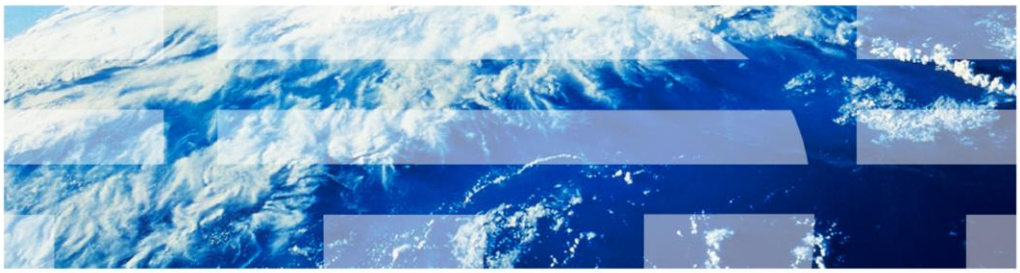
IBM

Business Process Management
IBM Integration Designer

Testing – What is new in version 7.5



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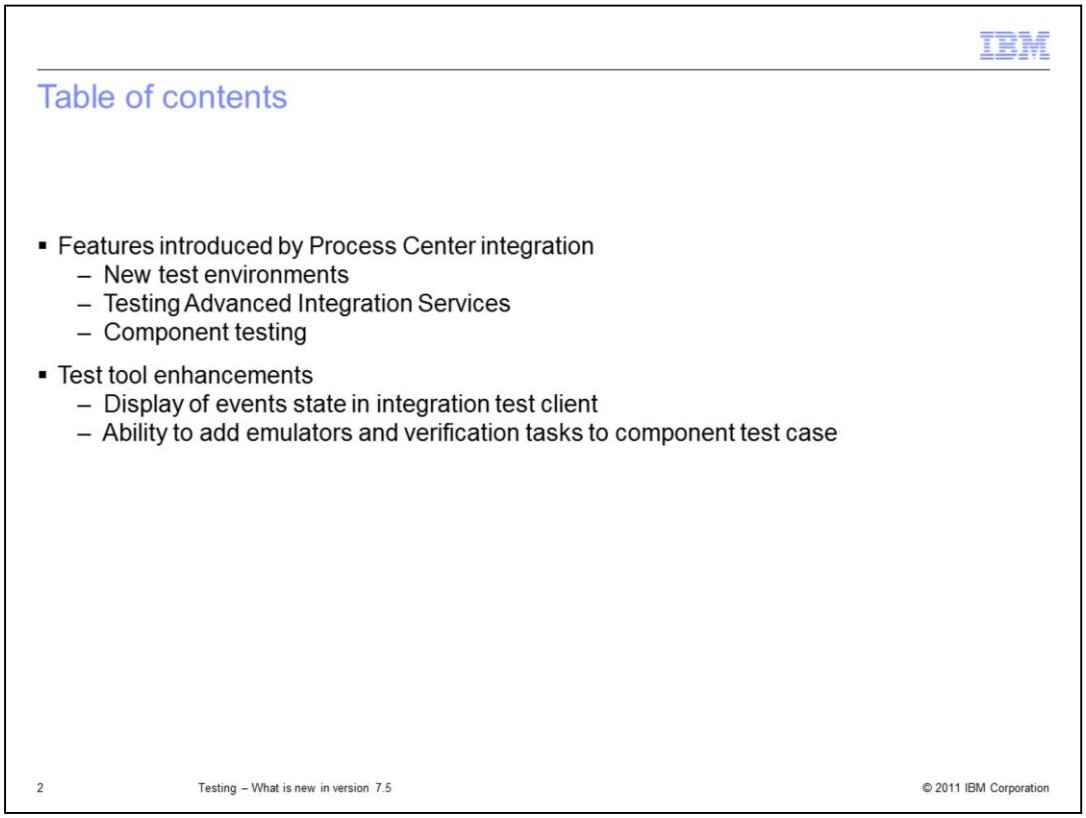
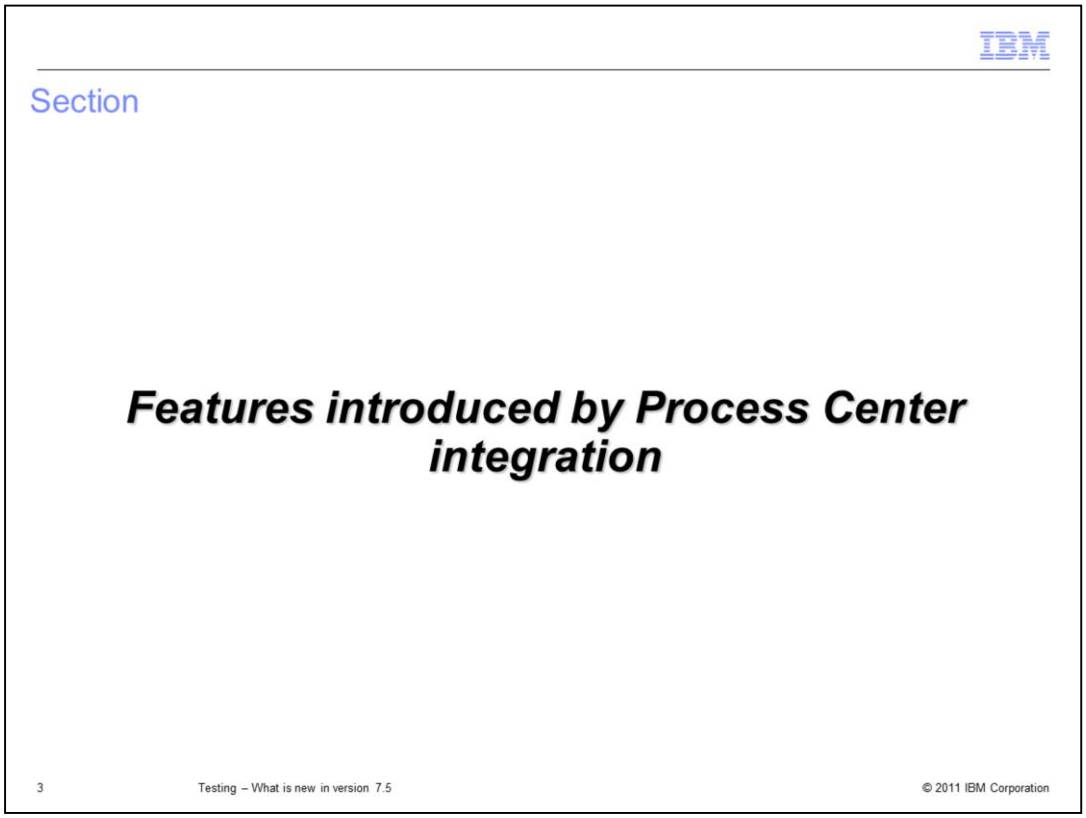
This presentation will provide an introduction to what is new in the testing support in Integration Designer version 7.5.

