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## WebSphere® Business Monitor V6.1.2

### *Asset repository and Modeler integration*



@business on demand.

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This presentation should introduce you to the new asset repository feature and new capability to auto-generate monitor models from your Modeler business measures models.

## Agenda

- Business process management (BPM) repository
- Modeler business measures models



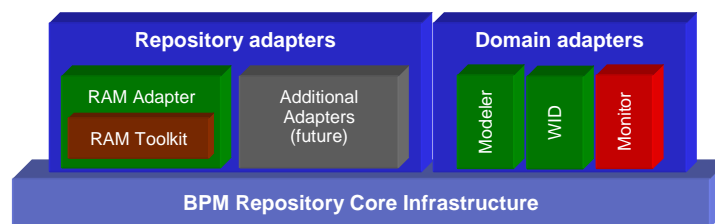
This is the agenda for this presentation.

You will see how to use the new BPM repository to store and retrieve monitor model assets.

You will also review the improved integration with WebSphere Business Modeler so you will see how to auto-generate a fully functional monitor model from the business measures model.

## BPM repository

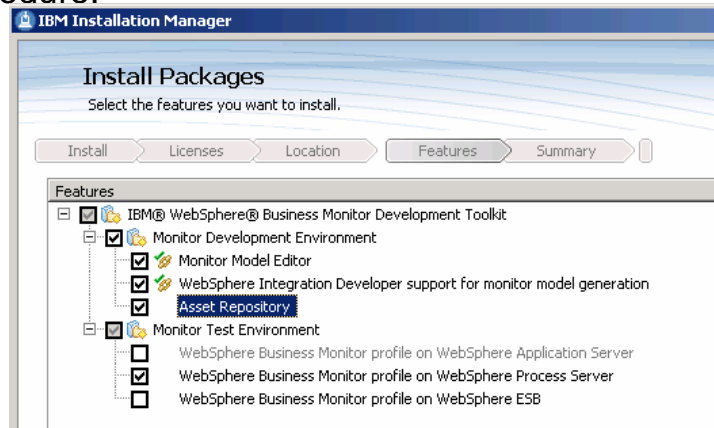
- The repository is used across the tool suite, with adapters written for WebSphere Business Modeler, WebSphere Integration Developer and WebSphere Business Monitor
- Support is provided for Monitor-related assets to be published to and consumed from the BPM repository using integrated support within the Monitor Toolkit.



New in this release is support for a repository for sharing assets between the BPM products. Support is provided for Monitor-related assets to be published to and consumed from the BPM repository using support that is integrated within the Monitor Toolkit. Repository adapters wrap implementations of actual repositories to which assets can be published. The RAM toolkit is a set of Eclipse plug-ins used by the RAM repository adapter. Domain adapters are responsible for the application of the core infrastructure APIs to the assets that are related to a particular tool such as Modeler, Monitor or Integration Developer.

