



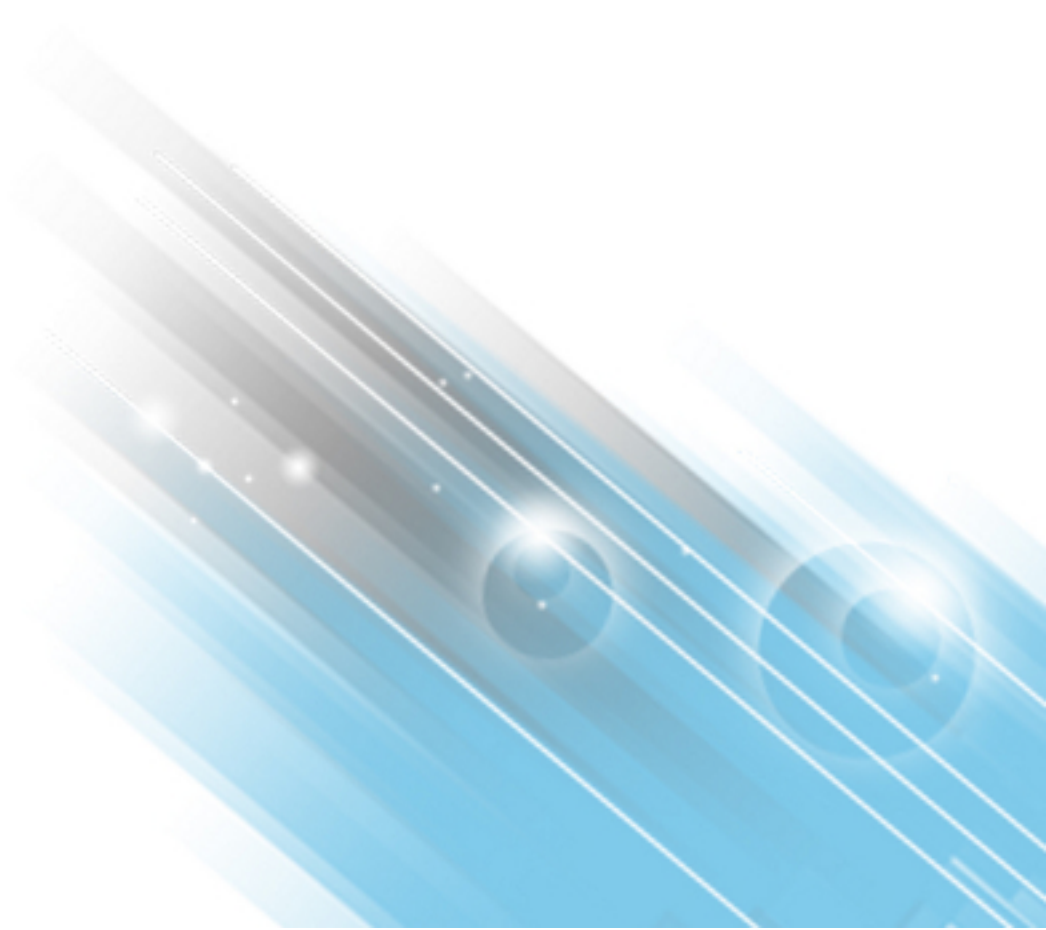
HP Unified Functional Testing

Software Version: 12.02

Windows[®] operating systems

What's New

Document Release Date: December 2014
Software Release Date: December 2014



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What's New in UFT 12.02

UFT 12.02 includes the following new functionality and support.

This section includes the following:

- ["Support for Mobile applications" below](#)
- ["Enhanced Chrome Support" on the next page](#)
- ["Enhanced Flex Support" on the next page](#)
- ["Enhanced support for SAP Applications" on the next page](#)
- ["UFT Integration with Subversion \(SVN\) \(Technology Preview\)" on page 6](#)
- ["New Demo application" on page 6](#)
- ["Web Sockets activities for API Testing" on page 7](#)
- ["Product Enhancements in Version 12.02" on page 7](#)
- ["New Environment Support in UFT12.02" on page 8](#)

Support for Mobile applications

You can now use UFT to record and run GUI tests on mobile applications running on real mobile devices hosted on HP Mobile Center.

