MICRO FOCUS

Silk Performer 21.0

Installation Guide

Contents

Introduction

This Help provides all the information you need to install and uninstall Silk Performer and to prepare the load testing environment. It suggests hardware, software, and operating system requirements and offers alternative installation options.

During the installation, the setup wizard confirms that all the software you need for installation and use of Silk Performer is available on your computer. If this is not the case, the setup wizard provides options for installing the missing software.

System Requirements

The following sections describe the system requirements for installing and running Silk Performer.

To run the Silk Performer agent software, or both controller and agent software, and to use the full potential of Silk Performer to run large-scale load tests, your system must meet the following minimum requirements:

Hardware Requirements

System Area	Requirement
Processor	Intel Core 2 Duo or equivalent CPU
RAM	4 GB
Hard disk space	2.5 GB for controller software installation
	1 GB for agent-only installation
	Depending on the size of your load tests, make sure you have enough space on your hard disk for result files.
Network	Network connectivity to the system under test and to all Silk Performer agent computers.

Operating System Requirements

- Both the Silk Performer controller and the Silk Performer agent can be installed on Microsoft Windows 8.1 or newer, or Microsoft Windows Server 2012 or newer.
- Installing the network emulation driver is currently not supported for Microsoft Windows 10 and Microsoft Windows Server 2016 and 2019.

Software Requirements

To install and run Silk Performer, your system requires a minimum set of software components.

The required components vary based on installation type. For example, to run Silk Performer Java Explorer, your system must be equipped with the appropriate Java Development Kit. Download components from the respective websites.

- Internet Explorer 11, Google Chrome, Mozilla Firefox, Microsoft Edge, or Opera for browser-driven load testing.
- PDF viewer to view documentation .
- Citrix Receiver for Microsoft Windows 4.9.7 (LTSR) or later to test Citrix applications.
- Java Runtime Environment (JRE): Both 32- and 64-bit versions are required on 64-bit operating systems.

- Java Development Kit 7, 8 (32-bit) to test Java applications with Java Explorer.
- Visual Studio 2015, 2017, or 2019 for Visual Studio extension.

Working with Silk Performer on a multi-user system

Silk Performer can be installed on a machine with terminal services enabled for multi-user access. In general, it is not recommended to work in multiple sessions simultaneously. If you want to do so nevertheless, keep the following in mind:

- **Recording:** The Silk Performer Recorder uses a system-wide hooking mechanism. If one user starts the Recorder, the traffic of all other users might be recorded as well.
- **Workbench:** Multiple users can work on different projects simultaneously. Working on the same project is not recommended. The project will be opened in read-only mode for the second and all further users.
- **Executing tests:** Multiple users can execute tests simultaneously from one machine. However, multiple simultaneously running tests will influence each other as they share the same resources (CPU, memory, network bandwidth).
- **Monitoring tests:** Performance Explorer does not differentiate between test metrics of multiple running tests. Therefore, real-time values of the wrong test might be displayed.

Performance and Scalability Matrix

Maximum VUsers per Agent Computer

The following table shows the recommended maximum number of virtual users per agent computer based on the hardware resources of the agent computer and the type of tested web application.

Note: Testing of applications utilizing SSL reduces VUser capacity by 35%. Testing with TrueLog on Error enabled reduces VUser capacity by 30%. Testing a web application using low-level APIs (Web Low Level) increases VUser capacity by 20%.

System	OS	Web Business App	Web Business App with SSL (-35%)	TrueLog on Error (-30%)	TrueLog on Error with SSL	Web Low Level (+20%)
Intel Xeon Quadcore 3 GHz, 16 GB RAM	Windows Server 2008 R2	6500	4225	4550	2958	7800
Intel Core i7 Quadcore 2.8 GHz, 8 GB RAM	Windows 8.1	6500	4225	4550	2958	7800
Intel Core2 Duo 3 GHz, 4 GB RAM	Windows 7 Enterprise	4700	3055	3290	2139	5640

Note: Web Business App uses page-level APIs (HTML/HTTP). Web Low Level uses low-level APIs (HTTP).

VUsers per Cloud Agent

Note: The maximum number of VUsers per cloud-based agent is 1,000 regardless of the type of the tested application.

The following table shows the number of VUsers that can typically be supported per cloud-based agent, based on the type of the tested application.

Application Under Test	Supported VUsers per Cloud-Based Agent
Browser-Driven Load Testing	5
Java/.NET	250
Secure Web (SSL)	600
Web	800

Test Parameters

The numbers in the previous tables were determined by using a realistic workload with the following characteristics:

- The page structure of all requested web pages corresponds to popular public web pages.
- The average think time between page views for virtual users was 32 seconds.
- A single virtual user was emulated with four concurrent connections.

As a result, the number of simulated virtual users corresponds to a realistic number of concurrent users accessing a popular web site, providing the following information:

- Average hits per page: 39
- Average page size: 130 KB
- Average think time between pages: 32 sec

Agent Capacity for Web Protocol Virtual Users

Silk Performer determines the capacity of a machine by using a formula that takes the following parameters into consideration:

- Number of CPUs
- Number of cores per CPU
- CPU speed
- Memory size

The result is the number of virtual users that can execute a web protocol script on an agent machine with the corresponding parameters.

Agent Capacity for Other Virtual User Types

To determine the number of virtual users that can run on a particular agent machine, the number of web protocol virtual users is weighted by a particular factor that depends on the used technology.

Note: For some technologies there is a maximum number of virtual users defined per machine, merely due to OS limitations rather than CPU or memory constraints.

Silk Performer Licensing

The Silk Performer licensing model is based on virtual users (VUsers).

Starting and using the Silk Performer Workbench does not require a license. You can model and customize scripts as well as adjust many other load test settings without a license. Also, executions that are performed with only one virtual user (like try script or baseline executions) do not require a license.

Starting a load test run requires licenses for the virtual users employed in the execution.