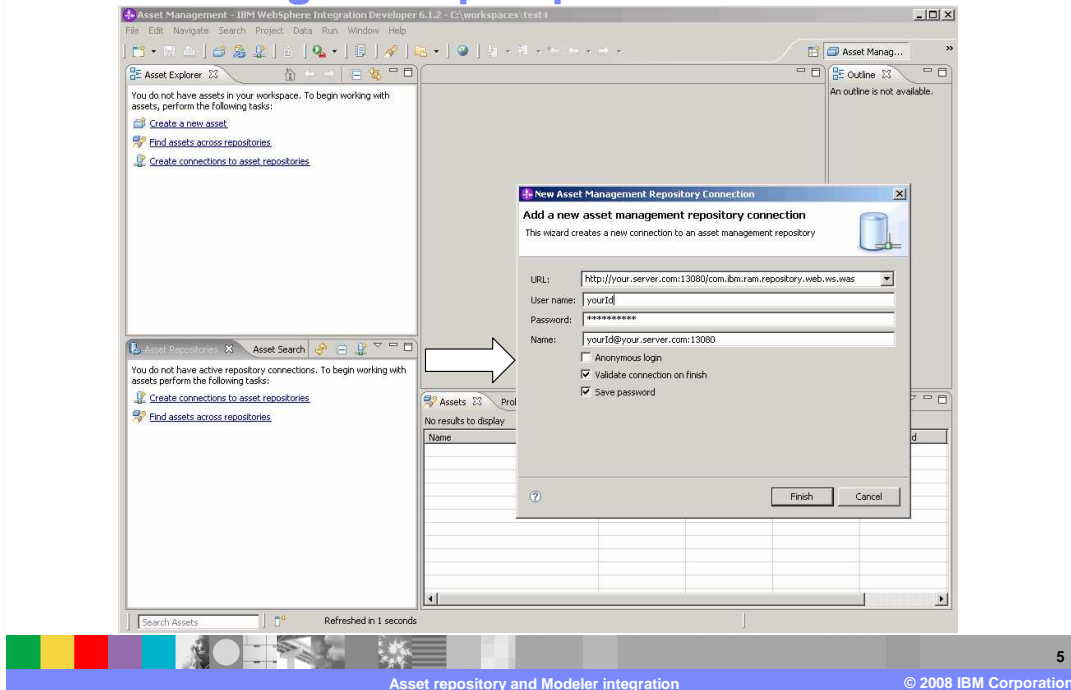
## BPM repository installation

- In the Monitor Toolkit installation manager, you have an option to install the BPM repository plug-ins and RAM client. The RAM server has a separate installation procedure.



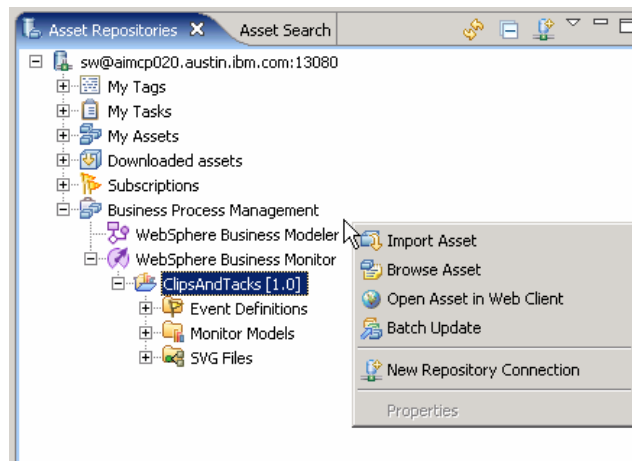
In the Monitor Toolkit installer, you will see an option to select the asset repository. If you do not choose to install the repository initially then you can use the installation manager and the 'modify packages' option to select this option later. This does not install the repository server itself, it only installs the toolkit adapter to the repository server. The RAM server has a separate installation procedure. Note that the RAM server does not need to be installed before installing the Monitor toolkit with repository adapter.

## Asset management perspective



This slide shows you the asset management perspective. You can use the asset repositories view to create a connection to the RAM server. In this screen capture, you see the dialog box for configuring the connection. Rather than using the separate perspective, you can add the asset repositories view to the business monitor perspective. That particular view allows you to connect to the repository and to view and save assets.

## Browse assets



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Asset repository and Modeler integration

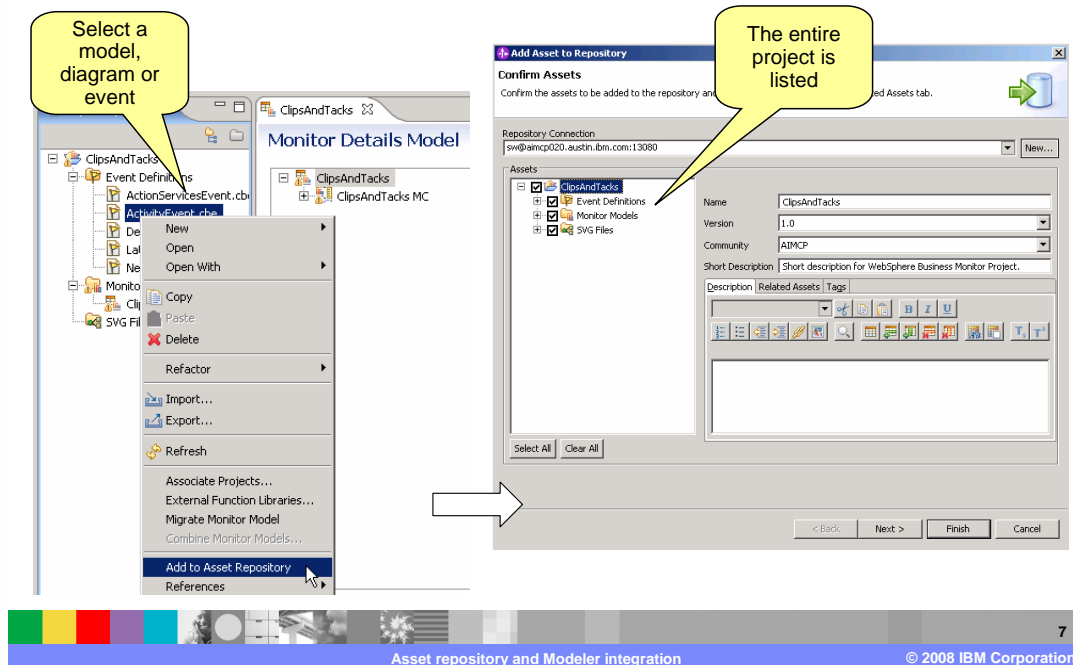
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The 'asset repositories' view visualizes the assets in the repository. You can interact with the assets by selecting them and launching actions from the pop-up menu.