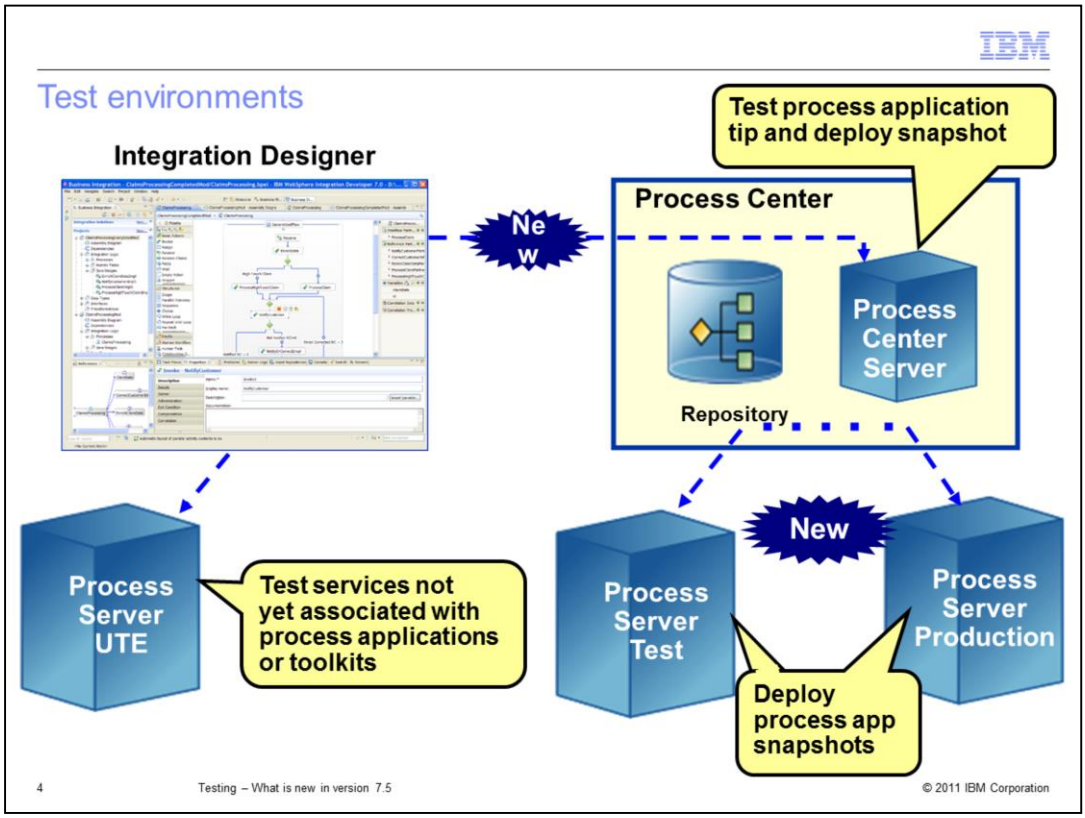


By now, you should be familiar with how IBM Integration Designer integrates with Process Center in version 7.5.

