MICRO FOCUS

Silk Performer 17.0

Installation Guide

Contents

Introduction

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

Before you can install Silk Performer, 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.

Silk Performer software can be installed in three versions:

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

To perform load tests with Silk Performer, you must install the complete software on at least one computer. The complete installation includes the Silk Performer Workbench, documentation, and sample files. The Silk Performer 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.

This section describes the required and recommended installation options for each installation type.

System Requirements

The following tables identify the system requirements for installing and running Silk Performer. For details about Silk Performer performance and scalability, see the *Performance and Scalability Matrix*.

Hardware Requirements

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:

System Area	Requirement
Processor	Intel Core 2 Duo or equivalent CPU
RAM	4 GB recommended minimum
Hard disk space	2.1 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

- A Silk Performer controller installation requires Windows Vista or newer.
- A Silk Performer agent installation requires Windows 2008 or newer.
- Installing the network emulation driver is currently not supported for Windows 10.

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 10, 11 for browser-driven load testing
- PDF viewer to view documentation
- Citrix Receiver for Microsoft Windows 3.x, 4.x (except 4.4) to test Citrix applications. Citrix Receiver 4.4 does not work due to an issue in this Citrix version.
- Java Development Kit 7, 8 (32-bit) to test Java applications with Java Explorer
- Visual Studio 2013 or 2015 for Visual Studio Add-in. To use Visual Studio 2012, Visual Studio 2013 needs to be installed as well.

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 cannot 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	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

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 Pentium 4 3.2 GHz, 2 GB RAM	Windows XP	3900	2535	2730	1775	4680

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	30
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

This section describes how to obtain a license policy file for Silk Performer and how to install Silk Meter. Silk Meter is the license server for all your Silk products, which allows license sharing among users (floating or concurrent licenses). You must have administrator privileges to install Silk Meter. For node-locked usage of Silk products no license server is required.

Note: Silk Performer requires Silk Meter version 2008 or later as well as a Silk Performer license policy.

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

If you have received a Silk Performer license policy file, install the license policy file on your license server. If you have not received a license policy file, generate a license policy file with the online license generator.

Licensing Information

Silk Performer 17.0 needs a new 17.0 license. If you want to run a previous version of Silk Performer during the upgrade process to version 17.0, you may keep your old licenses for a period of 90 days.

Silk Performer's licensing model is based on Virtual User Types (VUser Types). The available VUser Types *Web*, *Standard*, and *Premium* include the following Silk Performer application types:

VUser Type	Application Type
Web	Web Browser-Driven
	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
	DLL Interface
Standard	All of *Web*, plus:
	.Net Add-On
	Java Add-On
	DB2-CLI Add-On
	OCI Add-On

VUser Type	Application Type
Premium	ODBC Add-On
	Visual Basic Add-On (Framework)
	Directory server (LDAP)
	CORBA Add-On
	All of *Standard*, plus:
	GUI Level Testing (Silk Test 4Test Scripts)
	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

Generating a Silk Performer License Policy

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 policy file. 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 file. If you did not receive these instructions, contact customer care at *http://support.microfocus.com*.

Finding the Host ID

To obtain a license policy file, you need to know the host ID of the machine on which you want to install the licenses. For floating licenses this is a license server with Silk Meter installed. For node-locked licenses this is typically the controller machine.

1. On the machine, 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.

Silk Meter Installation

If you already have a Silk Performer license policy 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 policy file.

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

If you have multiple license servers, you need multiple license policy files, each one tied to a particular license server. A single Silk Meter license server can administer license policy files 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 Server Configuration

Use the **Select Silk Meter License Server** utility to modify or repair your license server configuration. This utility is installed with your Silk Performer installation.

1. Choose **Start** > **Programs** > **Silk** > **Silk Performer 17.0** > **Administration Tools** > **Change your License Server Configuration** . The **Select Silk Meter License Server** utility opens.
2. In the **Application** list box, select the product for which you want to configure the license server.
3. Click the **Using local or remote server** option button to configure a Silk Meter license server.
4. In the **License Server Host** field, type the computer name of the Silk Meter license server.

    Unless your network administrator has defined a different port, do not change the **Port Number**.
5. Click **Apply** to activate the license server configuration.

6. Click **Test Connection** to verify that a Silk Meter 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 **License server 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.

