Silk Performer 20.5

Release Notes

2019-10-28

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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	2.5 GB for controller software installation
	1 GB for agent-only installation
	Depending on the size of your load tests, make sure you have enough space on your hard disk for result files.
Network	Network connectivity to the system under test and to all Silk Performer agent computers.

Operating System Requirements

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

Software Requirements

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

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

- Internet Explorer 11 for browser-driven load testing.
- PDF viewer to view documentation .
- Citrix Receiver for Microsoft Windows 4.9.7 (LTSR) or later to test Citrix applications.
- Java Runtime Environment (JRE): Both 32- and 64-bit versions are required on 64-bit operating systems.
- Java Development Kit 7, 8 (32-bit) to test Java applications with Java Explorer.
- Visual Studio 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 20.5

Silk Performer 20.5 introduces significant enhancements and changes.

Results Publishing with InfluxDB and Grafana

Silk Performer lets you export all the data that is collected during a load test to InfluxDB, an industry-wide well-known database for time series data. During a test, Silk Performer can push real-time data to InfluxDB, after a test you can manually export time series data (aggregated) or raw data.

This lets you quickly display and share your load test results using tools such as Grafana. For Grafana in particular, you can download a pre-configured set of dashboards, perfectly suited for real-time viewing or results analysis.

Record and Replay Windows File Selection Dialog in SAPGUI

SAPGUI transactions that use the native Windows file open dialog rather than the proprietary SAPGUI functionality can now be recorded and replayed.

For this purpose, the Silk Performer Recorder generates the new BDL function `SapGuiSetFileName()`, which suppresses the file open dialog during replay and passes the file name specified in the script to the SAPGUI application.

Granular Selection of Measures for Real-time Monitoring

When you enabled real-time measures in previous Silk Performer versions, all available measures were collected and aggregated at different levels along the communication lines between virtual users and controller. Now, with Silk Performer 20.5, the measures of interest need to be defined explicitly. By default, no client-side measure is available in real-time, even if the collection of real-time measures is enabled in the profile settings or the workload settings.

To enable certain measures or measure groups for real-time availability, use the BDL function `MeasureSetOption()` along with the parameter `MEASURE_OPT_REALTIME`. For more details, see *MeasureSetOption* in the BDL Reference.

Web on Protocol-level Enhancements

The following enhancements for web load testing on protocol-level have been implemented:

Microsoft IIS Extended Protection - Channel Binding

Silk Performer supports recording and replaying applications that rely on the Microsoft IIS Extended Protection feature, also known as channel binding. For more details, see *Setting Browser-Authentication Options*.

Domain Suppression for WebSockets

When generating a script out of a capture file, domain suppression is now also considered for WebSocket connections.

Browser-driven Load Testing Enhancements

The following enhancements have been implemented for browser-driven load testing:

- The Browser Application lets you set custom options using the **Actions/Set Option** menu item.
- Silk Performer introduces the BDL function `BrowserSetBrowserType()`. It lets you set a particular browser type, such as Chrome, Firefox, or IE, from within the script. For more details, see the BDL reference.

CloudBurst Enhancements

CloudBurst has extended its availability into the government clouds of AWS and Azure in North America.

Workbench and Editor Enhancements

The following enhancements have been added to the Workbench and the editor:

- When exporting a project to a folder, Silk Performer now suggests the previously used location for subsequent exports.
- All dependent files are now considered when searching in files in project scope.
- The editor now shows a tooltip that lets you add a `use` statement and thereby include the corresponding .bdh file.

Technology Updates

OpenSSL

OpenSSL has been upgraded to version 1.1.1d.

Other components

Several third-party components have been upgraded to their latest versions to remediate all known vulnerabilities and other defects.