In this session, you will learn about the new features introduced in terms of testing as a result of integration with Process Center. You will also be introduced to test tool enhancements.



This section walks you through new features in Integration Designer testing that are introduced as a result of Process Center integration.



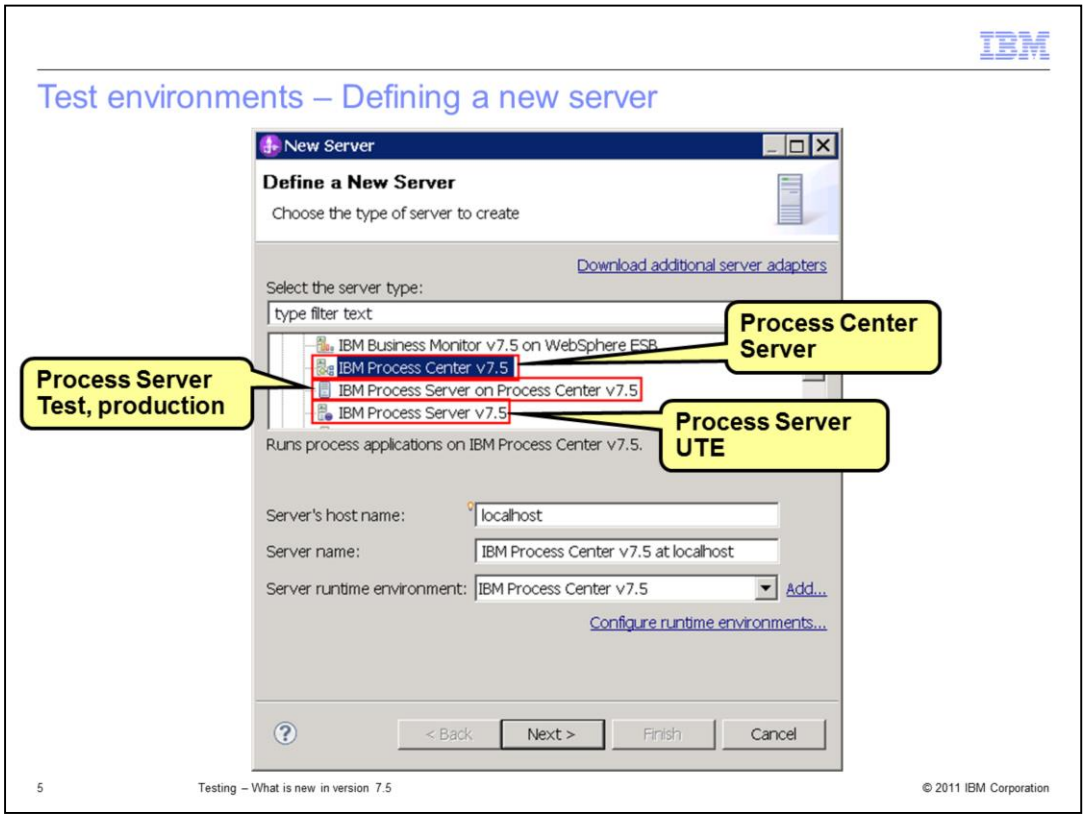
In versions before 7.5, there is only one test environment called WebSphere® Test Environment commonly referred to as WTE. WebSphere Test Environment is a single user environment typically installed on the local development machine. In version 7.5, you have two additional test environments. The new test environments are associated with Process Center and are multi-user environments. The diagram here shows all three environments.

The Process Server Unit Test Environment shown at the bottom left of the diagram is the same as WTE. It is shipped with Integration Designer and is optionally installable. This server does not have any knowledge of Process Center, Process Application or Toolkit. This is where an integration developer will typically test services developed in Integration Designer before associating them with process application or toolkit.

The top right of the diagram shows Process Center Server, also known as playback server, that the Process Center contains. The Process Center Server is a new test environment that you can use to test process apps and toolkits. This is where an integration developer will test Advanced Integration Services together with the Business Process Definitions. With Process Center Server you can test the TIP and the snapshots of process application and toolkit. You can also test Toolkits in isolation on this server.

The Process Server UTE and the Process Center Server are used for testing when you are in a development stage. Once you have finished developing, you will use a Process Server that resides outside the Process Center but is connected to and managed by the Process Center. The external Process Server is called Process Server on Process Center. It can be used as staging, test or production environment. The bottom right of the diagram shows two external Process Severs. You can deploy only process application snapshots to these environments, using the Process Center. You cannot publish process applications to these environments from the Integration Designer.

