HP Unified Functional Testing

Software Version: 12.53

Installation Guide

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Contents

UFT installation overview

This guide provides details about how to install UFT from the full installation package, as well as a compressed, lighter installation package downloadable from the Web.

In either package, installing UFT provides core UFT features, the Run Results Viewer, and the following mandatory GUI testing add-ins:

- Web
- Standard Windows
- Mobile
- Windows Runtime (when installing on computers with Windows 8.x and higher, and Windows Server 2012)

You can select additional add-ins during installation.

Web 2.0 add-ins and extensibility toolkits must be installed separately from the full installation package, after the UFT installation is complete.

The **lighter installation package** provides the UFT setup program only.

The **full installation package** provides the UFT setup program, as well as additional setup programs for UFT components. To install an additional component, select it from the UFT installation wizard **Startup** screen.

Additional UFT components include:

Component	Description
UFT Add-in for ALM	Enables UFT to communicate with ALM and run tests or components from ALM.
	Install the standalone version only if UFT is not installed on the computer.
	To install this together with UFT, select to install it while installing UFT. If you did not install this originally with UFT, and want to later on, run the installation wizard again. Select **Change**, and then select **ALM Plugin** in the Custom Setup screen.
Extensibility Accelerator for Functional Testing	Enables you to develop Web Add-in Extensibility support toolkits.
Extensibility SDKs	Enable you to develop support for Java, .NET, WPF, Silverlight, or Web object not supported by UFT by default.

Component	Description
Web 2.0 Toolkit Support	Enable you to recognize and use objects in your test from Web 2.0 technologies, including: • ASP .NET Ajax • Dojo • GWT (Google Web Toolkit) • jQueryUI • SiebelOpenUI • EXT-JS • YahooUI Web 2.0 Toolkits appear in UFT as GUI Add-ins.
License server setup	Enables you to install the AutoPass License Server, which is used to install and manage UFT concurrent and commuter licenses. For details, see "Installation and licenses" on page 35 and the *Autopass License Server User Guide*.
Run Results Viewer setup	Enables you to install a standalone version of the Run Results Viewer. Install the standalone version only if UFT is not installed on the computer.
LeanFT setup	Enables you to install Lean Functional Testing, a functional testing tool that enables you to code tests directly from your developer IDE. • Install the standalone version only if UFT is not installed on the computer. • To install this together with UFT, select to install it while installing UFT. If you did not install this originally with UFT, and want to later on, run the installation wizard again. Select **Change**, and then select the **LeanFT** in the Custom Setup screen. • You must install Node.js 4.1.2 before installing LeanFT: https://nodejs.org/en/download/ For more details, see the *LeanFT Readme*.

> **Note:** Unless otherwise specified, references to **Application Lifecycle Management** or **ALM** apply to all currently supported versions of ALM and Quality Center. Note that some features and options may not be supported in the specific edition of ALM or Quality Center that you are using.

Before installing:

- Ensure that you have required permissions, as listed in "Required access permissions" on page 9
- Review any known issues, as listed in "Known issues with installation" on page 29 and "Known issues with UFT licenses" on page 44.

If you are installing in an **enterprise** environment, review "Enterprise deployment" on page 11.

If you are **upgrading**, review "Upgrade UFT" on page 13 for specific steps that may apply to you.

Required access permissions

Verify the following access permissions before you start running UFT, or working with UFT and ALM or BPT.

This chapter includes:

Required permissions for UFT

Required file system permissions

Read/write permissions	You must have **read/write** permissions to the following files and folders, as well as any sub-folders:
	- The **Temp** folder - The folder containing UFT solutions, tests, or run results - The **<Program Files>\Common Files\Mercury Interactive** folder - The **<Program Data>\HP** folder (Windows 7 or Windows Server 2008 systems) **User Profile** folders - The **<Windows>\mercury.ini** file - The following **AppData** folders: **%userprofile%\AppData\Local\HP** **%appdata%\Hewlett-Packard\UFT** **%appdata%\HP\API Testing**
Read permissions	You must have **read** permissions to the following folders: - The **Windows** folder - The **System** folder

Required registry key permissions

Read/write permissions	All keys under: **HKEY_CURRENT_USER\Software\Mercury Interactive** or **[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Hewlett-Packard]** **HKEY_CURRENT_USER\SOFTWARE\Hewlett Packard**

Read and Query Value permissions	• **HKEY_LOCAL_MACHINE** keys • **HKEY_CLASSES_ROOT** keys

Required permissions for ALM

Read/write permissions	• ALM cache folder • **<Program Data>\HP** folder • UFT Add-in for ALM installation folder
Administrative permissions	For the first connection to ALM

Required permissions for BPT

Ensure that you have the required ALM permissions before working with business components and application areas.

Component steps

To work with component steps in ALM, you must have the appropriate **Add Step**, **Modify Step**, or **Delete Step** permissions set.

You do not need **Modify Component** permission to work with component steps.

The **Modify Component** permission enables you to work with component properties (the fields in the component Details tab).

Parameters in ALM or other testing tools

To work with parameters in ALM or in a testing tool, you must have all the parameter task permissions set in ALM.

Application areas

To modify application areas, you must have the separate permissions for resources required for modifying components, and adding, modifying, and deleting steps.

All four permissions are required.

If one of these permissions is not assigned, you can open application areas only in read-only format.

Enterprise deployment

When installing UFT in an enterprise business model across many computers in a network or company, ensure that you have administrator permissions on each computer.

This section includes:

- "UFT and User Account Control (UAC)" below
- "Stingray or Terminal Emulator Add-ins" below

UFT also supports silent installations. For details, see:

-
-

UFT and User Account Control (UAC)

You do not need to turn off the computer's User Account Control (UAC).

For users to connect to ALM from UFT for the first time without turning off UAC, you must also install the ALM client MSI file on each machine.

Generate a custom MSI for all your users with the HP ALM Client MSI Generator. This tool enables you to configure the settings for your ALM servers before installing the client-side MSI.

Download the ALM Client MSI Generator and User Guide from https://hpln.hpe.com/page/hp-alm-client-msi-generator.

Instructions for configuring the settings for a custom MSI are provided in the user guide.

> **Note:** When configuring the settings, you must select the **Check Include Component Registration** and **Use Shared Deployment Mode** options.

Stingray or Terminal Emulator Add-ins

If your users are using either the Stingray or Terminal Emulator add-ins, there are additional configurations you or the user must perform after installing UFT

Both the Stingray and Terminal Emulator Add-ins

Run the Additional Installation Requirements after the main installation on each computer.

This tool is found in the **Start** menu (**Start > All Programs > HP Software > HP Unified Functional Testing > Tools > Additional Installation Requirements**).

In the Additional Installation Requirements, select the **Run Stingray Wizard** and/or **Run Terminal Emulator Wizard** options, and follow the configuration wizard steps to set up the add-ins.

Stingray Add-in

After installing UFT, users must run the Stingray Support Configuration Wizard from inside UFT: **Tools > Options > GUI Testing** tab > **Stingray** pane > **Select Version**.

This configuration requires no administrative permissions.