A '**Business Process Management**' node groups the WebSphere Business Monitor, WebSphere Business Modeler and WebSphere Integration Developer sub-nodes, if those domain adapters are installed in a shell-sharing environment.

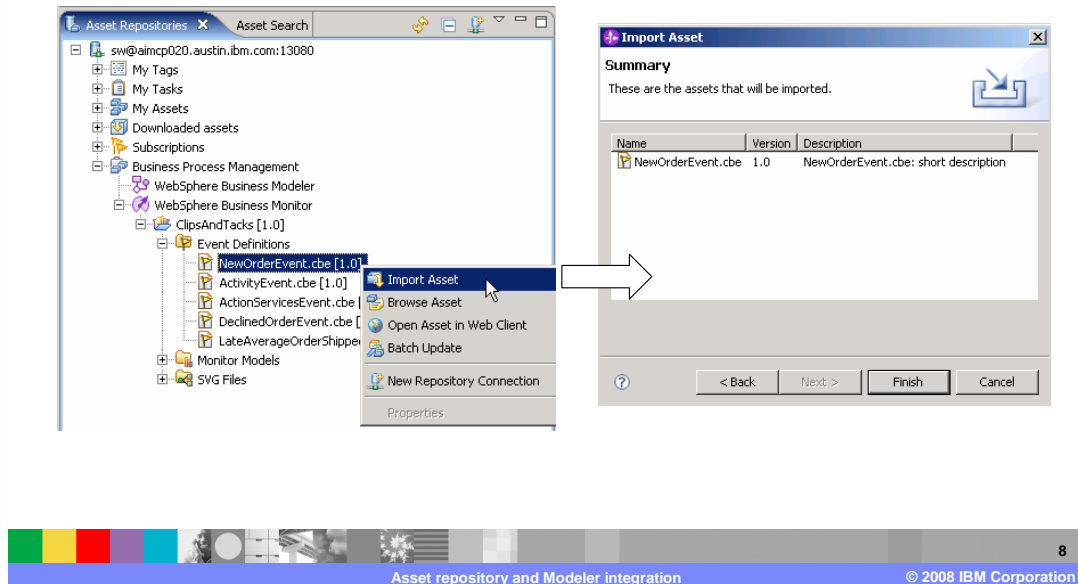
Within the WebSphere Business Monitor node, Monitor projects are displayed using the structure and style of the **Project Explorer view** in the Monitor development toolkit.

## Add to repository



To add an asset to the repository, you can select a monitor model element or the entire project in the project explorer. On the 'Confirm Assets' dialog, the entire project is listed, however, you can de-select any elements that you don't want to save. It is suggested that you save the entire project so all that all the required elements of a project are saved and available for sharing with other users. Note that a version number is used to keep track of changes made to projects in the repository.

