opentext™

UFT One

Software version: 23.4-24.2

Installation Guide

Go to Help Center online

https://admhelp.microfocus.com/uft/

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Installation

This installation guide provides information about installing and upgrading UFT One, as well as managing and using supported license types.

Overview

OpenText™ UFT One is a unified functional testing product solution for functional test and regression test automation, combined with API testing.

This guide covers UFT One versions 23.4 and 24.2. Any version-specific differences are indicated where relevant.

To check for software updates, patches, or service packs for UFT One, visit the Software Support Site.

> **Note:** The information in this guide is also available in the UFT One Online Help Center.

Installation guide content

The following table describes where to find different types of information in this Installation guide.

Install tasks	Details
Overview information	"UFT One program use" on page 8 "Enterprise deployment" on page 10
Installation packages	"Installation packages" on page 13
Before you install	"Before you install" on page 18 "Installation prerequisites" on page 18 "Required access permissions" on page 20

Install tasks	Details
Installation steps	"Install UFT One with the install wizard" on page 24 "Install UFT One silently" on page 31 "Install UFT One from the Package for the Web Bundle" on page 46 "Verify the installation" on page 57 "Install Web 2.0 add-ins or extensibility toolkits" on page 59
Upgrading	"Upgrade UFT One" on page 51
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Licensing	"UFT One licensing" on page 68
ALM integration	"Before connecting to ALM" on page 96

UFT One program use

This topic provides background information on using UFT One.

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- Accessibility 8
- Unicode Compliance 9

Demo applications

Many examples in this guide use the Advantage Online Shopping sample web site. The URL for this web site is: https://www.advantageonlineshopping.com/#/.

> **Note:** You must register a user name and password to use this site. These credentials are not persistent. If you start a new session on the Advantage Online Shopping sample web site, you need to redefine your credentials.

A sample Flight Windows-based application is also provided with the UFT One installation.

You can open the **Flight API** and **Flight GUI** applications in various ways:

- From the Windows Start menu.
- **<UFT_One_installdir>/samples/Flights Application/FlightsGUI.exe** (for the Flight GUI application)
- **<UFT_One_installdir>/samples/Flights Application/FlightsAPI.exe** (for the Flight API application)

Accessibility

Many operations are performed using the mouse.

In accordance with Section 508 of the W3C accessibility standards, UFT One also recognizes operations performed using the **MouseKeys** option in the Windows Accessibility Options utility.

Additionally, you can perform many operations using shortcut keys.

Unicode Compliance

UFT One is Unicode compliant according to the requirements of the Unicode standard, enabling you to test applications in many international languages.

Test non-English language applications as long as the relevant Windows language support is installed on the UFT One computer.

Names and paths of tests and resources (for example, function libraries, object repositories, and recovery scenarios) are not Unicode compliant and therefore should be specified in English or in the language of the operating system.

Enterprise deployment

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

UFT One also supports silent installations. For details, see "Install UFT One silently" on page 31.

In this section:

- UFT and User Account Control (UAC) 10
- Stingray or Terminal Emulator Add-ins 11

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 One 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 ALM Client MSI Generator. This tool enables you to configure the settings for your ALM servers before installing the client-side MSI.

Configure the settings for a custom MSI, as described in the user guide provided with each MSI Generator version.

> **Note:** When configuring the settings, 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 One.

Both the Stingray and Terminal Emulator Add-ins

Run the Additional Installation Requirements, available in the Start menu, after the main installation on each computer.

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

This configuration requires no administrative permissions.

Terminal Emulator Add-in

After installing UFT One, users must run the Terminal Emulator configuration wizard from inside UFT One: **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 well as the exact location of the **.reg** file.

2. Copy the file to the **<UFT_One_installdir>\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 One installation.

Installation packages

This section provides details about the UFT One installation packages available for UFT One.

You can access the installation packages from the free trial page or by selecting your account on the Software Licenses and Downloads page.

In this section:

- Full UFT One installation package 13
- Smaller UFT One installation packages 14
- Additional UFT One-related installations 15

Full UFT One installation package

The Full UFT One DVD Release includes the following content:

- The UFT One setup program.

  During the UFT One installation, you can specify which features and add-ins to include. This controls both the product functionality and the installation size.

  For a full list of included features, see "Custom Setup screen" on page 26.
- UFT One prerequisites
- "Additional UFT One-related installations" on page 15

Smaller UFT One installation packages

Smaller installation packages are available for UFT One:

Package	Content
Package for the Web Bundle	This compressed, lighter installation package provides the UFT One setup program only. This includes the same features and add-ins as the Full UFT One DVD Release. UFT One installation prerequisites are included but not automatically installed. This provides a faster installation if you already have all the prerequisites installed. **Excluded:** "Additional UFT One-related installations" on the next page
Core UFT One DVD Bundle	This package provides a slightly faster and smaller installation if you do not use ABBYY for text recognition and the remote AI Object-Detection service. **Excluded:** • ABBYY OCR Engine files. These files are required if you want to include the ABBYY OCR Engine feature in the UFT One installation. The files are included in the Full UFT One DVD Release and the Package for the Web Bundle. • Remote AI Object-Detection service package. This is a separate installation program included only in the Full UFT One DVD Release. **Notes:** • Recognizing AITableCell objects in AI table containers requires ABBYY text recognition. • To add the ABBYY OCR Engine to your installation later, download the **UFT OCR Expansion Pack**.

Package	Content
UFT OCR Expansion Pack	Provides ABBYY OCR Engine support for the **Core UFT One DVD Bundle**. **Contains:** Only the ABBYY OCR Engine files **Note:** Download the version that matches the Core UFT One DVD Bundle version you use.

Additional UFT One-related installations

The Full UFT One DVD Release and Core UFT One DVD Bundle packages provide the UFT One setup program, as well as additional setup programs for other standalone UFT One-related installations.

To run one of the additional installation programs, perform the following steps:

1. Unzip the package you downloaded.
2. Run the **Setup.exe** file.
3. Select the program you want to install from the UFT One installation wizard **Startup** screen.

Additional UFT One-related installations include:

Install	Description
UFT One Add-in for ALM	Enables UFT One to communicate with ALM and run tests or components from ALM. Install the standalone version only if UFT One is not installed on the computer. To install this together with UFT One, select to install it while installing UFT One. If you did not install this originally with UFT One, and want to later on, run the installation wizard again. Select **Change**, and then select **ALM Plugin** in the Custom Setup screen.

Install	Description
Extensibility SDKs	Enable you to develop support for Java, .NET, WPF, Silverlight, or Web object not supported by UFT One by default.
Web 2.0 Toolkit Support	Enables you to recognize and use objects in your test from Web 2.0 technologies, including: • ASP .NET Ajax • Dojo • GWT (Google Web Toolkit) • jQueryUI • Salesforce Lightning • SiebelOpenUI • EXT-JS • YahooUI Web 2.0 Toolkits appear in UFT One as GUI Add-ins.
License server setup	Enables you to install the AutoPass License Server, which is used to install and manage UFT One concurrent and commuter licenses. For details, see "UFT One licensing" on page 68 and the AutoPass License Server online documentation.
Run Results Viewer setup	Enables you to install a standalone version of the Run Results Viewer. Install the standalone version only if UFT One is not installed on the computer.

Install	Description
UFT Developer setup	Enables you to install UFT Developer, a functional testing tool that enables you to code tests directly from your developer IDE. • Install the standalone version only if UFT One is not installed on the computer. • To install this together with UFT One, select to install it while installing UFT One. If you did not install this originally with UFT One, and want to later on, run the installation wizard again. Select **Change**, and then select the **UFT Developer** in the Custom Setup screen. • Before installing UFT Developer, you must install a supported version of **Node.js**. For a list of **Node.js** versions supported for UFT Developer, see the Support Matrix. For more details, see the *UFT Developer Help Center*.
Remote AI Object-Detection Service setup **(Included only in the Full UFT One DVD Release)**	Enables you to install the remote AI Object-Detection service on one central powerful computer. Then this service can provide AI object-detection services to all your UFT One computers. Before you install, make sure you meet all the prerequisites for this service, as described in the UFT One Help Center.

Note: Unless otherwise specified, references to **Application Lifecycle Management** or **ALM** apply to all currently supported versions of ALM and Quality Center.

Some features and options may not be supported in the specific edition of ALM or Quality Center that you are using.

See also:

- "Before you install" on the next page
- "UFT One licensing" on page 68
- "Before connecting to ALM" on page 96

Before you install

Before you install UFT One, perform the steps below.

> **Caution:** UFT One can potentially be used to record user actions and/or network communications. Therefore, we strongly recommend running UFT One on dedicated test machines that do not contain or provide access to sensitive information. Additionally, you should thoroughly review your lab network topology and access permissions before using UFT One.

Step	See...
Review the information about installing UFT One in an enterprise environment (if relevant)	"Enterprise deployment" on page 10
Ensure that you fulfill the installation prerequisites	"Installation prerequisites" below
Ensure that you have the required permissions for using UFT One	"Required access permissions" on page 20
Review the information about upgrading UFT One (if relevant)	"Upgrade UFT One" on page 51
Review any known issues	"Known issues when installing" on page 60
	"Known issues with UFT One licensing" on page 94
Review the instructions for using UFT One in a secure manner	UFT One Security Reference

Installation prerequisites

This section describes the prerequisites necessary to install UFT One. Before you install, verify the following prerequisites:

Prerequisite	Description
Install location	Select the location where you want to install UFT One. Do not install UFT One 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 hardware and software requirements listed in the Support Matrix. As described in the Support Matrix, some of the prerequisites are included in the UFT One installation packages. You can install these as part of the UFT One installation process. Make sure AI Codeless Testing is **not** installed on your computer.
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 "UFT One licensing" on page 68.
Privileges	Make sure you have administrative privileges to install UFT One.
GUI testing add-ins	Know which add-ins you want to use for GUI testing. We recommend installing only those you expect to use.
API testing - SOAP activities	If you plan to run SOAP activities in your API tests, such as validating or creating checkpoints for SOAP messages, you must have the WS-I testing tools installed in the UFT One installation bin folder. To install these testing tools, perform the following steps: 1. From the official Web Services Interoperability Organization (WS-I) website, download the **C#** package of **Interoperability Testing Tools 1.1**. 2. Extract the contents of the file you downloaded. 3. Copy all of the content from the extracted **wsi-test-tools\cs\bin** folder to the **<UFT One installation>\bin** folder.

Prerequisite	Description
API testing - web services	If you plan to run web service testing using WSE security settings, you must have the .NET Framework 3.5, WSE 2.0sp3 package, and WSE 3.0 package installed on your computer. The .NET 3.5 Framework and WSE packages are not installed with the UFT One installation. If they are not installed on your computer, you can install them by following the instructions below: 1. Install and activate .NET 3.5 Framework. See the instructions in the MSDN: https://msdn.microsoft.com/en-us/library/hh506443(v=vs.110).aspx. 2. Download WSE 2.0 sp3 and WSE 3.0 packages from Marketplace: **https://marketplace.microfocus.com/appdelivery/content/uft-one-installation-prerequisites** and install them. **Note:** In Windows 10 and later, Microsoft no longer officially supports WSE. For details on installing these prerequisites using the silent installation commands, see "Silent commands for installing UFT One prerequisites" on page 32. **Note:** If you use WCF for secure Web Service testing, these prerequisites are not necessary. For details on customizing security for WCF-type Web services, see the UFT One Help Center.