7. Click **Close** to complete the license server configuration.

Installing Silk Performer

This section provides an overview of available installation options for Silk Performer.

The Silk Performer setup program enables you to install the load test controller and agent software on the controller computer, and install agent software on agent computers in your test environment. To use Silk Performer with remote agent computers, you must set up at least one controller computer.

Before beginning installation, confirm that your computer meets the pre-installation requirements. The installation program checks your system, and when required, installs any missing software packages.

Complete Installation

Before you start, download the Silk Performer executable file or insert the Silk Performer DVD into the DVD drive.

Features installed with a complete Silk Performer installation:

- Workbench
- Visual Studio .NET Add-On (only if Visual Studio is installed)
- Performance Explorer
- TrueLog Explorer
- Java Explorer
- .NET Explorer
- Silk Performer Agent
- All samples

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

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

   If you have a Silk Performer DVD, insert it. If the setup wizard does not start automatically, click **Start > Run** and enter `<cddrive>:\Setup.exe`.

   The setup wizard opens, displaying the **Copyright Information** page.
2. Click **Next** to read the **Introduction**, then click **Next** again. The **License Agreement** page displays.
3. Read the license agreement carefully. If you accept the terms of the agreement, click the **I accept the terms of the License Agreement** option button, then click **Next**. The **Choose Install Set** page displays.
4. Click the **Silk Performer 17.0** install set to install a complete Silk Performer environment and click **Next**. The **Customize Installation** page displays.
5. Select the components you want to install:

   - **Silk Performer 17.0 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.

   The **Choose Silk Install Folder** page displays.
6. Specify the installation folder. Note that product subfolders (for Silk Performer or TrueLog Explorer, for example) will be created automatically. Select whether or not a desktop shortcut icon shall be created and then click **Next**.

   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 Performer, and then click **OK** to return to the **Choose Install Folder** page.

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

The **Pre-Installation Summary** page displays.

7. 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.

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

8. Click one of the following option buttons, then 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.

9. Depending on the components you have selected for installation, the **Select Silk Meter License Server** 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. Click one of the following option buttons, then click **Next**:

- **Using local or remote server**: In the **License server host** field, type the name of the computer on which Silk Meter is installed. Do not change the default port number, `5461`, 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.

  > **Note:** In some cases, specifying the simple name of the license server in the **License server 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`.

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

The **Network Emulation Driver Installation** page displays.

10. Select one of the following options, then click **Next**:

- you can **Install the network emulation driver**, or
- you can **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.

The **Installation Complete** page displays.

11. Click **Done** to complete the installation.

> **Note:** If the setup wizard fails to update a file 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.

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

Agent-Only Installation

Before you start, download the Silk Performer executable file or insert the Silk Performer DVD into the DVD drive.

You must install an agent on each host that you want to use as a remote Silk Performer agent. Agents are 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. Locate and double-click the Silk Performer executable file.

   If you have a Silk Performer DVD, insert it. If the setup wizard does not start automatically, click **Start** > **Run** and enter `<cddrive>:\Setup.exe`.

   The setup wizard opens, displaying the **Copyright Information** page.
2. Click **Next** to read the **Introduction**, then click **Next** again. The **License Agreement** page displays.
3. Read the license agreement carefully. If you accept the terms of the agreement, click the **I accept the terms of the License Agreement** option button, then click **Next**. The **Choose Install Set** page displays.
4. Click the **Silk Performer 17.0 Agent** install set to install Silk Performer agent software only and click **Next**. The **Choose Install Folder** page displays.
5. Specify the installation folder. Note that product subfolders (for Silk Performer or TrueLog Explorer, for example) will be created automatically. Select whether or not a desktop shortcut icon shall be created and then click **Next**.

   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 Performer, and then click **OK** to return to the **Choose Install Folder** page.

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

   The **Pre-Installation Summary** page displays.
6. 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.

   The status bar on the **Installing** page provides information about the installation process.
7. Click **Done** to complete the installation.

   Note: If the setup wizard fails to update a file 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.

SOA Edition Installation

The following features are installed with Silk Performer SOA Edition:

- SOA Workbench
- Visual Studio .NET Add-On (only if Visual Studio is installed)
- Performance Explorer
- TrueLog Explorer

- Java Explorer
- .NET Explorer
- Java samples
- .NET samples
- Silk Performer Agent

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

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

   If you have a Silk Performer DVD, insert it. If the setup wizard does not start automatically, click **Start** > **Run** and enter `<cddrive>:\Setup.exe`.

