



IBM Software Group | Rational software

# IBM Rational Performance Tester

## Recording an HTTP test

Rational software



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This module covers “Recording an HTTP Test” for IBM Rational Performance Tester versions 8.0 and higher.

## Topics

- Overview of Rational Performance Tester (RPT)
- Supported environments
- How to prepare the test environment
- How to create a new performance test from recording
- How to create a new schedule and add a test to the schedule
- How to run the performance schedule
- How to view the test logs and reports



This presentation covers seven topics. It gives an overview of Rational Performance Tester and outlines the supported environments. It provides you with information on how to prepare the test environment, how to record a performance test, how to create a new schedule and add a test to the schedule. Finally, it takes you through the steps on how to run the performance schedule and how to view the test logs and reports. When you complete this module, you will know how to successfully record and run a Rational Performance Tester HTTP Test.

## Overview of Rational Performance Tester

- Identifies the presence and cause of application performance bottlenecks
- Creates code free tests quickly without programming knowledge
- Accurately emulates large population user transactions with minimal hardware
- Runs large scale performance tests to validate application scalability



Rational Performance Tester is a performance testing tool used to identify the presence and cause of system performance bottlenecks. The IBM Rational performance testing portfolio of tools will help you quickly create script less tests with no programming knowledge. Rational Performance Tester also helps you accurately emulate large population user transactions with minimal hardware and run large scale performance tests to validate application scalability.

## Supported environments

- Red Hat Desktop Version 4.0 Update 1-5 (running in 32-bit mode)
- Red Hat Enterprise Version 4.0 Update 1-2 (running in 32-bit mode)
- SuSE Linux® Enterprise Server Version 9.0 SP1 - SP4
- SuSE Linux Enterprise Desktop/ Enterprise Server Version 10.0
- Microsoft® Windows® 2000 Professional with Service Pack 3 or 4
- Microsoft Windows Server® 2003 Enterprise/Standard Edition with Service Pack 1
- Microsoft Windows XP with Service Pack 1 or 2
- Microsoft Windows Vista®



This slide covers the system requirements for Rational Performance Tester V8.0.

## How to prepare the test environment

- Launch Rational Performance Tester
- Create a new workspace
- Create a new test from recording
- Create a new performance schedule



Preparing the test environment will cover four topics. Launching Rational Performance Tester from the Windows Start menu, creating a new workspace for your Rational Performance Tester projects, creating a new performance test from a recording and creating a new performance schedule.

## How to prepare the test environment

### Launch Rational Performance Tester from Start menu

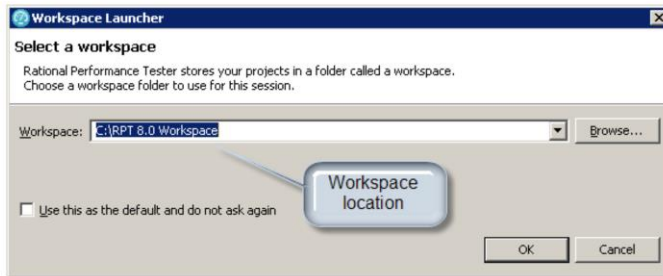


Launch Rational Performance Tester

If you accepted the defaults during the installation, Rational Performance Tester V8.0 is located in the IBM Software Delivery Platform group in the Windows->Start menu. To launch Rational Performance Tester, go to **Start -> All Programs -> Software Development Platform -> IBM Rational Performance Tester – Full Eclipse**. Note that in Rational Performance Tester V8.0, there are two options to launch Rational Performance Tester. The first option is **IBM Rational Performance Tester** and the second option is **IBM Rational Performance Tester – Full Eclipse**. To fully take advantage of Rational Performance Tester and the Eclipse features, the Full Eclipse option is recommended.

## How to prepare the test environment (continued)

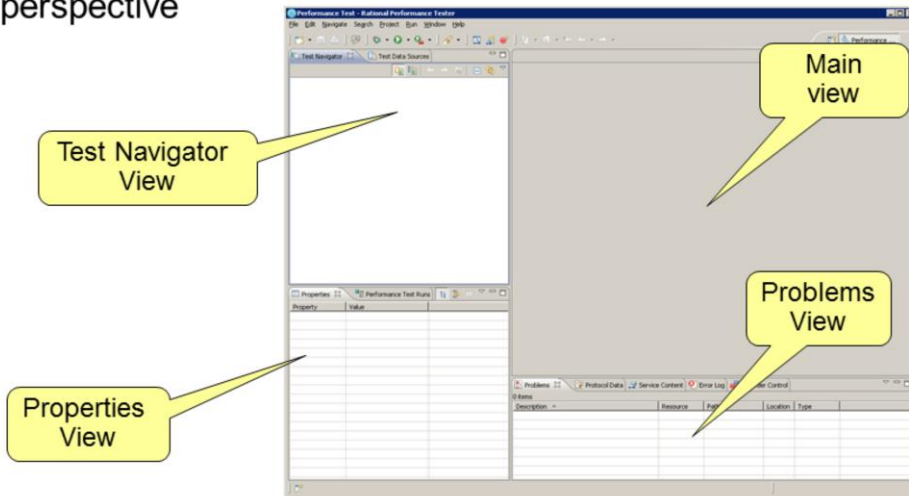
### *Select a workspace*



The first time you launch Rational Performance Tester, you are prompted to create a new workspace. By default, the location is set to the folder located in the user's profile. You have an option to change this to another location by clicking the Browse button. When finished, click **OK**. Note that just like all other Eclipse-based products, the Rational Performance Tester workspace should be created on your local machine. Network workspace is not supported.

