WebSphere® Integration Developer V6.0.2

What is new in V6.0.2 – New function overview

This presentation provides an overview of what is new in version 6.0.2 of WebSphere Integration Developer.
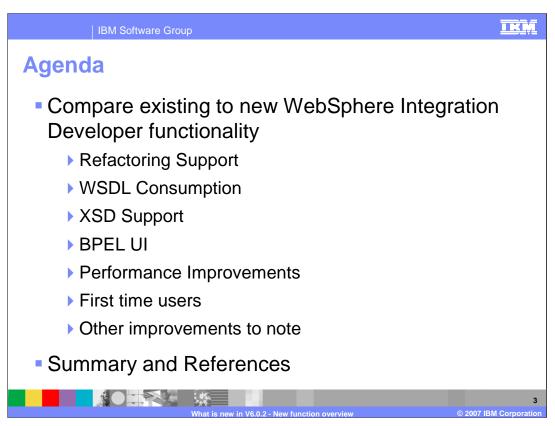
Goals

- Introduce V6.0.2 enhancements for WebSphere Integration Developer
  - ▶ Development environment enhancements only

- At the end of the presentation you should be able to:
  - ▶ Identify and understand V6.0.2 development environment enhancements

- Requirements to understanding this presentation
  - ▶ Knowledgeable of WebSphere Integration Developer 6.0

The goals for this presentation are to introduce V6.0.2 enhancements for WebSphere Integration Developer. This presentation covers the development environment enhancements only. Therefore, this presentation does not cover component specific tools. For example, business rules are a WebSphere Process Server component. Therefore, updates for WebSphere Integration Developer will be covered in the Business Rules section of WebSphere Process Server V6.0.2 presentations. At the end of this presentation you should be able to identify and understand the new version 6.0.2 enhancements. The requirement to understand this presentation is a working knowledge of WebSphere Integration Developer 6.0.

Agenda

- Compare existing to new WebSphere Integration Developer functionality
  - ▸ Refactoring Support
  - ▸ WSDL Consumption
  - ▸ XSD Support
  - ▸ BPEL UI
  - ▸ Performance Improvements
  - ▸ First time users
  - ▸ Other improvements to note
- Summary and References

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The agenda for this presentation is shown here. You will see a comparison between existing development environment and the new version 6.0.2 functionality. These include better Refactoring support, WSDL Consumption, XSD Support, BPEL UI, Performance Improvements, First time user experience, and a few other improvements to note.

Function comparison: Refactoring support

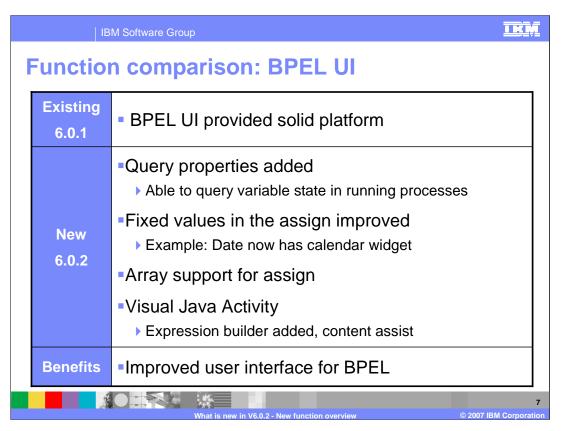| Existing 6.0.1	▪Inability to refactor BPEL components

New 6.0.2	▪Refactoring more of a complete story in 6.0.2
	  ▸ Bug fixes and structural refactoring framework added
	  ▸ Majority of refactoring function in 6.0.1.2 i-fixes
	▪Ability to rename/move BPEL components
	  ▸ Interfaces (WSDLs)
	  ▸ Business Objects (XSDs)
	  ▸ Namespaces
	▪Refactoring tracing can be turned on

