSEN)
####################################
# ECLIPSE_CHOSEN_DIR=C:\\Eclipse
# Silk4NET installation option: if set to 1, Silk4NET will be integrated
# into an existing VS2010
# (default: 0)
####################################
# USER_INPUT_SILK4NET_INTEGRATE=1
# Firewall exceptions:
# (default: no exceptions)
##############################
# USER_INPUT_FIREWALL=Yes
# Create system restore point
# (default: 1)
#####################################
# CREATE_SYSTEM_RESTORE=0
# Allow Silk Test to collect usage data
# (default: 1)
# if set to 0, data collection will be disabled
# USER_INPUT_USAGE_DATA=1
# Licensing Mode (no default value)
####################################
# Use to install an evaluation license
# USER_VERSION_EVAL=1
# Use to install a full license
# USER VERSION FULL=1
# Settings that specify the license server and port
# (no default values)
# LICENSE_SERVER=localhost
# Port of license server
# LICENSE PORT=5461
```

Setting Up the Silent Installer

Before you can set up the properties for the silent installer, you must create a properties file that includes the settings for the installation.



Note: To set a property value, make sure to remove the hash (#) sign from the property value string.

- 1. In a text editor, open the properties file that you created for the silent installation.
- 2. Locate the SELECTED INSTALL SET property and set the value to match the type of installation that you want to complete.

Choices include:

```
# basic - Basic (Workbench)
# standard - Standard (Workbench, Silk4J, Silk4NET)
# complete - Complete
# agent_runtime - Agent/Runtime Only
# NONE - Custom mode
```

For example:

• To install the complete version of Silk Test, type:

SELECTED_INSTALL_SET=complete

To install Silk Test Classic, type:

SELECTED_INSTALL_SET=NONE
CHOSEN_INSTALL_FEATURE_LIST=OA,CA,Partner



Note: When you use the custom mode, you can specify the components that you want to install by setting the CHOSEN_INSTALL_FEATURE_LIST. Do not set this option if you use another mode. The list includes the following components:

Component	Value
Open Agent	OA
Silk Test Workbench	VT
Classic Agent	CA
Silk Test Classic	Partner
Silk4J	Silk4J
Silk4NET	Silk4NET
Silk Test Runtime	RunTime

- **3.** To include additional shortcut icons, locate the SHORTCUT_LOCATIONS property and specify one or both of the following options:
 - Desktop Adds icons to the desktop.
 - QuickLaunch Adds icons to the Quick Launch toolbar.

For example to install both the Desktop and Quick Launch icons, type:

SHORTCUT_LOCATIONS=Desktop,QuickLaunch

4. To integrate an existing Eclipse environment with the Silk4J Java Testing Framework (JTF), locate the ECLIPSE_CHOSEN_DIR property and specify the Eclipse directory location. For example, you might specify:

ECLIPSE_CHOSEN_DIR=C:\\Eclipse

where C:\\Eclipse is the directory where Eclipse is installed.



Note: Directory levels are specified with a double \\.

- 5. To install Silk4NET for use with an existing Visual Studio environment, locate the USER_INPUT_SILK4NET_INTEGRATE property and specify one of the following options:
 - 0 Silk4NET is not set up for use.
 - 1 Silk4NET is set up for use.

The Silk4NET Visual Studio plug-in enables you to create VB.NET or C# test scripts directly in Visual Studio.



Note: Ensure that the Visual Studio components for VB .NET or C# development are available in the Visual Studio installation with which you want to use Silk4NET.

For example, you might specify:

USER INPUT SILK4NET INTEGRATE=1

6. To specify the language for the Classic Agent browser application, locate the USER_INPUT_BROWSER_LANGUAGE property and specify one of the following languages:

By default, English is specified.

- English
- Simplified Chinese

- French
- German
- Japanese

For example, you might specify:

USER_INPUT_BROWSER_LANGUAGE=English

7. To specify the default browser for the Classic Agent, locate the USER_INPUT_DEFAULT_BROWSER property and specify one of the following choices:

By default, the installer uses the default system browser, if it supported by Silk Test.

- None Choose None if you do not test with the Classic Agent or if you do not test web applications.
- Firefox
- Internet Explorer

For example, you might specify:

USER INPUT DEFAULT BROWSER=Firefox

8. To specify the Internet Explorer version for the Classic Agent, locate the IE VERSION property and specify 6, 7, or 8.

For example, you might specify:

IE VERSION=7

9. To specify the Mozilla Firefox version for the Classic Agent, locate the FIREFOX DOMEX VERSION property and specify 1_5 or 2_0.

For example, you might specify:

FIREFOX_DOMEX_VERSION=2_0

10. Specify whether the installation includes Windows firewall exceptions for all Silk Test executable files.

By default, no firewall exceptions are set.

For example, to create Windows firewall exceptions specify:

USER_INPUT_FIREWALL=Yes

- 11. Specify whether you want to allow Micro Focus to collect usage data.
 - To allow usage data collection, type:

```
USER INPUT USAGE DATA=1
```

To disable usage data collection, type:

USER_INPUT_USAGE_DATA=0

- 12. Specify whether the installation requires an evaluation license or a full license.
 - To use a 45-day trial evaluation license, type:

```
USER_VERSION_EVAL=1
```

To use a full license, type:

USER VERSION FULL=1

13. To specify the license server name, locate the LICENSE_SERVER property and specify the server name.

This value is not set by default. To use your local machine, in most cases, you type localhost.

14.To specify the license server port, locate the LICENSE_PORT section.

This value is not set by default. To use the predefined port, type 5461.

15. Save the file.

Run the silent installation command to launch the installation.

Using the Web Installer to Install in Silent Mode

Before you can run the installation package in silent mode, you must

- Create a properties file that includes the settings for the installation.
- Install Windows Installer version 4.5 on the host machine.

When you use the Installation wizard, Windows Installer version 4.5 is installed automatically. When you use Silent mode, you must manually install this component if it is not already on the machine.



Caution: Ensure that earlier versions of Silk Test have been uninstalled before proceeding. If an earlier version of Silk Test is located on the computer, Silk Test overwrites the existing files without notification. Do not install multiple versions of Silk Test on the same machine.

To install Silk Test with the Web installer and without any user interaction:

- 1. Locate the installation package on your hard drive.
- 2. To execute silent installation, enter the following command from a DOS shell or batch file.