## Import assets

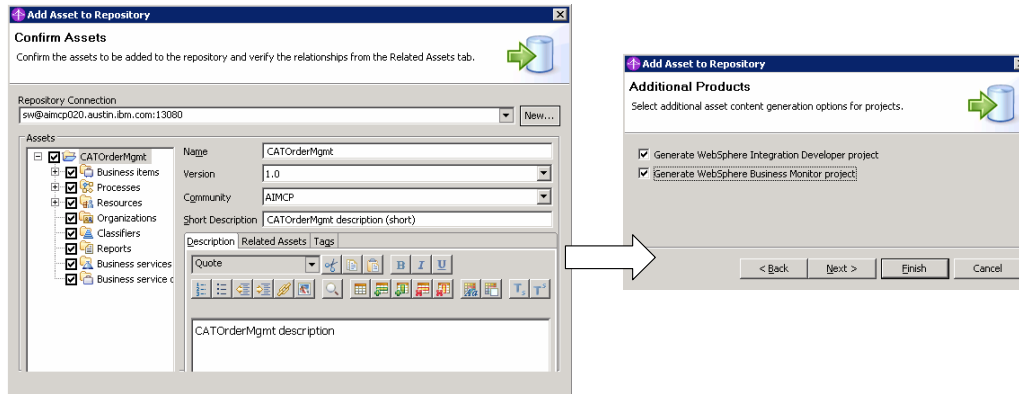


To import an asset from the repository, use the asset repositories view to browse to the element that you want to import, then bring up the menu and select 'import asset'. The dialog box confirms the assets that are imported. You can also select the entire project to be imported. The version number is listed for each project and each project element so you can import the correct version for your needs.

Event definitions, monitor models and diagrams can be contained within Monitor projects. Any associations from a monitor model in one project to the event definitions or diagram files in another project are not explicitly captured. So you will need to know all the projects that are required to be imported from the repository.

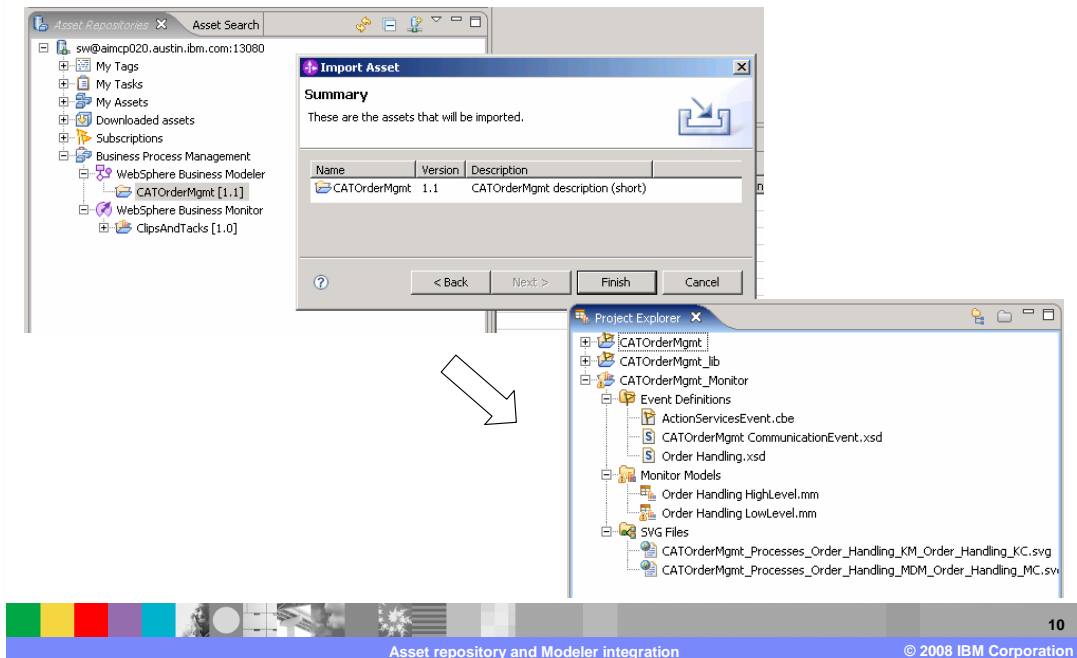


## Add asset within Modeler




You can import monitoring assets from repositories that have been published from WebSphere Business Modeler. From within Modeler, you right-click on a process or project and choose 'Add asset to repository'. Make sure that you select the check box to publish the monitor model corresponding to the selected process. This stores the monitor assets in the repository so that you can import them using the Monitor toolkit.

## Import asset from Modeler




Within the Monitor toolkit, you can browse the repository, and you will see the 'WebSphere Business Modeler' node in the tree with a Modeler project underneath. You can select 'Import Asset' on the Modeler project, and the corresponding Monitor assets are imported into the workspace. In the lower right corner of this slide you see that the entire modeler project has been imported so the project explorer shows the event definitions, monitor models and diagrams that were imported. Note that there are two monitor models that are imported, a high level model and a low level model. This is the default behavior when you export the business measures model to the repository. Later in this presentation you will see the details of all these models.

