IBM WebSphere Business Integration Modeler Advanced Edition

How to Demo WBI Modeler v 5.1

Version 5.1.0

Overview

In this document, you will be provided step-by-step overview of the most efficient and effective way to present the features and explain the benefits of WBI Modeler v 5.1. The following topics are covered:

- Value of WBI Modeler
- Installing WBI Modeler
- Importing existing WBI Modeler projects
- Modeling a simple process model
- Reviewing the modeling objects
- Ease-of-use features
- Creating a subprocess
- Sharing process models
- Simulating the process
- Importing Visio drawings

Value of WBI Modeler

| Features	Benefits
Intuitive and easy-to-use	Model your complex processes quickly and easily. WBI Modeler's drag-and-drop capabilities mean that you can construct detailed process flow diagrams— more quickly and easily than you can draw them. This flexibility is gained through the use of profiles that can facilitate the use of the tool depending on the user role.
Eclipse-based	WBI Modeler is now based on the Eclipse framework, and can be integrated into existing tools like WebSphere Studio.
Common language	Build a common language for communicating process elements and requirements throughout your company. WBI Modeler speaks the languages of Business and IT.
Modeling flexibility	Review your processes from a 10,000-foot level or drilled down to the most detailed Task levels.
Repository-based	Manage, share, and re-use all the process data that your team has collected. Ensure that the same data are used for specific objects throughout the model.
Enterprise data collection	Model business processes and associated business and time metrics, policies, business rules and procedures.
Animated simulations	Quickly discover potential bottlenecks by watching business processes come to life in WBI Modeler's animated simulations. WBI Modeler users frequently set up simulations containing very detailed information about the simulation's constraints and initial conditions.
Powerful analyses	Validate and optimize your business process by using WBI Modeler's 50+ analysis reports. These reports summarize business-process metrics and help your organization to understand the process' cost and time performances.
Built-in reporting	Save time needed to gather and format data. WBI Modeler contains reporting functions that provide written, numerical, and graphical information that provides valuable guidance in process analysis and redesign. Also you will be able to create your own report templates to gain maximum flexibility. Additionally you can export the reports and information to common formats like PDF, SVG, HTML and others.
Application development	Model business process-driven applications and identify the applications' specifications and requirements. WBI Modeler now UML files by transforming repository and process data to and from UML formats. Then, export the UML files for use in other application development tools, such as Rational XDE.
SOA support	Provide support for legacy MQSeries Workflow by generating Flow Definition Language (FDL) and also exports information to UML & BPEL that can be imported, binded and executed in WSAD IE/WBI Server Foundation.

Installing WBI Modeler 5.1

WBI Modeler v 5.1 software can be downloaded from the Xtreme Leverage Portal (http://w3-104.ibm.com/xl/download.nsf/Ticket?openform) and if needed, product documentation is downloaded separately from the WBI Modeler v 5.1 Website (http://www-306.ibm.com/software/integration/wbimodeler/library/).

WBI Modeler 5.1 can be enrolled into an existing installation of WebSphere Studio Application Developer Integration Edition 5.1 (Windows and Linux).

Importing existing WBI Modeler samples

1. **Click** Start (on Windows Taskbar)
2. **Select** Programs > WebSphere Business Integration Modeler > WebSphere Business Integration Modeler
3. **Type** the path were you want to place your WBI Modeler workspace (folder where models reside).
4. **Click** 'Cancel' to skip the QuickStart Wizard
5. **Click** the Apply 4-pane layout button in the toolbar
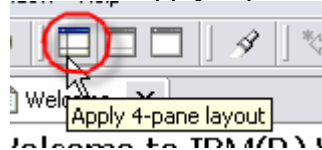
6. **Click** File > Import
7. **Click** 'WebSphere Business Integration Modeler Import'
8. **Click** 'Next >'
9. **Click** 'WebSphere Business Integration Modeler V5 Project'
10. **Click** 'Next >'
11. **Click** 'Browse' in the source directory and go to where the ABC project (.zip file) resides. C:\Program Files\IBM\WBI Modeler\Samples\
12. **Click** 'New' in the target project. The 'Create a new business process modeling project' dialog box opens
13. **Type** 'ABC' in the 'New Project Field' field
14. **Click** 'Finish' and the dialog box closes
15. **Click** 'Finish' in the import dialog. A new project appears in the Project Tree view

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Modeling a simple business process

For this demonstration we will model a new 'Telephone Order Placement' process. When you begin your customer demonstration, be sure you begin in the 1-pane layout.

1. **Right-click** the Processes catalog inside the ABC Project
2. **Click** 'New > Process' in the emerging menu
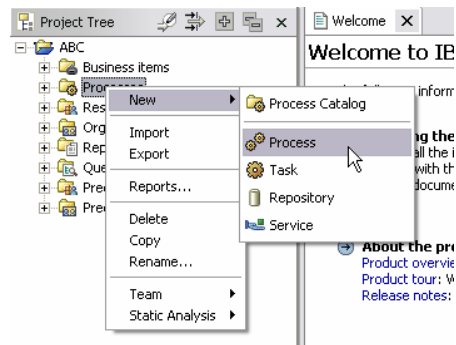
3. **Name** the process 'Telephone Order Placement'
4. **Type** 'This process represents the telephone order placement process of ABC' in the description field
5. **Click** 'Finish'

A white canvas is displayed in the right of the screen representing the blank process we have just created. We will now add different modeling objects to our process.

6. **Click** the 'Task' button and place on the white canvas
7. **Name** the new task 'Ask For Customer ID'
8. **Click** the 'Decision' button (Simple Decision) and place after the previously created task
9. **Name** the decision 'Already A Customer?'
10. **Click** the 'Task' button and place after the 'Yes' choice of the previously created decision
11. **Name** the task 'Verify Customer Information'

Your process model should look as follows:
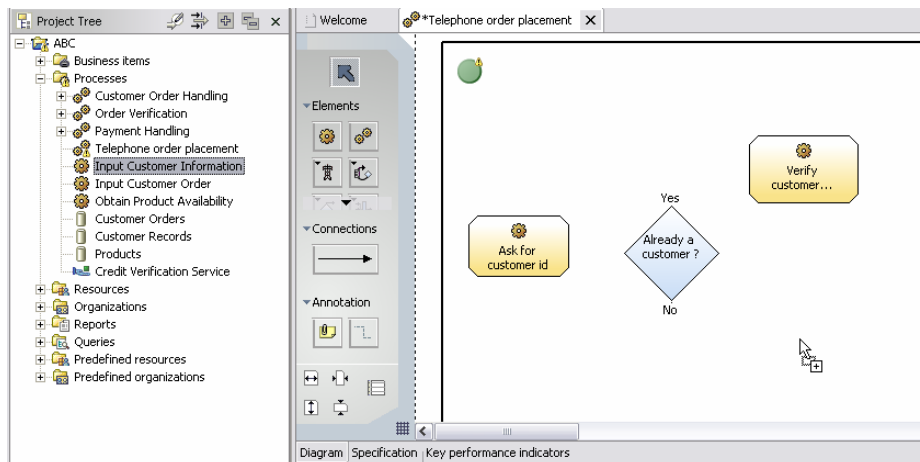
12. **Click-and-drag** the 'Input Customer Information' global task (from the Project Tree) and place after the 'No' choice of the 'Already A Customer?' decision