## How to prepare the test environment (continued)

- Rational Performance Tester Workbench and default perspective

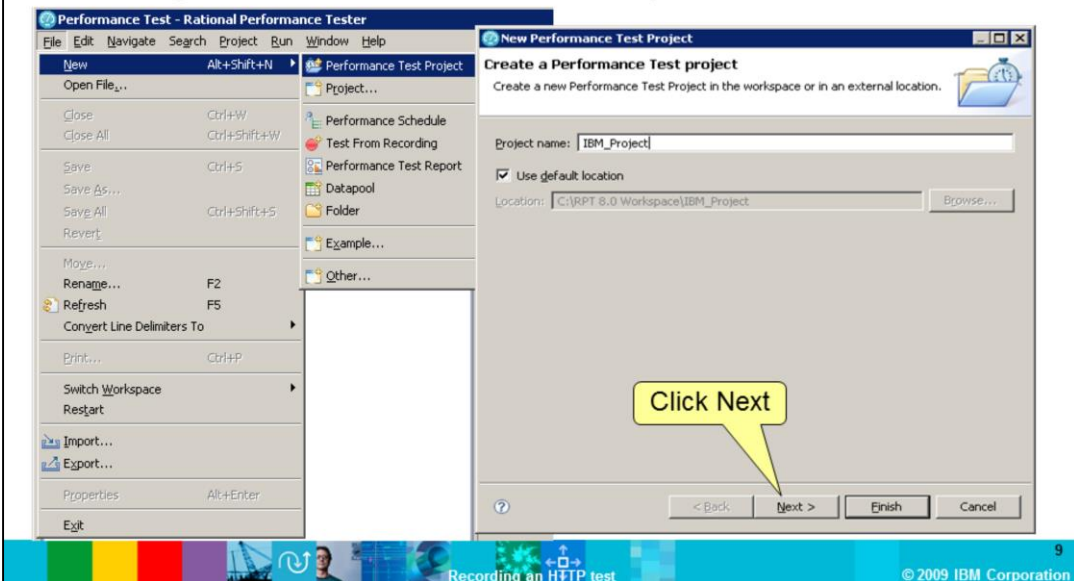


After creating a new workspace, the Rational Performance Tester workbench is displayed with the Rational Performance Tester perspective. The Performance Tester perspective is a collection of views. By default, the Test Navigator view is located in the upper left of the workbench. The Test Navigator view lists the Projects, Tests, Schedules, Datapools and Results. The Main view shows the selected Test, Schedule or Result. For example, when you double-click the test in the Test Navigator view, the test opens in the Main view. This is the default perspective of Rational Performance Tester. You can customize the Rational Performance Tester perspective to display the views that you want to access quickly or to hide the views that you do not need.



## How to prepare the test environment (continued)

### Creating a new Performance Test Project

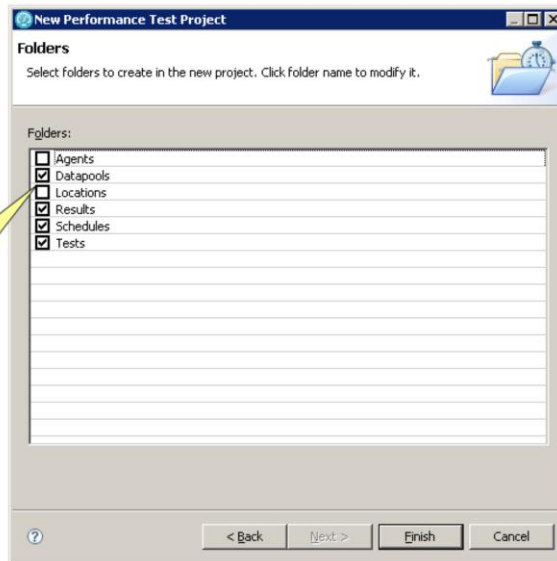


Before creating a performance test or schedule, a performance test project must be created. To create a new Rational Performance Tester project from the File menu, select **New -> Performance Test Project**. A **New Performance Test Project** window will appear. In the Project name field, type the name of the new project. Project names cannot contain certain special characters like back or forward slashes, open or closed brackets, asterisks, colons, or question marks. If the 'Use default location' is checked, the project is created inside the workspace. The workspace and the project can be in different locations. When complete, click **Next**.

## How to prepare the test environment (continued)

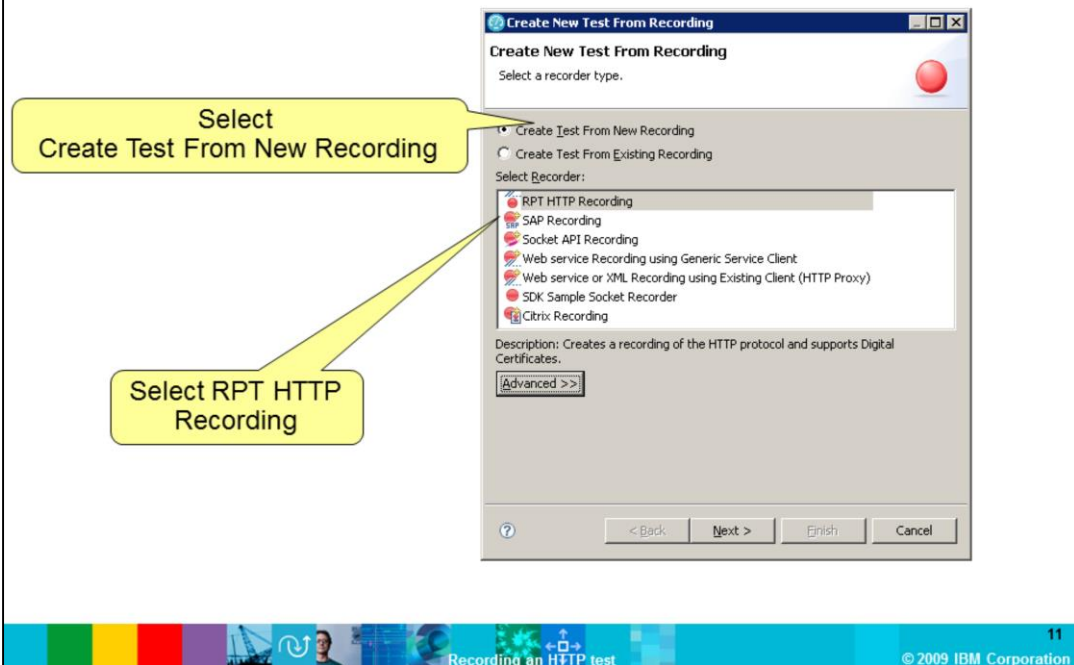
### Creating a new Performance Test Project