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## Modeler business measures models

- New in this release is the ability to generate a fully functional monitor model which is ready to deploy
- You can select to auto-generate decision percentage metrics along with processing time metrics
- You can specify a single model or a dual model
- Monitor model editor capabilities not provided in Modeler
  - ▶ Multi-level dimensions
  - ▶ Metric and KPI calculation expressions
  - ▶ Definition of triggers and outbound events



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In this release you can auto-generate a monitor model from the Modeler business measures model. This auto-generated model is fully functional and ready to deploy. In Modeler you can select to auto-generate processing time metrics and decision percentage metrics. When you export the model to WebSphere Integration Developer, you are given the option to generate the monitor model, either a single model or a dual model. These models are discussed in later slides. There are a few monitor model functions that are not provided in Modeler. Modeler only supports a single level dimension, so you will have to manually implement multi-level dimension in the monitor model editor. You will also have to manually implement metric and KPI calculation expressions, triggers and outbound events.

Business Performance Indicators | **Monitored Values**

Monitored values

This section indicates which values you want returned from WebSphere Business Monitor after the process has been monitored.

Process Element	Processing Time	P.	S.	R.	% Per Branch
Acceptable Credit Risk?					<input checked="" type="checkbox"/>
Yes					<input checked="" type="checkbox"/> Average Acceptable Credit Risk? Yes Branch Percentage
No					<input checked="" type="checkbox"/> Average Acceptable Credit Risk? No Branch Percentage
Account in Good Standing?					<input checked="" type="checkbox"/>
Yes					<input checked="" type="checkbox"/> Average Account in Good Standing? Yes Branch Percentage
No					<input checked="" type="checkbox"/> Average Account in Good Standing? No Branch Percentage
Approve Without Review?					<input checked="" type="checkbox"/>
Yes					<input checked="" type="checkbox"/> Average Approve Without Review? Yes Branch Percentage
No					<input checked="" type="checkbox"/> Average Approve Without Review? No Branch Percentage
Cancel Order and Send Notification	<input checked="" type="checkbox"/> Average Cancel Order and Send Notification Processing Time				
Check Customer Account Status	<input checked="" type="checkbox"/> Average Check Customer Account Status Processing Time				
Check Order Handling Policy for Automatic Approval	<input checked="" type="checkbox"/> Average Check Order Handling Policy for Automatic Approval Processing Time				
Order Handling	<input checked="" type="checkbox"/> Average Order Handling Processing Time				
Review Order	<input checked="" type="checkbox"/> Average Review Order Processing Time				
Ship Order to Customer	<input checked="" type="checkbox"/> Average Ship Order to Customer Processing Time				
Update Order Database	<input checked="" type="checkbox"/> Average Update Order Database Processing Time				

Processing time

% per branch

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In Modeler, there are two tabs for defining the business measures model. On the monitored values tab, you can select elements to auto-generate into the model. You can select metrics for each decision, and you can select metrics for each process and activity. When you select these elements, then the metrics are automatically added to the information that is displayed on the business performance indicators tab.

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## Business performance indicators

Business Performance Indicators | Monitored Values

This section provides information about business measures such as metrics and KPIs.