13. **Click** the 'Merge' button ![merge button] and place after the 'Verify Customer Information' task and the 'Input Customer Information' task (may need to click on 'Join' button show all icon choices)
14. **Click** the 'Task' button and place on the white canvas
15. **Name** the new task 'Take The Order' after the merge

Your process model should look as follows:
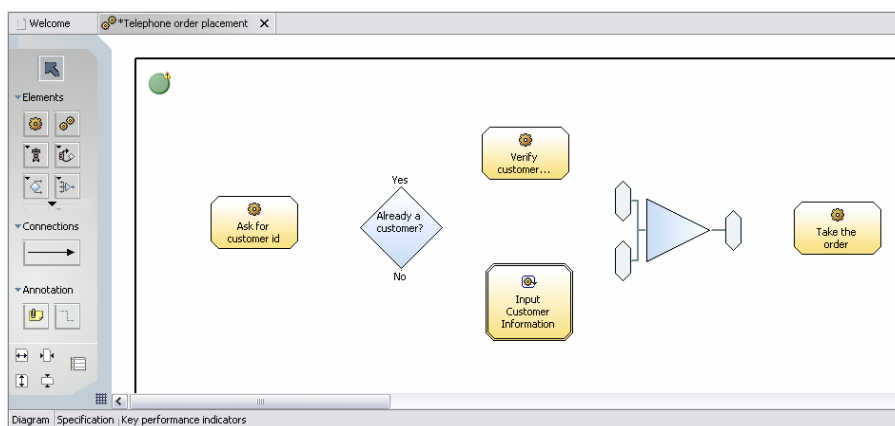
Now we will connect the objects, to provide a clear process flow.

16. **Click** the 'Connection' button from the palette
17. **Click** inside 'Process Start' object (depicted by a green circle) and release over the 'Ask For Customer ID' task
18. **Click** the 'Ask For Customer ID' task and release over the 'Already A Customer' decision

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19. **Click** the 'Yes' choice and release over the 'Verify Customer Information' task
20. **Click** the 'No' choice and release it over the 'Input Customer Information' global task. (A dialog box will prompt you if you want to create a new input and output connections. Click 'OK' to accept the creation of the new input.)
21. **Click** the 'Verify Customer Information' task and release over the top merge connection
22. **Click** the 'Input Customer Information' global task and release over the bottom merge connection.   (Again a dialog box will prompt you to create a new output and input. Click 'Input:2' from the Merge : Target object. Click 'OK')
23. **Click** the merge object and release over the 'Take Order' task. (Again a dialog box will prompt you to create a new output and input. Click the 'Output' choice from the Merge : Source object. Click 'OK')
24. **Click** 'File > Save' to save our newly created process

The process diagram should look similar to the one in the figure below. (To delete one of the connections just select it using the 'Selection Tool', and press the 'Del' key or **Right-click** the connector and select 'Delete' from the emerging menu):

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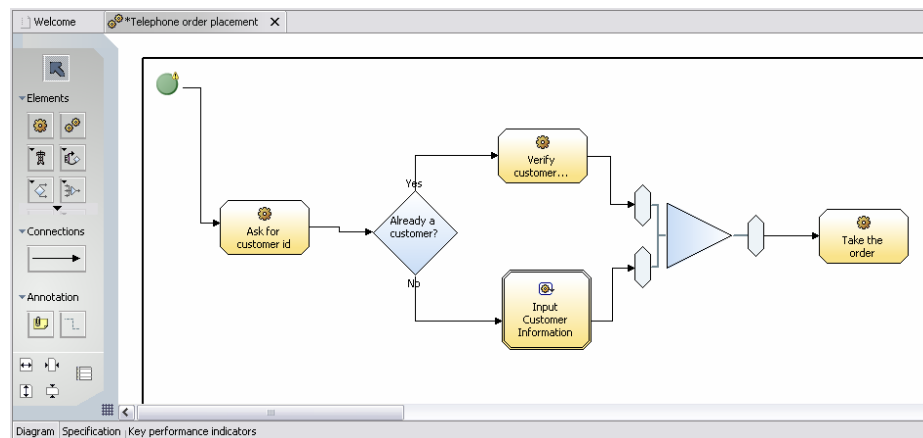
Reviewing the modeling objects

As reference, included below is the table of all the features that can be used in the process diagram. For further information please refer to the product documentation.

| Icon	Name	Description
	Selection tool	Makes the mouse into a selector
	Local task	One of the basic building blocks of the model. A task performs a function within the process. A local task is used only within this process. (Global tasks are found in the Project Tree)
	Local process	An activity performed within a company or organization. A local process is used only within this process. (Global processes are found in the Project Tree)
	Notification broadcaster	A task that broadcasts notifications
	Notification receiver	A task that listens for notifications
	Observer	A task that watches for specific conditions
	Timer	A task that produces output at specified times
	Map	A task that transforms data
	While loop	A loop that repeats a sequence of activities as long as some condition is satisfied, testing the condition at the beginning of every loop
	Do-while loop	A loop that repeats a sequence of activities as long as some condition is satisfied, testing the condition at the end of every loop
	For loop	A loop that repeats a sequence of activities a specified number of times
	Decision	An element that routes inputs to one of two alternative outgoing paths
	Multiple-choice decision	An element that routes inputs to one of several alternative outgoing paths
	Fork	An element that makes copies of its input and forwards it by several processing paths in parallel
	Join	An element that recombines and synchronizes parallel processing paths after a decision or fork
	Merge	An element that recombines processing paths after a decision or fork
	Local repository	A datastore used only within this process (Global repositories are found in the Project Tree)
	Start node	A node that identifies the start of a process

Icon	Name	Description
⊗	End node	A node that identifies the end of a flow within a process
●	Stop node	A node that marks the end of a process
——	Connection	A link between elements
📝	Annotation	A comment or note
⌐	Annotation connection	A connection that associates an annotation with an element in the diagram
↔	Increase horizontally	Increases the width of the drawing surface by moving the border that surrounds the process
↕	Increase vertically	Increases the height of the drawing surface by moving the border that surrounds the process
▯	Decrease horizontally	Decreases the width of the drawing surface by moving the border that surrounds the process
▯	Decrease vertically	Decreases the height of the drawing surface by moving the border that surrounds the process
▤	Launch swim lane viewer	Shows activities grouped by role, resource, organization unit, or location
▦	Show grid	Applies a grid to the diagram

Ease-of-use features

We will explore some modeling features included in the WBI Modeler that will help professional business modelers become more productive.
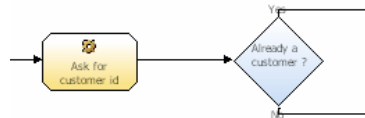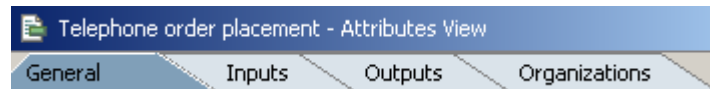
User profiles

Business Integration Modeler provides three different user profiles. The profile you choose determines the level of detail you see in diagrams, dialog boxes, and wizards. In general you will stay with a single profile that suits your way of working. If you occasionally want to specify a different level of detail for a model or some aspect within it, you can switch to another user profile.

