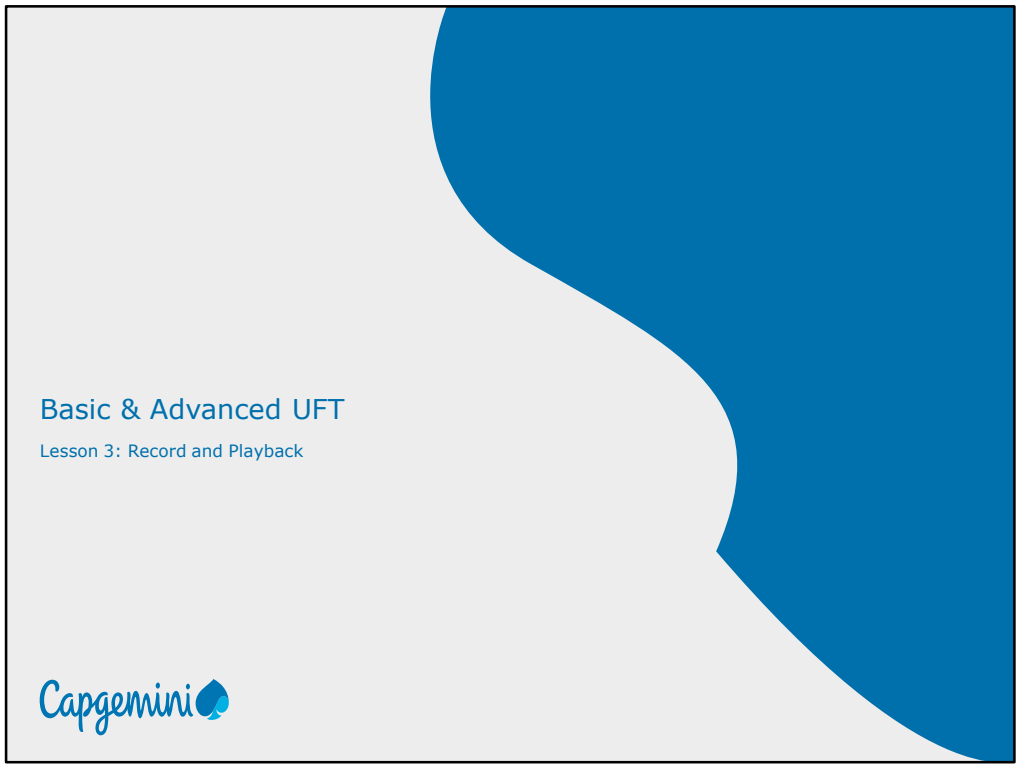

Basic & Advanced UFT
Lesson 3: Record and Playback
Capgemini

Lesson Objectives

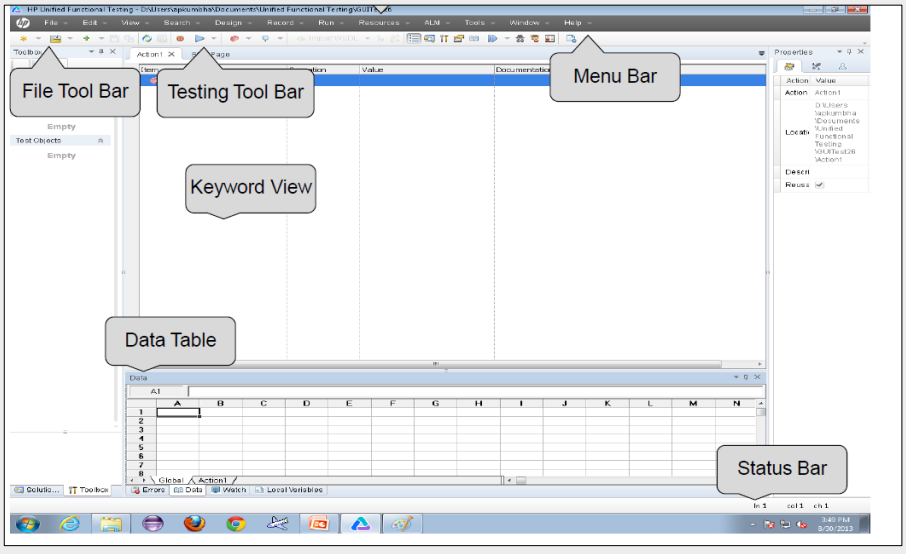
- Introduction to UFT User Interface
- Introduction to Different UFT Views
  - Keyword View
  - Expert View
- Testing Process in UFT
- Designing Tests in UFT
- Designing Tests in UFT – Planning a Test
- Designing Tests in UFT – Recording a Test
- Designing Tests in UFT – Understanding Your Test