Required access permissions

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

In this section:

- Required permissions for UFT One 21
- Required permissions for ALM 22
- Required permissions for BPT 22

Required permissions for UFT One

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 • **User Profile** folders • The folder containing UFT One solutions, tests, or run results • The **%programdata%\OpenText** folder • The **%localappdata%\OpenText** folder • The **%appdata%\OpenText** folder **UFT One 23.4:** The **%programdata%\Micro Focus** folder The **%localappdata%\Micro Focus** folder The **%appdata%\Micro Focus** folder
Read/execute permissions	The UFT One installation folder
Read permissions	You must have **read** permissions to the following folders: • The **Windows** folder • The **System** folder • The **Windows\System32** folder • The **<Windows>\mercury.ini** file

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

Note: Some folder paths intentionally include previous company branding, due to backward compatibility considerations.

Required permissions for ALM

Read/write permissions	• ALM cache folder • **<Program Data>\Micro Focus** folder • UFT One 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, which are 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 (**Modify Component**, **Add Step**, **Modify Step**, or **Delete Step**) are required.

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

Next steps:

- "Install UFT One with the install wizard" on the next page
- "Install UFT One silently" on page 31
- "Install UFT One from the Package for the Web Bundle" on page 46

Install UFT One with the install wizard

This section describes how to run the UFT One installation wizard, which guides you through the installation process. Before running this process, make sure you review the "Installation packages" on page 13 and the instructions in "Before you install" on page 18.

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

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- UFT One improvement program 25
- Change the language of the UFT One interface 26
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Download the UFT One installation package

Access the installation packages from the free trial page or by selecting your account on the Software Licenses and Downloads page.

Download the Full UFT One DVD Release or Core UFT One DVD Bundle.

Extract the files from the downloaded **.zip** file and locate the **Setup.exe** file that runs the installation.

Caution: Make sure that the installation files are extracted to an **empty** folder, at a location whose path does not exceed 80 characters.

Windows is limited to 260 characters in these files. The installation will fail if the file paths of the individual installation files are longer. In such cases, move the extracted installation files to a location with a shorter path.

Run the installation wizard

Before the installation, restart your computer to ensure complete configuration of the system.

Then, run the **Setup.exe** file and select **UFT One Setup** from the installation start screen. Follow the steps as instructed to complete your installation.

For more details on the steps of the installation wizard, see below.

When the UFT One 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 One behavior.

> **Note:** 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 59.

UFT One improvement program

In the End-User License Agreement pane, UFT One enables you to select **Participate in the UFT One improvement program**.

Selecting this option configures UFT One to collect and send usage data back to OpenText. This data helps us understand which improvements matter most to users.

In the wizard, click **More Details** for details about the program.

> **Note:** You can later deactivate and reactivate this data collection inside UFT One. For more details, see Usage Data Collector pane in the UFT One Help Center.

Change the language of the UFT One interface

By default, UFT One is installed in English.

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

Custom Setup screen

Select the UFT One features you want to install in the Custom Setup screen.

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 One to install the .NET Add-in with its sub add-ins, such as Windows Presentation Foundation.

- **Entire feature will be unavailable.**

  Excludes the feature from the installation. It will not be available in UFT One.

  To install any of these features later, you can rerun the installation with the **Change** or **Modify** option and select them then.

The following table describes each feature listed:

Feature	Description
Runtime Engine	Mandatory. Enables you to run UFT One or UFT Developer tests.
UI Designer and IDE	Enables you to edit UFT One tests.

Feature	Description
Run Results Viewer	Enables you to view UFT One or UFT Developer run results. Alternatively, you can view run results in a browser window without the Run Results Viewer.
Samples	Demo applications used in the UFT One tutorials.
ALM Plugin	Enables you to run and edit UFT One tests directly from ALM.
UFT Developer	Enables you to create functional tests directly from your developer IDE.
AI Object Detection **(UFT One 23.4: AI Features)**	Enables you to use AI-based testing in UFT One. **Prerequisites:** Make sure you have the following installed. • A 64-bit operating system. • Microsoft Visual C++ 2022 Redistributable • The required Windows feature, depending on your Windows operating system: **Windows OS - Microsoft Media Feature Pack** a. From the Control Panel, select **Programs and Features** > **Turn Windows features on or off**. b. In the Windows Feature window, turn on **Media Features**. c. Restart the computer to take effect. **Windows Server 2012 and later - Microsoft Media Foundation** 1. From the Control Panel, select **Programs and Features** > **Turn Windows features on or off**. 2. In the Add Roles and Features Wizard window, click **Next** until you reach the Features tab. 3. Turn on **Media Foundation**. 4. Click **Install**. 5. Restart the computer for your changes to take effect. For the most up-to-date instructions on enabling Windows features, see the Microsoft documentation.

Feature	Description
ABBYY OCR Engine	Enables you to use ABBYY OCR text recognition in UFT One. **Note:** • The ABBYY OCR Engine files are included in the Full UFT One DVD Release and in the Package for the Web Bundle. • If you already installed UFT One without the ABBYY OCR Engine and you want to include it in the installation now, you must run the installation program as an administrator. • The Core UFT One DVD Bundle does not include the ABBYY OCR Engine files. If you downloaded that installation package and then you want to install the ABBYY OCR Engine feature, do the following: a. Download the standalone UFT OCR Expansion Pack. Download the version that matches the Core UFT One DVD Bundle version you use. You can access the installation files from the free trial page or by selecting your account on the Software Licenses and Downloads page. b. As an administrator, run the UFT One installation program and select the ABBYY OCR Engine feature on the Custom Setup screen. c. On the next screen, specify the location of the UFT OCR Expansion Pack **.zip** file.
GUI Testing Add-ins	Provide the support which enables you to test applications using supported technology versions. If you plan to test Web 2.0 applications, install the Web Add-in as well.

UFT One Configuration screen

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

Configuration options include:

Set Chrome, Chromium Edge, Firefox options	Enables UFT One to automatically install the OpenText UFT Agent extensions in Chrome, Edge, and Firefox. This option updates your browser policies and adds the extensions to your browsers' allowlist or installation list, enabling the extensions to be installed during UFT One installation. **Caution:** Make sure that your company's security policies permit you to make this change. Deselecting this option removes any browser policy updates performed by previous installations. If you deselect this option, you can rerun the installation later with the **Change** or **Modify** option and select it then. Alternatively, you can manually add the extensions to the lists of allowed extensions. For details on doing this manually, see the topics on web browser known issues in the UFT One Help Center.
Configure Internet Explorer settings	Enables UFT One to use the Microsoft Script Debugger application during test runs. Alternatively, configure these settings manually before running UFT. In **Internet Options** > **Advanced**, select the following options: • **Disable script debugging** • **Enable third-party browser extensions**
Allow running UFT One remotely from ALM	Changes DCOM permissions and security settings and opens a firewall port on your UFT One computer. Required if you want to run UFT One tests remotely from ALM. To set these options manually later on, see https://support.microfocus.com/kb/kmdoc.php?id=KM02239325
Allow running UFT One remotely from Automation Scripts	Changes DCOM permissions and security settings to enable other computers to remotely control UFT One using automation scripts. To set these options manually later on, see https://support.microfocus.com/kb/kmdoc.php?id=KM02239325

Caution: Running UFT One remotely from Automation Scripts enables remote users to control UFT One on this machine, exposing the UFT One computer to security risks.

Install UFT One silently

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

To install the Package for the Web Bundle of UFT One silently, see "Install UFT One from the Package for the Web Bundle" on page 46.

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- Install a standalone UFT One Add-in for ALM 45

Before running a silent installation

Before installing silently:

- **Review** the "Installation packages" on page 13 and the information in "Before you install" on page 18.
- **Verify** that you have administrator privileges.
- **Save** any open files and close all open applications.
- **Restart** your system to ensure a complete system configuration.
- Note that silent installation commands are **case-sensitive** and should be entered exactly as listed.

Installation file location:

All of the silent installation commands below run programs from the **<UFT One Installation files>** folder.

These are the files available after you download a UFT One installation package and extract it:

- Full UFT One DVD Release or Core UFT One DVD Bundle: You downloaded a **.zip** file and extracted it.
- Package for the Web Bundle: You downloaded a **Setup.exe** file and ran it to extract the package content.

Caution: Make sure that the installation files are extracted to an **empty** folder, at a location whose path does not exceed 80 characters.

Windows is limited to 260 characters in these files. The installation will fail if the file paths of the individual installation files are longer. In such cases, move the extracted installation files to a location with a shorter path.

Silent commands for installing UFT One prerequisites

Use the command syntaxes listed below to install UFT One prerequisites.

If you are installing only the UFT One Add-in for ALM or the UFT One Run Results Viewer, install a subset of these prerequisites. For details, see "Install prerequisites for the UFT One Add-in for ALM or the UFT One Run Results Viewer" on page 35.

Note:

- Some items have different commands for different systems. Run the command most appropriate for your system.
- In Windows 10 and later, Microsoft no longer officially supports WSE.

