WebSphere® Business Modeler V6.0.2

Process modeling overview and enhancements

This presentation will provide an overview of the Process Modeling capabilities for WebSphere Business Modeler V6.0.2.

Goals

- Provide an overview of the process modeling capabilities

- Introduce the Swimlane editor for modeling processes

- Describe Process Editor enhancements for 6.0.2

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The goal of this presentation is to provide an overview of process modeling capabilities, introduce the Swimlane editor and its capabilities, and to describe specific features and enhancements available in the process editor.

Agenda

- Overview of process modeling
- Swimlane editor
- Process editor enhancements for 6.0.2
- Summary

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This section will provide an overview of process modeling.

Importance of process modeling

- Document processes for use by a business to understand the business process

- Document both the "current" state and "future" state business processes and the comparison to determine Return on Investment (ROI) analysis

- WebSphere Business Modeler can create artifacts from the business model and make them available to technology development tools to reduce the overall implementation time of new business processes

Objectives for modeling vary from organization to organization, and WebSphere Business Modeler is well suited to meet a wide variety of objectives.

Some organizations have a tactical need to accurately document processes for legal, regulatory, training or other purposes. WebSphere Business Modeler ease of use, shared model element, document attachment and collaboration features make it very effective at meeting these objectives.

Many businesses are undertaking specific process improvement initiatives where process redesign is either already underway or inevitable. The analysis and reporting, simulation and process comparison capabilities in WebSphere Business Modeler make it a very powerful tool for this approach.

When the organization chooses to implement the new "To-Be" process, WebSphere Business Modeler can provide artifacts from the business model which will act as the starting point for the implementation, increasing the accuracy of the transition from the business to the technology domain, and reducing implementation time.

Process model features

- Two different views provide different options for simplifying modeling
  ▸ Free-Form
  ▸ Swimlane

- Free-From and Swimlane views are both available for editing processes

- Palette of elements which can be used to express complex behaviors in business processes

- Use of colors and labels, and Swimlane view aid in visual identification of hand-offs and the associated attributes of the model.

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There are two different editor options for specifying and viewing business models.

The Free-Form editor, which is a classical flow diagram, allows the business analyst to control the layout.

The Swimlane editor provides a convenient way to lay out processes while taking into consideration the various resources and other types of qualifiers that are assigned to the tasks and elements of a process. With the Swimlane editor, you can clearly see how different transitions occur between tasks within the business processes.

A business analyst can easily switch back and forth between the 2 different representations, and both editors can make use of different colors and labels that can be enabled on tasks and other elements in processes to provide additional information and clarity to the business process model.
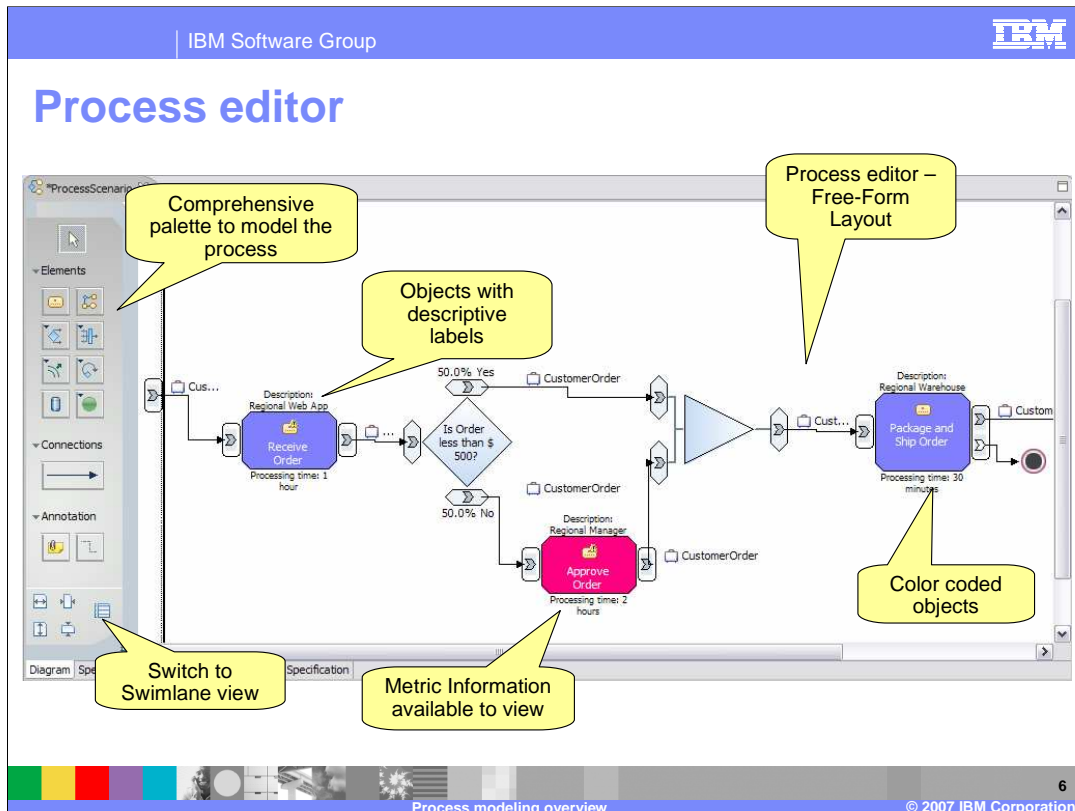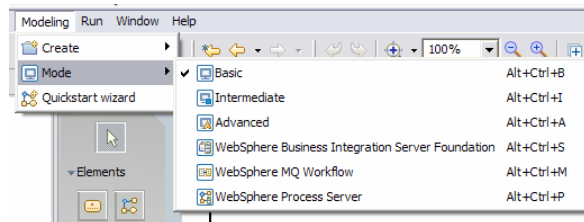
Process editor