Benefits	▪Better dynamic development environment capabilities with refactoring

In version 6.0.1, Websphere Integration Developer did not have the ability to refactor BPEL components. Now in version 6.0.2, refactoring has become much more of a complete story. Customers using WebSphere Integration Developer 6.0.1.2 will notice that many of the refactoring function were in i-fixes. However, version 6.0.2 brought more functionality, bug fixes, and the foundation of the structural refactoring framework. This is the framework that allows WebSphere Integration Developer to index and track dependencies and changes within a workspace. In version 6.0.2, you have the ability to rename or move BPEL components within the workspace. This includes renaming a file or namespace, or moving any object within the workspace. Refactoring allows any dependent file to be notified of the change. Upon rebuild, the refactoring framework makes the necessary changes. If any errors occur, tracing can be turned on to see where the issue is. The WebSphere Integration Developer Information Center now has refactoring information grouped under one refactoring heading.

Function comparison: WSDL consumption

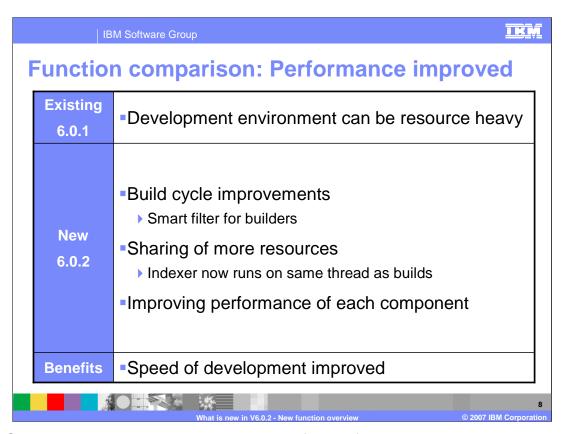| Existing 6.0.1	▪Consumability and export difficult for inline schemas (WSDLs)

New 6.0.2	▪Interface file refactoring
	
	▪Split WSDL file containing PortType, Binding and Service definitions into multiple files
	  ▸ Externalize in-lined XSD definitions
	  ▸ Merge externalized XSDs back to inline schema on export

Benefits	▪Improved WSDL consumption

In WebSphere Integration Developer 6.0.1, it was difficult to consume and export inline schemas. Now in version 6.0.2, inline XSD definitions inside WSDL files can now be split out or externalized for better consumption. WebSphere Integration Developer not only consumes the split WSDL better once externalized, but offers the ability to merge the split files back into an inline schema for export. WebSphere Integration Developer version 6.0.2 will automatically recognize WSDLs with inline schemas by highlighting "Extract Inline Business Objects" from the refactoring context menu. This will split bindings, port types, and service definitions information from the WSDL file. Overall, this makes for smoother WSDL consumption in WebSphere Integration Developer version 6.0.2.

Function comparison: XSD support

Existing 6.0.1	▪XSD validation does not cover all types

New 6.0.2	▪Handling of additional XSD types
	  ▶ Toleration of xs:any/xs:anyType in all components
	  ▶ Toleration of xs:simpleType Business Objects in all components
	  ▶ Ability to create Business Object using xs:simpleType
	▪Improved XSD validation

Benefits	▪Better XSD support

WebSphere Integration Developer 6.0.2 also adds additional XSD support. Now supported in all components are xs:any, xs:anyType, and xs:simpleType Business Objects. The Business Object Editor has the ability to create Business Objects using xs:simpleType. Before, attempting to use Business Objects with simpleTypes created errors. The simpleTypes needed to be wrapped as a complex type in order to use the simpleTypes. This caused issues for customers when WSDLs needed to be changed in order not to cause errors in previous versions. In addition, the XSD validation has been improved. This means fewer false validations and improved breadth of XSD validation in version 6.0.2.

Function comparison: BPEL UI

Existing 6.0.1	• BPEL UI provided solid platform

New 6.0.2	▪Query properties added
	   ▸ Able to query variable state in running processes
	▪Fixed values in the assign improved
	   ▸ Example: Date now has calendar widget
	▪Array support for assign
	▪Visual Java Activity
	   ▸ Expression builder added, content assist

Benefits	▪Improved user interface for BPEL

There have been several improvements for the BPEL UI in WebSphere Integration Developer. Query properties have been added as part of 6.0.2. This addition allows you to query the state of available in running processes. The fixed values in the assign have been improved. For example, the Date entry now has calendar widget where you can open, find, and click a date in order to set a date object. Array support has been added for BPEL assign activities in version 6.0.2. In addition, Visual Java Activity has added an expression builder like the one used when creating Business Rules. It is a Java-like content assist which is accessed by right clicking in the input area, or by typing Ctrl+Space.

