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# WebSphere® Business Modeler V6.0.2

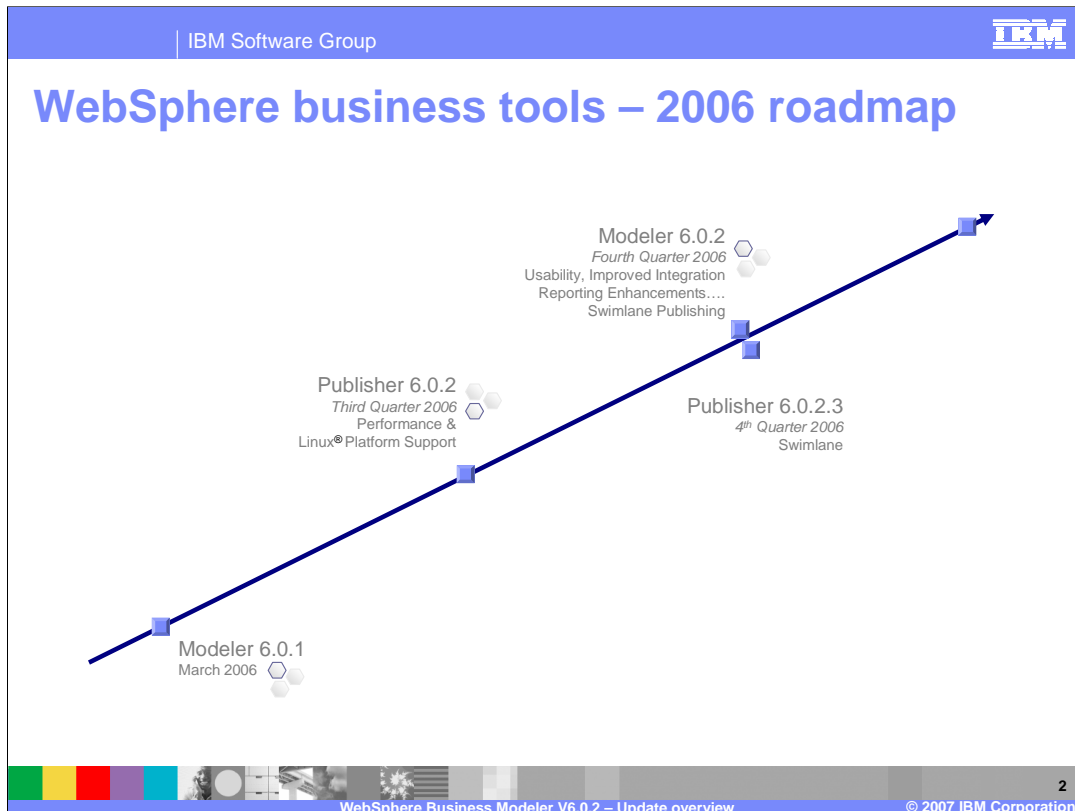
## *Update overview*



@business on demand.

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This presentation provides a quick overview of the updates in WebSphere Business Modeler version 6.0.2.

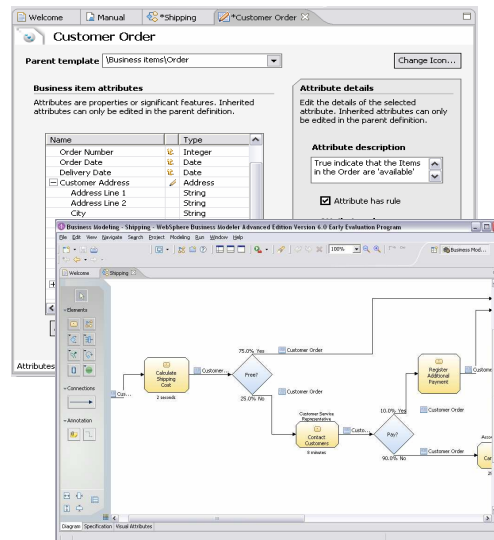


Shown here is the evolutionary path leading up to WebSphere Business Modeler V6.0.2. Notice that the WebSphere Publishing Server V6.0.2 was released in the third quarter of 2006 before WebSphere Modeler 6.0.2.

The significance of WebSphere Business Modeler Publishing Server version V6.0.2.3 is the enablement of the Swimlane publishing. In order to publish models with Swimlane views, iFix 3 must be applied to WebSphere Business Modeler Publishing Server 6.0.2.