You can choose from the following profiles:
Basic Business Modeling (the default)
Intermediate Business Modeling
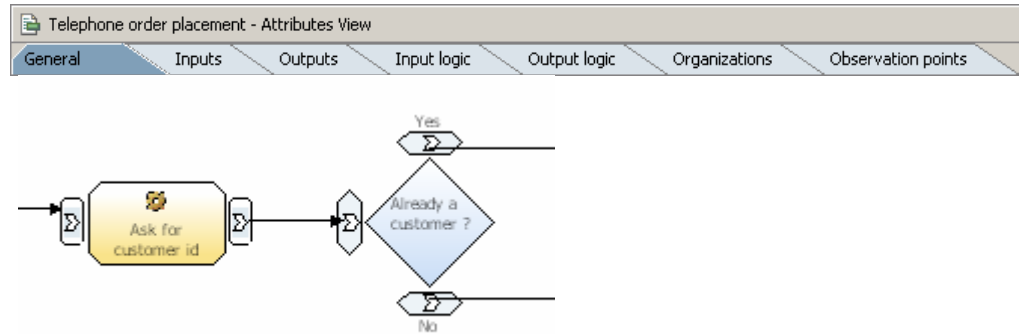Advanced Business Modeling

To showing some differences:
1. **Click** the Basic Business Modeling button . (Notice there are four tabs available on the attributes view pane)

The Basic Business Modeling profile (the default user profile) is focused on purely business modeling. Choose this profile if you are working as a business analyst, business modeler, or domain expert. You will focus mainly on sequences of activities, and capture complex logic and business rules in the form of documentation

2. **Click** the Intermediate Business Modeling button . (Notice there are seven tabs available on the attributes view pane)

The Intermediate Business Modeling profile allows the more technically focused user to specify and view additional details of process and data models. Choose this profile if you are working as a business architect or business process engineer. You will be able to add formal expressions, specify cardinality, and see the inputs and outputs in process diagrams.

3. **Click** the Advanced Business Modeling button 🖳 (Notice there are seven tabs available on the attributes view pane; advanced input/output logic)
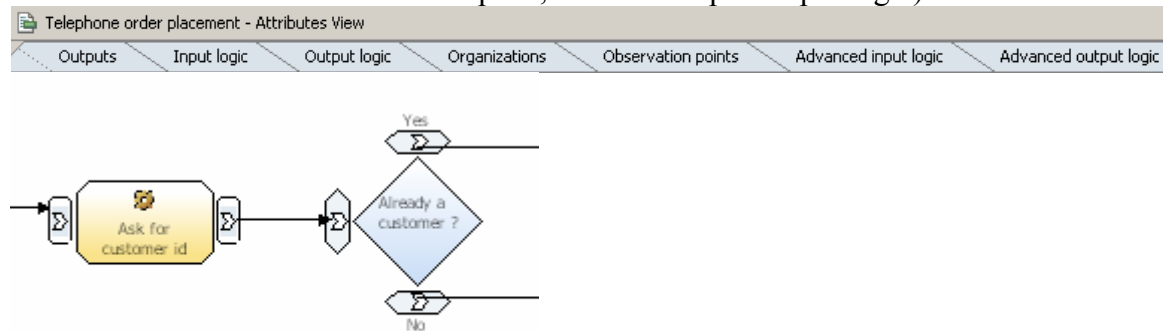
The Advanced Business Modeling profile provides the most comprehensive level of detail for process models and data models. Choose this profile if you are working as a solution architect or IT architect. This profile facilitates the work of people who prepare models that will be used as the basis for software applications. You can specify invocation characteristics, static fields, and instance correlations.

Technology modes

Business Integration Modeler provides three different technology modes that you can use when you are modeling business processes. Each of these technology modes is optimized for a different purpose.

You can choose from the following technology modes:

Operational (default)
The Operational technology mode is the default, and provides the most comprehensive detail of the three technology modes. Where the other two modes conceal details that would not be relevant in the intended output format, the Operational technology mode presents the complete set.

BPEL
The BPEL technology mode is optimized for exporting models to WebSphere® Business Integration Server Foundation, which includes files in three formats: BPEL (Business Process Execution Language), WSDL (Web Services Description Language), and XSD (XML Schema Definition). You can use these files to import to WebSphere Studio Application Developer Integration Edition to develop executable application code based on your model.

MQ Workflow FDL
The MQ Workflow FDL technology mode is optimized for exporting models to FDL format, which you can use in IBM® WebSphere MQ Workflow as an automated workflow solution.

When you switch from the Operational technology mode to another mode, the following changes occur:
- Some options become disabled
- Some notational elements become disabled
- A previously valid model may now be invalid, since the BPEL and MQ Workflow FDL technology modes are more restrictive and have additional validation rules

The way in which you interact with Business Integration Modeler remains the same in all three technology modes. Switching to another mode does not cause any loss of information.

To showing how some elements are not available in BPEL technology mode:

1. **Click** the Operational mode button
2. **Right-click** the drawing service
3. **Select** 'New' from the emerging menu. The following context menu shown is displayed:
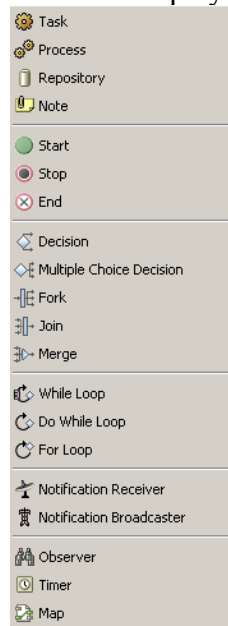
4. **Click** the BPEL mode button
5. **Right-click** the drawing surface
6. Select 'New'. The context menu shown below is displayed:
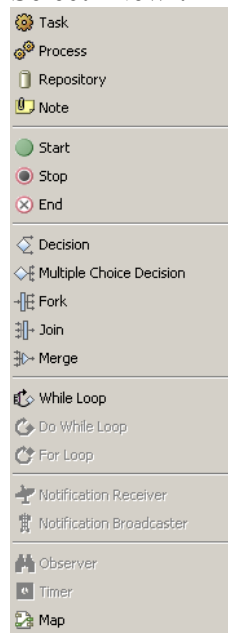
Notice that some elements appear grayed-out and disabled. The objects are also, grayed-out and disabled toolbar.

Snap-to-grid

Now we will explore other modeling features that can help us in our efforts. We will first explore the modeling grid.

1. **Click** the 'Toggle grid on editor' button on the bottom-left area of the process editor. You will notice a grid displayed as dots in the process flow area.
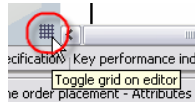

2. **Click-and-drag** one or more process objects to the palette. You will notice the objects snapping towards the grid, giving a more controlled modeling environment.

Swim lane viewer

Now we will explore a new feature in WBI Modeler 5.1 -- Swim lane viewer. With this feature we can easily review what roles, resources, organization units and locations are used throughout the process. First, we will add some information to our newly added 'Verify Customer Credit Line' task.