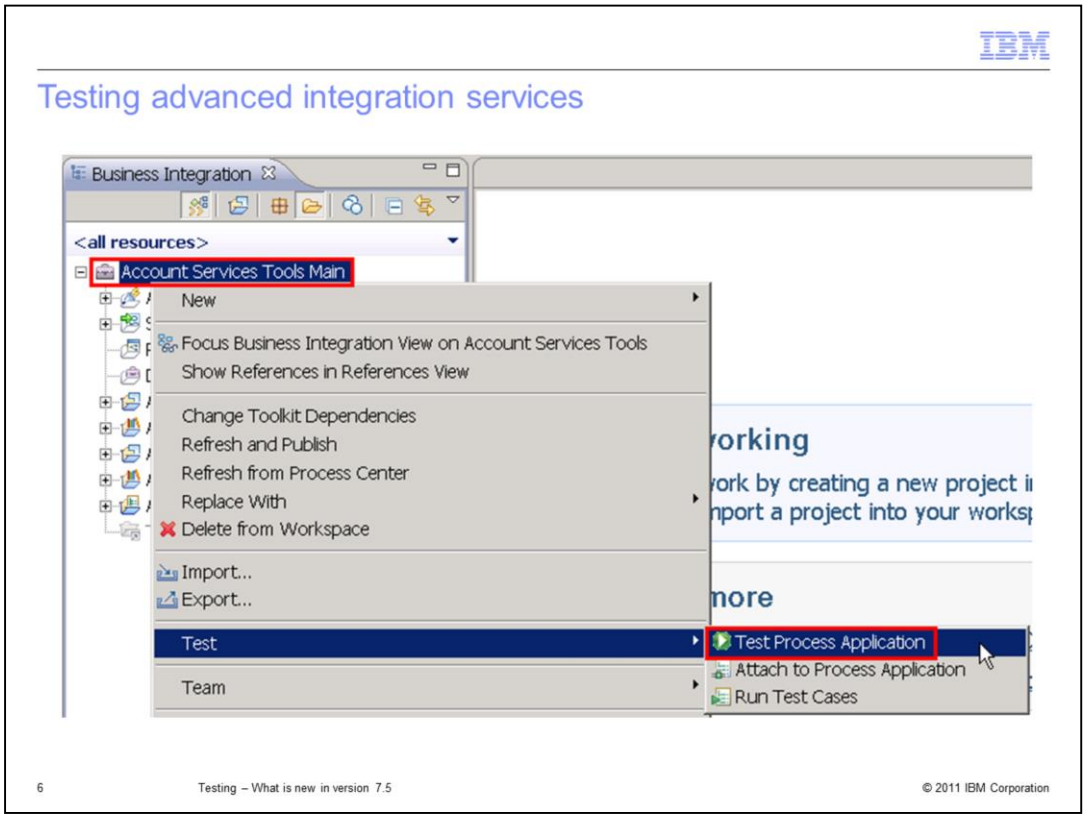
The Process Center Server and the Process Server on Process Center can run in either a Network Deployment environment or stand-alone environment.



When defining a new server to test, the New Server wizard displays the three types of environment as shown in the diagram. The IBM Process Center V7.5 is the Process Center Server that is contained in the Process Center. The IBM Process Server on Process Center v7.5 is the Process Server that is outside the Process Center but managed by the Process Center. The IBM Process Server v7.5 represents the traditional UTE.

Integration Designer, when connected to the Process Center, automatically creates and displays a Process Center server in the Servers view. If you do not see the Process Center Server corresponding to the connected Process Center in the Servers view, then you can define one using the New Server wizard. The Servers view displays process applications and toolkits that are in the workspace and are associated to the connected Process Center nested under the server. You cannot add or remove projects to or from this server. Process Apps and Toolkits that are in the Process Center are on this server. When publishing changes to modules that are associated with process application or toolkit, first the changes are sent to the Process Center repository. The modules are then deployed from the Process Center repository to Process Center Server.