Shown here is a screen capture of the Process Editor in the Free-Form layout mode.

You can easily change it to Swimlane Editor, either by clicking on the button at the lower left-hand corner, or by right-clicking inside the Process Editor background and selecting "Switch to Swimlane layout", then select an attribute to use for the swimlanes, such as role, individual resource, bulk resource, location, or a classifier.

A variety of elements are available on the palette and can be easily dragged and dropped onto the canvas of the editor. The screen capture also shows some labels, description information and metric information, such as processing time, that can be specified for the different types of tasks. Tasks are displayed in different colors based on the roles assigned to them.

Process model: Editing modes

- Editing modes provide additional information as processes are modeled
  - ▸ Set to Technology mode as soon as the destination runtime is known

- All attributes are not available for all modes
  - ▸ Some options and notational elements will be disabled
  - ▸ Model may become invalid as new validation rules are enforced when models are changed

Modeling Run Window Help		
Create		
Mode	✓ Basic	Alt+Ctrl+B
Quickstart wizard	Intermediate	Alt+Ctrl+I
	Advanced	Alt+Ctrl+A
	WebSphere Business Integration Server Foundation	Alt+Ctrl+S
	WebSphere MQ Workflow	Alt+Ctrl+M
	WebSphere Process Server	Alt+Ctrl+P

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WebSphere Business Modeler V6 has six Editing modes. The first three editing modes, Basic, Intermediate, and Advanced, set the level of detail exposed to the business analyst, with advanced mode providing more options and details than Intermediate and Basic modes.

The next three modes, WebSphere Business Integration Server Foundation, WebSphere MQ Workflow, and WebSphere Process Server mode are technology modes. These modes include all of the details and options of the Advanced mode plus additional validation that is applicable to the respective target runtime environment. Anything that is not appropriate to that particular runtime environment will be flagged. You should change to a particular technology mode as soon as you know the runtime environment that your business process will run in. This will reduce the amount of rework which must be performed when preparing the process for deployment to one of the particular runtime environments.

Agenda

- Overview of process modeling
- **Swimlane editor**
- Process editor enhancements for 6.0.2
- Summary

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This section will provide an overview of the Swimlane Editor, which is new for WebSphere Business Modeler V6.0.2

Swimlane editor

- The Swimlane editor provides a different perspective of the business process from the default free-form layout.

- Logically related process elements are grouped together and partitioned into swimlanes
  - Grouping is based on organization unit, location, role, individual resource definition, bulk resource definition or classifier

- Swimlanes provide a clear view of interactions between different categories for the nodes of a process

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The Swimlane editor provides a means of laying out and viewing logically related process elements grouped together based on organization unit, location, role, individual resource definition, bulk resource definition, or classifiers in swimlanes.

Each swimlane is specific to a resource value and contains those elements that have been assigned to that resource or classifier. With the Swimlane editor, you can clearly see how different tasks interact with one another as links cross the swimlanes into the various categories.
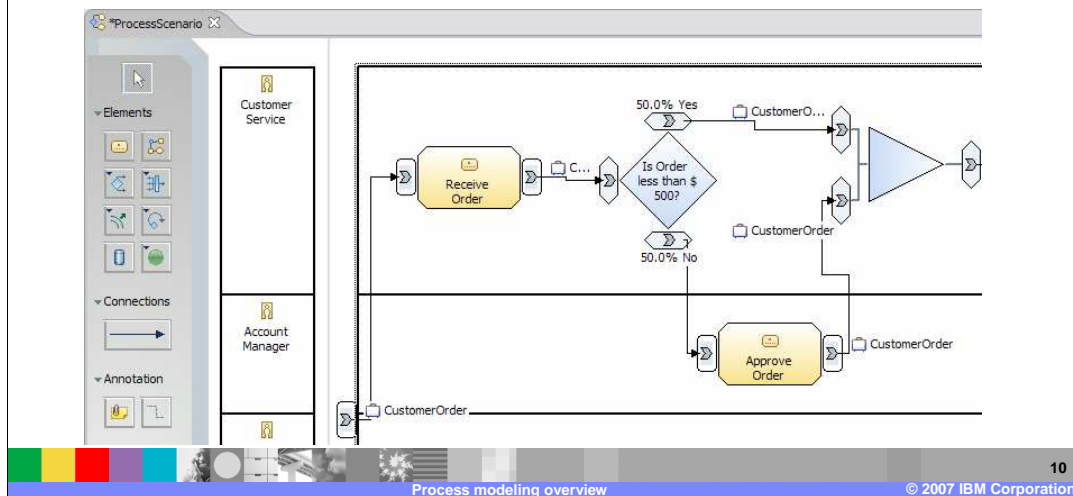
Shown here is a screen capture of the Swimlane editor, with the view set to layout the process using swimlanes based on roles.