1. **Select** the 'Verify customer credit line' task. (You will notice that the Attributes View below presents this task's attributes)
2. **Select** the 'Resources' tab
3. **Select** 'Add' in the 'Role Requirements' table. (When the 'Add' button is selected a row is created in the 'Role requirements' table)
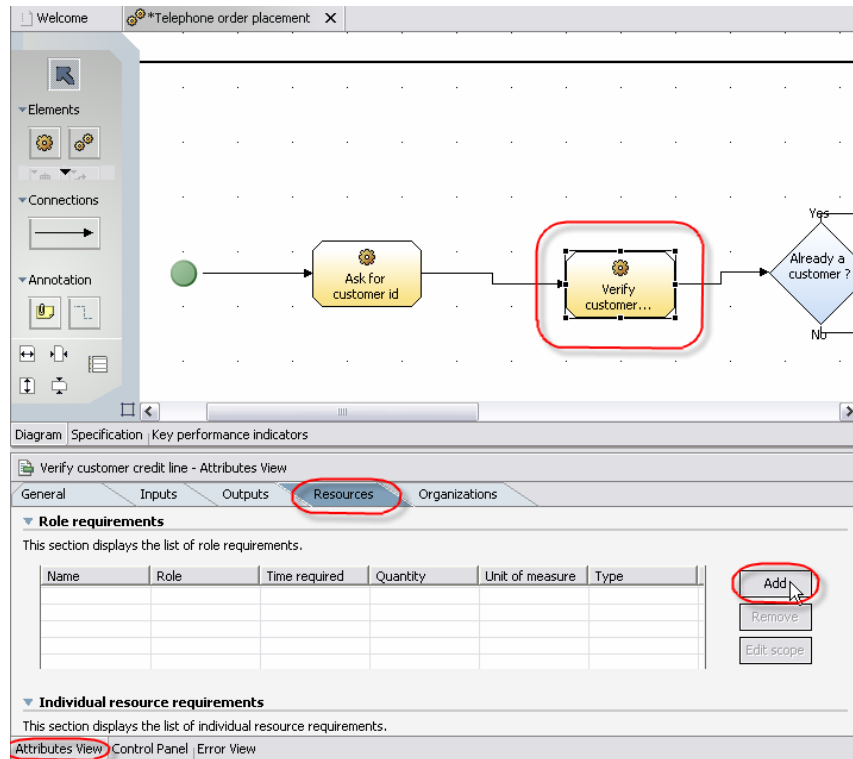
4. **Double-click** the 'Role' cell of the newly created row

5. **Click** the button displayed inside the cell ⌐⋯⌐. The 'Role requirements selection' dialog pop-up appears

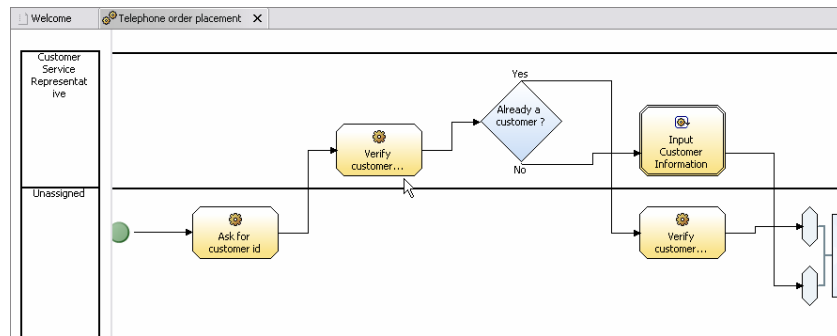6. **Select** 'Customer Service Representative' from the dialog, and **Select** 'OK'
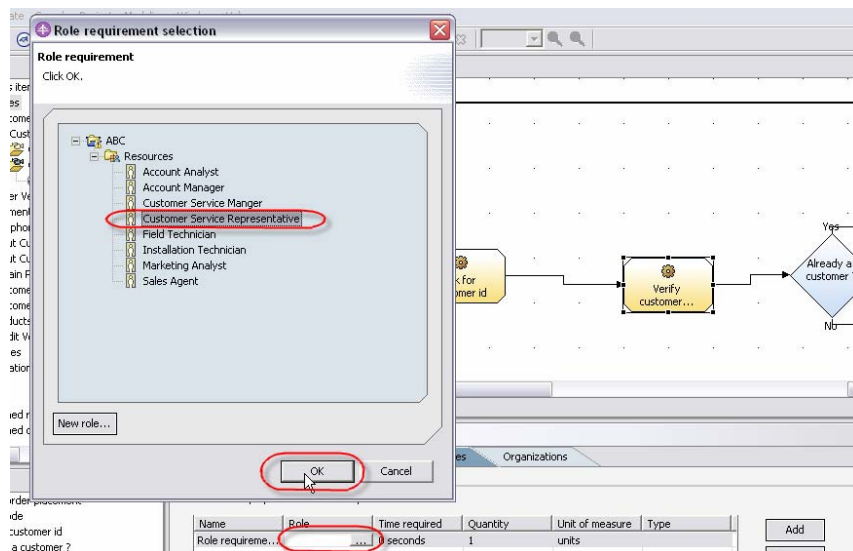
7. **Double-click** the 'Time required' cell.

8. **Click** the button displayed inside the cell ⬚. The 'Select duration' dialog pop-up appears
9. **Change** the duration of the requirement to 10 minutes. **Click** 'OK' to close the dialog box
10. **Click** the 'Swim Lane' button from the palette.
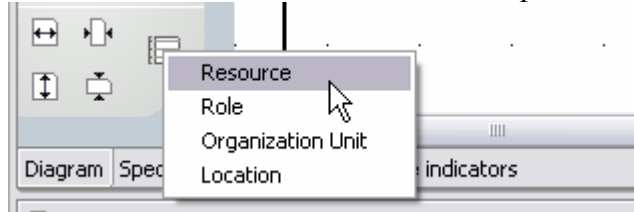
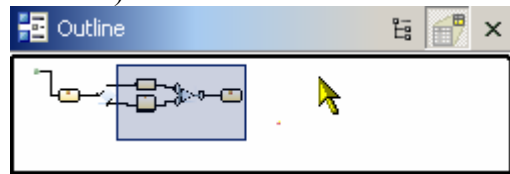11. **Select** 'Role' from the emerging menu

You will find that the 'Verify Customer Credit Line' task and the 'Input Customer Information' global task are both performed by the 'Customer Service Representative' role.

12. **Right-click** in a blank area in the process palette and **Select** 'Switch to process editor' from the emerging menu, to return to the process model

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Outline view

If you want to go to a particular part of a large diagram, a quick and precise way is to use the thumbnail in the Outline view.

1. **Click** the Apply 4-pane layout ⬛ icon to switch to 4-pane
2. **Click** the 📑 Thumbnail button in Outline View (bottom left pane) (In the view, either click the location in the thumbnail you want to see or drag the blue box to the location)
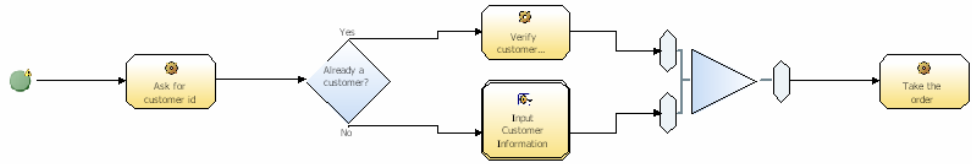

