

# QuickTest Professional: Self-Paced Training Exercises

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# *Exercise 1: Preparing the Test Environment*

Before creating a test, set up the test environment and become familiar with the application under test. Use the best practices to prepare for an automated test. This exercise is divided into two parts.

Part 1: Launch QuickTest Professional 10.00.

Part 2: Set QuickTest test options.

## **PART 1: LAUNCH QUICKTEST PROFESSIONAL 10.00**

1. Click **START > PROGRAMS > QUICKTEST PROFESSIONAL > QUICKTEST PROFESSIONAL**.
2. Ensure all options are unchecked in the **ADD-IN MANAGER** dialog box.
3. Click **OK**.

## **PART 2: SET QUICKTEST TEST OPTIONS**

1. From the QuickTest Professional menu bar, select **TOOLS > OPTIONS**.
2. In the **GENERAL** tab, click **RESTORE LAYOUT** to ensure that the layout is uniform and all panes and toolbars are displayed in their default positions and sizes.
3. Click the **RUN** tab.
4. Ensure that the **NORMAL** option is selected.
5. Ensure that the **VIEW RESULTS WHEN RUN SESSION ENDS** checkbox is unchecked.
6. Ensure that the **ALLOW OTHER HP PRODUCTS TO RUN TESTS AND COMPONENTS** checkbox is checked.
7. Click the **SCREEN CAPTURE** tab.
8. From the **SAVE STILL IMAGE CAPTURES TO RESULTS** list, select **ON ERRORS AND WARNINGS**.
9. Click **OK**.
10. Close the QuickTest Professional application.



## *Exercise 2: Creating a Basic Test*

This exercise enables you to record, run and save a basic test, and view results. The activities are divided into the following parts:

Part 1: Set initial conditions.

Part 2: Record the business process.

Part 3: Save the test.

Part 4: Run the test.

Part 5: View results.

### PART 1: SET INITIAL CONDITIONS

1. Invoke QuickTest Professional. Look for an icon on the **Desktop**.
2. Load the ActiveX add-in from the ADD-IN MANAGER.
3. In QuickTest open GENERAL OPTIONS by selecting **TOOLS ->OPTIONS ->RUN ->SCREEN CAPTURE**.
4. Check the checkbox for **SAVE MOVIE RESULTS TO** and choose **ALWAYS** in the combobox.
5. Click **Apply** and **OK** in the OPTIONS dialog.
6. Open the **FLIGHT RESERVATION** application by double-clicking the **FLIGHT** icon on the **Desktop**.
7. Log in using the following information:
  - AGENT NAME: Training
  - PASSWORD: Mercury
8. Click **OK**. The **FLIGHT RESERVATION** window appears.
9. Click **RECORD** on the QuickTest Professional toolbar. The **RECORD AND RUN SETTINGS** dialog box appears.
10. Select the **RECORD AND RUN TEST ON ANY OPEN WINDOWS-BASED APPLICATION** option.

11. Click **OK**. Ensure a blinking RECORDING message appears in the lower right of the QUICKTEST PROFESSIONAL window.

Notice that the QUICKTEST PROFESSIONAL window has resized for recording.

Note: You can move and resize the QUICKTEST PROFESSIONAL window. This movement does not impact the recording. Position the QUICKTEST PROFESSIONAL window and the FLIGHT RESERVATION window so that you can see both.

## PART 2: RECORD THE BUSINESS PROCESS

1. Click the **NEW ORDER** icon on the FLIGHT RESERVATION toolbar, to set the initial condition. Notice that a step is added in KEYWORD VIEW.
2. Enter the following flight reservation data:
  - DATE: 11-11-11
  - FLY FROM: Denver
  - FLY TO: Seattle
3. Click **FLIGHTS**. The FLIGHTS TABLE appears.
4. Click **OK** to select the default choice.
5. Enter the remaining flight reservation information:
  - NAME: Sam Smith
  - TICKETS: 2
  - CLASS: First
6. Click **INSERT ORDER**. Wait for the progress bar to complete. When the order insertion is complete, the INSERT DONE... message appears.
7. Click the **NEW ORDER** icon on the FLIGHT RESERVATION toolbar, to set the end condition.
8. Click **STOP** on the QuickTest Professional toolbar, to stop recording.

## PART 3: SAVE THE TEST

1. In the QUICKTEST PROFESSIONAL window, select **FILE > SAVE**. The SAVE TEST dialog box appears.

2. Browse to the directory \Training\Using QTP10\Tests.
3. In the FILE NAME field, type BasicTest.
4. Click **SAVE**.

Note: For training purposes, a directory tree was set up on a local drive under \Training\Using QTP10\Tests. Save all your tests in this directory.

#### PART 4: RUN THE TEST

1. Click **RUN** on the QuickTest toolbar.
2. Click **OK** to use the TEMPORARY RUN RESULTS FOLDER.
3. Observe the run of the test.

#### PART 5: VIEW RESULTS

1. After the test run completes, on the QuickTest Professional toolbar, click the **RESULTS** button.
2. From the tree on the left side of TEST RESULTS window, right-click and select **EXPAND ALL**.
3. Examine the test results.
4. Select the SCREEN RECORDER tab at the bottom of the Test Results window.
5. Click the PLAY icon.
6. Observe the movie of the test run.
7. Close the TEST RESULTS window.
8. In QuickTest open GENERAL OPTIONS by selecting **TOOLS ->OPTIONS ->RUN ->SCREEN CAPTURE**.
9. Uncheck the checkbox for SAVE MOVIE RESULTS TO.
10. Click OK in the GENERAL OPTIONS dialog.

# *Exercise 3: Using Object Repository*

This exercise enables you to record a new test and use the various features of the OBJECT REPOSITORY dialog box. The activities in this exercise are divided into the following parts:

Part 1: Record a new order.

Part 2: Open the OBJECT REPOSITORY dialog box.

Part 3: Change the logical name of an object.

Part 4: Use the Object Spy feature.

Part 5: Use the Highlight feature.

Part 6: Use the Locate in Repository feature.

Part 7: Add a new object.

Note: Ensure that the QuickTest Professional is open and Flight Reservation application is open and that you are logged in.

## PART 1: RECORD A NEW ORDER

1. Confirm you are still logged into the FLIGHT RESERVATION application.
2. Select **FILE -> NEW -> TEST** in the QuickTest Professional menu bar.
3. Click **RECORD**. The RECORD AND RUN SETTINGS dialog box appears.
4. Click **OK** in the RECORD AND RUN SETTINGS dialog box.
5. Click the **NEW ORDER** button to set the initial condition.
6. Enter the following flight data:
  - DATE OF FLIGHT: 12-12-12
  - FLY FROM: Frankfurt
  - FLY TO: London

7. Click **FLIGHTS**. The FLIGHTS TABLE appears.
8. Click **OK** to accept the default choice.
9. Enter the following purchase data:
  - NAME: Emily
  - TICKETS: 2
  - CLASS: First
10. Click **INSERT ORDER**.
11. Click **NEW ORDER** to set end conditions on the FLIGHT RESERVATION window toolbar.
12. Click **STOP** to end the recording session on the QuickTest Professional toolbar.
13. Save the test as **WORKINGWITHOBJECTS\_1**.

## PART 2: OPEN THE OBJECT REPOSITORY DIALOG BOX

1. From the QuickTest Professional menu bar, select **RESOURCES > OBJECT REPOSITORY**.
2. How many objects can you identify in the Object Repository?  

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3. How many different classes of objects can you identify?  

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4. How many objects of the class WinButton are shown?  

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## PART 3: CHANGE THE LOGICAL NAME OF AN OBJECT

1. In the OBJECT REPOSITORY tree, right-click the **BUTTON** object.
2. From the menu, select **RENAME**.



3. Type the new name as `New Order`.
4. Press **ENTER**.
5. Close the OBJECT REPOSITORY dialog box.
6. Save the test as `WorkingWithObjects_3`.

#### PART 4: USE THE HIGHLIGHT FEATURE

1. Ensure that the `WorkingWithObjects_3` test and the FLIGHT RESERVATION window are open.
2. From the QuickTest Professional menu bar, select **RESOURCES > OBJECT REPOSITORY**. The OBJECT REPOSITORY dialog box appears.
3. In the OBJECT REPOSITORY tree, select the **NEW ORDER** object.
4. Click the **HIGHLIGHT IN APPLICATION** button.
5. Observe the FLIGHTS RESERVATION window.
6. What did you observe?