Select folders to  
create in the new project



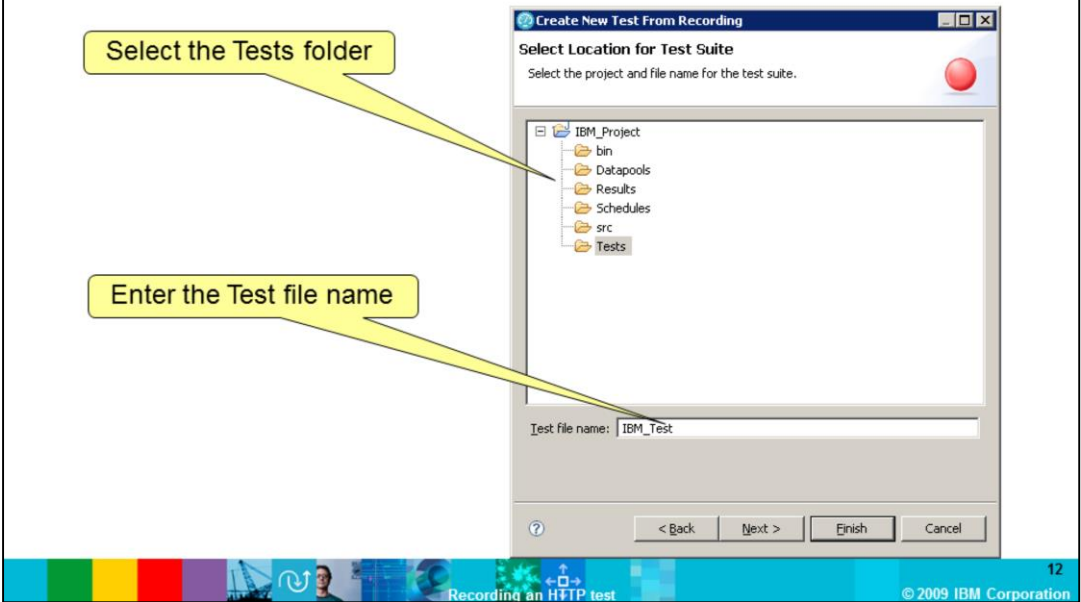
Your test assets such as Agents, Datapools, Results, Schedules and Tests can be organized in folders within the project. On this screen, you have the option to create folders for organizing your test assets. Select the folders you want to create in the new project. You can modify the folder name by clicking on it. When complete, click **Finish**.

## How to create a new test from recording



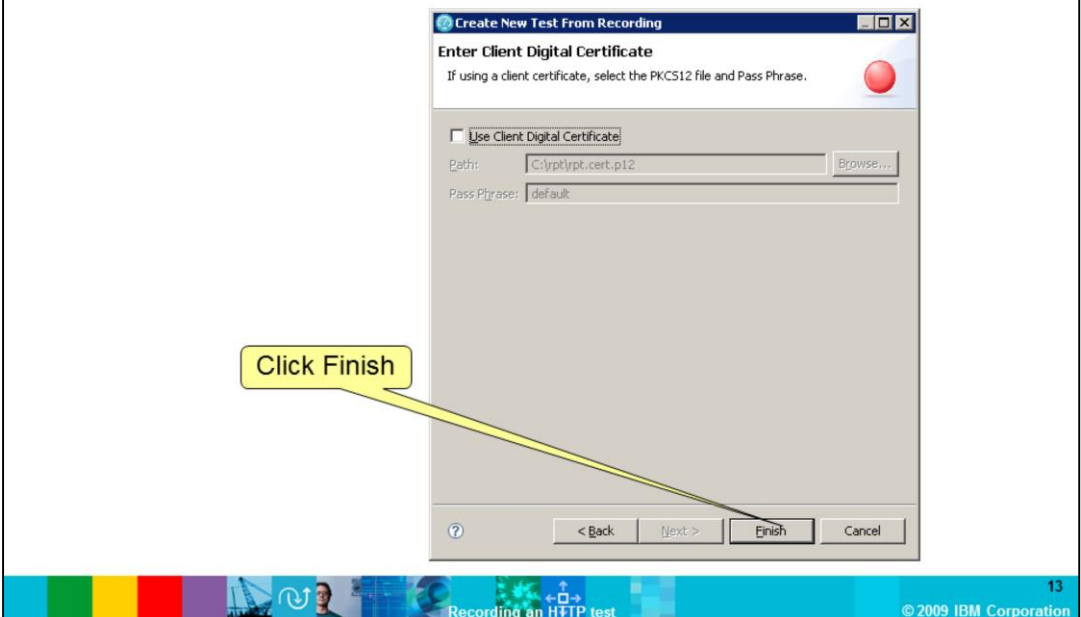
After the new project is created, the “Create New Test From Recording” wizard is started. A window labeled “Create New Test From Recording” will appear. From this window, you can select the type of recording you want. For a new HTTP recording, select the ‘Create Test From New Recording’ radio button and ‘RPT HTTP Recording’ from the list of recorders and click **Next**. Note that you can also get to the “Create New Test From Recording” wizard from the Rational Performance Tester File menu by clicking **File -> New -> Test from Recording**.

## How to create a new test from recording (continued)



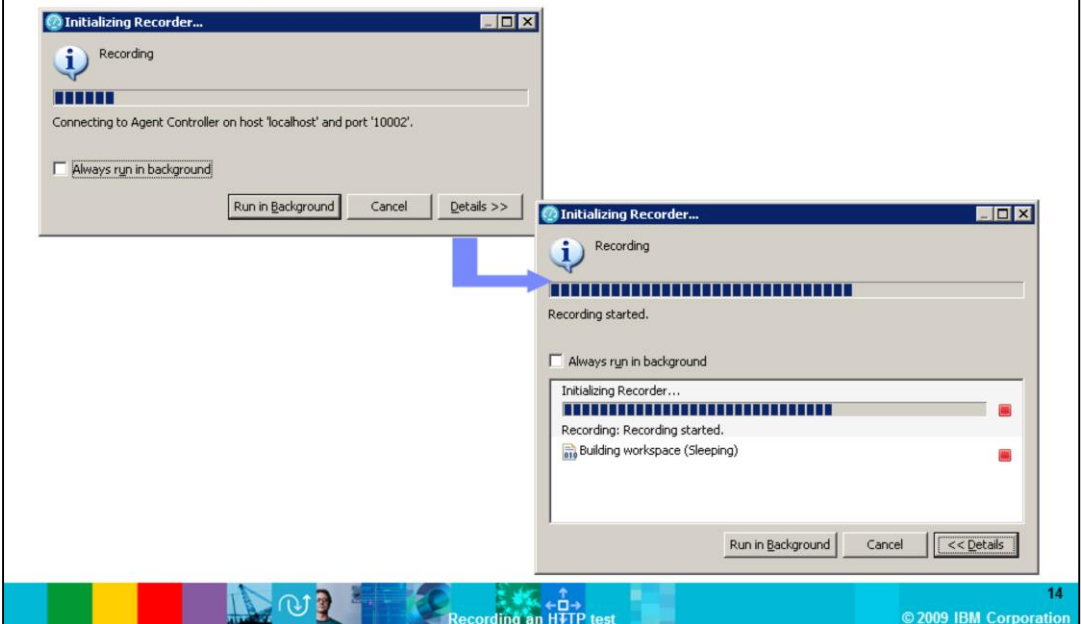
The “Select location for Test Suite” window will appear. From this window, you can select the location where you want to create your tests. Select the ‘Tests’ folder from the list, enter the test file name then click **Next**.