The view shows which activities are assigned to which roles. Here, Receive Order task is completed by Customer Service role and Approve Order task is completed by Account Manager role. The Swimlane editor includes the same palette of elements as the Free-form editor, which can be used for building the business process. From the Swimlane editor, you can easily switch to the Free-Form editor.

Section

Process editor enhancements

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This sections covers Process Editor enhancements in V6.0.2.

Process and simulation editor enhancements

- Ability to display full path names when displaying node labels

- Copy parts of diagram and paste into other tools

- Ability to reorder branches the same way as inputs and outputs

- Support for WSDL import and WebSphere Service Registry and Repository (WSRR)

Listed here are the new enhancements for the process and simulation editors for WebSphere Business Modeler V6.0.2.

The remainder of this presentation will discuss these new enhancements in detail.

Displaying the full path name in labels

The business analysts wants the full path names in the labels to be displayed on certain types of elements in the process editor.

Existing 6.0.1	This cannot be changed.
New 6.0.2	New options are available in the preferences. The preferences can be overridden in the Process editor and the Swimlane editor.
Benefits	More user control over the output that is displayed. Diagrams can display more meaningful information when and where the business analyst needs it.

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The format used here highlights the need for the new feature or improvement. With this format it is clear to see how functionality is improved in V6.0.2 over the functionality provided in V6.0.1 and the benefits offered.

Displaying the full path name in labels enables business analysts to display the full path name for a resource in the diagram.

The new feature shows up as a new attribute in the preferences. This is a common pattern that you will see with many of the new features for version 6.0.2. The option for specifying the full path name to be set is in the global preferences and can be overridden later in the Process or Swimlane editors.

The next few slides will provide examples of this enhancement.

Displaying the full path names in labels

- There are 2 ways to set and manage this new option.
  - ▶ Global preferences
    - Windows → Preferences → Processing Modeling → Labels
  - ▶ Can be <u>overridden</u> per process
    - Using the visual attributes tab in both
      - – process editor
      - – simulation editor

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The new option for displaying the full path name can be set in either the Global Preferences or in the Process and Simulation editors.

Using the global preferences
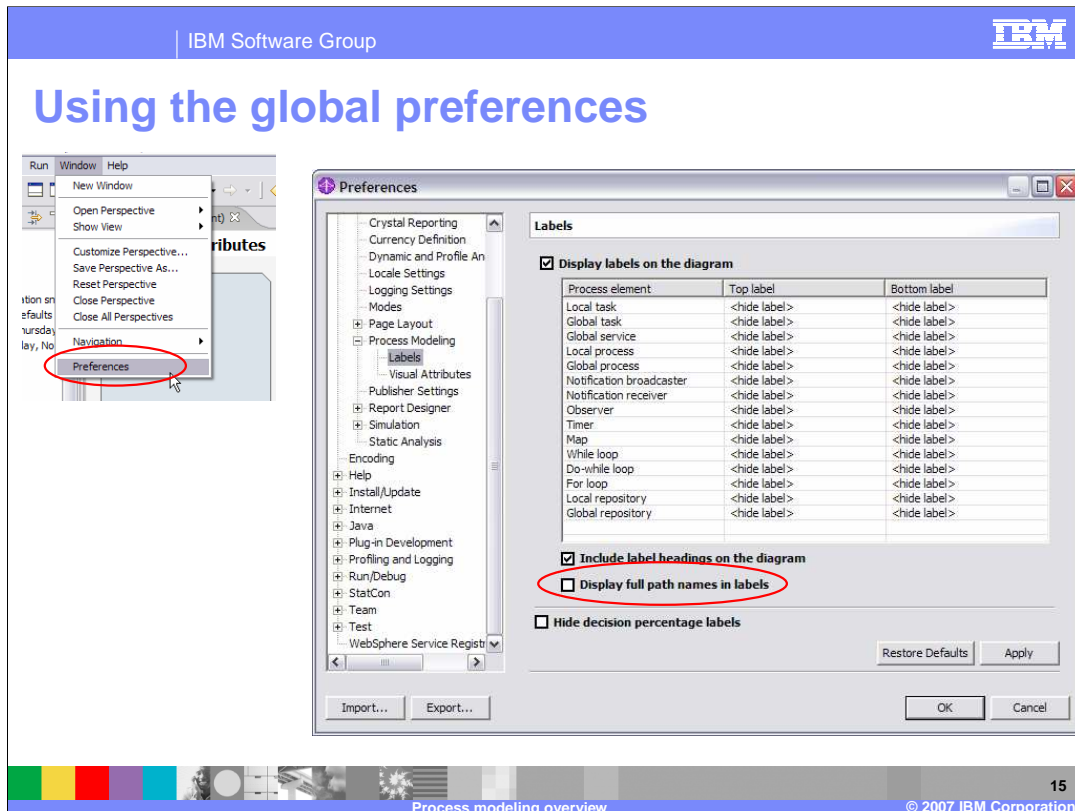
Illustrated here is the method for setting this property using the Global Preferences under the Process Modeling → Labels section. On the Labels preferences, the new option "Deploy full path name in labels" has a check box which is cleared by default. Selecting this check box will enable this feature as a global default.