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#### PART 5: USE THE LOCATE IN REPOSITORY FEATURE

1. On the OBJECT REPOSITORY toolbar, click the **LOCATE IN REPOSITORY** button. The cursor changes to a pointing hand.
2. In the FLIGHT RESERVATION window, place the hand pointer over the FIRST radio button and click the **FIRST** radio button.
3. The SELECT AN OBJECT dialog box appears. Click **OK**.
4. What did you observe?

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5. Close the OBJECT REPOSITORY.

## PART 6: USE THE OBJECT SPY FEATURE

1. Ensure that the FLIGHT RESERVATION window is open.
2. Click the **OBJECT SPY** button. on the QuickTest Professional toolbar. The OBJECT SPY dialog box appears.
3. Click the pointing hand button. in the OBJECT SPY dialog box. The mouse cursor changes to a pointing hand.
4. In the FLIGHT RESERVATION window, click the **NAME:** edit field with the hand pointer. The OBJECT SPY dialog box shows the object properties for the NAME field.
5. Document the following object property values:
  - a) CLASS NAME \_\_\_\_\_
  - b) ENABLED \_\_\_\_\_
  - c) ATTACHED TEXT \_\_\_\_\_
  - d) NATIVECLASS \_\_\_\_\_
6. Close the OBJECT SPY dialog box.

## PART 7: ADD A NEW OBJECT

1. Open the OBJECT REPOSITORY.
2. In the **OBJECT REPOSITORY** tree, select the **FLIGHTS TABLE** object.
3. On the Object Repository toolbar, click **DEFINE NEW TEST OBJECT**. The DEFINE NEW TEST OBJECT dialog box appears.
4. From the ENVIRONMENT list, select **STANDARD WINDOWS**.
5. From the CLASS list, select **WINBUTTON**.
6. In the NAME field, type `Cancel`.
7. In the TEST OBJECT DETAILS section, click the **VALUE** column for the TEXT property, and type `Cancel`.

8. Click **ADD** to add the new test object to the local object repository.
9. Click **CLOSE** to close the DEFINE NEW TEST OBJECT dialog box. A new object is added under the FLIGHTS TABLE object.
10. Close the OBJECT REPOSITORY dialog box.
11. Save the test as **WORKINGWITHOBJECTS\_7**.

# *Exercise 4: Adding Synchronization*

You need to cause a test to fail by changing the default timeout setting. View the error that occurs because of this change, and correct it to ensure a successful test run. This exercise enables you to add synchronization to your tests. This exercise is divided into the following parts:

Part 1: Change default synchronization timeout for a test.

Part 2: Run the test.

Part 3: Correct the error by inserting a synchronization point.

Part 4: Add a comment.

## PART 1: CHANGE DEFAULT SYNCHRONIZATION TIMEOUT FOR A TEST

1. Confirm you are still logged into the FLIGHT RESERVATION application.
2. Select **FILE** > **NEW** > **TEST** from the QuickTest Professional menu bar, to open a new test.
3. Select **FILE** > **SETTINGS** on the QuickTest Professional menu bar.
4. Click the **RUN** tab in the TEST SETTINGS dialog box that appears.
5. In the OBJECT SYNCHRONIZATION TIMEOUT field, lower the synchronization time from the default of 20 seconds to **3** seconds.
6. Click **APPLY**, Click **OK**.
7. Click **RECORD** on the QuickTest Professional toolbar.
8. Click **OK** in the RECORD AND RUN SETTINGS dialog box.
9. Click the **NEW ORDER** icon on the Flight Reservation toolbar, to set initial conditions for the test.
10. Type the following flight data:
  - DATE OF FLIGHT: 12-12-12
  - FLY FROM: Frankfurt
  - FLY TO: London

11. Click **FLIGHTS**. The FLIGHTS TABLE appears.
12. Click **OK** to accept the default choice.
13. Type the following purchase data:
  - NAME: Emily
  - TICKETS: 2
  - CLASS: First
14. Click **INSERT ORDER**.
15. Wait until the INSERT DONE... message appears.
16. Click **NEW ORDER** on the Flight Reservation toolbar, to set end conditions.
17. Click **STOP** on the QuickTest Professional toolbar, to stop recording.
18. Save the test as Synchronization\_1.

## PART 2: RUN THE TEST

1. Click **RUN** on the QuickTest Professional toolbar.
2. In the RUN dialog box, ensure that the TEMPORARY RUN RESULTS FOLDER option is selected.
3. Click **OK**. The test should fail. A RUN ERROR message box appears.
4. Notice the type of error message and click **STOP** in the RUN ERROR message box.  
üOBJECT IS DISABLED

## PART 3: CORRECT THE ERROR BY INSERTING A SYNCHRONIZATION POINT

1. Ensure that the **SYNCHRONIZATION\_1** test is open and save it as **SYNCHRONIZATION\_3**.
2. In KEYWORD VIEW, select the **INSERT ORDER** step.
3. On the QuickTest Professional toolbar, click **RECORD**.
4. Select **INSERT > SYNCHRONIZATION POINT** to insert a synchronization point on the progress bar. The cursor changes to a pointed finger.
5. In the progress bar, click the words **INSERT DONE...** with the pointed finger cursor. The OBJECT SELECTION - SYNCHRONIZATION POINT dialog box appears.

6. Click **OK** in the OBJECT SELECTION - SYNCHRONIZATION POINT dialog box. The ADD SYNCHRONIZATION POINT dialog box appears.
7. From the PROPERTY NAME list, select **TEXT**.
8. In the PROPERTY VALUE field, type "Insert Done..."
9. Retain the default timeout of 10000 milliseconds.
10. Click **OK**.
11. Click **STOP** on the QuickTest Professional toolbar, to stop recording.
12. Save the test, Synchronization\_3.
13. Click **RUN** on the QuickTest Professional toolbar, to run the test. The RUN dialog box appears.
14. Click **OK** to accept the temporary run results folder. The test should succeed.
15. On the QuickTest Professional toolbar, click the **RESULTS** icon to view the test results. The TEST RESULTS window appears.
16. View the test results and close the TEST RESULTS window.
17. Leave this test open.

#### PART 4: ADD A COMMENT

1. Maximize the **QUICKTEST PROFESSIONAL** window.
2. Check whether the **COMMENT** column is visible in **KEYWORD VIEW**.
3. If the **COMMENT** column is not visible, right-click any column name in **KEYWORD VIEW** and from the menu, select **COMMENT**.
4. In **KEYWORD VIEW**, select the **SYNCHRONIZATION** step you added in Part 3.
5. Click the **COMMENT** column. Type "This is a sync step" in the **COMMENT** column.
6. Save the test as Comment .

# *Exercise 5: Adding Checkpoints*

Create a basic test and add STANDARD CHECKPOINT to enhance it. Add a regular expression to the checkpoint to make it flexible. The activities in this exercise are divided into the following parts:

Part 1: Insert a standard checkpoint.

Part 2: Check the test results.

Part 3: Modify the test.

Part 4: Record and open a Fax Order test.

Part 5: Run the test.

Part 6: Modify and run the test.

Part 7: Fix the test.

## PART 1: INSERT A STANDARD CHECKPOINT

1. Open a new test in QuickTest Professional.
2. Ensure that the FLIGHT RESERVATION window is open.
3. Click **RECORD** on the QuickTest Professional toolbar. The RECORD AND RUN SETTINGS dialog box appears.
4. Click **OK** to close the RECORD AND RUN SETTINGS dialog box.
5. Click **NEW ORDER** in the FLIGHT RESERVATION window, to set the initial condition.
6. Enter the following flight data:
  - DATE OF FLIGHT: 11-11-11
  - FLY FROM: Denver
  - FLY TO: Seattle
7. Click **FLIGHTS**. The FLIGHTS TABLE dialog box appears.