Terminal Emulator Add-in

After installing UFT, users must run the Terminal Emulator configuration wizard from inside UFT: **Tools > Options > GUI Testing** tab > **Terminal Emulator** pane **> Open Wizard**

Users must have administrator permissions to run this wizard.

You can also run the wizard once, and then save the settings to a registry file that can be deployed on all computers, as follows:

1. In the final screen of the Terminal Emulator Wizard, select the **Save terminal emulator settings to file** option.

    > **Note:** Ensure that you record the vendor name and emulator name assigned to the configuration, as wel as the exact location of the **.reg** file.

2. Copy the file to the **<UFT installation folder>\dat** folder on your computer.
3. Double-click the registry file to open the Registry Editor message box.
4. Click **Yes** to add the information into the registry. A message opens confirming that the information has been copied into the registry.
5. Click **OK**. The emulator name assigned to this configuration is added to the list of available terminal emulators for your UFT installation.

Upgrade UFT

You can upgrade directly to the most recent version of UFT from any previous version of UFT, or from Service Test 11.50.

For other upgrades, including versions of QuickTest or Service Test versions earlier than 11.50, manually uninstall QuickTest or Service Test, and then install UFT.

Upgrades retain **Run Session** and **Startup** options only.

This topic includes:

- "Upgrade licenses" below
- "Upgrade with a concurrent license" below
- "Upgrade with Web tests on Safari" on the next page
- "Upgrade with API tests" on the next page
- "Upgrade with text recognition options in automation scripts" on the next page
- "Upgrade after using UFT and ALM" on the next page
- "Upgrade with the QTPNET_00015 patch" on the next page
- "Upgrade from QuickTest Professional 11.00" on page 15

Upgrade licenses

If you are upgrading from QuickTest, Service Test, or a version of UFT earlier than 12.50, you must get a new license.

Do this from the HPE Software Licenses and Downloads portal, where you can access entitlements to software activations and downloads.

You will need the original **Order Number** (not the **SAID**) to access the entitlements in this Portal.

For assistance, contact a contact a regional licensing support center or your sales representative.

Upgrade with a concurrent license

UFT supports the Autopass License Server as its concurrent license server.

If you are upgrading to UFT with a concurrent license, you must also upgrade your concurrent license server and install your licenses on the Autopass License Server.

For full details, see the *Autopass License Server User Guide* , accessible from the AutoPass License Server page on HPE Live Network, or from the **License Server** setup link in the **UFT Setup** wizard.

> **Note:** If you are installing UFT from the compressed package for the Web, this option is not available. If you need to install UFT and the License Server, you must install UFT from the full installation package.

Upgrade with Web tests on Safari

If you used a previous version of UFT to test Web applications on Safari, you must reinstall the UFT Connection Agent on the Mac from the current version of UFT.

The UFT Connection Agent preferences and the Unified Functional Testing Agent Safari extension preferences are reset to their defaults.

Upgrade with API tests

If you plan to run tests of a Web Service using security created using Service Test or UFT 11.53 or earlier, you must have the .NET Framework 3.5, WSE 2.0sp3 package, and WSE 3.0 package installed on your computer.

These prerequisites are not provided with the UFT installation. If they are not installed on your computer, you can install them from the following locations on the DVD:

NET 3.5 Framework	**DVD/prerequisites/dotnet35_sp1/donetfx35_sp1.exe**
WSE 2.0 sp3	**DVD/prerequisites/wse20sp3/MicrosoftWSE2.0SP3Runtime.msi**
WSE 3.0	**DVD/prerequisites/wse30/MicrosoftWSE3.0Runtime.msis**

Upgrade with text recognition options in automation scripts

If you are running UFT with an automation script and have added text recognition options to the script, the following properties are obsolete and must be updated:

- Update **TextRecognitionLanguages** to **AbbyOcrLanguages**
- Update **TextRecognitionOrder** to **TextRecognitionOcrMechanism**

Upgrade after using UFT and ALM

If you upgrade to UFT from an version of UFT earlier than 12.50 shortly after using UFT to run GUI tests from ALM, make sure to stop the Remote Agent (if running) before running tests from ALM again.

To stop the previous Remote Agent process, in the Windows system tray, right-click the Remote Agent icon and select **Exit**.

Upgrade with the QTPNET_00015 patch

If you install UFT while the **QTPNET_00015** patch (a QuickTest 10.00 patch) is installed on your computer, UFT may behave unexpectedly.

Before installing UFT, remove the patch from the Windows Control Panel Add/Remove Programs dialog box.

Upgrade from QuickTest Professional 11.00

When upgrading from QuickTest Professional 11.00 and installing UFT into the same directory as QuickTest, certain files will be missing from the installation.

After the upgrade, run the UFT installation again and select the **Repair Installation** option.

Install UFT

This chapter includes:

- "Installation prerequisites" below
- "Install UFT with the install wizard" on the next page
- "UFT silent installation" on page 20
- "Verify the installation" on page 28
- "Known issues with installation" on page 29

Installation prerequisites

Before installing, verify the following prerequisites:

Permissions	Verify that you are logged on with the relevant access permissions.
	For details, see "Required access permissions" on page 9.
Install location	Select the location where you want to install UFT.
	Do not install UFT on a network drive.
	The installation path, and the path to the installation files, must include English characters only.
Computer state	Ensure that your computer does not need to be restarted.
System requirements	Ensure that your computer meets all minimum system requirements listed here:
	https://hpln.hpe.com/page/uft-system-requirements.
Internet access	If you are installing the UFT Installation Package for the Web, ensure that you have internet access.
Upgrades	If you are upgrading, check any relevant prerequisites described in "Upgrade UFT" on page 13.
Licenses	Know which type of license you are using.
	If you are using a concurrent license, have the license server URL available.
	For more details, see "Installation and licenses" on page 35.
Add-ins	Know which add-ins you want to use for GUI testing. We recommend installing only those you expect to use.

Note: If you install the UFT Add-in for ALM as part of the installation and you plan to work with

ALM 11.52 patch 4 or earlier, you must also install the Microsoft Visual C++ 2005 SP1 Redistributable Package on your computer.

You can download this file from http://www.microsoft.com/en-us/download/details.aspx?id=5638.

Install UFT with the install wizard

The UFT install wizard guides you through the installation process.

If you are installing UFT on a computer using a language other than English, your installation setup and wizard automatically runs in the language of your computer.

When the Startup screen opens, select **Unified Functional Testing Setup**. If you do not see this screen, run the **setup.exe** file in the UFT installation directory.

Follow the steps in the wizard to complete your installation.

This topic also includes additional details about the install wizard:

- "License Agreement screen" below
- "Custom Setup screen" below
- "UFT Configuration screen" on the next page

When the UFT installation is complete, you are prompted to view the **Readme** and installation log.

You may also be prompted to restart your computer. If you are, we recommend restarting as soon as possible. Delaying the system restart may result in unexpected UFT behavior.

If you are using Web 2.0 add-ins or extensibility toolkits, perform additional installations. For details, see "Install Web 2.0 add-ins or extensibility toolkits" on page 19.

License Agreement screen

By default, UFT is installed in English.

If you want to install UFT in the language of your operating system, select the language option at the bottom of this screen.