## How to create a new test from recording (continued)



On this window, you can specify Client Digital Certificate if needed. Rational Performance Tester supports the use of Digital Certificates. If Client Digital Certificate is being used, select the 'Use Client Digital Certificate' check box, browse to the location of the PKCS12 file and enter the pass Phrase. For this exercise, you will not use the Client Digital Certificate option. Click **Finish** to start the recording.

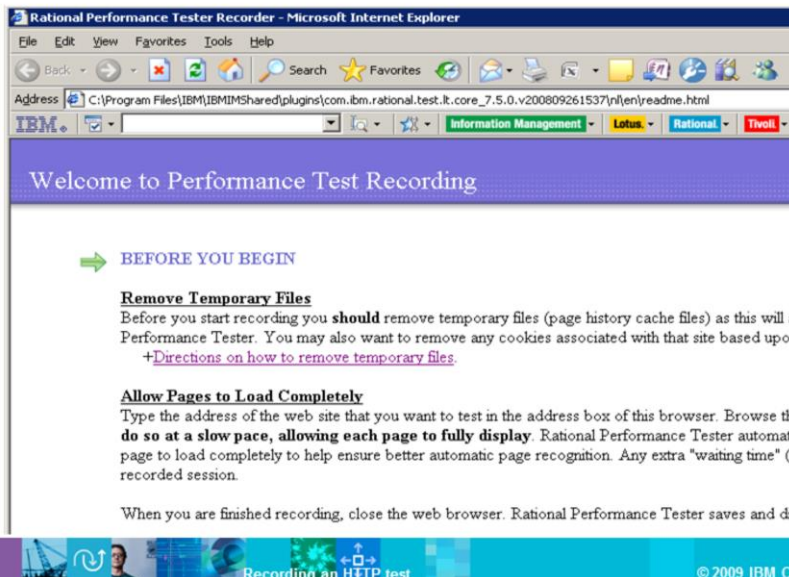
## How to create a new test from recording (continued)



The Initializing Recorder window will come up. You can expand this window to see the details by clicking the 'Details' button.

## How to create a new test from recording (continued)

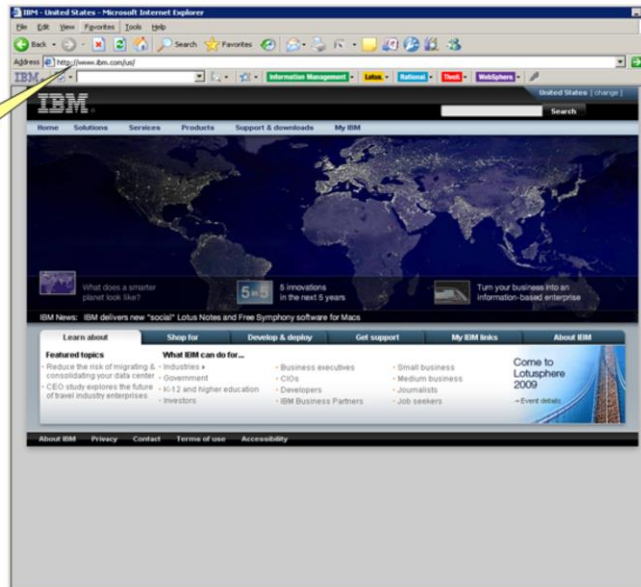
### Clear Browser cache



It is recommended to remove page history cache files for better automatic page identification by Rational Performance Tester. You should also remove cookies associated with the application. Follow the instructions on this page to do so. It is also important to wait for the pages to load completely to ensure better automatic page recognition. Any extra waiting time is removed during playback for the recorded session.

## How to create a new test from recording (continued)

Enter www.ibm.com  
Into the Address bar



Recording an HTTP test

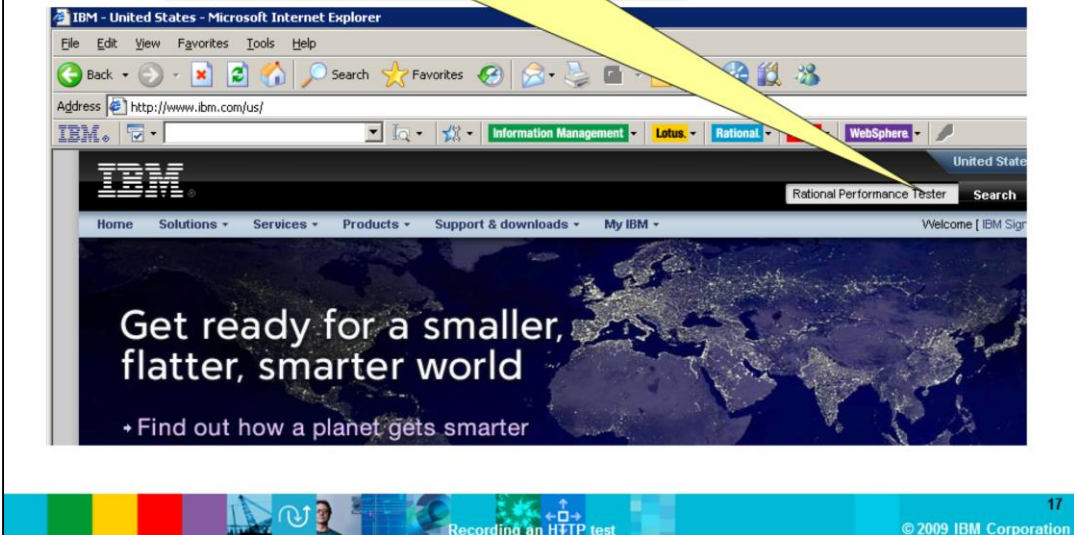
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When complete, enter the URL of the application into the address bar of the browser and hit Enter. For this exercise, you will record a test against the **www.ibm.com** Web page.



## How to create a new test from recording (continued)

Type 'Rational Performance Tester'  
Into the Search field



Type 'Rational Performance Tester' into the Search field then click the 'Search' button. Behind the scenes, Rational Performance Tester captures the HTTP requests that the browser sends to the IBM Web site and the responses that the Web server sends back by routing the traffic to port 1080.

