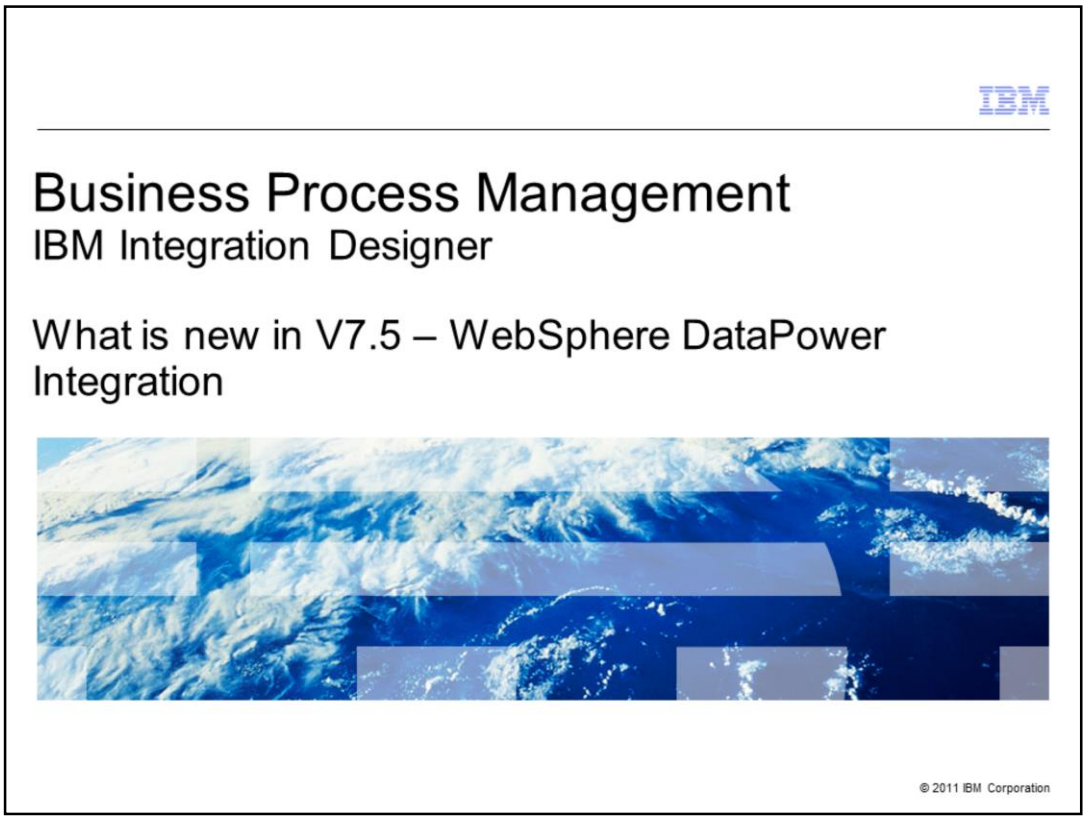
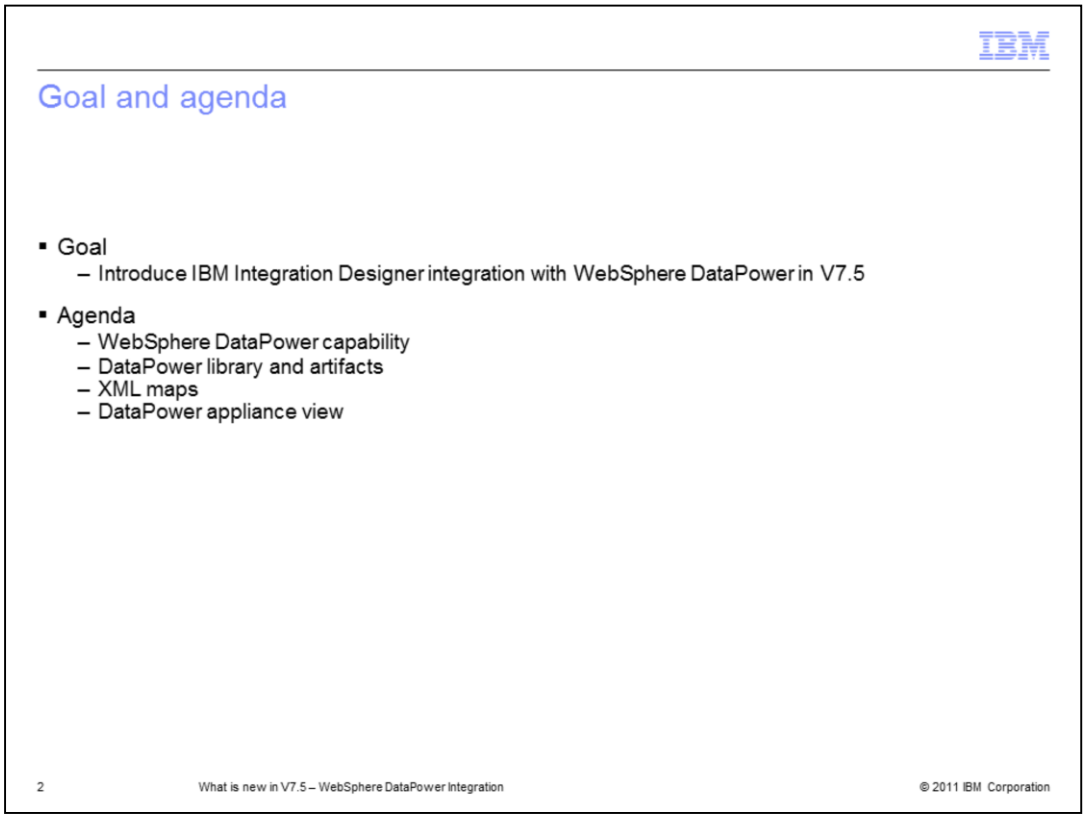