Lesson Objectives

- Designing Tests in UFT – Choosing Your Recording Mode
- Designing Tests in UFT – How to Choose Recording Modes?
- Running Tests in UFT
- Test Result Window
- Test Result Pane

3.1: Introduction to UFT User Interface

User Interface of UFT



Demo

- Demo on UFT IDE Familiarization

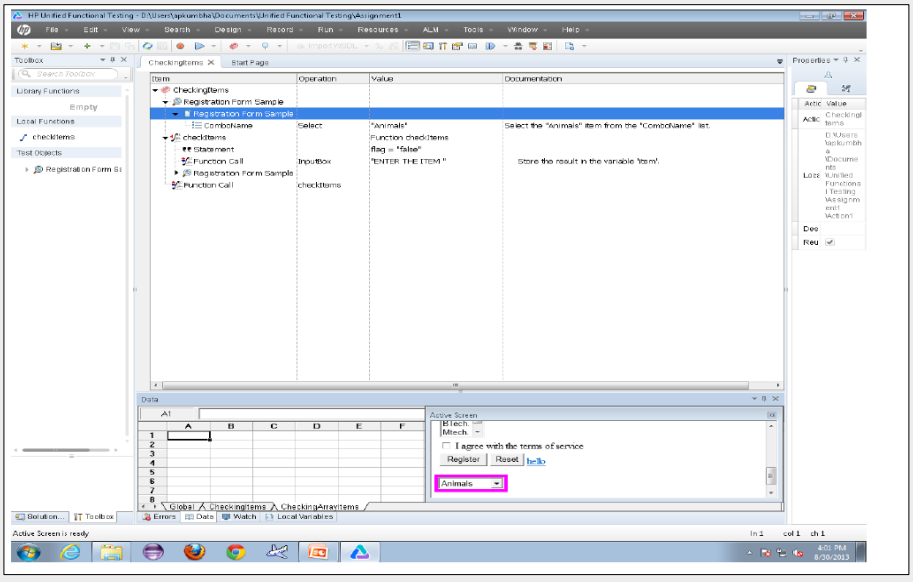
3.2: Introduction to Different UFT Views

Keyword View

- ***Keyword View*** which shows the test in a keyword driven way, which is modular and has documentation to explain each step explicitly
- It is a table like view where each test step is represented in the form of a separate row in the table and each column represent different parts of the steps
  - Item Column contains the item on which you want to perform the step
  - Operation Column contains the operation to be performed on the item
  - Value Column contains the argument values for the selected operation

3.2: Introduction to Different UFT Views

Keyword View (Cont.)