Install all UFT One prerequisites

```
                        <UFT One Installation files>\Unified
Functional Testing\EN\setup.exe /InstallOnlyPrerequisite /s
```

```
```

Install .NET Framework 4.8

```
<UFT One Installation files>\prerequisites\dotnet48\ndp48-x86-x64-
allos-enu.exe /q /norestart
```

Install .NET Desktop Runtime (required for the UIA Pro add-in and the Parallel Runner UI)

UFT One 23.4: Install .NET 6.0.3 Desktop Runtime using the following commands:

```
<UFT One Installation files>\prerequisites\dotnet_desktop_runtime6_
3\windowsdesktop-runtime-6.0.3-win-x86.exe /q /norestart
```

```
<UFT One Installation files>\prerequisites\dotnet_desktop_runtime6_
3\windowsdesktop-runtime-6.0.3-win-x64.exe /q /norestart
```

UFT One 24.2 or later: Install .NET 8 Desktop Runtime using the following commands:

```
<UFT One Installation files>\prerequisites\dotnet_desktop_runtime8_
0\windowsdesktop-runtime-8.0.0-win-x86.exe /q /norestart
```

```
<UFT One Installation files>\prerequisites\dotnet_desktop_runtime8_
0\windowsdesktop-runtime-8.0.0-win-x64.exe /q /norestart
```

Install Microsoft Visual C++ 2022 Redistributable

Install Microsoft Visual C++ 2022 Redistributable using one of the following commands:

```
<UFT One Installation files>\prerequisites\vc2022_redist_
x86\vcredist_x86.exe /quiet /norestart
```

```
<UFT One Installation files>\prerequisites\vc2022_redist_
x64\vcredist_x64.exe /quiet /norestart
```

Install Microsoft Access Database Engine 2016

```
<UFT One Installation
files>\prerequisites\msade2016\AccessDatabaseEngine.exe /quiet
```

Install Microsoft WSE 2.0 SP3 Runtime (required only to run web service testing using WSE security settings)

Download the **.msi** from https://marketplace.microfocus.com/appdelivery/content/uft-one-installation-prerequisites and run the following command.

```
MicrosoftWSE2.0SP3Runtime.msi /quiet /norestart ALLUSERS=1
```

Install Microsoft WSE 3.0 Runtime (required only to run web service testing using WSE security settings)

Download the **.msi** from https://marketplace.microfocus.com/appdelivery/content/uft-one-installation-prerequisites and run the following command.

```
MicrosoftWSE3.0Runtime.msi /quiet /norestart ALLUSERS=1
```

Install Microsoft PDM installer

Use one of the following commands:

```
<UFT One Installation files>\prerequisites\pdm\ScriptDebugging_
x86.msi /quiet /norestart
```

```
<UFT One Installation files>\prerequisites\pdm\ScriptDebugging_
x64.msi /quiet /norestart
```

Install prerequisites for the UFT One Add-in for ALM or the UFT One Run Results Viewer

Install the following prerequisites on your machine when installing only the UFT One Add-in for ALM or the UFT One Run Results Viewer:

"Install .NET Framework 4.8" on page 33

Install UFT One silently

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

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

64-bit

```
msiexec /i "<UFT One Installation files>\Unified Functional
Testing\MSI\Unified_Functional_Testing_x64.msi" /qb
```

32-bit

```
msiexec /i "<UFT One Installation files>\Unified Functional
Testing\MSI\Unified_Functional_Testing_x86.msi" /qb
```

Default features and add-ins

The following features and add-ins are installed by default:

- Runtime Engine
- UI Designer and IDE
- Run Results Viewer
- Samples
- AI Object Detection (UFT One 23.4: AI Features)
- ABBYY OCR Engine

> **Note:** If you downloaded the Core UFT One DVD Bundle, the ABBYY OCR Engine feature is not installed by default. For details, see "Installation packages" on page 13.

- Add-ins:
  - ActiveX Add-in
  - Visual Basic Add-in
  - Web Add-in

If you want to customize which features are installed, see "UFT One silent installation: Include specific UFT One features" below.

Other msiexec options are supported as well.

To repair an existing installation, use:

```
msiexec /q /fa "<UFT One Installation files>\Unified Functional
Testing\MSI\Unified_Functional_Testing_x<64 or 86>.msi"
```

To uninstall the program, use:

```
msiexec /q /x "<UFT One Installation files>\Unified Functional
Testing\MSI\Unified_Functional_Testing_x<64 or 86>.msi"
```

UFT One silent installation: Include specific UFT One features

By default, the silent installation command installs UFT One with default features and add-ins, as described in "Default features and add-ins" on the previous page.

To specify which features and add-ins to include in the installation, add the ADDLOCAL MSI property to the silent installation command. In the ADDLOCAL property's list of features, specify what to include in the installation by using the values described below.

> **Note:**
> - When using the ADDLOCAL property, you must include the **Core_ Components** feature, which installs the Runtime Engine.
> - Values must be separated by commas and must not contain spaces.
> - When installing a feature using the ADDLOCAL property, its parent always is installed as well.

The following examples show the syntax of the ADDLOCAL property and its associated features.

This example uses the ADDLOCAL property to install the UFT One Runtime Engine only:

```
msiexec /i "<UFT One Installation files>\Unified
Functional Testing\MSI\Unified_Functional_Testing_x64.msi" /qb
ADDLOCAL="Core_Components" INSTALLDIR="<UFT_Folder>" ALLOW_
OTHERSRUNTESTS=1
```

This example uses the ADDLOCAL property to perform a standard installation with the Java Add-in:

```
msiexec /i "<UFT One Installation files>\Unified
Functional Testing\MSI\Unified_Functional_Testing_x64.msi" /qb
ADDLOCAL="Core_Components,IDE,Test_Results_Viewer,Samples,Java_Add_
in" INSTALLDIR="<UFT_Folder>">"
```

This example uses the ADDLOCAL property to perform a standard installation with Web and Java Add-ins and the DCOM configurations set:

```
msiexec /i "<UFT One Installation files>\Unified
Functional Testing\MSI\Unified_Functional_Testing_x64.msi" /qb
ADDLOCAL="Core_Components,Samples,Java_Add_in" CONF_DICOM=1
```

```
INSTALLDIR="<UFT_Folder>"
```

For more details, see:

- "ADDLOCAL values for UFT One features" below
- "ADDLOCAL values for UFT One Add-ins" on page 40
- "ADDLOCAL values for UFT Developer components" on page 41

ADDLOCAL values for UFT One features

Value	Description
Core_ Components	(Mandatory) Installs the UFT One Runtime Engine.
IDE	Installs the UFT One user interface.
Test_Results_ Viewer	Installs the Run Results Viewer.
Samples	Installs the sample applications included with the UFT One installation.
ALM_Plugin	Installs the UFT One Add-in for ALM. **Note:** UFT One Add-in for ALM is installed with the same user interface language as UFT One.

AIServices	Enables you to use AI Object Detection and AI-based testing in UFT One. **Prerequisites:** Make sure you have the following installed. • A 64-bit operating system. • Microsoft Visual C++ 2022 Redistributable • The required Windows feature, depending on your Windows operating system: **Windows OS - Microsoft Media Feature Pack** a. From the Control Panel, select **Programs and Features** > **Turn Windows features on or off**. b. In the Windows Feature window, turn on **Media Features**. c. Restart the computer to take effect. **Windows Server 2012 and later - Microsoft Media Foundation** 1. From the Control Panel, select **Programs and Features** > **Turn Windows features on or off**. 2. In the Add Roles and Features Wizard window, click **Next** until you reach the Features tab. 3. Turn on **Media Foundation**. 4. Click **Install**. 5. Restart the computer for your changes to take effect. For the most up-to-date instructions on enabling Windows features, see the Microsoft documentation.

Abbyy_OCR	Enables you to use ABBYY OCR text recognition in UFT One. **Note:** The Core UFT One DVD Bundle does not include the ABBYY OCR Engine files. If you downloaded that installation package and then you want to install the ABBYY OCR Engine feature, do the following: 1. Download the standalone UFT OCR Expansion Pack. Download the version that matches the Core UFT One DVD Bundle version you use. You can access the installation files from the free trial page or by selecting your account on the Software Licenses and Downloads page. 2. Add the UFT OCR Expansion Pack **.zip** file location to the msiexec command, using the following syntax: `msiexec /norestart /qn /i "<UFT One Installation files>\Unified Functional Testing\MSI\Unified_Functional_Testing_x64.msi" /l*xv "C:\UFT_Install.log" ADDLOCAL="Core_Components,Abbyy_OCR,Samples" ABBYY_SOURCEFILE="<UFT OCR Expansion Pack path>\UFT_<version number>_OCR_Expansion_Pack.zip"`

ADDLOCAL values for UFT One Add-ins

Use these values in the ADDLOCAL property's list of features to install various UFT One add-ins:

- **ActiveX_Add_in**
- **Visual_Basic_Add_in**
- **Web_Add_in**
- **Delphi_Add_in**
- **Flex_Add_in** (No longer supported by default)
- **Java_Add_in**
- **_Net_Add_in**
- **Silverlight_Add_in** (No longer supported by default)
- **WPF_Add_in**

- **Oracle_Add_in**
- **PDF_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**

If you plan to use the Web 2.0 Add-ins, you must install the Web Add-in as well. To install Web 2.0 Add-ins, see "Install Web 2.0 Add-ins" on page 44.

ADDLOCAL values for UFT Developer components

Value	Description
UFTDeveloper_Engine	Installs the UFT Developer run-time engine.
UFTDeveloper_Client	Installs the UFT Developer client.
Vs2013Addin **Vs2015Addin** **Vs2017Addin** **Vs2019Addin** **Vs2022Addin**	Installs the UFT Developer Plugin for the relevant version of Microsoft Visual Studio.
IntelliJAddin	Installs the UFT Developer Plugin for IntelliJ IDEA.
EclipseAddin	Installs the UFT Developer Plugin for Eclipse.
ECLIPSE_INSTALLDIR	The path to your Eclipse IDE.

UFT One silent installation: Set UFT One configuration options

This section lists the silent installation properties to use for the installation configuration options described in "UFT One Configuration screen" on page 28.

Configuration option	Property to add to the installation command
Set Chrome, Chromium Edge, Firefox options	**ALLOW_BROWSER_EXT** **Default:** 1. Run the installation with **ALLOW_BROWSER_EXT=0** to prevent UFT One from updating your browser policies or to undo updates performed by previous UFT One installations.
Configure Internet Explorer settings	**CONF_MSIE**
Allow running UFT One remotely from ALM	**ALLOW_RUN_FROM_ALM** **Default:** 0. To set this option for silent installation, set its value to 1.
Allow running UFT One remotely from Automation Scripts	**ALLOW_RUN_FROM_SCRIPTS** **Default:** 0. To set this option for silent installation, set its value to 1.
IMPROVEMENTPROGRAM=0	(Optional) Instructs the silent installation to deactivate usage data collection for the UFT One improvement program. For details, see "UFT One improvement program" on page 25.

Caution: Running UFT One remotely from Automation Scripts enables remote users to control UFT One on this machine, exposing the UFT One computer to security risks.

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

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

```
ALLOW_RUN_FROM_ALM=1
ALLOW_RUN_FROM_SCRIPTS=1
```

UFT One silent installation: Additional command properties

This section lists additional properties that you can use in the UFT One silent installation command:

Command / Argument	Description
LICID=<license ID>	(Optional) The license ID to specify when installing UFT One licenses. **Default:** 20528 (Functional Testing Concurrent User). **Note:** If you installed the UFT Developer feature when installing UFT One, using this feature requires license ID 10594 (UFT One Concurrent User) or 23078 (UFT Ultimate Concurrent User).
LICSVR=<server name>	(Mandatory if you provided a license ID) The name or IP address of the license server to specify when installing UFT One licenses.
MsiProperties	(Optional) Any MSI properties or parameters, such as **INSTALLDIR**. Each MSI property and its definition must be contained in quotes ("") and must not contain spaces. **Note:** You can use **INSTALLDIR** to specify the installation folder only when performing a new installation. When you run the silent installation in an upgrade scenario, UFT One is installed in the same location as the previous version.
MsiFlags	(Optional) Any MSI options, flags, and other instructions that are not included in the MsiProperties arguments, such as logging commands.

UFT One silent installation: Install localized versions of UFT One

By default, UFT One is installed in English.

To install UFT One in the language of your operating system, add the PRODUCT_LOCALE property to the **msiexec** command. The property value you use determines the language of the localized UFT One.

Make sure to use the property value that matches your operating system language, otherwise UFT One is installed in English.