Silk Performer offers two licensing models:

- on-premise licensing
- online licensing

When you upgrade from an older Silk Performer version, new licenses are required for executing load tests with the new version. During the upgrade process, you can keep the old licenses for a period of 90 days.

Silk Performer works with three types of VUsers. Each type allows to simulate different application types:

- Web
- Standard
- Premium

VUser Type	Application Type
Web	Web Browser-Driven
	GUI-level testing in single session mode with selected web browsers
	HTTP(S) (Web browser low level)
	HTTP(S)/HTML (Web browser high level)
	HTTP(S)/XML (Web services, SOAP)
	HTTP Live Streaming (HLS)
	Silverlight
	Mobile
	SAP NetWeaver
	WebDAV (MS Outlook Web Access)
	Email (SMTP/POP)
	FTP
	TCP/IP
	UDP
	AMF0/AMF3/FLEX
	Java over HTTP
	DLL Interface
Standard	All of *Web*, plus:
	Visual Studio Extension
	Java Add-On
	DB2-CLI Add-On

VUser Type	Application Type
Premium	OCI Add-On
	ODBC Add-On
	Visual Basic Add-On (Framework)
	Directory server (LDAP)
	CORBA Add-On
	All of *Standard*, plus:
	GUI Level Testing (UFT Developer (Silk4J), UFT Developer (Silk4NET), Silk Test Classic)
	Remedy Web ARS
	SAPGUI Add-On for Silk Performer
	Oracle Applications/Forms Add-On
	PeopleSoft Add-On
	Siebel Add-On
	Citrix Add-On
	Terminal Emulation (Green-Screen) Add-On
	Tuxedo/ATMI Add-On

On-Premise Licensing

For on-premise licensing, Silk Performer provides two types of licenses:

• standalone licenses
• floating licenses

The concept of floating licenses allows license sharing among users by installing the licenses on a license server. Standalone licenses are bound to a particular machine. Each Silk product supports both licensing technologies, Silk Meter and Micro Focus AutoPass. Silk Meter is considered the native license technology and supports standalone as well as floating licenses. With AutoPass, currently only floating licensing is supported. However, AutoPass provides better usage reporting capabilities.

Note the following:

• If you have multiple license servers, you need multiple license files, each one tied to a particular license server.
• If you have received a Silk Performer license file, install the file on your license server.
• If you have not received a license file, generate one with the online license generator.

Generating a Silk Performer License

To run load tests with Silk Performer, you need a valid license. If you have purchased Silk Performer, you can use our online license generator to generate a license file. The online license generator requires an SSL-capable browser, such as Firefox or Chrome. You will receive an email with instructions on how to generate your license file. If you did not receive these instructions, contact customer care at *http:// support.microfocus.com*.

Finding the Host ID

A license must be bound to a particular machine, either the license server for floating licenses or the Silk Performer controller machine for standalone licenses. 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 Performer license file, you can install it when you install Silk Meter. If you do not have a valid Silk Performer 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 load tests with Silk Performer. 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.

   > **Attention:** You must click **No** to preserve license policies that currently exist on your Silk Meter license server.
4. 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 Configuration

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

1. Choose **Start** > **Programs** > **Silk** > **Silk Performer 21.0** > **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 qualified name, such as `licenseserver.mycompany.com`.
8. Click **Close** to complete the license configuration.

Online Licensing

Besides on-premise licenses, you can also acquire online licenses. This means that you can purchase licenses with Micro Focus credits from your CloudBurst account.

For load test executions, you can either mix on-premise and online licenses, or you can instruct Silk Performer to use just on-premise or just online licenses. Click **Settings** > **System** in the menu, click the **Licensing** tab, and select your preferred setting in the **Licensing options**.

To determine how many on-premise licenses you have, click **Help** in the menu and click **About Silk Performer**. If, for example, you have 50 **Virtual Users (Web)** on-premise licenses available but you need 60 VUsers for a planned load test, you can quickly fill up the gap of 10 VUsers with online licenses.

Online licensing can be especially useful if you need additional VUsers on short notice, or you unexpectedly require more VUsers for just a few load tests, or you require an unusually large amount of VUsers for a limited period of time. Online licensing allows you to easily and quickly increase your amount of VUsers.

Online licenses are valid for 24 hours. The time span starts when the licenses are first used. For more information around fees for online licenses, see the section *Virtual User License Fees* in the topic *CloudBurst Load Test Fees*.

Silk Performer SOA Edition Licensing

What is the Silk Performer SOA edition?

The Silk Performer SOA edition (Service Oriented Architecture) is specifically targeted at testing remote services and APIs, such as web services or remote Java and .NET components.

How does the SOA edition licensing work?

The SOA edition is a complete Silk Performer installation that is restricted by a SOA edition license. This license enables you to

- execute load tests with up to 5 virtual users
- perform .NET or Java testing
- perform basic web and XML testing

What can be tested with the SOA Edition?

To be able to test remote components, you need to create test clients first. Silk Performer offers the following approaches to create test clients:

- visual creation using Java Explorer (requires no programming)
- visual creation using .NET Explorer (requires no programming)
- recording an existing test client
- importing JUnit tests
- importing NUnit tests
- importing Java classes
- importing .NET classes

Installing Silk Performer

Silk Performer can be installed in three versions:

- Complete installation
- Agent-only installation
- SOA Edition installation

The standard installer comes with a graphical user interface (GUI) and offers all of these installation options. However, you can also install Silk Performer without a GUI and without any user interaction. This option is called *silent mode installation*.

To perform load tests with Silk Performer, you must install the complete software on at least one computer. The complete installation includes the Workbench, documentation, and sample files. The Workbench is an integrated script development environment including a load test controller and agent. To use other computers as load test agents, install the agent software on these computers.