WBModeler602_ProcessModeling.ppt

Using the Visual Attributes

The Visual Attributes are available from the Visual Attributes tab at the bottom Of the Process or Swimlane editors.

Visual Attributes

☑ **Display labels on the diagram**

Process element	Top label	Bottom label
Local task	Roles	Bulk resources
Global task	Roles	Bulk resources
Global service	Roles	Bulk resources
Local process	<hide label>	<hide label>
Global process	<hide label>	<hide label>
Notification broadcaster	<hide label>	<hide label>
Notification receiver	<hide label>	<hide label>
Observer	<hide label>	<hide label>
Timer	<hide label>	<hide label>
Map	<hide label>	<hide label>
While loop	<hide label>	<hide label>
Do-while loop	<hide label>	<hide label>
For loop	<hide label>	<hide label>
Local repository	<hide label>	<hide label>
Global repository	<hide label>	<hide label>

☐ **Include label headings on the diagram**
☑ **Display full path names in labels**

Diagram | Specification | Visual Attributes | Page Layout

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If you need to override the global preference at the process level, you can do that from the "Visual Attributes" tab of the Process Editor or the Simulation Editor, as shown here.

Review Order with full path name displayed
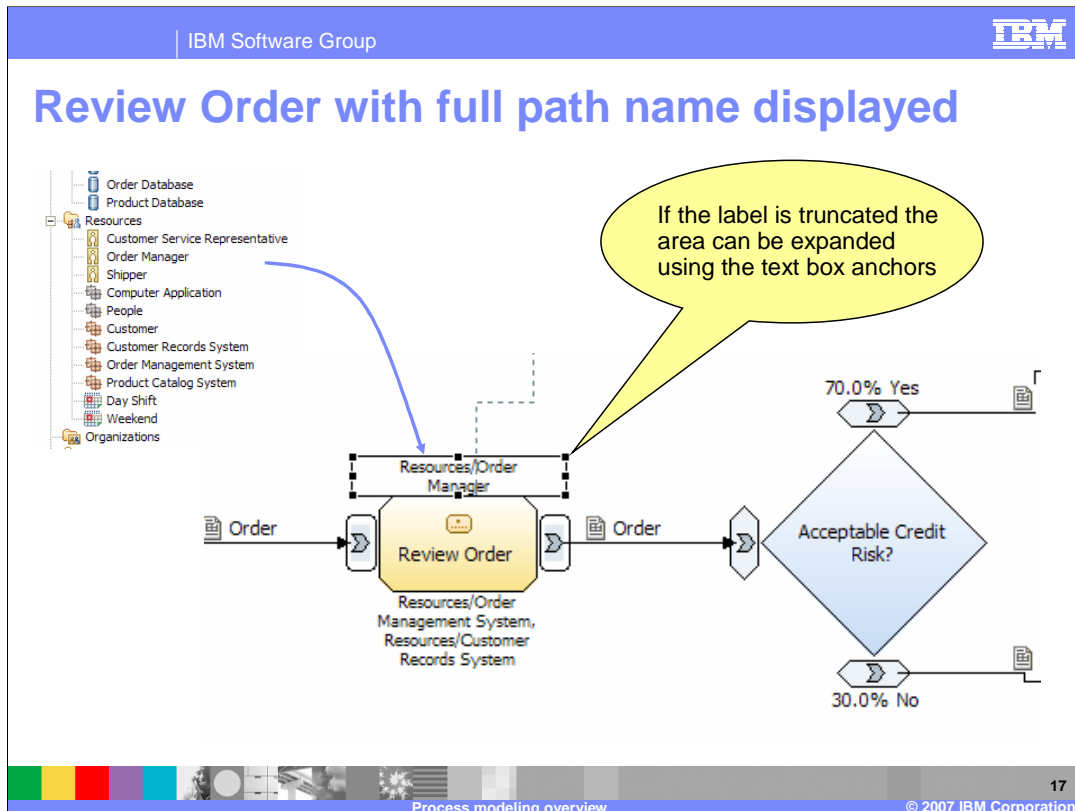
Shown here is an example of what this new feature looks like when it is enabled. First notice the resources tree on the left. Next look at the label, which reads "Resources\Order Manager". The bounding box around the label can be adjusted to make the label display on a single line if required.