Auto-layout

1. **Click-and-drag** the various objects and produce a cluttered environment
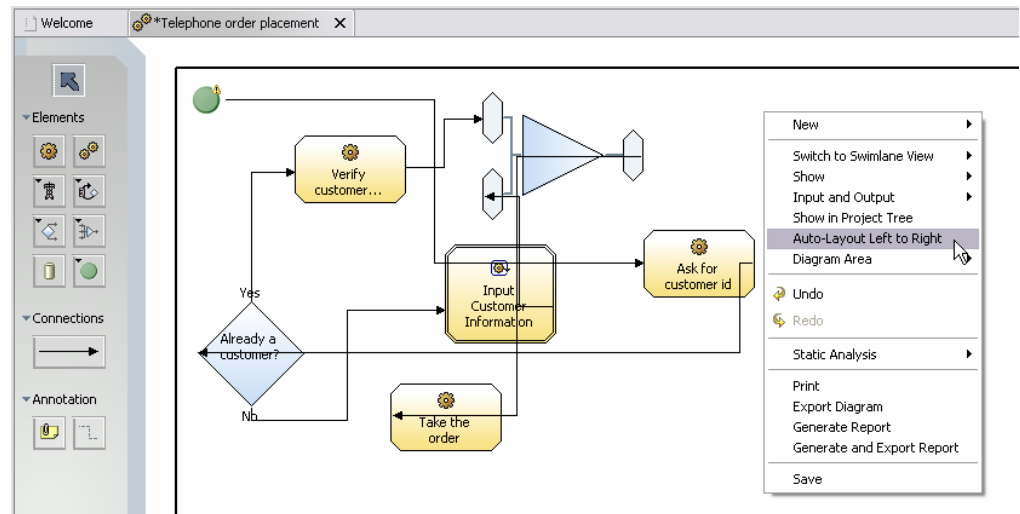
2. **Right-click** the drawing service
3. **Select** 'Auto-Layout Left to Right' from the emerging menu.

This option will auto arrange the different modeling objects and produce a clear process flow, like the one in the figure below:

Increase modeling palette

There are a number of icons underneath the modeling palette that will help us control the size of our drawing area.

1. **Select** zoom of 50% (from the toolbar) to see a broader view of our business process
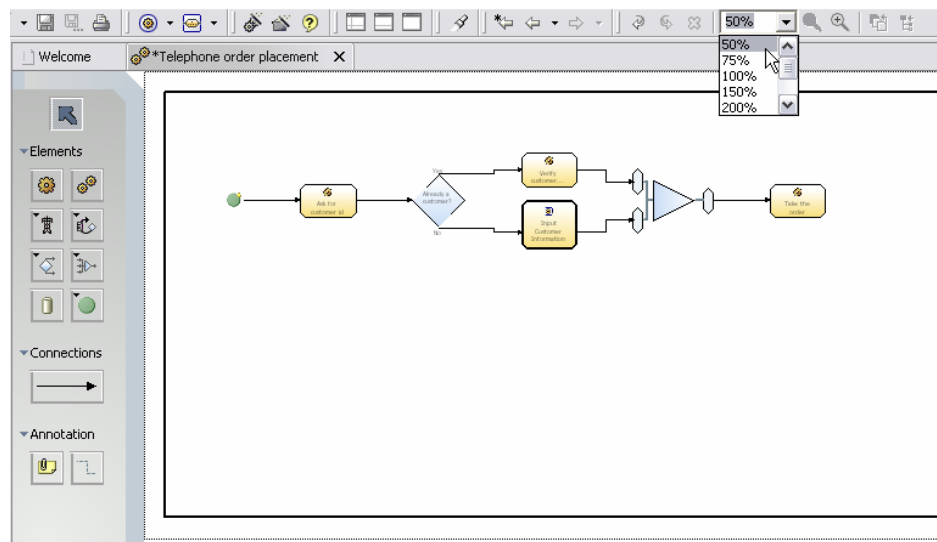

2. **Click** the 'Decrease Vertically' button in the palette twice to narrow our business process drawing area

Add space between objects

There are also times when we need to include space between objects (maybe to include new ones).

1. **Select** zoom of 100% from the toolbar to restore the original zoom
2. **Right-click** the space between the 'Ask Customer For ID' task and the 'Already A Customer' decision

3. **Select** 'Diagram Area > Insert Horizontal Space' option from the emerging menu. (You will notice that effectively the rest of the business process shifts to the right)
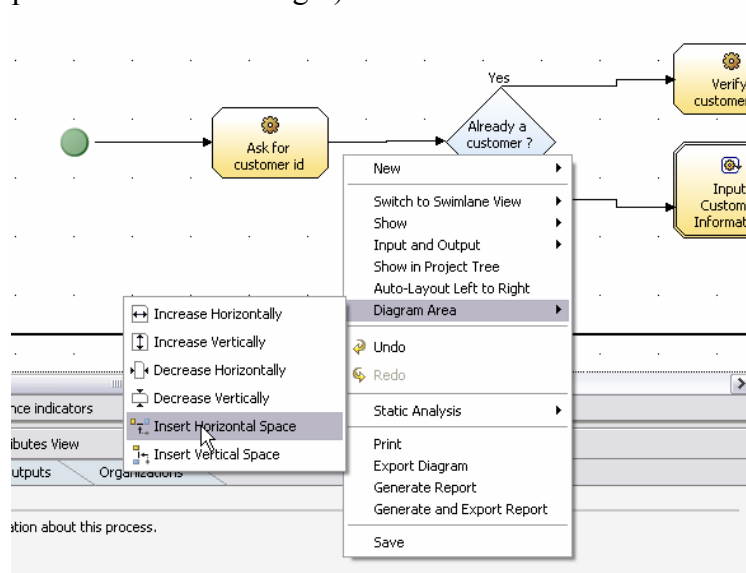
4. **Delete** the connector between the 'Ask For Customer ID' task and 'Already A Customer?' decision
5. **Insert** a new task between these two objects and name it 'Verify Customer Credit Line'
6. **Click-and-drag** the connection to link the task and decision objects
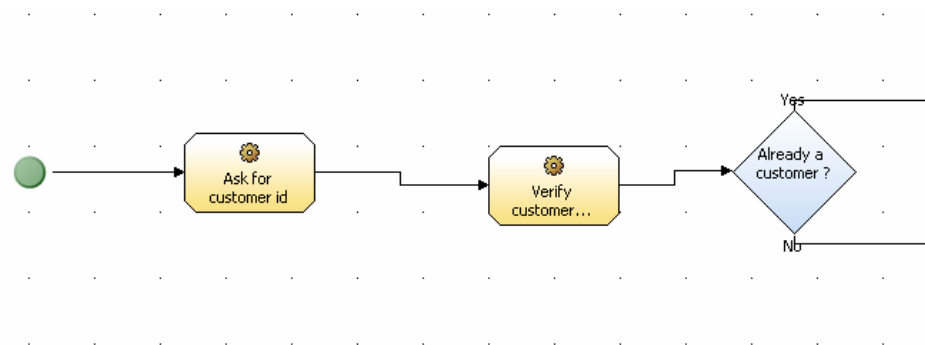
Creating a sub-processes

We will now delete the 'Verify Customer Information' local task and we will replace it by a local sub-process that will give depth to our model.

1. **Click** on the 'Verify Customer Credit Line' task and delete. (You can delete the task by selecting it and pressing the 'Del' key or **Right-click** the task and select 'Delete' from the emerging menu)

2. **Click** the 'Subprocess' button and place inside the area between the 'Ask For Customer ID' task and the 'Already A Customer?' decision.