HP Mobile Center helps you take control of your mobile reality, and addresses the challenge of optimizing mobile app quality and user experience throughout the application lifecycle. This enables you to accelerate testing on real devices, increase coverage, and solve problems before they affect users. Built on native HP technology, HP Mobile Center leverages our expertise in functional and performance testing, and integrates mobile testing with Sprinter, Unified Functional Testing, LoadRunner, and Performance Center.

Connect your devices to HP Mobile Center and immediately start testing.

For details, see:

- [HP Mobile Center Documentation](#)
- [HP Mobile Center Website](#)

Enhanced Chrome Support

UFT 12.02 has expanded its Chrome support to include key new functionalities:

On Chrome browsers, you can now:

- Record UFT GUI tests (on Google Chrome versions 31 and higher).
- Run UFT tests of Web applications built with the following Web 2.0 technologies: jQueryUI, Dojo, Google Web Toolkits (GWT), and SiebelOpenUI.

In addition, if you develop UFT Web Add-in Extensibility, some of the support you wrote will already run on Chrome. For other parts, your code can check if it is running on Chrome and make any necessary adjustments. To use Web Add-in Extensibility to support objects on Chrome, make sure to install the updated Web Add-in Extensibility SDK included with the Extensibility Accelerator on the UFT 12.02 installation setup program.

Enhanced Flex Support

The UFT Flex Add-in offers several enhancements:

- You can add test steps that access objects embedded in list items or table cells.
- You can now test your Flex applications directly from UFT, without requiring the Flex Runtime Loader or pre-compiling your application with the UFT testing agent.

To do this, you need to run your Flex application using the Flash Player Debugger.

Enhanced support for SAP Applications

UFT 12.02 has expanded its support for SAP applications in this version:

- UFT now includes additional SAPUI5 objects and methods to enable more extensive testing of SAPUI5 application. These objects are in addition to the SAPUI5 support and objects added in previous UFT releases.
- You can use the new SAPNWBC Desktop Add-in to test SAPNWBC Desktop applications. The toolkit is based on WPF Add-in Extensibility and extends the WPF Add-in to recognize unique SAPNWBC Desktop application objects and operations.

UFT Integration with Subversion (SVN) (Technology Preview)

Now you can work with Subversion (SVN) repositories from UFT without the need to switch between Windows Explorer and UFT when editing tests and resources.

You can update and commit changes in your testing assets to SVN, run a diff comparison between versions of a document, or resolve conflicts in versions of a testing assets.

New Demo application

Now, UFT includes a new demo application, in which the GUI and API sides are both embedded. While the new demo application is still based on a flight reservation booking business process (as the old demo applications were), this new demo application provides a unified GUI and API, which enables you to practice using both GUI and API tests of the same application.

The demo application is based on WPF technology, so you must install and load the WPF Add-in to enable UFT to work with the demo application.

In conjunction with this new demo application, the CodeSamplesPlus tests, found at **<UFT installation folder>/CodeSamplesPlus/Flight_Samples** have been updated to work with the new demo application.

Note: The older Flights GUI and Flights API applications (from UFT version 12.01 and earlier and QuickTest) are still accessible from the installation. You can find them here:

- <UFT installation folder>\samples\flight\app\flight4a.exe (for the Flight GUI application)
- <UFT installation folder>\samples\flight_service\HPFlights_Service.exe (for the Flight API application)

These applications will be removed from the UFT installation and deprecated in the upcoming release.

Web Sockets activities for API Testing

Using API testing, UFT can now test the communication of your application's Web sockets. Using the new Web Sockets activities, you can open a Web socket connection, send and receive messages from the Web Socket, and close the Web socket after it is no longer needed for your test.

Product Enhancements in Version 12.02

- UFT has added the option to convert a GUI test's path to an associated resources from a relative path to an absolute path, when the test and its associated resources are saved in an ALM project. This increases test run performance, as it lessens the time that UFT must look for and download a test's resource.

This feature is only enabled if the test resources are saved in the Test Resources Module in ALM.

- You can now use run conditions for individual components in a BPT test. Previously, run conditions were used only for a business process flow, but now you can specify specific run conditions for each component contained in a BPT or business process flow.
- In the HP Jenkins Plug-in, you can now use the Jenkins environment parameters to

specify the path to a UFT test. This in turn enables the plug-in to run the UFT test as part of the build process.

- In the *HP UFT Object Model Reference for GUI Testing* in the Help, object and method documentation has been reorganized to put all methods for an object on the same Help page.