Complete Installation

Features installed with a complete Silk Performer installation:

- Silk Performer Workbench
- Silk Performer Agent
- Performance Explorer
- TrueLog Explorer
- Java Explorer
- .NET Explorer
- all samples

Note: To avoid potential issues, make sure to run the installation with an administrator account that has unrestricted rights.

1. Download and double-click the Silk Performer installer to start the setup wizard.
2. The **Copyright Information** page displays. Click **Next** to read the **Introduction**, then click **Next** again.
3. The **License Agreement** page displays. Read the license agreement carefully. If you accept the terms of the agreement, enable the **I accept the terms of the License Agreement** check box, then click **Next**.
4. Click the **Silk Performer 21.0** install set to install a complete Silk Performer environment and click **Next**.
5. The **Customize Installation** page displays. Select the components you want to install:
    - **Silk Performer 21.0 Workbench** : Select this option to install a complete Silk Performer environment for load testing, Java and .NET applications.
    - **Advanced Installation**: Select this option to select which optional tools you want to install together with Silk Performer.
6. The **Choose Install Folder** page displays. Specify the installation folder:
    a) Click **Choose**.
    b) Specify the installation folder.
    c) Click **OK**.
    d) To restore the default installation directory, click **Restore Default Folder**.

Note: Product subfolders (for Silk Performer or TrueLog Explorer, for example) will be created automatically.

Note: Silk Performer must be installed on a local drive.

7. Select whether or not a desktop shortcut icon shall be created and click **Next**.

8. Review the information on the **Pre-Installation Summary** page.

    - 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.

    The status bar on the **Installing** page provides information about the installation process.

9. The **Choose licensing mode** page displays. Select one of the following options and click **Next**:

    - **Evaluation** – Installs an evaluation version of Silk Performer, which grants you full product functionality for 45 days. The usage is limited to 10 virtual users. To upgrade to a full version at a later point in time, contact your sales representative.
    - **Licensed** – Installs an unrestricted version of Silk Performer, which requires a Silk Performer license.

10. Depending on the components you have selected for installation, the **Select Licensing Option** page displays. If you have not installed any of the components that require licensing and the page does not open, proceed to the next step. Select one of the following options and click **Next**:

    - **Use a license server (floating licenses)**: In the **Host** field, type the name of the computer on which Silk Meter or AutoPass is installed. Do not change the default port number, (`5461` for Silk Meter, `5814` for AutoPass), unless your network administrator has defined a different port. Click **Test Connection** to verify that the license server is accessible on the specified host and port.

        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 qualified name, such as `licenseserver.mycompany.com`.

    - **Use a standalone license**: Runs Silk Meter standalone. Specify the location of your Silk Meter license file using the **Choose** button.

11. The **Network Emulation Driver Installation** page displays (this page does not display on Microsoft Windows 10 and Microsoft Windows Server 2016). The network emulation driver is required for packet loss and latency simulation. It is not required for network bandwidth simulation. Select one of the following options, then click **Next**:

    - **Install the network emulation driver**
    - **Skip network emulation driver installation**.

        Note: During installation and uninstallation of the network emulation driver, the network will be disconnected for a moment.

        Note: The network emulation driver is not compatible with all network adapters. In such a case, machines or network interfaces might no longer be accessible and the network might slow down.

        Note: The network emulation driver does not support Microsoft Windows 10 and Microsoft Windows Server 2016 and 2019.

12. The **Installation Complete** page displays. Click **Done** to complete the installation.

    Note: If a file cannot be updated during the installation because a system library is locked by Windows, you are prompted to restart your computer. If you do not restart your computer, you might experience problems when accessing Silk Performer.

    Note: In case the installation fails, you can view the log file `Install.log` in the installation folder.

Agent-Only Installation

The Silk Performer agent software needs to be installed on each computer that you want to use as a load test agent. The agent software is used to execute Silk Performer scripts on remote computers.

Note: To avoid potential issues, make sure to run the installation with an administrator account that has unrestricted rights.

1. Download and double-click the Silk Performer installer to start the setup wizard.
2. The **Copyright Information** page displays. Click **Next** to read the **Introduction**, then click **Next** again.
3. The **License Agreement** page displays. Read the license agreement carefully. If you accept the terms of the agreement, enable the **I accept the terms of the License Agreement** check box, then click **Next**.
4. Click the **Silk Performer 21.0 Agent** install set to install Silk Performer agent software only and click **Next**.
5. The **Choose Install Folder** page displays. Specify the installation folder:
   a) Click **Choose**.
   b) Specify the installation folder.
   c) Click **OK**.
   d) To restore the default installation directory, click **Restore Default Folder**.

   Note: Product subfolders (for Silk Performer or TrueLog Explorer, for example) will be created automatically.

   Note: Silk Performer must be installed on a local drive.

6. Select whether or not a desktop shortcut icon shall be created and click **Next**.
7. Review the information on the **Pre-Installation Summary** page.

   - 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.

   The status bar on the **Installing** page provides information about the installation process.

8. The **Network Emulation Driver Installation** page displays (this page does not display on Microsoft Windows 10 and Microsoft Windows Server 2016). The network emulation driver is required for packet loss and latency simulation. It is not required for network bandwidth simulation. Select one of the following options, then click **Next**:

   - **Install the network emulation driver**
   - **Skip network emulation driver installation**.

   Note: During installation and uninstallation of the network emulation driver, the network will be disconnected for a moment.

   Note: The network emulation driver is not compatible with all network adapters. In such a case, machines or network interfaces might no longer be accessible and the network might slow down.

   Note: The network emulation driver does not support Microsoft Windows 10 and Microsoft Windows Server 2016 and 2019.

9. The **Installation Complete** page displays. Click **Done** to complete the installation.

   Note: If a file cannot be updated during the installation because a system library is locked by Windows, you are prompted to restart your computer. If you do not restart your computer, you might experience problems when accessing Silk Performer.

Note: In case the installation fails, you can view the log file `Install.log` in the installation folder.