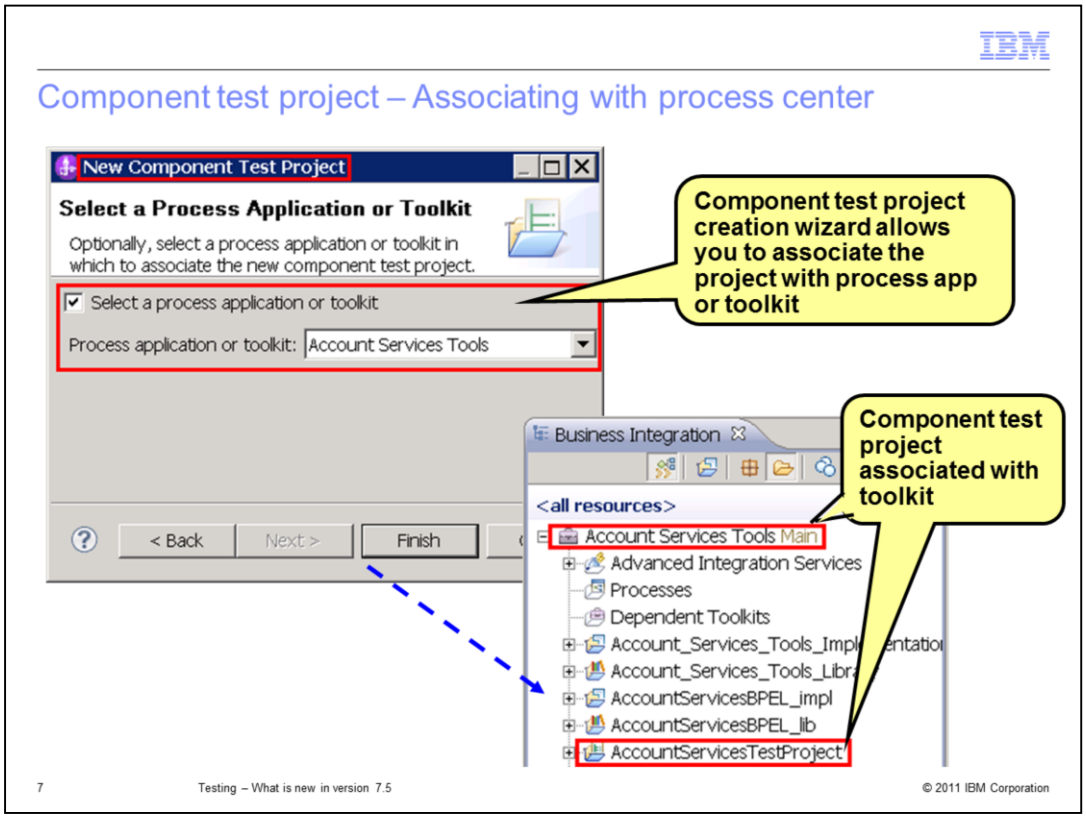
If you define a new Process Server on Process Center, the Servers view displays any process application snapshots that are deployed to the server nested under the server.



An Advanced Integration Service is tested using the module that contains its implementation. The module in this case is associated with process application or toolkit.

To test an Advanced Integration Service, right-click the process application or toolkit that contains it and select Test > Test Process Application or Test > Test Toolkit. Test Process Application and Test Toolkit are the new menu options in version 7.5. All modules that are part of the selected process application or toolkit are tested when you choose this option.

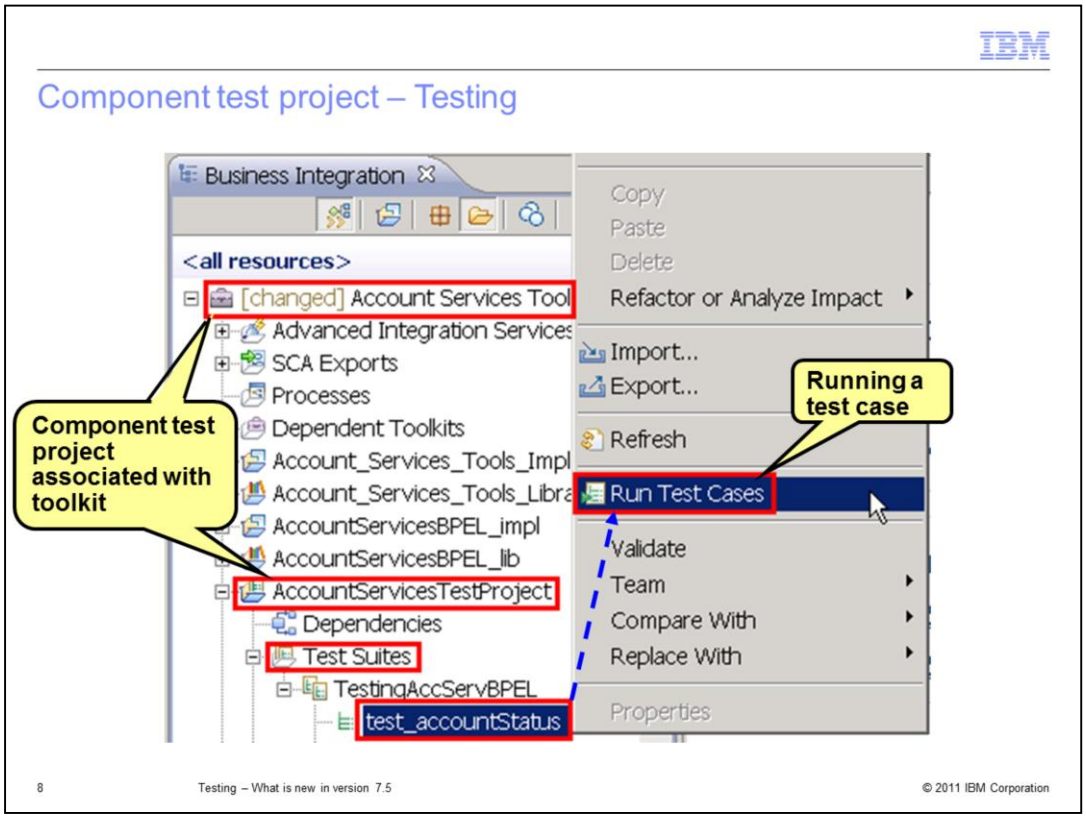
You can also right-click a module in a process application or a toolkit and select Test > Test Modules. If the process application or toolkit has more modules, all those modules are tested. So, in essence, this is the same as Test Process Application option.