```
SilkTest<Version>.exe -i silent -f [path to properties file]\[properties
file]
```

Where the < Version > is the Silk Test version and build number, for example SilkTest14.0 6393.exe



Note: The properties file is a text file with the extension .properties . You can name the file whatever you choose.

For example, if the silent installation properties file is located in the same directory as the SilkTest<Version>.exe, you might specify:

```
SilkTest<Version>.exe -i silent -f SilentInstall.properties
```

If the SilkTest<Version>. exe is not located in the same directory as the silent installation properties file, specify the absolute path to the properties file location. For example:

```
SilkTest<Version>.exe -i silent -f C:\temp\SilentInstall.properties
```

Silk Meter is a licensing tool; when you run the silent installer it "skips" detecting a Silk Meter server. If you have not already configured your license server, you may have to do so after you install Silk Test with the silent installer.

Verifying the Success of the Silent Installer

When you run the Silent Installer, you may not see any messages or Silk Test dialog boxes. It may be difficult to know whether the installation was a success. You can, however, review the Silk Test_<version>_InstallLog.log file, which contains the status of the install. By default, the Silk Test <version> InstallLog.log file is generated in the Silk Test installation directory. We recommend examining the log file before you make the Silent Installer available for others to use.



Note: If an earlier version of Silk Test, such as Silk Test 2009, is detected on the computer, Silk Test continues the installation and does not include an entry in the log file. Do not install multiple versions of Silk Test on the same machine.

- 1. Locate the Silk Test_<version>_InstallLog.log file and open it in a text editor.
- 2. To determine whether the Silent Installer succeeded, review the status messages for each action performed by the setup.

The installation log records SUCCESSFUL, WARNING, or ERROR for each action the installer executes. The installation log also includes a summary which tallies the number of successes, warnings, non-fatal errors, or errors.

For example, an action might look like the following:

```
Install File: C:\Program Files\Silk\Silk Test\ng\recorder\plugins\
            com.borland.silktest.recorder_11.1.0.4440\plugin.xml
    Status: SUCCESSFUL
```

The summary might look like the following:

```
Summary
Installation: Successful.
2497 Successes
0 Warnings
0 NonFatalErrors
0 FatalErrors
```

Viewing Error Codes

View the installation error codes to analyze the errors that occurred during silent installation.

1. Create a batch file to start the installation and run it. For example, you might create a file named install.bat with the following code:

```
@echo off
install.exe -I silent -f SilentInstall.properties
echo %errorlevel%
pause
```

2. Review the installation codes.

The following table lists possible return values for the Code keyname.

Table 1: Installer Exit Codes

Code	Description	
0	Success: The installation completed successfully without any warnings or errors.	
1	The installation completed successfully, but one or more of the actions from the installation sequence caused a warning or a non-fatal error.	
-1	One or more of the actions from the installation sequence caused a fatal error.	
1000	The installation was cancelled by the user.	
1001	The installation includes an invalid command line option.	
2000	Unhandled error.	
2001	The installation failed the authorization check, may indicate an expired version.	
2002	The installation failed a rules check. A rule placed on the installer itself failed.	
2003	An unresolved dependency in silent mode caused the installer to exit.	
2004	The installation failed because not enough disk space was detected during the execution of the Install action.	
2005	The installation failed while trying to install on a Windows 64-bit system, but installation did not include support for Windows 64-bit systems.	
2006	The installation failed because it was launched in a UI mode that is not supported by this installer.	
3000	Unhandled error specific to a launcher.	
3001	The installation failed due to an error specific to the lax.main.class property.	
3002	The installation failed due to an error specific to the lax.main.method property.	
3003	The installation was unable to access the method specified in the lax.main.method property.	
3004	The installation failed due to an exception error caused by the lax.main.method property.	
3005	The installation failed because no value was assigned to the lax.application.name property.	

Code	Description
3006	The installation was unable to access the value assigned to the lax.nl.java.launcher.main.class property.
3007	The installation failed due to an error specific to the lax.nl.java.launcher.main.class property.
3008	The installation failed due to an error specific to the lax.nl.java.launcher.main.method property.
3009	The installation was unable to access the method specified in the lax.nl.launcher.java.main.method property.
4000	A Java executable could not be found at the directory specified by the <code>java.home</code> system property.
4001	An incorrect path to the installer jar caused the relauncher to launch incorrectly.

Uninstalling in Silent Mode

Uninstall in silent mode to uninstall Silk Test without any user interaction.



Note: You can uninstall Silk Test with silent mode regardless of how you installed the product. However, if you install Silk Test in silent mode, the uninstall mode is executed silently also.

- 1. Locate the Uninstall Silk Test <version> folder.
 - The Uninstall Silk Test <version>.exe is located in this folder.
- 2. To execute the silent mode uninstallation procedure, enter one of the following commands from a DOS shell or batch file.
 - If you installed Silk Test in silent mode, enter the following command.
 - <Silk Test Install Directory>\Silk\Silk Test\Uninstall_Silk Test 2011\Uninstall Silk <version>.exe
 - If you did not install Silk Test in silent mode, enter the following command.
 - <Silk Test Install Directory>\Silk\Silk Test\Uninstall Silk Test <version> \Uninstall Silk Test <version>.exe -i silent

For example, you might type the following command if you did not install Silk Test in silent mode:

C:\Program Files\Silk\Silk Test\Uninstall Silk Test <version>\Uninstall Silk Test <version>.exe -i silent

Prerequisites for Testing with Apple Safari on a Mac

Before you can test with Apple Safari on a Mac, ensure that the following prerequisites are met:

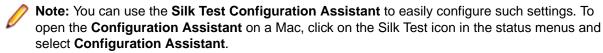
- The Mac is connected as a remote location to a Windows machine, on which Silk Test is installed.
- If you are testing with Apple Safari 9, the SafariDriver, which is the WebDriver extension for Apple Safari that inverts the traditional client/server relationship and communicates with the WebDriver client using WebSockets, needs to be installed on the Mac. With Apple Safari 10.1, Safari features a built-in driver implementation.
- Java JDK is installed on the Mac.
- The information service is installed on the Mac. To get the files that are required for the information service, use the Silk Test installer. For additional information, see *Installing the Silk Test Information*
- To run tests on Apple Safari, the user that has installed the information service needs to be logged in on the Mac.

Tip: Micro Focus recommends to set the Mac to automatically log in the correct user during startup. For additional information, see Set your Mac to automatically log in during startup.

- To run unattended tests against Apple Safari on a Mac, adjust the following energy-related settings in the **Energy Saver** pane of the **System Preferences**:
 - Set Turn display off after to Never.
 - Check the Prevent computer from sleeping automatically when the display is off check box.



- To run unattended tests against Apple Safari on a Mac, disable the screen saver.
 - 1. Navigate to System Preferences > Desktop & Screen Saver.
 - Click the Screen Saver tab.
 - Set Start screen saver to Never.



- If you are testing with Apple Safari 10.1, enable the Safari developer menu. Choose Safari > Preferences, click Advanced, and check Show develop menu in menu bar.
- If you are testing with Apple Safari 10.1, enable remote automation. In the Safari developer menu, check Allow Remote Automation.
- When executing a test for the first time against Apple Safari 10.1, you need to provide a password.

Installing the Silk Test Information Service on a Mac



Note: To install the information service on a Mac, you require administrative privileges on the Mac.

To create and execute tests on a Mac using Apple Safari or using iOS or Android devices, install the Silk Test information service (information service) on the Mac. Once the information service is installed and active, you can record and replay tests from a Silk Test client that is installed on a Windows machine.



Note: You cannot record on a Mac. To add a Mac as a test location to Silk Test, see Editing Remote Locations in the Silk Test documentation. .

To install the information service on a Mac:

- 1. Read the information in the topic Prerequisites for Testing with Apple Safari on a Mac in the Silk Test
- 2. Ensure that a Java JDK is installed on the Mac.
- 3. If you want to test mobile applications on an iOS device, ensure that Xcode is installed on the Mac.
- 4. Access the information service setup file, SilkTestInformationService<Version>-<Build Number>.pkg.
 - If you have downloaded the information service setup file while installing Silk Test, open the folder macOS in the Silk Test installation directory, for example C:\Program Files (x86)\Silk
 - If you have not downloaded the information service setup file while installing Silk Test, you can download the setup file from *Micro Focus SupportLine*.
- 5. Copy the file SilkTestInformationService<Version>-<Build Number>.pkg to the Mac.
- 6. Execute SilkTestInformationService < Version > < Build Number > .pkg to install the information service.
- Follow the instructions in the installation wizard.

- 8. When asked for the password, provide the password of the currently signed in Mac user.
- 9. When Apple Safari opens and a message box asks whether to trust the SafariDriver, click Trust.



Note: If you want to test against Apple Safari 10 or prior on macOS 10.12 (Sierra) or prior, SafariDriver needs to be installed on the Mac. You can only install the SafariDriver if you are directly logged in to the Mac, and not connected through a remote connection.

- 10. To complete the installation, the installer logs the current Mac user out. To verify that the information service was installed correctly, log in to the Mac.
- 11. If you are installing the information service on a Mac with macOS Mojave (10.14) or later, you might have to enable additional automation permissions for Silk Test after logging in to the Mac.

If permissions need to be granted, Silk Test will automatically show request permission dialogs.

- a) Click **OK** to acknowledge the information dialog.
- b) Click **OK** in all sub-sequent request permission dialogs.



Important: If you do not enable these permissions for Silk Test, you will not be able to test web applications against Google Chrome or mobile applications on an iOS device or on a Simulator on this Mac. If by mistake you have clicked **Don't Allow** in one of the permission dialogs, open a terminal on the Mac and type the following command:

```
sudo tccutil reset AppleEvents
```

Then restart the Mac and accept the permission dialogs by clicking **OK**.

12. Click on the Silk Test icon in the top-right corner of the screen to see the available devices and browsers.



Tip: If the Silk Test icon does not appear, restart the Mac.

What To Do Next

Try the tutorials

If you are new to Silk Test, we recommend that you try the Silk Test tutorials, available from (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Documentation > Tutorials.

Upgrading Silk Test to a New Version

To upgrade Silk Test to a new version, perform the following actions:

- 1. File a support incident to upgrade your Silk Test licenses.
- 2. Use the Silk Meter Policy Administrator to import the upgraded licenses into your license server.



Note: You do not need to upgrade your license server.

Configuring a Silk Test Workbench **Database**

To store any assets and settings, Silk Test Workbench requires a database. The default Silk Test Workbench installation, includes a Microsoft Access database designed for single user operation. For professional enterprise operation, Silk Test Workbench supports Microsoft SQL Server and Oracle databases. To use Microsoft SQL Server or Oracle databases with Silk Test Workbench, create and configure the database on a central server machine and, on each client machine, create a data source name (DSN) that targets the central database. Micro Focus recommends using Microsoft SQL Server for long term automation projects with multiple users contributing to the same project.

For information about the supported databases, refer to the *Release Notes*.



Note: If a database is updated when a new version of Silk Test Workbench is installed, all Silk Test Workbench users that use this database need to update to the new version of Silk Test Workbench.



Note: Silk Test cannot use 64-bit DSNs. You can review the default DSNs and ODBC drivers for 64-bit machines using the WOW64 tools, which are located at C:\Windows\SysWow64.

Configuring an SQL Server Database



Important: We recommend that a database administrator or person with general knowledge of database administration performs the database setup and configuration.

Silk Test Workbench stores and accesses test assets stored in a database configured for use with Silk Test Workbench. This section describes how to configure the following SQL Server databases to use as a Silk Test Workbench database.

For information about new features, supported platforms, and tested versions, refer to the *Release Notes*.

SQL Server Requirements

A SQL Server database configured for use with Silk Test Workbench has the following requirements:

- Each computer running Silk Test Workbench must be able to access the computer where the SQL Server database resides and have a new data source configured.
- Silk Test Workbench must be installed on all computers accessing the database.
- The Silk Test Workbench database connection file must be configured to point to the SQL Server database.
- The user that is used to connect to the SQL Server database must have the VIEW_SERVER_STATE permission on the database.



Note: Silk Test cannot use 64-bit DSNs. You can review the default DSNs and ODBC drivers for 64-bit machines using the WOW64 tools, which are located at C:\Windows\SysWow64.

For additional information about maintaining a Silk Test Workbench database, refer to the Silk Test Workbench Help.

Creating a New SQL Server Database

This section describes how to create a SQL Server database using SQL Server Management Studio. In addition to the following procedures, you must also populate the database with Silk Test Workbench tables using the Silk Test Workbench Database Maintenance utility.

- 1. In the Object Explorer of SQL Server Management Studio, right-click the **Databases** folder and choose New Database. The New Database dialog box opens.
- 2. Enter a name for the database in the **Database name** text box.
- 3. Click OK.

Creating a New SQL Server Admin User

A SQL Server user with system administrator rights is required to perform subsequent setup steps.

This user requires the following permissions:

- Either sysadmin or both db_ddladmin and db_owner.
- db_datareader.
- db datawriter.

These permissions are required because the user needs to be able to create indexes by using the CREATE INDEX (Transact-SQL) statement. Once the Silk Test Workbench database has been created, all users who connect to the database only require db_datareader and db_datawriter permissions.

- 1. To create a new user with system administrator rights, perform the following steps:
 - a) In the Object Explorer of SQL Server Management Studio, navigate to the Security folder and expand it.
 - b) Right-click the **Logins** folder and choose **New Login**. The **Login New** dialog box opens.
 - c) Select the **General** page, and then enter a user name in the **Login name** text box.
 - d) Select SQL Server Authentication and enter a password.
 - e) Select the default database from the Default database list.
 - f) Select the Server Roles page, and then check the sysadmin check box in the Server roles list.
 - g) Select the **User Mapping** page.
 - h) In the **Map** column, check the check box for the database that the new login can access. By default, the login name appears in the **User** column. Leave this value.
 - i) In the **Database role membership for** list, check the **db owner** check box.
 - i) Click OK.
- 2. To create a new schema for the new user, perform the following steps:
 - a) In the **Object Explorer**, navigate to the database in which you want to create a schema.
 - b) Expand the database object tree to show the **Schemas** folder.
 - The **Schemas** folder is a child of the **Security** folder for the database.
 - For example, if you are adding a schema to the *master* database, expand the following folders to show the Schemas folder: Databases > System Databases > master > Security.
 - c) Right-click the **Schemas** folder and choose **New Schema**.
 - d) In the **Schema name** text box, type a name for the new schema.
 - The new schema name must match the name of the previously created user with system admin rights.
 - e) Assign the new user with system administrator rights as the owner of the schema.
 - f) Click OK.
- **3.** To add the schema to the database, perform the following actions:
 - a) Expand the database object tree to show the **Users** folder.
 - The **Users** folder is a child of the **Security** folder for the database.
 - For example, if you are adding a schema to the *master* database, click **Databases > System** Databases > master > Security > Users.
 - b) Double-click the admin user you have just created. The **Database User** dialog box appears.
 - c) Select the **Owned Schemas** page and check that the schema you have just created has been assigned to the new database.

Setting Up Users in SQL Server

The following procedure should be performed on the database server computer for each user who needs to connect to the SQL server database.

- 1. In the Object Explorer of SQL Server Management Studio, navigate to the Security folder and expand it. Right-click the Logins folder and choose New Login. The Login - New dialog box opens.
- 2. Select the General page, and then enter a name for the database in the Login name text box.
- 3. Select either Windows Authentication or SQL Server Authentication.
- 4. Select the default database from the **Default database** list.
- 5. Select the **User Mapping** page.
- In the Map column, check the check box for the database that your login can access. By default, the login name appears in the **User** column. Leave this value.
- 7. In the **Default Schema** column, enter the default schema. For use with Silk Test Workbench, the default schema must match the schema of the previously created user with system admin rights.
- 8. In the Database role membership for list, leave the default option public selected.
- 9. Check the db datareader and db datawriter check boxes.
- 10.Click OK.



Important: To use SQL Server Express with multiple users, each SQL Server Express installation must be enabled for remote connectivity. To enable SQL Server Express for remote connectivity, refer to the Microsoft support article How to enable remote connections on SQL Server.

Preparing the SQL Server Silk Test Workbench **Database**



Note: SQL Server Authentication Mode must be set to: SQL Server and Windows (Mixed Mode) to allow connection to the SQL Server database through the Database Maintenance utility. This setting can be changed after any database maintenance tasks are performed.



Note: You can only perform the tasks described in this topic if the SQL Server database is empty.

You must prepare your new SQL Server database for use with Silk Test Workbench. This section describes how to use the Database Maintenance utility to populate the database with Silk Test Workbench tables.

- 1. Click (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Administration > Database Maintenance or (in Microsoft Windows 10) Start > Silk > Database Maintenance. The Database Maintenance utility starts.
- 2. Click File > New Database > SQL Server. The SQL Server Data Source Connection dialog box opens.
- 3. Type the name of the new SQL Server data source or click **Browse** and select a data source name from the Select ODBC Data Source dialog box.
- 4. In the appropriate text boxes, type the name of the database owner, which is the user with the role db_owner, and the SQL Server user ID and password, and then click Create.



Note: Only one schema can be associated with a DSN name (ODBC connection). If the chosen DSN name is already associated with a schema, click **Replace** to change the association of the DSN name from its current schema to the new schema (users will no longer be able to access Silk Test Workbench tables in the old schema), or click **Alias** to create an alias for the DSN name.

You are now ready to start Silk Test Workbench and log on.

Configuring an Oracle Database

This section describes how to set up an Oracle database with Silk Test Workbench.



Note: The following instructions assume familiarity with the Oracle database management system. We recommend that a database administrator or a person with general knowledge of database administration performs database setup and configuration.

Each client computer requires an ODBC data source to connect to the database. As a result, connecting to an Oracle database for Silk Test Workbench has the following requirements:

- Each computer running Silk Test Workbench must be able to access the computer where the database resides and have a new data source configured.
- Silk Test Workbench must be installed on all computers that access the database.
- The appropriate database client connectivity software must be installed on any computer that runs Silk Test Workbench.
- The database connection must be configured for use with Silk Test Workbench.

Selecting an Authentication Method

Silk Test Workbench supports the use of either Oracle OS authentication (Windows NT) or Oracle database authentication. There are additional installation procedures required when using Oracle OS authentication.

Oracle OS Authentication

This topic provides instructions for creating users and granting connection rights when using Oracle OS authentication. Prior to performing these steps, consider the following:

- You must be a member of the ORA_DBA group and have SYSDBA privileges.
- Users must be created in such a way that Oracle knows they are authenticated via a DOMAIN controller.
- Use SQL*Plus or SQL*Plus Worksheet to create users. If you are not familiar with SQL*Plus, consult your Oracle documentation.
- Users must be created within a Windows NT domain and added to the ORA_DBA group. Refer to your Microsoft Windows documentation for more information about using a Windows domain.
- When setting up users for Silk Test Workbench in Oracle, create a schema to house the actual tables in addition to the remotely authenticated users. The schema is not domain authenticated, but is password authenticated.
- 1. Start SQL*Plus or SQL*Plus Worksheet.
- 2. Log on as SYSTEM and connect as SYSDBA.
- 3. Type commands to create each user as "DOMAIN\USERNAME" IDENTIFIED EXTERNALLY, and grant connection rights and system privileges as shown in the following example.

For each user as "DOMAIN\USERNAME". Type DOMAIN\USERNAME in uppercase and between double quotation marks, where DOMAIN\USERNAME is each user's domain and user name.

For example:

```
CREATE USER "NT-DOMAIN\JEFF" IDENTIFIED EXTERNALLY;
GRANT SELECT ANY SEQUENCE TO "NT-DOMAIN\JEFF";
GRANT UNLIMITED TABLESPACE TO "NT-DOMAIN\JEFF";
GRANT "CONNECT" TO "NT-DOMAIN\JEFF";
GRANT "RESOURCE" TO "NT-DOMAIN\JEFF";
GRANT "SELECT_CATALOG_ROLE" TO "NT-DOMAIN\JEFF";
```



Important: Microsoft operating systems return the DOMAIN\USERNAME when the user is queried. If this does not match what is defined in the database, Oracle OS authentication will fail with ORA-1017.

- Test that Oracle OS authentication is set up correctly by connecting to the database via SQL*Plus.
 - a) Type a "/" for the user name.
 - b) Leave the Password text box empty, and enter the host string appropriately.
 - c) Click **OK**. If you can log on, Oracle OS authentication is working properly.

Oracle Database Authentication

This topic provides instructions for creating users and granting connection rights when using Oracle database authentication. Prior to performing these steps, consider the following:

- You must be a member of the ORA DBA group and have SYSDBA privileges.
- Use SQL*Plus or SQL*Plus Worksheet to create users. If you are not familiar with SQL*Plus, consult your Oracle documentation.
- When setting up users for Silk Test Workbench in Oracle, create a schema to house the actual tables in addition to the remotely authenticated users. The schema is not domain authenticated, but is password authenticated.
- Start SQL*Plus or SQL*Plus Worksheet.
- 2. Log on as SYSTEM and connect as SYSDBA.
- 3. Type commands to create each user as "USERNAME" IDENTIFIED BY "ORACLEPASSWORD", and grant connection rights and system privileges as shown in the following example.

For each user as "USERNAME". Type USERNAME in uppercase and between double quotation marks, where DOMAIN\USERNAME is each user's user name.

For example:

```
CREATE USER "JEFF" IDENTIFIED BY "ORACLEPASSWORD";
GRANT SELECT ANY SEQUENCE TO "JEFF";
GRANT UNLIMITED TABLESPACE TO "JEFF";
GRANT "CONNECT" TO "JEFF";
GRANT "RESOURCE" TO "JEFF";
GRANT "SELECT_CATALOG_ROLE" TO "JEFF";
```

Creating a New Oracle Database

Create a new Oracle database with the following character set:

- UTF8 with Oracle versions prior to Oracle 12.
- AL32UTF8 with Oracle 12 or later.

For more information, refer to the Oracle product documentation.

Setting Up Oracle OS Authentication



Note: This procedure is only necessary if you use Oracle OS authentication. If you use Oracle database authentication, continue by setting up the Oracle client.

- 1. On the server where the database is located, locate the Oracle Initialization file in the directory where Oracle was installed.
- 2. In the Oracle Initialization file, set values for the following parameters:

```
• remote_login_passwordfile = none
```

- remote_os_authent = true
- os_authent_prefix = ""

Note: If any of the parameters and values do not exist, you must add them. In Oracle 11g, the remote_os_authent and os_authent_prefix parameters are set by default.

3. Locate the SQLNET.ORA file in the directory where Oracle was installed.

The file is located in ORACLE_HOME\Network\Admin directory under the main Oracle installation directory where ORACLE_HOME is the name assigned for the Oracle home during installation.

4. Open SQLNET.ORA and set the value of the following parameter as follows:

```
sqlnet.authentication services = (NTS)
```



Note: Ensure this parameter is not commented out with a # at the beginning of the line. You may need to add this parameter.

- 5. Access the Run dialog box from the Start menu.
- 6. In the Open text box, type regedit and then click OK. The Registry Editor dialog box opens.
- 7. In the path HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\HOMEn (where n is the number associated with the Oracle installation), right-click HOMEn and choose New > String Value. A new string value appears in the right pane of the registry editor.
- 8. Replace the default name, New Value #1 with OSAUTH_PREFIX_DOMAIN.
- 9. Double-click the string value you just created. The Edit String dialog box opens.
- **10.** In the Value data text box, type TRUE and then click **OK**.

Setting Up the Oracle Client

On the client computer from which you will connect:

1. Locate the SQLNET.ORA file in the directory where Oracle was installed.

The file is located in ORACLE HOME\Network\Admin directory under the main Oracle installation directory where ORACLE HOME is the name assigned for the Oracle home during installation.

2. Open SQLNET. ORA and set the value of the following parameter as follows:

```
sqlnet.authentication_services = (NTS)
```



Note: Ensure this parameter is not commented out with a # at the beginning of the line. You may need to add this parameter.

3. Open the TNSNAMES.ORA file in the directory where Oracle was installed.

This file is located in ORACLE_HOME\Network\Admin directory.

4. Copy the server's database entry to the TNSNAMES.ORA file on the client computer. For example:

```
ORACLE_SID.DOMAIN.COM=
(DESCRIPTION=
(ADDRESS_LIST=
(ADDRESS=(PROTOCOL=TCP)(HOST=SERVERNAME)(PORT=1521))
(CONNECT_DATA=
(SERVICE_NAME=ORACLE_SID)
```

Preparing the Oracle Database for Client Connectivity



Note: This procedure is only necessary if you are using Oracle OS authentication and an Oracle client to set up the Silk Test Workbench database. If you are using Oracle database authentication, you can begin to set up users.

1. On the computer that has User Manager for Domains, access the Windows Control Panel, and then choose Administrative Tools > Computer Management

The Computer Management utility opens.

- 2. In the tree view, click Local Users and Groups.
- Click Groups.

If Oracle is installed, you should see a group named ORA DBA. If not, you must add it.

Next, create server access for users.

Creating the ORA_DBA Group

- 1. In the tree view of the Computer Management utility, right-click Groups and choose New Group. The New Group dialog box opens.
- 2. In the Group Name text box, type ORA_DBA.
- Click Create.
- 4. Click Close.

Creating Server Access for Users

To create individual user accounts:

- 1. In the tree view of the Computer Management utility, click Local Users and Groups.
- 2. Click Groups.
- 3. In the right pane, double-click ORA_DBA. The ORA_DBA Properties dialog box opens.
- 4. Click Add. The Select Users, Computers, or Groups dialog box opens.
- 5. Click Advanced, then use the Common Queries tab to search for users, click Find Now and select users from the list.

Alternatively, click in the Enter the object names to select text box and type the following: domain

Where domain name is the name of the domain where the user is located and user ID is the network ID of the user you want to give access to.

- 6. Click OK to save the user information and return to the ORA_DBA Properties dialog box.
 - Repeat steps 4-6 to create any additional user accounts.
- 7. Click **OK** in the **Users Properties** dialog box to return to the **Computer Management** utility.

Setting Up Users for Silk Test Workbench in Oracle

This section provides instructions for creating users and granting connection rights for users. This procedure is necessary when using either Oracle OS authentication or Oracle database authentication. Separate instructions are provided for each type of authentication.

Oracle OS Authentication

Users must be created in such a way that Oracle knows they are authenticated via a DOMAIN controller.



Important:

When setting up users for Silk Test Workbench in Oracle, a schema must be also created to house the actual tables in addition to the remotely authenticated users. The schema is not domain authenticated, but is password authenticated. For more information, see Creating the Password Authenticated Schema.

Users must be created within a Windows NT domain. Refer to your Microsoft Windows documentation for more information about using a Windows domain.

Users must be added to the ORA_DBA group. Use SQL*Plus or SQL*Plus Worksheet to create users. If you are not familiar with SQL*Plus, consult your Oracle documentation.

The user performing these steps must be a member of the ORA DBA group and have SYSDBA privileges. To specify users that can access the Oracle database:

- Start SQL*Plus or SQL*Plus Worksheet.
- Log on as SYSTEM and connect as SYSDBA.
- 3. Type commands to create each user as "DOMAIN\USERNAME" IDENTIFIED EXTERNALLY, and grant connection rights for each user as "DOMAIN\USERNAME". Type DOMAIN\USERNAME in uppercase and between double quotation marks, where DOMAIN\USERNAME is each user's domain and user name. For example:

```
SQL> create user "NT-DOMAIN\JEFF" IDENTIFIED EXTERNALLY;
SQL> grant connect, resource to "NT-DOMAIN\JEFF";
```



Note: SELECT ANY SEQUENCE and SELECT CATALOG ROLE must also be granted to the user. For example:

```
SQL> grant select any sequence to "JEFF";
SQL> grant select_catalog_role to "JEFF";
```

Microsoft operating systems return the DOMAIN\USERNAME when the user is queried. If this does not match what is defined in the database, NT authentication will fail with ORA-1017.

4. Test that Windows NT authentication is set up correctly by connecting to the database via SQL*Plus. Type a "/" for the user name. Leave the **Password** field blank, and enter the host string appropriately. Click **OK**. If you are able to log on, Windows NT authentication is working properly.

Oracle Database Authentication



Important: When setting up users for Silk Test Workbench in Oracle, a schema must also be created to house the actual tables in addition to the remotely authenticated users. The schema is password authenticated. For more information, see Creating the Password Authenticated Schema.

Use SQL*Plus to create users. If you are not familiar with SQL*Plus, consult your Oracle documentation. The user performing these steps must be a member of the ORA DBA group and have SYSDBA privileges.

To specify users that can access the Oracle database:

- Start SQL*Plus or SQL*Plus Worksheet.
- Log on as SYSTEM and connect as SYSDBA.
- 3. Type commands to create each user as "USERNAME" IDENTIFIED BY "ORACLEPASSWORD", and grant connection rights for each user as "USERNAME". Type USERNAME in uppercase and between double quotation marks, where DOMAIN\USERNAME is each user's user name. For example:

```
SQL> create user "JEFF" IDENTIFIED BY "ORACLEPASSWORD";
SQL> grant connect, resource to "JEFF";
```



Note: SELECT_ANY_SEQUENCE, SELECT_CATALOG_ROLE, and SELECT_ANY_DICTIONARY must also be granted to the user. For example:

```
SQL> grant select any sequence to "JEFF";
SQL> grant select_catalog_role to "JEFF";
SQL> grant select any dictionary to "JEFF";
```

Creating the Password Authenticated Schema

To set up the password authenticated schema into which the Silk Test Workbench tables are stored, perform the following steps:



Note: The password authenticated schema should not be more than five characters in length because of Oracle character limitations in SQL series.

- Start SQL*Plus or SQL*Plus Worksheet.
- 2. Log on as SYSTEM and connect as SYSDBA.
- 3. Type commands to create each user as "USERNAME" IDENTIFIED BY "ORACLEPASSWORD", and grant connection rights for each user as "USERNAME".

Type USERNAME in uppercase and between double quotation marks, where USERNAME is each user's user name. For example:

```
SQL> create user "TOM" IDENTIFIED BY "ORACLEPASSWORD";
SQL> grant connect, resource to "TOM";
```

Preparing the Oracle Database

You must prepare your new Oracle database for use with Silk Test Workbench. This section describes how to use the **Database Maintenance** utility to populate the database with Silk Test Workbench tables.

- Click (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Administration > Database Maintenance or (in Microsoft Windows 10) Start > Silk > Database Maintenance. The Database Maintenance utility starts.
- 2. Click File > New Database > Oracle. The Oracle Data Source Connection dialog box opens.
- 3. Type the name of the new Oracle data source or click **Browse** and select a data source name from the Select ODBC Data Source dialog box.
- 4. In the appropriate boxes, type the name of the Oracle user ID, and password, and then click Create. The **Schema** box is filled in automatically with the same information as the User ID.

You are now ready to start Silk Test Workbench and log on.

Setting Up a SQL Server or Oracle Database Without a **Domain**

We strongly recommend that you use authentication within a domain when setting up an Oracle or SQL Server database with Silk Test Workbench. However, if you are not on a domain, it is still possible to set up these databases.

This section provides specific instructions for setting up a SQL Server or Oracle database with a domain.

Creating Users Without a Domain

To set up a SQL Server or Oracle database without a domain, you must first create a user account on both the client and server computers.



Note: This procedure only applies when using Windows NT authentication.

1. Access the Windows Control Panel, and then choose Administrative Tools > Computer Management

The Computer Management utility opens.

- 2. In the left pane, click Local Users and Groups.
- 3. Under Local Users and Groups, right-click the Users folder and choose New User. The New User dialog box opens.
- 4. Type a valid user name in the User name text box, and the corresponding user's full name in the Full Name text box.

- 5. Type a valid password in both the **Password** and **Confirm password** text boxes, and then click **Create**.
- 6. Repeat these steps on each client computer using the username and password.

Setting Up SQL Server Without a Domain

To set up SQL server without a domain:

 Access the Windows Control Panel, and then choose Administrative Tools > Computer Management

The Computer Management utility opens.

- 2. In the left pane, expand Local Users and Groups, and then click Groups.
- In the right pane, double-click Users.

The **Users Properties** dialog box opens.

4. Click Add.

The Select Users, Computers, or Groups dialog box opens.

- Click Advanced, then use the Common Queries tab to search for users.
- Click Find Now, and then select users from the list.

Alternatively, click in the Enter the object names to select text box and enter the [user ID] of the user you want to give access.[user ID],:

- 7. Click **OK** to save the user information and return to the **Users Properties** dialog box.
- 8. Repeat the previous steps to create additional user accounts.
- 9. Click OK.

Setting Up an Oracle Database Without a Domain

To set up Oracle without a domain, follow the procedure for creating server access for individual user accounts; however, substitute the user name you created in the procedure for creating users without a domain.

1. In the Enter the object names to select text box, type the user name instead of [domain name] [user ID] **or** [domain name]\[group name].

The Computer Management utility appears.

2. Set up users.

When using SQL*Plus to create users, substitute [computer name\user name] for [domain name \user name] as shown in the following example.

