



Silk Performer 18.0

Release Notes

Micro Focus
The Lawn
22-30 Old Bath Road
Newbury, Berkshire RG14 1QN
UK
<http://www.microfocus.com>

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Silk Performer 18.0 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.

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

- 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) 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.

Installation

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

What's New in Silk Performer 18.0

Silk Performer 18.0 introduces significant enhancements and changes.

Using Functional Test Assets for Performance Testing

Accelerated development and release cycles are to be considered a persistent trend in the software industry. More frequent and shorter release cycles also result in tighter time frames for all your testing efforts. Silk Performer offers another means of considerably speeding up your testing cycles by allowing you to reuse your existing functional tests for performance testing and monitoring purposes as well. Silk Performer 18.0 introduces a feature that allows you to comfortably import your Silk Test test assets and use them as load tests, and expands its GUI-level testing capabilities by keyword-driven tests.

One Silk Test project type for all your test assets

For GUI-level load tests, Silk Performer allows you to use Silk4J, Silk4NET, and Silk Test Classic test assets. These capabilities have now been expanded by keyword-driven tests. No matter which type of Silk Test test assets you are using, they are now all covered by a single Silk Test project type in Silk Performer.

Simple import from Silk Test

If you are planning to reuse your existing functional tests for performance testing, Silk Performer now allows you to easily import your test assets. Whether these are Silk4J, Silk4NET, Silk Test Classic, or keyword-driven tests - Silk Performer supports the whole range of test assets from Silk Test. The import wizard automatically detects the test type and generates an appropriate BDL stub. When you import a keyword-driven test that includes parameters, you can let Silk Performer create a .csv file and populate it with the parameters.

Single session GUI-level testing

For browser-driven tests against web applications using Chrome, Firefox, or PhantomJS, Silk Performer now allows you to run all virtual users within a single Windows session. The big advantage is that you no longer require Remote Desktop licenses and at the same time resource consumption per virtual user is considerably lower compared to the conventional GUI-level testing approach. As usual with GUI-level testing, Silk Test has to be installed on all agents where Silk Test assets are to be executed.

Time to Interact

The vast majority of today's websites and web applications is accessed by a variety of devices, including smartphones, tablet computers, and conventional desktop computers. The trend towards an increasing use of mobile devices results in a number of changes in web development: Developers tend to implement long pages that continue to load content each time the end of a site is reached instead of spreading the content over many separate, mainly static pages. Therefore, the conventional page load time, which used to be a meaningful metric for performance testing, is getting more and more obsolete. Nowadays, the perceived loading time of a web page can differ considerably from the measured loading time. To make testing modern websites and web applications easier, Silk Performer introduces the so-called *Time to Interact*.

In Silk Performer terminology, the *Time to Interact* is defined as the time from the start of a request until all essential elements a user requires to interact with the page are ready; even if the page has not yet completely loaded. The TTI concept allows the tester, perhaps in collaboration with marketing and UX professionals, to define which elements on the page are to be considered relevant or crucial for interaction.

Once you have tagged a number of elements as TTI-relevant within the Browser Application and executed a test, TrueLog Explorer displays detailed timings as well as a heatmap, which shows with the help of colored rectangles if any of the tagged elements fell behind.

Reporting and Analysis Enhancements

Performance Level Reporting

Silk Performer 18.0 introduces performance level reporting, which allows for a quick and easy passed/failed assessment of your load tests. Performance level reporting can be especially useful in a continuous testing environment, where the assessment of your load tests can also be automated and therefore sped up considerably.

Once you have defined your performance levels and assigned them to the key measures of your load test, Silk Performer's overview reports show color codes for each performance level. Performance levels that are met display in green, performance levels that are missed display in red.

Show and hide percentiles in Overview Reports

You can now show or hide individual percentile categories in your Overview Reports in Performance Explorer, which allows you to customize your Overview Reports even better. This is true for both HTML Overview Reports and Word Overview Reports.

Powerful find dialog for TrueLog Explorer

TrueLog Explorer now features a consistent find dialog for all technologies. The find dialog provides some basic but powerful functionality that allows you to find strings in all open TrueLogs, in the current TrueLog, or in the current node. You can also specify to search in the node name and node info, as well as in the various tabs of the **Information** pane, like the **In Header**, **Out Header**, **In Body**, **Out Body**, and so on.

Screenshot history for TrueLog on Error

Similar to protocol-level testing, TrueLog on Error for the UI-level technologies browser-driven testing, SAPGUI, and Citrix now also provides a sequence of screenshots. These screenshots support the user in analyzing the actions that have caused an error.

General Enhancements

Recording on machines with secure boot

Silk Performer introduces a new hooking mechanism for recording on machines that have the UEFI feature *secure boot* enabled. The new DLL injection mechanism can also manually be enabled in the application profile settings in case the conventional hooking mechanism does not work as expected for a particular application.