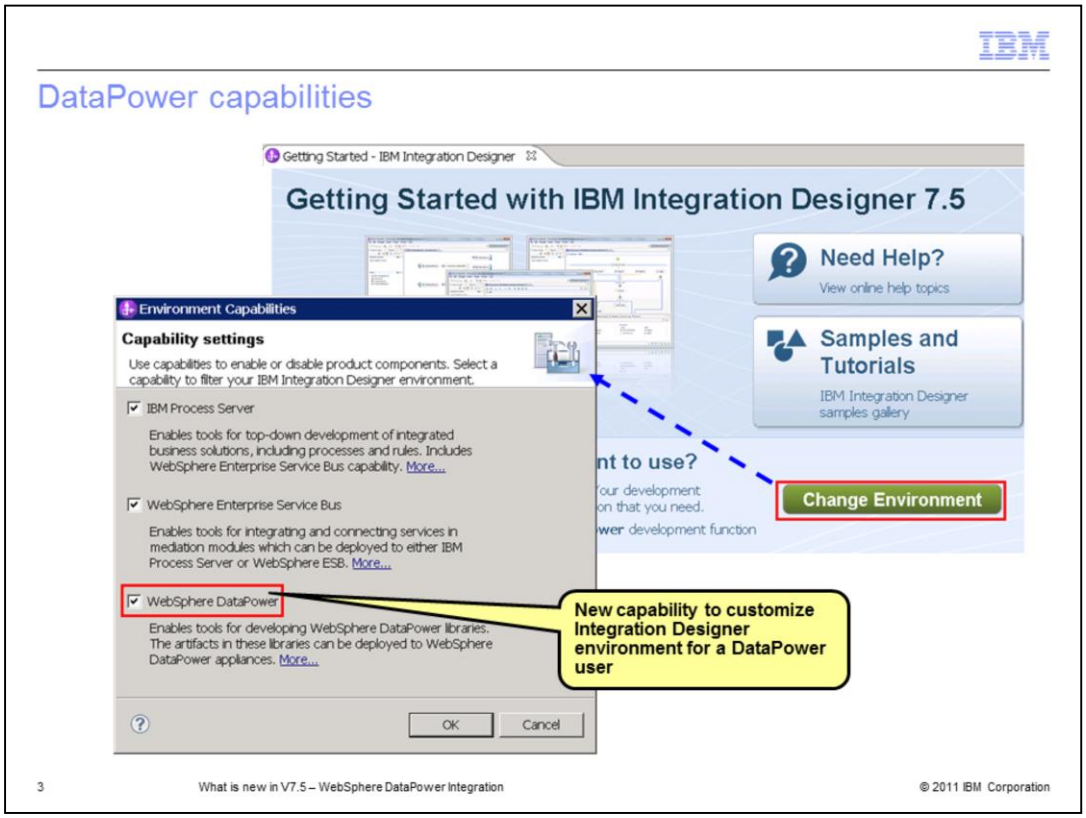