Like versions before 7.5, you can test your modules using component testing mechanism. In version 7.5, when you create a new component project, you are given an option to select a process application or toolkit to associate the project with. If you want to test modules that are associated with a process application or a toolkit, select this option. Then, select the process application or toolkit in the drop down list as shown in the diagram at the top left. You can also associate an existing component test project with a process application or a toolkit by selecting Associate with Process Center menu option on the project. Once associated with a process application or a toolkit, the project appears under the process application or a toolkit as presented in the diagram at the bottom right.

You can add new test suites and test cases to the component test project associated with process application or toolkit. When the component test project is associated with a process application or a toolkit, the new test suite that you add can only test modules contained in the same process application or toolkit. You cannot add a module from another process application or toolkit to the test suite.

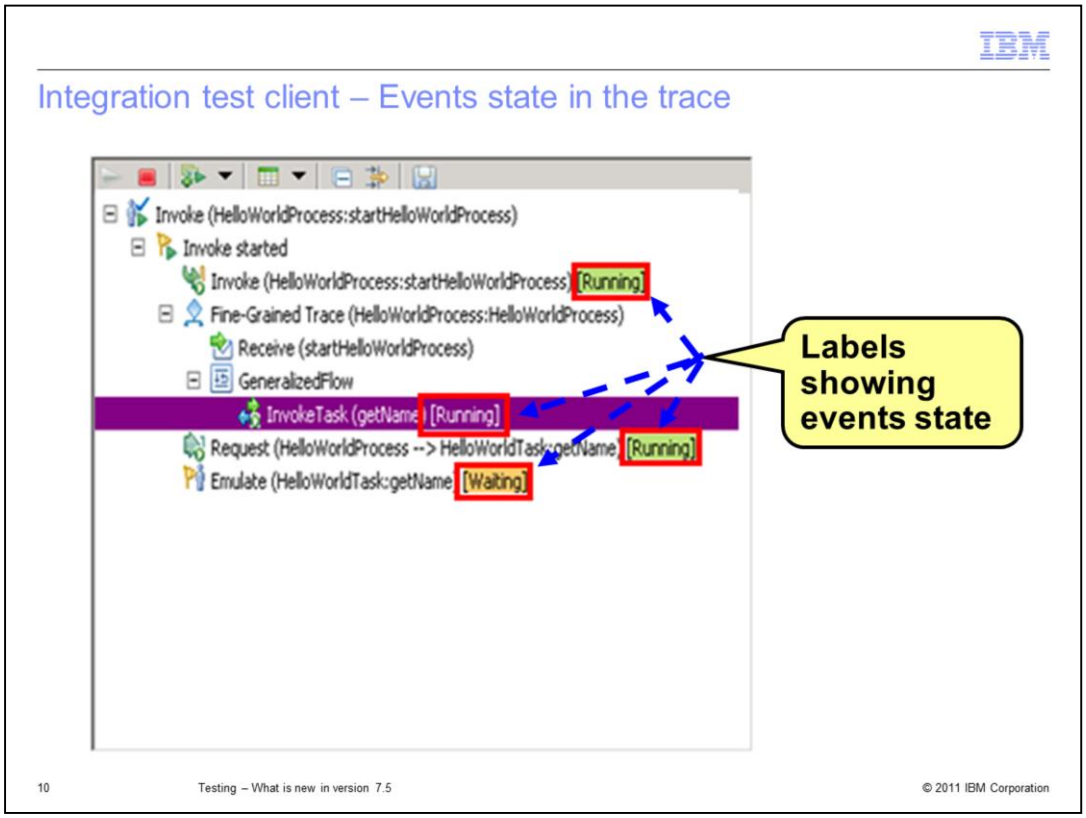
To test a component test project associated with process application or toolkit, you have to run a test case by selecting Run Test Case menu option on a test case.