```
SQL> create user "FH0002RED\USER1" IDENTIFIED EXTERNALLY;
SQL> grant connect, resource to "FH0002RED\USER1";
```



For the [computer name\user name], use uppercase and enclose in quotes.

Creating a Data Source Name

To work with a database that you have set up for Silk Test Workbench, use the ODBC utility to create a data source name (DSN) for the Silk Test Workbench database on each machine that connects to the database.



Note: This step does not apply to default Access databases installed by the Silk Test Workbench installer. For these databases, a data source name is automatically created.

Creating a Data Source Name for an Access Database

On each client computer connecting to an Access database, perform the following steps to set up a DSN:

- 1. Navigate (in Microsoft Windows 7) to Start > Silk > Silk Test > Administration > Data Sources (ODBC) or (in Microsoft Windows 10) to Start > Windows Administrative Tools > ODBC Data Sources (32-bit). The ODBC Data Source Administrator dialog box opens.
- 2. Click the System DSN tab, then click Add. The Create New Data Source dialog box opens. This dialog box lists the available ODBC drivers.
- 3. From the list of drivers, select the Microsoft Access Driver and click Finish. The ODBC Microsoft Access Setup dialog box opens.
- **4.** In the **Data Source Name** text box, type the data source name.

Enter a logical name as this name appears as the database name in the logon dialog box.

- **5.** In the **Description** text box, type a description for the data source. For example, Connection to Silk Test Workbench database.
- 6. Click **Select** and browse for your Access database.
- 7. On the ODBC Microsoft Access Setup dialog box, click OK.
- 8. On the ODBC Administrator dialog box, click OK to complete the process.

Creating a Data Source Name for a SQL Server **Database**



Note: Silk Test Workbench cannot use 64-bit DSNs. To create a DSN for a 64-bit machine, click (in Microsoft Windows 7) Start > Silk > Silk Test > Administration > Data Sources (ODBC) or (in Microsoft Windows 10) Start > Windows Administrative Tools > ODBC Data Sources (32-bit) and create a 32-bit DSN. You can also use the WOW64 tools located at C:\WINDOWS \SysWOW64\odbcad32.exe.

On each client computer connecting to a SQL server database, perform the following steps to set up a DSN:

- 1. Navigate (in Microsoft Windows 7) to Start > Silk > Silk Test > Administration > Data Sources (ODBC) or (in Microsoft Windows 10) to Start > Windows Administrative Tools > ODBC Data Sources (32-bit). The ODBC Data Source Administrator dialog box opens.
- 2. Click the System DSN tab, then click Add. The Create New Data Source dialog box opens. This dialog box lists the available ODBC drivers.
- 3. From the list of drivers, select the ODBC Driver 11 for SQL Server and click Finish. The Create a New Data Source to SQL Server dialog box opens.
- **4.** In the **Name** box, type the data source name.

Enter a logical name as this name appears as the database name in the logon screen.

- **5.** In the **Description** text box, type a description for the data source. For example, Connection to Silk Test Workbench database.
- 6. In the Server text box, enter the server name or select it from the drop-down list.
- 7. Click Next.
- **8.** Perform one of the following:
 - If user(s) using the DSN to access the SQL Server database are connecting with non-native credentials, select the With Windows authentication using the network login ID option.
 - If user(s) using the DSN to access the SQL Server database are connecting with native authentication, select the With SQL Server authentication using a login ID and password entered by the user option. Make sure the Connect to SQL Server to obtain the default settings

for the additional configuration options check box is checked. Type the users native SQL Server logon credentials in the Login ID and Password text boxes.

- Click Next.
- 10. Check the Change the default database to check box, and then select your database name from the
- 11. Accept all the other entries and click Next until the last panel in the wizard appears.
- 12. Accept the defaults and click Finish.
- 13. To test the connection, click Test Data Source. The SQL Server ODBC Data Source Test dialog box opens.
- 14.Click OK.

The **ODBC Data Source Administrator** dialog box reappears. The newly created data source appears in the System Data Sources list.

15.Click OK.

Creating a Data Source Name for an Oracle Database



Note: Silk Test Workbench cannot use 64-bit DSNs. To create a DSN for a 64-bit machine, click (in Microsoft Windows 7) Start > Silk > Silk Test > Administration > Data Sources (ODBC) or (in Microsoft Windows 10) Start > Windows Administrative Tools > ODBC Data Sources (32-bit) and create a 32-bit DSN. You can also use the WOW64 tools located at C:\WINDOWS \SysWOW64\odbcad32.exe.

On each client computer connecting to an Oracle database, perform the following steps to set up a DSN:

- 1. Navigate (in Microsoft Windows 7) to Start > Silk > Silk Test > Administration > Data Sources (ODBC) or (in Microsoft Windows 10) to Start > Windows Administrative Tools > ODBC Data Sources (32-bit). The ODBC Data Source Administrator dialog box opens.
- 2. Click the System DSN tab, then click Add. The Create New Data Source dialog box opens. This dialog box lists the available ODBC drivers.
- 3. From the list of drivers, select the appropriate Oracle ODBC driver for the version of Oracle database being used (not the Microsoft ODBC for Oracle driver), and then click Finish. The Oracle ODBC Driver Configuration dialog box opens.
- **4.** In the **Oracle Data Source Name** text box, type the data source name.

Enter a logical name as this name appears as the database name in the logon dialog box.

- 5. In the **Description** text box, type a description for the data source. For example, Connection to Silk Test Workbench database.
- 6. In the TNS Service Name text box, select the service name for the database you want to connect to in the format ORACLE_TNS.DOMAIN, where ORACLE_TNS is usually the Oracle SID that was assigned to the database upon creation and DOMAIN is the domain to which you are connecting. The domain is usually optional.



Note: To connect Silk Test Workbench, the TNS service name is mandatory.

- 7. If using Oracle authentication, type a valid user ID for the database being connected to in the User ID text box. Otherwise, leave the User ID text box empty.
- **8.** To test the connection, click **Test Connection**.



Note: When using Oracle database authentication, type a username, and then a password. For Oracle OS authentication, do not specify a username.

A message box appears stating the connection was successful.

9. Click OK.

Connecting to a Database

After installing Silk Test Workbench and configuring a database, you must create a database connection. This connection defines the relationship between a Silk Test Workbench database and the local Silk Test Workbench installation. This section contains topics describing how to log on and create a database connection.

Logging On

- 1. Click (in Microsoft Windows 7) Start > Programs > Silk > Silk Test > Clients > Silk Test Workbench or (in Microsoft Windows 10) Start > Silk > Silk Test Workbench. Silk Test Workbench starts and displays the Login to SilkTest Workbench dialog box.