This presentation provides an overview of how IBM Integration Designer version 7.5 is integrated with WebSphere DataPower.



The goal of this presentation is to introduce you to Integration Designer and WebSphere DataPower integration. This feature allows creating and testing of XML maps that can be deployed to a DataPower appliance, validation of XML maps specific to DataPower and exchanging of programming artifacts directly from within your development environment.

You will learn about the new WebSphere DataPower capability, DataPower artifacts, XML maps and DataPower appliance view in this session.

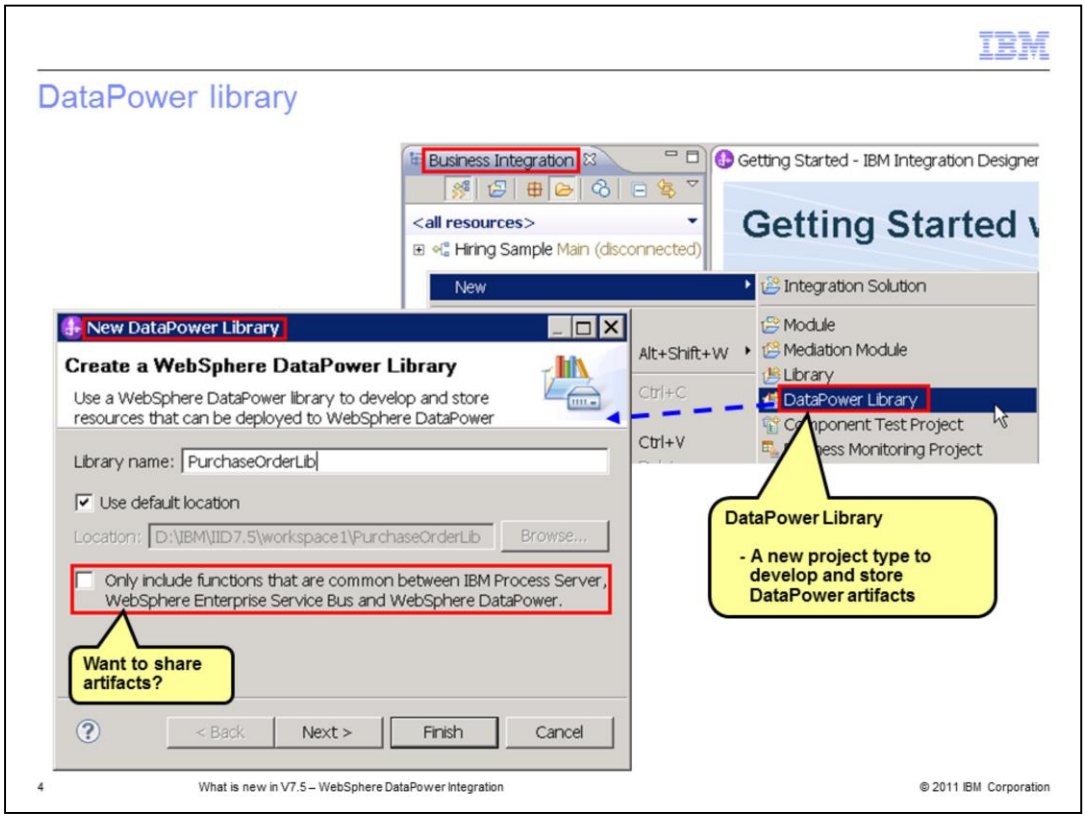


A new capability called WebSphere DataPower is added in Integration Designer version 7.5 which enables a set of tools to help DataPower users author, validate, test and debug XML artifacts and data maps within DataPower appliance. If you enable only this capability, you will get menus, wizards and editors only to create artifacts for DataPower solutions.

If you want a mixed environment, for example, if you are a WebSphere Enterprise Service Bus user and a DataPower user, you can enable WebSphere Enterprise Service Bus capability and WebSphere DataPower capability. You are then able to create mediation modules and DataPower Libraries. Thus, you can develop applications for IBM Process Server, WebSphere Enterprise Service Bus and WebSphere DataPower with a single tool experience.

You can use the Environment Capabilities dialog to enable the new capability. This dialog can be launched by using the Change Environment option on the Getting Started page as shown in the screen capture on the slide.

You can also enable this capability by selecting IBM Integration Designer for WebSphere DataPower option when installing Integration Designer using the launchpad. When you start Integration Designer the first time, tools that are part of the selected capability are enabled by default. You can then enable other capabilities using the Environment Capabilities dialog to work in a mixed environment.