Function comparison: Performance improved

Existing 6.0.1	▪Development environment can be resource heavy
New 6.0.2	▪Build cycle improvements 　▶ Smart filter for builders ▪Sharing of more resources 　▶ Indexer now runs on same thread as builds ▪Improving performance of each component
Benefits	▪Speed of development improved

WebSphere Integration Developer 6.0.2 has a few performance enhancements. The build enhancements provide better build cycle responsiveness and decreasing memory footprint. Around 80 mini-builders make up what is referred to as a "build". For example, when saving a changed file with auto-build turned on, WebSphere Integration Developer will call several small builds for the entire project; looking for dependencies, updating indexes, and verifying the build. In previous versions, all mini-builders were called to make sure everything was built correctly. In 6.0.2, a smart filter has been added so that only the appropriate mini-builders are run. The smart filter figures out what the change is, what the impacts are, and only calls those builders to run. So instead of 80 calls, the smart filter will call only 5 builders. Therefore, build performance is improved.
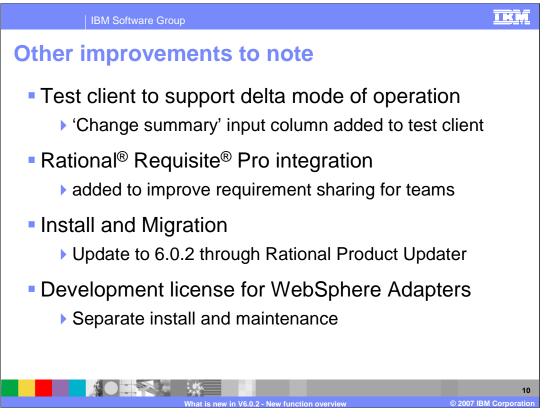
The resource set is also smarter in 6.0.2. There is now 1 cache across all projects' resource set. There are also new build commands and new functionality in the build commands. The end result is smarter, faster builds in WebSphere Integration Developer 6.0.2.

WebSphere Integration Developer 6.0.2 also does more sharing of resources. For instance, the indexer runs on same thread with the build. In previous versions, the indexer ran on a separate thread which doubled the amount of work the computer was doing since the indexer and builder were running at similar times doing the same actions.

Though there are many components, each component has been tasked with improving their performance. This means you can now work faster in WebSphere Integration Developer 6.0.2.

Function comparison: First time users

Existing 6.0.1	▪First time users unable to get started quickly
New 6.0.2	▪Welcome page improved ▪Getting started "Loan App" example easier to start with ▪Samples, Tutorials, Cheat Sheets improved ▪IBM Support Assistant ▪IBM Education Assistant, DeveloperWorks
Benefits	▪First time users guided to quicker up-time

Focus has been given to first time users being able to start using IBM products easier. Therefore, the welcome page has been improved. A Getting Started "Loan App" example is easier to start with and see business integration components. In addition, the samples, tutorials, and cheat sheets that can be accessed from the welcome page have all been improved. In addition, the latest IBM Support Assistant has been installed with WebSphere Integration Developer to allow users to troubleshoot their own problems better. Also several links to education sites have been added, like DeveloperWorks and the IBM Education Assistant. This is just the first of many advancements to get first time users guided to quicker up-time in version 6.0.2.

