

**Borland®**

**Silk Test 16.0**

**Release Notes**

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# Silk Test 16.0 Release Notes

This file contains important information that might not appear in the Help. Read this file in its entirety.

For the latest version of this document, see [Release Notes](#).

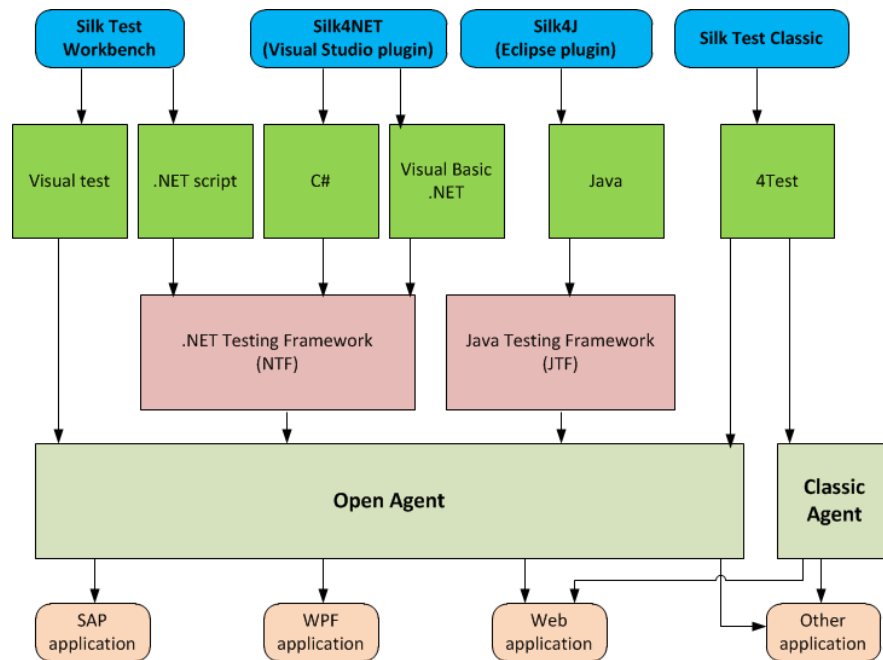
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# Silk Test Product Suite

Silk Test is an automated testing tool for fast and reliable functional and regression testing. Silk Test helps development teams, quality teams, and business analysts to deliver software faster, and with high quality. With Silk Test you can record and replay tests across multiple platforms and devices to ensure that your applications work exactly as intended.

The Silk Test product suite includes the following components:

- Silk Test Workbench – Silk Test Workbench is the quality testing environment that offers .NET scripting for power users and easy to use visual tests to make testing more accessible to a broader audience.
- Silk4NET – The Silk4NET Visual Studio plug-in enables you to create Visual Basic or C# test scripts directly in Visual Studio.
- Silk4J – The Silk4J Eclipse plug-in enables you to create Java-based test scripts directly in your Eclipse environment.
- Silk Test Classic – Silk Test Classic is the traditional, 4Test Silk Test product.
- Silk Test Agents – The Silk Test Agent is the software process that translates the commands in your tests into GUI-specific commands. In other words, the Agent drives and monitors the application you are testing. One Agent can run locally on the host machine. In a networked environment, any number of Agents can run on remote machines.



The product suite that you install determines which components are available. To install all components, choose the complete install option. To install all components with the exception of Silk Test Classic, choose the standard install option.

# System Requirements and Prerequisites

The following section identifies the system requirements for installing and running Silk Test.

## Hardware Requirements

Micro Focus recommends the following hardware:

System Area	Requirement
Processor	Intel or AMD DualCore processor running at 2 GHz.
RAM	1 GB free memory.
Hard disk space	2 GB of free disk space.



**Note:** The recommended hardware reflects the minimal requirements for Silk Test. Depending on the requirements of the application under test or the requirements of your test environment, you might require additional hardware.

## Software Requirements

To install and execute Silk Test, the following software needs to be installed:

- Microsoft .NET Framework 4 (Full setup)

# Installation Instructions

For information about installation and licensing issues, refer to the [Silk Test Installation Guide](#).

# What's New in Silk Test

Silk Test supports the following new features:

## Keyword-Driven Tests

You can now use the keyword-driven testing methodology to separate test design from test development in Silk Test. Users can now simply design tests by defining keywords, without having to worry about implementation details. In a second step, the keywords defined for these new tests can be implemented by automation engineers. These keywords can then be used by other users to create new keyword-driven tests.

Silk Central, the test management solution of the Silk product suite, now also supports the keyword-driven testing methodology. By using Silk Central in combination with Silk Test, you can enable your automation engineers to seamlessly automate your manual test cases in Silk Central and to develop a maintainable automation framework, consisting of keywords in Silk Test.

The advantages of using the keyword-driven testing methodology are the following:

- Keyword-driven testing separates test automation from test case design, which allows for better division of labor and collaboration between test engineers implementing keywords and subject matter experts designing test cases.
- Tests can be developed early, without requiring access to the application under test, and the keywords can be implemented later.
- Tests can be developed without programming knowledge.
- Keyword-driven tests require less maintenance in the long run. You need to maintain the keywords, and all keyword-driven tests using these keywords are automatically updated.
- Test cases are concise.
- Test cases are easier to read and to understand for a non-technical audience.
- Test cases are easy to modify.
- New test cases can reuse existing keywords, which amongst else makes it easier to achieve a greater test coverage.
- The internal complexity of the keyword implementation is not visible to a user that needs to create or execute a keyword-driven test.