3.2: Introduction to Different UFT Views

Expert View

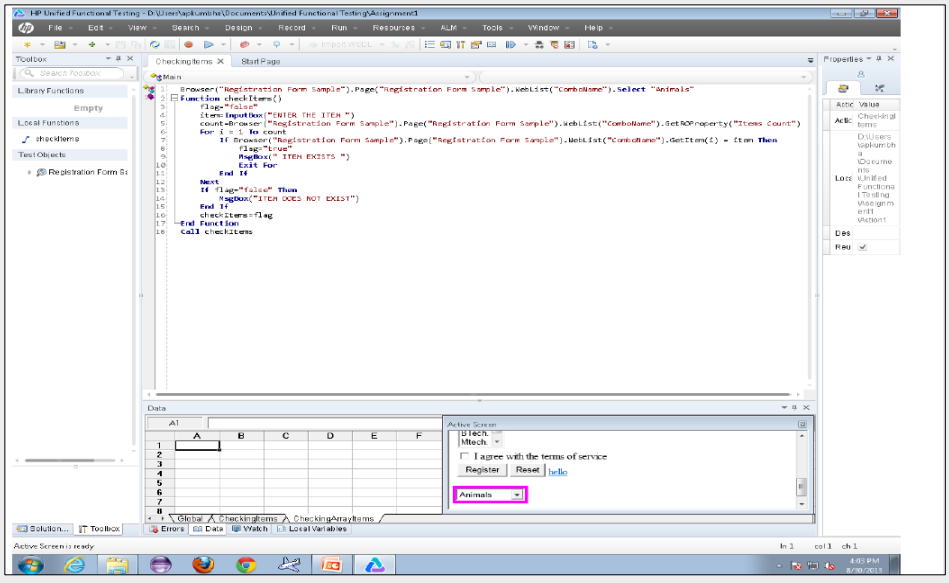
- ***Expert View*** shows the underlying VB script code corresponding to each of the operation performed while recording
- Example:

```
Dialog("Login").WinEdit("txtEmpName").Set "John"
```

- Explanation:
  - Dialog Box is the Parent Object and WinEdit is the Child Object
  - The operation performed on the object is always displayed at the end of the corresponding VBScript statement, ended with values associated with the operation, if any
  - Here the value "John" is inserted using Set method in the txtEmpName textbox

3.2: Introduction to Different UFT Views

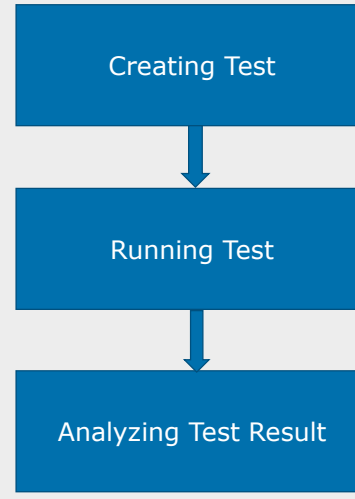
Expert View (Cont.)



3.3: How do we test in UFT?

Testing Process in UFT

- Application testing in UFT involves 3 main stages:



3.3: How do we test in UFT?

Testing Process in UFT (Cont.)

- Creating Test
  - Recording a session on a site or application
  - Modify the Tests as per the requirements
  - Insert checkpoints into the test.
  - Broaden the scope of the test by replacing fixed values with parameters
  - If applicable add Functional Testing features

Creating Tests:

You create a test by recording a session on your site or application and then modifying your test with special testing options and/or with programming statements.
Once the recording is done, we check for the properties of the objects (viz. page, object on screen, or text string) that identify if the application is working/functioning correctly or not, by inserting checkpoints.
Most of the time an application performs same action/operations with different data. So we can supply the data in the form of Data Table, define environment variables and values, or have UFT to generate random numbers. This is Parameterization of the tests.
Use the many functional testing features included in UFT to enhance your test and/or add programming statements to achieve more complex testing goals.

3.3: How do we test in UFT?

Testing Process in UFT (Cont.)

- Running Tests
  - Run your test to check the site or application
  - Run a test to debug the test
- Analyzing Test Results
  - View the test results in the Test Results window
  - Analyze defects detected during the test run

What happens while running the tests:

1. Connects to your Web site or application.
2. Performs each operation in your test.
3. Checking any text strings, objects, or tables as specified
4. UFT repeats the test (or specific actions in your test) for each set of data values as defined. (i.e. Parameterization)

Debugging:

1. You can control your test run to help you identify and eliminate defects in your test.
2. You can use the Step Into, Step Over, and Step Out commands to run your test step by step.
3. You can also set breakpoints to pause your test at pre-determined points.