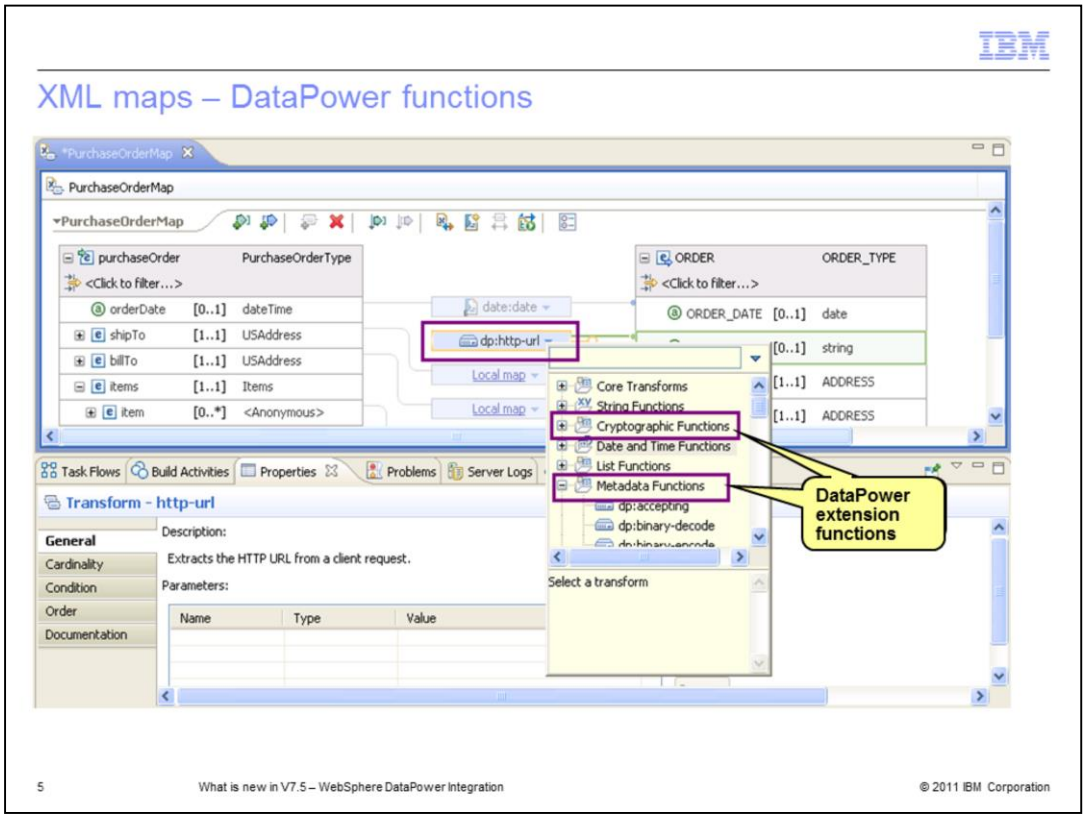


A new project type called DataPower Library is introduced to store artifacts that are developed for deployment to a WebSphere DataPower Appliance. These artifacts are business objects (XSD files), interfaces (WSDL files), XML maps and XSLT files.

DataPower Library allows you to develop artifacts for a DataPower application alone or to develop artifacts that can be shared between DataPower, IBM Process Server and WebSphere ESB.

When creating a new DataPower Library, you can choose to only include functions that are common to DataPower, IBM Process Server and WebSphere ESB. When you choose this option, you need to follow some limitations. For example, if you develop maps to be shared, you cannot use DataPower specific functions as they will not work in the other two environments. If you do not select this option, the DataPower Library will support complete DataPower functionality.

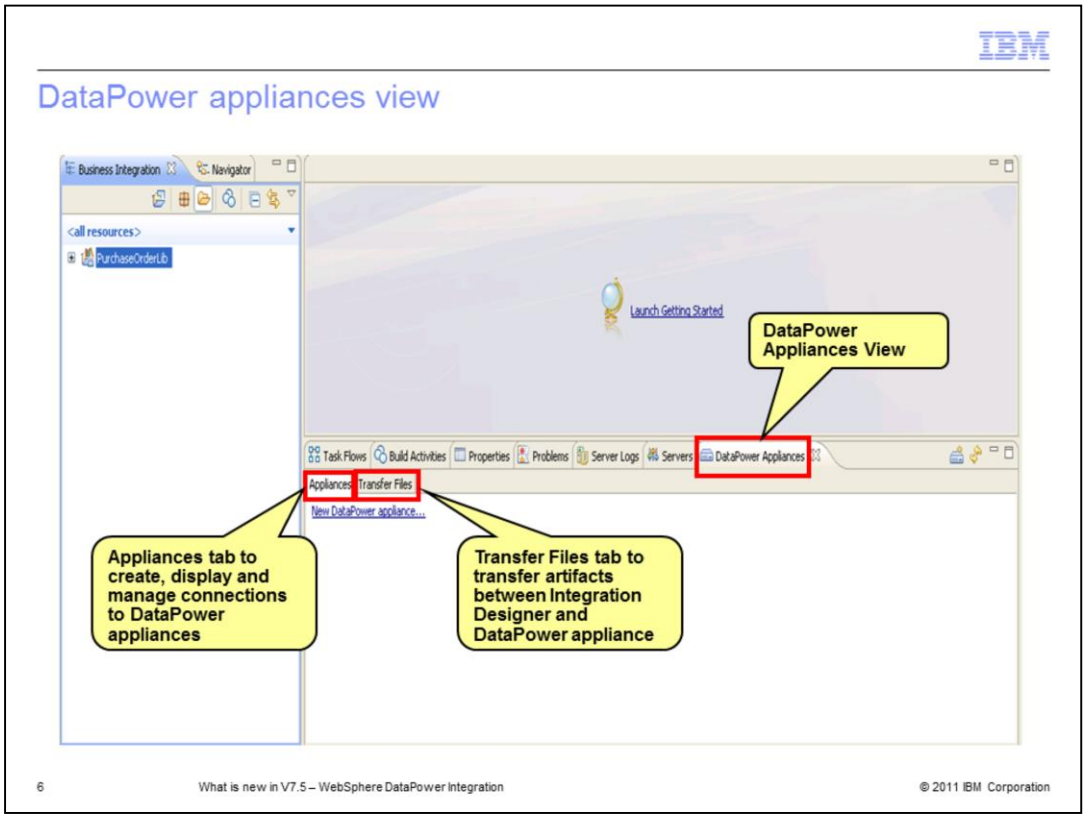
You can change this option later in the Business Integration view by clicking the library and selecting Properties.



DataPower users can use the existing XML mapping functionality in Integration Designer along with the extension functions within DataPower to develop XSL transformations that can be run on a DataPower appliance.

When an XML map is created in a DataPower Library, the XML map editor provides support for DataPower functions along with other functions. The DataPower functions supported in the XML map editor are Cryptographic functions and Metadata functions. Links to topics on these two functions in the DataPower information center are provided on the Resources slide in this document. You can run the XSL transform generated from an XML map using DataPower functions on a DataPower appliance.