Name	Description
<b>KPIs</b>	
Average Process Duration KPI	
Percentage of Orders Shipped KPI	
<b>Instance Metrics</b>	
Acceptable Credit Risk? Yes Branch Percentage	This business measure measures the decision branch percentage for Yes.
Acceptable Credit Risk? No Branch Percentage	This business measure measures the decision branch percentage for No.
Account in Good Standing? Yes Branch Percentage	This business measure measures the decision branch percentage for Yes.
Account in Good Standing? No Branch Percentage	This business measure measures the decision branch percentage for No.
Approve Without Review? Yes Branch Percentage	This business measure measures the decision branch percentage for Yes.
Approve Without Review? No Branch Percentage	This business measure measures the decision branch percentage for No.
Cancel Order and Send Notification Processing Time	This business measure measures the processing time of Cancel Order and Send Notification.
Check Customer Account Status Processing Time	This business measure measures the processing time of Check Customer Account Status.
Check Order Handling Policy for Automatic Approval Processing Time	This business measure measures the processing time of Check Order Handling Policy for Automatic Approval.
Order Handling Processing Time	This business measure measures the processing time of Order Handling.
Review Order Processing Time	This business measure measures the processing time of Review Order.
Ship Order to Customer Processing Time	This business measure measures the processing time of Ship Order to Customer.
Update Order Database Processing Time	This business measure measures the processing time of Update Order Database.
<b>Aggregate Metrics</b>	
<b>Dimensions</b>	
Location	
Average Acceptable Credit Risk? Yes Branch Percentage	This business measure measures the average decision branch percentage for Yes.
Average Acceptable Credit Risk? No Branch Percentage	This business measure measures the average decision branch percentage for No.
Average Account in Good Standing? Yes Branch Percentage	This business measure measures the average decision branch percentage for Yes.
Average Account in Good Standing? No Branch Percentage	This business measure measures the average decision branch percentage for No.
Average Approve Without Review? Yes Branch Percentage	This business measure measures the average decision branch percentage for Yes.
Average Approve Without Review? No Branch Percentage	This business measure measures the average decision branch percentage for No.
Average Cancel Order and Send Notification Processing Time	This business measure measures the average processing time of Cancel Order and Send Notification.
Average Check Customer Account Status Processing Time	This business measure measures the average processing time of Check Customer Account Status.
Average Check Order Handling Policy for Automatic Approval Processing Time	This business measure measures the average processing time of Check Order Handling Policy for Automatic Approval.
Average Order Handling Processing Time	This business measure measures the average processing time of Order Handling.
Average Review Order Processing Time	This business measure measures the average processing time of Review Order.
Average Ship Order to Customer Processing Time	This business measure measures the average processing time of Ship Order to Customer.
Average Update Order Database Processing Time	This business measure measures the average processing time of Update Order Database.
Unspecified Metrics	

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Here is the business performance indicators tab which shows the metrics that were automatically generated by selecting all the options on the monitored values tab. There are metrics and measures for the processing times and decision branch percentages. When you export the monitor model, these elements are automatically created in the monitor model.

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## Modeler export

**WebSphere Business Modeler Export**

Select the format or product to which you want to export

Export model elements for use with WebSphere Integration Developer in creatin Process Server. Before you use this export, check the validity of your model us

Types

- WebSphere Business Modeler project (.mar)
- WebSphere Integration Developer**
- WebSphere Business Modeler project (.fd)
- WebSphere Business Monitor Development
- WebSphere Business Modeler XML (.xml)
- WebSphere Studio Application Develop
- FileNet Business Process Manager (.xpd)
- Rational Data Architect
- UML Business Modeling Profile
- Delimited text (.csv, .txt)

**WebSphere Business Modeler Export**

**WebSphere Integration Developer business measures export**

To export your business measures as a monitor model, select the check box and specify the kind of export.

Export business measures as a monitor model or models

- Export to a single monitor model, which combines the business measures with the events from WebSphere Integration Developer
- Export to two monitor models, one containing the business measures and the other containing the events from WebSphere Integration Developer

Export Options

Export using the standard project interchange format for other environments

Project Interchange Name

CATOrderMgmt\_Monitor

Append timestamp to project interchange name

Target Project Names

Modeler Project Name	Monitor Project Names
CATOrderMgmt	CATOrderMgmt_Monitor

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This slide shows the export of the model to WebSphere Integration Developer. First there are dialog boxes for the process, then this dialog is shown which allows you to configure the business measures model export. You can select a single or dual monitor model, and you can select the project interchange name. Note that the current timestamp is automatically added to the end of the project interchange name.

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## Monitor toolkit import - single

**Project Explorer**

- CATOrderMgmt
- CATOrderMgmt\_Ib
- CATOrderMgmt\_Monitor
- Event Definitions
  - ActionServicesEvent.cbe
  - Monitor
  - Order Handling Monitor.mm
  - etc files
- CATOrderMgmt\_Processes\_Order\_Handling\_KM\_Order\_Handling\_KC.svg
- CATOrderMgmt\_Processes\_Order\_Handling\_MDM\_Order\_Handling.svg