- 2. From the Authentication list box, select if you want to use the Silk Test Workbench authentication, or the Windows authentication.
- Note: You can use the Windows authentication only for users that were added to the Silk Test Workbench users by using **Tools** > **Administration**.
- 3. If you are using the Silk Test Workbench authentication, type a user name in the User Name field and a password in the Password field. If you are using the Windows authentication, you do not have to provide a user name and password.
- Note: If you are using Silk Test Workbench for the first time, an administrative user name and password may be required. The default user name is Admin and the default password is admin. Change this password after logging on to prevent unauthorized access. You can change your logon password at any time.
- 4. Select the database to use from the **Database** list.
 - For a database to appear in the **Database** list, you must first configure its database connection for use. To configure a database connection, click **Configure** on the **Logon** dialog box.
- 5. Click OK.
 - If you are the first user that is logging in to this database, Silk Test Workbench will create a default project named Project1 in the database. All assets that you create will be stored by default into this project. You can change the project name by clicking Edit Project.
 - The **Start Screen** opens. If you are logging in to Silk Test Workbench for the first time, Silk Test Workbench selects Project1 or the first available non-global object as the active object.

Changing Your Logon Password

Use the following procedure to change your logon password.

- 1. Click Tools > Change Password. The Change Password dialog box opens. The logon name of the current user displays in the title bar of the dialog box.
- 2. Change your password and then click **OK**. Changes take effect the next time the User ID is used to log on.

Configuring a Database Connection

Before you can use a database with Silk Test Workbench, you must configure its database connection. The configuration process consists of using the Configure Database Connection dialog box to perform the following tasks:

- Specify the database connection data required to initiate the database connection.
- Verify the connection to the database.

Save the database connection data.

All configured database connections appear in the **Database** list that is located on the Silk Test Workbench dialog box.

You can also use the **Configure Database Connection** dialog box to view, edit, and remove any existing configured database connections.



Note: Before configuring a database connection for use with Silk Test Workbench, you must create and configure a database instance and ODBC Data Source Name (DSN).



Note: Silk Test Workbench cannot use 64-bit DSNs. To create a DSN for a 64-bit machine, click (in Microsoft Windows 7) Start > Silk > Silk Test > Administration > Data Sources (ODBC) or (in Microsoft Windows 10) Start > Windows Administrative Tools > ODBC Data Sources (32-bit) and create a 32-bit DSN. You can also use the WOW64 tools located at C:\WINDOWS \SysWOW64\odbcad32.exe.

- 1. Click Configure on the Login to Silk Test Workbench dialog box. The Configure Database Connection dialog box opens.
- 2. In the **Data Source Type** section, select the type of data source.
- 3. From the Select Data Source list, select from the list of available DSNs.
- 4. Check the Use as a Silk Test Workbench database check box to add the selected DSN to the list of configured database connections that appear in the Database list on the Login to Silk Test Workbench dialog box.
 - You must check this check box when configuring a database connection for the first time. For existing configured database connections, unchecking the Use as a Silk Test Workbench database check box and clicking Apply removes the selected DSN from the Database list on the dialog box. Silk Test Workbench does not retain the associated database connection data.
- 5. In the **Database Settings** section, specify the appropriate information for the selected DSN. For Access, the **Database** box is read-only and displays the location of the database file. This value is read directly from the ODBC DSN. The other Database Settings text boxes are not applicable for Access and are disabled. For Oracle, the Server text box is read-only and displays only the database name. This value is read directly from the ODBC DSN.
- 6. In the Database box, type the appropriate value. For SQL Server/MSDE, the Database text box is modifiable and allows you to type the appropriate database name.
- 7. In the **Owner** box, type the appropriate value.
- 8. Select a type of authentication.
 - Authentication options only apply to Oracle or SQL Server/MSDE databases. You can choose to use either Windows NT authentication or authenticate using the database's native authentication capabilities. When selecting database authentication, you must provide the user name and password in the appropriate text boxes.
- 9. Optional: Click Export to save the currently selected database configuration to an encrypted file. This button is only enabled if the currently selected database is configured as a Silk Test Workbench
- 10. Optional: Click Import to add configuration information for a database from an encrypted file.
- 11.Click Validate to verify that you can connect to the database using the specified database connection
- **12.**Click **Apply** to save the database connection data.
- 13. Click Close to dismiss the dialog box.

Sharing Database Configurations

Share database configurations to configure the same database with the same settings on multiple machines.

1. Configure a database on a machine.

For additional information, see Configuring a Silk Test Workbench Database.

2. Configure the database connection.

For additional information, see Configuring a Database Connection.

3. Use the Configure Database Connection dialog to export the database configuration file.

For additional information, see Configuring a Database Connection.

- 4. On each machine with which you want to share the database configuration, perform the following actions.
 - a) Open a file explorer.
 - b) Navigate to the directory %PROGRAMDATA%\Silk\SilkTest Workbench.
 - c) Create a new sub-folder named Automatic Database Configurations.
 - d) Copy the database configuration file into the new folder.

The next time Silk Test Workbench is started on one of these machines, it automatically creates a DSN and saves the configuration information for this database. The new database will be available to choose in the Silk Test Workbench login dialog.

The following rules apply for shared database configurations:

- You cannot edit database configurations that are shared through the Configure Database Connection dialog.
- If the database configuration info changes, you can replace the existing database configuration file with a new version of the file. Silk Test Workbench will detect that the file has changed, and will update the database configuration appropriately.
- If the database configuration is no longer required on a specific machine, delete the file from the %PROGRAMDATA%\Silk\SilkTest Workbench\Automatic Database Configurations directory. The next time the Silk Test Workbench is started on this machine, it will delete the DSN and the configuration information for this database.

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