## How to create a new test from recording (continued)

Close the browser to Stop the recording

IBM Search Results: Rational Performance Tester - Microsoft Internet Explorer

Address <http://www.ibm.com/Search/?q=Rational+Performance+Tester&w=16&en=us&lang=en&cc=us&Search=>Search>

Search results

Search: Rational Performance Tester

Additional searches

- Documentation
- Technical support
- Downloads & drivers

1 - 10 of 4,304 results | Next >

1. IBM developerWorks : Rational Performance Tester  
Find technical content and resources for **Rational Performance Tester**.  
URL: [http://www.ibm.com/developerworks/rational/products/...](http://www.ibm.com/developerworks/rational/products/)
2. Trial download: Rational Performance Tester V6.1  
Download your free trial and access support resources here. Use **Rational Performance Tester** to complete load and performance

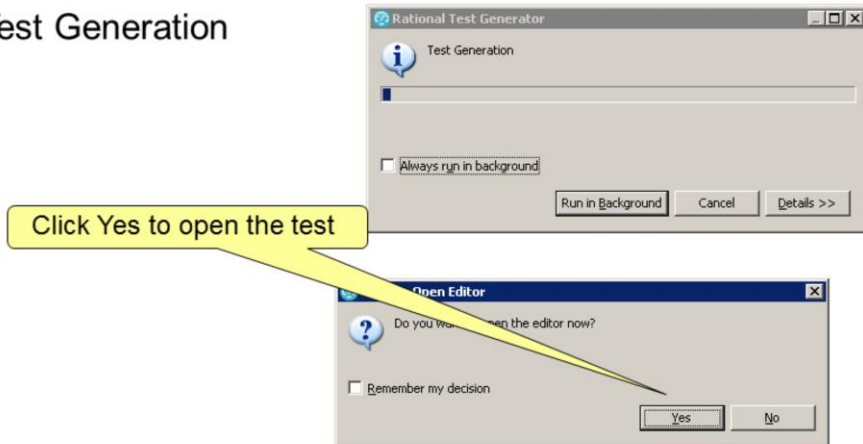
Recording an HTTP test

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After the Search results page is completely loaded, stop the recording by closing the browser.

## How to create a new test from recording (continued)

### Test Generation



After closing the browser, the recording is stopped and Rational Performance Tester will generate the test from the recording. When the test generation is complete, the Confirm Open Editor will come up. If you select 'Remember my decision' then click 'Yes', Rational Performance Tester will open the test in the editor and will remember your decision for the next time.

## How to create a new test from recording (continued)

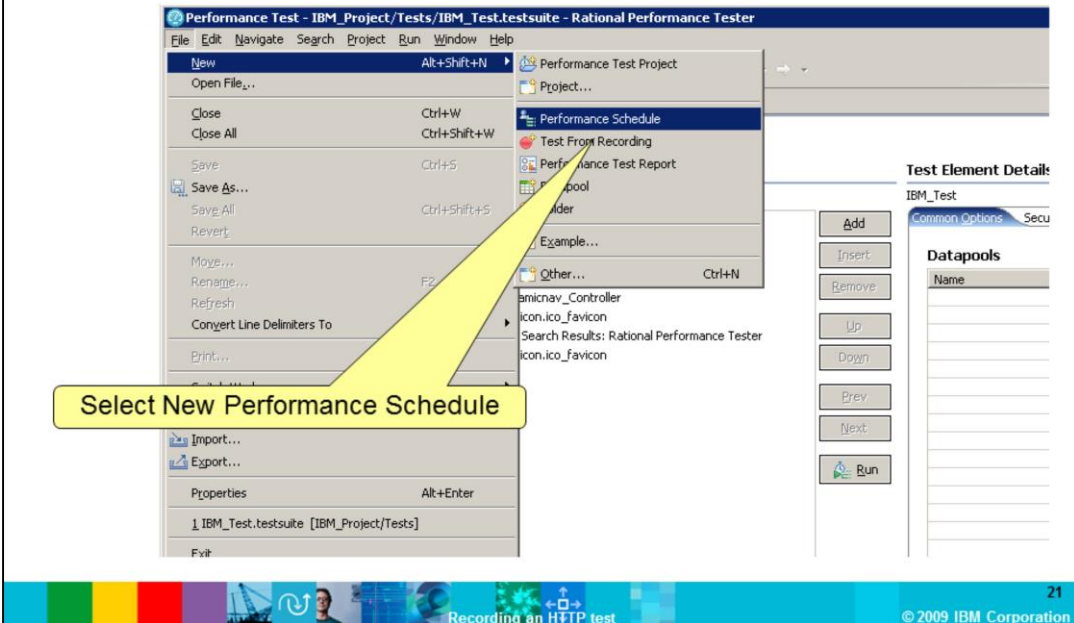
The screenshot displays the Rational Performance Tester interface. The main window is titled 'Test - IBM\_Test'. On the left, a tree view shows the test structure under 'IBM\_Test', including 'Test Variables', 'IBM - Linked States', and several 'falcon.ko\_favicon' elements. The 'Test Contents' pane shows a list of these elements. The 'Test Element Details' pane on the right shows the 'Datapools' section with a table for adding new datapools. The 'Recorder Control' pane at the bottom shows the test generation process completed, with 'Recorder Status' set to 'Stopped' and 'Kbytes Recorded' at 756. A yellow callout box points to the test name in the tree view.

The test is displayed In Rational Performance Tester editor

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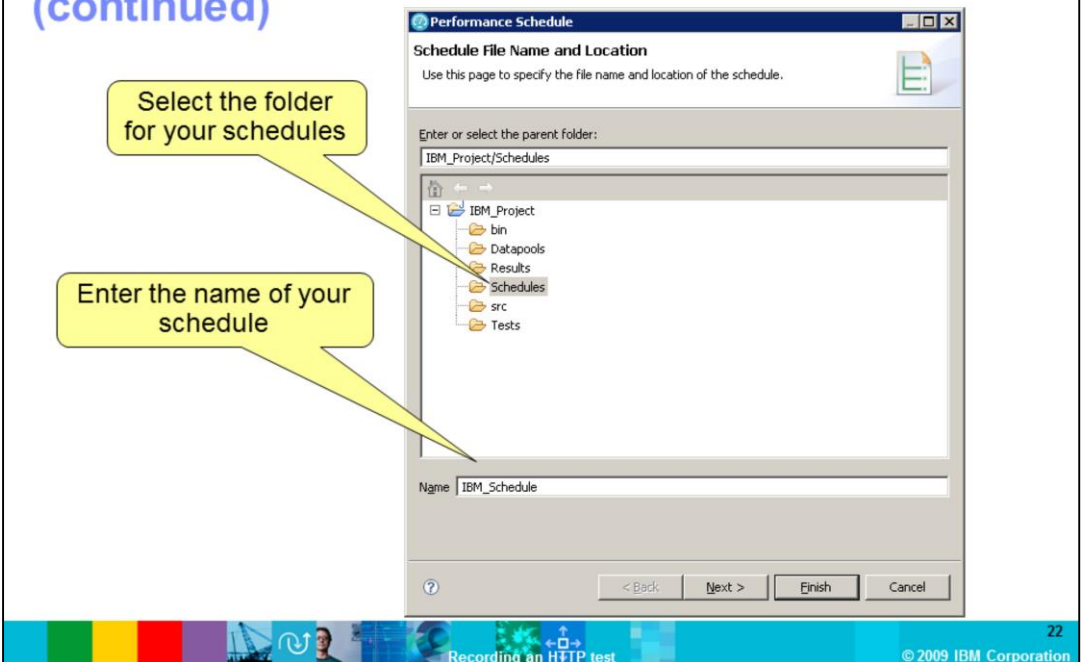
When the Test generation is completed, the test is displayed in the Rational Performance Tester editor. You can edit the test in the editor by selecting the page you want to edit and then select the appropriate buttons in the editor such as Add, Insert, Rename and so on. For this exercise, leave the test as-is.