3.4: Creating Tests in UFT

Designing Tests in UFT

- Designing of Test involves the following steps
  - Planning a Test
  - Recording a Test
  - Understanding Your Test
  - Choosing Your Recording Mode

3.4: Creating Tests in UFT

Designing Tests in UFT – Planning a Test

- Planning a test involves the following:
  - Determine the functionality to be tested
  - Decide the information that is required during the test
  - Evaluate the types of events that needs to be recorded
  - Identify the fixed values that needs to be replaced by parameters
  - Change the way that UFT identifies objects
  - Decide on the organization of the object repository files
  - Streamline the testing process
  - Calls to Functions, if any

Planning a Test:

1. Determine the functionality to be test : Short tests that check specific functions of the application or site or complete a transaction are better than long tests that perform several tasks.
2. Decide the information that is required during the test : A checkpoint can check for differences in the text strings, objects, and tables in your application or site.
3. Evaluate the types of events that needs to be recorded : We can configure the events that needs to be recorded.
4. Identify the fixed values that needs to be replaced by parameters : Consider increasing the power and flexibility of your test by replacing fixed values with parameters. When you parameterize your test, you can check how it performs the same operations with multiple sets of data, or from data stored or generated by an external source.
5. Change the way that UFT identifies objects : This is particularly helpful when your application contains objects that change frequently or are created using dynamic content, e.g. from a database.
6. Decide on the organization of the object repository files : Consider using actions to streamline the testing process. Can introduce about the concepts of Action.
7. Calls to WinRunner TSL Functions : Link to WinRunner tests and call WinRunner TSL functions from a UFT test.

3.4: Creating Tests in UFT

Designing Tests in UFT – Recording a Test

- UFT records each step you perform and generates a test tree and test script
- Each test includes a single action, but can include multiple actions
- By default, UFT records in the Standard/Normal recording mode
- The other modes are analog and low-level recording

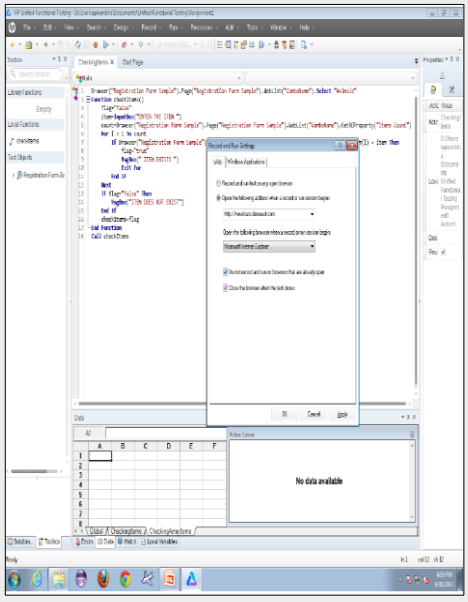
Recording a Test :

A. Before you start to record : Close all applications not required for the test.
B. If recording a test on a Web site : Determine the security zone of the site
C. How to initiate the Application or Browser : You can choose to have UFT open one or more specified applications, or record and run on any application or browser that is already open.

3.4: Creating Tests in UFT

Designing Tests in UFT – Recording a Test (Cont.)

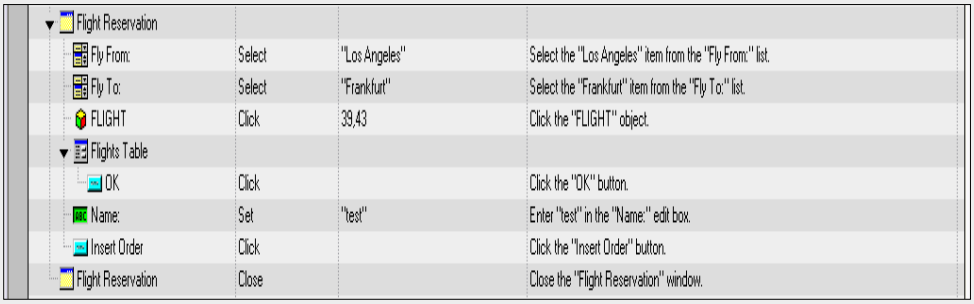
- Click on Record(F6) button to start the recording
- It launches Record and Run Settings which has settings for each selected add-ins
- Perform certain steps
- Click Stop(F4) button to stop the recording