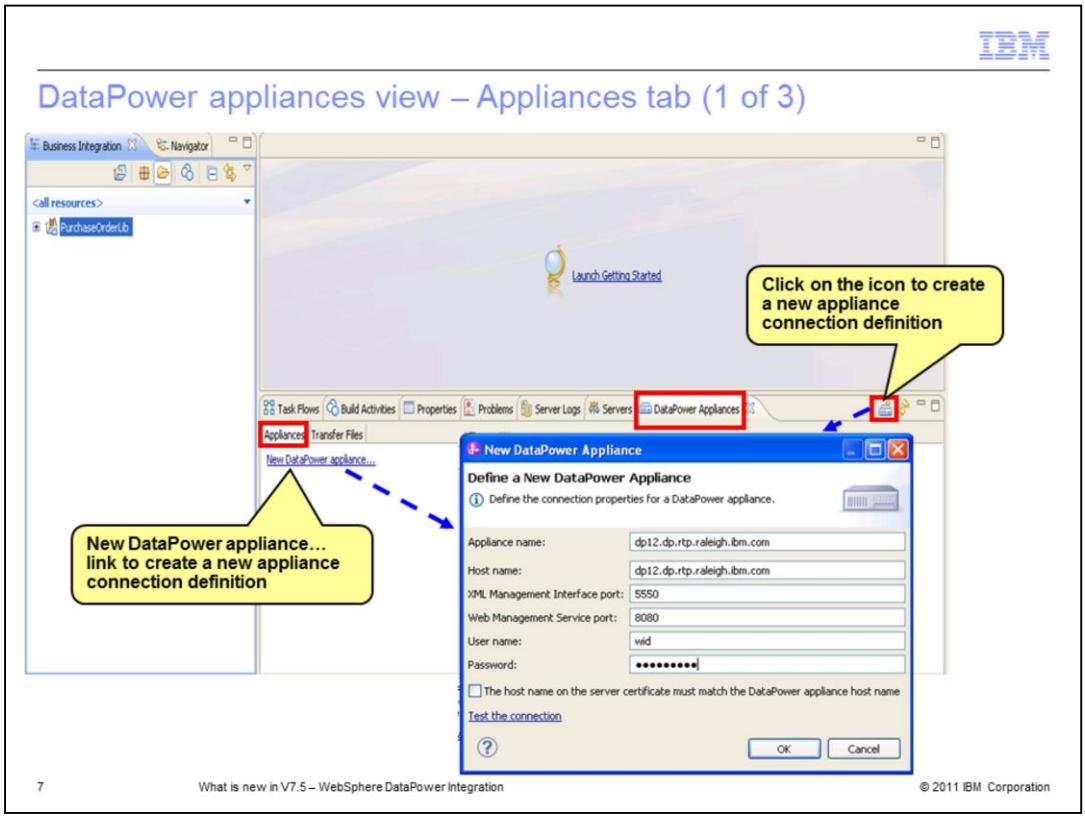
You can use the integrated test environment to test or integrated debug environment to debug maps locally. However, the maps that use DataPower functions have to be run on a DataPower Appliance.



With the WebSphere DataPower capability enabled, a new view called DataPower Appliances is available in the Business Integration perspective. Using this view, you can transfer artifacts such as XSD, WSDL, XSLT, and XML files between Integration Designer and DataPower appliance without having to use the administrative console.

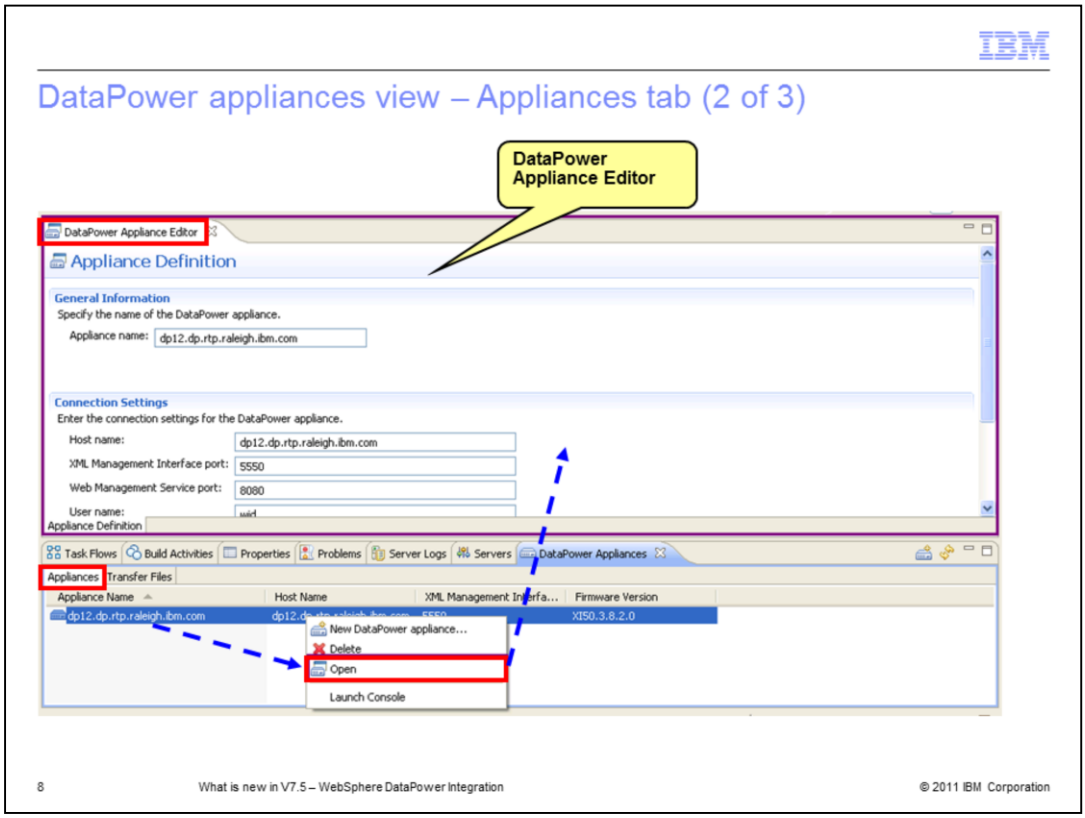
The view has two tabs - Appliances and Transfer Files. The Appliances tab allows you to create, display and manage connections to DataPower appliances that you want to do file transfers to and from.