SOA Edition Installation

Features installed with the Silk Performer SOA Edition:

- SOA Workbench
- Silk Performer Agent
- Performance Explorer
- TrueLog Explorer
- Java Explorer
- .NET Explorer
- Java samples
- .NET samples

Note: To avoid potential issues, make sure to run the installation with an administrator account that has unrestricted rights.

1. Download and double-click the Silk Performer installer to start the setup wizard.
2. The **Copyright Information** page displays. Click **Next** to read the **Introduction**, then click **Next** again.
3. The **License Agreement** page displays. Read the license agreement carefully. If you accept the terms of the agreement, enable the **I accept the terms of the License Agreement** check box, then click **Next**.
4. Click the **Silk Performer 21.0 SOA Edition** install set and click **Next**.
5. The **Customize Installation** page displays. Select the components you want to install and click **Next**:

   - **Silk Performer 21.0 SOA Edition**: Select this option to install a complete Silk Performer SOA Edition environment for load testing Java and .NET applications.
   - **Advanced Installation**: Select this option to choose between either installing the tools for load testing Java applications, or for testing .NET applications.

6. The **Choose Install Folder** page displays. Specify the installation folder:

   a) Click **Choose**.
   b) Specify the installation folder.
   c) Click **OK**.
   d) To restore the default installation directory, click **Restore Default Folder**.

   Note: Product subfolders (for Silk Performer or TrueLog Explorer, for example) will be created automatically.

   Note: Silk Performer must be installed on a local drive.

7. Select whether or not a desktop shortcut icon shall be created and click **Next**.
8. Review the information on the **Pre-Installation Summary** page.

   - 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.

   The status bar on the **Installing** page provides information about the installation process.

9. The **Choose licensing mode** page displays. Select one of the following options and click **Next**:

   - **Evaluation** – Installs an evaluation version of Silk Performer, which grants you full product functionality for 45 days. The usage is limited to 10 virtual users. To upgrade to a full version at a later point in time, contact your sales representative.
   - **Licensed** – Installs an unrestricted version of Silk Performer, which requires a Silk Performer license.

10. Depending on the components you have selected for installation, the **Select Licensing Option** page displays. If you have not installed any of the components that require licensing and the page does not open, proceed to the next step. Select one of the following options and click **Next**:

- **Use a license server (floating licenses)**: In the **Host** field, type the name of the computer on which Silk Meter or AutoPass is installed. Do not change the default port number, (`5461` for Silk Meter, `5814` for AutoPass), unless your network administrator has defined a different port. Click **Test Connection** to verify that the license server is accessible on the specified host and port.

    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 qualified name, such as `licenseserver.mycompany.com`.

- **Use a standalone license**: Runs Silk Meter standalone. Specify the location of your Silk Meter license file using the **Choose** button.

11. The **Network Emulation Driver Installation** page displays (this page does not display on Microsoft Windows 10 and Microsoft Windows Server 2016). The network emulation driver is required for packet loss and latency simulation. It is not required for network bandwidth simulation. Select one of the following options, then click **Next**:

- **Install the network emulation driver**
- **Skip network emulation driver installation**.

    Note: During installation and uninstallation of the network emulation driver, the network will be disconnected for a moment.

    Note: The network emulation driver is not compatible with all network adapters. In such a case, machines or network interfaces might no longer be accessible and the network might slow down.

    Note: The network emulation driver does not support Microsoft Windows 10 and Microsoft Windows Server 2016 and 2019.

12. The **Installation Complete** page displays. Click **Done** to complete the installation.

    Note: If a file cannot be updated during the installation because a system library is locked by Windows, you are prompted to restart your computer. If you do not restart your computer, you might experience problems when accessing Silk Performer.

    Note: In case the installation fails, you can view the log file `Install.log` in the installation folder.

Installing Silk Performer in Silent Mode

The setup provides the possibility to install Silk Performer without any user interaction. This option is called *silent mode installation* and it is especially useful if you want to distribute software over a LAN or the Internet through remote installation tools.

Note: To avoid potential issues, make sure to run the installation with an administrator account that has unrestricted rights.

1. Open the folder with the installation file in a file manager.
2. Create a new text file in this folder, rename it to `silent.properties` and open it in a text editor.
3. Copy the following text lines and paste them into the file:

```
INSTALLER_UI=silent

#Choose locale
#-------------
INSTALLER_LOCALE=en
```

```
#Choose installation set
#----------------------
CHOSEN_INSTALL_SET=ENTERPRISE

#Choose installation folder
#-------------------------
#USER_INSTALL_DIR=C:\\Silk
CREATE_DESKTOP_ICON=1

#Choose licensing mode
#--------------------
USER_INPUT_RESULT_EVAL=0
USER_INPUT_RESULT_FULL=1

#Licensing settings
#------------------------
SILKMETER_RUN_AUTOPASS_LICENSING=false
SILKMETER_RUN_STANDALONE=false
SILKMETER_LICENSESERVER_HOST=localhost
SILKMETER_LICENSESERVER_PORT=5461
AUTOPASS_LICENSESERVER_HOST=localhost
AUTOPASS_LICENSESERVER_PORT=5814

#User data collection
#--------------------
ALLOW_USER_DATA_COLLECTION=1

#Network emulation driver installation
#------------------------------------
#Remove the comment in the following line to allow the driver installation
#INSTALL_NETWORKEMULATION_DRIVER=true
```

4. Modify the parameters to your needs:

- INSTALLER_LOCALE: Specify a language:

  - en: Installs the English version. This is the default setting.
  - ja: Installs the Japanese version.
  - zh_CN: Installs the Simplified Chinese version.