Consider a case where there are 2 different user-defined catalogs, each having an element with the same name. In this case you would not be able to determine which one was being used without displaying the full path name.

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Copy and paste enhancements

The user wants to copy all or part of a diagram from Modeler to an external program such as Microsoft® Word or Visio®.

Existing 6.0.1	This capability is limited to single select and to certain major elements of the model, such as tasks, decisions and processes.
New 6.0.2	All elements can be selected and copied to an external program, individually or as a group using the marquee (rubber band). The entire diagram can be copied to an external program using the context menu for the diagram (select the background).
Benefits	The user now has a quick and easy way to include all or part of a process diagram in other documentation tools.

The copy and paste functionality that was available in the previous version was limited to the business model in WebSphere Business Modeler. With version 6.0.2 there is now a quick and easy way to share all, or parts of the process diagram with other tools such as Microsoft Word or VISIO.

Copy and paste enhancements

- The new copy and paste functions do not copy any of the underlying model information.
  - ▸ This is a copy of the diagram only.
  - ▸ Meta information about the model is not used.

- Elements cannot be pasted elsewhere in the same diagram.

- Copying and pasting within Modeler, only single select is allowed.
  - ▸ Meta information is used.

Copy and paste was introduced initially with V6.0.1. In V6.0.2 it has been expanded to allow copying all or part of the diagram to another 3rd party tool such as Microsoft Word or VISIO.

It is important to note that when copying and pasting to a destination outside of WebSphere Business Modeler, only the diagram is copied. The meta information about the model and relationships cannot be moved because it has no meaning in the external environment. To aid in this effort, there is full support for multiple select using the marquee tool, sometimes known as the 'rubber band'. When copying inside the model, the meta information is used and only single select is allowed.

Example of copy and paste enhancement
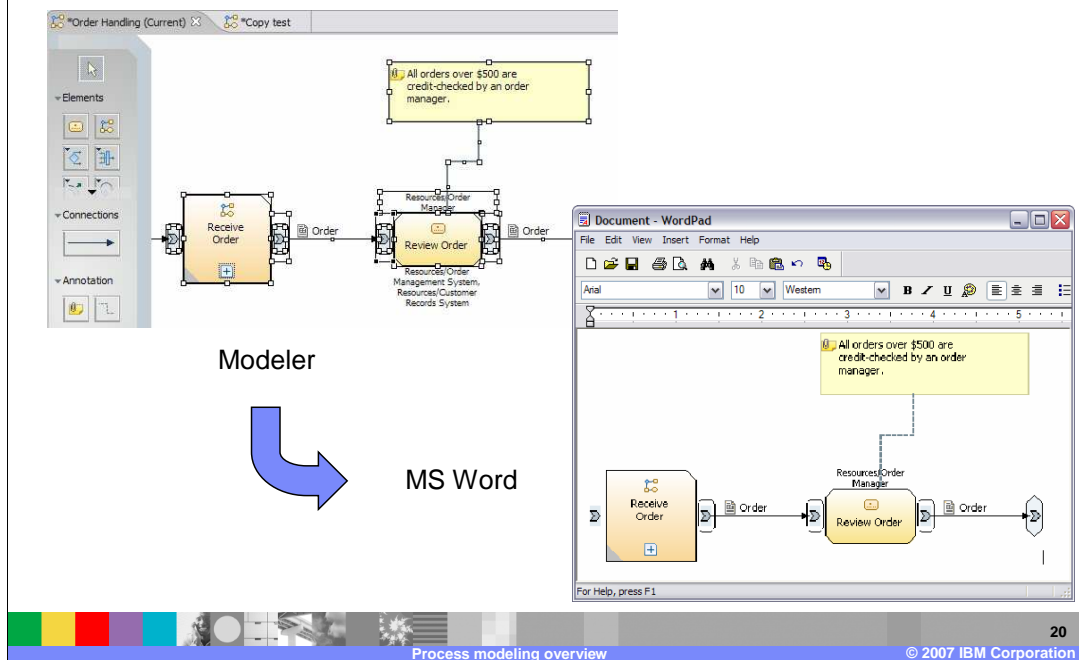
Shown here is the result for doing a multiple select, copying and pasting into a Microsoft Word document.