The Transfer Files tab allows you to perform the files' transfer between Integration Designer and the appliances that you defined in the Appliances tab.



This slide describes operations that you can perform in the Appliances tab.

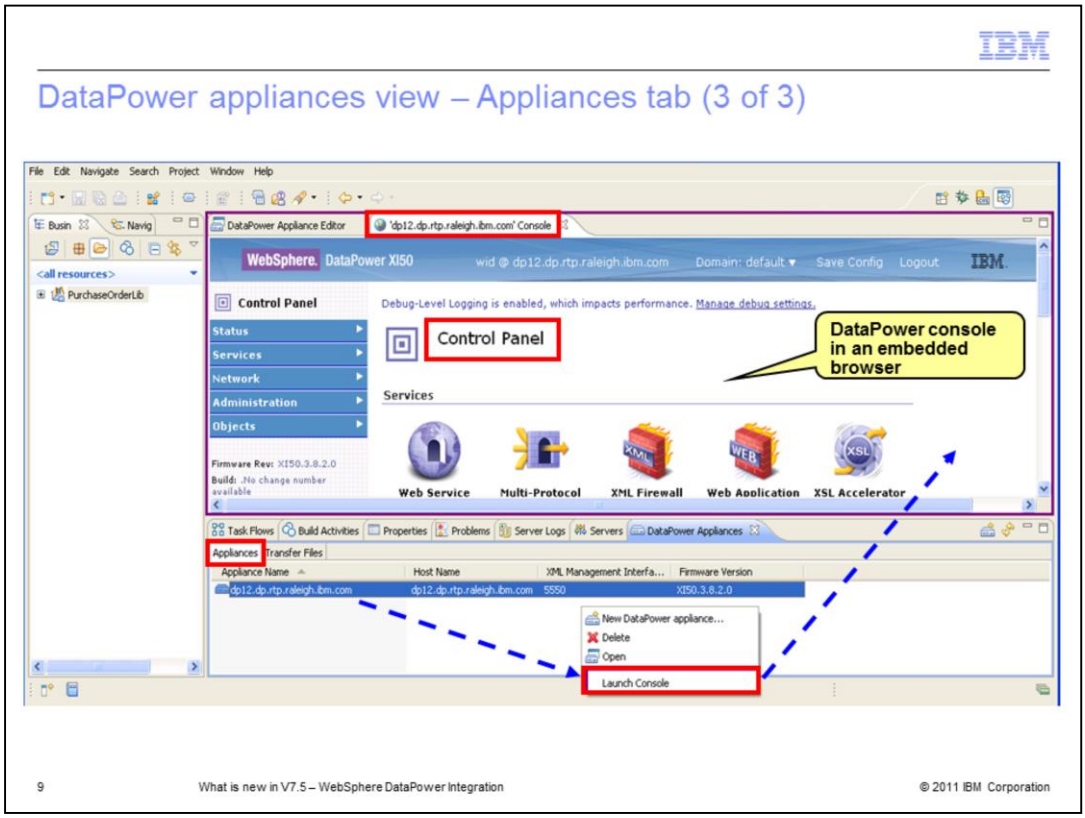
When you open the DataPower Appliances view the first time, the Appliances tab provides a link New DataPower appliance… that allows you to define a connection to an existing DataPower appliance. Clicking this link launches New DataPower Appliance dialog. Alternatively, you can click the icon on the right as shown in the screen capture on the slide to launch this dialog. You can specify connection properties including login credentials in this dialog. The appliance definition is then displayed in the Appliances tab. Once an appliance definition is created, the New DataPower appliance link is no longer available. You can create additional definitions by using the pop-up menu on the definition displayed in the tab or the icon. Subsequent slides describe what actions you can perform on an appliance definition displayed in this tab.