- CHOSEN_INSTALL_SET: Specify one of the following installation sets:

  - ENTERPRISE: Installs a complete Silk Performer environment
  - SOA: Installs Silk Performer SOA edition
  - Agent: Installs Silk Performer agent software only

- USER_INSTALL_DIR: Specify a folder for your Silk installations. Make sure to use double backslashes (\\) as folder separators. The default configuration is C:\\Program Files\\Silk on 32-bit operating systems and C:\\Program Files (x86)\\Silk on 64-bit operating systems.

- CREATE_DESKTOP_ICON: Set to 1 to create a desktop icon or set to 0 to not create a desktop icon. The default value is 1.

- USER_INPUT_RESULT_EVAL: Set to 1 to install an evaluation version of Silk Performer, which grants you full product functionality for 45 days.

- USER_INPUT_RESULT_FULL: Set to 1 to install an unrestricted version of Silk Performer (requires a Silk Performer license).

  Note: Either USER_INPUT_RESULT_FULL or USER_INPUT_RESULT_EVAL must be set to 1. The other must be set to 0.

- SILKMETER_RUN_AUTOPASS_LICENSING: Set to true if you want to use AutoPass license technology.

- SILKMETER_RUN_STANDALONE: Set to true if you want to use a standalone license. Set to false if you want to use a Silk Meter or AutoPass license server.

- `SILKMETER_LICENSESERVER_HOST`: Specify the name of the computer that hosts your Silk Meter license server. This parameter will be ignored if `SILKMETER_RUN_STANDALONE` is set to `true`.
- `SILKMETER_LICENSESERVER_PORT`: Specify the port number on which your Silk Meter license server listens. This parameter will be ignored if `SILKMETER_RUN_STANDALONE` is set to `true`.
- `AUTOPASS_LICENSESERVER_HOST`: Specify the name of the computer that hosts your AutoPass license server. This parameter will be ignored if `SILKMETER_RUN_STANDALONE` is set to `true`.
- `AUTOPASS_LICENSESERVER_PORT`: Specify the port number on which your AutoPass license server listens. This parameter will be ignored if `SILKMETER_RUN_STANDALONE` is set to `true`.
- `ALLOW_USER_DATA_COLLECTION`: Set to `0` to disable collecting usage data. The default value is `1`. Silk Performer offers to collect data about which features of the tool are used in which way by customers. The data is rendered anonymous and sent to the R&D team, which uses the data as basis for improvements and further development.
- `INSTALL_NETWORKEMULATION_DRIVER`: Set to `true` to install the network emulation functionality. You can skip this installation step, if issues with the network emulation occur and you do not need the functionality. The default value is `false`.

    Note: During installation and uninstallation of the network emulation driver, the network will be disconnected for a moment.

    Note: The network emulation driver is not compatible with all network adapters. In such a case, machines or network interfaces might no longer be accessible and the network might slow down.

    Note: The network emulation driver does not support Microsoft Windows 10 and Microsoft Windows Server 2016 and 2019.

5. Save the file and close it.
6. Open a command line prompt and navigate to the folder that holds the setup file and the properties file.
7. Enter the following command:

   ```
   silkperformer-<version>.exe -f c:\<your directory>\silent.properties
   ```

   Note: Make sure to replace `<version>` with the actual version number of the installer package.

To check if the installation is complete, open the **Windows Task Manager** and click the **Processes** tab. When the Silk Performer installation process has disappeared, the installation is complete.

To uninstall Silk Performer in silent mode, open a command line prompt and navigate to the following folder:

```
<Silk installation folder>\Silk Performer 21.0\_Silk Performer
21.0_installation
```

Then enter the following command:

```
"Change Silk Performer 21.0 Installation.exe" -i silent
```

Installing Optional Components

Installing TrueLog Explorer

The TrueLog Explorer installer is named `silktruelogexplorer-210.exe`. To install TrueLog Explorer, start the installer and follow the instructions provided by the setup wizard.

Installing TrueLog Explorer in Silent Mode

The setup provides silent mode installation for TrueLog Explorer as well.

> **Note:** To avoid potential issues, make sure to run the installation with an administrator account that has unrestricted rights.

1. Open the folder with the installation file in a file manager.
2. Create a new text file in this folder, rename it to `silent.properties` and open it in a text editor.
3. Copy the following text lines and paste them into the file.
   ```
   INSTALLER_UI=silent

   #USER_INSTALL_DIR=C:\\Silk
   #CREATE_DESKTOP_ICON=0
   ```
4. Modify the following parameters to your needs. If you remove a particular parameter or comment it by prepending a hash (#) character, its default value is used.

   - `USER_INSTALL_DIR`: Specify a folder for your Silk installations. Make sure to use double backslashes (\\) as folder separators. The default configuration is `C:\\Program Files\\Silk` on 32-bit operating systems and `C:\\Program Files (x86)\\Silk` on 64-bit operating systems.
   - `CREATE_DESKTOP_ICON`: Set to `1` to create a desktop icon or set to `0` to not create a desktop icon. The default value is `1`.
5. Save the file and close it.
6. Open a command line prompt and navigate to the folder that holds the setup file and the properties file.
7. Enter the following command:
   ```
   silktruelogexplorer-210.exe -f silent.properties
   ```

To check if the installation is complete, open the **Windows Task Manager** and click the **Processes** tab. When the TrueLog Explorer installation process has disappeared, the installation is complete.

Installing the Network Emulation Driver

The network emulation driver is required for packet loss and latency simulation. It is not required for network bandwidth simulation.

1. Open an elevated command prompt: right-click the command prompt and click **Run as administrator**.
2. Navigate to the Silk Performer installation folder by entering a string that resembles the following: `c:\>` `cd "c:\Program Files (x86)\Silk\Silk Performer 21.0\NetworkDriver"`
3. Enter the following command ...

- to install the network emulation driver: `installNetworkDriver.exe -i netipfw.inf`
- to uninstall the network emulation driver: `installNetworkDriver.exe -u`

Note: During installation and uninstallation of the network emulation driver, the network will be disconnected for a moment.