Keyword-driven tests are now supported in the following Silk Test clients:

- Silk Test Workbench
- Silk4J
- Silk4NET



**Note:** Silk4NET does not support keyword-driven testing in Visual Studio 2010.

## Future-Proof Google Chrome Support

The improved Google Chrome support now enables you to test against a web application in new versions of Google Chrome without updating Silk Test.



## Enhanced Silk Test Workbench Start Page

When you start Silk Test Workbench, the start page provides an entry point from where you can comfortably discover the functionality that is available in Silk Test Workbench. The start page now provides the following features:

- A list of the features that are new in the current version of Silk Test Workbench.
- Direct links to common Silk Test Workbench functionality.
- Access to recently used visual tests and .NET scripts.
- Direct links to Help topics which describe how you can start working with Silk Test Workbench.
- Links to resources for additional support and training.
- Links to the latest forum entries and blog posts on the Silk Test community.

The start page remains open until you close it or deselect the option to **Show page on startup**.

## Oracle Forms Support

You can now use Silk Test to test applications which are based on Oracle Forms.

## Usability Enhancements

This section lists usability enhancements that have been made in Silk Test 16.0.

### Recording enhancements

- The **Recording** window now displays the recorded actions.
- You can now change the order of the recorded actions in the **Recording** window.
- You can now delete falsely recorded actions during recording.
- You can now pause recording.
- For keyword-driven testing, you can add new keywords during recording.

### Passing back output parameters from visual tests

In Silk Test Workbench, you can now define output parameters for a visual test, which are passed back when the visual test is executed within another visual test.

## Technology Updates

This section lists the significant technology updates for Silk Test 16.0.

### Oracle Support

You can now use an Oracle 12.1 database with Silk Test Workbench. Silk Test Workbench supports Oracle 12.1 databases with the AL32UTF8 character encoding.

### Mozilla Firefox Support

Silk Test now includes playback support for applications running in:

- Mozilla Firefox 30

- Mozilla Firefox 31
- Mozilla Firefox 32
- Mozilla Firefox 33
- Mozilla Firefox 34

## Google Chrome Support

Silk Test now includes playback support for applications running in:

- Google Chrome 36
- Google Chrome 37
- Google Chrome 38
- Google Chrome 39
- Google Chrome 40

## Android Support

Silk Test now includes support for mobile Web applications running in:

- Android 5



**Note:** Because of a known issue with the proxy settings of the Android emulator, you can currently not use Silk Test to test a Web application on an Android emulator with an Android version later than Android 4.4.

## iOS Support

Silk Test now includes support for mobile Web applications running in:

- iOS 8.0
- iOS 8.1
- iOS 8.1.1
- iOS 8.1.2
- iOS 8.1.3

## API Enhancements

Lists API enhancements that have been made in Silk Test 16.0.

### **New `Timer` Class**

The new `Timer` class now enables you to accurately measure elapsed times for test executions in Silk4J, Silk4NET, and Silk Test Workbench. Among other usages, the methods and properties in the new `Timer` class can be used for the timing of test executions that are triggered from Silk Performer.

# Known Issues

This section identifies Silk Test's known issues and their resolutions.

## General Issues

### **Object Map Takes a Long Time to Open**

If you have a large object map asset it takes a long time to load when you are using .NET 4. Install .NET 4.5 to resolve this issue.

### **When a remote desktop or remote desktop connection (RDC) is minimized, Silk Test does not function**

When you connect through the remote desktop protocol (RDP) to a desktop, you take ownership of the desktop by attaching to the desktop with your mouse and keyboard. If the desktop is minimized without ownership of the desktop being released, any playback of mouse clicks or keystrokes is undefined.

The recommended configuration is to run Silk Test on a VMWare-server and connect through VMWare-client software. This allows replay to continue even if the client has been closed.

### **The Open Agent does not start when the Check Point firewall is installed**

When you have a Check Point firewall or a Check Point ZoneAlarm firewall installed on your system, the Open Agent cannot be started, because the firewall interrupts the communication between the Agent and the infoservice.

To start the Open Agent, you have to uninstall the Check Point firewall from your system.

### **Testing Silverlight applications with Mozilla Firefox does not work well on some machines**

The Silverlight support in Silk Test might not work well on some machines when used in Mozilla Firefox. A deadlock can occur if the Mozilla Firefox plugin process calls the host Mozilla Firefox process at the same time that the host Mozilla Firefox process calls the plugin process. For additional information, see [https://bugzilla.mozilla.org/show\\_bug.cgi?id=686861](https://bugzilla.mozilla.org/show_bug.cgi?id=686861) or [https://bugzilla.mozilla.org/show\\_bug.cgi?id=558986](https://bugzilla.mozilla.org/show_bug.cgi?id=558986). This known issue might occur in Silk Test because Silk Test is loading a .Net framework into the plugin process to test Silverlight. In this case, Silk Test cannot control when the .Net framework triggers a garbage collection, which calls into the host Mozilla Firefox process when freeing COM objects.

### **The `modifiers` parameter in the `domDoubleClick` method is ignored**

You cannot specify the modifier in the overloaded `domDoubleClick` method. The modifier will not be double-clicked, although you have specified the parameter. The overloaded `domDoubleClick` method, which allows you to specify the modifier, is deprecated. To specify the modifier, you can use the `doubleClick` method, if you are using a client that supports an overloaded method with the `modifiers` parameter, or the `PressKeys` and `ReleaseKeys` methods.

### **The built-in spell checking in Microsoft Windows 8 might interfere with the replay of tests**

The built-in spell checking in Microsoft Windows 8 can be enabled in applications like Internet Explorer 10.

