



Silk Performer 19.5

Release Notes

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2018-10-23

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Silk Performer 19.5 Release Notes

These release notes contain information that might not appear in the Help. Read them in their entirety before you install the product.



Note: This document contains a number of links to external websites. Micro Focus cannot be responsible for the contents of the website or for the contents of any site to which it might link. Websites by their nature can change rapidly and although we try to keep our links up-to-date, we cannot guarantee that they will always work as expected.

For information about installation, deployment, and licensing issues, refer to the [Silk Performer Installation Help](#).

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	2.2 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 any Windows client or server operating system of version 6.1 or newer. This means Silk Performer requires Microsoft Windows 7 or newer, or Microsoft Windows Server 2008 R2 or newer.
- Installing the network emulation driver is currently not supported for Microsoft Windows 10 and Microsoft Windows Server 2016.

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, 4.10 and newer versions) to test Citrix applications. Citrix Receiver 4.4 as well as 4.10 and newer do not work due to an issue in these Citrix versions.
- 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 2013, 2015, or 2017 for Visual Studio extension. 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 does not differentiate between test metrics of multiple running tests. Therefore, real-time values of the wrong test might be displayed.

What's New in Silk Performer 19.5

Silk Performer 19.5 introduces significant enhancements and changes.

Web Testing Innovations

Support for HAR files

The HTTP archive (.har) format has been designed by the web performance working group of the world wide web consortium (W3C) and is used by browsers to store performance data about loaded web pages.

Silk Performer is now capable of converting .har files into capture files, which is an alternative to the conventional recording approach. When you import an .har file into the Workbench, Silk Performer automatically converts it to a .spcap file and displays the **Capture File** page, which you can use to tweak the script generation process by applying filters, adding recording rules, and more.

Configurable post data length

When generating a script from a capture file, post data fragments exceeding 2000 bytes are stored in `postbody.data` files. In the profile settings under **Web (Protocol level) > Recording** you can now configure this post data threshold. When the data length is below the defined threshold, the data is written to the script during script generation. When the data length exceeds the threshold, the data is stored in a separate `postbody.data` file.

TTI for Ajax requests

The *time to interact* (TTI) has turned out to be the best way of measuring the response time of user interactions with modern web applications. The TTI metric can not only be measured for actions that trigger browser navigation. It can now also be applied to measure actions that trigger asynchronous requests using JavaScript and even actions that do not produce any network activity.

Jenkins Plugin Enhancements

The Silk Performer plugin for the continuous integration tool Jenkins has received a major upgrade and now provides a number of new features. It lets you automate Silk Performer projects, collect results, and evaluate success conditions.

Support for Jenkins slaves

You can now execute jobs on Jenkins slaves, which allows you to use different configurations (in the form of differently configured machines) for your load tests.

Performance levels as success criteria

The new Silk Performer Jenkins plugin provides two options to evaluate whether a job was completed successfully: You can either define success criteria directly within the Jenkins job configuration interface. Or you can configure to use the performance levels defined within the Silk Performer project.

Overview Report within Jenkins

You can now access the HTML Overview Report directly from within Jenkins with just one click. Also, you can access all artifacts Silk Performer generated during a load test execution from within Jenkins.

Customizable trend chart

You can have Jenkins create trend charts to get quick performance feedback of measures you are interested in. The charts can be customized to display any metric of the completed load test. The chart shows the specified metric for the latest execution and the executions before that.

Support for source control systems

The plugin lets you link your job to a source control system. As a result, the job can automatically check out your Silk Performer project and all related files from your source control system and then execute the load test.

Available through Jenkins

The new Silk Performer Jenkins plugin is available through the central Jenkins plugin repository. More information on how to set up the plugin is available through the Jenkins wiki.

Editor Enhancements

Silk Performer 19.5 provides a preview of the brand-new Workbench editor, which offers everything you would expect from a state-of-the-art editor, like line numbering, code folding, advanced syntax highlighting, zooming, or code completion.

The new editor will be fully supported in an upcoming release, but you can already preview and test it. To activate the new editor, open a file browser, navigate to the Silk Performer installation directory, open the file `performer.xml` in a text editor (in elevated mode) and set the parameter `EnableAdvancedEditor` to `true`. Then start the Workbench and open a script. Note that this is a beta version of the new editor - it is not yet fully localized and might evoke unexpected behaviour. In such a case, return to the old editor. Also, various features are not yet supported, like the wizards for adding transactions and functions.

Java-related Enhancements

Switch from Oracle JRE to OpenJDK

A typical Silk Performer installation includes a Java Runtime Environment. The JRE is required for several components and processes, for example for the installation itself and for Java Explorer. It is also in the search path for projects that require a JRE. With Silk Performer 19.5 the JRE from Oracle has been replaced by the Zulu JRE from Azul Systems. Zulu builds are based on OpenJDK and they are certified for Java SE TCK compliance on x64 reference architecture systems.

You can also use your own Oracle JRE or JDK by configuring the Java profile settings accordingly.