Note: The network emulation driver is not compatible with all network adapters. In such a case, machines or network interfaces might no longer be accessible and the network might slow down.

Note: The network emulation driver does not support Microsoft Windows 10 and Microsoft Windows Server 2016 and 2019.

Installing the Visual Studio Extension

By default, the Silk Performer Visual Studio Extension is not installed with the main Silk Performer installer. To create and run Silk Performer .NET Framework projects in Visual Studio, you need to install the extension:

1. In the Silk Performer installation directory, open `Templates\DotNet`.
2. Execute the file `SpVsExtension.vsix`.

Installing the Eclipse Plug-In

You can download the Eclipse Plug-In from the *product updates site*.

The Eclipse SDK and Silk Performer must be installed on your computer. Make sure to run Silk Performer at least once before you start the installation.

1. Use the standard procedure for installing Eclipse plug-ins from the Eclipse SDK (**Help** > **Install New Software**).
   If you are not sure how to install plug-ins in Eclipse, refer to the Eclipse documentation.
2. When asked for the site to add, specify the site that contains your Silk Performer `Extras` folder.
   The `Extras` folder is located in the Silk Performer installation folder.
3. Browse to and select the Eclipse Plug-in directory in your Silk Performer `Extras` directory (`.../Extras/eclipseplugin/`).
4. Make sure that the **Group items by category** check box is not checked.
5. Once the Silk Performer Eclipse Plug-in is listed, click the plus sign of the new local site to expand its contents.
6. Check the check box of the plug-in feature **(Silk Performer Feature)** and then click **Install**. The **Install** dialog opens.
7. Click **Next**. A license description appears on the **Install** dialog.
8. If you agree to the terms of the license agreement, check the **I accept the terms of the license agreement** check box and then click **Finish**.
9. Click **Yes** to restart the Eclipse Workbench. When the Eclipse Workbench is restarted, a Silk Performer menu entry appears in the Eclipse Workbench.

Installing ShopIt V 6.0

The Silk Performer sample web application is ShopIt V 6.0. ShopIt V 6.0 simulates a simple e-commerce website with a catalog of camping merchandise that is available for simulated online purchase. Use this

application to experiment with Silk Performer's web application capabilities. ShopIt V 6.0 is designed to generate errors, including missing links (due to merchandise being out of stock) and session errors.

Before you install ShopIt V 6.0, refer to the *Release Notes* to ensure that your system supports the use of ShopIt V 6.0.

You can download the ShopIt V 6.0 setup from the *product updates site*.

1. Double-click the file `ShopItV60.exe`

   Note: IIS (Internet Information Server) must be installed on the computer. For IIS 7, also install Role Services ASP and ISAPI Extensions.

2. The **Welcome** page displays. Click **Next**.
3. The **Choose Destination Location** page displays. To change the default installation directory, click **Browse**, specify a folder, and click **OK**. Click **Next**.
4. Enter the name of the virtual directory for the web application. This is the name of the directory that will be created on the web server. Click **Next**.
5. Setup installs the files and configures IIS to run the ShopIt V 6.0 web application.
6. The **Installation Complete** dialog displays. Click **Finish**.
7. For IIS 7: Add the virtual directory to IIS manually.

   - Alias: ShopItV60
   - Physical path: Install directory of ShopIt.

   Note: Make sure that ASP is available in IIS.

The ShopIt V 6.0 web application is now ready for use. You can access ShopIt V 6.0 with a browser of your choice by entering the following URL:

```
http://<computer name>/<virtual directory name>/
```

If the name of your computer is `JohnSmith` and you have not modified the default value `ShopItV60` for the virtual directory, the URL is:

```
http://JohnSmith/ShopItV60/
```

Installing Agent Software on Remote Computers

Silk Performer provides a command-line tool that enables you to set up Silk Performer Agent software on remote machines within your Windows domain/workgroup.

For a smooth remote installation process, make sure that on the remote machine ...

- the Windows firewall is disabled, and
- the User Account Control is turned off or the built-in administrator account is used for the remote installation

Remote Installation

With the Silk Performer command-line tool you can install and uninstall agent software on remote agent computers. Remote agent computers can be located anywhere on the Internet.

To get a list of all available parameters for the command-line tool, open a command-line, go to the installation directory and call `perfRsManager.exe`

Note: You must start the command-line tool from the Silk Performer installation subdirectory.

Parameters for perfRsManager

The following parameters are available:

Note: `-mode` and `-host` are required. All other parameters are optional.

`-mode`	-i: Install the agent software on a remote agent computer. -u: Update the agent software on a remote agent computer. -r: Uninstall the agent software from a remote agent computer.
`-host <hostname>`	Hostname or IP address of the remote agent computer.
`-log`	Write an installation log file to the directory `\Users\Public\Documents\Silk Performer <version>\Logs`. The log file is named `perfRsManager_<hostname>.log`. For example: If you install the agent software on the host lab15, the log file will be named `perfRsManager_lab15.log`.
`-user <user>`	Name of a Windows domain user. For remote access, a user who has administrator permissions on the remote agent computer must be specified.
`-domain <domain>`	Name of the Windows domain or hostname, to which the specified user belongs. Omit this parameter if the user

