



Functional testing Flex applications

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Test Adobe Flex application

This tutorial walks you through the steps to enable your Adobe Flex application, and test the enabled Flex application from a local test computer using IBM Rational® Functional Tester. The steps are based on the roles that Flex developers and testers perform.

Rational Functional Tester supports testing the functional aspects of Flex applications. You can record and playback scripts against Flex based user interfaces inside a Web browser.

Learning objectives

After completing this tutorial, you will be able to use Functional Tester to test your Flex applications.

Time required

30 minutes

Related information



[View the PDF version](#)

[Tutorial: Create a functional test](#)

[Tutorial: Create a data-driven functional test](#)

Introduction: Test Adobe Flex application

In this tutorial, you will learn how to enable a Flex application for functional testing and test the enabled Flex application using Functional Tester.

The tutorial is divided into two modules that must be completed in sequence to work properly.

Learning objectives

After completing this tutorial, you will be able to:

- Set up the development and testing environment
- Enable the Flex application for functional testing
- Create an HTML wrapper
- Test the enabled Flex application using Functional Tester

Note: Consider printing the tutorial before you begin and using the printed copy as you work through the lessons. You can either print the PDF version of the tutorial or print each individual lesson by right-clicking inside each topic and clicking **Print**.

Time required

This tutorial takes approximately 30 minutes to finish. If you explore other concepts related to this tutorial, it might take longer to complete.

Module 1: Enable the Flex application for testing

In this module, you learn how to enable the Flex application for functional testing by compiling the Flex application with functional testing agent (rft.swc) and Flex automation framework libraries.

This module is intended for Flex application developers.

Learning objectives

After you complete the lessons in this module you will understand how to do the following:

- Set up the development environment
- Enable Flex application using command-line
- Create an HTML wrapper

Time required

This module takes approximately 15 minutes to complete.

Prerequisites

Before you begin, verify that the following software is installed in your computer:

- Adobe Flex SDK 2.0.1 or later
- Adobe Flex automation framework

Lesson 1: Set up the development environment

In this lesson, you set up the development environment for enabling the Flex application for functional testing.

To set up the Flex development environment:

1. Copy the automation_agent.swc file from C:/Program Files/Adobe/frameworks/libs directory to C:/Program Files/Adobe/Flex SDK 2/frameworks/libs directory.
2. Copy the automation_agent_rb.swc file from C:/Program Files/Adobe/frameworks/locale/en_US directory to C:/Program Files/Adobe/Flex SDK 2/frameworks/locale/en_US directory.

Important: This path is for en_US locale. If you are using a different locale, replace en_US with that locale.

Now you are ready to enable the Flex application using the command-line.

Lesson 2: Enable the Flex application using the command-line

In this lesson, you use the command-line to compile the Flex application with Functional Tester agent and Flex automation framework libraries.

1. Go to the command prompt.
2. Type the following command:

```
"flex_builder install directory\Flex SDK 2\bin\mxm1c" -include-libraries+=  
"flex_builder install directory\Flex SDK 2\frameworks\libs\automation.swc;  
flex_builder install directory\frameworks\libs\automation_agent.swc;  
flex_builder install directory\Flex SDK 2\frameworks\libs\automation_charts.swc;  
functional_tester directory\FunctionalTester\bin\rft.swc" Test.mxml
```

For example,

```
"C:\Program Files\Adobe\Flex Builder 2\Flex SDK 2\bin\mxm1c" -include-libraries+=
"C:\Program Files\Adobe\Flex Builder 2\Flex SDK 2\frameworks\libs\automation.swc;
C:\Program Files\Adobe\Flex Automation\frameworks\libs\automation_agent.swc;
C:\Program Files\Adobe\Flex Builder 2\Flex SDK 2\frameworks\libs\automation_charts.swc;
C:\Program Files\IBM\SDP70\FunctionalTester\bin\rft.swc" Test.mxml
```

3. Press Enter.

The Test.mxml file is compiled to generate the Test.swf.