Resolved Issues and Customer-Driven Enhancements

The following table lists issues that have been resolved in Silk Performer 20.5 as well as enhancements that have been implemented in this version:

SI #	RPI #	Description
3199824	1117700	The browser engine does not recover after a crash.
3200265	1117769	The Run-as-process agent stops unexpectedly.
3197244	1117471	Executing a trial run of a browser-driven script in Silk Performer 19.5 HF3 using Chrome causes an issue and the execution is terminated.
3197526	1117547	Communications over SSLv3 accepted via Agent Port.
3197516	1117483	Resampling a single results file does not resample user types.
3194517	1117220	Pragma: no-cache response header treated not Web browser conform.
3190407	1116959	The Silk Performer 19.5 Workbench crashes after an 11 hour load test execution.
3117535	1110540	Some files are left over on the execution server.
3192342	1117041	Trying to open overview reports (containing performance level measurements) causes issues.
3192644	1117101	Using the **Use attribute as locator** option in the Silk Performer Browser Application does not display the correct `textContents` value.
3194627	1117227	The Silk Performer Workbench and the System Configuration Manager display different hotfix versions.
3198193	1117555	Performance levels do not display if the name contains a full stop.
	640216	Blur events are fired before KeyPress events.

Known Issues

You can find a list of known issues including resolutions in the Online Help: *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 *Web*, plus:
	Visual Studio Extension
	Java Add-On
	DB2-CLI Add-On

VUser Type	Application Type
Premium	OCI Add-On
	ODBC Add-On
	Visual Basic Add-On (Framework)
	Directory server (LDAP)
	CORBA Add-On
	All of *Standard*, plus:
	GUI Level Testing (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	• Microsoft Windows Server 2012 • Microsoft Windows Server 2012 R2 • Microsoft Windows Server 2016 • Microsoft Windows Server 2019 • Microsoft Windows 8.1 32/64bit • Microsoft Windows 10 32/64bit
Web browsers	For protocol-based load testing: • Internet Explorer • Mozilla Firefox • Google Chrome • Apple Safari For browser-driven load testing: • Internet Explorer 11 • Google Chrome and Mozilla Firefox (for replay only) For GUI-level testing in single-session mode: • Mozilla Firefox • Google Chrome For GUI-level testing in multi-session mode: • Internet Explorer • Microsoft Edge • mobile browsers
Terminal emulation products	• 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

System Area	Tested With
ERP/CRM solutions	• TeraTermPro 2.3 • TN5250_sourceforge 0.17.3 • TNBridge **SAPGUI Clients:** • SAPGUI client 750 PL 11, 760 PL 1 HF1 **PeopleSoft Systems:** PeopleSoft 8.0, 8.3, 8.4, 8.8, 9.0 **Siebel Systems:** • 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 **Remedy Web ARS:** Remedy Web ARS 9.0, 9.1, 9.1 SP2, SP3, and SP4 **Oracle Forms:** • Oracle Forms 6i, 9i, 10g, 11g, 12c • Oracle EBS 11i, 12.x • Oracle Fusion 10g, 11g, 12c
Citrix clients	• 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 4.9.7 (LTSR) • Citrix Workspace-App 1907
SOAP stacks	• Microsoft SOAP Toolkit 2.0 Service Pack 2 (SP2), Internet Information Server 5 • Apache-SOAP Version 2.1, TOMCAT Version 3.1
WebService frameworks	• Axis 1.x • Axis2 1.7.7 • GlassFish Metro 1.5 • Apache CXF 3.2.4
Database products	• 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	• Oracle WebLogic Enterprise • Micro Focus VisiBroker

System Area	Tested With
	• Micro Focus Orbix • IBM WebSphere
Tuxedo	• 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	• Java Development Kit 7, 8 • IBM Java Development Kit • Eclipse
.Net-based technologies	• 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)	• 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	• SNMPv2-MIB • RFC1213-MIB • RDBMS-MIB • ORADB-MIB • httpServer-MIB • ftpServer-MIB • SUN-MIB • BEA-WEBLOGIC-MIB • APPSRV_MIB (NetDynamics) • SQUID-MIB **Note:** To find RFCs and vendor MIBs on the Web, visit *The Internet Engineering Task Force*.
Proxy servers for firewall tunneling	• WinGate • Squid • Dante • Microsoft ISA Server

End of Support

Microsoft Windows 7 and 8.0 as well as Microsoft Windows Server 2008 R2 are no longer supported.

OCI 7 - Ora* functions are no longer supported. These functions rely on the Oracle Call Interface (OCI) version 7, which is outdated. OCI 8 and all related Ora8 functions are still supported.