	belongs to the same domain as the computer from which you invoke the installation.
`-userAgent <user>`	The Windows user account name that drives the agent.
`-pwdUserAgent <password>`	The Windows user account password for logging into the remote computer.
`-pwdUser <password>`	Password for the specified user. Omit this parameter if no password is required.
`-port <port>`	Number of the port to which the remote agent computer responds. The default port number is `19200`.
`-ssl`	Use SSL for the communication with the remote agent computer. When SSL is used, the remote agent computer is contacted at the default port for secure connections, that is port `19201`. If your agent computer responds to a different port, you must specify the port number with the -port parameter.
`-httpProxy <name> <port>`	Name and port number of the HTTP proxy via which the communication with the remote computer should take place.
`-socksProxy <name> <port>`	Name and port number of the SOCKS proxy via which the communication with the remote computer should take place.
`-pwdService <password>`	Password with which the agent software on the remote computer is protected from unauthorized access.
`-userAgent <user>`	The user that drives the agent.
`-pwdUserAgent <password>`	The password for logging into the remote agent computer.
`-package <package file name>`	The name of the remote agent installer package file. This parameter must be set for hotfix installations on remote agents and must match the EXE name of the hotfix file. If the hotfix package is not in the same folder as `perfRsManager`, you must define the name with the fully qualified path.
`-silkInstallPath <path>`	The target installation path on the remote agent computer. For example: `-silkInstallPath "C:\Silk\Silk Performer"`.
`-silkWorkingDir <path>`	The working directory on the remote agent computer. For example: `-silkWorkingDir "C:\WorkingDir"`
`-installNetworkEmulationDriver`	Use this parameter to install the network emulation functionality.
`-stopSilkExecutionServer`	Stops and starts the Silk Execution Server if it is running.

Examples

```
perfRsManager -i -host deepblue
```

```
perfRsManager -i -host deepblue -log -domain intra
              -user nobody -pwdUser 1234
```

```
perfRsManager -i -host deepblue -user alex -domain test
              -pwdUser 1234
```

```
perfRsManager -i -host 192.168.20.11
```

```
perfRsManager -i -host deepblue -log -ssl -port 19251
              -socksproxy 192.168.20.111 1080
              -pwdService 1rt34xy
```

```
perfRsManager -r -host deepblue -httpproxy proxy1 8080 -log
```

```
perfRSManager -u -host deepblue -user alex -pwdUser 1234 -domain test
              -package "c:\temp\silkperformer-21.0-hf1.exe"
```

Scenarios

This section illustrates how to use the Remote Agent Setup to install, re-install, and uninstall Silk Performer Agent software on remote computers for several network environments.

- Scenario 1: The controller and agent computers are located in the same Windows domain or workgroup.
- Scenario 2: The controller and agent computers are located in different Windows domains or workgroups.
- Scenario 3: The user who works on the controller computer is logged onto the computer locally, and is not logged onto a domain.
- Scenario 4: The controller and agent computers are located in different local area networks that are connected using the Internet.
- Scenario 5: The controller and agent computers are located in different local area networks that are connected using the Internet. At least one of the local area networks is protected by a firewall, so the controller and agent computers must communicate using an HTTP proxy.
- Scenario 6: The controller and agent computers are located in different local area networks that are connected using the Internet. At least one of the local area networks is protected by a firewall, so the controller and agent computers must communicate using a SOCKS proxy.

Scenario 1: One Domain or Workgroup

In Scenario 1, the controller and agent computers are located in the same Windows domain or workgroup.

Working on the controller computer, you can install, re-install, and uninstall the Silk Performer Agent software on the remote agent computer (`<agent name>`).

To install the agent software, execute the following command:

```
PerfRsManager -i -host <agent name> -log
```

This command sets up the agent computer so that it can be configured and rebooted from remote computers.

To re-install or remove agent software, you must know the port to which the agent software responds (`<port number>`). By default, the agent uses port 19200. You must also know the password by which the agent software is protected from unauthorized access, if one is in use (`<password>`).

To upgrade agent software, execute the following command:

```
PerfRsManager -i -host <agent name> -port <port number>
              -pwdService <password> -log
```

If the agent software responds to the default port, you can omit the `-port` parameter.

The preceding commands generate log files with detailed information about the installation or uninstall process. If you do not want to generate these log files, omit the `-log` parameter.

Scenario 2: Two Domains or Workgroups

Describes the scenario of the controller and agent computers being located in different Windows domains or workgroups.

In Scenario 2, the controller and agent computers are located in different Windows domains or workgroups.

Working on the controller computer, you can install, re-install, and uninstall the Silk Performer Agent software on the agent computer (`<agent name>`) in the remote domain or workgroup (`<domain name>`). To install the agent software, you must specify a user who has administrator rights in the domain or workgroup where the agent computer is located and his or her password (`<user name>`, `<password>`).

To install the agent software, execute the following command:

```
PerfRsManager -i -host <agent name> -user <user name>
               -domain <domain name> -pwdUser <password> -log
```

This command sets up the agent computer so that it can be configured and rebooted from remote computers.

To re-install or remove agent software, you must know the port to which the agent software responds (`<port number>`). By default, the agent uses port 19200. You must also know the password by which the agent software is protected from unauthorized access, if one is in use (`<password>`).

To re-install agent software, execute the following command:

```
PerfRsManager -i -host <agent name> -port <port number>
               -pwdService <password> -log
```

If the agent software responds to the default port, you can omit the `-port` parameter.

To uninstall the agent software from the computer, execute the following command:

```
PerfRsManager -r -host <agent name> -port <port number>
               -pwdService <password> -log
```

If the agent software responds to the default port, you can omit the `-port` parameter.

The preceding commands generate log files with detailed information about the installation or uninstall process. If you do not want to generate these log files, omit the `-log` parameter.

Scenario 3: User is Logged On Locally

In Scenario 3, the user logs onto the controller computer locally and is not logged onto a domain.

Working on the controller computer, you can install, re-install, and uninstall the Silk Performer Agent software on the agent computer (`<agent name>`) in the remote domain or workgroup (`<domain name>`). To install the agent software, you must specify a user who has administrator rights in the domain or workgroup where the agent computer is located (`<user name>`, `<password>`) and his or her password.

To install or re-install the agent software, execute the following command:

```
PerfRsManager -i -host <agent name> -user <user name>
               -domain <domain name> -log
```

This command sets up the agent computer so that it can be configured and rebooted from remote computers.

To re-install or remove agent software, you must know the port to which the agent software responds (`<port number>`). By default, the agent uses port 19200. You must also know the password by which the agent software is protected from unauthorized access, if one is in use (`<password>`).