New Environment Support in UFT12.02

UFT 12.02 now includes the following new supported environments:

- Updated support for the latest versions of Firefox and Chrome. For details on specific browser versions, see the *HP Unified Functional Testing Product Availability Matrix*.
- Chrome 64-bit (starting from Chrome 37)
- Flex 4.12 (note that you must select a different version of the UFT Runtime Loader for these applications)
- Oracle 12.1.3
- Full support for Windows Server 2012 R2
- jQueryUI 1.10 and 1.11
- Dojo 1.9/1.10
- Siebel 8.1.1.9
- SiebelOpenUI 8.1.1.11
- AngularJS

What's New in UFT 12.01

UFT 12.01 includes the following new functionality and support.

This section includes the following:

- ["New Support for Windows Runtime Environments and Objects \(Technology Preview\)" below](#)
- ["New Support for Siebel Open UI Applications" on the next page](#)
- ["New Support for SAPUI5 Applications \(Technology Preview\)" on the next page](#)
- ["Official Support of Testing Web Application on Safari" on the next page](#)
- ["UFT Product Enhancements in Version 12.01" on page 11](#)
- ["New Environment Support in UFT 12.01" on page 12](#)

New Support for Windows Runtime Environments and Objects (Technology Preview)

You can use the new UFT Windows Runtime Add-in to test Windows Runtime applications running on Windows 8.x or Windows Server 2012.

A Windows Runtime application is any application running from the **Start** or **Apps** screen in Windows 8.x/Windows Server 2012 and installed from the Windows Store. These applications differ from traditional applications in previous versions of Windows (which run in the **Desktop** screen in Windows 8.x/Windows Server 2012).

In UFT, the Windows Runtime Add-in is always available when UFT is installed on a computer running Windows 8.x.

Using the Windows Runtime Add-in, you can:

- Record and run tests on your Windows Runtime applications
- Create object repositories with Windows Runtime objects
- Use UFT on Windows 8.x by easily navigating between UFT (running on the **Desktop** screen) and your Windows Runtime application

New Support for Siebel Open UI Applications

You can use the new SiebelOpenUI Web 2.0 Add in (toolkit) to test applications designed using the Siebel Open UI framework. The toolkit is based on Web Add-in Extensibility and extends the Web Add-in to recognize unique Siebel Open UI objects and operations.

The SiebelOpenUI toolkit, installed after UFT as part of the Web 2.0 toolkit installation, is displayed as a child add-in of the Web Add-in.

New Support for SAPUI5 Applications (Technology Preview)

You can use the new SAPUI5 Add in (toolkit) to test applications designed using the SAPUI5 SDK running on Internet Explorer. The toolkit is based on Web Add-in Extensibility and extends the Web Add-in to recognize unique SAPUI5 objects and operations.

The SAPUI5 toolkit is always available as a child add-in of the Web Add-in.

Official Support of Testing Web Application on Safari

The ability to test Web applications on Safari browser running on a remote Mac computer is now officially supported.

In addition to running tests on the remote Safari browser, you can now:

- Use the new Remote Object Spy to spy on Web applications running on Safari
- Use the **CaptureBitmap** test object method when running on Safari
- See snapshots of the test run in your test results

- Secure the communication between the Mac computer and the computer running UFT using an access passphrase and an SSL connection.

UFT Product Enhancements in Version 12.01

- The Unified Functional Testing Agent Chrome Extension is now available in the web store, aligning with Chrome's latest technology, and enabling automatic updates of UFT's Chrome support.
- **Using the GetVisibleText method for Insight Objects:** You can now retrieve text from an object recognized by Insight, using the OCR mechanism. You can use this text for verification purposes, or as a way of differentiating between objects or states of the application.
- **Basic support for Flex Advanced Data Grid objects:** The UFT Flex add-in now recognizes Advanced Data Grid controls as FlexTable test objects, and supports basic table functionality for these controls. In addition, UFT supports **ExpandRow**, **CollapseRow**, and **SortByColumn** operations for tables of this type.
- **Import a WADL file from a URL:** Previously, in order to use a WADL file to create REST Service methods, you had to import the WADL containing the methods from a file saved on the file system. Now, you can also import the WADL file from a URL, in the same manner you import a WSDL file from a URL.

The Flights API application also now includes a sample WADL as part of the service.

- **Use preemptive security when testing a Web service with security:** UFT can now send the Web service step's security authentication when sending a Web service request.