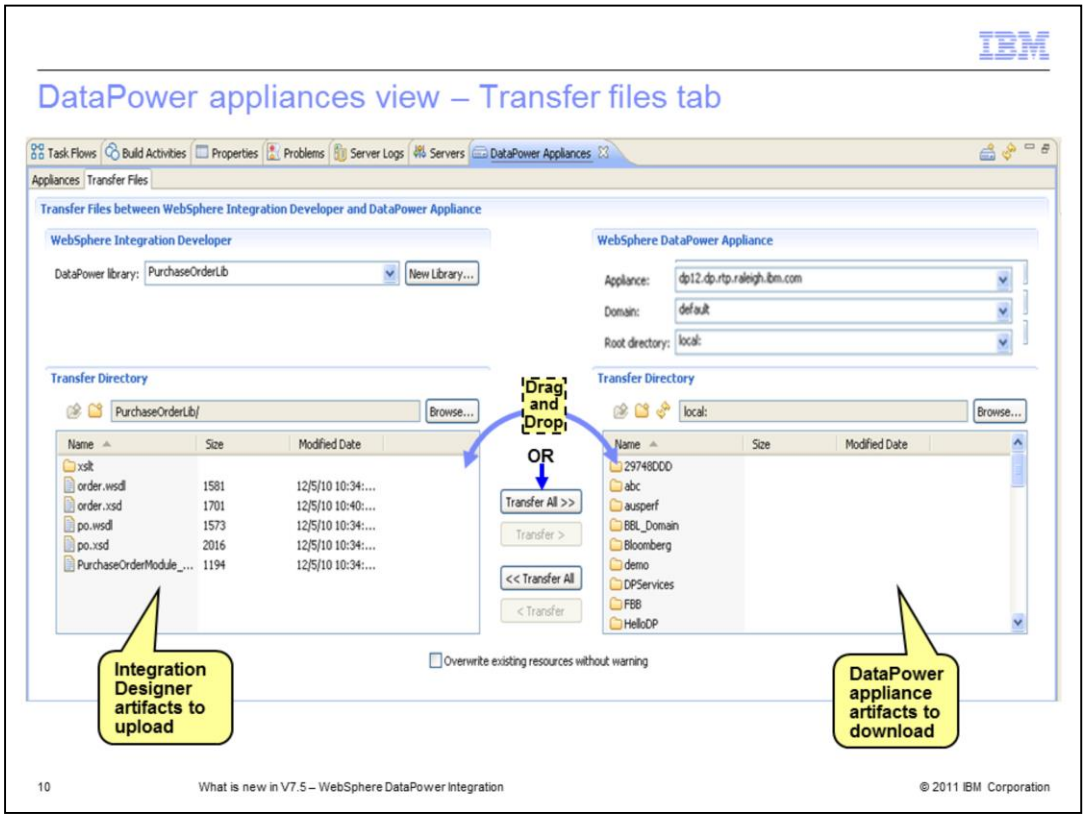
To view or modify the appliance definition, right-click it and select the Open option. The DataPower Appliance editor opens as shown in the screen capture on the slide. You can modify the name or connection settings in this editor.

You can add additional appliance definitions by using the New DataPower appliance menu option or the icon. All the appliance definitions that you create are displayed in the Appliances tab.

To delete an appliance definition, right-click and select the Delete option.



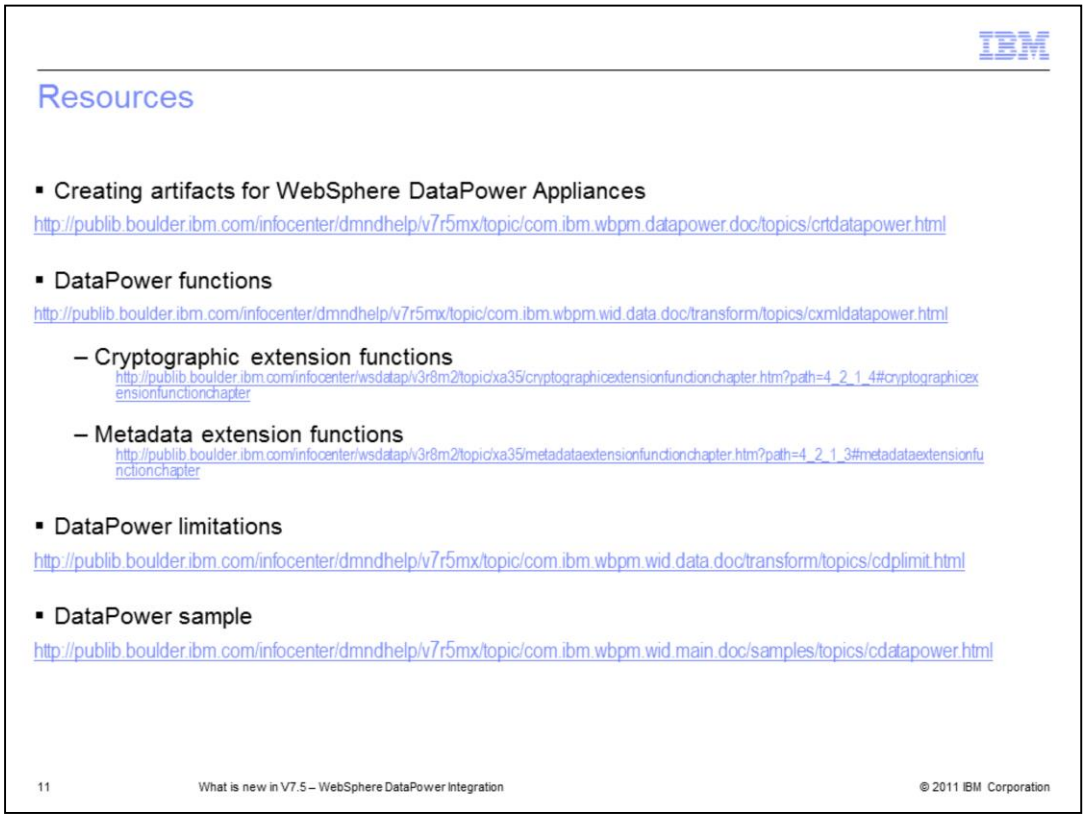
You can access the DataPower console for an appliance by using the Launch Console menu option. The console is launched in an embedded browser in Integration Designer.