If a word was incorrectly spelled during recording, and you replay typing this word, the spell checker will either mark it, or for commonly misspelled words will automatically fix it, which is the same behaviour a real user would get. If your tests were created on an operating system that did not include the spell checking

feature, you might get unexpected results when replaying the tests on Microsoft Windows 8. To disable the spell checking, you can do the following:

1. Press **Windows Key + C**.
2. On the Charm bar, click **Settings**.
3. Select **More PC Settings**.
4. Select **General** to see the Spelling selections.



**Note:** These are system-wide settings, not settings specific to Internet Explorer.

5. Set **Autocorrect misspelled words** to off.
6. Set **Highlight misspelled words** to off.

### **When a .NET application is started from DevPartner Studio (DPS), Silk Test might not recognize it**

To resolve the issue, perform the following steps:

1. Go to the Silk Test installation folder (by default, it's located at: `C:\Program Files\Silk\Silk Test`).
2. For Windows Forms applications, go to `ng\agent\plugins\com.borland.fastxd.techdomain.windowsforms.agent_<version number>`.
3. For Windows Presentation Foundation (WPF) applications, go to `ng\agent\plugins\com.microfocus.silktest.techdomain.wpf.agent_<version number>`.
4. In Notepad, open the file `plugin.xml`, and add the following line to the `<loadparameters>` section:

```
<param name="frameworkAssembly">mscorlib.dll</param>
```
5. Go to the `ng\agent` folder in the Silk Test installation folder (by default, it's located at: `C:\Program Files\Silk\Silk Test\ng\agent`).
6. In Notepad, open `openagent.ini` and add `-clean` as the first line of the file.
7. Log out of the computer, and then log back in. Silk Test works as expected with the application that was started by DevPartner Studio.

### **The highlighting rectangle is out of place when recording clicks on an area of an image**

When you record a click on a part of a complex image, for example an area map, the green highlighting rectangle does not highlight the appropriate area of the image. However, the click will be executed correctly during replay.

### **The Open Agent might not start if Windows Defender is enabled during the installation of Silk Test**

If Windows Defender is enabled on your system during the Silk Test installation, you might not be able to start the Open Agent after the installation is complete. Windows Defender might prevent the hotfix setup from performing some required actions. As a workaround, disable Windows Defender during the Silk Test installation.

## **Mobile Web Applications**

### **Problems with concurrent use of adb**

When the uiautomator testing framework is running it uses the Android Debug Bridge (adb) and this might cause problems in combination with the **Silk Test Web Tunneler** application. When running the uiautomator and the **Silk Test Web Tunneler** in parallel, warning messages similar to the following might be logged and infinitely repeated:

```
[WARN] SSH Tunnel for device 'Nexus 5' (id=04dcde2134409f32) at port 10001 closed with error code '1' (CommunicationTunnel.java:179) [WARN] SSH Tunnel for device 'Nexus 5' (id=04dcde2134409f32) at port 10001 reported: '[FATAL ERROR: Network error: Connection refused]' (CommunicationTunnel.java:180)
```

The reason for the problems is that when the uiautomator already has control of the adb, the **Silk Test Web Tunneler** application cannot set up any port forwarding. This is an adb issue.

The solution is to not run uiautomator in parallel with Silk Test.



**Note:** The same problems might occur in the reverse situation. When the **Silk Test Web Tunneler** application has control of the adb then the uiautomator is unable to take a screenshot of the device because it cannot use the adb.

### **Silk Test does not support HTML frames on mobile browsers**

Silk Test does not support HTML frames on mobile Web browsers. If your Web application includes frames, you cannot test it with Silk Test. However, Silk Test supports Iframes in mobile browsers.

## **Web Applications**

### **Recording with a zoom level different to 100% might not work properly**

Recording a Web application with a zoom level different to 100% might not work as expected. Before recording actions against a Web application, set the zoom level in the browser to 100%.

## **Google Chrome**

### **Error in WaitForProperty on Google Chrome**

You may get a `ReplayException` error when doing an action that causes navigation to a new page, and then use `waitForProperty` for synchronization on an object that exists on both pages. A workaround for the defect is to do the action, then a `Find` on an object which only exists on the new page, and then do the `WaitForProperty` if still necessary.

### **Google Chrome 21, 26, 27: Invalid or missing Accessibility objects in dialog boxes**

When you are recording locators for a Web application in Google Chrome, some Accessibility objects in dialog boxes might not be recognized or the recorded hierarchy of the objects might be invalid. This issue applies to all Javascript dialog boxes, for example prompt and the HTTP authentication dialog box. Existing tests, which are using these dialog boxes, might fail when they are replayed on Google Chrome.

### **OpenTab does not work properly with Google Chrome**

When you use `OpenTab` while testing an application in Google Chrome, the automation interface of Google Chrome might stop responding and you might have to restart Google Chrome.

### **Locator recording in windows fails with Google Chrome**

When you are testing a Web application in Google Chrome, locator recording in windows fails when multiple windows are open during application configuration in the Google Chrome instance, in which the application is running. If you close the other Google Chrome windows during application configuration, the error will not appear.

### **Background applications in Google Chrome prevent automation support from loading**

When you want to test a Web application with Google Chrome and the **Continue running background apps when Google Chrome is closed** check box is checked, Silk Test cannot restart Google Chrome to load the automation support.