8. In the FLIGHTS TABLE dialog box, click **OK** to accept the default choice.
9. Enter the following information:
  - NAME: Sam Smith
  - TICKETS: 2
  - CLASS: First
10. Click **INSERT ORDER**. Wait for the progress bar to complete and for the words **INSERT DONE...** to appear.
11. Select **INSERT > CHECKPOINT > STANDARD CHECKPOINT** in the QUICKTEST PROFESSIONAL window. The cursor changes to a pointing hand.
12. In the FLIGHT RESERVATION window, in the progress bar, click the words **INSERT DONE...** with the hand pointer. The OBJECT SELECTION - CHECKPOINT PROPERTIES dialog box appears.
13. Click **OK** in the OBJECT SELECTION - CHECKPOINT PROPERTIES dialog box. The CHECKPOINT PROPERTIES dialog box appears.
14. In the CHECKPOINT PROPERTIES dialog box, check the **TEXT** property and uncheck all other properties.
15. Click **OK**.
16. Click **NEW ORDER** in the FLIGHT RESERVATION toolbar, to set the end condition for the test.
17. Click **STOP** on the QuickTest Professional toolbar, to stop the test.
18. Save the test as StandardCheckpoint\_1.

## PART 2: CHECK THE TEST RESULTS

1. Click **RUN** on the QuickTest Professional toolbar, to run the test.
2. Click **OK** in the RUN dialog box. The TEST RESULTS window appears.
3. In the TEST RESULTS window, expand the **TEST SUMMARY** tree. Ensure that a checkpoint is used to verify that the INSERT DONE step is successful. The TEST RESULTS SUMMARY displays the STATUS as PASSED with a value of 1.
4. Close the **TEST RESULTS** window.



### PART 3: MODIFY THE TEST

1. In KEYWORD VIEW, select the last **BUTTON** step that appears.

Note: In ACTIVE SCREEN, the **ORDER NO:** field must show the number generated after the insert done operation.

2. In ACTIVE SCREEN, right-click the **ORDER NO:** edit field (not on static text) and select **INSERT STANDARD CHECKPOINT**. The OBJECT SELECTION - CHECKPOINT PROPERTIES dialog box appears.
3. In the OBJECT SELECTION - CHECKPOINT PROPERTIES dialog box, ensure that the WinEdit **ORDER NO:** is highlighted and click **OK**.
4. In the CHECKPOINT PROPERTIES dialog box, uncheck all the check boxes except TEXT.

Note: Ensure that when you select the TEXT property, the ORDER NO appears in the CONSTANT field.

5. Insert the statement **BEFORE CURRENT STEP**.
6. Click **OK**.
7. Save the test as StandardCheckpoint\_3.
8. Click **RUN** on the QuickTest Professional toolbar, to run the test. The test should fail.
9. View the test results.
10. Close the test results.
11. In QUICKTEST PROFESSIONAL window, in KEYWORD VIEW, select the **ORDER NO** checkpoint step.
12. In the ORDER NO row, select the **VALUE** column. The CHECKPOINT PROPERTIES blue checkmark button appears.
13. Click the **CHECKPOINT PROPERTIES** button. The CHECKPOINT PROPERTIES dialog box appears.
14. Click the **CONSTANT VALUE OPTIONS** button beside the CONSTANT field. The CONSTANT VALUE OPTIONS dialog box appears.

15. In the CONSTANT VALUE OPTIONS dialog box, click the **REGULAR EXPRESSION** check box.
16. Type [0-9]+ in the VALUE field and click **OK**.
17. Click **OK** in the CHECKPOINT PROPERTIES dialog box.
18. Save the test as StandardCheckpoint\_3.
19. Click **RUN** on the QuickTest Professional toolbar, to run the test. The test should pass.

#### PART 4: RECORD AND OPEN A FAX ORDER TEST

1. From the QuickTest Professional menu bar, select **FILE > NEW > TEST** to start a new test.
2. Click **RECORD**. The RECORD AND RUN SETTINGS dialog box appears.
3. Click **OK** in the RECORD AND RUN SETTINGS dialog box.
4. Click **NEW ORDER** in the FLIGHT RESERVATION window, to set the initial conditions.
5. Select **FILE > OPEN ORDER** from the FLIGHT RESERVATION menu bar. The OPEN ORDER window appears.
6. Check the **ORDER NO.** check box in the OPEN ORDER window.
7. Type **3** in the ORDER NO. field.
8. Click **OK**.
9. Select **FILE > FAX ORDER** from the FLIGHT RESERVATION menu bar.
10. Insert a STANDARD checkpoint for the SEND button.
  - a) In the CHECKPOINT PROPERTIES dialog box, ensure that the ENABLED check box is checked and has TRUE as the value.
  - b) In the CHECKPOINT PROPERTIES dialog box, click **OK**.
11. In the FAX ORDER NO. 3 window, click **CANCEL**.
12. Click **NEW ORDER** in the FLIGHT RESERVATION window, to set end conditions.
13. Stop recording.

14. Save the test as StandardCheckpoint\_4

#### PART 5: RUN THE TEST

1. Click **RUN** on the QuickTest Professional toolbar, to run the test.
2. Click **OK** in the RUN dialog box.
3. Click **RESULTS** on the QUICKTEST toolbar, to check the test results. The TEST RESULTS window appears. The test should pass.
4. Close the TEST RESULTS window.

#### PART 6: MODIFY AND RUN THE TEST

1. Be sure all the steps of the test are expanded.
2. Select the **EDIT** step.
3. Change the value in the VALUE column from "3" to "7".
4. Save the test as StandardCheckpoint\_6.
5. Run the test. When the RUN ERROR appears, note the error and click **STOP**.
6. View the test results.

#### PART 7: FIX THE TEST

Note: The error occurs because a different order number displays in the title bar of the Fax Order window. You can use a regular expression in the Object Repository to solve this problem.

1. Select **RESOURCES > OBJECT REPOSITORY** on the QuickTest Professional toolbar. The OBJECT REPOSITORY dialog box appears.
2. In the OBJECT REPOSITORY tree, select the **FAX ORDER NO. 3** object.
3. In the OBJECT PROPERTIES pane, in the VALUE column, click to display the CONFIGURE THE VALUE button.
4. Click the **CONFIGURE THE VALUE** button. The VALUE CONFIGURATION OPTIONS dialog box appears.

5. Ensure that the **CONSTANT** option is selected.
6. Check the **REGULAR EXPRESSION** check box. A QuickTest Professional dialog box appears.
7. Click **YES** in the dialog box. A backslash will be added so the period will be treated literally instead of as a Regular Expression value.
8. In the **CONSTANT** field, change the value to read: `Fax Order No. [0-9]+`
9. Click **OK**.
10. Close the **OBJECT REPOSITORY** dialog box.
11. Save the test as `STANDARDCHECKPOINT_7`
12. In the **FLIGHT RESERVATION** application click **CANCEL** in the **FAX ORDER** dialog.
13. Run the test.
14. View the test results. The test should pass.
15. Close the **TEST RESULTS** window.

# Exercise 6: Using Parameters

This exercise requires you to add a checkpoint, a synchronization point, and regular expressions to a recorded test. In addition, you use input parameters, output parameters, and regular expressions to modify the parameters, and a random number parameter to enhance your tests. The activities in this exercise are divided into the following parts:

Part 1: Record a new order, add a synchronization point, and a checkpoint.

Part 2: Create an output parameter from the ACTIVE SCREEN.

Part 3: Parameterize to accept input values.

Part 4: Run the test.

Part 5: Use a random number parameter.