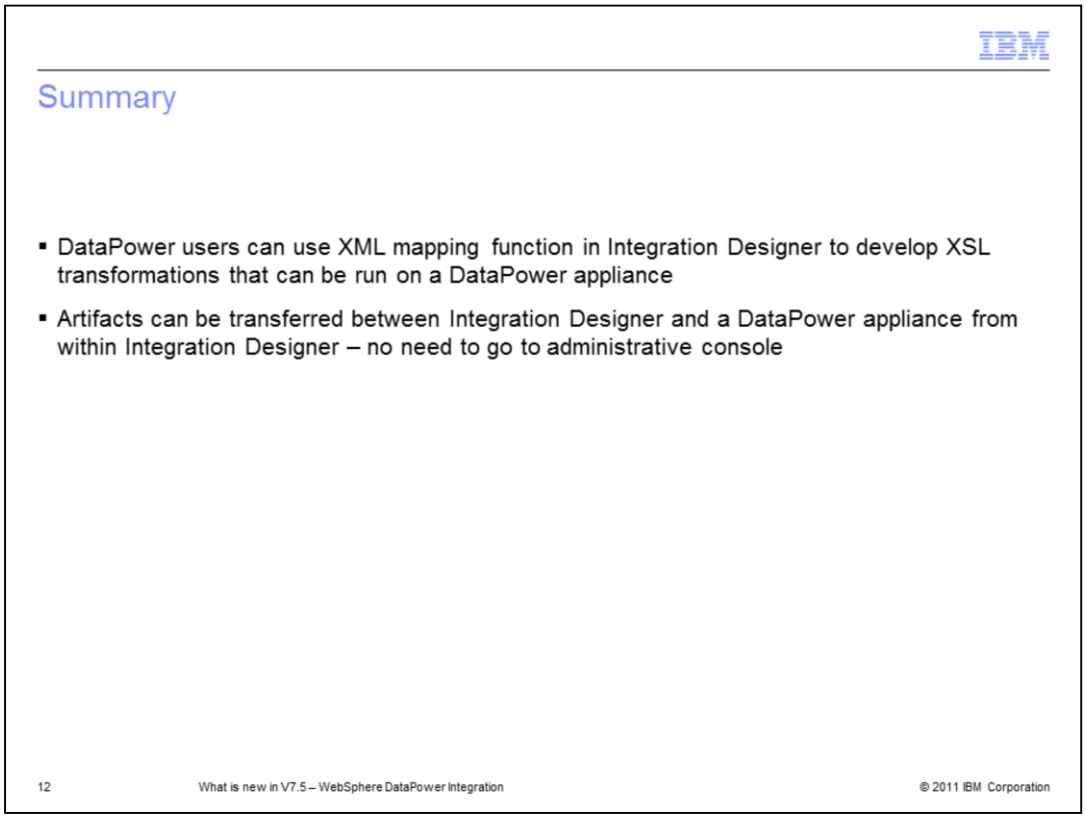
The Transfer Files tab has two panels. The panel on the left, IBM Integration Designer panel, shows Integration Designer artifacts. You can select the DataPower Library, the location to use for file transfer and files for uploading to DataPower Appliance in this panel. When uploading files, validation is done to ensure that XSL Transformations are supported by the firmware on the appliance. Files that have XSL transformations that are not supported by the firmware level are not uploaded to the appliance.

The panel on the right, WebSphere DataPower Appliance panel, allows you to select a DataPower Appliance, specify the location to use for file transfer and files for downloading to Integration Designer in this panel.

For transferring, you can drag the selected files from one panel to another or use the transfer buttons between the two panels. Select the Overwrite existing resources without warning option if you want to overwrite existing files automatically during the transfer operation.



Refer to the product information center for details on this feature. This slide provides links to useful topics for the same.



In today's presentation, you were introduced to IBM Integration Designer integration with WebSphere DataPower. You learned about how DataPower users can use the existing XML mapping functionality in Integration Designer along with the extension functions within DataPower to develop XSL transformations that can be run on a DataPower appliance. You also learned about how artifacts can be transferred between Integration Designer and DataPower appliance without going to administrative console.

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