Your process model should look as follows:
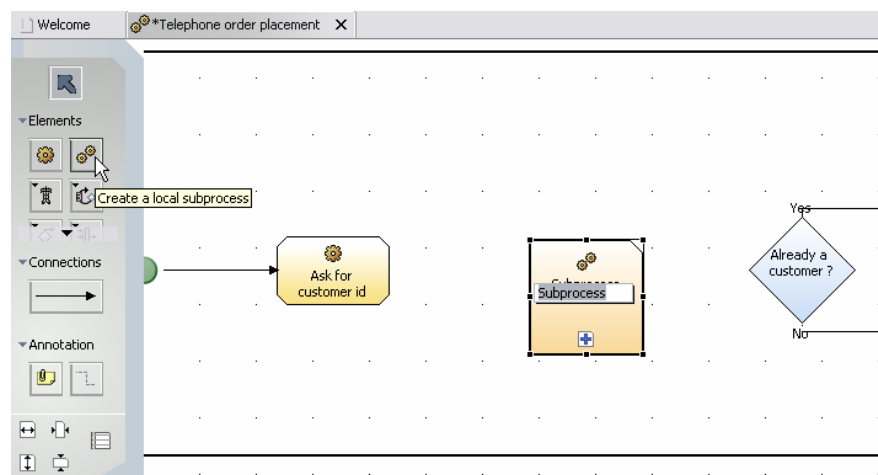
3. **Name** the subprocess 'Verify Customer Credit Line'
4. **Select** the 'Connector' from the drawing palette
5. **Click** inside the 'Ask for customer id' local task and release it inside the newly created subprocess
6. **Click** inside the newly created subprocess and release inside 'Already a customer?' decision
7. **Select** the 'Selection' object from the drawing palette.
8. **Click** the blue plus sign of the newly created subprocess. (A new blank canvas is displayed in the drawing area. This canvas will contain the activities for the 'Verify Customer Credit Line' subprocess)
9. **Click** the 'Task' button and place after the 'Start' node (the green circle)
10. **Name** the task 'Query Customer Credit Information'
11. **Click** the 'Task' button and place after the 'Query Customer Credit Information' task

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12. **Name** the task 'Verify Customer Is Up to Date On Payments'
13. **Click-and-drag** the 'Stop' node (that is found in the bottom right corner of the diagram) and place it to the right of the 'Verify Customer Is Up to Date On Payments' task
14. **Click** the 'Connector' button from the palette
15. **Click** the 'Start' node (the green circle) and release it inside the 'Query Customer Credit Information' task
16. **Click** the Query customer credit information' task and release inside the 'Verify Customer Is Up to Date On Payments' task
17. **Click** the 'Verify Customer Is Up to Date On Payments' task and release inside the Stop node

The diagram should look similar to the one displayed in the diagram below.
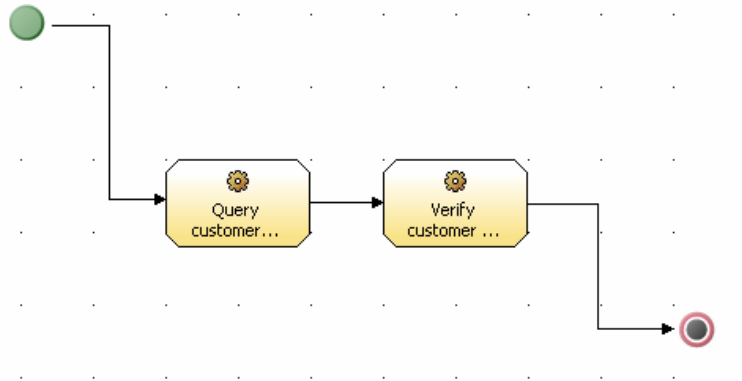
Sharing process models

Now we will explore the capabilities in WBI Modeler 5.1 for exporting process information in a graphical manner. We will export the process diagram from WBI Modeler to SVG or JPG images, so that they can be shared and reviewed by others.

1. **Right-click** in a blank area of the 'Telephone Order Placement' business process
2. **Select** 'Export Diagram' from the emerging menu
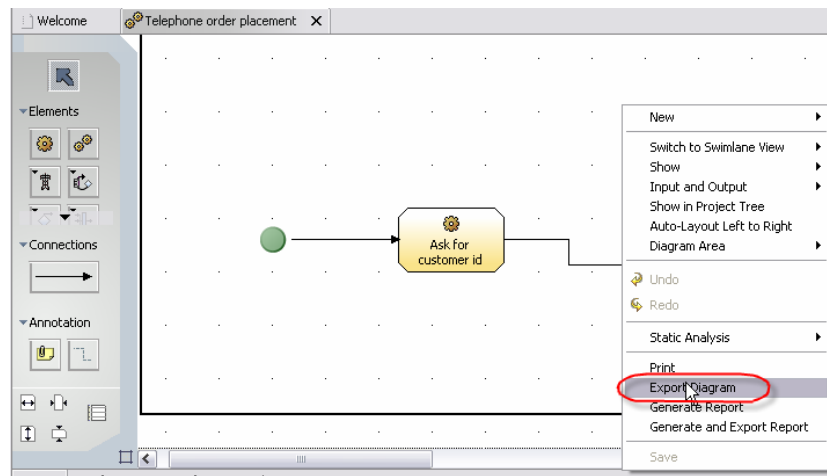
3. **Select** 'jpg' from the 'Format for Exporting' in the 'Export Diagram' dialog box
4. **Type** 'c:\telephone_order.jpg' on the 'Export Location' field.
5. **Click** 'Finish'
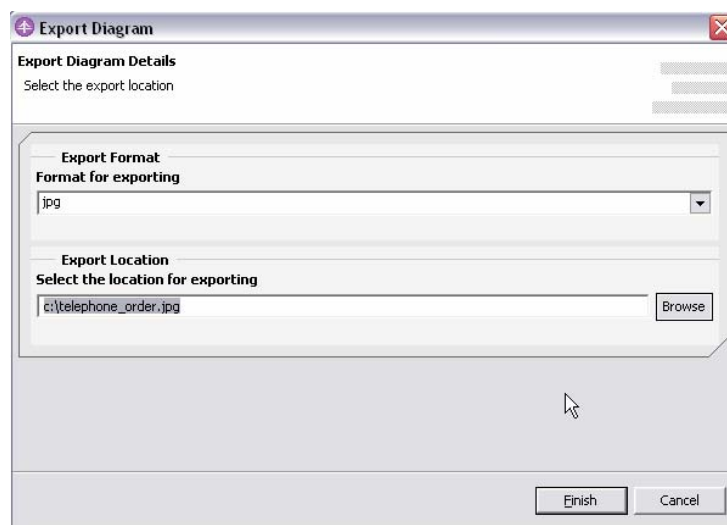
6. **Right-click** on Start button
7. **Select** 'Explore' from the emerging menu. Go to 'C:\' to find the newly created image
8. **Double-click** the file and verify it represents our business process.
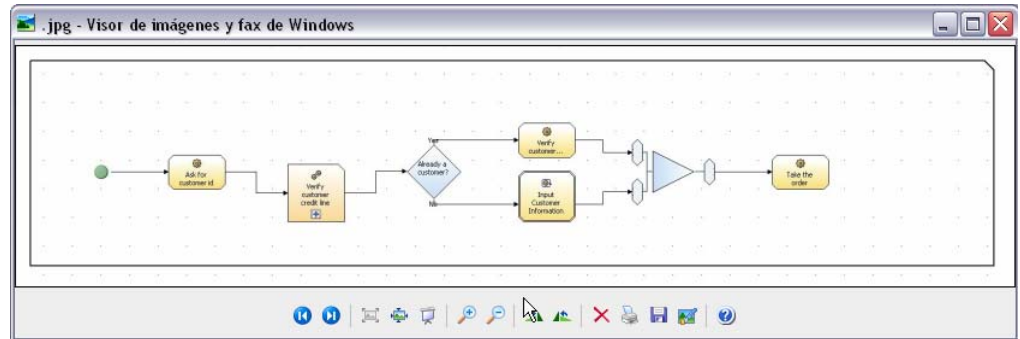

Note that the other possible export format is SVG which is an Adobe extension to visualize information. To view this file open it with a web browser and it will prompt you to download the Adobe plug-in. This viewer has rich functionality including the possibility to search for text inside the diagram.

