Basic & Advanced UFT

Lesson 2: Introduction to UFT

Capgemini

Lesson Objectives

- Overview of Functional Testing
- Functional Testing Tools
- Unified Functional Testing (UFT) : An Overview
- UFT - History & Evolution
- Benefits of using UFT
- What's New in UFT 14.00
- Familiarization with UFT Menus
- An Overview of UFT IDE Panes

2.1: What Is Functional Testing?
Overview of Functional Testing

- Functional Testing is defined as a type of testing which verifies that each function of the software application operates in conformance with the requirement specification
- This testing mainly involves black box testing and it is not concerned about the source code of the application
- Function testing is always carried out on the application based on the business requirements provided by client
- Typically, functional testing involves the following steps:
  - Identify functions that the software is expected to perform
  - Create input data based on the function's specifications
  - Determine the output based on the function's specifications
  - Execute the test case
  - Compare the actual and expected outputs

2.1: What Is Functional Testing?
Functional Testing Tools

- Following is the list of few commonly & popularly used Functional Testing Tools
  - HPE - UFT/QTP
  - Google - Selenium
  - Smartbear - QA Complete
  - IBM – RFT
  - Bornland – Silk Center

2.2: Introduction to UFT
Overview of Unified Functional Testing (UFT) Tool

- UFT stands for **U**nified **F**unctional **T**esting
- It was earlier known as QTP i.e. **Q**uick **T**est **P**rofessional tool
- It provides Functional and Regression Test Automation for software application
- UFT is an automated functional testing tool provided by Micro Focus that enables test engineers to write automated test scripts to detect bugs in the application under test
- UFT supports keyword and scripting interfaces and features a graphical user interface
- It uses the Visual Basic Scripting Edition (VBScript) scripting language
- UFT can be used to test GUI as well as API part of your application
- UFT is one of the most widely used commercial automation testing tools in the market today

Overview of Unified Functional Testing (UFT):

UFT is primarily used by test engineers to perform regression & functional testing on web as well as window-based applications. Using this too one can create powerful test scripts those can be used to identify bugs in the application under test (AUT). Test scripts can be executed with different data set and on various Windows operating systems and/or different browsers.

UFT tool is quite famous for its simple, intuitive user interface and ease of implementation. The tool has excellent support by the vendor and large community of automation testers.

Micro Focus Unified Functional Testing uses VB Script as its scripting language. This is the only language that is fully supported by UFT's IDE. VB Script supports Object Oriented Programming concepts but not polymorphism and inheritance.

A. Browser Support
    a) Internet Explorer
    b) Mozilla Firefox
    c) Google Chrome
    d) Safari on Mac OS

B. UFT Supported Technologies : UFT doesn't support all technologies by default. To use UFT to automate testing of applications based on other technologies like Java, we need to load the corresponding add-in.

2.3: Brief History & Evolution of UFT
UFT - History & Evolution

- QTP was originally designed & developed by the company named Mercury Interactive
- Its original name was Astra QuickTest and later named as QuickTest Professional
- HP acquired Mercury Interactive in 2006 and hence the tool was updated as HP's QuickTest Professional
- HP has another product which is used for testing web services called as HP Service test
- By the end of December 2012 HP merged both products into one and finally introduced HP UFT which was available from the HP Software Division until 2016, when whole division was sold to Micro Focus
- Since then UFT is designed, supported and maintained by Micro Focus

2.3: Brief History & Evolution of UFT
UFT - History & Evolution (Cont.)

Version History	Timelines
Astra Quick Test v1.0 to v5.5 - Mercury Interactive	May 1998 to Aug 2001
QuickTest Professional v6.5 to v9.0 - Mercury Interactive	Sep 2003 to Apr 2006
HP-QuickTest Professional v9.1 to v11.0 - Acquired and Released by HP	Feb 2007 to Sep 2010
HP-Unified Functional Testing v11.5 to v11.53	2012 to Nov 2013
12.0 12.01 12.02 12.5 12.54	Released March 2014 Released July 2014 Released December 2014 Released July 2015 Released October 2016
14.00 14.01 14.02 14.03	Released January 27, 2017 Released August 18, 2017 Released December 2017 Released March 2018