### **Silk Test cannot record locators in modal dialogs when Windows Aero is disabled**

If Windows Aero functionality is disabled, modal dialogs are not recognized and locators in such dialogs cannot be selected. As a workaround, use the **Locator Spy** or the **Identify Object** dialog box to manually create and verify locators while a modal dialog is displayed.

### **A warning might interfere with the keyword focus on Google Chrome 36 or later**

A few seconds after starting, Google Chrome 36 or later might display a warning that the Chrome Developer mode is enabled. This warning might interfere with the keyboard focus. The Chrome Developer mode is enabled because the Silk Test Chrome extension is loaded through command line when the base state is executed. Loading extensions through command line triggers this warning to urge users to check for potential spyware.

As a workaround, extend your scripts so that this dialog box is detected whenever Google Chrome is started, and then dismiss it by clicking **Cancel**.

The following code sample shows how you could do this in a Java script in Silk4J:

```
if (isChrome() && (browserWindow.getBrowserMajorVersion() >= 32)) {
    final PushButton cancelDeveloperModeButton;
    cancelDeveloperModeButton = browserApplication.<PushButton> find(
        "//PushButton[@caption='cancel']" , new FindOptions(false, 20000));
    if (cancelDeveloperModeButton != null) {
        cancelDeveloperModeButton.click();
    }
}
```



**Caution:** Do not click **Disable** on the dialog box, because then the Silk Test Chrome extension will be disabled. If by mistake you disable the Silk Test Chrome extension, restart Google Chrome by running the base state and then re-enable the Silk Test Chrome extension on the extensions page.

## **Internet Explorer**

### **Using Google toolbar interferes with recording Web applications**

Using the Google toolbar with Internet Explorer 8 interferes with recording locators for Web applications.

Turn off the Google toolbar before you record Web applications.

### **Microsoft Silverlight Applications**

Some Microsoft Silverlight applications cause Internet Explorer to hang when interacting with Silk Test. On 32-bit platforms, refer to MS KB 2564958 (an update to Active Accessibility) to help prevent the issue.

### **Locators recorded with Silk Test versions prior to Silk Test 13.5 might no longer work in Internet Explorer**

In Silk Test 13.5, we have adapted the normalization of white spaces of the `textContent` attribute in Internet Explorer. This change was made to improve the cross-browser capabilities of Silk Test, and might affect locators which rely on the `textContent` attribute, and which are used in scripts that were recorded with releases prior to Silk Test 13.5.

### **The Open Agent cannot have high elevation enabled when UAC is enabled on Microsoft Windows 8 or later and Internet Explorer 11**

You cannot test a Web application in Internet Explorer 11 on Microsoft Windows 8 or later and have UAC enabled and run both Internet Explorer and the Open Agent with high elevation.

### Known issues with Input Method Editors (IMEs)

- Silk Test does not record half-width spaces for Japanese input in Internet Explorer 11.
- Silk Test does not record IME input in Internet Explorer 11 in compatibility mode.
- In Japanese IME mode, pressing **Space** will cause Silk Test to record the current IME candidate. Use **Convert** to avoid this issue.

## Mozilla Firefox

### Calls into applications using Adobe FlashPlayer do not properly synchronize in the latest versions of Mozilla Firefox

When you are using Mozilla Firefox with a recent Adobe FlashPlayer version, some calls might not synchronize properly. The following issues might occur:

- Mozilla Firefox might falsely recognize a running script as stalled and might display a confirmation dialog box asking whether you want to continue the execution of the script, even though the script is running properly.
- Typing characters might not work because `SetFocus` is no longer working correctly.
- The Adobe automation might return an old value although the UI already shows a new value.

If you face one or more of these issues with applications using Adobe FlashPlayer, turn off the ProtectedMode in Adobe FlashPlayer. For additional information, see <http://forums.adobe.com/thread/1018071> and read the information provided under *Last Resort*.

### Text recognition might have the wrong offset in Mozilla Firefox 17

In Mozilla Firefox 17, text recognition might not use the correct offset. In such a case, the content of Mozilla Firefox is not redrawn.

### Text recognition does not work with Mozilla Firefox 18 or later

In Mozilla Firefox 18 or later, text recognition does not work.

## SAP Applications

### `HierarchyHeaderWidth` and `ColumnOrder` Properties of the `SAPTree` Class are write only

Other than the automation documentation indicates, the `HierarchyHeaderWidth` and `ColumnOrder` properties of the `SAPTree` class are write only and cannot be read.

Ensure that your scripts use write rather than read with these properties.

### `GetColumnIndexFromName()` of the `SapTree` Class May Fail with an "unspecified error"

`GetColumnIndexFromName()` of the `SapTree` class may fail with an "unspecified error". This is a known issue in SAP automation.

Check the SAP web site to see if the issue has been resolved.

### Calling the `select()` method of the `SAPTree` Class on a Context menu item may fail

Calling the `Select()` method of the `SAPTree` class on a Context menu item may fail.

Call `SelectContextMenuItem` on the parent control instead. This problem is a known issue in the SAP automation.

### **The position property for a horizontal scrollbar always returns 1**

The position property for a horizontal scrollbar always returns 1. This is a known issue in SAP automation. Check the SAP web site to see if the issue has been resolved.

### **The SAPNetPlan class is not supported**

This issue will be resolved in a future release.

### **Replay error occurs when executing an SAP script in fast mode**

In certain cases, if you record an SAP test using the Silk Test Recorder and then replay it using the **Replay speed: Fast** setting, an error occurs. The error says, `The data necessary to complete this operation is not yet available.`

Change the replay speed to a slower setting. Or, change the script to use SAP automation to replay the problematic action instead of xBrowser. For example, you might change the action from `DomLink.Select` to `SapHTMLViewer.SapEvent`.