Custom Setup screen

Select the features that you want to install:

Feature	Description
Runtime Engine	Mandatory. Enables you to run UFT or LeanFT tests.

Feature	Description
UI Designer and IDE	Enables you to edit UFT tests.
Run Results Viewer	Enables you to view UFT or LeanFT run results. Alternately, you can view run results in a browser window without the Run Results Viewer.
Samples	Demo applications used in the UFT tutorials.
Product Documentation	Enables you to access a local version of the Help Center and additional documentation.
ALM Plugin	Enables you to run and edit UFT tests directly from ALM.
LeanFT	Enables you to create functional tests directly from your developer IDE.
GUI Testing Add-ins	Provide the support which enable you to test applications using supported technology versions. You must install the Web Add-in to test applications based on Web 2.0 technologies.

For each feature, select one of the following installation options:

▭	**Will be installed on local hard drive.** Installs the selected feature on your local hard drive. Sub-features of the selected feature are not installed.
▭	**Entire feature will be installed on local hard drive.** Installs the entire selected feature and its sub-features on your local hard drive. For example, you can instruct UFT to install the .NET Add-in with its sub add-ins, Silverlight and Windows Presentation Foundation.

Selecting ✖ **Entire feature will be unavailable.** excludes the feature from the installation. It will not be available in UFT.

UFT Configuration screen

Select any required items you want to configure automatically with the UFT installation.

Configure Internet Explorer settings	Enables UFT to use the Microsoft Script Debugger application during test runs.
	Alternately, configure these settings manually before running UFT. In **Internet Options** > **Advanced**, select the following options:
	• **Disable script debugging**
	• **Enable third-party browser extensions**
Enable running UFT remotely from ALM	Changes DCOM permissions and security settings and opens a firewall port on your UFT computer.
	Required if you are running UFT on Windows 7, and want to run UFT tests remotely from ALM.
	To set these options manually later on, see https://softwaresupport.hpe.com/group/softwaresupport/search-result/-/facetsearch/document/KM02239325
Enable running UFT remotely from Automation Scripts	Changes DCOM permissions and security settings to enable other computers to remotely control UFT using automation scripts.
	Caution: Selecting this option enables remote users to control UFT on this machine, exposing the UFT computer to security risks.
	To set these options manually later on, see https://softwaresupport.hpe.com/group/softwaresupport/search-result/-/facetsearch/document/KM02239325
Download and Install Microsoft Script Debugger	Provides the debugging environment that UFT uses during test runs.
	This item is displayed only when not already installed.

Install Web 2.0 add-ins or extensibility toolkits

You must perform an additional installation to use Web 2.0 add-ins or extensiblity toolkits. Extensibility toolkits enable you to develop support for add-in objects not currently supported by UFT add-ins.

Do one of the following, depending on the type of UFT installation you performed:

UFT installation package	Web 2.0 / extensibility installation
Full installation package	1. Run the UFT installation wizard. In the UFT installation start screen, select the **Add-in Extensibility and Web 2.0 Toolkits** option. 2. In the **Unified Functional Testing Add-in Extensibility and Web 2.0 Toolkit support** page, select the Extensibility SDK or Web 2.0 Toolkits installation option that you want. 3. Follow the steps in the wizard to complete your installation.
Lighter installation package for the Web	1. After performing the UFT installation, navigate to the **<UFT installation>\Installations\Web2AddinSetup** folder. 2. In the **Web2AddinSetup** folder, run the **Web2AddinSetup.exe** file. 3. Follow the steps in the wizard to complete your installation.

After your installation, the toolkit files and Extensibility SDKs are found in the **<UFT installation>\dat\Extensibility** folder.

Web 2.0 add-ins are displayed as child add-ins to the Web Add-in in the Add-in Manager when starting UFT.

UFT silent installation

You can install UFT and the ALM Add-in silently on your computer or a remote computer.

Before installing silently:

- **Verify** that you have administrator privileges.
- **Save** any open files and close all open applications.
- Note that silent installation commands are **case-sensitive** and should be entered exactly as listed.
- If you are installing the lighter installation package from the web, in the silent installation commands, **change** <UFT installation directory> to the download directory you used.

The following is an example of a standard silent UFT installation:

```
msiexec /i "<UFT installation directory>\Unified Functional Testing\MSI\Unified_
Functional_Testing_x64.msi" /qb
```

See also:"Install licenses from the command line" on page 39

Silent installation command reference

Prerequisites	"Install all UFT prerequisites" below
	"Install specific UFT prerequisites" below
	"Install UFT Add-in for ALM prerequisites" on the next page
	"Install Run Results Viewer prerequisites " on page 23
Install UFT	"Install UFT silently" on page 23
Install individual UFT features	"Install individual UFT features" on page 23
	"Mandatory commands" on page 24
	"Optional commands, for UFT core components" on page 24
	"Optional commands for UFT Add-ins" on page 25
	"Commands for LeanFT components" on page 24
Standalone UFT Add-in for ALM	"Install a standalone UFT Add-in for ALM" on page 26
Localization	"Install localized versions of UFT" on page 26
Remote configuration options	"Set UFT remote configuration options" on page 27
Additional commands	"Additional silent installation commands" on page 28

Install all UFT prerequisites

```
<UFT installation directory>\Unified Functional Testing\EN\setup.exe
/InstallOnlyPrerequisite /s
```

back to top

Install specific UFT prerequisites

Some items have different commands for different systems. Run the command most appropriate for your system.

System	Silent Command Line Syntax
.NET Framework 4.5	`<UFT installation directory>\prerequisites\dotnet45\dotnetfx45_full_x86_x64.exe /q /norestart`

Microsoft Access database engine 2010	`<UFT installation directory>\prerequisites\msade2010\AccessDatabaseEngine.exe /quiet`
Microsoft WSE 2.0 SP3 Runtime	`<UFT installation directory>\prerequisites\wse20sp3\MicrosoftWSE2.0SP3Runtime.msi /quiet /norestart ALLUSERS=1`
Microsoft WSE 3.0 Runtime	`<UFT installation directory>\prerequisites\wse30\MicrosoftWSE3.0Runtime.msi /quiet /norestart ALLUSERS=1`

Microsoft Visual C++ 2010 Run-time Components for 32/64 bit Operating Systems	`<UFT installation directory>\prerequisites\vc2010_redist\vcredist_x86.exe /q`
	
	`<UFT installation directory>\prerequisites\vc2010_X64_redist\vcredist_x86.exe /q`

Microsoft C++ 2012 Redistributable	`<UFT installation directory>\prerequisites\vc2012_redist_x86\vcredist_x86.exe /quiet /norestart`
	
	`<UFT installation directory>\prerequisites\vc2012_redist_x64\vcredist_x64.exe /quiet /norestart`

back to top

Install UFT Add-in for ALM prerequisites

System	Silent Command Line Syntax
.NET Framework 4.5	`<UFT installation directory>\prerequisites\dotnet45\dotnetfx45_full_x86_x64.exe /q /norestart`

Microsoft Visual C++ 2012 Redistributable	`<UFT installation directory>\prerequisites\vc2012_redist_x86\vcredist_x86.exe /quiet /norestart`
	
	`<UFT installation directory>\prerequisites\vc2012_redist_x64\vcredist_x64.exe /quiet /norestart`

back to top

Install Run Results Viewer prerequisites

System	Silent Command Line Syntax
.NET Framework 4.5	`<UFT installation directory>\prerequisites\dotnet45\dotnetfx45_full_x86_x64.exe /q /norestart`

Microsoft Visual C++ 2012 Redistributable	`<UFT installation directory>\prerequisites\vc2012_redist_x86\vcredist_x86.exe /quiet /norestart`
	
	`<UFT installation directory>\prerequisites\vc2012_redist_x64\vcredist_x64.exe /quiet /norestart`

back to top

Install UFT silently

Run the msiexec command to install UFT using the following syntax.