The marquee tool makes multiple select much easier. Use the marquee tool by holding down the left mouse key and moving the mouse, causing the marquee box to display with a bounding rectangle, which is used to enclose the elements you want to select. When all items are enclosed by the marquee box, release the mouse button and all the enclosed elements will be selected. To copy the entire model in one operation use the context menu (right-mouse-click) from the background of the business process diagram.

Reorder branches in process diagram

Existing 6.0.1	The order in which the outputs are created does not always line up in a way that lends for a nice readable diagram. The only option is to rearrange the downstream elements in the diagram.
New 6.0.2	The output nodes on decision, join, merge and fork elements can be reordered to 'untwist' the wires emanating from them.
Benefits	Cleaner more readable diagrams. Diagrams are easier to manipulate to obtain the optimal layout needed to convey the information clearly.

Reorder branches in process diagram is strictly a visual feature that does not affect the order of execution of the nodes. This feature provides the ability to change the order of the branches of Decision, Join, Merge and Fork in order to obtain a more readable diagram, with the logic not affected by the ordering of the nodes.

Reorder branches
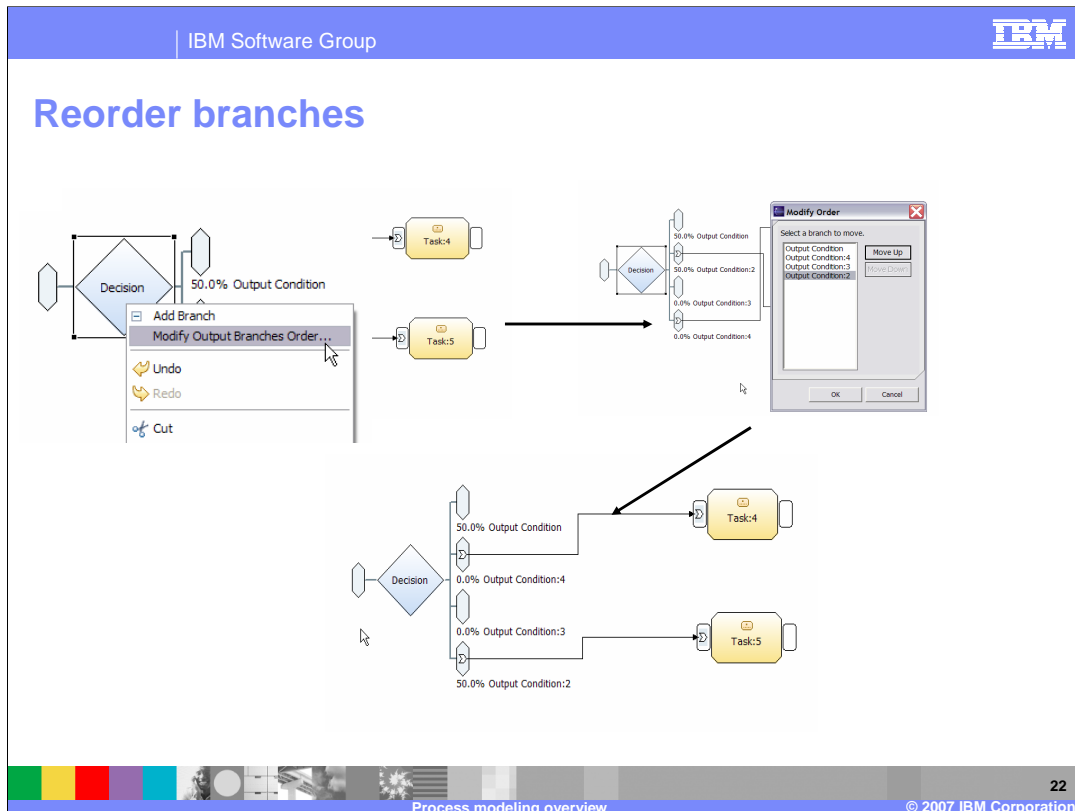
Shown here are the two outputs from the decision block, with output 2 and 4 having crossed wires. To uncross the wires, you can change the order, putting output 4 above output 2, making it much easier to trace the wires from source to destination.

Without this new feature, the business analyst would have to move the downstream elements, which in turn would push the intersection further downstream until it made it to the end. It is much easier and cleaner to simply change the order of the outputs at the source.

Section

WSDL import and WSRR

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This section covers WSDL import and WSRR.

WSDL import

Existing 6.0.1	Importing WSDL files and XML schema is not supported. It is introduced as a technical preview.
New 6.0.2	Import of WSDL and XMLSchema is fully supported. When exporting the model using the WebSphere Process Server export, the original WSDL is used and exported as part of the model.
Benefits	Provides for the capability of reusing the WSDL definitions across the enterprise and enables the development of a Service Oriented Architecture.