Previously, when testing a Web service method that required security settings, UFT did not initially send security credentials for a web service test step and instead waited for the request from the Web server for the security credentials. Now, by selecting an option in the **General** tab of the Properties pane (for HTTP Request and REST Service methods), or the HTTP tab of the Properties pane (for Web service

methods and SOAP Request steps), you can send the security information with the initial Web service request.

- **Debugging improvements:** When debugging your test, the Breakpoints and Call Stack Pane show the name of the current document (the document that contains the breakpoint or the document in the current run context of the test). This enables you to navigate your debugging session more easily.
- **Specify a destination sheet when exporting a data table to Excel:** Using the **DataTable.ExportSheet** method, you can now specify the name of the destination worksheet. This enables better control of your Excel output. For example, you can generate a different sheet for every iteration in your test run.
- **Documentation improvements:** The new HTML5 documentation format provides a new look and feel and enables you to:
 - View search results with a short excerpt from the topics found.
 - Use the search filter to limit your searches to the *HP UFT Object Model Reference for GUI Testing*, in addition to the search filters that existed previously.
 - Navigate more smoothly. For example, when you click a cross-reference, the referenced page opens and scrolls to the relevant location.

New Environment Support in UFT 12.01

UFT 12.01 now includes the following new supported environments:

- Updated support for the latest versions of Firefox and Chrome. For details on specific browser versions, see the *HP Unified Functional Testing Product Availability Matrix*.
- JDK 1.8
- HyperV (technology preview level)
- SAP Web Dynpro ABAP for NW 7.40
- Expanded Internet Explorer support for SAP Web UI

- Windows 2012 R2 (technology preview level)
- Internet Explorer 11 extended protected mode support

What's New in UFT 12.00

See the sections below to learn more about the new functionality and support available in UFT 12.01. Each section covers the changes in overall UFT as well as changes that affect GUI Testing or API Testing.

This section includes the following:

- ["UFT Installation: Faster, Smaller, and More Secure" below](#)
- ["Run GUI Tests on Safari on a Remote Mac Computer " on the next page](#)
- ["Conditionally Upload Run Results to ALM After a Run Session" on the next page](#)
- ["Product Enhancements in Version 12.00" on page 16](#)
- ["New Environment Support in Version 12.00" on page 19](#)

UFT Installation: Faster, Smaller, and More Secure

UFT 12.00 delivers a new installation package, enabling you to install UFT more quickly and with greater security:

- The size of the installation package is significantly smaller than in previous releases, speeding up the installation time.
- You can install UFT from a DVD or from a Web download package.
- You can choose to install the UFT Add-in for ALM and the Run Results Viewer as part of the UFT installation.
- The installation process includes all of the configurations needed to run UFT. You no longer have to run additional post-installation programs.
- The installation is more secure, enabling you to install UFT without needing to temporarily disable the User Account Control (UAC) for your computer.

- You can now install UFT in any supported language without the need to install a separate language pack in addition to the UFT product installation.

You can also perform a single silent installation without the need to run additional installations, including the following features:

- All installation prerequisites can be installed with a single command (without the need to install each separately)
- All add-ins (including the ALM Add-in for UFT) installed with a single silent installation command and without the need to restart
- All UFT configurations can be added to the silent installation commands
- The silent installation can be run without administrator permissions.

You can also find specific guidelines for large-scale enterprise deployment across your organization's computers, including best practices and security guidelines.

For details, see the *HP Unified Functional Testing Installation Guide*.

Run GUI Tests on Safari on a Remote Mac Computer

You can now run tests on Web applications on a Safari browser that is running on a remote Mac computer.

Note: This feature is provided at Technology Preview level.

After you install the UFT Connection Agent (provided with the UFT installation) on your remote Mac computer, UFT can connect to the Mac computer remotely and run Web steps on the Safari browser.

Note that you must design the tests locally using a supported (Windows) browser, and that you can only run Web test object steps on the Safari browser. All other steps, including Utility object steps, such as **SystemUtil.Run**, run locally on the UFT computer.

Conditionally Upload Run Results to ALM After a Run Session

Your ALM site administrator can now set a site parameter that instructs UFT to

conditionally upload run results from a run session to ALM. You can set the parameter so that the results are always uploaded, or you can use site parameter arguments to specify the conditions for which the results will be uploaded.

Once this parameter is set, all projects on the site can use the parameter when running UFT tests.

This feature is supported for ALM version 12.00.