## What is new in version 6.0.2?

- Additional publishing capabilities and enhanced performance
- Improved interoperability
- Business Services import support
- Enhanced reporting and printing
- Improved simulation
- Improved dynamic analysis
- New Business Measures Designer
- Enhanced process modeling
- Model execution validation



The theme of this release is enhance, improve and simplify.

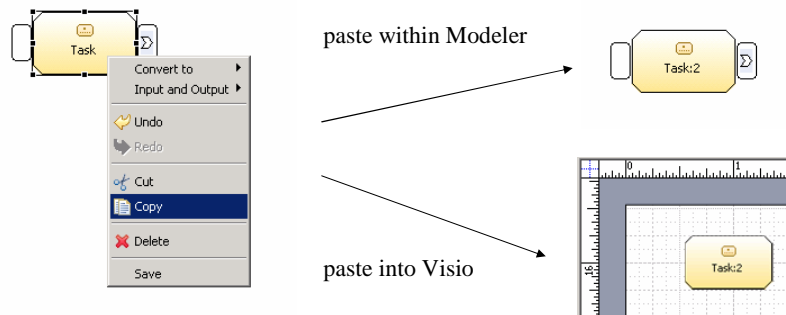
As you can see from the outline shown here, there have been many improvements and enhancements with release 6.0.2.

There have been improvements in the areas Business Process Simulation, Dynamic Analysis, Process Editors, Report Templates and the creation of Business Measures.

The most dramatic change comes with the de-coupling of the business measures from the WebSphere Business Monitor. More on this later.

## Improved interoperability with other tools

- Ability to copy parts of process diagrams and paste into other tools such as Microsoft® PowerPoint®, Word or Visio®.
  - ▶ Copy one or more objects from within Process Editor
  - ▶ Paste one or more objects into another tool



The copy and paste features have been greatly enhanced to facilitate sharing the model information.

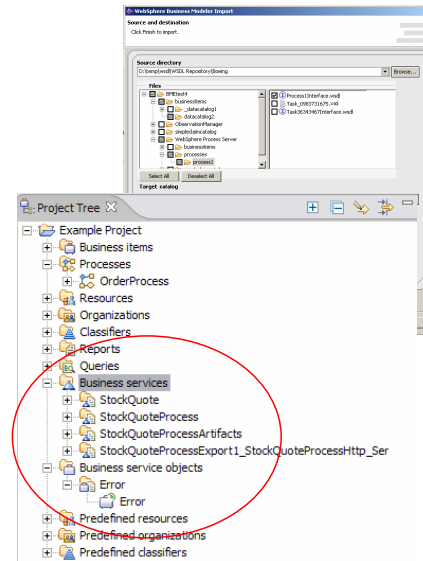
It is now very easy to select, copy and paste parts or all of a business model to an external document such as Microsoft Word or Visio. Of course only the diagram is copied, the meta-data about the model and the relationships between the elements has to stay with the model in the business modeler.

If pasting into another location within the business modeler though, the meta-data is used.

Another new feature that makes copying and pasting easier is the 'marquee' tool, sometimes called the 'rubber band'. The Marquee tool can be used to do a multiple select of many objects on the diagram with one operation. While doing this operation the editor will automatically scroll as you move the mouse beyond the current screen boundaries.

## Business services import improved

- Ability to import business services (WSDL) and business objects (XSD):
  - ▶ Import multiple wsdl/xsd files from:
    - different file directories
    - *IBM WebSphere Services Registry Repository*
  - ▶ Preserves the contents of the wsdl and xsd files upon export.
    - annotations, port types, bindings, service endpoints, and so on.