If you do not specify an installation folder, UFT is installed in the default installation folder.

64 bit

```
msiexec /i "<UFT installation directory>\Unified Functional Testing\MSI\Unified_
Functional_Testing_x64.msi" /qb
```

86 bit

```
msiexec /i "<UFT installation directory>\Unified Functional Testing\MSI\Unified_
Functional_Testing_x86.msi" /qb
```

back to top

Install individual UFT features

Use the ADDLOCAL MSI property in the silent installation command line to specify the UFT features and add-ins that you want to install.

If you want to install only the UFT core components, you do not need to use this option.

> **Note:** When installing a feature using the ADDLOCAL property, its parent always is installed as well.

The following example installs UFTRuntime Engine only.

```
msiexec /i "<UFT installation directory>\Unified Functional Testing\MSI\Unified_
Functional_Testing_x64.msi" /qb ADDLOCAL="Core_Components" TARGETDIR="<UFT_Folder>"
ALLOW_OTHERSRUNTESTS=1
```

The following example performs a standard installation with the Java Add-in

```
msiexec /i "<UFT installation directory>\Unified Functional Testing\MSI\Unified_
Functional_Testing_x64.msi" /qb ADDLOCAL="Core_Components,IDE,Test_Results_
Viewer,Help_Documents,Samples,Java_Add_in" TARGETDIR="<UFT_Folder>"
```

The following example performs a standard installation with Web and Java Add-ins, the DCOM configurations set, and the Microsoft Script Debugger not downloaded.

```
msiexec /i "<installation_download_directory>\Unified Functional Testing\MSI\Unified_
Functional_Testing_x64.msi" /qb ADDLOCAL="Core_Components,Samples,Java_Add_in" DLWN_
SCRIPT_DBGR=0 CONF_DICOM=1 TARGETDIR="<UFT_Folder>"
```

Mandatory commands

Command Syntax	Description
Core_Components	Installs the UFT Runtime Engine.

back to top

Optional commands, for UFT core components

Command Syntax	Description
IDE	Installs the UFT user interface.
Test_Results_Viewer	Installs the Run Results Viewer.
Samples	Installs the sample applications included with the UFT installation.
Help_Documents	Installs the UFT Help Set.
ALM_Plugin	Installs the UFT Add-in for ALM.

back to top

Commands for LeanFT components

Command Syntax	Description
LeanFT_Engine	Installs the LeanFT run-time engine.

LeanFT_Client	Installs the LeanFT client.
Vs2012Addin	Installs the LeanFT Plugin for Microsoft Visual Studio 2012.
Vs2013Addin	Installs the LeanFT Plugin for Microsoft Visual Studio 2013.
EclipseAddin	Installs the LeanFT Plugin for Eclipse.
ECLIPSE_INSTALLDIR	The path to your Eclipse IDE.

back to top

Optional commands for UFT Add-ins

Installs various UFT add-ins:

- ActiveX_Add_in
- Visual_Basic_Add_in
- Web_Add_in
- Delphi_Add_in
- Flex_Add_in
- Java_Add_in
- _Net_Add_in
- Silverlight_Add_in
- WPF_Add_in
- Oracle_Add_in
- PeopleSoft_Add_in
- PowerBuilder_Add_in
- Qt_Add_in
- SAP_Solutions_Add_in
- SAP_eCATT_integration
- Siebel_Add_in
- Stingray_Add_in
- TE_Add_in
- VisualAge_Add_in

back to top

Install a standalone UFT Add-in for ALM

If you are installing UFT, you cannot use this command to install the UFT Add-in for ALM. Instead, see "Install individual UFT features" on page 23.

In the command line, run the msiexec command to install the UFT Add-in for ALM, using the following syntax:

```
msiexec /i "<UFT installation directory>\ALMPlugin\MSI\<ALM_Plugin_File>"
/qn
```

For example:

```
msiexec /i "<UFT installation directory>\ALMPlugin\MSI>\Unified_
Functional_Testing_Add-in_for_ALM.msi" /qn
```

See also: "Additional silent installation commands" on page 28.

back to top

Install localized versions of UFT

In the command line, add the PRODUCT_LOCALE property to the msiexec command to install the following localized versions:

Language	Command
Brazilian Portuguese	PRODUCT_LOCALE="PTB"
Chinese	PRODUCT_LOCALE="CHS"
Dutch	PRODUCT_LOCALE="NLD"
French	PRODUCT_LOCALE="FRA"
German	PRODUCT_LOCALE="DEU"
Italian	PRODUCT_LOCALE="ITA"
Japanese	PRODUCT_LOCALE="JPN"
Korean	PRODUCT_LOCALE="KOR"
Russian	PRODUCT_LOCALE="RUS"
Spanish	PRODUCT_LOCALE="ESP"

The following example installs the German version of UFT with the .NET Add-in:

```
 msiexec /i "<UFT installation directory>\Unified Functional Testing\MSI\Unified_
Functional_Testing_x64.msi" /qb ADDLOCAL="Core_Components,Samples,_Net_Add_in"
PRODUCT_LOCALE="DEU" TARGETDIR="<UFT_Folder>"
```

back to top

Set UFT remote configuration options

By default, the **Allow running UFT remotely from ALM** and **Allow running UFT remotely from Automation Scripts** options are not included. To set this option for a silent installation, set the value of each option to =1

Option	Command
Configure Internet Explorer settings	CONF_MSIE
Allow running UFT remotely from ALM	ALLOW_RUN_FROM_ALM
Allow running UFT remotely from Automation Scripts *	ALLOW_RUN_FROM_SCRIPTS
Download and install Microsoft Script Debugger	To exclude this option from the installation, set: DLWN_SCRIPT_DBGR=0)

By default, the silent installation does not configure DCOM settings required for remotely controlling UFT using automation scripts.