3.4: Creating Tests in UFT

Designing Tests in UFT – Understanding Your Test

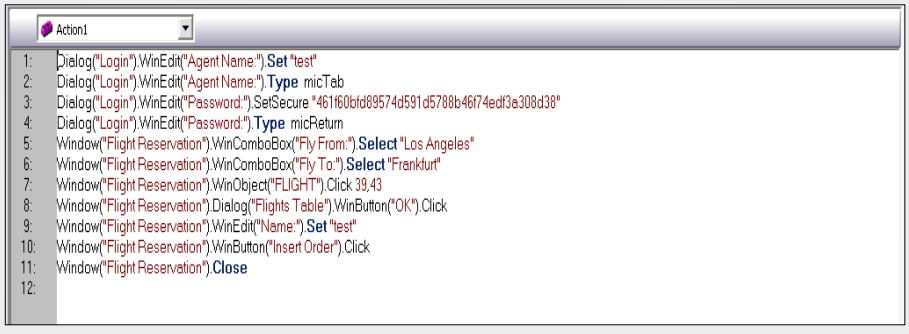
- While recording, UFT creates a test tree - a graphical representation of operations performed on your Application
- The test tree is displayed in the Keyword View tab
- Test Tree



3.4: Creating Tests in UFT

Designing Tests in UFT – Understanding Your Test (Cont.)

- UFT also generates a test script - a VBScript program based on the object model
- The test script is displayed in the Expert View as follows:



3.4: Creating Tests in UFT

Designing Tests in UFT – Choosing Your Recording Mode

- ***Normal Recording*** - Is default mode of recording. It recognizes objects in the application regardless of their location on the screen. It records the objects and actions performed on them.
- ***Analog Recording*** - Enables you to record the exact mouse and keyboard operations you perform in relation to either the screen or the application window. In this recording mode, UFT records and tracks every movement of the mouse as you drag the mouse around a screen or window.

3.4: Creating Tests in UFT

Designing Tests in UFT – Choosing Your Recording Mode (Cont.)

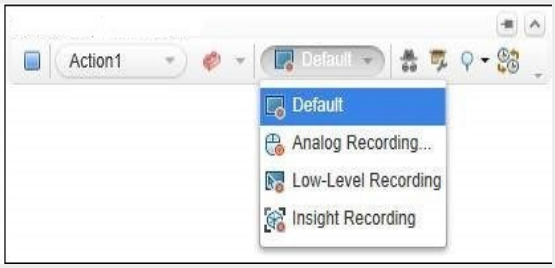
- ***Low-Level Recording*** - Enables you to record on any object in your application, whether or not UFT recognizes the specific object or the specific operation. This mode records at the object level and records all run-time objects as Window or WinObject test objects. Use low-level recording for recording in an environment or on an object not recognized by UFT. You can also use low-level recording if the exact coordinates of the object are important for your test or component.

- ***Insight Recording*** - UFT records operations, based on its appearance and not based on its native properties.

3.4: Creating Tests in UFT

Designing Tests in UFT – How to Choose Recording Modes?

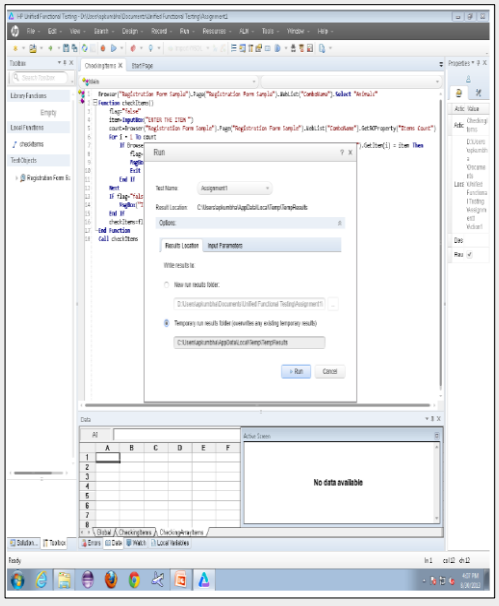
- After clicking the Recording button, the user can choose the recording mode from the recording pane that appears on the screen, once the recording starts
- The selection can be made from any of the ones that has been discussed above