## PART 1: RECORD A NEW ORDER, ADD SYNCHRONIZATION POINT, AND A CHECKPOINT

1. Ensure that QuickTest Professional is running and the ActiveX add-in is loaded.
2. Ensure that Flight Reservation application is running, and you are logged in.
3. Select **FILE > NEW > TEST** from the QuickTest Professional menu bar.
4. Click the **RECORD** button on the QuickTest Professional toolbar.
5. Click **OK** in the RECORD AND RUN SETTINGS dialog box.
6. Click the **NEW ORDER** button in the FLIGHT RESERVATION window, to set initial conditions.
7. Specify the following flight data:
  - DATE OF FLIGHT: 12-12-12
  - FLY FROM: Frankfurt
  - FLY TO: London
8. Click **FLIGHTS**. The FLIGHTS TABLE window appears.
9. In the FLIGHTS TABLE window, click **OK**.
10. Specify the following transaction data:

- NAME: Jane Jenkins
- TICKETS: 2
- CLASS: First

11. Click **INSERT ORDER**.
12. Wait for the progress bar to complete and the words **INSERT DONE...** to appear.
13. Insert a synchronization point on the **INSERT ORDER...** step. To do this:
  - a) Select **INSERT > SYNCHRONIZATION POINT** from the QuickTest Professional menu bar, after the progress bar completes. The cursor changes to a pointed hand.
  - b) In the **FLIGHT RESERVATION** window, in the progress bar, click the words **INSERT DONE...** with the hand cursor. The **OBJECT SELECTION - SYNCHRONIZATION POINT** dialog box appears.
  - c) In the **OBJECT SELECTION - SYNCHRONIZATION POINT** dialog box, click **OK**. The **ADD SYNCHRONIZATION POINT** dialog box appears.
  - d) From the **PROPERTY NAME** list, select **TEXT**.
  - e) In the **PROPERTY VALUE** field, type "**INSERT DONE...**".
  - f) Retain the default timeout of 10000 milliseconds.
  - g) Click **OK**. An **INSERT DONE (Wait Property)** step is added in **KEYWORD VIEW**.
14. Add a standard checkpoint that uses a regular expression on the **FAX ORDER NO.** window title bar. To do this:
  - a) Select **FILE > FAX ORDER** from the Flight Reservation menu bar. The **FAX ORDER NO.** window appears.
  - b) Select **INSERT > CHECKPOINT > STANDARD CHECKPOINT** from the QuickTest Professional menu bar. The cursor changes to a hand.
  - c) Click the **FAX ORDER NO.** window title bar with the pointing hand cursor. The **OBJECT SELECTION - CHECKPOINT PROPERTIES** dialog box appears.
  - d) In the **OBJECT SELECTION - CHECKPOINT PROPERTIES** dialog box, click **OK**. The **CHECKPOINT PROPERTIES** dialog box appears.
  - e) In the **CHECKPOINT PROPERTIES** dialog box, check the **TEXT** check box. Uncheck all other check boxes.

- f) Select the **TEXT** property and ensure that the **CONSTANT** option is selected.
  - g) Click the **CONSTANT VALUE OPTIONS** button next to the **CONSTANT** field. The **CONSTANT VALUE OPTIONS** dialog box appears.
  - h) In the **VALUE** field, replace the existing text with `Fax Order No\ . *`
  - i) Check the **REGULAR EXPRESSION** check box.
  - j) Click **No** in the QuickTest Professional dialog box that appears.
  - k) Click **OK**.
  - l) Click **OK** in the **CHECKPOINT PROPERTIES** dialog box.
  - m) In the **FAX ORDER NO.** window, in the **FAX NUMBER** field, type `4255550150` and click **SEND**.
  - n) Click the **NEW ORDER** button in the **FLIGHT RESERVATION** window, to set the end condition.
  - o) Click **STOP** on the QuickTest Professional toolbar.
15. Modify the object properties for the **FAX ORDER NO.** title bar step to use the regular expression. To do this:
- a) Open the **OBJECT REPOSITORY**.
  - b) In the **OBJECT REPOSITORY** dialog box, select the **FAX ORDER NO.** object.
  - c) In the **OBJECT PROPERTIES** pane, select the **TEXT** property row.
  - d) Click the **VALUE** column. The **CONFIGURE THE VALUE** button appears.
  - e) Click **CONFIGURE THE VALUE**. The **VALUE CONFIGURATION OPTIONS** dialog box appears.
  - f) Ensure that the **CONSTANT** option is selected.
  - g) In the **CONSTANT** field, replace the existing text with `Fax Order No\ . *`
  - h) Check the **REGULAR EXPRESSION** check box.
  - i) Click **No** in the QuickTest Professional dialog box that appears.
  - j) Click **OK** in the **VALUE CONFIGURATION OPTIONS** dialog box.
  - k) Close the **OBJECT REPOSITORY** dialog box.

16. Save the test as Parameters\_1.
17. Run the test.
18. On the QuickTest Professional toolbar, click the **RESULTS** button to view the test results. The test should pass.

## PART 2: CREATE AN OUTPUT PARAMETER FROM ACTIVE SCREEN

1. Select the SYNCHRONIZATION step you added while recording (HINT: The OPERATION says WAITPROPERTY).
2. From ACTIVE SCREEN, right-click the **ORDER NO.** edit field and select **INSERT OUTPUT VALUE**.
3. In the OBJECT SELECTION - OUTPUT VALUE PROPERTIES dialog box, click **OK**. The OUTPUT VALUE PROPERTIES dialog box appears.
4. Check the **TEXT** check box.
5. Select the **AFTER CURRENT STEP** option.
6. Click **OK**.
7. Ensure that a column called Order\_No\_text\_out appears in DATA TABLE.
8. Save the test as Parameters\_2.

## PART 3: PARAMETERIZE TO ACCEPT INPUT VALUES

1. In KEYWORD VIEW, under the first occurrence of FLIGHT RESERVATION, select the NAME step.
2. Click the **VALUE** column and then click **CONFIGURE THE VALUE**. The VALUE CONFIGURATION OPTIONS dialog box appears.
3. Select the **PARAMETER** option.
4. In the NAME field, replace the existing value with Name.
5. Ensure that the **GLOBAL SHEET** option is selected.
6. Click **OK**.
7. In the QUICKTEST PROFESSIONAL window, in DATA TABLE, in the NAME column, add Sam, Larry, and Catherine to rows two, three and four.



8. Save the test as Parameters\_3.

#### PART 4: RUN THE TEST

1. Click **RUN** on the QuickTest Professional toolbar.
2. In the RUN dialog box, click **OK** on the default choice. The test should pass.
3. On the QuickTest Professional toolbar, click the **RESULTS** button. The TEST RESULTS window appears. The output is displayed in RUN-TIME DATA TABLE in the ORDER\_NO\_TEXT\_OUT column of the TEST RESULTS window.

#### PART 5: USE A RANDOM NUMBER PARAMETER

1. Ensure that the test Parameters\_3 is open.
2. Select the **TICKETS** step in KEYWORD VIEW.

Note: Be sure to select the **TICKETS** step where operation is SET.

3. In the VALUE column, click to display the CONFIGURE THE VALUE button.
4. Click **CONFIGURE THE VALUE**. The VALUE CONFIGURATION OPTIONS dialog box appears.
5. In the VALUE CONFIGURATION OPTIONS dialog box, change the parameter type from DATATABLE to **RANDOM NUMBER**.
6. Change the NUMERIC RANGE from 0 to 100 to 1 to 10.
7. Save the test as Parameters\_4.
8. Run the test.
9. Review the test results to verify each iteration selected the number of tickets randomly.

# Exercise 7: Creating Web Tests with Checkpoints

In this exercise, you will create a Web add-in test on the Mercury Tours sample web application. You will add parameters to the web test and create a text, bitmap and database checkpoint to verify the following:

- The YOUR ITINERARY HAS BEEN BOOKED! text appears on the FLIGHT CONFIRMATION Web page (hint: text checkpoint).
- The “Print It” image correctly displays on the confirmation page (hint: bitmap checkpoint).

This exercise consists of the following parts:

- Part 1: Record a test on the Web application.
- Part 2: Add parameters.
- Part 3: Insert a text checkpoint and bitmap checkpoint.

## PART 1: RECORD A TEST ON THE WEB APPLICATION

1. Close and reopen QuickTest Professional.
2. Close the Windows Flight Reservation application.
3. In the QUICKTEST PROFESSIONAL - ADD-IN MANAGER dialog box, check the **WEB** check box.
4. Click **OK**.
5. Open a new test.
6. Double-click the **START SERVER** icon on your desktop to start the Apache Web server.
7. Verify that the START SERVER window displays the following line:  
Apache/1.3.17 <Win32> ApacheJServ/1.1.2 running...
8. Minimize the START SERVER window.
9. Double-click the **MERCURY TOURS** icon on your desktop to start the application.