## How to create a new performance schedule



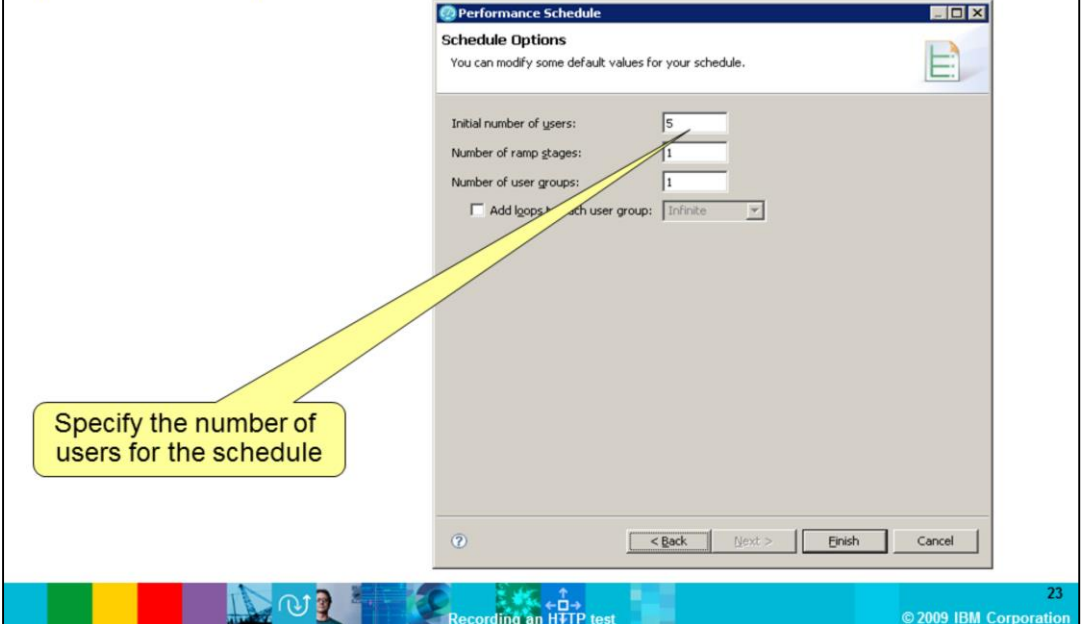
You can run the Rational Performance Tester test by right-clicking the test and choosing **Run as Test**. However, running as a test, you can only run as one virtual user and the logging level cannot be modified. In order to run the Performance Tests with multiple virtual users, a Performance Schedule is needed. To create a new performance schedule, go to the File menu and choose **File -> New -> Performance Schedule**.

## How to create a new performance schedule (continued)



The "Performance Schedule" creation wizard will start. You can specify which folder you want to create your schedules in. Select the Schedules folder under your project, enter the name of the schedule and then click **Next**.

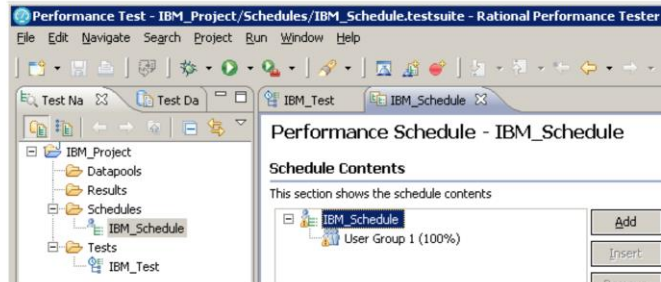
## How to create a new performance schedule (continued)



The next window in the wizard is the Schedule Options window. From this window, you can specify the number of users, number of ramp stages and number of groups for the schedule. Click Finish to create the new schedule. These options can also be modified after the schedule is created.

## How to create a new performance schedule (continued)

A Performance schedule is created with a User Group

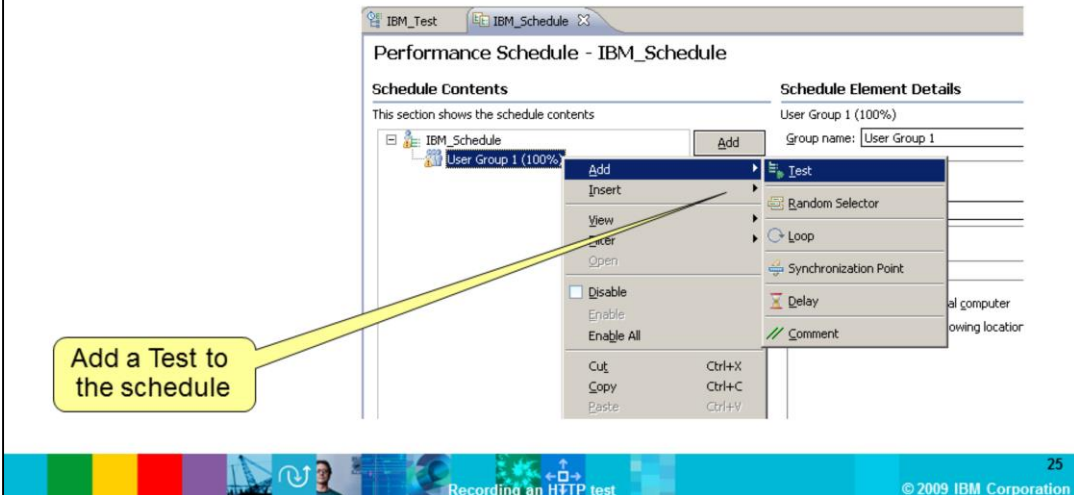


After the wizard is completed, the new schedule is displayed in the editor window with one User Group as you specify in the schedule options. You can add more user groups from the editor window if needed.