3.5: Test Execution in UFT

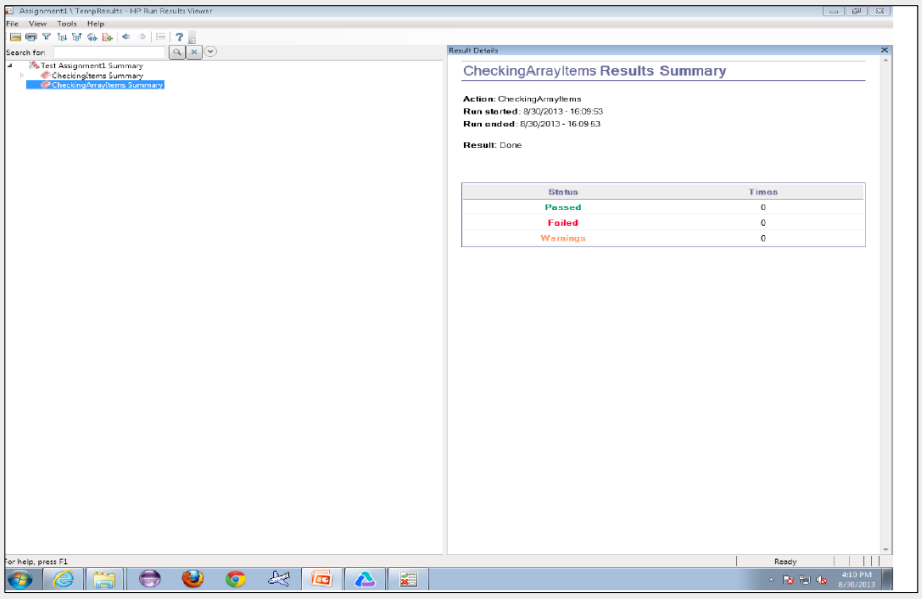
Running Tests in UFT

- Click on Run(F5) button to start the execution.
- Run dialog is displayed



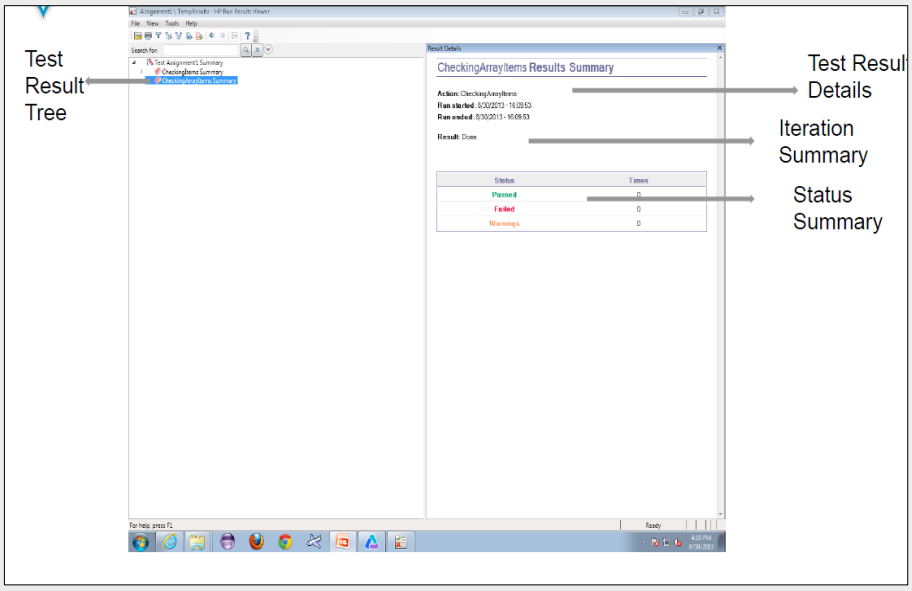
3.5: Test Execution in UFT

Test Result Window



3.5: Test Execution in UFT

Test Result Pane



Demo

- Demo on Record & Play feature in UFT
- Demo on different recording modes in UFT
- Demo on understanding Keyword & Expert View
- Demo on executing tests in UFT

Summary

In this lesson, you have learnt

- User Interface of UFT
- How to Use Record and Playback
- Types of Recording
- Keyword View and Expert View

Add the notes here.