# IBM® Rational® Functional Tester for Java™

## Playing back an automated test script

Rational software

This module provides an overview of playing back an automated test script using IBM Rational Functional Tester for Java.

# Course objectives

- **General concepts**
  - Test development
  - Regression testing

- **Running a recorded test**
  - Setting playback preferences
  - Running the script

- **Examining the results**
  - Playback log
  - Investigating warning and error messages
  - Summary

Playing back an automated test script

2

© 2008 IBM Corporation

This course covers topics related to playing back an automated test script. It discusses test development and regression testing, and goes through the steps of setting playback preferences and executing the script. This module also reviews logs, including warnings and errors in the logs.

# General concepts

- Test development
  - ▶ Verify the script
  - ▶ Establish a baseline
- Regression testing
  - ▶ Compare the latest build
  - ▶ Identify defects

There are two phases of the automated test script development process that a script is played back in: test development and regression testing.

Test development includes recording, refining, and testing a script. After recording, a user can edit a script to add comments, perform additional actions, or use an external data source.

During test development, play back a script to verify that it plays back successfully and works as intended, and to establish a baseline against which to compare future builds of the application under test.

Regression testing reveals differences introduced into the application under test since the last build. Evaluate these differences to determine whether they are defects or deliberate changes.

During regression testing, play back a script to compare the latest build to an established baseline, and to identify defects caused to existing functionality by new code development.
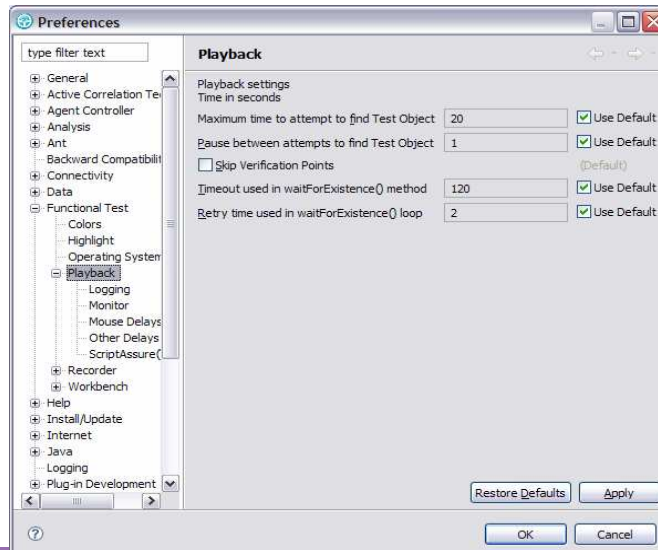
## Running a recorded test

- Setting playback preferences
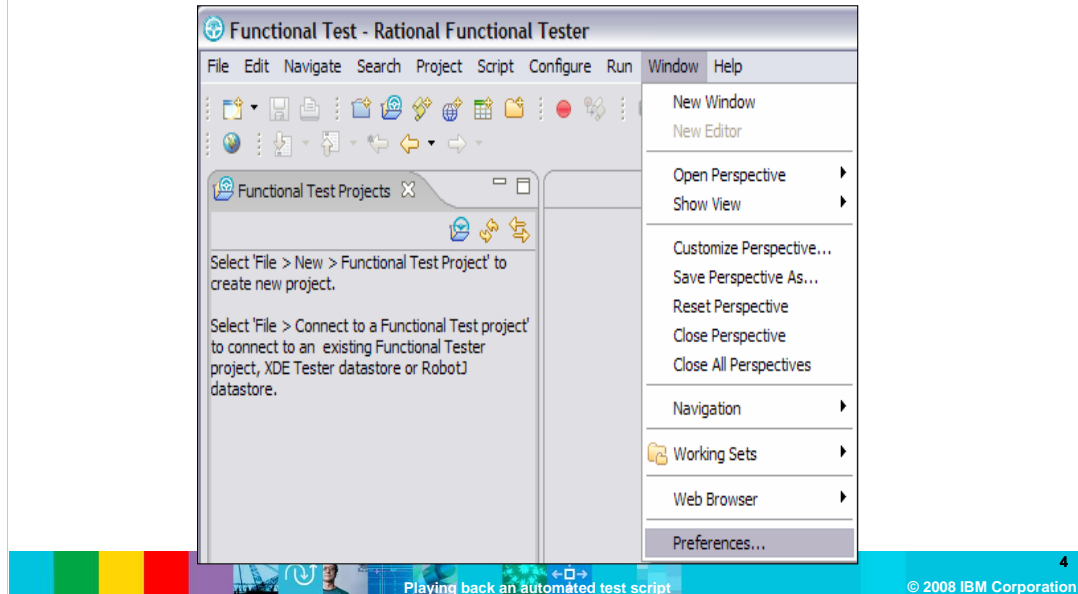
Before playing back a recorded script, ensure that the application under test is in the same state it was in when the script was recorded. Any applications and windows that were open, displayed, or active when the script was recorded must be open, displayed, or active before playback is started.