To configure the DCOM settings for automation scripts, use the following synax in your silent installation command:

ALLOW_RUN_FROM_ALM=1

ALLOW_RUN_FROM_SCRIPTS=1

Caution: Setting this option enables remote users to control UFT on this machine, exposing the UFT computer to security risks.
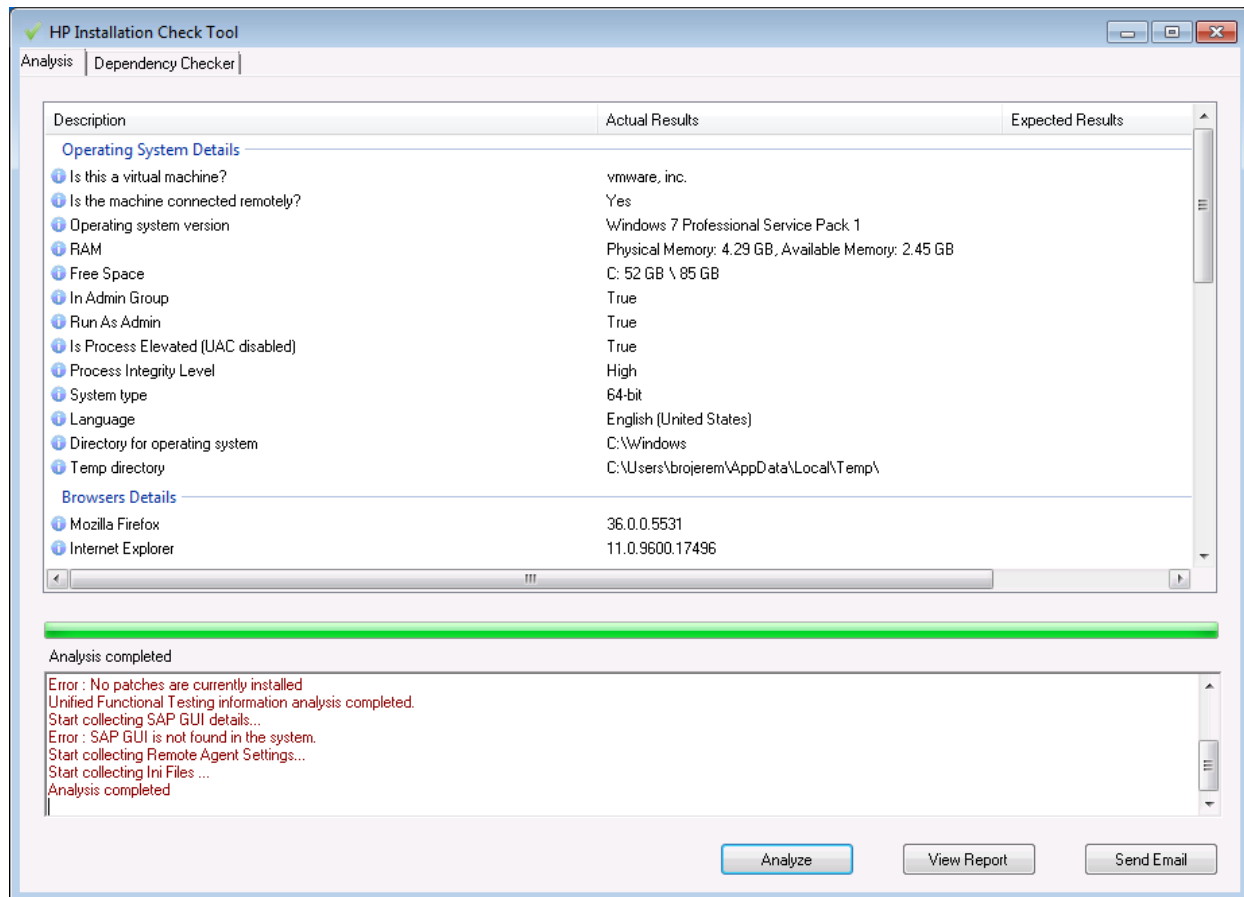
back to top

Additional silent installation commands

Command / Argument	Description
ADDLOCAL (UFT core installation only)	(Optional) Instructs the silent installation to install specific UFT features and add-ins. For more details and a list of available features, see "Install individual UFT features" on page 23. **Note:** • If you do not use this argument, UFT is installed with the default add-ins. • You must include Core_Components in the ADDLOCAL command. • Values must be separated by commas and must not contain spaces.
LICSVR=<server name>	(Mandatory) The name or IP address of the license server to specify when installing UFT licenses.
MsiFlags	(Optional) Any MSI options, flags, and other instructions that are not included in the MsiProperties arguments, such as logging commands.
MsiProperties	(Optional) Any MSI properties or parameters, such as TARGETDIR. Each MSI property and its definition must be contained in quotes ("") and must not contain spaces.
ALM_Plugin (UFT Add-in for ALM installation only)	(Mandatory) The name of the MSI installation file. There is a different MSI file for each available user interface language.
<UFT installation directory>	The path to the full installation UFT package
<installation_ download_ directory>	The path to the UFT Installation executable that you downloaded.

back to top

Verify the installation

Use the **HP Installation Check Tool** to verify the status of your installation.

After installing UFT, run the Additional Installation Requirements utility to access the Installation Check tool. Then open the tool from the Start menu or Program Files.

In some cases, the Installation Check Tool validates the state of settings against their expected values. If UFT returns the expected value, the setting is marked in green. If the value is not the same as the expected value, the setting is marked in red.

Click **View Report** to view the report as an **.htm** file. Click **Send Email** to send the report to another user.

Known issues with installation

This section describes troubleshooting and limitations for installing UFT and includes:

- "Files in use" below
- "UFT installations and other HP software" on the next page
- "UFT installations and Microsoft software" on page 31
- "UFT installations and the Functional Testing Agent (browser support)" on page 33

Files in use

If the HP UFT Files in Use dialog box is displayed during the installation process, select **Close the application and attempt to restart them.**

UFT automatically closes the applications and continues the installation.

If after restarting, the HP UFT Files in Use dialog box lists **Explorer** as the open application, do one of the following:

Close the applications and attempt to restart them	Instructs UFT to automatically close the applications that are needed for the installation.
Do not close application.	Instructs UFT to continue the installation. You must restart your computer after the installation if you select this option.

UFT installations and other HP software

LoadRunner	• After uninstalling LoadRunner 11.50, UFT does not work. **Workaround:** After uninstalling LoadRunner 11.50, perform a repair installation for UFT • If you install LoadRunner 11.52 Patch 1 after installing UFT12.53, make sure to reboot the computer after installing LoadRunner. Otherwise, you may receive errors referring to the mdrv process.
Sprinter	If you are using both UFT and Sprinter on the same computer, and you modify either UFT or Sprinter, you must run a **Repair** for the installation of the other product.
ALM	When an ALM client is installed on the same computer as UFT, uninstalling UFT may remove the association of movie (`.fbr`) files. This may prevent you from viewing movies associated with defects in ALM using the HP Micro Player. **Workaround:** Re-associate the movie files with the HP Micro Player from the Windows File Options dialog box.
LeanFT	In the **Custom Setup** screen, it is possible to select the LeanFT Visual Studio or Eclipse plugins even if you do not have the relevant IDE installed at the time of the installation. If you install the IDE later, you will not have the LeanFT plugin available. **Workaround**: After installing the required IDE, run a Repair for the installation.