### **The method getCurrentRow returns a wrong value with SAPGUI client 7.30**

If you use SAPGUI client 7.30 and you call the method `getCurrentRow`, the method might falsely return -1 instead of the row number.

### **The method resizeWorkingPane is not working correctly with SAPGUI client 7.30**

If you use SAPGUI client 7.30 and you call the method `resizeWorkingPaneEx`, the method will not resize the `workingPane` and calling `getSapWindow().getWidth()` will return a wrong value for the window width.

## **Silk Test Classic**

### **Ensure that the agent.exe and partner.exe processes have been killed before attempting a Silk Test Monitor execution**

When running Silk Test monitors or GUI-level tests, `Agent.exe` or `Partner.exe` may not close correctly after a monitor execution and the temporary results folder may remain opened. When this happens during a monitor execution, all subsequent monitors fail with the error `LoadtestController: 3302 - The results directory could not be cleared and do not clear.`

Kill the `Agent.exe` or `Partner.exe` process manually on the execution server or create an Action Essential which will automatically kill the processes whenever needed.

### **Unknown behavior occurs if a window class is declared without a tag**

A window class declaration in Silk Test must include a tag, even if the objects in the class are intended to be used only with the Open Agent. Locators can be added to objects of a class. Adding a locator to a class definition will not have an effect. For example, in the following code, the `tag` line is mandatory.

```
[ - ] winclass MyDialogBox : DialogBox  
[ ] tag "[DialogBox]"
```

If the tag line is present, the code works as it should. However, if the tag line is missing, this leads to unknown errors and possible crashes.



### **Variables are not displayed correctly in debug mode when "{chr(10)}" is used**

When debugging a script that uses the "`{chr(10)}`" character for line-change, the values of the accessible variables are not displayed correctly and you cannot use **Set Value** to set the value of a variable.

### **The INC file for the base state does not compile if the caption of an application contains a single quote**

The generated INC file for the base state does not compile if the caption of an application contains a single quote.

## **Silk Test Workbench**

### **Replaying a Visual Test on a Large Site**

You may encounter performance problems when running a visual test on a large site when using xBrowser. In order to avoid this, set the option **Playback > Results > VisualTest > ControlCapture** to **No**.

### **Message boxes display in the background when a script plays back (31314)**

If you include a message box statement, such as `MsgBox ("Hello")` in .NET script, it displays in the background when you play back the script.

Include `MsgBoxStyle.MsgBoxSetForeground` in the `MsgBox` statement to have the message box display in the foreground. For example:

```
MsgBox ("Hello", MsgBoxStyle.MsgBoxSetForeground)
```

### **Installer fails to install SQL Server Native Client and register Silk Test Workbench as a COM server**

If the operating system performs an automatic update or the user initiates a Windows update during or before installation of Silk Test, the installer fails to install SQL Server Native Client and register Silk Test Workbench as a COM server.

Both of these problems affect Silk Central Test Manager (SCTM) integration, since SCTM uses the native client driver installed by SQL Server Express to create Silk Test Workbench DSNs. Furthermore, SCTM needs Silk Test Workbench registered as a COM server in order to use its COM interface for automation.

Choose one of the following solutions:

1. Do not install Silk Test while running a Windows update.
2. Ensure that Windows updates do not install automatically on your machine.
3. Install any pending Windows updates prior to installing Silk Test and reboot the system before installing Silk Test.

### **Modifying the hot key combination to include multiple modifiers causes additional keys to be recorded**

If you configure a hot key for insert verification or start/stop record that contains multiple modifiers, occasionally the modifier press key action is recorded. For instance, if you specify a hot key combination of `Alt+Ctrl+F9`, `Alt` may be recorded as a press key action instead of being ignored as part of the hot key combination. This is a problem during playback because the appropriate release key actions are missing.

Manually remove the actions related to the modifiers, or only use one hot key modifier.

### **Data Source Names (DSNs) do not work on 64-bit systems**

A 64-bit DSN for SQL Server or Oracle cannot be used with Silk Test Workbench. To create a DSN for a 64-bit machine, click **Start > Silk > Silk Test > Administration > Data Sources (ODBC)** and create a 32-bit DSN. You can also use the WOW64 tools located at `C:\WINDOWS\SysWOW64\odbcad32.exe`.

### **Silk Test Workbench requires a network adapter to start**

A network adapter must be available on the machine on which Silk Test Workbench is installed to enable the communication between Silk Test Workbench and the Open Agent during the start of Silk Test Workbench. If no network adapter is available, a "Failed to connect to OpenAgent" error occurs. Other clients, such as Silk Test Classic and Silk4J, do not require a network connection to start.

Ensure that a network adapter is available before starting Silk Test Workbench.

### **SQL Server Express might not install on Windows Vista SP1 machines**

On Windows Vista SP1 machines, ensure that the full version of .NET 3.5 SP1 is installed if you plan to install SQL Server 2008 Express. To install the full version of .NET 3.5 SP1, download it from the Microsoft Web site.

### **Identify from Screen Preview creates an incorrect object map item for a migrated database**

After a database is migrated from Silk Test Workbench 2010 to Silk Test Workbench 2010 R2, using the **Identify from Screen Preview** creates incorrect object map items.

Use the **Update Screen** command to recapture the screen before using **Identify from Screen Preview**.

### **When a child script is called from a parent script, the child script can access the object map out of scope**

If a parent and child script reside in different projects and use different object maps, the child script runs successfully even though the object map is out of scope for the child script.