10. Specify the following user name and password to log on to the Mercury Tours application:

- Username: Training
- Password: Mercury

11. Click **SIGN-IN**. Ensure that the FLIGHT FINDER Web page appears.

Note: The FLIGHT FINDER Web page is the initial and end condition for creating this test.

12. Click **RECORD** on the QuickTest Professional toolbar. The RECORD AND RUN SETTINGS dialog box appears.

13. Ensure that the RECORD AND RUN TEST ON ANY OPEN BROWSER option is selected and click **OK**.

14. On the FLIGHT FINDER Web page, specify the following flight information:

- TYPE: **ROUND TRIP**
- PASSENGERS: **1**
- DEPARTING FROM: **NEW YORK**
- ARRIVING IN: **PARIS**
- CLASS: **FIRST**

15. Click **CONTINUE**. The SELECT FLIGHT Web page appears.

16. Click **CONTINUE** to accept the default flights. The BOOK A FLIGHT Web page appears.

17. In the PASSENGERS section, specify the following data:

- FIRST NAME: Marybeth
- LAST NAME: Underhill
- MEAL: **NO PREFERENCE**

18. In the CREDIT CARD section, specify the following data:

- NUMBER: 1234567890

19. Click **SECURE PURCHASE** to book a flight.

20. Click the **FLIGHTS** link on the left menu, to set the initial condition for the test.
21. Click **STOP** on the QuickTest Professional toolbar.
22. Save the test as WebFlights\_1.
23. Run the test and view the results.

#### PART 2: PARAMETERIZE THE WEB TEST

1. In **KEYWORD VIEW**, select the **FROMPORT** step.
2. Place the cursor in the **VALUE** column and click the **CONFIGURE THE VALUE** button.
3. Select the **PARAMETER** radio button and `fromPort` in the **NAME** field.
4. Click **OK**.
5. Add a parameter called `toPort` for the **TOPORT** object.
6. View the datatable to confirm the two new columns were created.
7. Add the following additional values to the datatable:

FROMPORT	TOPORT
Paris	Portland
Seattle	Frankfurt

- 7.
8. Run the test and review the results.

#### PART 3: INSERT A TEXT CHECKPOINT, IMAGE AND BITMAP CHECKPOINT

1. In **KEYWORD VIEW**, select the **FLIGHT CONFIRMATION: MERCURY** step.
2. In **ACTIVE SCREEN**, highlight the **YOUR ITINERARY HAS BEEN BOOKED!** text and right-click the text.
3. Select **INSERT TEXT CHECKPOINT**. The **TEXT CHECKPOINT PROPERTIES** dialog box appears.
4. Note the values that are referenced for the **TEXT BEFORE** and **TEXT AFTER**.

5. Ensure that the BEFORE CURRENT STEP option is selected.
6. Click **OK**.
7. While still using the ACTIVE SCREEN, right click on the **PRINT IT** bitmap to display a menu.
8. Select **INSERT BITMAP CHECKPOINT....**
9. Click **OK** to confirm the OBJECT SELECTION dialog. The BITMAP CHECKPOINT PROPERTIES dialog box appears.
10. Ensure that the BEFORE CURRENT STEP option is selected.
11. Click **OK**.
12. In ACTIVE SCREEN, select the **SAVINGS! RENT A CAR** image on the left side of the screen.
13. Right-click on the image and select INSERT STANDARD CHECKPOINT.
14. The IMAGE CHECKPOINT PROPERTIES dialog box appears.
15. Keep all the properties checked and check the COMPARE IMAGE CONTENT checkbox.
16. Click **OK**.
17. Save the test as WebFlights\_3
18. Run the test and view the test results in the TEST RESULTS window. The test should pass.

# Exercise 8: Using Expert View

In this exercise, you will learn how to build a custom checkpoint by adding new steps in EXPERT VIEW. The checkpoint will validate that the Total price for the reservation is calculated correctly by retrieving the Price and Tickets, performing the calculation and comparing it to the application.

The activities are divided into the following sections:

- Part 1: Examine a script in EXPERT VIEW.
- Part 2: Add output values needed for the Custom Checkpoint.
- Part 3: Enter a step using the Step Generator.
- Part 3: Enter steps manually.
- Part 4: Run and debug the updated script.

## PART 1: EXAMINE A SCRIPT IN EXPERT VIEW

1. Close and reopen QuickTest Professional to reload the add-ins.
  2. Load only the ActiveX add-in from the ADD-IN MANAGER.
  3. Open the StandardCheckpoint\_1 test you created in Lesson 5. Save this test as CustomCheckpoint\_1.
  4. Select EXPERT VIEW and examine the script version of recorded steps.
  5. Identify the step where the TICKETS value is set.
- 

## PART 2: ADD OUTPUT VALUES NEEDED FOR THE CUSTOM CHECKPOINT

1. Place the cursor on the **TICKETS** step identified in step 5 above.
2. From ACTIVE SCREEN, right-click the **PRICE** edit field and select **INSERT OUTPUT VALUE**.
3. In the OBJECT SELECTION - OUTPUT VALUE PROPERTIES dialog box, click **OK**. The OUTPUT VALUE PROPERTIES dialog box appears.
4. Check the **TEXT** check box.
5. Select the **AFTER CURRENT STEP** option.

6. Click **OK**.
7. Repeat steps 2 through 6 to output the **TOTAL**
8. The following two statements should now appear in EXPERT VIEW:

```
Window("Flight Reservation").WinEdit("Price:").Output CheckPoint("Price:")
```

```
Window("Flight Reservation").WinEdit("Total:").Output CheckPoint("Total:")
```

9. What are the names of the columns added to the datatable?

Price\_text\_out

Total\_text\_out

### PART 3: INSERT A STEP USING THE STEP GENERATOR

1. Place the cursor on a new blank line in EXPERT VIEW after the output steps you created in Part 2.
2. From the menu select **INSERT->STEP GENERATOR** or press **F7**. The STEP GENERATOR dialog will open.
3. Leave the category set to TEST OBJECTS.
4. Click the SELECT OBJECT button to open the SELECT OBJECTS FOR STEP dialog.
5. Select the TICKETS object and Click **OK**.
6. From the OPERATION listbox select GETROPROPERTY.
7. In the list of ARGUMENTS, the PROPERTY value is required. Enter: text
8. Click **OK**.
9. The following statement should now appear in EXPERT VIEW:

```
Window("Flight Reservation").WinEdit("Tickets:").GetROProperty "text"
```

10. Modify the new statement to store the value retrieved from the TICKETS object. Assign the value to a variable called: numTix. You will also need to put parentheses around the "text" portion of your statement as shown below:

```
numTix=Window("Flight Reservation").WinEdit("Tickets:").GetROProperty("text")
```

11. Save this test as CustomCheckpoint\_3

#### PART 4: ENTER STEPS MANUALLY TO DEFINE THE CHECKPOINT

1. Place your cursor on a new line in expert view following the step you just created with the STEP GENERATOR.
2. Add a statement to create a new variable called `calcTotal` which is the result of multiplying `numTix` times the Price which we output to the datatable in Part 2. A datatable value is referenced with the following format:

```
datatable("<column_name>")
```

3. Add a new line to the script. Type: `if` followed by a space. The if/then structure should auto-complete as shown below:

```
If Then
```

```
End If
```

4. Modify the `If` statement to compare the `calcTotal` variable you just created with the `Total` which we output to the datatable in Part 2. If they are equal we want the checkpoint to pass, otherwise it will fail.
5. Insert a new line after the `If` condition you just modified. Type `Reporter`. Be sure to include the `.` so the auto-completion will display a list. Select the `ReportEvent` method from the auto-completion list and press space.
6. Enter the following information using the auto-complete tips, be sure to add a comma as shown in the auto-complete example:

```
- EVENTSTATUS: micPass  
- REPORTSTEPNAME: "PriceCheck"  
- DETAILS: "Price was calculated correctly"
```

7. Enter a new line and type `Else`.
8. Enter another new line after the `Else`.
9. Enter a new `Reporter` statement with the following values:

```
- EVENTSTATUS: micFail  
- REPORTSTEPNAME: "PriceCheck"  
- DETAILS: "Price was NOT calculated correctly"
```

10. Run the test and review the results. It should **NOT** pass.



11. Save this test as CustomCheckpoint\_4

#### PART 5: DEBUG THE TEST

1. Place your cursor on the following line in the script:  
  
Window("Flight Reservation").WinButton("Insert Order").Click
2. From the menu select **DEBUG->INSERT/REMOVE BREAKPOINT** or press **F9**. A red circle should appear in the margin of the selected step.
3. Run the test.
4. When the test stops at the breakpoint (the yellow arrow appears over the red dot), select the **DEBUG VIEWER** tab. If the **DEBUG VIEWER** tab is not visible, select the **VIEW->DEBUG VIEWER** menu.
5. Select the **VARIABLES** tab and closely examine the values. Try to determine why the Custom Checkpoint failed.