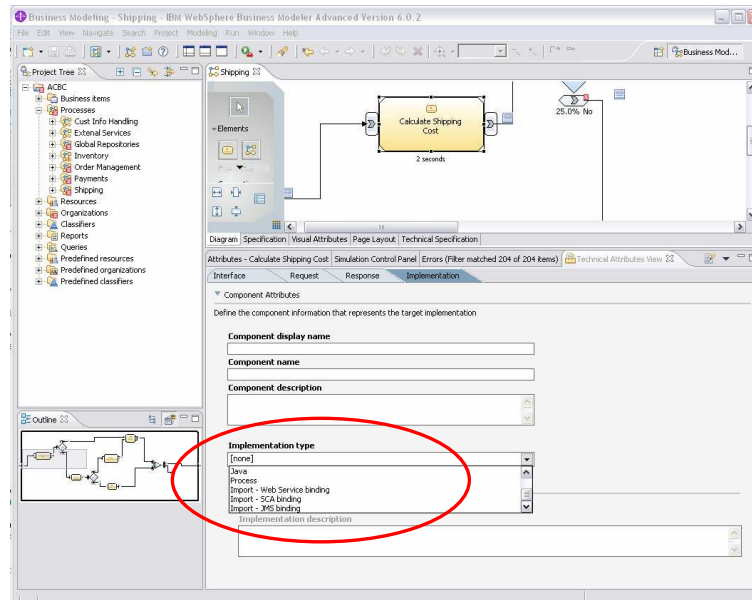


Many organizations that are adopting Service Oriented Architectures define a common set of interfaces and data structures which need to be shared across the enterprise and the applications being developed. The Web Services Definition Language (WSDL) is the standard for describing the service interfaces and XML Schema Definition (XSD) is the standard for describing the data structures or data objects.

With WebSphere Business Modeler V6.0.2, the WSDL/XSD information is imported and exported in a way that maintains the original information. By preserving the integrity of the WSDL/XSD information, interfaces and objects can easily be shared with other tools, such as the WebSphere Integration Developer.

Another very important SOA supporting feature is the support for the WebSphere Service Registry Repository. This allows the business analyst using the WebSphere Business Modeler to search for and retrieve WSDL/XSD information from an existing repository of definitions and use them with their business processes.

## Better export options for SCA applications

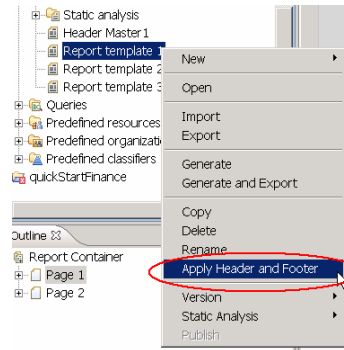


New to version 6.0.2 are technical specification attributes that are targeted for WebSphere Integration Developer SCA implementations. These new attributes allow the specification of import bindings for Service Component Architecture implementations.

The import binding types are used when the exported business model is imported into WebSphere Integration Developer. Having the import binding type specified allows the WebSphere Integration Developer import process to complete the wiring of the components and the module assembly.

## Enhanced reporting and printing

- Ability to define and apply a header/footer master to one or more report templates
- Provide ability to define global parameters to multiple reports
  - ▶ Such as the company name or logo
- Provide the ability to sort fields in Report Designer to produce a structured report:
  - ▶ Sort by data order, ascending (case/non-case sensitive), & descending, case/non-case sensitive
- Provide a data formatter for
  - ▶ date, duration, currency, integers, doubles, percentage, boolean
  - ▶ Example: 2006-03-23T12:00:00-05:00 converts to: March 23 2006 12:00 EST



There are many new features and enhancements in the area of reporting.

The task of creating reports with common features, such as headers, footers and common titles, is now much easier.

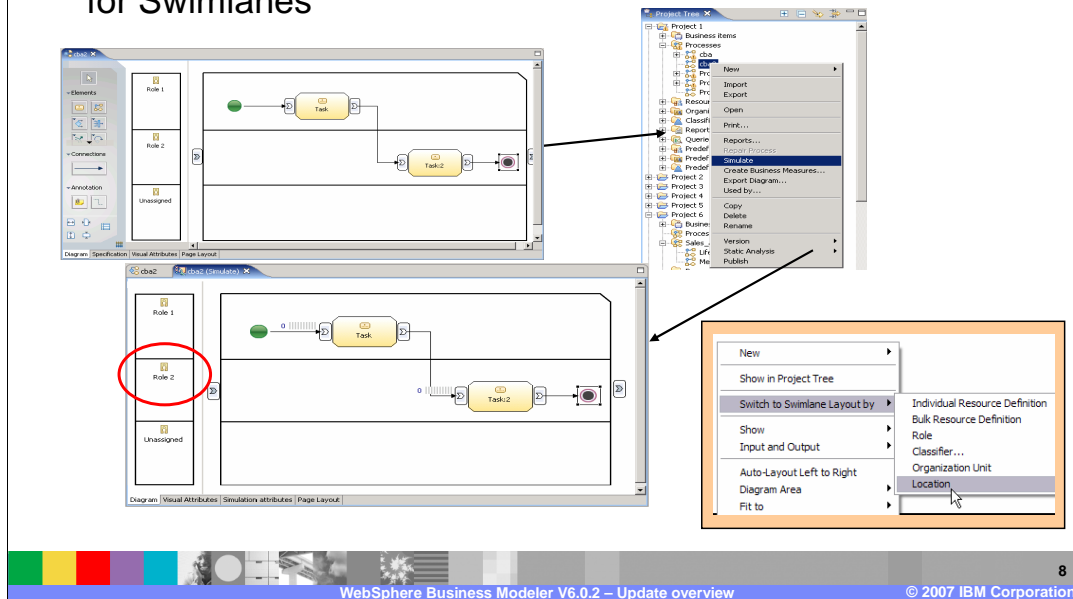
Using a “report style master”, a header and footer can be created which allows report designers to define headers and footers to be used for new and existing reports.