Simulating the process

Please note that we are simulating the previously created 'Telephone order placement' business process. The creation of a simulation snapshot can take several seconds, and probably for customer demos it would be preferable to have a previously created snapshot already open.
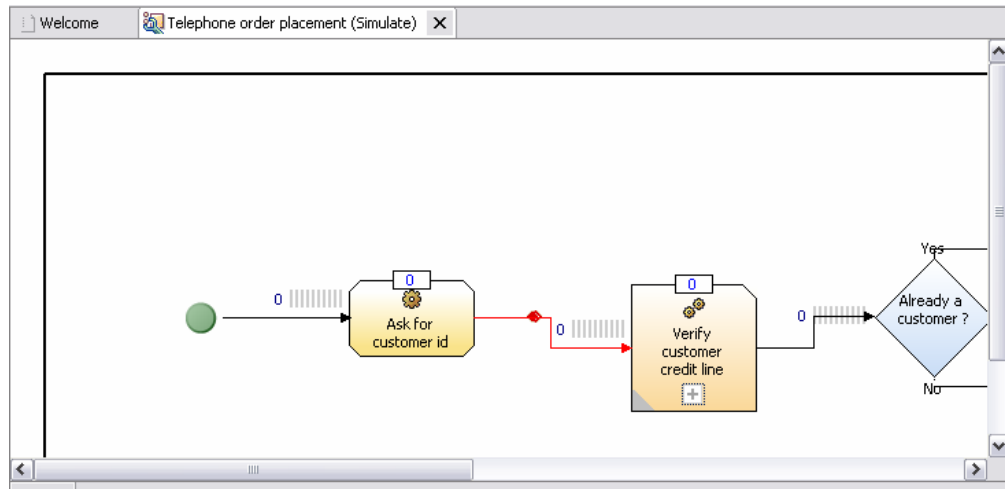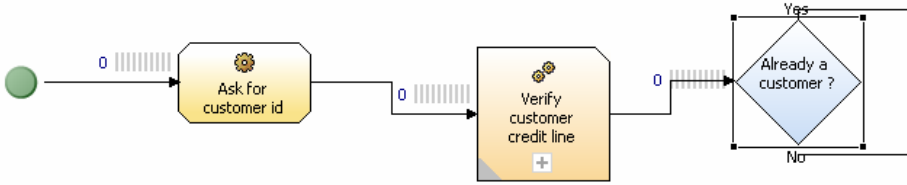

1. **Right-click** the 'Telephone Order Placement' business process from the Project Tree view
2. **Select** 'Simulate' from the emerging menu
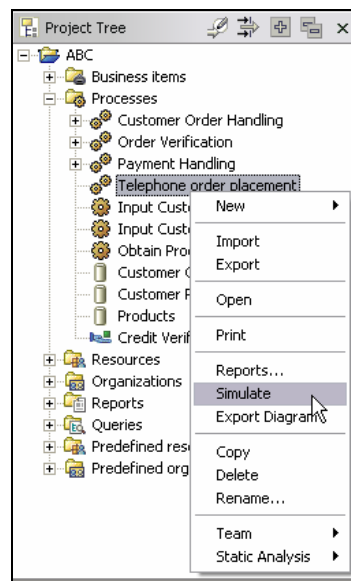
A few seconds later a simulation profile will open on the editor view. The
diagram looks similar to the business process editor; although you will notice that
besides every object there will be queue. Also you will notice that the
'Attributes' view changes to display simulation properties.
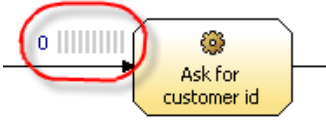
3. **Select** the 'Decision' object from the drawing
4. **Select** the 'Output logic' tab
5. **Double-click** the Probability (%) cell of the 'Yes' output. Change the
   probability to 80, select the 'No' output and change the probability to 20.
6. **Select '**Based on probabilities to single path' from 'Method of selecting an
   output path:'(This way, you can control and modify how the business
   process behaves, and reflect true business behavior)

7. **Select** the 'Control Panel' view from the lower pane

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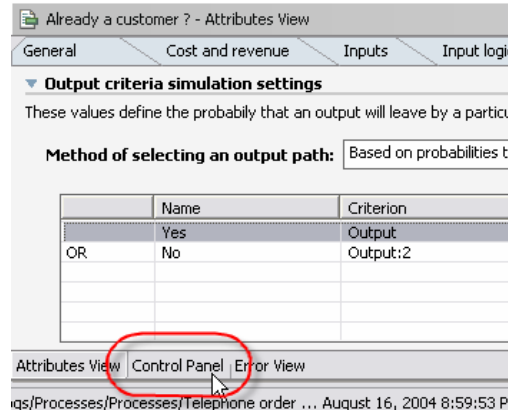
8. **Click** on 'Ask For Customer ID' task
9. **Click** 'Select Value' next to 'Time required to finish task'. The 'Edit simulation attribute pop-up appears:
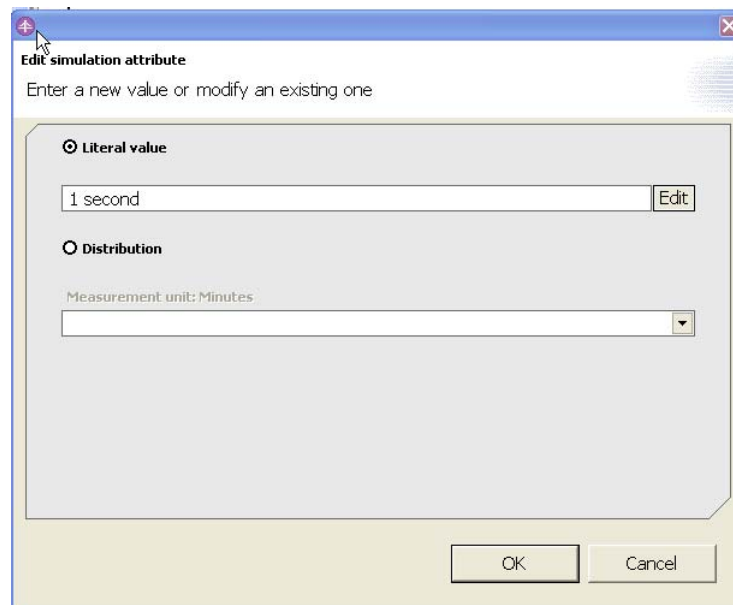
10. **Click** 'Edit'. (If the Distribution radio button is selected, the user selects various distribution scenarios. This is an advanced simulation capability). The 'Edit duration fields' pop-up appears
11. **Click** the 'up/down' arrows to adjust the task time
12. **Click** 'OK'
13. **Click** the 'Cost and revenue' tab. Add cost/revenue information, as necessary. (If time permits, add additional time, cost and revenue details to the remaining tasks)