Smart JRE search

A Java Runtime Environment is required for several script types, such as Oracle Forms, Silk4J, AMF, and of course Java Framework. By default, the JRE configured in the profile settings is used. However, if the configured location turns out to be wrong, Silk Performer automatically attempts to find an alternative by scanning the Windows registry or by using the JRE that is installed by the Silk Performer installer in the `home/JRE` directory. This smart JRE search functionality is also applied on remote agents.

JUnit

JUnit tests are now executed using a JUnit runner rather than by direct method calls. This allows you to make use of annotations in the Java code to parameterize your tests.

Silk4J

JVM options are now passed on to Silk4J, so that you can further parameterize your Java test environment.

General Enhancements

Verification workload model enhancements

The *verification* workload model has been enhanced and now features multiple user types with more than one virtual user for each user type. Additionally, you can now set how many times the virtual users have to execute their defined transactions before they stop automatically.

Other project items

In Silk Performer 19.5 you can attach additional files to a project. The project tree now displays a new node named `Other Items`. Any supplemental documents and files you add to the project display under this node. If you export the project, these files are copied as well, similarly to the assets of the other nodes.

Token-based authentication

When using the Silk Central integration, you can now use a web-service token as an alternative to the conventional authentication mode with user name and password. The token-based authentication provides a number of advantages. For example, no user credentials have to be transferred during the authentication process and the token is decoupled from LDAP-bound credentials. You can generate the web-service token in the user settings section of Silk Central. To use token-based authentication both Silk Performer 19.5 (or newer) and Silk Central 19.5 (or newer) are required.

Configurable working folders for agents

The remote agent installer now allows you to configure the working folder of an agent. This is useful for agents with limited permissions on the default public documents location.

CloudBurst support for Google Cloud

In addition to AWS and Azure, Silk Performer now also supports cloud instances hosted in the Google Cloud.

Technology Updates

Remedy AR 9 project type

The Remedy AR 9 project type now supports Remedy 9.1 SP4 and all previous versions of Remedy.

OpenSSL

OpenSSL has been upgraded to version 1.1.0i.

Resolved Issues and Customer-Driven Enhancements

The following table lists issues that have been resolved in Silk Performer 19.5 as well as enhancements that have been implemented in this version:

SI #	RPI #	Description
3108872	1109774	TrueLog Explorer does not support customizing API calls located in .bdh files.
3168343	1115299	The Silk Performer Workbench crashes during a load test that involves cloud agents.
3161565	1114531	Performance Explorer does not display any values for the metric HTTP pages/sec for load test that involve low-level calls.
3163996	1114768	Testing a Java RMI application using Silk Performer 19.0 and remote agent machines fails, because the classpaths are not configured correctly for the remote agents.
3159447	1114876	Resampled load test results do not display timer data within Silk Central.
3168747	1115104	The JavaScript engine of TrueLog Explorer crashes after clicking some nodes in the tree, which prevents the user from performing various tasks like customizing the session handling or adding verifications.

Known Issues

You can find a list of known issues including resolutions in the Online Help: <http://documentation.microfocus.com/known-issues>

Updates and SupportLine

Our Web site gives up-to-date details of contact numbers and addresses.

Contacting Micro Focus

Micro Focus is committed to providing world-class technical support and consulting services. Micro Focus provides worldwide support, delivering timely, reliable service to ensure every customer's business success.

All customers who are under a maintenance and support contract, as well as prospective customers who are evaluating products, are eligible for customer support. Our highly trained staff respond to your requests as quickly and professionally as possible.

Visit <http://supportline.microfocus.com/assistedservices.asp> to communicate directly with Micro Focus SupportLine to resolve your issues, or email supportline@microfocus.com.

Visit Micro Focus SupportLine at <http://supportline.microfocus.com> for up-to-date support news and access to other support information. First time users may be required to register to the site.

Information Needed by Micro Focus SupportLine

When contacting Micro Focus SupportLine, please include the following information if possible. The more information you can give, the better Micro Focus SupportLine can help you.

- The name and version number of all products that you think might be causing an issue.
- Your computer make and model.
- System information such as operating system name and version, processors, and memory details.
- Any detailed description of the issue, including steps to reproduce the issue.
- Exact wording of any error messages involved.
- Your serial number.

To find out these numbers, look in the subject line and body of your Electronic Product Delivery Notice email that you received from Micro Focus.

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 <i>Web</i> , 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 <i>Standard</i> , plus: GUI Level Testing (Silk4J, 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

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

Tested Software

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

The listed software is complete in terms of supported technologies, but not in terms of supported versions and products.