Report designers can also take advantage of parameterized variables that are global across all of the report templates and the fields in the report can now be sorted as well.

Last but not least there is the ability to control how certain data elements are displayed with the use of data formatters.

## Improved simulation

- Provide animation support for Swimlanes



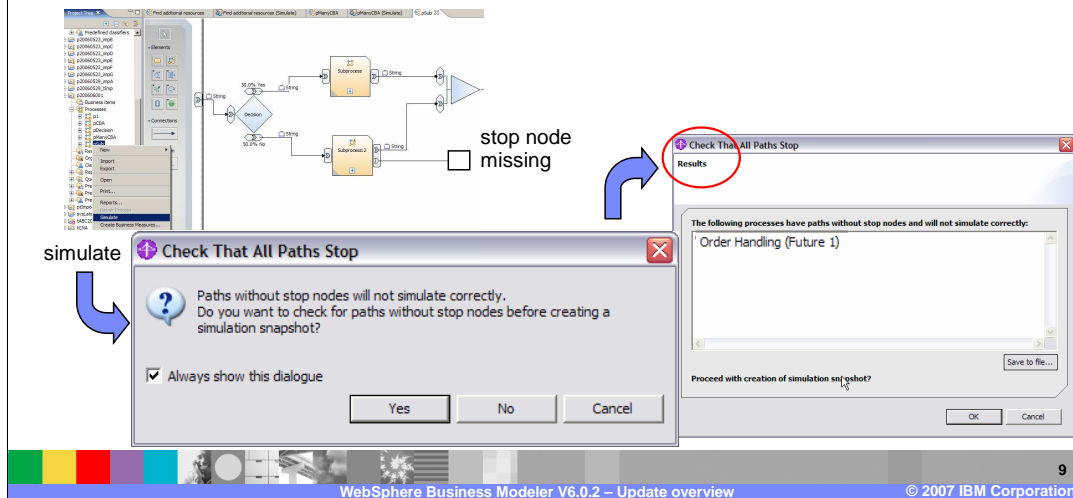
Swimlanes are a powerful way of understanding the relationships between the elements of the business process and the flow of the business process. If the swimlanes are partitioned by roles, then each lane will represent a role in the organization. In the swimlane view using the role dimension, the tasks for a given role are put into the lane for that role, making it clear to see where the responsibilities are.

When running simulations, the path of the tokens can be visualized with the aid of animation. Until V6.0.2, animation was only available with the standard process view. Now the simulations can be visualized using the swimlane view too.



## Enhanced simulation - Validation

- Analyzes process models to detect missing stop nodes
- Optional validation at simulation snapshot creation
- Validation errors propagated to error view



Business Processes without explicit stop nodes will cause the simulator to run to the end date without completing the simulation.

With WebSphere Business Modeler V6.0.1, before running a simulation, a manual inspection of all the business processes must be made in order to locate any business processes that do not have a stop node.

With V6.0.2, when starting a simulation, a warning dialog is presented with an option to check for *implicit terminations*.

Using this new feature saves time in identifying the implicit terminations.

Time is also saved by not running simulations that will never terminate.