Process modeling overview

Prior to release 6.0.2 of WebSphere Business Modeler, importing WSDL and XML schemas was introduced as a technical preview. In WebSphere Business Modeler V6.0.2, importing WSDL files and XML Schema is fully supported in a manner that promotes interoperability with other tools. The import process preserves the contents of the wsdl and xsd files (such as annotations, port types, bindings, and service endpoints) all the way through to the export. This enables sharing of common interfaces and data structures with other tools like WebSphere Integration Developer and WebSphere Business Monitor Toolkit.

WebSphere Service Registry and Repository (WSRR)

Existing **6.0.1**	There is no support for the *WebSphere Service Registry and Repository*.
New **6.0.2**	Support for the *WebSphere Service Registry and Repository* has been added with Modeler v6.0.2
Benefits	Provides for the capability of <u>looking up and reusing</u> <u>Web Services</u> across the enterprise and enables the development of a Service Oriented Architecture.

The WebSphere Service Registry and Repository is a new product with which WebSphere Business Modeler can collaborate to get information such as service interfaces and data definitions. This enables business analysts to maximize the reuse potential of previously defined components and to participate in the development of a Service Oriented Architecture.

WebSphere Service Registry and Repository

- A repository of Web Services that can be searched.

- Helps to manage the reuse of existing Web Services in the enterprise.

- Modeler 6.0.2 now provides an interface to the *WebSphere Service Registry and Repository*.

- Enables the Business Analyst to search for and retrieve existing Web Services that can be used in modeling business processes.

Business analysts need to know what services are available, who owns them, and how well they have been tested. Once the service has been located and deemed ready for use, the business analyst then needs to be able to retrieve it and incorporate it into their business model. The WebSphere Service Registry and Repository provides this capability and WebSphere Business Modeler provides an interface for locating and retrieving the service interface and object definitions from the repository. While the WebSphere Service Registry and Repository does not come with WebSphere Business Modeler, the interface for accessing the repository does.

Using the WebSphere Service Registry and Repository

- Access is provided from the project context menu.
- This will invoke a series of dialogs that will guide the business analyst through setting up the connection to the repository, searching for existing Web Services and retrieving them.
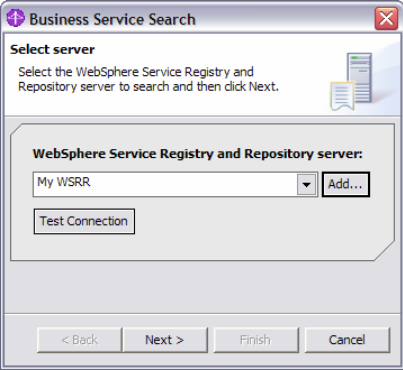- When the Service is retrieved it is placed in the *Business Services* folder in the project tree.
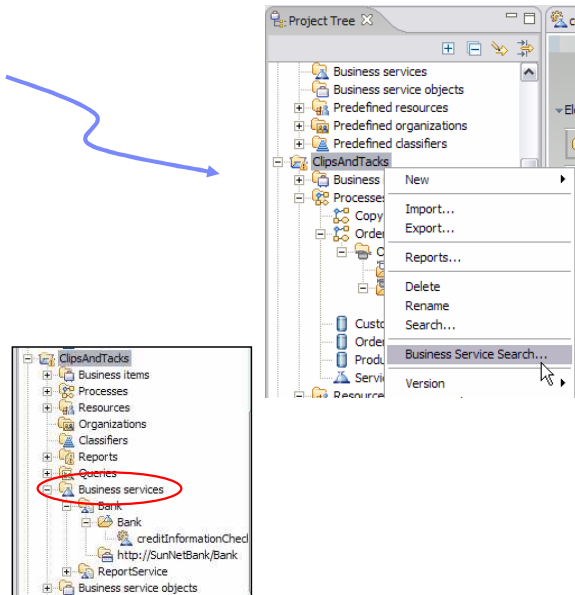
To browse a WebSphere Service Registry and Repository, right mouse click on the project in the project tree to invoke the context menu, where you will see an item labeled "Business Service Search". When this option is selected, a series of dialogs for locating, browsing and retrieving service definitions is presented. When the dialog has completed, the artifacts that are retrieved are placed into the Business Services folder in the project navigation tree, highlighted here with the red oval. Business analysts can create their own sub-folders for their projects and applications.

The following slides will cover the dialogs that are involved in this process.

Connecting to the WebSphere Service Registry and Repository

Connecting securely requires information about the KeyStore and TrustStore, including user ID and passwords.