The tester has the option to set playback preferences. From the Window menu in Functional Tester, select "Preferences." In the Preferences window that opens, in the left pane, expand "Functional Test," then expand "Playback."

Five different sets of playback preferences can be set here.

**Logging** allows testers to choose what kind of log, HTML, or Text they want to generate at the end of playback. Other available logging choices include "Prompt before overwriting an existing log," "Display log viewer after script playback," and "Don't show script launch wizard."

**Monitor** allows the tester to view the script name, the number of the line being executed, the status icons, and a description of the action in progress as the script is being played back.

**Mouse Delay** sets the delay in seconds to occur before every mouse up or down action.

**Other Delays** sets the delay in seconds to occur before every key up or down action, or before performing a test object action.

**Script Assure** helps a script to play back successfully, even after the update of the application under test. Each object in a test object map has a set of recognition properties, typically established during recording. If objects in the application under test have changed, scripts can still be played back in Functional Tester using the Script Assure feature to control object-matching sensitivity.
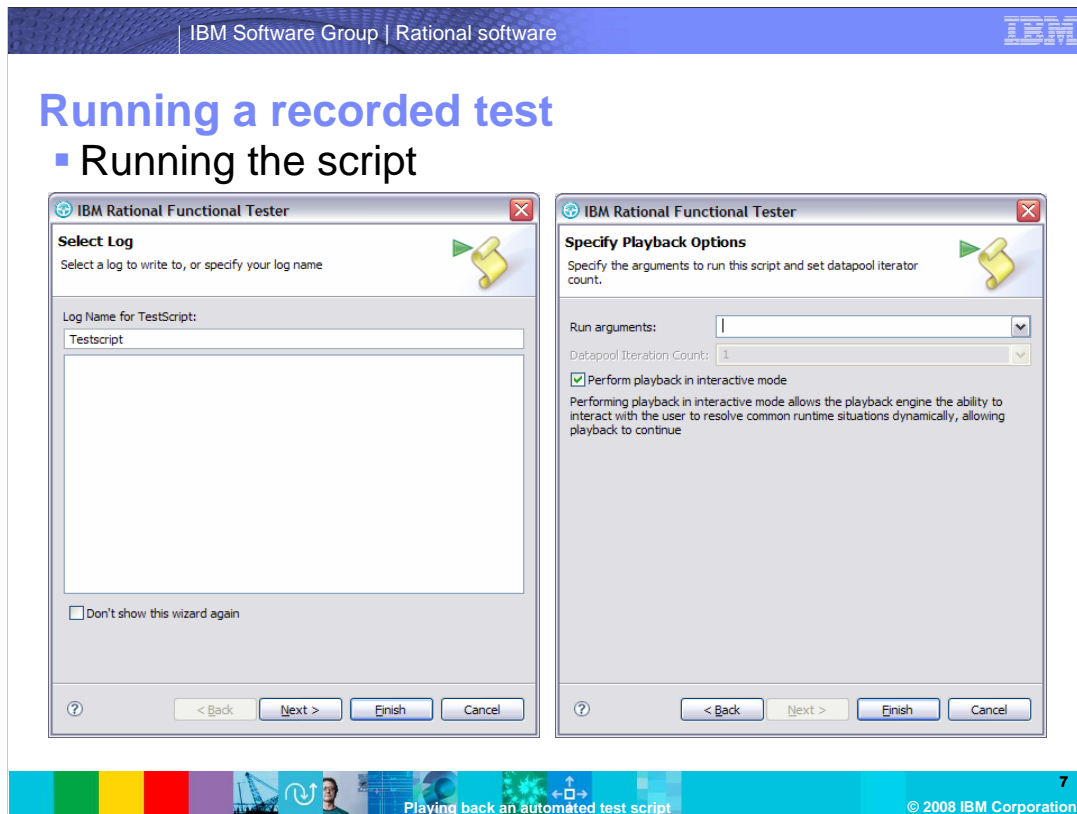
If the tester chooses to ignore these selections, the default settings are applied before playing back the script.
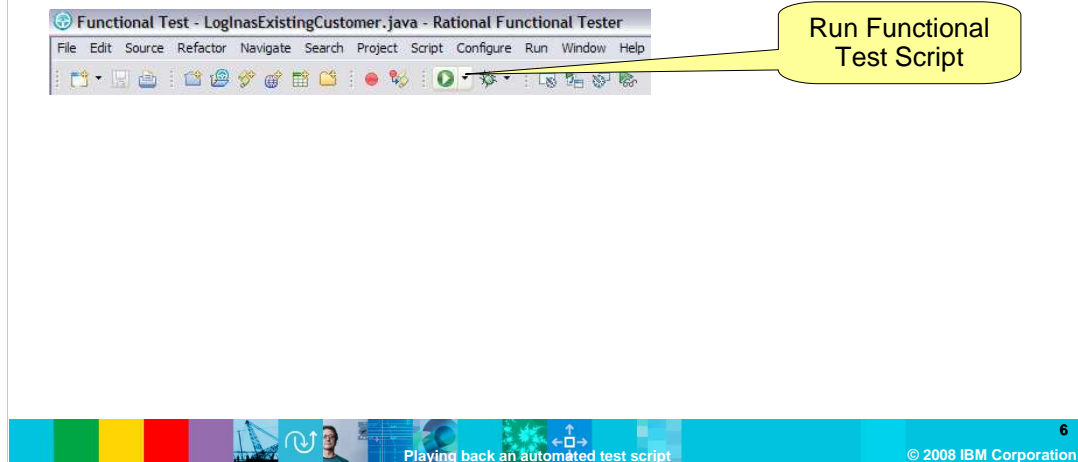
Once the playback preferences are set, the script is ready to execute. Open the script for playback, and click the "Run Functional Test Script" icon. A tester can also right-click the script in the Functional Test Project view, then click Run in the menu.