Since the script runs successfully, there is no resolution necessary. However, this behavior will not work in future releases.

### **When multiple users attempt to simultaneously edit the same asset on a SQL 2008 database, issues with the asset locking mechanism might occur**

To test for the problem, open an asset, like a visual test, for editing in the Silk Test Workbench. While the asset is open, attempt to open the same asset from a different instance of Silk Test Workbench. If the problem occurs, either the second instance of Silk Test Workbench will be able to simultaneously edit the same asset, or the second instance will receive a message with incomplete data. The user name and machine name will both be blank.

In SQL Server, allocate database admin rights to the SQL database users that use that database.

### **Unexpected error while exporting assets in a SQL database**

The unexpected error, `Conversion failed when converting from Character string to Unique identifier`, occurs when exporting assets in a SQL database.

Import the exported database and press OK if any error messages occur. The import finishes successfully and the assets are available for use.

### **Unexpected behavior while using an Access database**

Compact the database using the Silk Test **Database Maintenance** tool. Click **Start > Programs > Silk > Silk Test > Administration > Database Maintenance**. Then, open the database and click **Tools > Compact Database**.

### **Silk Test Workbench with UAC enabled during configuration cannot connect to an SQL Server**

You cannot connect to an SQL server during configuration, when you are using Silk Test Workbench without administrator rights, and with UAC enabled.

To connect to the SQL server during configuration, you have to start Silk Test Workbench with the **Run as administrator** option.

### **Silk Test Workbench might crash when the connection to a remote SQL database is lost**

When you are using a remote SQL database, and that database disconnects from Silk Test Workbench, for example because of a server restart, Silk Test Workbench might crash when trying to communicate with the database.

To reconnect with the database, restart Silk Test Workbench.

### **The replay of a visual test might get very slow if the Control capture option is set**

Set the Control capture option to **No** to improve playback performance.

### **Microsoft Windows 7 Classic theme: Screen Previews of visual tests might contain the Recording window**

Screen previews of visual tests which are recorded on a Microsoft Windows 7 machine with the Classic theme might contain the **Recording** window. To record visual tests in Microsoft Windows 7 without the **Recording** window, do not use the Classic theme.

## **Silk4NET**

### **If you do not have a TrueLog result file after test execution make sure that:**

- A Silk4NET project which is created in Visual Studio 2010 is executed within a Visual Studio 2010 environment (also when executed through the command line or Team Foundation Server).
- A Silk4NET project which is created in Visual Studio 2012 is executed within a Visual Studio 2012 environment (also when executed through the command line or Team Foundation Server).
- A Silk4NET project which is created in Visual Studio 2013 is executed within a Visual Studio 2013 environment (also when executed through the command line or Team Foundation Server).
- The test class contains the `SilkTestClass` attribute.
- You have write access to the location where the TrueLog file will be created.

### **If you get the following error message during replay "Unit Test Adapter threw exception... " make sure that:**

- A Silk4NET project which is created in Visual Studio 2010 is executed within a Visual Studio 2010 environment (also when executed through the command line or Team Foundation Server).
- A Silk4NET project which is created in Visual Studio 2012 is executed within a Visual Studio 2012 environment (also when executed through the command line or Team Foundation Server).
- A Silk4NET project which is created in Visual Studio 2013 is executed within a Visual Studio 2013 environment (also when executed through the command line or Team Foundation Server).

### **How to migrate Silk4NET projects created in a prior version of Visual Studio to a later version of Visual Studio:**

- Open the solution in the prior version of Visual Studio.
- Change the target framework of your Silk4NET projects to the appropriate version of the .NET Framework. For example, to migrate the projects from Visual Studio 2010 to Visual Studio 2012, set the target framework to .NET Framework 4.5.

- Remove the reference to the `UnitTestingExtension` of the prior version of Visual Studio from your Silk4NET projects. For example, if the prior version is Visual Studio 2010, remove the reference to `SilkTest.Ntf.VisualStudio2010.UnitTestingExtension` from your Silk4NET projects.
- Add the reference to the later version of Visual Studio to your Silk4NET projects. For example, to migrate the projects to Visual Studio 2012, add the reference `SilkTest.Ntf.VisualStudio2012.UnitTestingExtension` to your Silk4NET projects.

### **When you are using object maps, existing locators that do not start with a slash will no longer work**

Locators that include only a class name and that do not start with a slash, for example `PushButton`, will no longer work if object maps exist. This issue might result in breaking existing scripts that were created in a Silk Test version prior to Silk Test 14.0. For the previous example the script will fail with the following error:

Identifier 'PushButton' was not found in the Object Map.

More complex locators that include more than a class name, for example `PushButton[@caption=OK]` will continue to work, even if object maps exist.

To fix this issue, add a `//` to the start of any such locator. For example, if the locator `PushButton` in the following code does no longer work:

```
PushButton button = mainWindow.find("PushButton");
```

Change the code to:

```
PushButton button = mainWindow.find("//PushButton");
```

## **Silk4J**

### **The Silk4J menu does not open correctly in Eclipse 4.1**

When you click on the Silk4J menu button in Eclipse 4.1, the menu items are not displayed. This is an Eclipse issue that is fixed for Eclipse 4.2. For additional information, see [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=367159](https://bugs.eclipse.org/bugs/show_bug.cgi?id=367159).

### **When you are using object maps, existing locators that do not start with a slash will no longer work**

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Identifier 'PushButton' was not found in the Object Map.

More complex locators that include more than a class name, for example `PushButton[@caption=OK]` will continue to work, even if object maps exist.