Product Enhancements in Version 12.00

- **Run Flex Tests on Multiple UFT Instances Simultaneously (Windows Sever)**

To communicate with the Flex application it is testing, UFT now selects an available port in the range 24654 - 24663 .

This enables multiple Windows Server users to run UFT tests on Flex applications simultaneously without competing for use of the same port.

- **Connect to ALM Using External Authentication (e.g. CAC)**

UFT can now use external authentication to connect to an ALM 12.00 server and project, instead of using the traditional model of entering the user name and password in the ALM Connection dialog box.

This enables users to use their installed external authentication certificates or single sign-on mechanisms instead of maintaining and remembering a separate user name and password for their ALM projects.

If the ALM 12.00 server is configured to use an External Authentication system, such as CAC (Common Access Card) or SiteMinder, then UFT uses this authentication method when you open the ALM Connection dialog box.

- **Enable or Disable Test Runs to Stop at Breakpoints During an ALM or Automation Run**

A new RunDebug method is available in the Automation Object Model.

This method instructs UFT to stop at breakpoints when running a test using automation, whether from ALM or in an automation run.

Note: If you use the already-existing **Run** Automation method, your tests do not stop at any breakpoints saved in the test.

- **See Details of Your Test's Virtualized Services in the Run Results**

When you run a test that uses a virtualized service, you can now view the service's details in the run results:

- The name of the service and location of the deployed service
- Deployment status of the service
- The performance and data models used in this test run-time agent mode
- The data simulation and performance simulation accuracy for the virtualized service in this test run.

- **Find Help More Easily**

You can now find relevant and meaningful information in the UFT Help more easily:

- **Improved Help for API testing.** The API Testing Design section now includes a chapter about writing code that you can use in event handlers in API testing. This chapter also includes a list of common objects and properties that you can use in an API test event handler.
- **Improved search in function references**
 - **Smaller GUI Testing Object Model Reference.** The Help now contains a single copy of the Help pages for Methods and Properties shared by all test objects in UFT. This change substantially reduces the size of the Help, thereby improving search and index performance.

In the Contents pane of the Help, these pages are displayed only under a Common Methods and Properties node, parallel to the other Add-in nodes.

- Some Help functionalities that were missing since the reference format was changed from CHM to Web Help are now restored.
 - **You can now use the Index** to search for information in the GUI Testing Object Model Reference and the VBScript reference.
 - **Context sensitive Help for VBScript** keywords now opens the relevant topics.
- **Unified customizable help for creating checkpoints and output values.** In the single task for creating checkpoint or output values, select the type of checkpoint or output value you want to create and the relevant information is generated on-the-fly, containing only the details you need.
- **Easier to locate the Automation and Schema Reference CHM Files.** The reference CHM files that were previously accessible only from the Help menu (**HP UFT GUI Testing Automation and Schema References Help**) can now be reached from the Main UFT Help page.

This includes:

- UFT Automation Object Model Reference
 - Object Repository Automation Reference
 - HP Run Results Schema Reference
 - Test Object Schema Reference
 - Object Repository Schema Reference
- **Use UFT's Testing Extensibility with Newer Visual Studio Versions**

- Testing Extensibility now supports Visual Studio 2010 and Visual Studio 2012.

The sample applications have been updated:

- The Visual Studio 2003 samples were removed.
 - New Visual Studio 2010 and Visual Studio 2012 versions of the **QuickId** and **HoursReport** samples are available.
- The new Testing Extensibility SDK includes new interfaces that enable you to:
 - Add unrecorded steps to the test during a recording session.
 - Add lines to a report during a run session. The report can be generic, or associated with a test object.
 - Provide an image file for an active screen, instead of a rectangle.

UFT Testing Extensibility is provided as an independent SDK. If you are interested in Testing Extensibility, contact your HP provider.

New Environment Support in Version 12.00

- Updated Mozilla Firefox and Chrome support. For details on specific browser versions, see the *HP Unified Functional Testing Product Availability Matrix*.
- Safari on Mac (Technology Preview level): 6.00 and 6.10 (on Mac OS Mountain Lion 10.8) and 7.00 (on Mac OS Mavericks 10.9)
- Windows 8.1 (Technology Preview level)
- .NET Framework 4.5
- Testing Extensibility Support for Visual Studio 2010 and 2012
- Delphi XE2
- Stingray 11.1
- Web Dynprop ABAP for NW 7.31

What's New

What's New in UFT 12.00

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