A Select Log window opens. By default, a log file named after the script appears. Testers have the option to rename this. Click **Next**.

A Specify Playback Options window opens. Here, testers can specify any arguments needed to run the script, and can set the datapool iteration count. When complete, click **Finish**.

Functional Tester now plays back the tests. Note that if this test was run previously, a prompt appears asking for confirmation to overwrite the log

RFTPlayback.ppt
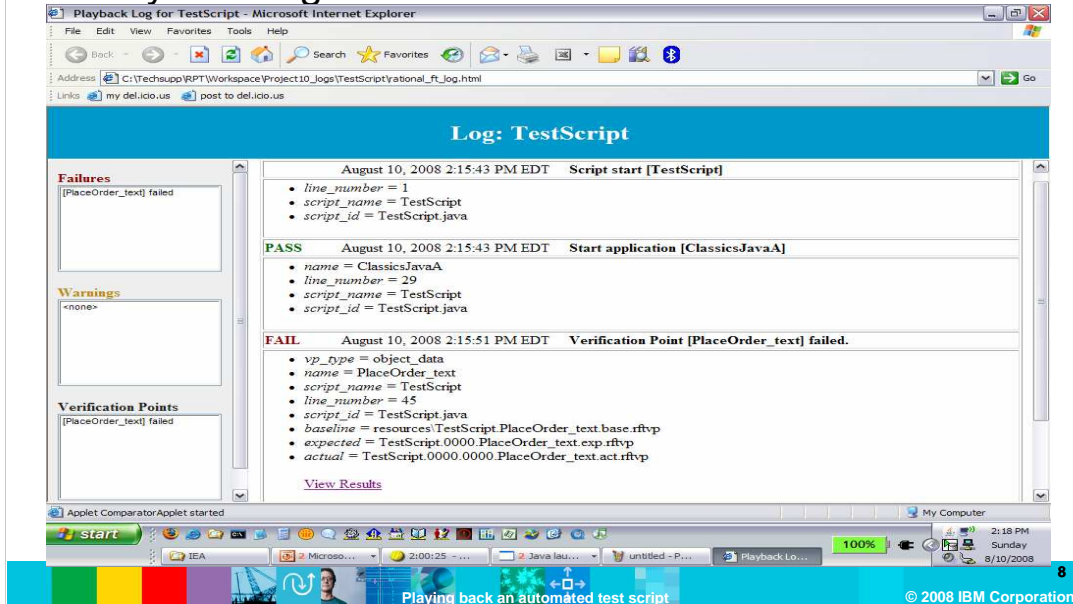
Playback log

After playback is complete, the results display in an HTML log in a browser window. HTML is the default logging option. If the tester chose a different format for logging, the log displays in that format. This log is also found in the log folder in the Functional Test Projects view.