Ü This exercise fails because the calculation returns a numeric value, but we are comparing it to a string value (1st character is a \$ sign) in the application. To correct this the student can either use a CInt function (more advanced students with VB experience may do this) or use Excel formatting to strip the \$ sign from the Total\_text\_out field.

#### PART 6: OPTIONAL: CORRECT THE CUSTOM CHECKPOINT

The custom checkpoint is comparing two values that we expect to be the same, however according to the test results the checkpoint is failing. The debugger shows the problem is caused by comparing a numeric value to a string value from the database. To correct this checkpoint we need to identify a specific VBScript function that will resolve the issue.

1. Identify the VBScript **TYPE CONVERSION** function that will correct the checkpoint (functions can be found in help text or from the Functions category in the Step Generator).

# *Exercise 9: Building Multiple, Reusable Actions*

In this exercise, you create two reusable actions to be called from a main calling action. The activities in this exercise are divided into the following parts:

Part 1: Create a reusable log in action.

Part 2: Change the default name of an action.

Part 3: Create a reusable NewOrder action.

Part 4: Create a main calling test.

## PART 1: CREATE A REUSABLE LOG IN TEST

1. Ensure that the QuickTest Professional application is open.
2. Close the FLIGHT RESERVATION application and reopen it to the LOGIN window. Do not login.  
    ÜDo not login right now.
3. Select **FILE > NEW > TEST** from the QuickTest Professional menu bar, to open a new test.
4. Click **RECORD** on the QuickTest Professional toolbar. The RECORD AND RUN SETTINGS dialog box appears.
5. Click **OK**.
6. In the LOGIN dialog box, type the following information:
  - AGENT NAME: Training
  - PASSWORD: Mercury
7. Click **OK**. The FLIGHT RESERVATION window appears.
8. Click **STOP** on the QuickTest Professional toolbar to stop recording.
9. Save the test as MultipleActions\_Login.
10. Close the FLIGHT RESERVATION window.

11. Open the FLIGHT RESERVATION application. Do not log in.
12. Run the test and verify that the test completes.

### PART 2: CHANGE THE DEFAULT NAME OF THE ACTION

1. Ensure that the MultipleActions\_Login test is open.
2. In KEYWORD VIEW, right-click the **ACTION1** step and select **ACTION PROPERTIES** from the menu. The ACTION PROPERTIES dialog box appears.
3. In the ACTION PROPERTIES dialog box, from the GENERAL tab, in the NAME field, replace ACTION1 with Flight Login.
4. Click **OK**.
5. Click **YES** to the confirmation message that pops up.
6. Save the test.

### PART 3: CREATE A REUSABLE NEWORDER ACTION

1. Open a new test.
2. Record a new test to insert an order. Use reservation information of your choice. Remember to set the initial and end conditions and to synchronize the test.
3. In QuickTest Professional, in KEYWORD VIEW, right-click the **ACTION1** step and select **ACTION PROPERTIES** from the menu. The ACTION PROPERTIES dialog box appears.
4. In the ACTION PROPERTIES dialog box, from the GENERAL tab, in the NAME field, replace ACTION1 with NewOrder.
5. Click **OK**.
6. Save the test as MultipleActions\_NewOrder.
7. Run the test and verify it completes successfully.

#### PART 4: CREATE A MAIN CALLING TEST

1. Select **FILE > NEW > TEST** from QuickTest Professional menu bar to start a new test.
2. Rename the default ACTION1 as `FlightBusinessProcess`.
3. Select the `FlightttBusProcess` action in the QUICKTEST PROFESSIONAL window.
4. Select **INSERT > CALL TO COPY OF ACTION** from the QuickTest Professional menu bar. The SELECT ACTION dialog box appears.
5. In the SELECT ACTION dialog box, browse to the `MultipleActions_Login` test.
6. In the ACTION list, select the FLIGHT LOGIN action.
7. Ensure that the AFTER THE CURRENT STEP option is selected.
8. Click **OK**. In KEYWORD VIEW, a COPY OF FLIGHT LOGIN action appears.
9. In the KEYWORD VIEW, select the **FLIGHTBUSINESSPROCESS** action.
10. Select **INSERT > CALL TO EXISTING ACTION** from the QuickTest Professional menu bar.
11. Browse to the **MULTIPLEACTIONS\_NEWORDER** test in the SELECT ACTION dialog box.
12. Select the NEWORDER action in the ACTION list.
13. Click **NO** to the AUTOMATIC RELATIVE PATH CONVERSION dialog.
14. Ensure that the AFTER THE CURRENT STEP option is selected.

Note: In KEYWORD VIEW, the NEWORDER action appears before the COPY OF FLIGHT LOGIN action.

15. Drag and drop the NEWORDER action to be after the LOGIN action.
16. Save the test as `FlightBusinessProcess`.
17. Close the FLIGHT RESERVATION window and then launch the LOGIN window of the application. Do not log in.
18. Run the test. The test should complete.

#### PART 5: COMPARE THE CALLED ACTIONS

1. Review the `FlightBusinessProcess` test.

2. What differences can you identify in the LOGIN and NEWORDER actions.

---

3. Can you identify how to change the NEWORDER action properties so the datatable can be edited?

---

# *Exercise 10: Shared Object Repository*

This exercise enables you to create a shared object repository and associate the object repository with an action.

This exercise consists of the following parts:

- Part 1: Create a shared object repository.
- Part 2: Associate an object repository.

## PART 1: CREATE A SHARED OBJECT REPOSITORY

1. Select **FILE** ->**NEW**.

Note: It is a best practice to always open the OBJECT REPOSITORY MANAGER from an empty test.

2. Confirm the FLIGHT RESERVATION application is open.
3. Select **RESOURCES > OBJECT REPOSITORY MANAGER** from the QuickTest Professional menu bar. The OBJECT REPOSITORY MANAGER window appears.
4. Click the **ADD OBJECTS** icon on the OBJECT REPOSITORY MANAGER toolbar. The cursor changes to a hand tool.
5. Click the title bar of the Flight Reservation window with the hand tool. The OBJECT SELECTION - ADD TO REPOSITORY dialog box appears.
6. Click **OK**. The ADD OBJECT TO OBJECT REPOSITORY dialog box appears.
7. Select ALL OBJECTS TYPES in the DEFINE OBJECT FILTER dialog box.
8. Click **OK**. Review the objects are added in the OBJECT REPOSITORY MANAGER window.
9. Select **FILE > SAVE AS** from the OBJECT REPOSITORY MANAGER menu bar. The SAVE SHARED OBJECT REPOSITORY dialog box appears.
10. Save the repository in the \Training\Using QTP10\Repository folder. In the FILE NAME field, type `Flight.tsr`.
11. Click **SAVE**.

12. Close OBJECT REPOSITORY MANAGER.

## PART 2: ASSOCIATE AN OBJECT REPOSITORY

1. Open the `StandardCheckpoint_1` test you created in Lesson 5. Save this test as `SharedRepository_2`.
2. Select **RESOURCES > ASSOCIATE REPOSITORIES** from the QuickTest Professional menu bar. The ASSOCIATE REPOSITORIES dialog box appears.
3. Click **ADD REPOSITORY**. The ADD SHARED OBJECT REPOSITORY dialog box appears.
4. Navigate to the directory where you saved the `Flight.tsr` file, and open the file.
5. In the ASSOCIATE REPOSITORIES window, in the AVAILABLE ACTIONS list, select **ACTION 1**, and use the right-arrow button to move the action to the ASSOCIATED ACTIONS list.
6. Click **OK**.
7. Open the OBJECT REPOSITORY to verify that the objects are available for the action.
8. Change the visible objects by selecting LOCAL OBJECTS from the filter on the toolbar.
9. While only the LOCAL OBJECTS are visible, right-click on the FLIGHT RESERVATION dialog box object in the repository.
10. Click **DELETE**.
11. Change the filter again to show all objects. The test is now linked only to the objects in the SHARED OBJECT REPOSITORY.
12. Close the OBJECT REPOSITORY dialog box.