OS Language	Value for the PRODUCT_LOCALE property
Chinese	**"CHS"**
French	**"FRA"**
German	**"DEU"**
Japanese	**"JPN"**

The following example installs the Chinese version of UFT One and uses the ADDLOCAL property to install the .NET Add-in:

```
 msiexec /i "<UFT One Installation files>\Unified Functional
Testing\MSI\Unified_Functional_Testing_x64.msi" /qb ADDLOCAL="Core_
Components,Samples,_Net_Add_in" PRODUCT_LOCALE="CHS"
INSTALLDIR="<UFT_Folder>"
```

Install Web 2.0 Add-ins

UFT One's Web 2.0 Add-ins, such as JQueryUI or Dojo, are supported as part of UFT One's Web extensibility, which requires a separate installation.

Install Web 2.0 Add-ins using an msiexec command in the following syntax:

```
msiexec /qn /i "<UFT One Installation files>\Extensibility and
Toolkits\Web2AddinSetup\Web2AddinSetup.msi"
ADDLOCAL=ASPAjax,Dojo,GWT,jQueryUI,YahooUI,SiebelOpenUI,ExtJS,Sales
forceLightning
```

Include or exclude the specific ADDLOCAL values for the Web 2.0 Add-ins you need.

Install a standalone UFT One Add-in for ALM

To install the UFT One Add-in for ALM without installing UFT One, run the standalone ALM plugin MSI file.

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

```
msiexec /i "<UFT One Installation files>\ALMPlugin\MSI\Unified_
Functional_Add-in_for_ALM.msi" /qn
```

You can install the Add-in for ALM in the language of your operating system by adding the PRODUCT_LOCALE property to the msiexec command. For details on the PRODUCT_LOCALE property, see "UFT One silent installation: Install localized versions of UFT One" on the previous page.

Next steps:

- "Verify the installation" on page 57

Install UFT One from the Package for the Web Bundle

This section explains how to install UFT One from the lighter UFT One installation package. Before running this process, make sure you review the instructions in "Before you install" on page 18.

In this section:

- Overview 46
- Download the UFT One Package for the Web Bundle 47
- Install UFT One using an installation wizard 47
- Install UFT One using a command line interface 48

Overview

The Package for the Web Bundle is a self-extracting installation package, which contains an MSI installation program.

Installing this version of UFT One includes the following steps:

1. Extract the installation package.
2. Run the MSI installation program to install UFT One.

You can run these steps together automatically, or you can perform them separately.

This package includes the UFT One prerequisites, but does not install them automatically. If you need to install any prerequisites, run their installation programs after you extract the installation package and before you run the MSI installation.

The sections below describe running this installation using a UI wizard or a command-line interface.

For details on other UFT One installation packages, see "Installation packages" on page 13.

> **Caution:** Make sure that the installation files are extracted to an **empty** folder, at a location whose path does not exceed 80 characters.
>
> Windows is limited to 260 characters in these files. The installation will fail if the file paths of the individual installation files are longer. In such cases, move the extracted installation files to a location with a shorter path.

Download the UFT One Package for the Web Bundle

Access the installation packages from the free trial page or by selecting your account on the Software Licenses and Downloads page.

Download the UFT One Package for the Web Bundle.

Install UFT One using an installation wizard

Run the ***Setup.exe** file you downloaded. This file self-extracts, providing the necessary installation files, and then automatically performs the installation.

If you need to install any of the prerequisites provided in this package:

1. Stop the wizard after it completes the file extraction.
2. Install all missing prerequisites by running the **setup.exe** file included in the extracted files.

   Alternatively, install specific prerequisites manually using the executable files available in the **prerequisites** folder included in the extracted files.
3. Run the **.msi** file included in the extracted files to performs the UFT One installation.

For details on the selections and configuration details you can customize during the installation, see "Install UFT One with the install wizard" on page 24.

Install UFT One using a command line interface

When using a command line to run the ***Setup.exe** file you downloaded, you can control various aspects of the installation process:

- You can choose whether to install silently or to display a user interface.
- You can specify whether to extract the installation package and automatically run the MSI program, or to stop after the extraction.

  Stopping the process after the file extraction enables you to:

  - Install prerequisites before running the installation.
  - Specify command line options for the MSI run, instructing it to run silently, or configuring features, add-ins, and options to customize the installation.

Use the following commands to install UFT One:

Command Syntax	Description
UFT_One_<version>_Setup.exe -y	Extracts the installation package and installs UFT One using a simple UI (a single dialog box with a progress bar only).
UFT_One_<version>_Setup.exe -y -gm2	Extracts the installation package silently, and installs UFT One using the full installation wizard UI.
UFT_One_<version>_Setup.exe -InstallPath="c:\<path>"	Extracts the installation package to a specific target folder instead of the default.

Command Syntax	Description
UFT_One_<version>_Setup.exe -! <parameter list>	Extracts the installation package and installs UFT One, passing the defined parameter values to the MSI installer. Possible parameters: • **/s.** Do not present the prerequisite dialog box. Without this option, user intervention is required during installation to close this dialog box. • **/qn.** Install UFT One completely silently. • **/l*v "<custom log file location>.log".** Generate the installation log file in a custom location; the default location is **%temp%**. • **INSTALLDIR="<installation folder>".** Install UFT One to a custom location (not relevant in upgrade scenario). • **ADDLOCAL="<features to install>".** For details, see "UFT One silent installation: Include specific UFT One features" on page 36.
UFT_One_<version>_Setup.exe -ExecuteFile=""	Extracts the installation package without running the UFT One installation. When the extraction is complete, you can install prerequisites, as described in "Silent commands for installing UFT One prerequisites" on page 32. You can also use the commands and options described in "Install UFT One silently" on page 31, to perform a silent UFT One installation, selecting the required add-ins. **Tip:** In the silent installation commands, change **<UFT One Installation files>** to the folder where you extracted the installation content.

Examples:

Extract the package to the default location (**c:\temp**), but do not start the UFT One installation:

```
UFT_One_2021_Setup.exe -y -ExecuteFile=""
```

Extract the package to the specified location (**c:\UFTinstall**) in silent mode, but do not start the UFT One installation:

```
UFT_One_2021_Setup.exe -y -gm2 -InstallPath="c:\UFTinstall" -
ExecuteFile=""
```

Extract the package silently and start installing UFT One using the simple UI:

```
UFT_One_2021_Setup.exe -y
```

Extract the package and start installing UFT One silently:

```
UFT_One_2021_Setup.exe -y -gm2 -! /s /qn
```

Extract the package to a specified location, install UFT One silently, customizing the log file location and installation location, and installing several add-ins and features:

```
UFT_One_2021_Setup.exe -InstallPath="C:\2021\extractedUFT" -y -gm2
-! /s /qn /l*v "C:\UFT_INSTALL.log" INSTALLDIR="C:\UFT_Program"
ALLOW_RUN_FROM_ALM=1 ALLOW_RUN_FROM_SCRIPTS=1 CONF_MSIE=1 DLWN_
SCRIPT_DBGR=1 ADDLOCAL="Core_Components,Web_Add_in,ALM_Plugin,Test_
Results_Viewer,Samples,ActiveX_Add_in,Visual_Basic_Add_in,Delphi_
Add_in,Flex_Add_in"
```

Next steps:

- "Verify the installation" on page 57

Upgrade UFT One

You can upgrade directly to the most recent version of UFT One from any previous version of the product.

In this section:

- Before you upgrade 51
- Perform your upgrade 52
- UFT One configuration files location 52
- Notes for upgrading 53

Before you upgrade

Upgrading to the latest version ensures that you benefit from all the latest features and developments, including fixes and security updates. For more details, see the UFT One version upgrade hub.

Depending on the version you are upgrading from, consider the following:

Upgrading from	Consider
UFT One version 2021 or earlier	If you customized the **EmulatedDevices.xml** file, back up the file before you upgrade. When you complete the upgrade, add your customization to the new **EmulatedDevices.xml** file located in the **<UFT One installation folder/bin>** directory.
UFT version 14.53 or earlier	UFT One uses .NET Framework 4.8. Earlier UFT versions used earlier .NET Framework versions. Consult the UFT One Support Matrix to make sure that your operating system is compatible with the new version.
UFT version 12.54 or earlier	Uninstall UFT and all relevant patches before installing UFT One.

Perform your upgrade

To upgrade UFT One:

1. Download the installation files for your new version from the free trial page or by selecting your account on the Software Licenses and Downloads page.
2. Restart your system to ensure complete configuration for the system.
3. Run the **UFT One_<VersionNumber>_Setup.exe** file to upgrade using the installation wizard.

   Alternatively, update your silent installation scripts to use the newly downloaded files.

> **Note:** Upgrades retain **Run Session** and **Startup** options only. Redefine all other settings as needed.

UFT One configuration files location

Starting from UFT One 24.2, the UFT One configuration files are stored in new locations.

The first time you run UFT One after upgrading from a version earlier than 24.2, all existing setting files are automatically migrated to the new locations. This enables you to continue using your existing UFT One settings in the new version.

If the UFT One Settings Migration fails to migrate all files, UFT One suggests that you move the files manually. Otherwise, UFT One uses default settings instead of your existing configuration.

The following table lists the folders that contain files to migrate. Copy all of the files under the folders on the right to the new folders on the left.

UFT One 24.2 or later	UFT One 2021-23.4	Upgrading from a UFT One versions earlier than 2021
%APPDATA%\OpenText\UFT	%APPDATA%\Micro Focus\UFT	%APPDATA%\Hewlett-Packard\UFT
%APPDATA%\OpenText\QuickTest Professional	%APPDATA%\Micro Focus\QuickTest Professional	%APPDATA%\HP\QuickTest Professional
%APPDATA%\OpenText\API Testing	%APPDATA%\Micro Focus\API Testing	%APPDATA%\HP\API Testing
%PROGRAMDATA%\OpenText\UFT	%PROGRAMDATA%\Micro Focus\UFT	%PROGRAMDATA%\Hewlett-Packard\UFT
%LOCALAPPDATA%\OpenText\UFT	%LOCALAPPDATA%\Micro Focus\UFT	%LOCALAPPDATA%\HP\UFT

Note: If you downgrade as follows, the existing configuration will not be preserved and default settings of the older version are used:

Downgrade from 24.2 or later to 23.4 or earlier.

Downgrade from 2021 or later to 15.0.2 or earlier.

Notes for upgrading

The following items address issues when upgrading in specific situations. Read the instructions for any of the situations that are relevant for your upgrade.

- "Upgrade silent installation scripts" on the next page
- "Upgrade licenses" on the next page
- "Upgrade with Web tests on Microsoft Edge Legacy" on the next page
- "Upgrade with text recognition options in automation scripts" on the next page
- "Upgrade from a UFT One version earlier than 2021" on page 55
- "Upgrade from a UFT One version earlier than 2023" on page 55

- "Upgrade from UFT One version 23.4 or earlier" on the next page
- "Upgrade from a UFT One version earlier than 24.2" on page 56

Upgrade silent installation scripts

If you are upgrading your silent installation scripts and the current scripts, including the **Help_Documents** parameter, remove this parameter. Help documents are no longer installed with UFT One.