UFT installations and Microsoft software

Windows 10	• When installing UFT on a Windows 10 operating system, you must close Cortana and the Action Center before performing the UFT installation.
	• You must have administrative permissions to connect to ALM from UFT on Windows 10.
	Connect to ALM with Administrator permissions immediately after installing UFT.
	• When uninstalling UFT on Windows 10, the UFT4WinRT service is not uninstalled with other UFT files. As a result, a new installation on the same machine will fail.
	Workaround: Restart the computer after uninstalling UFT.
pdm.dll	• **If version 6.0.0.8169 ofthe pdm.dll** is found on your computer, the setup program will recgonize this during installation and will instruct you download the corrected DLL from the Microsoft site.
	For more details, see http://support.microsoft.com/kb/q293693/.
	• **To debug GUI tests in UFT**, ensure that you have the most recent version of the **pdm.dll** file installed and registered.
	The **pdm.dll** file is installed and registered with Microsoft Visual Studio and Microsoft Office, and installed (but not registered) with Microsoft Internet Explorer.
	If your currently registered version is lower than 9:
	a. Uninstall the Microsoft Script Debugger (if installed).
	b. Perform a repair installation of Microsoft Visual Studio or Microsoft Office.
	Check the registry for **pdm.dll** version: **HKEY_CLASSES_ROOT\CLSID\ {78A51822-51F4-11D0-8F20-00805F2CD064}\InprocServer32**
	If you need to use the pdm.dll file installed with Microsoft Internet Explorer, do the following:
	a. Ensure that you have administrator privelgest.
	b. Locate the **pdm.dll** file, usually located either in **c:\program files(x86) \internet explorer** or **c:\program files\internet explorer**.
	c. Move the **pdm.dll** file and the **msdbg2.dll** file from the same folder to a different location.
	d. Run the following commands:
	regsvr32 <full path to pdm.dll>\pdm.dll
	regsvr32 <full path to pdm.dll>\msdbg2.dll

Windows Update KB2918614	If you install UFT after installing Windows Update KB2918614, UFT behaves unexpectedly during installation, with very long installation times.
	Workaround: Do the following in the registry:
	1. Under the **HKLM\SOFTWARE\Policies\Microsoft\Windows\Installer** key, create a DWORD with the name **SecureRepairPolicy**.
	2. Set the value of the SecureRepairPolicy to 2.
	3. In the **HKLM\SOFTWARE\Policies\Microsoft\Windows\Installer** key, create StringValues with the UFT product code.
Microsoft Office 64-bit	You cannot install Microsoft Office 64-bit on a machine with UFT. Instead:
	1. Uninstall the Microsofte Access database engine. This is installed together with UFT.
	2. Install Microsoft Office 64-bit.
	3. Reinstall the Mcrosoft Office Access database engine from the prerequisites\msade2010 folder of the UFT setup directory using the following command: **\<UFT root directory\>\prerequisites\msade2010\AccessDatabaseEngine.exe /passive**
Windows 8.x or higher / Windows Server 2012 R2	When using UFT on Windows 8.X or higher or Windows Server 2012 R2, if you want to use API tests and components, make sure that you have MSU (Microsoft Update) KB2887595 installed.
Microsoft Script Debugger	If Microsoft Script Debugger failed to download and install when you installed installing Unified Functional Testing, see:
	https://softwaresupport.hp.com/group/softwaresupport/search-result/-/facetsearch/document/KM02362027

UFT installations and the Functional Testing Agent (browser support)

Google Chrome	If you are testing applications in Google Chrome version 31 or later, Chrome automatically downloads and installs the HP Functional Testing Agent for Google Chrome the first time you open Chrome after UFT is installed. In the following cases, you must manually enable the Functional Testing Agent for Google Chrome extension: • You have no internet connection. • You have not enabled the automatic updates for Google Chrome. • You are using Google Chrome version 30 or earlier. For details on manually enabling the extension, see Enable the HP Functional Testing Agent Chrome extension in the UFT Help Center.
Mozilla Firefox	**Firefox versions 33 or later** If you are testing applications in Firefox version 33 or later, accept the prompt for install HP Functional Testing Agent for Firefox the first time you open Firefox after UFT is installed. **Firefox versions 32 or earlier** If you testing applications in Firefox version 32 and earlier, do the following: 1. Open the **<UFT installation folder>\Installations\Firefox** folder. 2. From the Firefox folder, drag the **AgentLegacy.xpi** file into Firefox. 3. In Firefox, open the browser menu. 4. In the menu, click **Add-ons**. 5. In the Add-ons Manager tab, select the **Extensions** node. 6. In the Functional Testing Extension row, disable the HP Functional Testing Agent extension and enable the extension you added to Firefox. **Java applets** If you are testing Java applets, you must use the legacy Functional Testing Agent for Firefox. **Legacy Functional Testing Agent for Firefox** The legacy Functional Testing Agent for Firefox is supported only for Firefox versions 39 and earlier.

Note: If you are using a version of the Functional Testing Agent for Google Chrome from UFT version 12.00 or earlier, you must enable the downloaded extension and remove the previous version of the Functional Testing Agent extension.

UFT installations and 64-bit applications

Installing with administrator privileges	UFT loses support for 64-bt appliations if a user with administrator priveleges installs the Unified Functional Testing Add-in for ALM, or performs a Repair operation on the Run Results Viewer, and the a user runs UFT on that same computer without adminsitrator priveleges.
	Workaround: Log in as an administrator and do one of the following and Repair UFT or run **<UFTinstallation>\bin64\Mediator64.exe**.
32-bit and 64-bit applications	If your computer has two versions of an application, where one is 32-bit and the other is 64-bit, UFT always opens the 32-bit version.
	This occurs when the operating system performs a redirect from the Program Files folder to the Program Files (x86) folder, and from the System32 folder to the SysWow64 folder.
	Workaround: To specify a 64-bit version, make sure that the step explicitly states the path to the 64-bit application.
.NET / WPF Add-in extensibility	When working with .NET or WPF Add-in extensibility for a 64-bit Windows Forms process, the custom server DLLs must be built using the **Any CPU** option.

Installation and licenses

UFT supports various types of licenses. You can install licenses using the License Wizard or from the command line.

Seat licenses

A machine-specific license based on a specific locking code per computer.

The key must be entered once only, and provides one installation per key.

A computer with multiple bootable partitions may generate a different locking code for each partition.

When obtaining a seat license key, you must use the locking code for the partition on which you want to use UFT.

Concurrent licenses

A license taken from a license server on a per-session basis. You must have an active network connection to install and check out commuter licenses.

Each time UFT starts, UFT tries to connect to the License Server for an available license.

Each key provides unlimited installations . The license server regulates the number of licenses in use at any given time.

> **Note:** Install a special tool to track license usage (both for UFT and other products) across your network. This tool is available here: https://hpln.hpe.com//contentoffering/usage-tracking

Commuter licenses

A license checked out for a period of time to use when you are not connected to the license server.

You or another user must have an active network connection to install and check out commuter licenses.

The license key is based on the machine identification, and is specific for the computer making the request.

A commuter license key needs to be entered only once, and provides one installation for a limited period of time.

After the commuter license expires, UFT automatically returns to the previously used license type.

See also:
- "Install licenses using the License Wizard" on the next page
- "Install licenses from the command line" on page 39

- "UFT licensing FAQs" on page 41
- "Known issues with UFT licenses" on page 44

Install licenses using the License Wizard

The Functional Testing License Wizard enables you install, check out, or switch between license types, and requires administrator permissions.