To fix this issue, add a `//` to the start of any such locator. For example, if the locator `PushButton` in the following code does no longer work:

```
PushButton button = mainWindow.find("PushButton");
```

Change the code to:

```
PushButton button = mainWindow.find("//PushButton");
```

# Resolved Issues

The following issues have been resolved:



Issue #	Description
RPI 603319	Rumba: <code>SynchSendKeys</code> does not expose all parameters of <code>RDE_SendKeys_Hsynch</code> .
RPI 607455	Updating to Silk Test 15.5 Hotfix 3 breaks the existing Silk4J environment.
RPI 606218	Silk Test Classic: Regression issue with <code>pwrbldex.inc</code> after upgrade to Silk Test 15.5.
RPI 607455	Updating to Silk Test 15.5 Hotfix 3 breaks the existing Silk4J environment.
RPI 1093359	Silk Test Classic: The Open Agent drops the embedded Win32 recognition.
RPI 1094206	Silk Test 15.0 or later cannot resolve some objects in .NET applications.
RPI 1094533	The Silk Test integration with SAP eCATT is causing additional licenses to be checked out.
RPI 1094658	Silk Test is not able to detect WPF controls that are hosted in Windows Forms.
RPI 1094755	Silk Test Workbench cannot be started from SAP eCATT and Silk Test Workbench cannot save BLOBs to SAP.
RPI 1094876	Silk Test Workbench does not retain the password for SAP eCATT when pushing scripts to eCATT from Silk Test Workbench.
RPI 1094938	Silk Test Classic: The Open Agent cannot record Javascript on Internet Explorer 8.
RPI 1094960	Owner-drawn menu text capturing performs a <code>GetDC</code> call without a matching <code>ReleaseDC</code> call, causing a GDI-handle leak.
RPI 1094966	Silk Test Workbench: Multiple object map entries are created for objects where a wildcard is used.
RPI 1094977	Silk Test Workbench hangs while killing the open agent from the command line.
RPI 1094986	Silk Test 15.5: Silk Test generates invalid locators for some custom Windows Forms controls.
RPI 1095408	Silk Test Workbench: Visual Test steps that include a <code>ComboBox.Select</code> with parameters no longer work when upgrading to Silk Test 15.5.
RPI 1095410	Silk Test Classic: The <code>TypeKeys</code> function is slower when Microsoft Lync is running.
RPI 1095411	Silk Test 15.5: The <code>Replace</code> function in Silk Test Workbench does only accept one argument.
RPI 1095440	A <code>ComboBox.Select</code> with an empty text in a .NET script falsely selects the first item in the <code>ComboBox</code> instead of the actual item with the empty text.
RPI 1095487	Silk Test Workbench: Select parameter reads <code>[ Empty ]</code> after upgrading to Silk Test 15.5.
RPI 1095493	Silk Test Workbench: Playback options defined in Silk Central are not being used.
RPI 1095500	Silk Test 15.5 cannot recognize controls on some modal dialogs with Microsoft Windows 7 and Internet Explorer 9.
RPI 1095504	Silk Test Workbench 15.5 crashes when adding an expression with less than eight characters to a visual test.
RPI 1095538	Silk Test Workbench 15.5: Adding an expression with <code>Left/Right</code> operands to a visual test fails.
RPI 1095613	Silk Test is unable to identify elements after clicking on a new <code>SapTab</code> control.
RPI 1095702	Rumba: Silk Test does not correctly record completely-filled text fields on the AS400 display.
RPI 1095703	Rumba: When a tab is used to navigate on the AS400 display, the recorded script is wrong.


Issue #	Description
RPI 1095704	Rumba: Silk Test does not recognize single-character text fields on the AS400 display.
RPI 1095794	Silk Test Classic is not able to copy the entire hierarchy of a Web page to the clipboard or to Silk Test Classic.
RPI 1095877	Silk Test Workbench: "Server is busy" error when executing STW.exe remotely.
RPI 1095904	The object //BrowserApplication cannot be found with Internet Explorer after applying the Microsoft update MS14-051.
RPI 1095921	Silk Test Classic: Console.GetContents() does not return content when the display language is set to German.
RPI 1095965	Silk Test Classic: Partner.exe crashes when exporting a project.
RPI 1095987	Error while starting Open Agent from Silk4NET test.
RPI 1096000	Locator dialog freezes when copying to the clipboard.
RPI 1096129	Silk4NET: Cannot use dynamic invoke to get the property Item from an object using C#.
RPI 1096137	Silk Test Workbench: Playback fails in visual test after executing an embedded script.
RPI 1096165	Excluded objects are not ignored when running Rumba screen verifications.
RPI 1096169	Silk Test Classic: The bConvert parameter of the SYS_GetRegistryValue method does not work.
RPI 1096174	Silk Test Workbench does not export assets included in an exported asset.
RPI 1096199	Silk Test Workbench: Wrong condition handling in if ... else statements.
RPI 1096307	Silk Test Workbench: Executing a visual test from a script might cause Silk Test Workbench to stop responding.

# Licensing Information

Unless you are using a trial version, Silk Test requires a license.