   The setup wizard opens, displaying the **Copyright Information** page.

2. Click **Next** to read the **Introduction**, then click **Next** again. The **License Agreement** page displays.

3. Read the license agreement carefully. If you accept the terms of the agreement, click the **I accept the terms of the License Agreement** option button, then click **Next**. The **Choose Install Set** page displays.

4. Click the **Silk Performer 17.0 SOA Edition** install set to install Silk Performer SOA Edition and click **Next**. The **Customize Installation** page displays.

5. Select the components you want to install:

   - **Silk Performer 17.0 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.

   The **Choose Install Folder** page displays.

6. Specify the installation folder. Note that product subfolders (for Silk Performer or TrueLog Explorer, for example) will be created automatically. Select whether or not a desktop shortcut icon shall be created and then click **Next**.

   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 Performer, and then click **OK** to return to the **Choose Install Folder** page.

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

   The **Pre-Installation Summary** page displays.

7. 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.

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

8. Click one of the following option buttons, then 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.

9. Depending on the components you have selected for installation, the **Select Silk Meter License Server** 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. Click one of the following option buttons, then click **Next**:

- **Using local or remote server**: In the **License server host** field, type the name of the computer on which Silk Meter is installed. Do not change the default port number, `5461`, 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.

  Note: In some cases, specifying the simple name of the license server in the **License server 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`.

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

  The **Network Emulation Driver Installation** page displays.

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

  Note: If the setup wizard fails to update a file 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.