## **Part 3: Run the test with the Shared Object Repository**

1. Run the test. Why does the test fail?
2. What happens in the test when the first **BUTTON CLICK** step executes? Why does this happen?

---

---

3. How can you correct the SHARED OBJECT REPOSITORY?

---

---

4. Return to the OBJECT REPOSITORY MANAGER and add the objects that are missing from Flight.tsr.
5. After updating the OBJECT REPOSITORY rerun the test.



# *Exercise 11: Solving Object Recognition Problems*

In this exercise, you will solve problems related to object recognition in a test by creating virtual objects and by using analog recording. In addition, you will also create a bitmap checkpoint to compare the expected image to the actual image.

This exercise consists of the following parts:

- Part 1: Record a test on Microsoft Paint using normal recording.
- Part 2: Identify the problems in the test.
- Part 3: Create a virtual object.
- Part 4: Perform analog recording.
- Part 5: Add an optional step.

## PART 1: RECORD A TEST ON MICROSOFT PAINT USING NORMAL RECORDING

1. Open a new test in QuickTest Professional.
2. Select **START > PROGRAMS > ACCESSORIES > PAINT** to open the Paint application.
3. On the Paint toolbar, ensure that the pencil button is selected.
4. In the drawing area, write **QTP**.
5. Click **RECORD** on the QuickTest Professional toolbar.
6. Click **OK** in the RECORD AND RUN SETTINGS dialog box, to accept the default settings.
7. Select **FILE > NEW** from the Paint menu bar.
8. Click **NO** when prompted to save the drawing.
9. From the color palette, select a color.
10. In the drawing area, write **QTP**.
11. From the color palette, select a new color.
12. In the drawing area, write **QTP**.

13. Click **STOP** on the QuickTest Professional toolbar.
14. Save the test as ObjectRecognition\_1.
15. Click **RUN** On the QuickTest Professional toolbar.
16. Click **OK** to accept the RUN settings.

## PART 2: IDENTIFY THE PROBLEMS IN THE TEST

1. Observe the drawing area in the Paint application. The text QTP appears distorted in the drawing area.
2. From the QuickTest Professional menu bar, select **RESOURCES > OBJECT REPOSITORY**. In the OBJECT REPOSITORY tree, observe that QuickTest learns the properties of only two objects, AFX: 1000000:8 and COLORS. QuickTest does not learn the properties of the pencil button separately.
3. Close the OBJECT REPOSITORY dialog box.
4. Observe **KEYWORD VIEW**. QuickTest does not record the mouse movement. It records the values for the SELECT, CLICK, DRAG, and DROP operations.

## PART 3: CREATE A VIRTUAL OBJECT

1. Select **TOOLS > VIRTUAL OBJECTS > NEW VIRTUAL OBJECT** on the QuickTest Professional menu bar, to open VIRTUAL OBJECT WIZARD. The WELCOME TO THE VIRTUAL OBJECT WIZARD page appears.
2. Click **NEXT**. The MAP TO A STANDARD CLASS page appears.
3. From the CLASS list, select **BUTTON**.
4. Click **NEXT**. The MARK VIRTUAL OBJECT page appears.
5. Click **MARK OBJECT**. The cross-hairs cursor appears.
6. On the Paint application, use the cross-hairs symbol to draw a square around the pencil button. The width and height of the selected region appear in the WIDTH and HEIGHT fields on the MARK VIRTUAL OBJECT page.
7. Click **NEXT**. The OBJECT CONFIGURATION page appears.

8. In the IDENTIFY OBJECT USING section, ensure that the PARENT ONLY option is selected.
9. Click **NEXT**. The SAVE VIRTUAL OBJECT page appears.
10. In the NAME field, type `Pencil`.
11. In the COLLECTION NAME box, type `Paint`.
12. Select the **YES** option.
13. Click **NEXT**. The MAP TO A STANDARD CLASS page appears.
14. From the CLASS list, select `table`.
15. In the NUMBER OF ROWS box, type 2.
16. In the NUMBER OF COLUMNS box, type 14.
17. Click **NEXT**.
18. Click **MARK OBJECT** in the MARK VIRTUAL OBJECT dialog.
19. Use the cross-hairs cursor to draw a rectangle around the color palette in the Paint application.
20. Click **NEXT**. The OBJECT CONFIGURATION page appears.
21. Ensure that the PARENT ONLY option is selected, and click **NEXT**. The SAVE VIRTUAL OBJECT page appears.
22. In the NAME field, type `Color`.
23. In the COLLECTION NAME box, ensure that `PAINT` is selected.
24. Ensure that the NO option is selected.
25. Click **FINISH**.

#### PART 4: PERFORM ANALOG RECORDING

1. Open a new test in QuickTest Professional, and save it as `ObjectRecognition_4`.
2. Click **RECORD** on the QuickTest Professional toolbar.
3. Click **OK** to accept the default record and run settings.
4. Select **FILE > NEW** from the Paint menu bar.

5. Click **NO** when prompted to save the existing drawing.
6. On the Paint toolbar, click the pencil button to record selecting the pencil.
7. On the color palette, click a color.
8. Select **AUTOMATION > ANALOG RECORDING** from the QuickTest Professional menu bar. The ANALOG RECORDING SETTINGS dialog box appears.
9. Select **RECORD RELATIVE TO THE FOLLOWING WINDOW** in the ANALOG RECORDING SETTINGS dialog box.
10. Click the pointing hand button, and click the Paint application.
11. Click **START ANALOG RECORD** in the ANALOG RECORDING SETTINGS dialog box.
12. In the drawing area of the Paint application, write **QTP**.
13. From the QuickTest Professional menu bar, select **AUTOMATION > ANALOG RECORDING**, to return to normal recording mode.
14. In the Paint application, from the color palette, select a new color.
15. Select **AUTOMATION > ANALOG RECORDING** from the QuickTest Professional menu bar. The ANALOG RECORDING SETTINGS dialog box appears.
16. Click **START ANALOG RECORD** in the ANALOG RECORDING SETTINGS dialog box.
17. In the drawing area of the Paint application, write **QTP**.
18. Click **STOP** on the QuickTest Professional toolbar.
19. Save the test and run it. The test runs successfully.
20. Close the Paint application.

#### PART 5: ADD AN OPTIONAL STEP

1. Open the `Synchronization_3` test you created in Lesson 4.
2. DO NOT START RECORDING.
3. Click the **NEW ORDER** icon on the Flight Reservation toolbar, to set initial conditions for the test.
4. Type the following flight data:
  - DATE OF FLIGHT: 12-12-1212

- FLY FROM: Frankfurt
  - FLY TO: London
5. Click **FLIGHTS**. The FLIGHTS TABLE appears.
  6. Click **OK** to accept the default choice.
  7. Click the **NEW ORDER** icon on the Flight Reservation toolbar, the message box indicating information has changed appears. Leave the application in this state.
  8. Using the `Synchronization_3` test, place the cursor on the first **BUTTON** step at the beginning of your test.
  9. Click **RECORD** on the QuickTest Professional toolbar.
  10. Click the **NO** button on the message box indicating information has changed.
  11. Click **STOP** on the QuickTest Professional toolbar, to stop recording.
  12. Save the test as `OptionalStep`.
  13. In **KEYWORD VIEW** select the new **NO** step you just added.
  14. Right-click and select the **OPTIONAL STEP** menu.
  15. Run the `OptionalStep` test and observe the behavior of the test when the message does not appear.
  16. View the test results and close the **TEST RESULTS** window.
  17. Repeat steps 1 through 6 to display the message and run the `OptionalStep` test.
  18. View the test results and close the **TEST RESULTS** window.