## Improved dynamic analysis

- Top level aggregation for Dynamic Analysis reports
  - ▶ Process cases summary
  - ▶ Process instances summary
  - ▶ Process classifier cost and duration
  - ▶ Resource usage

Static Process Cases Summary All Level | Patient Care Process Monday, March 27, 2006 9:18:49 o'clock AM EST | 12:1

Case Name	Activity Name	Total Cost	Revenue
Case 1		\$11,056.78	\$150.00
Case 2		\$9,897.33	\$150.00
Case 3		\$8,768.3	\$150.00
Case 4		\$9,989.4	\$150.00
Case 5		\$10,786.32	\$150.00
	Patient Care Process/Admit Patient	\$0.00	\$0.00
	Patient Care Process/Arrive By Ambulance	\$0.00	\$0.00
	Patient Care Process/Blood Examination/Examine Blood ...	\$2,032.22	\$0.00
	Patient Care Process/Blood Examination/Record Infor...	\$0.68	\$0.00
	Patient Care Process/Blood Examination/Take Blood Sam...	\$2.03	\$0.00
	Patient Care Process/Blood Examination	\$0.00	\$0.00
	Patient Care Process/Blood Examination:2/Examine Bloo...	\$2.71	\$0.00
	Patient Care Process/Blood Examination:2/Record Infor...	\$0.68	\$0.00
	Patient Care Process/Blood Examination:2/Take Blood S...	\$2.03	\$0.00
	Patient Care Process/Blood Examination:2	\$0.00	\$0.00
	Patient Care Process/Blood Pressure Measurement/Mea...	\$2.71	\$0.00
	Patient Care Process/Blood Pressure Measurement/Rec...	\$0.68	\$0.00
	Patient Care Process/Blood Pressure Measurement	\$0.00	\$0.00
	Patient Care Process/Final Check	\$0.00	\$0.00
	Patient Care Process/Immediate Care	\$0.00	\$0.00
	Patient Care Process/Lab Tests	\$0.00	\$0.00
	Patient Care Process/Merge	\$0.00	\$0.00
	Patient Care Process/Move To Emergency Care	\$0.47	\$0.00
	Patient Care Process/Nurse Exam	\$2.03	\$0.00
	Patient Care Process/Patient Admit	\$0.93	\$0.00
	Patient Care Process/Patient Arrival	\$0.23	\$0.00
	Patient Care Process/Physician Exam	\$15.04	\$0.00
	Patient Care Process/Registration	\$2.01	\$0.00
	Patient Care Process/Resident Exam	\$4.02	\$150.00

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For each case, there is now a total for each column.

Here, the aggregated values, that is, the totals for case 5 are highlighted with the red circle.

## Working and resource duration columns

- Addition of working and resource duration attributes to dynamic analysis reports
  - ▶ *Working duration*: specified task processing time
  - ▶ *Resource duration*: sum of specified task resource requirements
  - ▶ *Reports improved*:
    - Process instances summary
    - Process instances time
    - Static cases summary

Case Name	Distribution	Success Status	Process Instance Name	Total Cost	Start Time	Finish Time	Elapsed Duration	Working Duration	Resource Duration	Delay Duration	Failed Activity Instances
Case 1	16.00%	Succeeded		140.97			79.25 minutes	42.00 minutes	42.00 minutes	37.25 minutes	0
Case 2	16.00%	Succeeded		164.29			153.62 minutes	59.02 minutes	59.00 minutes	94.60 minutes	0
			Patient Care Process 2	164.24	19/04/06 3:50 PM	19/04/06 5:05 PM	75.02 minutes	59.02 minutes	59.00 minutes	16.00 minutes	0
			Patient Care Process 4	164.24	19/04/06 3:52 PM	19/04/06 5:25 PM	93.02 minutes	59.02 minutes	59.00 minutes	34.00 minutes	0
			Patient Care Process 15	164.44	19/04/06 4:03 PM	19/04/06 7:19 PM	196.02 minutes	59.02 minutes	59.00 minutes	137.00 minutes	0
			Patient Care Process 22	164.24	19/04/06 4:10 PM	19/04/06 8:21 PM	250.43 minutes	59.02 minutes	59.00 minutes	191.42 minutes	0
Case 3	4.00%	Succeeded		129.03			97.00 minutes	32.00 minutes	32.00 minutes	65.00 minutes	0
Case 4	12.00%	Succeeded		138.34			164.35 minutes	43.02 minutes	43.00 minutes	121.33 minutes	0
Case 5	12.00%	Succeeded		122.00			109.00 minutes	29.00 minutes	29.00 minutes	80.00 minutes	0
Case 6	4.00%	Succeeded		145.33			136.02 minutes	46.02 minutes	46.00 minutes	90.00 minutes	0
Case 7	24.00%	Succeeded		157.30			216.56 minutes	56.02 minutes	56.00 minutes	160.54 minutes	0
Case 8	4.00%	Succeeded		147.98			169.00 minutes	45.00 minutes	45.00 minutes	124.00 minutes	0
Case 9	4.00%	Succeeded		47.98			211.00 minutes	45.00 minutes	45.00 minutes	166.00 minutes	0
Case 10	4.00%	Succeeded		45.46			262.43 minutes	46.02 minutes	46.00 minutes	216.42 minutes	0
Total	100.00%			138.47			157.05 minutes	46.81 minutes	46.80 minutes	110.24 minutes	0