The left frame of the log provides quick navigation to important information. The right frame provides details regarding which parts of the script passed or failed.
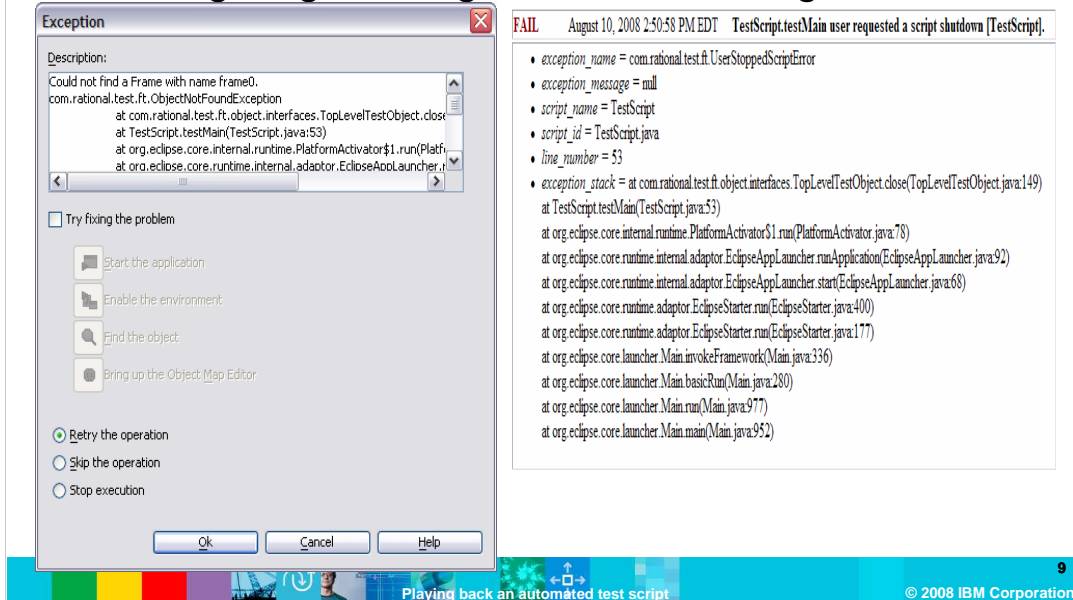
Typical errors or warning messages in Functional Tester include "Object Not Found" and "Object Recognition is weak." Review the error details in the application log to determine if an object is missing from the previous version on which the script was recorded. This should indicate why playback produces one of these error messages. Take the necessary steps to correct these errors or warnings. This ranges from removing the missing objects from the object map and script to updating the recognition properties of the object in question.

Another part of the log is failed verification points. Find the failed verification point in the log and click the "View Results" link in that section. The verification point comparison window appears. This window shows the expected value recorded during the script recording and the actual value the script found during the playback. The difference in the value is highlighted in red.

# Summary

- This module provided an overview of playing back an automated test script using IBM Rational Functional Tester for Java.

- The Tester can:
  - Set playback preferences
  - Execute the script
  - Examine the results in the log

Playing back an automated test script

11

© 2008 IBM Corporation

This module provided an overview of playing back an automated test script using IBM Rational Functional Tester for Java. In this process, the tester sets playback preferences accordingly, executes the script, and examines the results in the log, searching for any problems.

# Feedback

## Your feedback is valuable

You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?
- Did it help you solve a problem or answer a question?
- Do you have suggestions for improvements?

Click to send e-mail feedback:

mailto:iea@us.ibm.com?subject=Feedback_about_RFTPlayback.ppt

This module is also available in PDF format at: ../RFTPlayback.pdf

Playing back an automated test script

© 2008 IBM Corporation

You can help improve the quality of IBM Education Assistant content by providing feedback.

# Trademarks, copyrights, and disclaimers

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM          Rational

A current list of other IBM trademarks is available on the Web at http://www.ibm.com/legal/copytrade.shtml

Rational is a trademark of International Business Machines Corporation and Rational Software Corporation in the United States, Other Countries, or both.

Java, and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Product data has been reviewed for accuracy as of the date of initial publication. Product data is subject to change without notice. This document could include technical inaccuracies or typographical errors. IBM may make improvements or changes in the products or programs described herein at any time without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business. Any reference to an IBM Program Product in this document is not intended to state or imply that only that program product may be used. Any functionally equivalent program, that does not infringe IBM's intellectual property rights, may be used instead.

Information is provided "AS IS" without warranty of any kind. THE INFORMATION PROVIDED IN THIS DOCUMENT IS DISTRIBUTED "AS IS" WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. IBM EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. IBM shall have no responsibility to update this information. IBM products are warranted, if at all, according to the terms and conditions of the agreements (for example, IBM Customer Agreement, Statement of Limited Warranty, International Program License Agreement, etc.) under which they are provided. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products in connection with this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products.

IBM makes no representations or warranties, express or implied, regarding non-IBM products and services.

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents or copyrights. Inquiries regarding patent or copyright licenses should be made, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY  10504-1785
U.S.A.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

© Copyright International Business Machines Corporation 2008. All rights reserved.

Note to U.S. Government Users - Documentation related to restricted rights-Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract and IBM Corp.

13

Playing back an automated test script

© 2008 IBM Corporation