2.4: Why UFT?
Benefits of using UFT

- It is an icon-based tool that automates the regression and Functional Testing of an application
- We can perform GUI and API Testing using UFT
- Both technical, as well as a non-technical tester, can use Micro Focus UFT
- It provides both features- Record as well as Playback
- We can test Desktop as well as the Web-based applications
- It allows Business Process Testing (BPT)
- Micro Focus's UFT uses VBScript to automate applications
- It supports the largest pool of software development environments like SAP, Oracle etc.
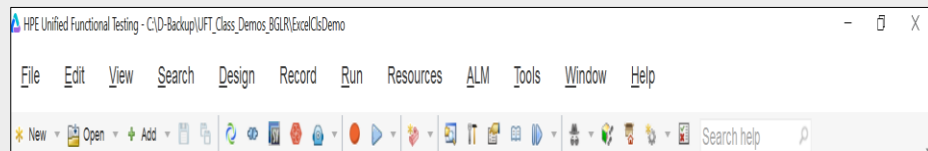
2.4: Why UFT?
What's New in UFT 14.00

- Mobile testing on local devices
- PDF Add-in (tech preview)
- Salesforce Lightning Support
- Running UFT remotely without manual intervention
- Web and Mobile enhancements
- Jenkins enhancements
- Reporting enhancements
- UFT Automation Object Model (AOM) enhancements
- Usability enhancements
- Newly supported technology versions
- Localization updates

2.5: Introduction to UFT Menus
Familiarization with UFT Menus

- Title Bar: It displays the name of the currently opened test in the UFT tool along with its complete path
- Menu Bar: It displays all the menus that are available with UFT tool
- Tool Bar: It displays important & frequently used options/commands available in the menu bar but in the form of a tool button

2.5: Introduction to UFT Menus
Familiarization with UFT Menus (Cont.)

- File Menu: It is a typical menu that you can find in almost all GUI based applications. This menus provides us with options using which we can open, close, save, save as various files & solutions.

- Edit Menu: This menu contains regular options/commands like cut, copy, paste, undo, redo etc. used while editing contents in the document or window. It does contain two more options i.e. format & code snippet, used for commenting, uncommenting & using code snippet option you can quickly copy syntax of various types of conditional & logical statements found in VBScript.

- View Menu: This contains shortcuts to various panes found in UFT IDE.

- Search: This sub-menu lets you find and replace keywords in your test or an entire solution. You can also use regular expressions in your search query.

2.5: Introduction to UFT Menus
Familiarization with UFT Menus (Cont.)

- Design Menu: This is one of the most important and frequently used menus in UFT. Testers use various options given in this menu while designing & building tests.

- Record Menu: The options given under this menu would be used by testers while recording tests in UFT. It also provides various option like web event recording configuration, record and run settings etc. to be used while recording the test or to configure record action.

- Run Menu: All settings related to running your tests can be found under Run menu.

- Resources Menu: This is one of the very important menus of UFT tool. The HEART of the UFT i.e. Object Repository will be managed using options available under this tool.

2.5: Introduction to UFT Menus
Familiarization with UFT Menus (Cont.)

- ALM Menu: You can connect HPE ALM tool to UFT and run your UFT tests direct from ALM. This menu option provides a dialog box to connect to the ALM server.

- Tools Menu: This menu contains various important options that are used by testers while working with UFT tool.

2.6: Introduction to UFT Panes
An Overview of UFT IDE Panes

- Solution Explorer Pane: Solution Explorer Pane can be used to view and manage the Solution(s). Solution Explorer Pane comes up on the left-hand side inside the UFT IDE as soon as you launch UFT.

- Toolbox Pane: Toolbox pane contains the test objects/functions/local functions available to the action that is currently in focus. This pane also supports quick drag & drop option using which you can drag and drop these objects or functions into your action.

- Document Pane: This is the main design area in the center of UFT IDE. All documents opened in the document pane are displayed as separate tabs.

- Canvas Pane: Canvas Pane provides a pictorial representation of GUI or API test flow. You can right click on the individual actions in the flow and access various settings related to that action.

2.6: Introduction to UFT Panes
An Overview of UFT IDE Panes (Cont.)

- Keyword View & Editor: An action can be designed and viewed in Keyword View or Editor View in UFT. In keyword view an action gets displayed in an excel like tabular format whereas in editor mode tester can write logical statements in a more natural fashion.

- Output Pane: It displays information coming from an action. For e.g. Output of Print statement, information related to failed function library load process would be displayed in output pane.

- Active Screen Pane: When you record a test, UFT takes a screenshot of each-and-every screen it encounters during recording. These screenshots are saved with your tests and are known as Active Screen in UFT.

- Data Pane: Data Pane consists of data sheets where you can parameterize your tests.

Summary

In this lesson, you have learnt
- Functional Testing is defined as a type of testing which verifies that each function of the software application operates in conformance with the requirement specification
- Different types of Functional Automation Testing Tools
- HPE Unified Functional Testing(UFT) software, formally known as HP Quick Test Professional (QTP)
- It provides functional and Regression Test automation for software application and environment
- Introduction to UFT Tool
- History & evolution
- Benefits & new features of UFT Tool
- Introduction to UFT IDE

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