You can access the Help Center online, or download it to your local drive. Download the Help from the Options dialog box (**Tools** > **Options** > **General** tab > **Help**).

Upgrade licenses

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

You can also upgrade your license to the new Functional Testing licenses: UFT One and UFT Developer. This step is not required.

For assistance, contact your sales representative.

Upgrade with Web tests on Microsoft Edge Legacy

UFT One has changed the way that the Microsoft WebDriver program (required for the OpenText UFT Agent for Edge) is used. For details on the required steps to perform, see the topic on using the Edge extension.

Upgrade with text recognition options in automation scripts

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

Update	To
TextRecognitionLanguages	AbbyyOcrLanguages
TextRecognitionOrder	TextRecognitionOcrMechanism

Upgrade from a UFT One version earlier than 2021

The first time you run UFT One after upgrading from a version earlier to 2021, all existing setting files are automatically migrated to new locations.

If you install a different license immediately after the upgrade, the license is automatically overwritten the first time you run UFT One, resulting in a UFT One failure.

Therefore, after the upgrade, open UFT One once before installing a new license.

Upgrade from a UFT One version earlier than 2023

In UFT One, identifying AI objects using ordinal location is calculated more consistently. As a result, you may need to adjust some steps in your existing tests.

If you find that AI objects described by ordinal location are not identified correctly, reinspect your application to find the best description to use. For example, if you described the object as third from the top, a description of fourth from the left might now give more consistent results.

For details on using ordinal locations for AI objects, see the UFT One Help Center.

Upgrade from UFT One version 23.4 or earlier

Some text recognition enhancements were introduced in UFT One 23.4 and in version 24.2. If you run tests last updated in earlier UFT One versions, you may need to adjust some text recognition settings:

- Changed in UFT One 23.4: AI-based text recognition

  Options for Noise trimming and considering UI control borders were added (selected by default). For details on configuring AI text recognition settings, see the UFT One Help Center.

- Changed in UFT One 23.4 and in UFT One 24.2: Text recognition using the ABBYY OCR engine

  UFT One now uses a newer version of the ABBYY OCR engine. If necessary, adjust your text recognition settings. You can use the **Preview** pane to

experiment with various settings until you achieve optimal recognition. For details on ABBYY text recognition settings, see the UFT One Help Center.

Upgrade from a UFT One version earlier than 24.2

If you are upgrading from a version earlier than 24.2, consider the following issues:

- If you previously installed the Core UFT One DVD Bundle and the UFT OCR Expansion Pack, make sure you download the new version of both installation packages when you upgrade. Core UFT One DVD Bundle 24.2 requires UFT OCR Expansion Pack 24.2 to support the ABBYY OCR engine.
- In 24.2, SAP SuccessFactors object identification was modified. If any of your SAP or Web objects in existing SAP SuccessFactors tests are not identified, update your tests by doing one of the following:
  - In the Object Repository, update the objects' descriptions using the **Update from Application** button . For details, see the UFT One Help Center.
  - Learn the object again by spying on it and adding it to the Object Repository. Then update the test steps to use the new object.
  - Delete the relevant steps and recreate them by recording.

Verify the installation

Use the UFT One Installation Check Tool to verify the status of your installation.

In this section:

- Run the UFT One Installation Check Tool analysis 57
- Learn a UFT One Installation Check Tool report 57

Run the UFT One Installation Check Tool analysis

After installing UFT One, access the Installation Validation tool as follows:

1. Open the **Additional Installation Requirements** utility (available from the Windows Start menu).
2. Click **Run** to run the utility, which handles any configuration prerequisites for working with UFT One. Run through any wizards as needed for your installation.
3. Open the **Installation Check Tool** (available from the Windows Start menu).
4. In the Installation Check Tool dialog, click **Analyze** to generate a report on the current UFT One installation and configuration status.
5. When the report is generated, click one of the following, as needed:
   - **View Report.** View the report as an htm file in a browser.
   - **Send Email.** Send the report to another user. You must have a default email application configured on the UFT One machine to use this option.

Learn a UFT One Installation Check Tool report

The UFT One Installation Check tool validates the installation and configuration state against their expected values.

Values that are returned as expected are highlighted in green, and unexpected values are highlighted in red.

> **Note:**
>
> - The Installation Check Tool returns the data on Remote Agent Settings dialog only if the Remote Agent is run in administrator mode.
> - **UFT One 24.1 and later:** The tool shows the permissions available on various folders and registration keys that might be relevant to UFT One's functionality. This information may be useful for the Support team if you require assistance.

See also:

- "Upgrade UFT One" on page 51
- "Installation prerequisites" on page 18
- "Known issues when installing" on page 60

Install Web 2.0 add-ins or extensibility toolkits

This section explains how to install Web 2.0 add-ins or extensibility toolkits.

- Web 2.0 add-ins enable you to test HTML user-interface objects (controls) in Web 2.0 environments. For a list of available Web 2.0 add-ins, see Web 2.0 Add-ins in the UFT One Online Help.
- Extensibility toolkits enable you to develop support for add-in objects not currently supported by UFT One add-ins.

> **Note:** This installation is available only if you installed UFT One from the Full UFT One DVD Release or the Core UFT One DVD Bundle. For details, see "Installation packages" on page 13.

To install Web 2.0 add-ins or extensibility toolkits

1. Run the UFT One **Setup.exe** file and select the **Add-in Extensibility and Web 2.0 Toolkits** option from the installation start screen.
2. In the **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.

After your installation, the toolkit files and Extensibility SDKs are found in the **UFT_One_installdir\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 One.

See also:

- "Installation packages" on page 13
- "Install UFT One with the install wizard" on page 24

Known issues when installing

This section describes troubleshooting and limitations for installing UFT One.

In this section:

- Files in use 60
- Component registration failed 61
- Change or repair the UFT One installation 61
- UFT One installations and other ADM software 61
- UFT One installations and Microsoft software 62
- UFT One installations and the OpenText UFT Agent (browser support) 64
- UFT One installations and 64-bit applications 65
- UFT One installations and Java 66
- UFT installation in languages other than English 67

Files in use

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

UFT One automatically closes the applications and continues the installation.

If after restarting, the UFT One 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 One to automatically close the applications that are needed for the installation.
Do not close application	Instructs UFT One to continue the installation. You must restart your computer after the installation if you select this option.

Component registration failed

If a message is displayed during installation about component registration failing, do **not** click **OK** to continue.

Instead, check the issue in the **VC2015Prerequisite_yyyymmdd_XXXXXX.log** file in the **%TEMP%** directory. If the log shows that a service did not start correctly, restart the service manually, and start your installation again.

Change or repair the UFT One installation

Changing or repairing the UFT One installation requires write permissions to certain registry keys.

Repairing the installation from the control panel without these permissions behaves as follows:

The installation wizard stops and displays an error message.

- Log in to Windows as an administrator and **Change** or **Repair** the UFT One installation from the Control Panel.
- Run the UFT One MSI installation program from the UFT One installation package and select the **Change** or **Repair** option.

UFT One installations and other ADM software

The following describes troubleshooting and limitations for installing other ADM software with UFT One.

Sprinter	If you are using both UFT One and Sprinter on the same computer, and you modify either UFT One 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 One, uninstalling UFT One may remove the association of movie (**.fbr**) files. This may prevent you from viewing movies associated with defects in ALM using the Micro Player application. **Workaround:** Re-associate the movie files with the Micro Player application from the Windows File Options dialog box.
UFT Developer	• In the **Custom Setup** screen, it is possible to select the UFT Developer 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 UFT Developer plugin available. **Workaround**: After installing the required IDE, run a Repair for the installation. • Make sure to use the new syntax when silently installing UFT Developer as part of the UFT One installation. For details, see "ADDLOCAL values for UFT Developer components" on page 41. If you encounter an error similar to this one, make sure you did not use the old LeanFT silent installation command syntax: `Error: The installer has encountered an unexpected error installing this package. This may indicate a problem with this package. The error code is 2711. The arguments are: LeanFT`

UFT One installations and Microsoft software

The following describes the troubleshooting and limitation for installing UFT One on Windows or using UFT One with other Microsoft software.

Software	UFT instructions
Windows 10 and 11	• When installing UFT One on a Windows 10 or 11 operating system, you must close Cortana and the Action Center before performing the UFT One installation. • You must have administrative permissions to connect to ALM from UFT One on Windows 10 or 11. Connect to ALM with Administrator permissions immediately after installing UFT One.
pdm.dll	**To debug GUI tests in UFT One**, ensure that you have 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. Alternatively, install the Microsoft Script Debugger provided with the UFT One installation, which provides the **pdm.dll**. **To register the pdm.dll file installed with Microsoft Internet Explorer:** 1. Ensure that you have administrator privileges. 2. Locate the **pdm.dll** file, usually located either in **c:\program files(x86)\internet explorer** or **c:\program files\internet explorer**. 3. Move the **pdm.dll** file and the **msdbg2.dll** file from the same folder to a different location. 4. Run the following commands: **regsvr32 <full path to pdm.dll>\pdm.dll** **regsvr32 <full path to pdm.dll>\msdbg2.dll** **If your currently registered pdm.dll version is lower than 9:** 1. Uninstall the Microsoft Script Debugger (if installed). 2. Install the Microsoft Script Debugger using the UFT One Additional Installation Requirements utility. Open the **UFT One Additional Installation Requirements** utility from the Windows Start menu or by running **<UFT_One_installdir>\bin\UFTInstallReqs.exe**.

Software	UFT instructions

Microsoft Office 64-bit	Using UFT One and Microsoft Office 64-bit on the same machine requires some intervention. This is due to a conflict between the Microsoft Access Database Engine versions used by these two programs.
	
	Do one of the following:
	
	• Install UFT One before you install Microsoft Office 64-bit.
	• Before you install UFT One, install Microsoft Access Database Engine 2016 32-bit from an administrator command line, using the **/quiet** argument. For details, see "Install Microsoft Access Database Engine 2016" on page 34.
	• Install UFT One with the **SKIP_MSADE_CHECK** flag. This installs UFT One without requiring the Microsoft Access Database Engine 2016 Redistributable to be installed.
	
	Silently:
	
	`cmd /c MsiExec /norestart /qn /i "<UFT One MSI Path>\Unified_Functional_Testing_x64.msi" /l*xv "<log file path>.log" SKIP_MSADE_CHECK=1`
	
	Using the installation wizard:
	
	`cmd /c MsiExec /norestart /qf /i "<UFT One MSI Path>\Unified_Functional_Testing_x64.msi" /l*xv "<log file path>.log" SKIP_MSADE_CHECK=1`
	
	You can install the redistributable engine as described above, if you find later that you need it for API database activities.

Windows Server 2012 R2	When using UFT One on Windows Server 2012 R2, if you want to use API tests and components, make sure that you have MSU (Microsoft Update) KB2887595 installed.

