Basic & Advanced UFT

Lesson 5: Checkpoints and Output Values

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Lesson Objectives

- Checkpoints in UFT
- Checkpoints – Types
- Overview of Various Checkpoints in UFT
- Inserting a Checkpoint
- Output Values in UFT
- Output Values - Types

5.1: Introduction to Checkpoints
Checkpoints in UFT

- It is a step in UFT that compares two values and then results are reported
- A checkpoint in UFT is a verification point that will compare the current value for a property with the expected value for that property
- It also compares the actual and expected results and if the two values passes, the checkpoint pass else if mismatch checkpoint fails
- Checkpoints enables the user or tester to identify whether the website or application being tested is functioning correctly or not
- The results of the checkpoint can be viewed in the Test Results window

5.1: Introduction to Checkpoints
Checkpoints - Types

Check Point Type	Description	Example
Standard Checkpoint	Checks property values of an object's properties	Check that a radio button is selected.
Table Checkpoint	Checks information in a table	Check that the value in a table cell is correct.
Page checkpoint	Checks the characteristics of a Web page	Check how long a Web page takes to load or if a Web page contains broken links.
Text / Text Area Checkpoint	Checks that a text string is displayed in the appropriate place in a Web page or application window	Check whether the expected text string is displayed in the expected location on a Web page or dialog box.
Accessibility Checkpoint	Checks compliance with World Wide Web Consortium (W3C) instructions and guidelines for Web-based technology and information systems	Check if the images on the web page include ALT properties required by the W3C Web content Accessibility Guidelines.

Checkpoints – Types (Cont.)

Check Point Type	Description	Example
Bitmap Checkpoint	Checks the bitmap of an image or a full web page. It does a pixel by pixel comparison between actual and expected bitmaps.	Check that a Web page (or any portion of it) is displayed as expected.
Database Checkpoint	Checks the contents of databases accessed by an application or Web site	Check that the value in a database query is correct.
XML Checkpoint	Checks the data content of XML documents	XML file checkpoints are used to check a specified XML file; XML application checkpoints are used to check an XML document within a Web page.
File Checkpoint	Checks the dynamically generated(or accessed) file.	File check points are used to check that correct text is displayed on specific lines of the specific page.

5.2: Checkpoints in Brief
Overview of Various Checkpoints in UFT

- **Standard Checkpoint** checks the property value of an object in your application or Web page. The standard checkpoint checks a variety of objects such as buttons, radio buttons, combo boxes, lists, and so forth. For example, you can check that a radio button is activated after it is selected or you can check the value of an edit box.

- **Image Checkpoint** checks the value of an image in your application or Web page. For example, you can check that a selected image's source file is correct.

- **Table Checkpoint** checks information within a table. For example, suppose your application or Web site contains a table listing all available flights from New York to San Francisco. You can add a table checkpoint to check that the time of the first flight in the table is correct.

5.2: Checkpoints in Brief
Overview of Various Checkpoints in UFT (Cont.)

- **Bitmap Checkpoint** checks an area of your Web page or application as a bitmap. For example, suppose you have a Web site that can display a map of a city the user specifies. The map has control keys for zooming. You can record the new map that is displayed after one click on the control key that zooms in the map. Using the bitmap checkpoint, you can check that the map zooms in correctly.

- **Text Checkpoint** checks that a text string is displayed in the appropriate place on a Web page or application. For example, suppose a Web page displays the sentence Flight departing from New York to San Francisco. You can create a text checkpoint that checks that the words "New York" are displayed between "Flight departing from" and "to San Francisco".

5.2: Checkpoints in Brief
Overview of Various Checkpoints in UFT (Cont.)

- ***Accessibility Checkpoint*** identifies areas of your Web site that may not conform to the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines. For example, guideline 1.1 of the W3C Web Content Accessibility Guidelines requires you to provide a text equivalent for every non-text element. You can add an Alt property check to check whether objects that require the Alt property under this guideline, do in fact have this tag.

- ***Page Checkpoint*** checks the characteristics of a Web page. For example, you can check how long a Web page takes to load or whether a Web page contains broken links.

5.2: Checkpoints in Brief
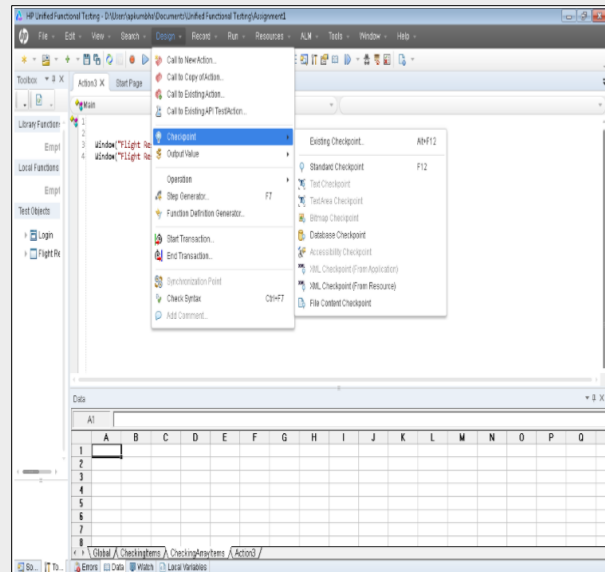## Overview of Various Checkpoints in UFT (Cont.)

- **Database Checkpoint** checks the contents of a database accessed by your application. For example, you can use a database checkpoint to check the contents of a database containing flight information for your Web site.

- **XML Checkpoint** checks the data content of XML documents in XML files or XML documents in Web pages and frames.

5.3: Working with Checkpoints in UFT
Inserting a Checkpoint

A. The checkpoint can be inserted by the followings ways:
1. Select Design Menu
2. Select Checkpoint and select the type of checkpoint that needs to be added

B. (or)
1. In the Keyword view, Right click on the step where the checkpoint is required and select Insert standard checkpoint

Output Values

- *An output value is a value captured during the test run and entered in the run-time Data Table for use at another point in the test run.*

- *When you create an output value, the test retrieves a value at a specified point during the test run and stores it in a column in the current row of the run-time Data Table.*

- *When the value is needed later in the test run as input, UFT retrieves it from the Data Table.*

- *You can output the property values of any objects. You can also output text strings and the contents of tables and databases.*

Output Values

- Web Environment supports following types of

- Output Values:
  - Standard
  - Text
  - Database
  - XML

5.2: Checkpoints in Brief
Overview of Various Output Values in UFT

- **Standard Output Value** Outputs values from an object property value. Here, UFT retrieves the current value of the property and enters it in the run-time Data Table as an output value.

- **Text Output Value**: Outputs the text displayed in the screen or web page, to the run-time Data Table.

- **Database Output value** Outputs value from the contents of a table cell to the run-time Data table

Demo

- Demo on working with Checkpoints – Standard

- Demo on working with Checkpoints – Text

- Demo on working with Checkpoints – XML

- Demo on working with Output Value– Standard

Summary

In this lesson, you have learnt

- What is Checkpoints?

It is a step in UFT that compares two values and then results are reported

A checkpoint in UFT is a verification point that will compare the current value for a property with the expected value for that property

- Different Types of Checkpoints

Standard, Text, Bitmap, Database, XML etc.

- How to use Checkpoints
- What is Output Values
- Different types of Output Values

Summary

Add the notes here.