## How to add a test to the performance schedule

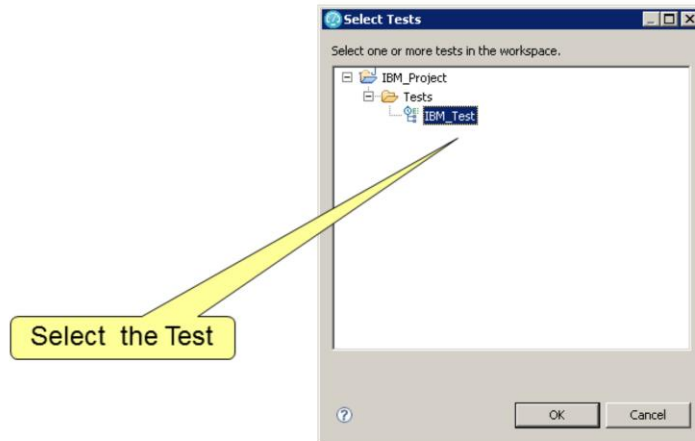
Right-click **User Group 1** -> **Add** -> **Test**



At this point, you do not have any tests in your schedule. You will need to add the test that you created earlier into User Group 1 that you have in your schedule. To add a Test to your schedule, right-click **User Group 1** -> **Add** -> **Test**.

## How to add a test to the performance schedule (continued)

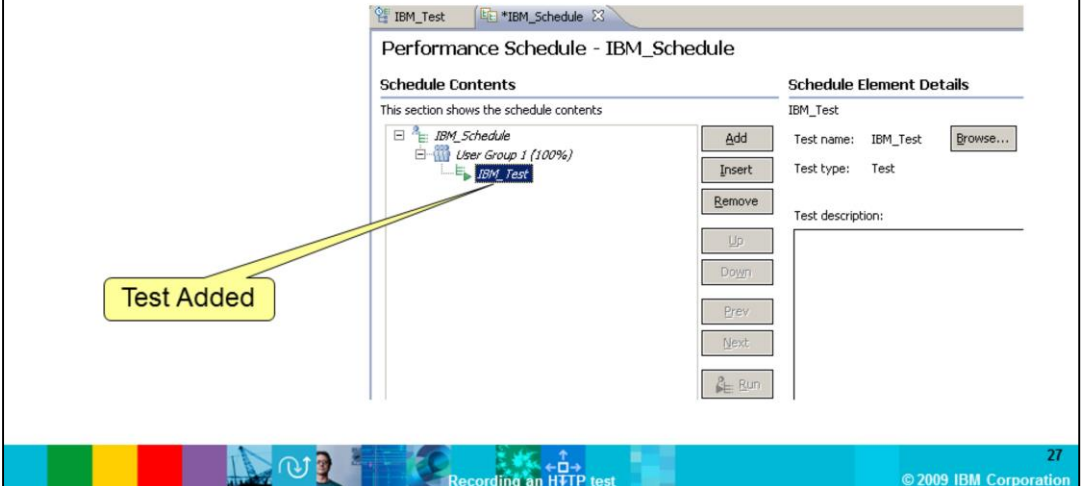
Select the Test to add to the schedule



The Select Tests window will come up. Select the test that you want to add to the schedule then click **OK**.

## How to add a test to the performance schedule (continued)

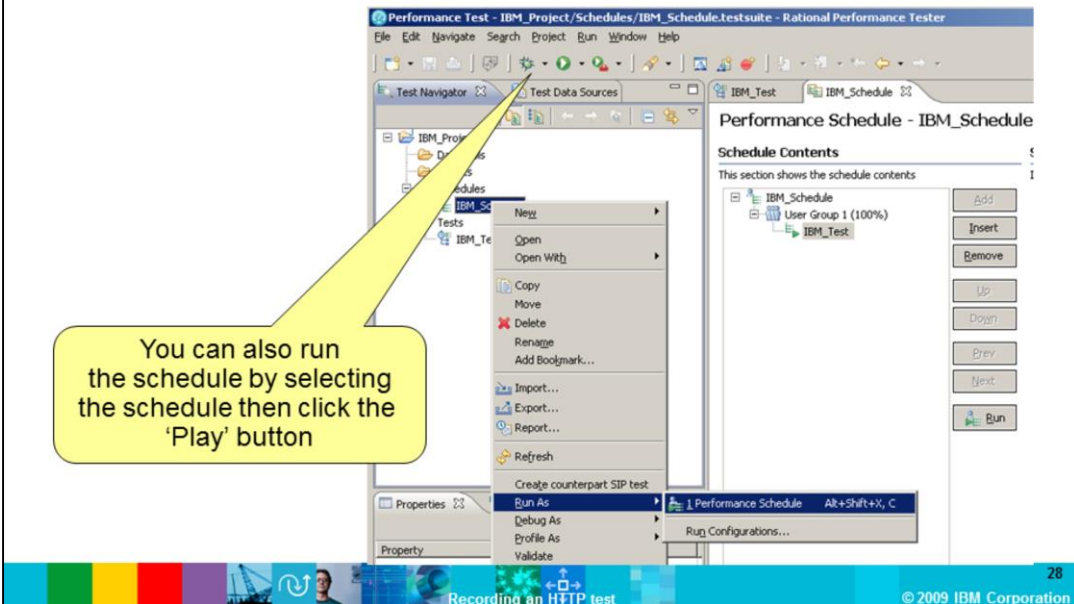
The Test is added to the schedule



The schedule will open with the added test. Note that the added test is in italic and the asterisk in front of the schedule name indicates that the schedule has not been saved. You need to save the schedule before running it. To save the schedule, click the Save button on the menu or click **File ->Save**.

## How to run the performance schedule

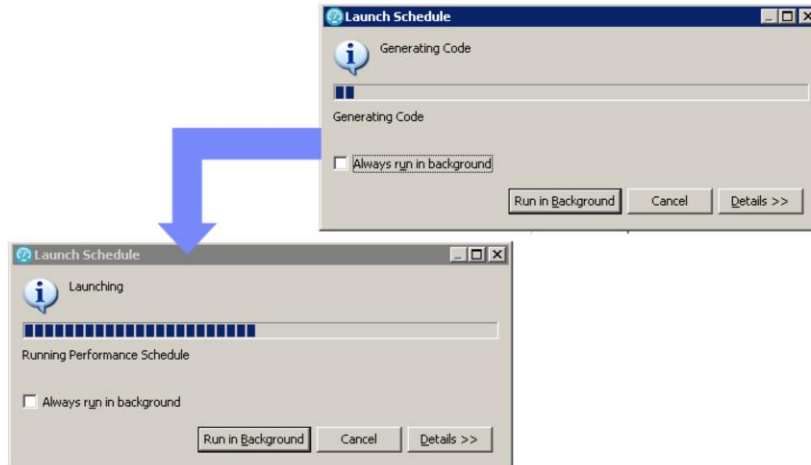
Right-click the schedule -> **Run As -> Performance Schedule**



After saving the schedule, you can run the schedule by right-clicking the schedule and choosing **Run As -> Performance Schedule**. You can also run the schedule by selecting the schedule and then clicking the 'Play' button on the menu.