14. **Click** the 'Run simulation' button
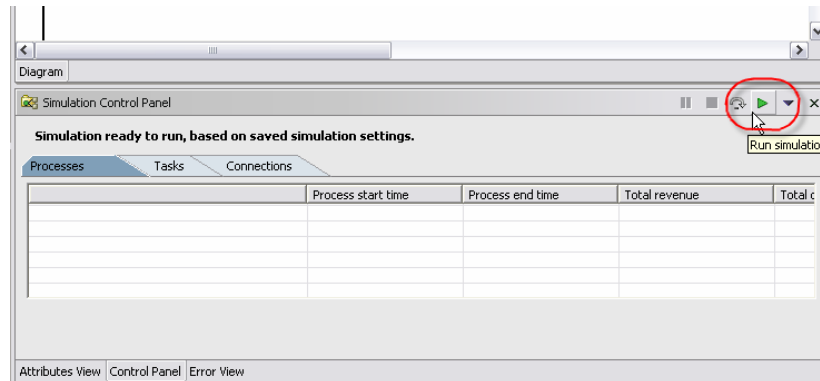
Simulation will run for one process instance (one token will be created) and by default animated.

15. **Right-click** the drawing service and select 'Expand All'.
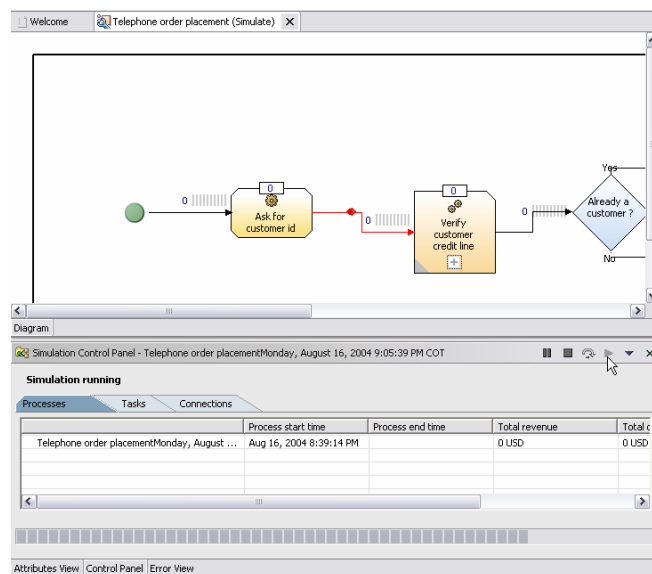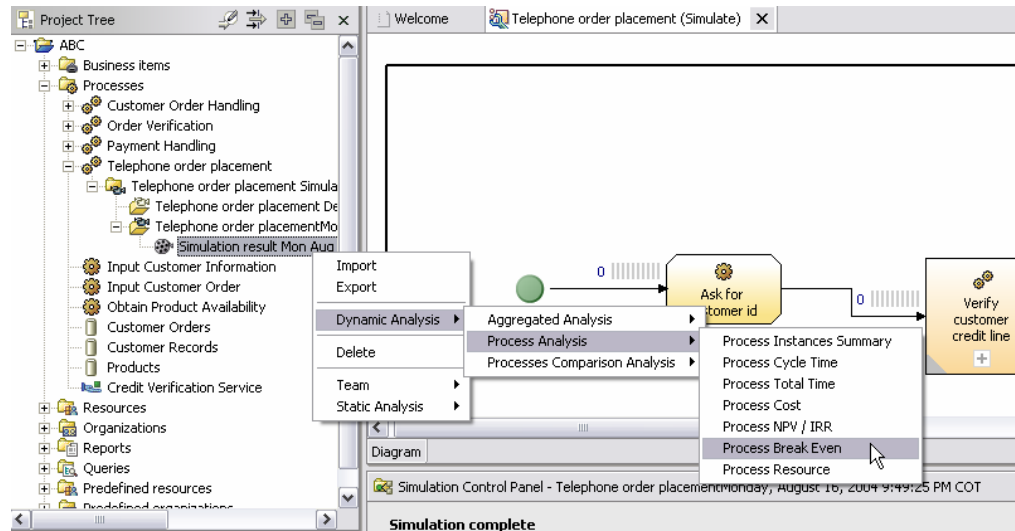

Notice that below the business process simulation profile a 'Simulation result' is created.

16. **Right-click** the simulation result
17. **Select** 'Dynamic Analysis' from the emerging menu
18. **Select** and review any of the reports

Importing Visio drawings

You can import shapes from Microsoft® Visio files. These shapes can be used to create elements such as tasks and business items in Business Integration Modeler. You can import from Microsoft Visio 2002 or 2003. Predefined mappings include all shapes from the Basic Flowchart stencil, IDEF0 stencil, and SDL Diagram stencil. To import shapes from Visio files, first save the drawing as an 'XML Drawing. (In Visio, select File > Save As > XML Drawing (*.vdx)).

Existing .vdx files are provided with the WBI Modeler product install:

1. **Right-click** in the 'Project Tree '
2. **Select** 'Import' from the emerging menu. The Import wizard appears.
3. **Select** 'WebSphere Business Integration Modeler Import'
4. **Click** 'Next >'
5. **Select** the Microsoft Visio file (.vdx).
6. **Click** 'Next'
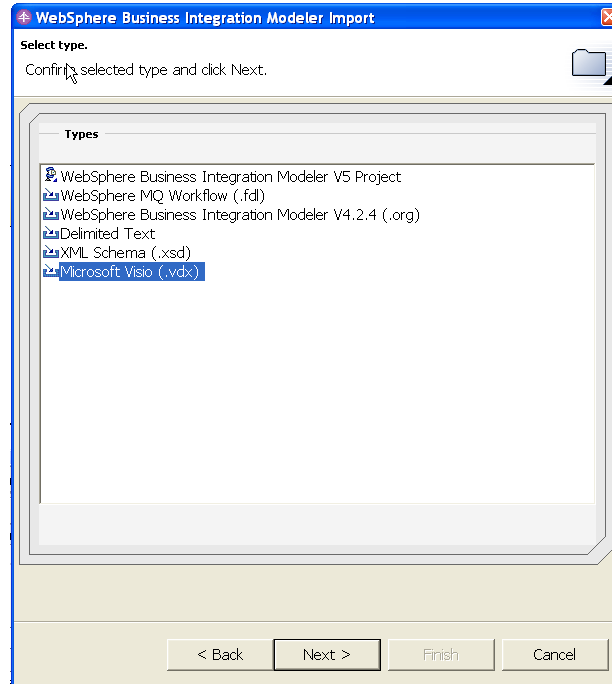
7. **Click** 'Browse' to select the source directory that contains the VDX files you want to import. The files are found: C:\Program Files\IBM\WBI Modeler\Samples\Import\Visio 1
8. **Select** the file from the 'Files List'
9. **Select** an existing project from the drop-down list in the 'Target project' field, or **Click** 'New' to create a new project.
10. **Click** 'Next >'
11. **Click** 'Load'
12. **Select** XML Mapping document. The file is found: C:\Program Files\IBM\WBI Modeler\Samples\Import\Visio 1
13. **Click** 'Finish'
14. **Click** 'Details' to read if there were any errors or warnings during the import process
15. **Click** 'OK'

The Visio shapes have been imported into the project you specified, and you can see the new elements in the Project Tree.

END OF DEMO