**Monitor Details Model**

- Order Handling
  - Order Handling
    - Cancel Order and Send Notification
      - Cancel Order and Send Notification Ir
      - Cancel Order and Send Notification Pi
      - Cancel Order and Send Notification Tr
      - Cancel Order and Send NotificationEH
      - Cancel Order and Send NotificationEJ
      - Cancel Order and Send NotificationEY
      - Cancel Order and Send NotificationF7
      - Cancel Order and Send NotificationFC
      - Cancel Order and Send NotificationGK
      - Cancel Order and Send NotificationGT
      - Cancel Order and Send NotificationPi
    - Check Customer Account Status
    - Check Order Handling Policy for Automati
    - Review Order
    - Ship Order to Customer
    - Update Order Database
    - Order Handling Instance ID
      - Acceptable Credit Risk? No Branch Taken
      - Acceptable Credit Risk? Yes Branch Taker
      - Account in Good Standing? No Branch Tal
      - Account in Good Standing? Yes Branch Tak
      - Approve Without Review? No Branch Tak
      - Approve Without Review? Yes Branch Tal
      - OrderHandling\_Flow Check Customer Acc
      - OrderHandling\_Flow Check Customer Acc
      - OrderHandling\_Flow Check Order Handlin
      - OrderHandling\_Flow Check Order Handlin
      - OrderHandling\_Flow Review Order to Car
      - OrderHandling\_Flow Review Order to Shij
      - Order Handling Termination Trigger
      - OrderHandling\_Flow Check Customer Acc
      - OrderHandling\_Flow Check Customer Acc
      - OrderHandling\_Flow Check Customer Acc

**Annotations:**

- Parent context for process
- One child context per activity
- Stopwatches for processing times. Metrics for branches.

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When you export the business measures model, you can select either a single monitor model or dual monitor model. For the single model, this slide shows you the model structure resulting from the import into the monitor model editor. There is a single monitor model which contains a parent monitoring context for the process and a child monitoring context for each activity in the process. There are metrics and stopwatches defined for calculating the processing times and branch percentages.

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## Monitor toolkit import - single

**KPI Model**

- Order Handling
  - Order Handling KC

No KPIs for default model.

**Visual Model**

Selected Context: Order Handling

SVG File: /CATOrderMgmt\_Monitor/CATOrderMgmt\_Processes\_Order\_Handling\_M

This diagram shows the future 1 ClipsAndTake order handling process.

One cube per process and activity

**Dimensional Model**

- Order Handling
  - Cancel Order and Send Notification Cube
  - Check Customer Account Status Cube
  - Check Order Handling Policy for Automatic Approval Cube
  - Order Handling Cube
    - Average Acceptable Credit Risk? No Branch
    - Average Acceptable Credit Risk? Yes Branch
    - Average Account in Good Standing? No Branch
    - Average Account in Good Standing? Yes Branch
    - Average Approve Without Review? No Branch
    - Average Approve Without Review? Yes Branch
    - Average Cancel Order and Send Notification
    - Average Check Customer Account Status Processing
    - Average Check Order Handling Policy for Automatic Approval
    - Average Order Handling Processing Time
    - Average Review Order Processing Time
    - Average Ship Order to Customer Processing
    - Average Update Order Database Processing
  - Review Order Cube
  - Ship Order to Customer Cube
  - Update Order Database Cube

Measures for processing times and branch percentages.

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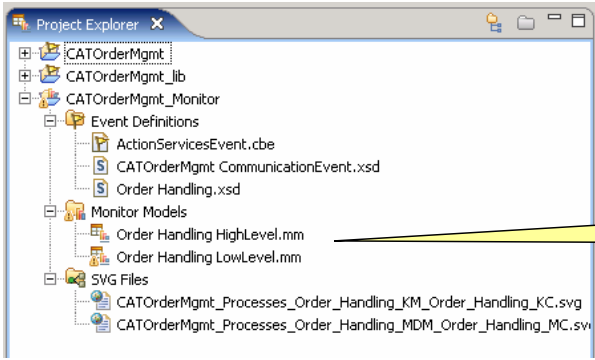
For the single model, there are no KPIs for the default model as shown in this screen capture. However if you had specified KPIs in the business measures model in Modeler, then they are displayed in the KPI model. The diagrams are automatically installed in the visual model for the process monitoring context and KPI context. In the dimensional model, there is one cube for the process and one cube for each activity in the process. In the process cube, you will find measures which are used for calculation of the average processing times and average branch percentages.



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## Monitor toolkit import – dual

- Two monitor models are created
  - Business-level monitor model communicating with the low-level monitor model
  - Low-level monitor model communicating with WebSphere Process Server
- The monitor models communicate using events
- The low level monitor model sends events to the high-level monitor model
- Can make use of the 'Compare / Merge' and 'Combine monitor models' capabilities



Two models – high level and low level

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When you export the business measure model, you can select either a single monitor model or dual monitor model. For the dual model, this slide shows you that both models are listed in the project explorer after you import into the monitor model editor. There are two monitor models, both a high level model and a low level model. The high level model is a business level model which stores the KPIs and business measures. The low level model is used for capturing the events from the process and storing the metrics associated with the business payload. These metrics are then supplied to the high level model using a communications event. You can use the compare/merge and combine monitor model functions to merge changes into the models. The advantage in using the dual model approach is that you can separate the metric capture from the business measures. Then if the KPIs change in Modeler, you can easily combine the business impact into the high level model. Or if the event definitions change in the process, you can easily merge those changes into the low level model.