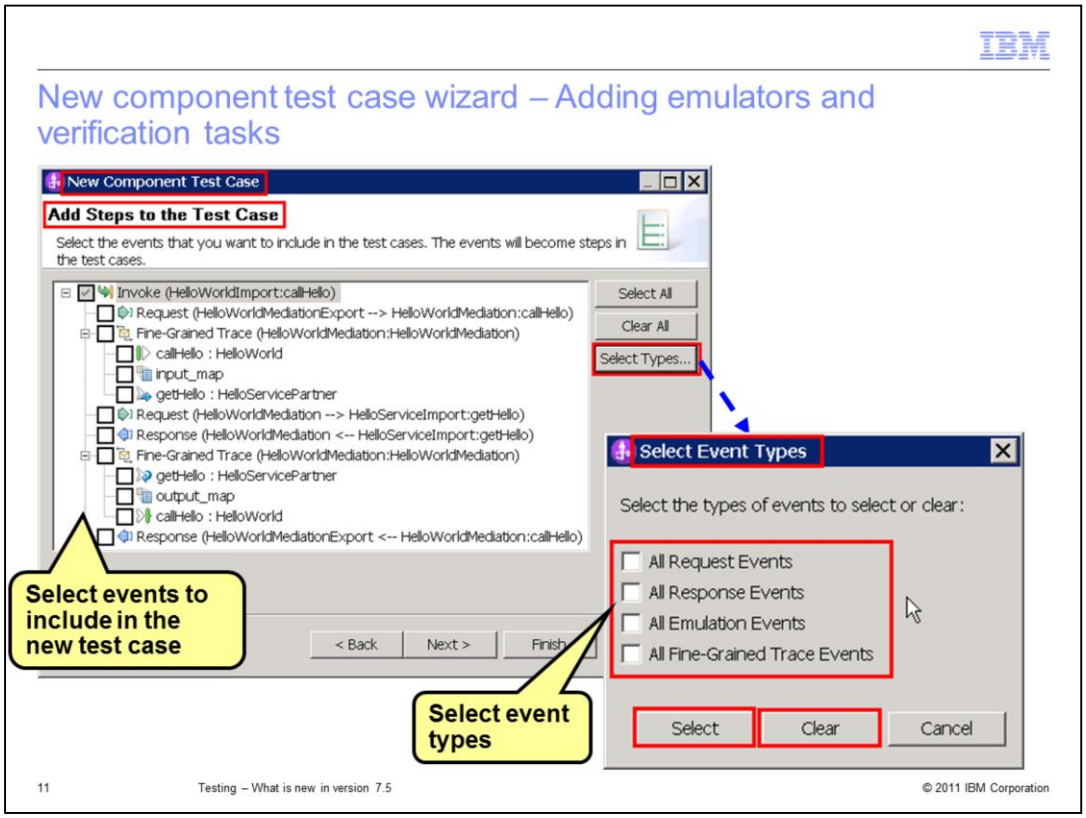
To test a component test project associated with process application or toolkit, you have to run a test case by selecting Run Test Case menu option on a test case as shown.

If you are testing a component test project that is part of a process application or a toolkit, you can select the Process Server UTE or the Process Center Server as the deployment location.

This section gives an overview of test tool enhancements in Integration Designer version 7.5.



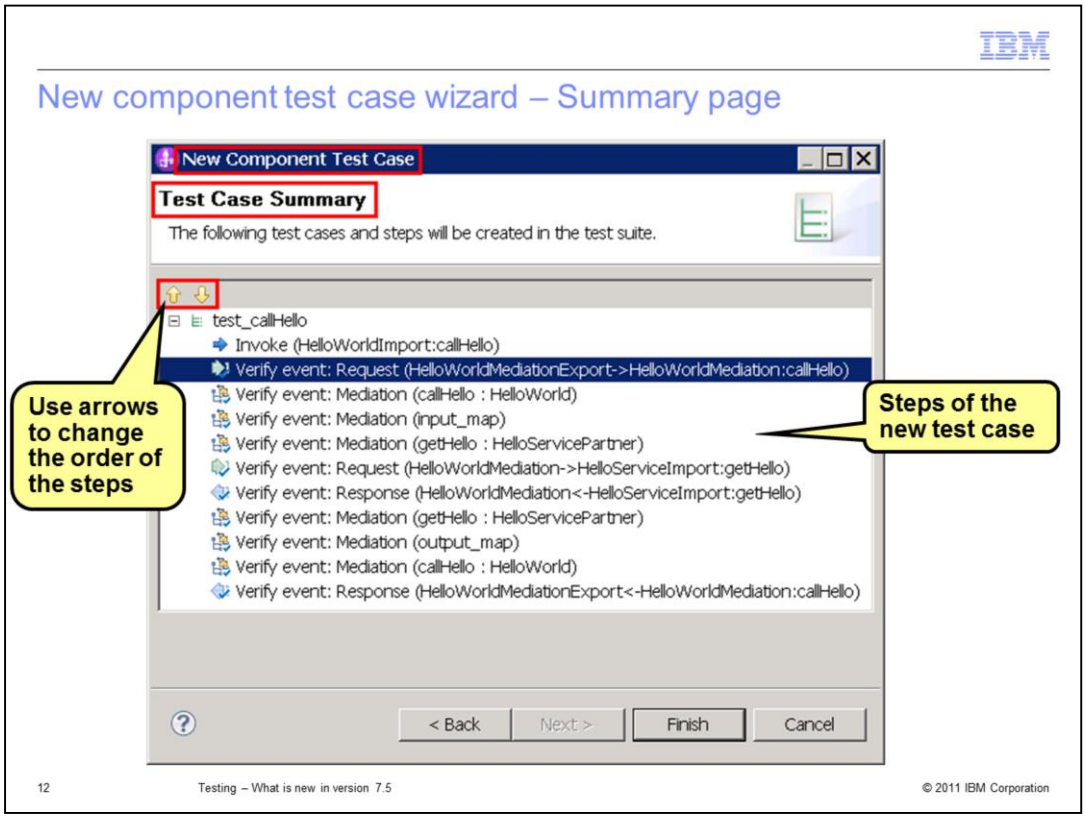
The Events area in the Events page of the integration test client now shows labels that indicate which events are running and which events are waiting for user input. Events without Running or Waiting labels are complete.