UFT One installations and the OpenText UFT Agent (browser support)

The following provides instructions on installing OpenText UFT Agent extension in browsers.

Browser	UFT instructions
Google Chrome	If you are testing applications in Google Chrome version 68 or later, Chrome automatically downloads and installs the OpenText UFT Agent for Google Chrome the first time you open Chrome after UFT One is installed. In the following cases, you must manually install the OpenText UFT Agent Chrome extension: • You have no Internet connection. • You have not enabled the automatic updates for Google Chrome. • You are using Google Chrome version 67 or earlier. • You are using Google Chrome version 95 or earlier. For details on manually installing the extension, see the UFT One Help Center.
Mozilla Firefox	The first time you open Firefox after UFT One is installed, accept the prompt to install the OpenText UFT Agent for Firefox.
General	To use the latest OpenText UFT Agent browser extension, make sure its older version, the Functional Testing Agent extension is not installed. If both extensions are installed, manually remove the older before enabling the new.

UFT One installations and 64-bit applications

Installing with administrator privileges	UFT One loses support for 64-bit applications if a user with administrator privileges installs the UFT One Add-in for ALM, or performs a Repair operation on the Run Results Viewer, and then a user runs UFT One on that same computer without administrator privileges. **Workaround:** Log in as an administrator and do one of the following: • Repair UFT One • Run **<UFT_One_installdir>\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 One 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.

UFT One installations and Java

When re-installing or upgrading the JRE on a machine with UFT One installed, you might encounter error 1603 preventing the JRE installation to complete.

This can be caused by an interference between the UFT One Java environment variables and the Java installer.

To successfully complete the installation, rename the UFT One Java environment variables, perform the JRE installation and restore the variable names.

To temporarily rename the UFT One Java environment variables:

1. On your Windows Desktop, right-click **My Computer** or **This PC** and select **Properties**.
2. Select the **Advanced** tab.
3. Click the **Environment Variables...** button.
4. Look for the following environment variables both under the user variable list and the system variables list and edit their names:
   - _JAVA_OPTIONS
   - Java_Tool_Options
   - IBM_Java_Options

5. Install the JRE.
6. After the installation is completed, change the environment variables names back to their original names.

UFT installation in languages other than English

When installing UFT One in languages other than English, the TTF16.ocx file is not registered by default. To avoid errors in these cases, do the following before beginning your installation:

1. Browse to the Windows Welcome screen and new user account settings. You may be able to find this in your Windows **Region** or **Region and Language** control panel settings.
2. Click **Copy settings...** and select to copy your current settings to the **Welcome screen and system accounts**.

See also:

- "Known issues with UFT One licensing" on page 94

UFT One licensing

Working with UFT One requires a license. This section describes the different types of UFT One licenses, where to view your license information, and how to install licenses.

In this section:

- UFT One license types 68
- View license information 69
- AutoPass License Server 69
- Seat vs. concurrent licenses 70
- License editions 72
- Manage licenses with the wizard 76
- Manage licenses with the command line 83
- Configure license behavior 86
- Licensing FAQs 90
- Known issues with UFT One licensing 94

UFT One license types

When you install UFT One, you select one of the following license types:

- A permanent **seat** license that is specific to the computer on which it is installed.

  Note: The trial installation of UFT One includes a 30-day demo seat license.

- A network-based **concurrent** license that can be used by multiple UFT One users, taken from and returned to a licensing server pool.

  If you need a demo concurrent license, contact your UFT One sales representative or partner.

As long as you are logged in with administrator permissions, you can change your license type at any time. For example, if you are currently working with a seat license, you can choose to connect to a concurrent license server, if one is available on your network.

> **Note:** You can also open UFT One using a legacy license, although the functionality will be limited to the service that you are licensed to use. For example, you can open UFT One using a legacy QuickTest Professional or

Service Test license and access GUI testing or API testing functionality.

For more details, see "Seat vs. concurrent licenses" on the next page and "License editions" on page 72.

For details about installing and configuring licenses, see:

- "Manage licenses with the wizard" on page 76
- "Manage licenses with the command line" on page 83
- "Configure license behavior" on page 86

View license information

To view details about your current license:

1. In UFT One, select **Help > About OpenText UFT One**.
2. Click **License**.

   If at least one of your licenses is about to expire, UFT One displays the date of the license closest to expiration.

AutoPass License Server

Concurrent licenses require the use of the AutoPass License Server. If you are upgrading to UFT One 14.50 or later, you must upgrade your AutoPass version to AutoPass version 10.7 or later.

Download the installation from the ITOM Marketplace (requires login).

Caution: Earlier versions of UFT One can be used with AutoPass version 10.7 only after configuring SSL. For details, see the AutoPass 10.7 SSL Communication Support document (requires login).

For more details, such as proxy settings or managing licenses and users, see the AutoPass License Server online documentation.

See also:

- "Known issues when installing" on page 60
- "Licensing FAQs" on page 90
- "Known issues with UFT One licensing" on page 94
- UFT One Community Discussions: Search for license related issues
- Blog: Take a deep dive into Unified Functional Testing's new license management

Seat vs. concurrent licenses

This section describes UFT One seat and concurrent licenses, and can help you select the best type of license for your needs.

In this section:

- Seat licenses 70
- Concurrent licenses 71

Seat licenses

Seat licenses are machine-specific licenses, 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 will be using UFT One or UFT Developer.

Seat licenses and Windows servers

If you install a seat license on a Windows server, the seat license will be consumed by the first user who logs into the Windows server.

Limited seat licenses

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 seat license installations on that computer. For more information, contact your UFT One license supplier.

MAC address or host name changes

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.

Concurrent licenses

Concurrent licenses are taken from the AutoPass License Server on a per-session basis. You must have an active network connection to install and access concurrent licenses.

Each time UFT One or UFT Developer starts, it tries to connect to the AutoPass License Server for an available license, which regulates the number of licenses currently in use.

The license is returned to the AutoPass License Server when UFT One or UFT Developer is closed. Additionally, concurrent licenses are released when UFT One or UFT Developer is idle, with no mouse or keyboard activity, for a specified amount of time.

If you need to use your FT tool without access to the internet, use one of the following instead:

Commuter license	If you know that you will need access to UFT One or UFT Developer without internet, check out a **commuter license** beforehand. Commuter license keys are entered once, and provide use for a single installation of UFT One or UFT Developer, for a limited time period. The license key is based on the machine identification, and is specific for the computer making the request.

Remote commuter license	If you find yourself without access to the internet unexpectedly, have another user with a connection check out a commuter license for you. This is called a **remote commuter license**, and must be sent to you for you to use with your FT tool.

Both commuter and remote commuter licenses expire at 23:59 of the expiration day. After the commuter license expires, UFT One and UFT Developer automatically return to the previously used license type.

> **Tip:** You can track license usage across your network (for your FT tools as well as other products). For details, see the AutoPass License Server online documentation.

See also:

- Blog: Take a deep dive into Unified Functional Testing's new license management
- AutoPass License Server online documentation

License editions

ADM Functional Testing tools support a variety of license editions, each bundled with a different subset of functional testing features.

In this section:

- Supported license editions 72
- Upgrade licenses from before UFT 14.00 74
- Licensing fallback mechanism 74

Supported license editions

The following table describes the products available with each license edition.

Includes the use of these products:	License names		
	UFT Ultimate*	**UFT One**	**UFT Developer**
UFT One	✓	✓	✗
UFT Developer	✓	✓	✓
Sprinter	✓	✓*	✗
BPT	✓*	✓*	✗
Digital Lab (for functional testing purposes only)	✓	✗	✗

Additionally, use a **UFT Runtime Engine** license when you need to run UFT One or UFT Developer tests only.

The **UFT Runtime Engine** license does not enable you to create or edit tests, or access the UFT One IDE or UFT Developer IDE plug-ins.

*** Note:**

- The **UFT Ultimate** license is no longer available for purchase and is supported for existing customers only.
- The **UFT Ultimate** license is available only as a concurrent license.
- Sprinter is available for **UFT Ultimate** or **UFT One** concurrent licenses only.
- When using BPT with UFT One, you must also have a BPT license on your ALM server.

Upgrade licenses from before UFT 14.00

Backwards compatibility	If you are upgrading, and currently have an FT, QTP, or UFT license, you are not required to migrate to one of the new license types. UFT One will continue to function with your existing license. Customers with legacy FT or QTP licenses can continue to use their existing functionality. Customers with legacy UFT licenses are limited to UI testing only. In such cases, we recommend upgrading to a UFT One license to enable all UFT One features. UFT and LeanFT licenses will be automatically renamed as follows: • **UFT license**: Your license is automatically renamed to the **UFT One** license. • **LeanFT license**: Your license is automatically renamed to the **UFT Developer** license
Device ID - based licenses	Starting in UFT 14.00, UFT One supports concurrent licenses based on your device ID, in addition to the License Server IP address. However, you cannot use both IP address-based and device ID-based licenses simultaneously. After you install an ID-based concurrent license on your AutoPass License Server, any IP address-based licenses for the same features are automatically archived. When upgrading, select the type of licenses you want to use moving forward, and migrate your licenses as needed. For details, see the AutoPass License Server online documentation.

Licensing fallback mechanism

When starting UFT One or UFT Developer, the AutoPass License Server attempts to consume the exact license edition configured on the UFT One or UFT Developer machine, such as the **UFT One** or **UFT Developer**.

If you are concerned about the availability of the license edition configured on your tool's machine, modify this configuration as described in "Configure the licensing fallback mechanism" on page 87.

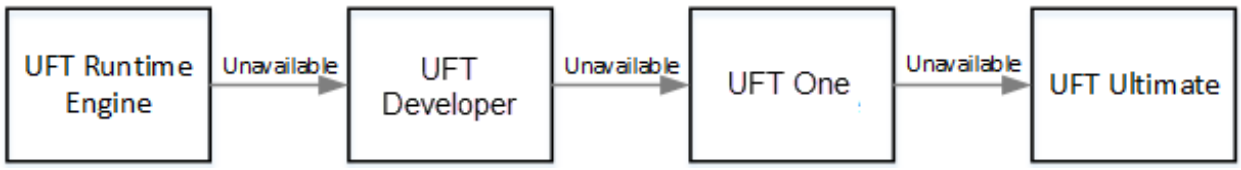
When the fallback mechanism is enabled, licenses are consumed as follows:

When starting UFT One

- If you have a **UFT One** license installed, the License Server looks for the **UFT One Ultimate** license as a fallback.
- If you have a **UFT Runtime Engine** or **UFT Developer** license installed, no fallback is supported.

When starting UFT Developer

When starting the UFT Developer runtime engine, licenses are consumed in the following order on the License Server, starting with the license configured on your machine:



Note:

- The licensing fallback mechanism is relevant only when working with concurrent licenses.
- The licensing fallback mechanism is disabled by default.

Sample scenario 1: UFT Developer license configured on the UFT Developer machine

If the **UFT Developer** license is configured on the machine, but there is no available **UFT Developer** license on the License Server, UFT Developer tries to consume a **UFT One** license.