An alternate way to compile the Flex application is using batch file: The above command is also available as a batch file **buildapplicationwithadaptor.bat** with Rational Functional Tester installed. The batch file is available in *Functional tester install directory*/Functional Tester/Flex directory. The default location on Windows is C:/Program Files/IBM/SDP70/FunctionalTester/Flex. You can get the batch file from the computer where Rational Functional Tester is installed. Provide the filename of the flex application source code filename as the parameter to the batch file.

```
buildapplicationwithadaptor.bat Test.mxml
```

Note: You can also enable the Flex application using Flex Builder. For more information, see the online help.

Lesson 3: Create an HTML wrapper

In this lesson, you create an HTML wrapper that embeds the Flex application-under-test with the .swf extension.

Learn more about HTML wrapper: The HTML wrapper references the SWF file. The HTML wrapper consists of an object tag and an embed tag that formats the SWF file on the page, and defines data object locations.

To create an HTML wrapper:

1. Open any text editor.
2. Type the following code.

```
<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
id="myapp" width="100%" height="100%"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab">
  <param name="movie" value="Test.swf" />
  <param name="quality" value="high" />
  <param name="bgcolor" value="#CCCCCC" />
  <param name="allowScriptAccess" value="sameDomain" />
  <embed src="Test.swf" quality="high" bgcolor="#CCCCCC
width="1000" height="500" name="myapp" align="middle"
play="true"
loop="false"
quality="high"
allowScriptAccess="sameDomain"
type="application/x-shockwave-flash"
pluginspage="http://www.macromedia.com/go/getflashplayer">
  </embed>
</object>
```

3. Save the file as *Test.html*.

Pass the Test.html to the tester to test the HTML page that contains the embedded Test.swf using Functional Tester.

Module 2: Test the Flex application

In this module, you learn how to test the functionality of the enabled Flex application that is provided by the developer.

This module is intended for testers and describes the steps for testing the enabled Flex application using Functional Tester.

Learning objectives

After you complete the lessons in this module you will understand how to do the following tasks:

- Set up the testing environment
- Test the enabled Flex application from a local test computer

Time required

This module takes approximately 15 minutes to complete.

Prerequisites

Before you begin, verify that the following software is installed:

- Rational Functional Tester 7.0.1 or later
- Microsoft Internet Explorer 6.0 or later
- Adobe Flash Player ActiveX control version 9.0.28.0 or later

Lesson 1: Assign trust designations

In this lesson, you assign trust designations to enable the file to be trusted.

To test the application from a local test computer, the application-under-test has to be a trusted application. The paths to individual files or directories can be assigned trust designations. This renders that all the files in each selected directory and any of its subdirectories are trusted.

To assign trust designations:

1. Create a folder named FlashPlayerTrust in C:\WINDOWS\system32\Macromed\Flash.
2. Create a file named Flex without any file extension.
3. Enter the path of the Flex application in the Flex file.
4. Save the file.

Lesson 2: Test enabled Flex application from a local test computer

In this lesson, you test the functionality of the enabled Flex application that is embedded in an HTML wrapper on a local computer.

To test the enabled Flex application on a local computer:

1. Get the HTML wrapper from the developer.
2. Open the HTML page in a Web browser.
3. Start Functional Tester for testing the HTML application that contains the embedded Flex application.

Note: You can also test the enabled Flex application that are deployed on a Web server. For more information, see the online help.

Summary: Test Adobe Flex application

This tutorial has shown you how to enable a Flex application for functional testing, and test the enabled Flex application using Functional Tester.

Lessons learned

By completing this tutorial, you learned how to perform the following tasks:

- Identify the roles played by the Flex Application developer and tester for successful automation of Flex applications
- Set up the development and testing environment
- Enable the Flex application for testing by compiling the Flex application with functional testing agent and Flex automation framework libraries.
- Create an HTML wrapper
- Test the enabled Flex application from a local test computer

Additional resources

If you want to learn more about the topics that are covered in this tutorial, consult the following resources:

- Functional Tester Help
- Functional Tester Welcome Page

Related information



ibm.com



eclipse.org