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The Working Duration and Resource Duration have been added to the following analyses:

- Process Instances Summary
- Process Instance Time
- Static Cases Summary

The Working and Resource durations are key business measures that were added for completeness. They are essential for understanding the time dimension and creating more efficient business processes.

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## New export options

Case Name	Activity Name	Average Cost	Average Revenue	Average Duration
Case 1	Acceptable Credit Risk?	USD17.31	USD0.00	0.00
	Determine if Customer has Existing Account	USD0.00	USD0.00	0.00
	Enter Account Number			0.00
	Enter Customer Information and Assign Account Number			0.00
	Enter Order Information			0.00
	Existing Account?			0.00
	Merge			0.00
	Receive Order			0.00
	Review Order			0.00
	Ship Order to Customer			0.00
	Order Handling (Current)			0.00
Case 2	Acceptable Credit Risk?			0.00
	Determine if Customer has Existing Account			0.00
	Enter Account Number			0.00
	Enter Order Information			0.00
	Existing Account?			0.00
	Merge			0.00
	Receive Order			0.00
	Review Order			0.00
	Ship Order to Customer			0.00
	Order Handling (Current)			0.00
Case 3	Acceptable Credit Risk?			0.00
	Cancel Order and Send Notification			0.00
	Determine if Customer has Existing Account			0.00
	Enter Account Number			0.00
	Enter Customer Information and Assign Account Number			0.00
	Enter Order Information	USD7.00	USD0.00	0.00
	Existing Account?	USD0.00	USD0.00	0.00

- Export All to XML
- Export All to Offset Delimited Text
  - ▶ Dynamic Analysis
    - Activity Cost
    - Activity Cost Per Time Unit
    - Activity Duration
    - Process Case Summary
    - Process Instance Cost
    - Process Instance Summary
    - Process Instance Time
  - ▶ Profile Analysis
    - Static Process Cases Summary

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The XML option provides a way for exporting the data from Profile and Dynamic Analysis reports in a standard format that can be easily consumed by many different applications.

The “Export All to Offset Delimited Text” has been added to deal with the situation when column names in the report are duplicated due to structural nesting in the model.

Both of these functions are available from the context menu of the report being displayed (right-mouse-click).

## Enhanced process modeling

- Allow scrolling when selecting multiple elements using a marquee selection tool
  - ▶ Part of the improved copy/paste support
- Provide the ability to re-order input and output branches of decisions, merges, joins, and forks
  - ▶ as is currently done with *tasks*
- Prevent overlapping connectors in Swimlane view for better visualization

New usability enhancements for the business process editor include the marquee selection tool for multiple selection, the ability to reorder the inputs and outputs for cleaner more organized diagrams and prevention of overlapping connections in the swimlane mode.

It should be noted that reordering the inputs and outputs does not effect the logic of the flow. It is strictly a mechanism for uncrossing or untwisting the connecting wires.

This feature is an aid to improve the readability of the diagrams, as is the prevention of the overlapping connectors in the swimlane view.

## New business measures designer

- Integrated capability within the process editor for quickly and easily defining KPIs and metrics associated with a business process
- Targeted at business users
  - ▶ Business analysts
- More complex/technical tasks, including specifying KPI calculations, expressions, and business measure model deployment have been removed from the business modeler, and are now part of the new Business Monitor Toolkit.



With the release of V6.0.2 the specification of business measures has been simplified. This is a significant shift from the way this functionality is managed in V6.0.1.

With the new business measures designer, the specification of business measures and monitored values, become a description of “what” is to be measured. This leaves the implementation, “the how”, to the system integrator using the Business Monitor Toolkit. The Business Monitor Toolkit is delivered as an eclipse plug-in to the WebSphere Integration Developer, uncoupling the business modeler from the business monitor.