To uninstall the agent software, execute the following command:

```
PerfRsManager -r -host <agent name> -port <port number>
               -pwdService <password> -log
```

If the agent software responds to the default port, you can omit the `-port` parameter.

The preceding commands generate log files with detailed information about the installation or uninstall process. If you do not want to generate these log files, omit the `-log` parameter.

Scenario 4: Two Local Area Networks Connected Using the Internet

In Scenario 4, the controller and agent computers are located in different local area networks that are connected using the Internet.

Working on the controller computer, you can install and uninstall the Silk Performer Agent software on the remote agent computer (`<agent name>`).

You must know the port to which the agent software responds (`<port number>`). By default, the agent uses port 19200 for non-secured communication, and port 19201 for secure communication. You must also know the password by which the agent software is protected from unauthorized access, if one is in use (`<password>`).

To install or re-install agent software, execute the following command:

```
PerfRsManager -i -host <agent name> -port <port number>
               -pwdService <password> -ssl -log
```

To uninstall agent software, execute the following command:

```
PerfRsManager -r -host <agent name> -port <port number>
               -pwdService <password> -ssl -log
```

If the agent software responds to the default port, you can omit the `-port` parameter. Also, if you do not require communication over a secure communication channel, omit the `-ssl` option.

The preceding commands generate log files with detailed information about the installation or uninstall process. If you do not want to generate these log files, omit the `-log` parameter.

Scenario 5: Two Local Area Networks Connected Using HTTP Proxy

In Scenario 5, the controller and agent computers are located in different local area networks that are connected using the Internet. At least one of the local area networks is protected by a firewall, so the controller and agent computers must communicate using an HTTP proxy.

Working on the controller computer, you can install and uninstall the Silk Performer Agent software on the remote agent computer (`<agent name>`). The communication takes place by way of an HTTP proxy (`<proxy name>`, `<proxy port>`). To re-install or remove agent software, you must know the port to which the agent software responds (`<agent port>`). By default, the agent uses port 19200 for non-secured communication, and port 19201 for secure communication. You must also know the password by which the agent software is protected from unauthorized access, if one is in use (`<password>`).

To install or re-install the agent software, execute the following command:

```
PerfRsManager -i -host <agent name> -port <agent port>
             -pwdService <password> -ssl -log
             -httpProxy <proxy name> <proxy port>
```

To uninstall agent software, execute the following command:

```
PerfRsManager -r -host <agent name> -port <agent port>
             -pwdService <password> -ssl -log
             -httpProxy <proxy name> <proxy port>
```

If the agent software responds to the default port, you can omit the `-port` parameter. Also, if you do not require communication over a secure communication channel, omit the `-ssl` option.

The preceding commands generate log files with detailed information about the installation or uninstall process. If you do not want to generate these log files, omit the `-log` parameter.

Scenario 6: Two Local Area Networks Connected Using a SOCKS Proxy

In Scenario 6, the controller and agent computers are located in different local area networks that are connected using the Internet. At least one of the local area networks is protected by a firewall, so the controller and agent computers must communicate using a SOCKS proxy.

Working on the controller computer, you can install and uninstall Silk Performer Agent software on the remote agent computer (`<agent name>`). The communication thereby takes place by way of a SOCKS proxy (`<proxy name>`, `<proxy port>`). To re-install or remove agent software, you must know the port to which the agent software responds (`<agent port>`). By default, the agent uses port 19200 for non-secured communication, and port 19201 for secure communication. You must also know the password by which the agent software is protected from unauthorized access, if one is in use (`<password>`).

To install or re-install agent software, execute the following command:

```
PerfRsManager -u -host <agent name> -port <agent port>
             -pwdService <password> -ssl -log
             -socksProxy <proxy name> <proxy port>
```

To uninstall agent software, execute the following command:

```
PerfRsManager -r -host <agent name> -port <agent port>
             -pwdService <password> -ssl -log
             -socksProxy <proxy name> <proxy port>
```

If the agent software responds to the default port, you can omit the `-port` parameter. Also, if you do not require communication over a secure communication channel, omit the `-ssl` option.

The preceding commands generate log files with detailed information about the installation or uninstall process. If you do not want to generate these log files, omit the `-log` parameter.

Troubleshooting

This section lists error messages that might display during setup and suggests ways of solving them:

Error Message	Remarks
`SYSTEM: 53 - The network path was not found.`	Invalid host name specified or host not reachable. Check `-host` parameter and make sure the machine is running.

Error Message	Remarks
`SYSTEM: 1326 - The user name or password is incorrect.`	Check `-user` and `-pwduser` parameters. If you are using the credentials of the built-in administrator of the remote machine, make sure the account is enabled.

`Info: Connected to remote machine.`
 	
`Warning: Could not start Remote Registry service.`
 	
`Error: Could not install and start temporary service.`
 	
`Remote setup failed!`
 	
`SYSTEM: 5 - Access is denied.`
	The remote machine could be reached with the given credentials but permissions of the specified user do not allow to start the installer process. Turn off User Account Control (UAC) on the remote machine or use its built-in administrator account.
	
	Check whether Remote Registry is running.

`System: 1219 - The supplied credentials conflict with an existing set of credentials. A network connection to the target computer already exists.`	A network connection to the target computer already exists. This connection was established with a different user/password combination.
	
	Execute the following DOS command to close the connection:
	
	`net use \\<machine name> /delete`
	
	To check if the connection has been closed, execute the following DOS command:
	
	`net use`

`PerfOrb: 23 - The connection could not be established.`	A connection attempt to the remote machine failed. Make sure the Windows firewall is disabled and User Account Control (UAC) is turned off.

`Error: Could not install Remote Agent Setup on remote machine.`
 	
`Remote setup failed!`
 	
`PerfOrb: 20 - The orb is not connected.`
	The connection to the machine was lost during installation. Restart the remote installer.