# *Exercise 12: Using Additional Tools*

In this exercise, you introduce an error in a test and then use RECOVERY SCENARIO MANAGER to handle the error during a test run.

This exercise consists of the following parts:

- Part 1: Define Local System Monitors
- Part 2: Run a test and view the monitoring results.
- Part 3: Open and run a test with a Mail pop-up.
- Part 4: Define the recovery scenario for the Mail pop-up.
- Part 5: Add a recovery scenario to the test.
- Part 6: Run the test and view test results.

## PART 1: DEFINE LOCAL SYSTEM MONITORS.

1. Browse to the directory \Training\Using QTP10\Tests.
2. Open the Standard Checkpoint\_8 test you created in lesson 5.
3. Select **FILE ->SETTINGS** from the QuickTest Professional menu bar.
4. Select the LOCAL SYSTEM MONITOR tab.
5. Check the ENABLE LOCAL SYSTEM MONITORING EVERY: checkbox.
6. Use the POINTING HAND to select the Flight Application.
7. Click in the SYSTEM COUNTER table to activate the list of counters to select from.
8. Select the MEMORY USAGE counter. In the limit column enter 10.
9. Move to the next item and add the % PROCESSOR TIME counter. In the limit column enter 10.
10. Click **OK**.

## PART 2: RUN A TEST AND VIEW THE MONITORING RESULTS.

1. Confirm you are logged into the Flight Reservation application.
2. Run the Standard Checkpoint\_8 test.
3. Open the test results window.
4. Click the **SYSTEM MONITOR** tab.
5. Select the **VIEW ->EXPAND ALL** menu from the Test Results menu bar.
6. Step through the steps on the left and observe the Red **CURRENT STEP** vertical bar.
7. If the test exceeded the counter limits, identify where this occurred.

## PART 3: OPEN AND RUN A TEST WITH A MAIL POP-UP.

1. Confirm you are logged into the Flight Reservation application.
2. Browse to the directory \Training\Using QTP10\Tests.
3. Open the MailPopUp test and run it.
4. Observe the “pop-up” email message, but leave it open and let the script continue.

Note: The pop-up will not always interfere with the script replay.

## PART 4: DEFINE THE RECOVERY SCENARIO FOR THE MAIL POP-UP.

1. Select the **RESOURCES->RECOVERY SCENARIO MANAGER** menu.
2. Click the **NEW** icon to create a new scenario. The **RECOVERY SCENARIO WIZARD** will open.
3. Click **NEXT**.
4. Click **NEXT** to accept the POP-UP WINDOW default.
5. Click the **POINTING HAND** to select the Notepad application window.
6. The **WINDOW TITLE** and **WINDOW TEXT CONTAINS** fields will be populated with the Notepad information.

7. Click **NEXT**.
8. Click **NEXT** to continue and define the RECOVERY OPERATION.
9. Select the CLOSE APPLICATION PROCESS option. Click **NEXT**.
10. In the list of processes locate the NOTEPAD.EXE PROCESS and click **ADD**.
11. Click **NEXT**.
12. Uncheck the ADD ANOTHER RECOVERY OPERATION checkbox.
13. Click **NEXT**.
14. Select the PROCEED TO NEXT STEP option. Click **NEXT**.
15. Name the scenario: MailPopUp. Click **NEXT**.
16. Click **FINISH**.
17. Click **SAVE** and save the file to a new recovery file called: Mail.
18. Click **SAVE**.
19. Click **CLOSE**.

#### PART 5: ADD THE RECOVERY SCENARIO TO THE TEST

1. Select **FILE > SETTINGS** from the QuickTest Professional menu bar.
2. Select the RECOVERY tab.
3. Click the PLUS icon to add the RECOVERY SCENARIO.
4. Select the MAIL.QRS file from the drop-down list.
5. Click the **ADD SCENARIO** button.
6. In the ACTIVATE RECOVERY SCENARIOS: drop-down list select ON EVERY STEP.
7. Click **APPLY**.
8. Click **OK**.
9. Save the test.



## PART 6: RUN THE TEST AND VIEW TEST RESULTS

1. In QuickTest Professional, run the test.
2. Observe as the test is running if the NOTEPAD application closes.
3. Examine the test results in the TEST RESULTS window to see how QuickTest uses the recovery scenario during the test run.

# *Exercise 13: Quality Center Integration*

In this exercise, you connect to a Quality Center project and work with test versions and resources.

This exercise consists of the following parts:

- Part 1: Connect to a Quality Center project.
- Part 2: Check out a Quality Center test and compare versions.
- Part 3: Associate Quality Center resources with a test.

## PART 1: CONNECT TO A QUALITY CENTER PROJECT.

1. Select **FILE ->QUALITY CENTER CONNECTION** or click the **QUALITY CENTER CONNECTION** toolbar button. The **QUALITY CENTER CONNECTION - SERVER CONNECTION** dialog opens.
2. Enter `http://localhost:8080/qcbin` in the **SERVER URL** box.
3. Click **CONNECT**.
4. Log in using the following information:
  - **USER NAME:** Training
  - **PASSWORD:** iloveqc10
5. Click **AUTHENTICATE**.
6. Log in to the following domain and project:
  - **DOMAIN:** default
  - **PROJECT:** QualityCenter\_Demo
7. Click **LOGIN**.

## PART 2: CHECK OUT A QUALITY CENTER TEST AND COMPARE VERSIONS.

1. Select **FILE ->OPEN** from the QuickTest menu. You will now see an option to open files in Quality Center.
2. Select **QUALITY CENTER TEST PLAN** from the left menu.

3. Select the **FLIGHT RESERVATION-> BOOK FLIGHT** folder.
4. Select the `CreateReservation` test.
5. Click **OPEN**.
6. Click **OK** on the Read Only message.

Note: The test is opened in Read Only mode and cannot be edited until it is checked out.

7. Select **FILE ->QUALITY CENTER VERSION CONTROL-> CHECK OUT** from the QuickTest menu. The CHECK OUT dialog will open.
8. Enter `Add Resources` to the COMMENT field.
9. Click **OK**.
10. The Read Only status on the title bar will be gone and the test can be edited.
11. Select **FILE ->QUALITY CENTER VERSION CONTROL-> VERSION HISTORY** from the QuickTest menu. The VERSION HISTORY dialog will open.
12. Select VERSION 1, hold the CTRL key and select VERSION 4. Both versions should now be highlighted and the COMPARE button is now enabled.
13. Click **COMPARE**. The **ASSET COMPARE TOOL** dialog will open.
14. Review the differences.
15. Click the **FILTER** button on the toolbar to view only **CHANGED** assets. Change the filter again to view only **ADDED** assets.
16. Close the **ASSET COMPARE TOOL**.
17. Which assets have been changed or added?

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### PART 3: ASSOCIATE QUALITY CENTER RESOURCES WITH A TEST.

1. Select **VIEW->RESOURCES** from the QuickTest menu. The **RESOURCES** pane will open.
  2. List all external resources associated with this test:
-

3. Select **RESOURCES** ->**ASSOCIATE REPOSITORIES** from the QuickTest Professional menu bar. The ASSOCIATE REPOSITORIES dialog box appears.
4. Click **ADD REPOSITORY**. The ADD SHARED OBJECT REPOSITORY dialog box appears.
5. Select **QUALITY CENTER TEST RESOURCES** from the left menu.
6. Select the Flight.tsr file. Click **OPEN**.
7. In the ASSOCIATE REPOSITORIES window, in the AVAILABLE ACTIONS list, select **ACTION 1**, and use the right-arrow button to move the action to the ASSOCIATED ACTIONS list.
8. Click **OK**.
9. Open the OBJECT REPOSITORY to verify that the objects are available for the action.
10. Change the visible objects by selecting LOCAL OBJECTS from the filter on the toolbar.
11. While only the LOCAL OBJECTS are visible, right-click on the FLIGHT RESERVATION dialog box object in the repository.
12. Click **DELETE**.
13. Change the filter again to show all objects. The test is now linked only to the objects in the SHARED OBJECT REPOSITORY.
14. Close the OBJECT REPOSITORY dialog box.
15. Review the **RESOURCES** pane to verify the `Flight.tsr` object repository now appears as a resource.