The complex work of defining the Monitoring Measures Model has been moved to the system integrator role.

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## Business Measures view

The screenshot shows the Business Measures view in IBM Business Modeler V6.0.2. The top part of the interface displays a process flow diagram for 'Order Handling (Current)'. The diagram includes elements such as 'Review Order', 'Acceptable Credit Risk?' (a decision diamond), and 'Ship Order to Customer'. A note indicates 'All orders over \$500 are credit-checked by an order manager.' Below the diagram, the 'Business Performance Indicators' tab is selected, showing a table with the following data:

Name	Type	Target	Time Period	Description
OrderTime	KPI	3 days	Rolling: 30 days	Time for an order to be processed

The 'Add...' button in the right-hand column of the table is circled in red. Other buttons like 'Remove' and 'Edit Details...' are also visible.

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Shown here is the new business measures view. Notice the tabs for the business performance indicators and the monitored values.

The “Business performance indicators” tab is currently selected.

Pressing the “Add..” button will invoke a dialog for specifying the business performance indicators.

Details will be shown on the next slide.

## Details: Key performance indicator (KPI)

**Business Measure Details**  
Specify additional details to describe how the business measure is calculated.

Name: Average Order Fulfillment KPI

Type:  KPI  Instance metric  Aggregate metric  Unspecified

Description: The Average Order Fulfillment is 3 days or Less KPI will allow management to monitor the average amount of time to ship orders to customer. To analyze this information will help shipping/tracks to reduce the average time from when orders are received to the time they are shipped, to 3 days. Simulation of the Order Handling process indicates an average time of over 4 days to complete the execution of the process.

Dashboard views

Dashboards present continuously updated business measures data in a graphical format to make it easy to track process performance. A KPI is calculated across multiple runs of the process and is used to track business objectives. Examples of KPIs and their targets are "Average time for response to a customer inquiry" with a target of "less than two days", "Achieve target profit" with a target of "\$65000", or "Reduce employee turnover" with a target of "5%". This type of data can be displayed in the following dashboard views:

View Type	Description	links
Alerts	Displays alerts that occur at run time.	
Dimensional	Provides a multidimensional view of data for analysis.	
Gauge	Displays an individual KPI value, relative to the KPI range and target, if applicable.	
KPI	Displays details of modeled Key Performance Indicators (KPIs) such as KPI value relative to the defined ranges and the target, if applicable, and the status.	
Report	Displays performance reports relative to a time axis. Such reports typically contain tables and graphs with textual descriptions of the analysis.	

Gauge View

New Customers KPI: 12, 18, 24, 30, 36

Orders Shipped Daily KPI: 100, 150, 200, 250

OK Cancel

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- Each type of business measure can be presented in a dashboard when being monitored.
  - The dashboard view provides a hint as to the kind of views that can be created with the KPI data.
  - The dashboard design is not part of Modeler.

Notice that there are four different types of business measures that can be specified, including 'unspecified'.

For each type of business measure to be defined, there is a set of optional parameters that are not shown here. The parameters available vary depending on the type being specified.

The Dashboard Views section provides information that will help the business analyst understand how the optional KPI properties will be used by the system integrator developing the Monitoring Measures Model.

The information specified here are hints and guidelines for the system integrator, who will be using the Monitoring Toolkit to complete the implementation of the Monitoring Measures Model.

For this reason it is very important to have a complete description of the intent and purpose of the KPI Business Measure.



## Summary

- Simulation and analysis improvements
- Process and simulation editor enhancements
- Reporting and printing
- Improved support for business services and service oriented architecture
  - ▶ WSDL import and WebSphere services registry repository
- Publishing server enhancements
  - ▶ Swimlane view
- New business measures view
  - ▶ Simplified
  - ▶ Uncoupled from the WebSphere Business Monitor.



True to the theme of enhance, improve and simplify, WebSphere Business Modeler has made significant strides in performance, usability and new functions.

There have been improvements in virtually all areas.

In the area of simulation and analysis, checks for un-terminated business processes have been added and the memory footprint for simulation snapshots has been reduced.

The simulation editor has new copy and paste features that make it easier to share business process diagrams and improves interoperability with other tools.

New reporting tools include “Report Style Masters” for headers and footers and global parameters that can be used across templates.

Improved support for business services with the integration of the WebSphere Service Registry Repository.

And of course the most significant change, simplification of the way the business measures for monitoring are specified.

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