In turn, if no **UFT One** license is available, UFT Developer tries to consume a **UFT Ultimate** license.

Sample scenario 2: UFT Runtime license configured on the UFT Developer machine

If the **UFT Runtime Engine** license is configured on the UFT Developer machine but there is no available **UFT Runtime Engine** license, UFT Developer tries to consume a **UFT Developer** license.

In turn, if there is no available **UFT Developer** license, UFT Developer tries to consume a **UFT One** license.

See also:

- "UFT One licensing" on page 68
- "Configure license behavior" on page 86
- "Licensing FAQs" on page 90
- Blog: Take a deep dive into Unified Functional Testing's new license management

Manage licenses with the wizard

The Functional Testing License Wizard enables you manage licenses for UFT One or UFT Developer.

Installing licenses requires administrator permissions.

In this section:

Set seat license mode

Set seat license mode when you have a machine-specific license, based on a specific locking code per computer. For more details, see "Seat vs. concurrent licenses" on page 70.

1. Access the wizard from the **Start** menu or your <**UFT One / UFT Developer installdir>\bin\HP.UFT.LicenseInstallationWizard.exe**.
2. In the License Wizard start screen, select **Seat license**.
3. 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, follow the instructions in the expanded **How can I get a license key file** section.

4. Verify that the license key is valid, and click **Install**.
5. When complete, restart UFT One or UFT Developer to apply the new license.

Set concurrent license mode (wizard)

Set the concurrent license mode to have UFT One consume a concurrent license from the AutoPass License Server.

For more details, see "Seat vs. concurrent licenses" on page 70.

Prerequisites

- You must have a UFT One license installed on an AutoPass License Server.

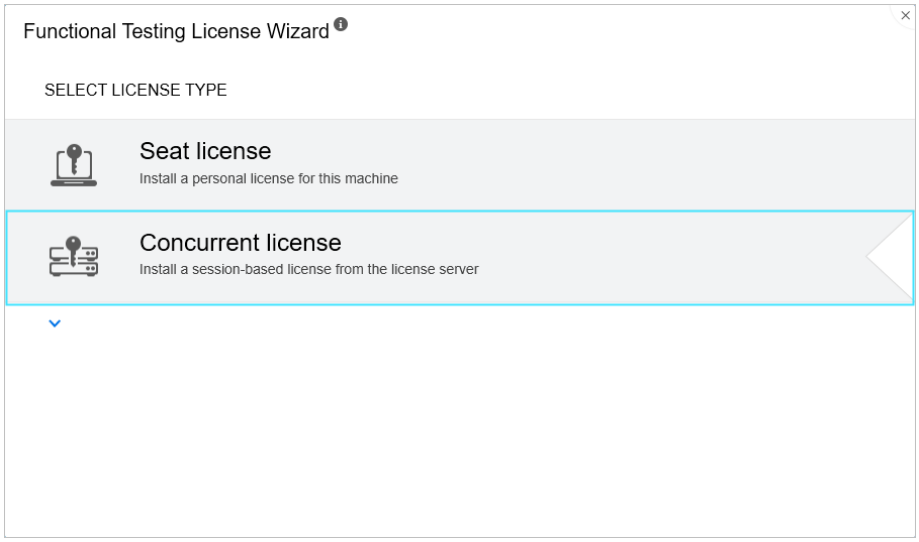
  For details, see the AutoPass License Server online documentation.

  > **Note:** If you need to install UFT One and the License Server, you must install UFT One from the Full UFT One DVD Release or the Core UFT One DVD Bundle.

- Make sure you are connected to the network and can access the AutoPass License Server.

Set the concurrent license mode

1. Access the wizard from the **Start** menu or your <**UFT One / UFT Developer installdir>\bin\HP.UFT.LicenseInstallationWizard.exe**.
2. In the License Wizard start screen, select **Concurrent license**.

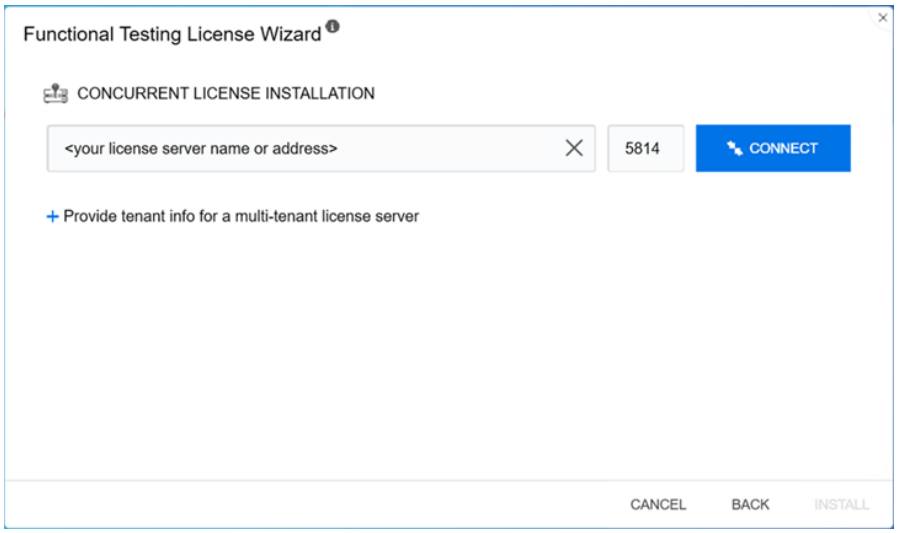


3. In the Concurrent License Installation screen:

   Enter the **License Server address** and the **port number**.

   Default port = **5814**

> **Note:** The address format must be identical to the one used in the **Main** tab of the License Server Configuration pane. For details, see the AutoPass License Server online documentation.



4. Provide tenant information if you enter an address of a multi-tenant license server.

Click **Provide tenant info for a multi-tenant license server**, and enter the tenant ID and authentication token.

For information on how to assign an authentication token to a tenant in AutoPass License Server, see AutoPass License Server online documentation.

5. Click **Connect** to connect to the License Server.
6. From the product license drop-down list, select the appropriate license and click **Install**.
7. If UFT One or UFT Developer was running while you defined the license consumption, restart it to apply the new license.

Check out and consume a Commuter license

Check out and consume 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 AutoPass License Server.

   Alternatively, if you cannot access the License Server, see "Check out and consume a Remote Commuter license" on page 81.
2. Access the wizard from the **Start** menu or your <**UFT One / UFT Developer installdir>\bin\HP.UFT.LicenseInstallationWizard.exe**.
3. In the License Wizard start screen, select **Additional Options > Commuter License**.
4. In the Commuter License Installation screen, enter the License Server address in the following format:

   <license server address>:<port>

   Default port = **5814**

> **Note:** The address format must be identical to the one used in the **Main** tab of the License Server Configuration pane.

> For details, see the AutoPass License Server online documentation.

5. Click **Connect** to connect to the License Server.
6. After the list of available licenses is displayed, ensure that **Available** is selected below the License Server address field.
7. From the list of available licenses, select the licenses you need.
8. In the **Check out licenses for (days)** field, enter the number of days for which you need the commuter license.

   Maximum = 365 days
9. Click **Check Out**, and then **Next** to define the license consumption.
10. If UFT One or UFT Developer was running while you defined the license consumption, restart it to apply the new license.

Return a Commuter license

When you are done with a license, return it back in to the license server.

This process checks in all of the licenses that are checked out. If you still need some of these licenses, check them out again.

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

   Alternatively, if you cannot access the License Server, see "Check out and consume a Remote Commuter license" on the next page.
2. Access the wizard from the **Start** menu or your <**UFT One / UFT Developer installdir>\bin\HP.UFT.LicenseInstallationWizard.exe**.
3. In the License Wizard start screen, select **Additional Options** > **Commuter License**.
4. 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**

> **Note:** The address format must be identical to the one used in the **Main** tab of the License Server Configuration pane.
>
> For details, see the AutoPass License Server online documentation.

5. In the area that lists the licenses, ensure that **Checked Out** is selected.

   For example:

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

Check out and consume a Remote Commuter license

Check out and consume a remote commuter license

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

1. Access the wizard from the **Start** menu or your <**UFT One / UFT Developer installdir>\bin\HP.UFT.LicenseInstallationWizard.exe**.
2. In the License Wizard start screen, select **Additional Options > Remote Commuter license**.
3. In the Remote Commuter License Installation screen, ensure that **Generate Request File** is selected.
4. From the list of available licenses, select the license you need.
5. In the **Check out licenses for (days)** field, enter the number of days for which you need the commuter license.

   Maximum = 365 days

6. Click **Generate Request File**.
7. Click the link that appears below this button to open the folder containing the 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 access the Licensing Server to check out and send you a license key file.

8. When you receive the license key file, save it locally.

   Click **Install License**, and click **Choose File** to browse to the text file you received.

9. Click **Install** to install the license.
10. If UFT One or UFT Developer was running while you defined the license consumption, restart it to apply the new license.

Return a Remote Commuter license

Perform this procedure after a License Server administrator has checked out your license.

1. Access the wizard from the **Start** menu or your <**UFT One / UFT Developer installdir>\bin\HP.UFT.LicenseInstallationWizard.exe**.
2. In the License Wizard start screen, select **Additional Options** > **Remote Commuter license**.
3. In the Remote Commuter License Installation screen, ensure that **Generate Request File** is selected.
4. In the Generation screen, click **Generate and Save Check In Request**, and save the **.lcir** check in request file.
5. Click **Next** to uninstall the license.

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

See also:

- "Seat vs. concurrent licenses" on page 70
- Blog: Take a deep dive into Unified Functional Testing's new license management

Manage licenses with the command line

Consume and verify the statuses of seat or concurrent licenses directly from the command line. Installing licenses requires administrator permissions.

In this section:

- Run the License Installer from the command line 83
- Define seat licenses with the command line 83
- Consume concurrent licenses with the command line 84

Run the License Installer from the command line

Run the License Installer, **LicenseInstall.exe**, as follows:

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

Append the relevant command and set of parameters described below:

- "Define seat licenses with the command line" below
- "Consume concurrent licenses with the command line" on the next page

Define seat licenses with the command line

Define seat licenses in the command line by running the License Installer and appending the following:

```
seat "<license key string>"
```

For example:

```
"C:\Program Files (x86)\OpenText\UFT
One\bin\HP.UFT.LicenseInstall.exe" seat "<key> \" OpenText UFT One"
```

Note:

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

- If the license key file is saved locally, run the License Installer, appending the following code and wrapping the path to the license key file in quotes:

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

For example:

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

For more details, see "Seat licenses" on page 70.

Consume concurrent licenses with the command line

These steps configure UFT One to consume concurrent licenses installed on the AutoPass License Server.