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The "Business Service Search" dialog is the first dialog presented and the first thing you must do is create a connection to the WebSphere Service Registry and Repository. If you have already done this for one or more repositories, then they will be listed in the drop-down box. If you need to make a new connection, press add to access the "Add Service Registry" dialog, which prompts you to provide the information needed to connect to the repository. Security values are optional, but if you are connecting to a secure server, you will need to get the keystore and truststore information before you attempt this task. Once the values are entered, press ok and you will be presented with the "Business Service Search" query dialog, shown on the next page.
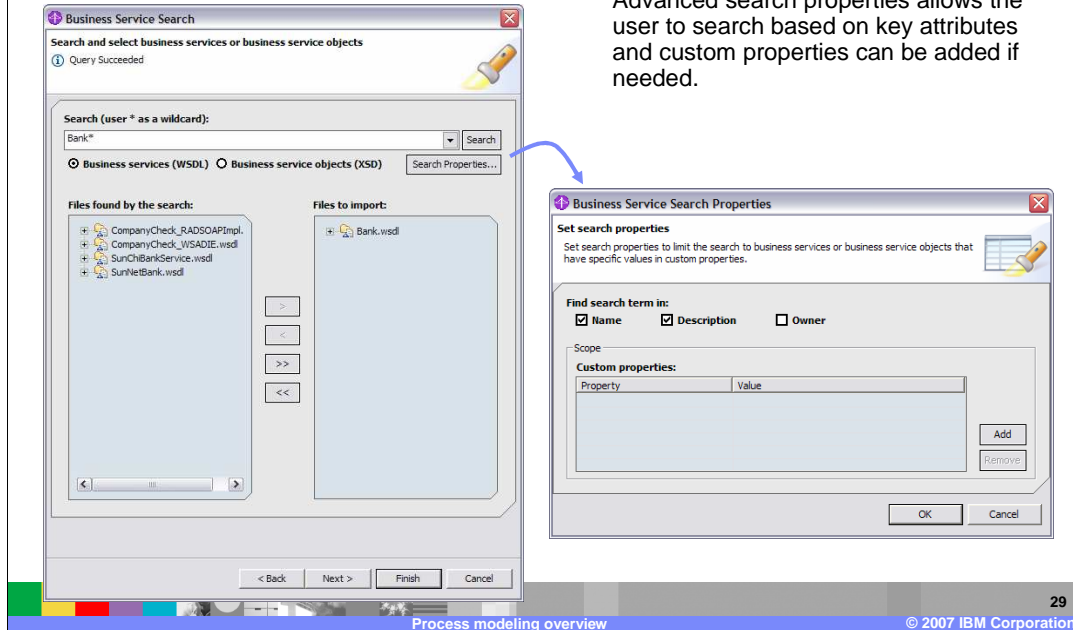
The Business Service Search Query dialog is shown here after submitting a query for all Web services whose name begins with Bank. Several possibilities were returned but only one was selected by using the buttons in the middle of the screen, which are used to move the selected item or items back and forth from one list to another. The radio buttons just below the entry field allow you to search for two kinds of objects, WSDLs or XSDs. The "Search Properties" button to the right of the radio buttons invokes the 'set properties' dialog, where you can set additional properties such as name or owner to your search. You can also add new custom properties if you need to refine the search.

Specify target project and catalog
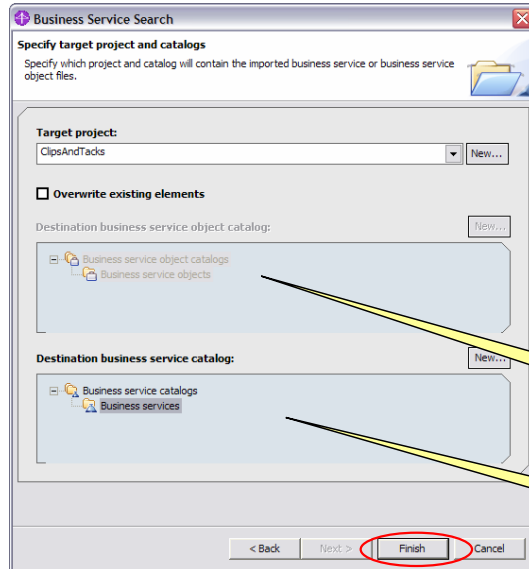
- All retrievals go into the Business Services or Business Service Objects catalogs

- Users can create their own Business Service catalogs

One final step is deciding where to put the newly imported objects or interfaces. The XSDs and the WSDLs go into separate catalogs and you can create your own subfolders within these catalogs. Either the Business Services catalog or the Business Services Objects catalog will be available, depending on which kind of objects are being retrieved.

Summary

- Process modeling is one of the cornerstones for understanding the business and improving business performance

- The process editor with Free-form and Swimlane views offer different options for modeling processes

- New enhancements improve usability and provide more efficient options

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In summary, WebSphere Business Modeler V6.0.2 is a full function business modeling tool that allows you to model business processes very effectively. There are two process editing modes, Free-From and Swimlane, each offering different options for modeling processes. There are several new enhancements, such as cut and paste to 3rd party tools, re-ordering outputs for clearer diagrams, support for importing WSDLs and Services with WebSphere Service Registry Repository. All of the new features help to improve usability, efficiency and development of Service Oriented Architectures.

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