## How to run the performance schedule (continued)

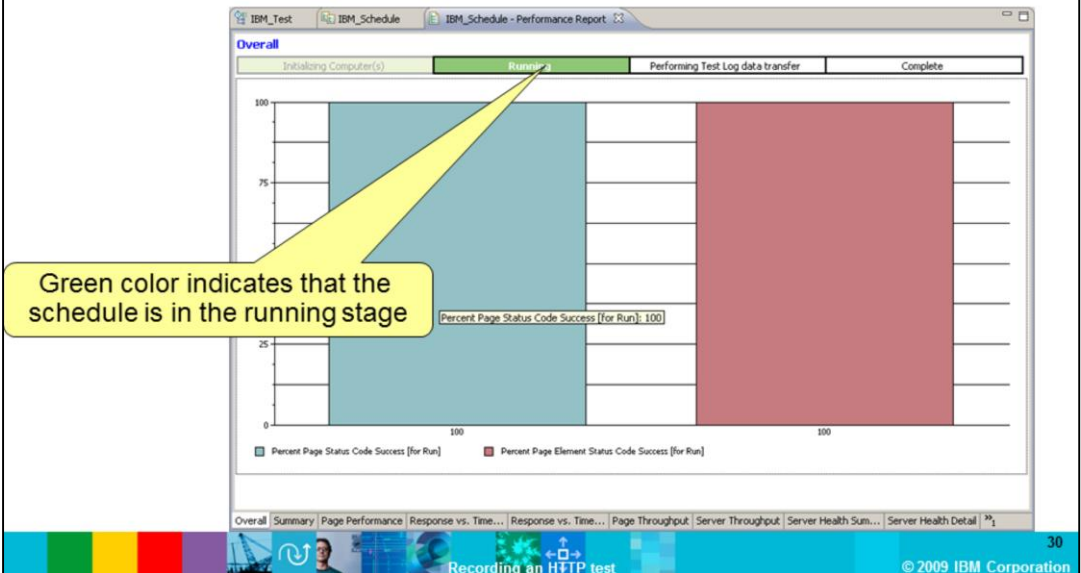
### Launch schedule



The schedule is run by first generating code and then running the Performance Schedule. You can click the 'Run in Background' button to have the schedule running in the background and continue performing other tasks in Rational Performance Tester.

## How to run the performance schedule (continued)

The statistical data being display during playback



During playback, the statistical data is displayed in the performance report. You can also monitor the page performance, page throughput and so on during playback. The green bar above the graph indicates which stage the execution is in. In the screen capture, Rational Performance Tester is in the “Running” stage.

## How to view test logs and reports

Performance Test - IBM\_Schedule - Performance Report - Rational Performance Tester

Overall

Summary

Response versus. Time

Server Throughput

Page Performance

Page Throughput

Performance Test Runs

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When the schedule execution is completed, the Performance Test Run is generated. You can view the available reports (Summary, Response versus Time, Page Performance and so on) by selecting the appropriate tabs.

## How to view test logs and reports (continued)

The screenshot displays the IBM Rational Performance Tester interface. The 'Test Navigator' on the left shows a tree view with 'IBM\_Schedule [Janus]' selected. A context menu is open over this item, with 'Display Test Log' highlighted. A yellow callout box with a pointer indicates this option. The main window shows a 'Response vs. Time Summary' graph and a 'Performance Summary' table.

Performance Summary	
Response Time For All Pages (for Run)	2,345.5
Time Standard Deviation (for Run)	3,331.3

At the bottom of the interface, there is a status bar with the text 'Recording an HTTP test' and a copyright notice '© 2009 IBM Corporation'.

Beside the Reports, you can display the test log to view the detailed events, verdicts and verification points results of the test run. To display the test log, right-click the Performance Test Run Results and choose **Display Test Log**.



# How to view test logs and reports (continued)

## Test Log

The screenshot displays the 'Test Log' window in a web browser. The window has several tabs at the top: 'IBM\_Test', 'IBM\_Schedule', 'IBM\_Schedule - Performance Report', and 'IBM\_Schedule'. The main content area is divided into four sections:

- General Information:** Contains fields for Name (IBM\_Schedule), Description, and File (/IBM\_Project/IBM\_Schedule.executiondir).
- Common Properties:** Contains fields for Verdict (pass), Start (Jan 11, 2009 10:06:03 PM ET), Stop (Jan 11, 2009 10:07:09 PM ET), and Type (Performance Schedule).
- Verdict Summary:** Includes a pie chart showing 100.0% pass and a legend with a green square labeled 'pass'.
- Verdict List:** Lists the first 20 verdicts, all of which are 'IBM\_Test PASS verdict roll-up' for various user groups.

A yellow callout bubble with a black border points to the 'Events' tab at the bottom of the window, containing the text: 'Click the Events tab to display the detailed events'. The bottom of the browser window shows a blue bar with the text 'Recording an HTTP test' and '© 2009 IBM Corporation'.

The test log is displayed with Verdict Summary, Verdict Lists and so on. To view the detailed events, click the Events tab from the test log view.

## How to view test logs and reports (continued)

The screenshot displays the IBM Rational Test Log application. The main window is titled "Test Log" and shows a tree view of test events. A yellow callout box points to the tree view with the text: "Expand each user to view the individual pages". The tree view shows a hierarchy starting with "IBM\_Schedule", followed by "User Group 1", and then "IBM\_Test". Under "IBM\_Test", there are several sub-items including "test execution", "IBM\_Test", and "IBM - United States". The "Properties" panel on the right shows details for the selected item, including "Type", "start", "Time", and "Text". The "Defects" panel has buttons for "Add...", "Submit...", and "Search...". The "Extended Properties" panel shows a table with columns "Name" and "Value".

Name	Value
TestLog filter ALL	40 (PRIMARY_T...
TestLog filter W...	100 (ALL)

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On the Events tab, you can expand each user to view the individual pages that each user requested and the corresponding responses from the server.

## Summary

### Topics covered in this module

- How to create a new workspace
- How to create a new test from recording
- How to create a new performance schedule
- How to run the performance schedule
- How to view test logs and reports



This module provided an overview of Rational Performance Tester. It covered some basic information you need to get started with Rational Performance Tester. It also provided you with steps to record a performance test, create a performance schedule, add the test to the schedule, run the schedule and view test logs and reports.

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