Access the wizard from the **Start** menu (**HP Software > HP Unified Functional Testing > Tools > Functional Testing License Wizard**) or the file system (**C:\Program Files (x86)\HP\Unified Functional Testing\bin\HP.UFT.LicenseInstallationWizard**)

Exit the wizard when the installation is complete. Restart the LeanFT runtime engine to apply the new license.

> **Note:** See also: "Install licenses from the command line" on page 39

You can view current license information from the Help > About Unified Functional Testing screen by clicking the **License** button.

Additionally, UFT warns you if your license is about to expire. If you have multiple licenses, UFT displays the date of the license closest to expiration.

Install a Seat license (wizard)

1. In the License Wizard start screen, select **Seat license**.
2. In the Seat License installation screen, do one of the following:
    - Click **Load License Key File** and select your license key **.dat** file.
    - Paste the license key in the edit field.

        If you don't yet have a license key, expand the **How can I get a license key file** section.
3. Verify that the license key is valid, and click **Install**.

> **Note:**
>
> - If you install a time-limited seat license, do not modify the date on your computer. Doing so will block your active seat license and prevent future UFT seat license installations on that computer.
>
>   For questions about this issue, contact your HP license supplier.
>
> - If you modify the MAC address or host name of the computer after installing a seat license, you must regenerate and install your seat licenses again.

Install a Concurrent license (wizard)

1. **Prerequisite**: Make sure you are connected to the network and can access the License Server.

2. In the License Wizard start screen, select **Concurrent license**.

3. In the Concurrent License Installation screen, enter the License Server address in the following format:

   <license server address>:<port>

   Default port = **5814**

   The address format must identical the one used in the **Main** tab of the License Server Configuration pane.

   For details, see the *AutoPass License Server User Guide*.

4. Click **Connect** to connect to the License Server.

5. (Optional) Define a redundant License Server.

   If your primary License Server is unavailable, UFT will connect to the redundant License Server to obtain a license. For more details, see the *AutoPass License Server User Guide*.

   Expand the **Add Redundant Server** link and enter the address for the redundant License Server.

6. From the product license drop-down list, select the appropriate license and click **Install**.

Check out and install a Commuter license

Commuter licenses can be checked out only if your License Server has available concurrent licenses.

1. **Prerequisite**: Make sure you are connected to the network and can access the License Server.

   Alternative, if you cannot access the License Server: "Check out and install a Remote Commuter license" on the next page

2. In the License Wizard start screen, select **Additional Options** > **Commuter License**.

3. In the Commuter License Installation screen, enter the License Server address in the following format:

   <license server address>:<port>

   Default port = **5814**

   The address format must identical the one used in the **Main** tab of the License Server Configuration pane.

   For details, see the *AutoPass License Server User Guide*.

4. Click **Connect** to connect to the License Server.

5. After the list of available licenses is displayed, ensure that **Available** is selected below the License Server address field.

6. From the list of available licenses, select the licenses you need.

7. In the **Check out licenses for (days)** field, enter the number of days for which you need the

commuter license.

Maximum = 180 days

8. Click **Check Out**, and then **Next** to install the license.

Return a Commuter license

If you do not want to return all the licenses that you checked out, you must still return all your checked out commuter licenses and then re-check out the licenses you need.

1. **Prerequisite**: Make sure you are connected to the network and can access the License Server.

   Alternative, if you cannot access the License Server: "Check out and install a Remote Commuter license" below

2. Select **Commuter License**.

3. In the Commuter License Installation screen, the License Server address should already be displayed and connected.

   If needed, enter the License Server address in the following format:

   <license server address>:<port>

   Default port = **5814**

   The address format must identical the one used in the **Main** tab of the License Server Configuration pane.

   For details, see the *AutoPass License Server User Guide*.

4. After the list of available licenses is displayed, ensure that **Checked Out** is selected below the License Server address field.

5. Click **Check In All Licenses**, and then **Next**. The list of checked out licenses is cleared.

Check out and install a Remote Commuter license

Remote commuter licenses can be checked out only if your License Server has available concurrent licenses.

1. In the License Wizard start screen, select **Additional Options** > **Remote Commuter license**.

2. In the Remote Commuter License Installation screen, ensure that **Generate Request File** is selected.

3. From the list of available licenses, select the license you need.

4. In the **Check out licenses for (days)** field, enter the number of days for which you need the commuter license.

   Maximum = 180 days

5. Click **Generate Request File**.

   Send the generated **.lcor** request file to a License Server administrator or to a user with access permissions to the License Server.

The other user must check out and send you a license key file.

6. Save the file, and then click **Choose File** to browse to the file you received.

7. Click **Install** to install the license.

Return a Remote Commuter license

1. In the License Wizard start screen, select **Additional Options** > **Remote Commuter license**.

2. In the Remote Commuter License Installation screen, ensure that **Generate Request File** is selected.

3. In the Generation screen, click **Generate and Save Check In Request**, and save the **.lcir** check in request file.

4. Click **Next** to uninstall the license.

The license wizard reports that the remote commuter license is uninstalled. UFT reverts to the previous license type as the active license.

Install licenses from the command line

Install and verify the statuses of seat or concurrent licenses directly from the command line.

Enter the following command, followed by a set of parameters described below.

```
"<UFT installation directory>\bin\HP.UFT.LicenseInstall.exe"
```

Install a Seat license (command line)

Add one of the following to install a UFT seat license:

- `seat "<license key string>"`

- `seat "<path to the license key file"`

For example:

Install a seat license key from a file saved locally:

```
"C:\Program Files (x86)\HP\UFT \bin\HP.UFT.LicenseInstall.exe" seat
"Downloads\HP UFT-licfile.dat"
```

Install a seat license key from a license key string:

```
"C:\Program Files (x86)\HP\UFT\bin\HP.UFT.LicenseInstall.exe" seat "9CDG C9MA H9P9
8HW3 UXB5 HWWF Y9JL KMPL B89H MZVU 6R4Q LHWE JHRP 3FQ3 CMRG HPMR MFVU A5K9 MWEC EKW9
HKDU LWWP SRL7 QPJQ YMM5 YQVW NV6G AG2A QZWD HY9B N4ZF BGWB B8GX 7YRF T8XT W7VB QW54
G83H 2TRY KBTD EQUZ M8LB DZU7 WE6H 4NMU BG55 4XKB 27LX ATQB UKF8 3F9N JQY5 \" HP
Unified Functional Testing
```

> **Note:** If the license key contains a quotation mark character (**"**) in the license key string, add a backslash character (****) before the quotes.

Install a Concurrent license (command line)

Add the following to install a UFT concurrent license:

```
concurrent <license ID> <license version> <server name/address> [<redundant server
name/address>] [/force]
```

Use the following format for the server or redundant server name/address:

<license server address>:<port>

Default port = **5814**

The address format must identical the one used in the **Main** tab of the License Server Configuration pane.

For details, see the *AutoPass License Server User Guide*.