Verify available licenses on the AutoPass License Server

Run the License Installer, appending the following command:

```
licenses <server name/address>:<port> [/tenantid:"xx"
/tenanttoken:"xx"]
```

For example:

```
"C:\Program Files (x86)\OpenText\UFT
One\bin\HP.UFT.LicenseInstall.exe" licenses 11.11.111.111:5814
/tenantid:"tenant1" /tenanttoken:"6wxTn89A6BSr04c+nPYstA=="
```

> **Note: tenantid** and **tenanttoken** are required only when you verify available licenses on a multi-tenant License Server.

The available licenses are displayed by unique ID and version.

Consume a concurrent license

1. Run the License Installer to verify which licenses are available on the AutoPass License Server, as described above.

   The available licenses are displayed by unique ID and version.

2. Run the License Installer again, this time appending the following command and parameters:

```
concurrent <license ID> <license version> <server
address>:<port> [/tenantid:"xx" /tenanttoken:"xx"] [/force]
```

   For example:

```
"C:\Program Files (x86)\OpenText\UFT
One\bin\HP.UFT.LicenseInstall.exe" concurrent 10594 1
11.11.111.111:5814 /tenantid:"tenant1"
/tenanttoken:"6wxTn89A6BSr04c+nPYstA=="
```

address	The **address** format must be identical to the one used in the **Main** tab of the AutoPass License Server Configuration pane. For details, see the AutoPass License Server online documentation.
port	Optional. The Default port for the server is **5814**.
/tenantid	The ID of an AutoPass License Server tenant. This is required only when your License Server has enabled multi-tenancy.
/tenanttoken	The token assigned to the tenant. This is required only when your License Server has enabled multi-tenancy.
/force	Optional. **/force** saves the license installation information even if the current installation fails. In subsequent sessions, UFT One or UFT Developer will check the listed license server for the listed license.

Modify server connection protocol

Run the License Installer, appending:

```
config protocol.primary <protocol>
```

where **<protocol>** is **http** or **https** as needed.

See also:

- "Seat vs. concurrent licenses" on page 70
- Blog: Take a deep dive into Unified Functional Testing's new license management

Configure license behavior

This section describes how to configure your UFT One license behavior.

If you are installing UFT Developer on Linux or Mac, or UFT Developer standalone, see the UFT Developer Help Center instead.

> **Note:** Some folder paths intentionally include previous company branding, due to backward compatibility considerations.

In this section:

- General license settings 86
- Configure the licensing fallback mechanism 87
- Configure licensing timeouts 88

General license settings

General licensing behavior is managed in the AutoPass license configuration file, located on your UFT One or UFT Developer machine. This file includes details about supported options and values.

UFT One 24.2 and later	UFT One 23.4

The file is located at: **C:\ProgramData\OpenText\UFT\License\autopass.txt**	The file is located at: **C:\ProgramData\Micro Focus\UFT\License\autopass.txt**

Caution: Configure this file with caution.

Incorrect configuration may cause UFT One or UFT Developer to behave unexpectedly, or prevent UFT One or UFT Developer from starting.

Additional configurations include:

- "Configure the licensing fallback mechanism" below. Perform this procedure if your concurrent license server has multiple license editions installed, and you want to always ensure that your product can find an available license.
- "Configure licensing timeouts" on the next page. Define the timeout period after which your license is released.

Configure the licensing fallback mechanism

Define whether your system uses the licensing fallback mechanism for UFT One and UFT Developer as follows:

1. On your AutoPass License Server machine, browse to the **C:\ProgramData\autopass\apls\licenseserver\data\conf\UFT.xml** file.

   Note: This file is available with AutoPass versions 9.3 or higher.

2. Edit and add keys and values to set the following values to **true**, as needed:

Product	License type	Key
UFT One	Any	**license.fallback.uft.rte**
Runtime Engine	Any	**license.fallback.rte.rte**
UFT Developer	UFT Developer	**license.fallback.leanft.leanft**
UFT Developer	Runtime Engine	**license.fallback.leanft.rte**

Make sure that you add key entries within the <properties> element and after the <comment> element.

Edit and add keys and values in the following format:

```
<entry key="{Key}">{Value}</entry>
```

Example: To enable the fallback mechanism when you want to use **UFT One** and you have **any** of the license types configured, set the relevant key value to **true**, as follows:

```
<entry key="license.fallback.uft.rte">true</entry>
```

Finding a Runtime Engine license

If the fallback mechanism is enabled, and an available **Runtime Engine** license is found, you will only be able to run your tests, with no creation or editing abilities.

Ensure that you can always access the UFT One IDE or the UFT Developer IDE plug-ins by doing one of the following:

- Deactivate the fallback mechanism by setting the key values to **false** (this is the default).
- Contact your License Server administrator to ensure that any UFT One Runtime Engine licenses are blocked or are in use.

For more details, see "Licensing fallback mechanism" on page 74.

Configure licensing timeouts

Define the number of minutes, with no keyboard or mouse input, after which UFT One or UFT Developer releases the currently used concurrent license.

Configure a timeout for UFT One or UFT Developer

1. On your UFT One or UFT Developer machine, open the **LicenseSettings.xml** file for editing.

UFT One 24.2 and later	UFT One 23.4
The file is located in the **C:\ProgramData\OpenText\UFT\License** folder	The file is located in the **C:\ProgramData\Micro Focus\UFT\License** folder

2. Update the following parameters with the number of minutes you want to define for your timeout:

LicenseAutoReleaseInterval	The number of minutes after which a confirmation message appears, warning the user that the license is about to time-out.
ConfirmLicenseReleaseTimeout	The number of minutes after which the confirmation message closes, and the license is released.

Configure a timeout for your AutoPass concurrent license server

On your AutoPass License Server machine, browse to the **UFT.xml** file at **C:\ProgramData\autopass\apls\licenseserver\data\conf\UFT.xml**.

Open the file for editing, and add the following line of code:

```
<entry key="autorelease.interval"><#></entry>
```

where **#** is the number of minutes of inactivity.

Example: The following syntax defines that your license is released after 10 minutes of inactivity.

```
<entry key="autorelease.interval">10</entry>
```

See also:

- "Licensing FAQs" on the next page
- "Known issues with UFT One licensing" on page 94
- "UFT One licensing" on page 68
- Blog: Take a deep dive into Unified Functional Testing's new license management

Licensing FAQs

This section answers a number of frequently asked questions about using and installing Functional Testing licenses.

> **Note:** Some folder paths intentionally include previous company branding, due to backward compatibility considerations.

In this section:

- UFT One Help Center licensing scope 90
- Can I use my old license (from before UFT One 12.50) with the new License Server? 90
- Which license should I install? 91
- How do I install the AutoPass License Server? 91
- If I am using concurrent licenses, how do I connect to the License Server? 92
- How do I install licenses if I am deploying UFT One across an enterprise network? 92
- How do I manage the concurrent licenses on the License Server? 92
- Can I configure license behavior myself? 92
- Can I use the AutoPass License Server with a proxy? 93
- What is a cleanup license? 93
- My demo license is expiring early. What can I do? 93

UFT One Help Center licensing scope

This guide describes how to access licenses on the AutoPass License Server from UFT One and UFT Developer.

For full details on AutoPass License Server capabilities, such as proxy settings, license installation and management, and user management, see the AutoPass License Server online documentation.

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

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

Prior versions of UFT One used the Sentinel Concurrent License Server.

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

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

Which license should I install?

Use the following table to help determine which type of license to install. For details about license types, see "UFT One licensing" on page 68.

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?	Concurrent 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?

Download the AutoPass License Server from the ITOM Marketplace (login required).

For full details, see the AutoPass License Server online documentation.

If I am using concurrent licenses, how do I connect to the License Server?

Run the Functional Testing License Wizard and enter the License Server IP address. This checks the connection to the License Server, and also provides a list of possible licenses to install.

After installing your concurrent license, UFT One or UFT Developer checks the specified License Server address each time UFT One or the UFT Developer runtime engine starts, taking the requested license.

For more details, see "Manage licenses with the wizard" on page 76.

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

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

For details on the commands to install these licenses, see "Manage licenses with the command line" on page 83.

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, administer, and track usage of all your licenses (both concurrent and commuter).

For details, see the AutoPass License Server online documentation.

Can I configure license behavior myself?

Yes. For details, see "Configure license behavior" on page 86.

Can I use the AutoPass License Server with a proxy?

Yes. Set the proxy settings in the **autopass.txt** file, located on your UFT One or UFT Developer machine.

UFT One 24.2 and later	UFT One 23.4
The file is located in the **C:\ProgramData\OpenText\UFT\License** folder	The file is located in the **C:\ProgramData\Micro Focus\UFT\License** folder

See the comments inside this file for details on setting the proxy settings. Be sure to uncomment the relevant lines and define their values.

> **Note:** For Linux/Mac installations of UFT Developer, see the UFT Developer Help Center.

What is a cleanup license?

If your computer is clock-tampered after installing the License Server, both the License Server and UFT One's or UFT Developer'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 UFT One license supplier.

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

If you are having problems with the 30-day trial license period, ensure the following:

- Ensure that you have full permissions to the UFT One or UFT Developer installation 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.

See also:

- Blog: Take a deep dive into Unified Functional Testing's new license management

Known issues with UFT One licensing

Relevant for: GUI testing and API testing

The following known issues exist when working with Functional Testing licenses:

UFT One and UFT Developer concurrent installations	If you installed UFT Developer from the UFT One setup program, and you are using a seat license for UFT One, UFT Developer uses the same license. In such cases, you cannot run both UFT One and UFT Developer at the same time.
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 seat license installations on that computer. For questions about this issue, contact your UFT One license supplier.
NAT	The License Server does not support the use of Network Address Translation (NAT).
Demo licenses	Demo licenses are not included in concurrent licenses, which require an active connection to the AutoPass License Server and a license key installed.
Changing types	You must have administrator permissions to change the license type from seat to concurrent or vice versa.

If you did not find a solution to your issue here, search for UFT One license issues in the UFT One Community.

See also:

- "UFT One licensing" on page 68
- "License editions" on page 72
- "Manage licenses with the wizard" on page 76
- "Manage licenses with the command line" on page 83
- "Licensing FAQs" on page 90
- Blog: Take a deep dive into Unified Functional Testing’s new license management

Before connecting to ALM

If you intend to run UFT One tests remotely from ALM on this computer, you must modify User Account Control (UAC) settings before connecting to ALM. You can revert these modifications afterward.

> **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.

In this section:

- For Microsoft Windows 10 & 11, Windows Server 2016 & 2019 96
- For Microsoft Server 2012 97
- Enable UAC again if required 97

For Microsoft Windows 10 & 11, Windows Server 2016 & 2019

Modify UAC settings on Windows 10, Windows Server 2016, & Windows Server 2019 machines as follows:

1. Open the registry editor. (Run a **regedit** command)
2. Navigate to the following key: **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System**
3. Modify the **EnableLUA** DWORD value and set it to 0.
4. Restart the computer for your changes to take effect.

For Microsoft Server 2012

Modify UAC settings on Windows Server 2012 machines as follows:

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

On Windows 10, open the registry editor and set the value of **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System\EnableLUA** back to 1.

Restart the computer for your changes to take effect.

See also:

- Application Lifecycle Management
- ALM Help Center