Workload initialization

In Silk Performer 18.0, you can quickly and easily specify the same workload settings for multiple user types at a time. This is especially useful if you work with a big number of user types with equal or similar workload settings. The initialization dialog also allows you to define your workload settings in a spreadsheet program like Microsoft Excel, copy the values, and paste them into the dialog. This makes the workload setting up process even more comfortable.

Remote installation and upgrade from Agent Pool

You can now easily upgrade the Silk Performer agent installation of a specific agent computer directly in the agent pool. Upgrading an agent computer to a newer Silk Performer version no longer requires you to leave

Silk Performer. Just select an agent computer in the agent pool, click **Upgrade Agent**, specify the directory of the installer, specify the credentials for the agent computer and start the installation.

New counter: running users

Silk Performer 18.0 introduces a so-called *running users* counter. This counter reflects the number of users that have been started and have not been stopped. In contrast to the *active users* counter, it also includes virtual users that are in either of the following states: wait queue, wait user, wait stop, pacing time.

UI-less agent process

Silk Performer now provides a UI-less agent process. When executing a load test, the agent process runs as a command line application in the background.

Content logging in TrueLog

In Silk Performer 18.0, the engine for browser-driven testing is capable of capturing the in-data and out-data along with the respective size for the TrueLog and other statistics.

Web Protocol-level Enhancements

Externalizing large blocks of binary data

Web applications occasionally send large blocks of binary data from the browser to the server. To keep scripts tidy, the script generator in Silk Performer 18.0 now ensures that such data blocks are stored in files rather than in the script.

Auto-create TrueLog sections

When you have recorded a transaction, you can now let Silk Performer automatically add `TrueLogSection` functions to your script. The sections then display in the tree of the generated TrueLog. TrueLog sections help to logically divide scripts into smaller (named) parts and make complex TrueLog trees easier to read.

Enhanced HTML parser reduces `WebPageAddUrl` functions

Resources that cannot automatically be detected by the HTML parser during script creation are added to a page request using `WebPageAddUrl` function calls. In Silk Performer 18.0, the number of these function calls could be reduced considerably due to enhanced HTML parser capabilities, especially regarding HTML 5.

Filtering UDP traffic

Silk Performer now allows you to filter UDP traffic from your scripts. The check box **Exclude UDP traffic** displays on the **Capture File** page and is enabled by default, as UDP traffic is usually not intended to be recorded. Browsers and web applications often use the UDP for device and service detection. To include UDP functions in your script, disable the filter.

Technology Updates

Support for Citrix StoreFront

Silk Performer now supports Citrix applications launched from Citrix StoreFront/Netscaler Gateway.

Support for Remedy 9.1 SP2

Silk Performer now supports Remedy 9.1 SP2.

Updated Support for SNMP MIB

The SNMP MIB parser has been upgraded to the latest version.

OpenSSL Upgrade

OpenSSL has been upgraded to version 1.1.0e.

CloudBurst Enhancements

New CloudBurst region: AWS Ohio

CloudBurst now provides a new AWS region: Ohio.

Resolved Issues

The following issues have been resolved in Silk Performer 18.0:

SI #	RPI #	Description
	625181	In Silk Performer 17.5, the parameter wizard creates random variable file declarations with hard coded paths to files on the local machine.
	623998	Performance Explorer charts cannot be exported as HTML or MHT files. When clicking Export as HTML on the Chart tab, no HTML file is generated. When clicking Export as MHT , the generated MHT file cannot be opened.
2849834	617872	The Help topic <i>Troubleshooting Windows Performance Monitoring</i> does not include the latest versions of Windows operating systems.
2866863	1106530	In HTML Overview Reports, the upper bounds of percentiles can be greater than the maximum value.
2867947	1105949	After installing ShopItV60, it is required to add ASP manually in IIS.
2868384	1107889	When installing TrueLog Explorer in silent mode, the installation hangs due to a file that cannot be found.
2868384	1105633	The provided information regarding potential parameters for installing TrueLog Explorer in silent mode is not sufficient.
2870007	1105992	File associations for Silk Performer file types are not persisted, if a previous version of Silk Performer is uninstalled.
2871137	1106163	When clicking Add LAN Agent in Silk Performer, the list of agent machines does not show correct values and varies each time it is opened.
2872390	1106281	Including an additional parameter to the <code>OraBindCursor()</code> function leads to a compile error.
2873491	1106403	Word Overview Reports cannot be created.
2875332	622963	When attempting to export a project to the c drive, a validation message displays by mistake.
2877718	1106952	When attempting to customize a value in TrueLog Explorer, the following error message occurs: <code>Cannot customize function call in BDL script.</code>
2878058	1107026	The Silk Central/Silk Performer Integration Guide is outdated.
2878089	1107557	Merging quantiles takes a long time, even for simple tests with little result data.
2878696	1107350	When exporting Performance Explorer charts as HTML files, a number of unwanted spaces is added to the exported file.
2879382	623671	Documentation for Citrix XenApp Support contains minor issues and is not complete.
2880141	1107979	Documentation for multi-session replay requires more detailed information.
2881618	1107630	When killing or aborting a load test, Truelog files are not created.
2882980	1107824	.Net unit tests mistakenly change the return code.
2882984	1107950	Using the <code>DotNetSetOption()</code> function causes a .Net Test to fail.
2883397	625351	During an execution, the <code>perfbrowserhost.exe</code> mistakenly closes a child window, which is opened through a JavaScript command, and shuts down.