The licensing model is based on the client that you are using and the applications that you want to be able to test. The available licensing modes support the following application types:

Licensing Mode	Application Type
Full	<ul style="list-style-type: none"><li>• Web applications, including the following:<ul style="list-style-type: none"><li>• Apache Flex</li><li>• Java-Applets</li></ul></li><li>• Mobile Web applications.<ul style="list-style-type: none"><li>• Android</li><li>• iOS</li></ul></li><li>• Apache Flex</li><li>• Java AWT/Swing, including Oracle Forms</li><li>• Java SWT and Eclipse RCP</li><li>• .NET, including Windows Forms and Windows Presentation Foundation (WPF)</li><li>• Rumba</li><li>• Windows API-Based</li></ul> <p> <b>Note:</b> To upgrade your license to a Full license, visit <a href="http://www.borland.com">www.borland.com</a>.</p>
Premium	<p>All application types that are supported with a <i>Full</i> license, plus SAP applications.</p> <p> <b>Note:</b> To upgrade your license to a Premium license, visit <a href="http://www.borland.com">www.borland.com</a>.</p>

 **Note:** A Silk Test license is bound to a specific version of Silk Test.

# Tested Software

This section lists the software with which Silk Test 16.0 has been tested.



## Operating Systems

Silk Test 16.0 has been tested with the following operating systems:


- Microsoft Windows XP SP3
- Microsoft Windows Vista SP2
- Microsoft Windows Server 2008
- Microsoft Windows Server 2008 R2
- Microsoft Windows 7
- Microsoft Windows 7 SP1
- Microsoft Windows 8
- Microsoft Windows 8.1
- Microsoft Windows Server 2012
- Microsoft Windows Server 2012 R2

## Web Applications

For the Open Agent, Silk Test 16.0 has been tested with the following browsers and Web technologies:

Technology Type	Tested Version
Mozilla Firefox (playback only)	22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
Google Chrome (playback only)	28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40
Chrome for Android	
Stock Android Browser	
Apple Safari	
Internet Explorer	8, 9, 10, 11
Android	4.1, 4.2, 4.3, 4.4, 5  <b>Note:</b> Because of a known issue with the proxy settings of the Android emulator, you can currently not use Silk Test to test a Web application on an Android emulator with an Android version later than Android 4.4.
iOS	7.0, 7.1, 8.0, 8.1, 8.1.1, 8.1.2, 8.1.3
Silverlight	3 (Silverlight Runtime 4), 4 (Silverlight Runtime 4 and Silverlight Runtime 5)  <b>Note:</b> Microsoft has committed to support Silverlight 5.0 until 2021, but has made no concrete announcement about the future roadmap of Silverlight. Whilst we endeavour to maintain the highest levels of support for our customers, we are occasionally limited in the support we can obtain from Microsoft on this platform.
Apache Flex	Silk Test 16.0 has been tested with Apache Flex version 3.5 or later using all supported browsers and Adobe AIR 2.0 or later (built with Apache Flex 4.x)



Technology Type	Tested Version
	 <b>Note:</b> Silk Test does not support testing child domain technologies, including Apache Flex, for Web applications running in Google Chrome. Silk Test supports Adobe Flash Player 10 or later.
Java Applets	Silk Test supports Applets for Internet Explorer and Mozilla Firefox.
HTML5	
Oracle Forms	10g and 11g for Internet Explorer.

## Desktop Applications


For the Open Agent, Silk Test 16.0 has been tested with desktop applications that are developed in one of the following technologies:

Technology Type	Tested Version
Java AWT/Swing (including Java Foundation Classes)	Java 1.6, Java 1.7, Java 1.8
Java SWT	Silk Test 16.0 has been tested has been tested with Java SWT version 3.2 or later. Standalone and Rich Client Platform (RCP) applications (SWT standalone applications executed as an applet in the browser are not supported)
SAP	SAPGUI client 7.10, SAPGUI client 7.20, SAPGUI client 7.30
Rumba	8.1, 8.2, 8.3, 9.0, 9.1, 9.2, 9.3
Win 32	any
WinForms	.NET 3.0, 3.5, 3.5 SP1, 4.0, 4.5
WPF	.NET 3.5 SP1, 4.0, 4.5

## Silk Test Workbench

Silk Test 16.0 has been tested with the following databases for Silk Test Workbench asset storage:

- Microsoft SQL Server 2008 (SP2) + Express
- Microsoft SQL Server 2012
- Microsoft SQL Server 2012 SP1
- Microsoft SQL Server 2014
- Oracle 11.1
- Oracle 11.2
- Oracle 12.1. Silk Test Workbench supports Oracle 12.1 databases with the AL32UTF8 character encoding.
- Microsoft Access 2000 (as a single-user database)

 **Note:** Micro Focus recommends using Microsoft SQL Server.

## Silk4J

You can integrate Silk4J in Eclipse 3.7.2 or later, both 32 and 64 bit. Version 4.4.1 is shipped with Silk Test.

## Silk4NET

You can integrate Silk4NET into the following versions of Visual Studio:

- Visual Studio 2010 Professional
- Visual Studio 2012 Professional
- Visual Studio 2013 Professional



**Note:** Silk4NET does not support keyword-driven testing in Visual Studio 2010.

### **Silk Test Classic**

Silk Test Classic's Data Driven Workflow has been tested with:

- Text files and comma separated value files (\*.txt and \*.csv files)
- MS Excel
- MS Access
- MS SQL Server
- Oracle (partial support)
- SyBase SQL Anywhere

Silk Test Classic accesses the preceding databases using ODBC and therefore has been tested with the versions of those databases that have a working ODBC driver.



**Note:** The Silk Test Classic **Select Data Source** dialog box allows you to choose either the Silk DDA Excel or the Segue DDA Excel data source. For new data driven test cases, choose the Silk DDA Excel data source. Choose the Segue DDA Excel data source for backward compatibility. This allows existing .g.t files that reference Segue DDA Excel to continue to work.