System Area	Tested With
Operating systems	<ul style="list-style-type: none">• Microsoft Windows Server 2008 R2• Microsoft Windows Server 2012• Microsoft Windows Server 2012 R2• Microsoft Windows Server 2016• Microsoft Windows 7 32/64bit• Microsoft Windows 8 32/64bit• Microsoft Windows 8.1 32/64bit• Microsoft Windows 10 32/64bit
Web browsers	<p>For protocol-based load testing:</p> <ul style="list-style-type: none">• Internet Explorer• Mozilla Firefox• Google Chrome• Apple Safari <p>For browser-driven load testing:</p> <ul style="list-style-type: none">• Internet Explorer 10, 11• Google Chrome 66 and Mozilla Firefox 60 (for replay only) <p>For GUI-level testing in single-session mode:</p> <ul style="list-style-type: none">• Mozilla Firefox• Google Chrome <p>For GUI-level testing in multi-session mode:</p> <ul style="list-style-type: none">• Internet Explorer• Microsoft Edge• mobile browsers
Terminal emulation products	<ul style="list-style-type: none">• AttachMate Extra 8• AttachMateWRQ 13.0• Distinct IntelliTerm 8.1• Ericom Powerterm Pro v8.8.1• HummingBird_Exceed 11.0 (hooking via socks proxy)• JProtector 4.5.2.0• MochaSoft 5.3 (hooking via socks proxy)• NetTerm 5.1.1• Nexus Terminal 5.3• PassportPC2Host 3• Quick3270 3.73• Rumba 9

System Area	Tested With
ERP/CRM solutions	<ul style="list-style-type: none"> • SDI TN3270 Plus v2.4 • SecureCRT 1.0 • TeraTermPro 2.3 • TN5250_sourceforge 0.17.3 • TNBridge <p>SAPGUI Clients:</p> <ul style="list-style-type: none"> • SAPGUI client 740, 750 <p>PeopleSoft Systems: PeopleSoft 8.0, 8.3, 8.4, 8.8, 9.0</p> <p>Siebel Systems:</p> <ul style="list-style-type: none"> • Siebel 6.3 using MS SQL Server • Siebel 6.3 using IBM DB2 • Siebel 6.3 using Oracle • Siebel 7 • Siebel 8.0, 8.1 <p>Remedy Web ARS: Remedy Web ARS 9.0, 9.1, 9.1 SP2, SP3, and SP4</p> <p>Oracle Forms:</p> <ul style="list-style-type: none"> • Oracle Forms 6i, 9i, 10g, 11g, 12c • Oracle EBS 11i, 12.x • Oracle Fusion 10g, 11g, 12c
Citrix clients	<ul style="list-style-type: none"> • Citrix XenApp Client 12.x • Citrix Web Interface 5.1, 5.2, 5.3, 5.4 • Citrix StoreFront / Netscaler Gateway • Citrix Receiver for Microsoft Windows 3.x, 4.x (except 4.4, 4.10 and newer versions)
SOAP stacks	<ul style="list-style-type: none"> • Microsoft SOAP Toolkit 2.0 Service Pack 2 (SP2), Internet Information Server 5 • Apache-SOAP Version 2.1, TOMCAT Version 3.1
WebService frameworks	<ul style="list-style-type: none"> • Axis 1.x • Axis2 1.7.7 • GlassFish Metro 1.5 • Apache CXF 3.2.4
Database products	<ul style="list-style-type: none"> • IBM Universal Database Systems 5.2, 6.1, 7.1 • Microsoft SQL Server 2008, 2008 R2, 2012 • Oracle Database 10g Release 2 • Oracle Database 11g Release 2 • Oracle Database 12c • Sybase SQL Anywhere Network Server 5.5.04
Corba products	<ul style="list-style-type: none"> • Oracle WebLogic Enterprise

System Area	Tested With
	<ul style="list-style-type: none"> • Micro Focus VisiBroker • Micro Focus Orbix • IBM WebSphere
Tuxedo	<ul style="list-style-type: none"> • Oracle TUXEDO Server 6.3, 6.4, 7.0, 7.1, 8.0, 9.0 • Oracle WebLogic Enterprise 4.2
Jolt	Oracle Jolt 1.1 (including Oracle TUXEDO Server 6.4), 1.2
Java support	<ul style="list-style-type: none"> • Java Development Kit 7, 8 • IBM Java Development Kit • Eclipse
.Net-based technologies	<ul style="list-style-type: none"> • Microsoft .NET Framework 2.0, 3.0, 3.5, 4.0, 4.5, 4.6, 4.7 • Microsoft Visual Studio 2013, 2015, 2017 • WCF Web Services
Rich Internet applications (Web 2.0)	<ul style="list-style-type: none"> • Microsoft Silverlight 4, 5 • Apache Flex 2, 3, 4 • GraniteDS 2.3.2 • BlazeDS 3.2.0 • Google Web Toolkit • ExtJS • Eclipse RAP • script.aculo.us
SNMP	<ul style="list-style-type: none"> • SNMPv2-MIB • RFC1213-MIB • RDBMS-MIB • ORADB-MIB • httpServer-MIB • ftpServer-MIB • SUN-MIB • BEA-WEBLOGIC-MIB • APPSRV_MIB (NetDynamics) • SQUID-MIB <p> Note: To find RFCs and vendor MIBs on the Web, visit The Internet Engineering Task Force.</p>
Proxy servers for firewall tunneling	<ul style="list-style-type: none"> • WinGate • Squid • Dante • Microsoft ISA Server

End of Support

Since PhantomJS is no longer maintained by its creators, it is no longer supported in this and future versions of Silk Performer.