Other improvements to note

- Test client to support delta mode of operation
  - ‣ 'Change summary' input column added to test client

- Rational® Requisite® Pro integration
  - ‣ added to improve requirement sharing for teams

- Install and Migration
  - ‣ Update to 6.0.2 through Rational Product Updater

- Development license for WebSphere Adapters
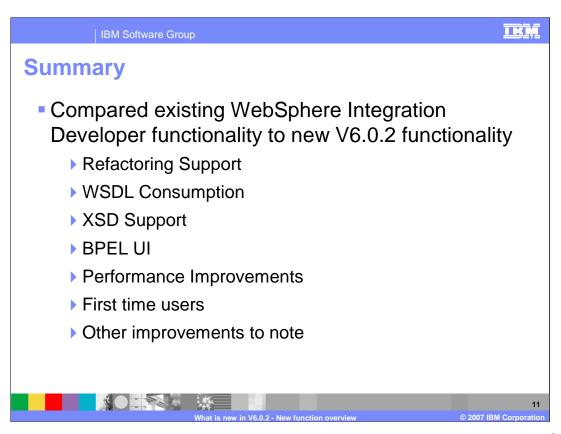 - ‣ Separate install and maintenance

There are several other improvements to note in version 6.0.2. For one, the Test client in WebSphere Integration Developer now supports a delta mode of operation. That is, a change summary input column added to test client input box area. Any interface with a Business Graph can now use Test Client to update or change the change summary. An extra column has been added in the test client for change summary part of business graph.
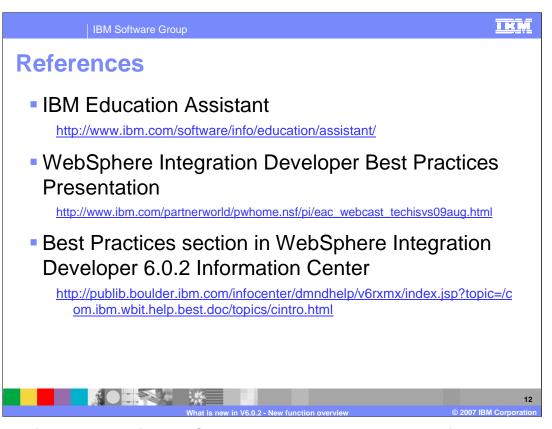
Secondly, Requisite Pro is beginning to be integrated into WebSphere Integration Developer version 6.0.2. Requisite Pro is a Rational software plug-in that allows development teams to create, share, and update project requirements. When requirements change for files that you may be working on, you are notified of the change. For example, when a certain BPEL file is associated with a certain requirement is changed, ReqPro notices the dependency.

Updating version 6.0.2 from version 6.0.1 will be through Rational Product Updater. For workspaces, no migration is required. Workspaces that are brought up in version 6.0.1 will work in version 6.0.2

WebSphere Adapters will be packaged and delivered with a development only license starting with WebSphere Integration Developer 6.0.2. To use the adapters in production, you will need a production license for the adapters. Adapter fix packs are delivered using the adapter fix pack installer or the Rational Product Updater.

Summary

- Compared existing WebSphere Integration Developer functionality to new V6.0.2 functionality
  - ▶ Refactoring Support
  - ▶ WSDL Consumption
  - ▶ XSD Support
  - ▶ BPEL UI
  - ▶ Performance Improvements
  - ▶ First time users
  - ▶ Other improvements to note

In this presentation, you went through several comparisons between existing WebSphere Integration Developer functionality and new V6.0.2 functionality. These included better Refactoring support, WSDL Consumption, XSD Support, BPEL UI, Performance Improvements, First time user experience, and a few other improvements to note.

References

- IBM Education Assistant

  http://www.ibm.com/software/info/education/assistant/

- WebSphere Integration Developer Best Practices Presentation

  http://www.ibm.com/partnerworld/pwhome.nsf/pi/eac_webcast_techisvs09aug.html

- Best Practices section in WebSphere Integration Developer 6.0.2 Information Center

  http://publib.boulder.ibm.com/infocenter/dmndhelp/v6rxmx/index.jsp?topic=/com.ibm.wbit.help.best.doc/topics/cintro.html

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Here are a few resources for WebSphere Integration Developer. The first resource is IBM Education Assistant where you can find presentations, flash demonstrations, and lab tutorials on WebSphere Integration Developer. There is also a WebSphere Integration Developer Best Practices Presentation accessible from the link under this bullet. Another great resource is the Information Center for WebSphere Integration Developer 6.0.2. There you can find all the documentation on the product along with new categories like the best practices and refactoring sections.

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