For example:

```
"C:\Program Files (x86)\HP\UFT\bin\HP.UFT.LicenseInstall.exe" concurrent
11.11.111.111:5814 /force
```

/force parameter	The **/force** parameter saves the license installation information even if the current installation fails. In subsequent sessions, LeanFT will check the listed license server for the listed license.
Optional parameters	Optional parameters include: • port • redundant server name/address • force

Modify server connection details

Add one of the following:

Modify the primary License Server address	`config protocol.primary <http/https>`
Modify the secondary License Server address	`config protocol.second <http/https>`

Verify available licenses

Add the following:

```
licenses <server name/address> [<redundant server name address>]
```

For example:

```
"C:\Program Files (x86)\HP\UFT\bin\HP.UFT.LicenseInstall.exe" licenses
11.11.111.111:5814
```

UFT licensing FAQs

This topic answers a number of frequently asked questions about using and installing UFT licenses:

Can I use my old license (from before UFT 12.50) with the new License Server?

No. UFT 12.50 has changed the license mechanism and the concurrent license server to the Autopass License Server.

Prior versions of UFT used the Sentinel Concurrent License Server.

> **Note:** The Autopass License Server and accompanying documentation is provided with the UFT Setup program.

In order to use your licenses with versions of UFT 12.50 and later, or to install them on the Autopass License Server, you must upgrade your licenses.

For details, see "Upgrade UFT" on page 13.

How do I get a new license?

In order to use UFT 12.50 and higher, you have to upgrade your license. This enables you to convert your old license to a license compatible with UFT 12.50 and higher and the new Autopass License Server.

You upgrade your license through the HPE Software Licenses and Downloads portal.

What if I have trouble regenerating licenses on the HP License Portal?

Contact your regional licensing support center for assistance.

Which license should I install?

In UFT, you can install a number of different license types. The following table should help you to identify the one to install.

Scenario	License Type to Install
Are you assigned a specific license (with its own unique license key)?	Seat
Are you part of a group that uses licenses on an as-needed basis?	Concurrent. You will need the IP address of your License Server where the licenses are installed.
Are you assigned the IP address from which to check out a license?	Concurrent
Are you traveling and will not have access to a license server?	Commuter
Are you already traveling and cannot access the License Server to get a license?	Remote Commuter

How do I install the Autopass License Server?

In the UFT Setup, there is a link to the **License Server** setup.

If you click the link, a second window opens with links to install the License Server and view the *Autopass License Server User Guide*.

The User Guide contains full instructions for setup and installation.

Can I install the License Server with silent installation?

Yes. The UFT installation uses the LICSVR command (as in previous versions of UFT).

For details on silent installation, see the silent installation section of the *HP Unified Functional Testing Installation Guide*.

If I am using concurrent licenses, how do I get UFT to work with the License Server?

In the UFT License Wizard, if you select **Concurrent license**, you must enter the License Server IP address.

This checks the connection between UFT and the License Server, and also gives you a list of possible licenses to install.

After you initially install the license, UFT checks the specified License Server address each time UFT starts and takes the requested license.

How do I install licenses if I am deploying UFT across an enterprise network?

UFT provides a command-line tool that enables you to install UFT licenses without using the License Wizard interface.

For details on the commands to install these licenses, see "Install licenses from the command line" on page 39.

The command line license installation is supported for seat and concurrent licenses.

How do I manage the concurrent licenses on the License Server?

The Autopass License Server has a full Web-based interface that enables you to install, manage, and administer all your licenses (both concurrent and commuter).

You can see full details on how to use and manage this License Server in the *Autopass License Server User Guide*, provided with the UFT Setup program (in the **License Server** link).

You can also install a special tool to track license usage (both for UFT and other products) across your network. This tool is available here: https://hpln.hpe.com//contentoffering/usage-tracking.

Can I set up my License Server to work with a redundant (backup) License Server?

Yes. You need to install the License Server on two separate servers, and then set one server to be the primary and the other to be the redundant server. This configuration is done in the Autopass License Server Web UI.

You also can supply this information to UFT in the License Wizard, which enables UFT to take a concurrent license from the redundant License Server in the event that the primary License Server is not available.

For details on the redundant License Server setup, see the *Autopass License Server User Guide*.

What is a cleanup license?

If your computer is clock-tampered after installing the License Server, both the License Server and UFT's connection to the License Server do not work.

In this case, you must get a cleanup license for your License Server. This enables you to reset all license capabilities.

For details on cleanup licenses, contact your HP license supplier.

My demo license is expiring early. What can I do?

If you are having problems with the trial license period (30 days maximum), ensure the following:

- Ensure that you have full permissions to the **C:\ProgramData\Hewlett-Packarfd\UFT** folder and all its subfolders
- Ensure that you have not changed the system time. If you have moved the system time, the license mechanism can reduce the trial period based on the number of days that were back-dated.

Known issues with UFT licenses

Relevant for: GUI testing and API testing

Modifying the computer date	If you install a time-limited seat license, do not modify the date on your computer. Doing so will block your active seat license and prevent future UFT seat license installations on that computer. For questions about this issue, contact your HP license supplier.
NAT	The License Server does not support the use of Network Address Translation (NAT).
Demo licenses	The concurrent license does not include a demo license and does not work without an active connection to a License Server and an installed license key.
Changing types	You must have administrator permissions to change the license type from seat to concurrent or vice versa.

Before connecting to ALM

Before connecting to ALM, you may need to modify User Account Control (UAC) settings. You can revert these modifications afterward.

You must perform this procedure if you intend on running UFT tests remotely from ALM, and are running UFT on one of the following operating systems:

- Windows 7
- Windows Server 2008
- Windows Server 2008 R2
- Windows 8.x and higher
- Windows Server 2012

> **Note:** The security changes described in this section should be performed by your System Administrator.
>
> Contact Microsoft Support if you have questions regarding changes in User Account Control (UAC) on any of these operating systems.

For Microsoft Windows 7 and Windows Server 2008 R2

1. Log in as an administrator.
2. From the Control Panel, select **User Accounts > User Accounts > Change User Account Settings**.
3. In the User Account Control Settings window, move the slider to **Never notify**.
4. Restart the computer to enable this setting to take effect.

For Microsoft Windows 8.x and higher and Windows Server 2012

1. Log in as an administrator.
2. From the Control Panel, select **User Accounts and Family Safety > User Accounts > Change User Account Control Settings**.
3. In the User Account Control Settings window, move the slider to **Never notify**.
4. In the Control Panel, select **System and Security > Administrative Tools > Local Security Policy**.
5. In the Local Security Policy window, in the left pane, select **Local Policies**.
6. In the Local Policies tree, select **Security Options**.
7. In the right pane, select the **User Account Control: Run all administrators in Admin Approval mode** option.
8. Select **Action > Properties** from the menu bar.

9. In the dialog that opens, select **Disabled**.

10. Restart the computer for your changes to take effect.

Enable UAC again if required

After connecting to ALM, return to the User Account Control Settings window.

Restore the slider to its previous position to turn the UAC option on again.

Restart the computer for your changes to take effect.

Send Us Feedback

Let us know how we can improve your experience with the Installation Guide.

Send your email to: docteam@hpe.com