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## Monitor toolkit import – dual, high level model

### Monitor Details Model

- Order Handling
  - Order Handling MC
  - Order\_Handling\_Instance\_ID
  - Acceptable Credit Risk? No Branch Taken
  - Acceptable Credit Risk? Yes Branch Taken
  - Account in Good Standing? No Branch Taken
  - Account in Good Standing? Yes Branch Taken
  - Approve Without Review? No Branch Taken
  - Approve Without Review? Yes Branch Taken
  - Cancel Order and Send Notification Processing
  - Check Customer Account Status Processing
  - Check Order Handling Policy for Automatic A
  - Country
  - Order Handling Processing Time
  - Review Order Processing Time
  - Ship Order to Customer Processing Time
  - Update Order Database Processing Time
  - Order Handling MC Termination Trigger
  - Order Handling MC Communication Event

### Dimensional Model

- Order Handling
  - Order Handling MC Cube
  - Average Acceptable Credit Risk? No Branch T
  - Average Acceptable Credit Risk? Yes Branch
  - Average Account in Good Standing? No Bran
  - Average Account in Good Standing? Yes Bran
  - Average Approve Without Review? No Bran
  - Average Approve Without Review? Yes Bran
  - Average Cancel Order and Send Notificatio
  - Average Check Customer Account Status Pro
  - Average Check Order Handling Policy for Aut
  - Average Order Handling Processing Time
  - Average Order Price
  - Average Review Order Processing Time
  - Average Ship Order to Customer Processing
  - Average Update Order Database Processing
  - Decline Count
  - Order Count
  - Ship Count
  - Sum Order Price
  - Location

### KPI Model

- Order Handling
  - Order Handling KC
  - Average Process Duration KPI
  - Percentage of Orders Shipped KPI
  - Average Process Duration KPI Trigger 1
  - Percentage of Orders Shipped KPI Trigger 1

One context containing metrics which support calculation of measures

Communication event

Measures and KPIs

Asset repository and Modeler integration

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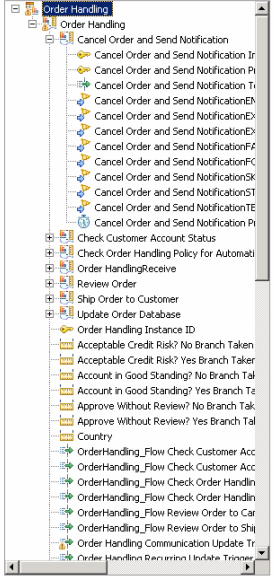
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For the high level model, this slide shows you the model structure resulting from the import into the monitor model editor. There is a single monitoring context which contains the metrics for calculation of the measures. There is also the communication event which receives the metric information from the low level model. In the dimensional model you can see the measures which calculate the average processing times and average decision percentages based on the metrics in the monitoring context. In the KPI model, you will see any KPIs which you defined in the business measures model in Modeler.

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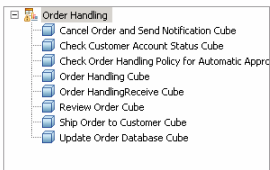
## Monitor toolkit import – dual, low level model

**Monitor Details Model**

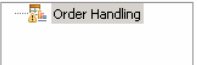


One context per process and per activity containing events and metrics to send to high level model

**Dimensional Model**



**KPI Model**



No measures nor KPIs in the low level model

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For the low level model in the dual model approach, this slide shows you the model structure resulting from import into the monitor model editor. There is a parent monitoring context for the process and a child monitoring context for each activity in the process. There are metrics and stopwatches defined for the processing times and branch percentages. These metrics are placed on the communications event which is sent to the high level model for calculation of the business measures. Note that there are no measures nor KPIs defined in the low level model.

## Summary

- Covered the new asset repository and business measures model integration



In summary, you have seen how to use the new asset repository for storing and sharing your monitor model projects. And you have also seen how to auto-generate a monitor model from your business measures models imported from Modeler.

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