Installing 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. If you use an installation DVD, copy the contents of the DVD to an empty folder on your hard drive. Open the folder in a file manager and open the `silent.properties` file in a text editor. Proceed with step 5.
2. If you use the web package, open the folder with the installation file in a file manager.
3. Create a new text file in this folder, rename it to `silent.properties` and open it in a text editor.
4. Copy the following text lines and paste them into the file. Make sure to replace `<version>` with the actual version number of the installer package.

```
INSTALLER_UI=silent

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

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

#Choose installation folder
#--------------------------
USER_INSTALL_DIR=C:\\Program Files (x86)\\Silk
CREATE_DESKTOP_ICON=1
CREATE_QUICKLAUNCH_ICON=0

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

#SilkMeter server settings
#-------------------------
```

```
SILKMETER_RUN_STANDALONE=false
SILKMETER_LICENSESERVER_HOST=localhost
SILKMETER_LICENSESERVER_PORT=5461

#User data collection
#-------------------
ALLOW_USER_DATA_COLLECTION=0

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

5. Modify the parameters to your needs:

   - `INSTALLER_LOCALE`: Specify a language:

     - `en`: Installs the English version of Silk Performer
     - `ja`: Installs the Japanese version of Silk Performer
     - `zh_CN`: Installs the Simplified Chinese version of Silk Performer

   - `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.
   - `CREATE_DESKTOP_ICON`: Set to `1` to create a desktop icon or set to `0` to not create a desktop icon.
   - `CREATE_QUICKLAUNCH_ICON`: Set to `1` to create an icon on the Quick Launch bar or set to `0` to not create an icon.
   - `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_STANDALONE`: Set to `true` if you want to use a standalone license. Set to `false` if you want to use a Silk Meter 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`.
   - `ALLOW_USER_DATA_COLLECTION`: Set to `1` to allow Silk Performer to collect user data.
   - `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. Remove the # sign to let Silk Performer install the network emulation driver.

     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.

6. Save the file `silent.properties` and close it.
7. Open a command line prompt and navigate to the folder that holds the setup file and the properties file.
8. If you use the installation DVD, enter the following command:
   ```
   Setup.exe -f c:\<your directory>\silent.properties
   ```
9. If you use the web package, 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.

Installing and Uninstalling the Network Emulation Driver Manually

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 <version>\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.

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 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.

ShopIt V 6.0 setup is available from the following locations:

• You can start it from the Silk Performer installation DVD: `\Extras\ShopItV60.exe`
• You can download it 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.

   InstallShield prepares the installation and then the **Welcome** page opens.
2. Click **Next**. The **Choose Destination Location** page opens.
3. To change the default installation directory, click **Browse** to open the **Choose Folder** dialog box.

   The default installation destination is displayed in the *Destination Folder* section.

   Specify the folder to which you want to install ShopIt V 6.0, then click **OK** to return to the previous dialog box.
4. Click **Next** to continue the installation process.

   Enter the name of the virtual directory for the web application in the entry field. This is the name of the directory that will be created on the web server. Click **Next** to continue.

   The **Specify Virtual Directory** dialog box opens.

5. Setup installs the files and configures IIS to run the ShopIt V 6.0 web application. The **Installation Complete** dialog box opens.

6. Click **Finish** on the **Installation Complete** dialog box. 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>/
    ```

    Example:

    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/
    ```

    Or, if you access ShopIt V 6.0 from the computer on which you installed it, the following URL also works:

    ```
    http://localhost/ShopItV60/
    ```

7. For IIS 7: Add the virtual directory to IIS manually.

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

Installing the Visual Studio .NET Add-On

By default, the Silk Performer Visual Studio .NET Add-On (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 have to install both the Silk Performer Visual Studio Extension and the Silk Performer Visual Studio Templates.

1. In the Silk Performer installation directory, open `Templates\DotNet`.

2. To install the Silk Performer Visual Studio Extension, execute `SpVsExtension.vsix`.

3. To install the Silk Performer Visual Studio Templates, execute `SilkPerformer.vsix`.

    Note: The Silk Performer Visual Studio Extension is not compatible with Silk4NET, the Visual Studio Extension of Silk Test. If both add-ons are installed on the same Visual Studio, neither of the add-ons will work correctly.

Installing the Eclipse Plug-In

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

The Eclipse SDK and Silk Performer must be installed 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 box opens.
7. Click **Next**. A license description appears on the **Install** dialog box.
8. If you agree to the terms of the license agreement, click the **I accept the terms of the license agreement** option button 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.

Uninstalling Silk Performer

The remove functionality uninstalls a given software package from your computer, including all files and registry entries.

1. Open the Windows **Add or Remove Programs** window.
2. From the list of installed software, select `Silk Performer17.0`.
3. Click **Uninstall/Change**. The **Change Silk Performer17.0 Installation** wizard opens.
4. Click **Next**. The **Remove Features** page displays.
5. Click **Next** to start the uninstallation. The status bar provides information about the uninstallation progress. The **Uninstallation Complete** page displays.
6. The **Uninstallation Complete** page provides you with information about items that could not be removed. These are usually shared files that should not be removed. Files that were created while working with Silk Performer are also not deleted, for example your Silk Performer projects. Click **Done** to complete the uninstallation.

Uninstalling in Silent Mode

The setup provides the possibility to uninstall Silk Performer without any user interaction. This option is called *silent mode uninstallation*.

1. Open a command line prompt and navigate to the following folder: `<Silk Performer home>\_Silk Performer 17.0_installation`
2. Execute the following command: `"Change Silk Performer 17.0 Installation.exe" -i silent`

Example
```
C:\Program Files (x86)\Silk\Silk Performer 17.0\_Silk Performer
17.0_installation\
"Change Silk Performer 17.0 Installation.exe" -i silent
```

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.

⚠️ **Important:** Windows Server 2003 and Windows XP Professional: If the **Force network logons using local accounts to authenticate as Guest** policy is enabled, ask your Windows administrator to change this setting so that local system accounts are not forced to use guest accounts. Otherwise, the Silk Performer agent installation fails. The **Force network logons using local accounts to authenticate as Guest** policy is enabled by default if the computer is joined to a 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 current directory. The log file is named `perfRsLog_<hostname>.log`. For example: If you install the agent software on the host lab15, the log file will be named `perfRsLog_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. Omit this parameter if

	you want to access the remote agent computer with your current user name.
`-domain <domain>`	Name of the Windows domain, which the specified user belongs to. Omit this parameter if the user belongs to the same domain as the computer from which you invoke the installation.
`-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.
`-installPath <path>`	The target installation path on the remote agent computer. For example: `-installPath "C:\Silk \Silk Performer"`.
`-installNetworkEmulationDriver`	Use this parameter to install the network emulation functionality.

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
```

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.
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.	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

Error Message	Remarks

`Error: Could not install and start temporary service.`
 	
`Remote setup failed!`
 	
`SYSTEM: 5 - Access is denied.`
	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.

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