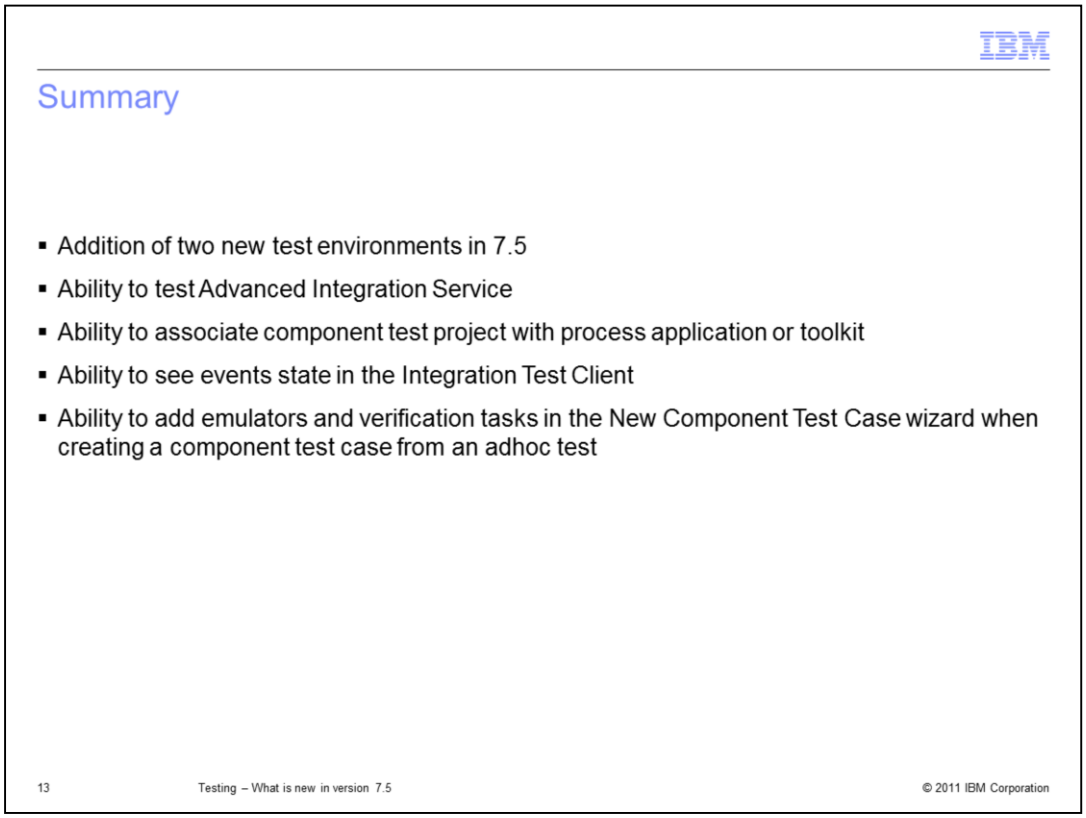
In version 7.5, when creating a component test case from an adhoc test, you can add emulators and verification tasks to the test case.

In the integration client, launch the New Component Test Case wizard by right-clicking in the Events area and selecting Create Test Case… menu option. The Add Steps to the Test Case page of the wizard allows you to select events that you want to include in the test case. By default, all Invoke, Return, and Exception events are selected.

You can select or clear all events of a particular type using the Select Event Types dialog box shown at the bottom right of the slide. To launch this dialog, click the Select Types… button on the wizard page. In the dialog, select the event types. Then, click the Select button to include all events of the selected types or click the Clear button to remove all events of the selected types.



The Test Case Summary page of the wizard displays a summary of what is being added to the new test case. Each selected event on the Add Steps to the Test Case page becomes a step in the new test case. You can change the order of these steps using the arrow icons on the page before clicking Finish.



This slide shows the summary of what was presented to you in this presentation.

You were introduced to the new test environments, ability to test advanced integration service using the module that contains its implementation and ability to associate component test project with process application or toolkit and test it.

The session also talked about test tool enhancements like ability to see events state in the integrated test client and ability to add emulators and verification tasks when creating a component test case from an adhoc test.

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