SI #	RPI #	Description
2883836	1107991	TrueLog on Error files show a file size of 0 bytes and a number of unexpected files display in the results folder.
2884042	1108729	When recording an Oracle Forms application using Silk Performer 16.5 and Java 1.7 or Silk Performer 17.5 and Java 1.8, a Java security warning displays.
2884388	1107952	The execution of a script with the <code>FileGetNextUniqueRow()</code> function is considerably slower in Silk Performer 17.5 and 17.0 than in earlier Silk Performer versions.
2884389	1107925	When executing a script that contains the <code>FileGetNextUniqueRow()</code> function, which references a data file that is not added to the project, the execution hangs.
2884466	1108029	When attempting to open a new window by clicking a link in a browser-driven recording, the opened page is blank.
2884938	1108028	It is not possible to change the agent capabilities for the localhost.
2885052	625679	An unexpected error displays on the Capture File page.
2912339	1108720	Restarting the <code>perfBrowserHost</code> results in handle and memory leaks.
2913002	1108550	The estimated number of agents for UI-driven tests provided by the credit calculator is incorrect.
2913202	1108504	Executing a script, which worked flawlessly in earlier Silk Performer versions, causes the <code>perfrun.exe</code> and the Workbench to crash.
2913491	1108642	Using non-ascii characters in profile names leads to the following error message: <code>Cannot load perfBrowserRecorderDll_x86.dll for recording.</code>
2988350	1109092	While Silk Performer decreases the responsiveness value whenever <code>perfBrowserHost</code> is unresponsive, it does not increase the value when <code>perfBrowserHost</code> recovers.
2991115	1108828	The <code>MeasureSetFloat</code> function causes an agent process to terminate improperly.
2991161	1108811	SSL check reports vulnerabilities in the Silk Performer controller/agent communication.
3100345	1108957	TrueLog Explorer crashes when opening an <code>.xlg</code> file.
3101594	1109048	<code>PerfRun.exe</code> crashes when it receives a large amount of data.
3102353	627806	When installing Silk Performer on a machine with Microsoft Windows Server 2016, the Silk Performer inbound rules are missing in the firewall settings.
3102542	1109248	A change in the function <code>atof</code> of Microsoft's C++ runtime 14.0 causes display issues in results. This is due to a different behavior when converting a string to a float.
3103087	1109182	The parameter <code>sTimer</code> of the BDL function <code>Silk4JExecuteTestcase</code> is missing in the overview report. An updated Silk Test version is required.
3104257	1109404	TrueLog Explorer crashes when opening an <code>.xlg</code> file.
3105178	1109295	Crash dumps are generated during a load test with a duration of 18 hours.

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 DLL Interface
Standard	All of <i>Web</i> , 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 <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

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 <p>For GUI-level testing in single session mode:</p> <ul style="list-style-type: none"> • Mozilla Firefox • Google Chrome • PhantomJS
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 • SDI TN3270 Plus v2.4 • SecureCRT 1.0 • TeraTermPro 2.3 • TN5250_sourceforge 0.17.3

System Area	Tested With
ERP/CRM solutions	<ul style="list-style-type: none"> • TNBridge <p>SAPGUI Clients:</p> <ul style="list-style-type: none"> • SAPGUI client 740 <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 7.5, 7.6, 7.6.04 SP4 and SP5, 8.0, 8.1 SP1, 9.0, 9.1, 9.1 SP2</p> <p>Oracle Forms:</p> <ul style="list-style-type: none"> • Oracle Forms 6i, 9i, 10g, 11g • Oracle Applications 11i, 12i
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)
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 1.4, 1.5, 1.6 • GlassFish Metro 1.5 • Apache CXF 3.1.4
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 12g • Sybase SQL Anywhere Network Server 5.5.04
Corba products	<ul style="list-style-type: none"> • Oracle WebLogic Enterprise • 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

System Area	Tested With
Jolt	<ul style="list-style-type: none"> • Oracle WebLogic Enterprise 4.2 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 • Microsoft Visual Studio 2013, 2015 • 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
Proxy servers for firewall tunneling	<ul style="list-style-type: none"> • WinGate • Squid • Dante • Microsoft ISA Server



Note: To find RFCs and vendor MIBs on the Web, visit [The Internet Engineering Task Force](#).