



IBM Software Group

WebSphere Business Modeler V6.2

Business measures



@business on demand.

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This presentation will discuss the features in WebSphere® Business Modeler for creating business models that can be monitored using WebSphere Business Monitor.

Goal

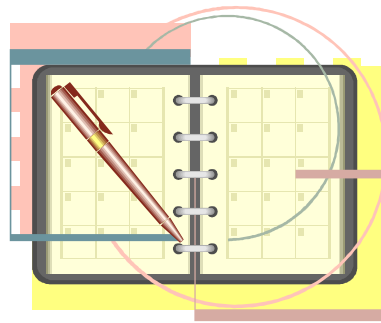
- To introduce you to features available in WebSphere Business Modeler for specifying a business model that can be monitored using WebSphere Business Monitor



The goal of this presentation is to introduce you to features available in WebSphere Business Modeler for specifying a business model that can be monitored using WebSphere Business Monitor.

Agenda

- Modeling for monitoring
- Definitions
 - ▶ Business measures
 - ▶ Monitored values
 - ▶ Predefined templates
- Creating business measures

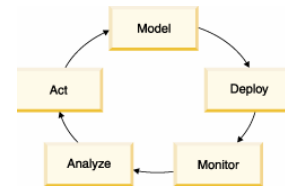


Before diving in too deeply, it is good to know why this feature is here. This presentation will begin with a few words about what it means to create a business model that can be monitored and why it is important.

This is followed by some definitions of terms that are used and concludes with a detailed discussion of how to create business measures.

Modeling for monitoring

- The business analyst has insight into key elements of the business process that can indicate the success or failure of strategic business goals.
- While creating the business model, the business analyst can identify what needs to be monitored when the business process is running.
 - ▶ Business measures
 - Metrics
 - Key performance indicators (KPIs)
- Monitor model
 - ▶ Collection of business measures that collect and organize the information at runtime



To improve how you manage your company's performance, you can combine WebSphere Business Modeler with WebSphere Business Monitor. Effectively managing business performance involves continuously defining, analyzing, innovating, and improving each business process. The underlying assumption is that you are modeling for deployment.

Starting with a process model in WebSphere Business Modeler, you specify the information that you want to monitor by associating *business measures* with the business process. Business measures describe the performance management aspects of a business that are required for real-time business monitoring. They include metrics and key performance indicators also known as KPIs.

The monitor model is the aggregation of the business measures that describe what information to collect and how to organize it for display purposes. It gets deployed to WebSphere Business Monitor server.

Deployment of monitor models

- Export to WebSphere Business Monitor development toolkit
 - ▶ Complete the model details
 - ▶ Deploy to a WebSphere Business Monitor server
- Deploy directly to Business Space
 - ▶ Along with the business process
 - *Interactive process design*



You can export the business measures as a monitor model for importing into the WebSphere Business Monitor development toolkit, which runs on WebSphere Integration Developer or Rational® Application Developer. A technical user works within the WebSphere Business Monitor development toolkit to further specify how the monitor model should derive the business measures from incoming events being generated by a process.

Or, you can deploy a process directly to Business Space and the monitor model is automatically exported for you.

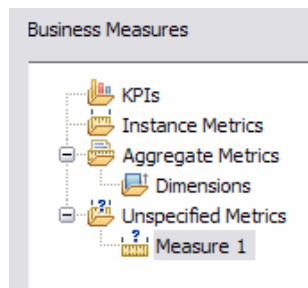
While the process is running, the business measures results are collected, calculated, and further analyzed in WebSphere Business Monitor.

For the purpose of this discussion, it does not matter which deployment method is used.

This presentation will focus on creating the business measures.

Business measures

- Business measures describe the performance management aspects of a business that are required for real-time business monitoring.
 - ▶ How much does it cost to do a certain task?
 - ▶ Are you achieving your service level agreements?
 - ▶ Do you have the right balance of resources?



When developing a business model the business analyst learns what parts of the business processes are critical to the overall performance of the business. Some parts are more important than others. With WebSphere Business Modeler the business analyst can specify the parts of the model that they want to have monitored at runtime. This will provide them with the information necessary to determine if the business process is meeting the expected goals.

Business measures are...

- Business performance indicators
 - ▶ A combination of KPIs and metrics
 - ▶ Key performance indicator (KPI) = metrics + target
- Monitored values
 - ▶ Specific values that can be monitored and returned to business modeler
 - ▶ used with simulations to refine the business model




There are two kinds of business measures, the business performance indicators and the monitored values.

Business performance indicators provide a way to group the KPIs and the business metrics together in WebSphere Business Modeler. The metrics provide the discrete data points which are then aggregated and compared with the business goals, the target.

The monitored values are special metrics that can also be used in the WebSphere Business Modeler simulations. When the model is first constructed, these values represent estimates based on previous experience. After the business process has been running for a period of time, you can use the real values collected at runtime in your simulations. This improves the accuracy of the simulations and helps refine the model in the next iteration.

Business performance indicators

- Key performance indicator (KPI)
 - ▶ Calculated across multiple runs of a the business process and used to track business objectives
 - **Example:** Average time for response to a customer inquiry, with at target of less than two days.
- Instance metric
 - ▶ A value resulting from a single run of the business process
 - **Example:** Number of items in an order
- Aggregate metric
 - ▶ Aggregate metric
 - Calculated across multiple runs of the business process
 - Used for finding the average, maximum, minimum, total or the number of occurrences
- Unspecified metric



Business goal



Here are some definitions that you need to know when working with business measures.

The basic unit of measurement is the instance metric. It represents the value of a single attribute over a single run of the business process.

The next logical step when analyzing the monitored data is to start aggregating it over several runs of the business process. This is what the aggregate metric is for. The aggregate metric provides useful information such as average, maximum, minimum and total.

To make use of the data, it is necessary to compare it with the business goals. This is where the KPIs come into play. The KPI provides a way to compare the metrics with the business goals. With the KPI you can also specify an action in terms of an alert. The alert is generated when the specified target is met.

The unspecified metric is a way to minimally define a business measure. In this case the business analyst knows what needs to be measured and can describe it, but doesn't know how to implement it.

Monitored values

- Processing time
- Processing cost
- Startup cost
- Revenue
- % per branch

The modeling elements are automatically derived from the business model

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	Processing Cost	Startup Cost	Revenue	% Per Branch
Acceptable Credit Risk?					<input type="checkbox"/>
Account in Good Standing?					<input type="checkbox"/>
Approve Without Review?					<input type="checkbox"/>
Cancel Order and Send Notification	<input checked="" type="checkbox"/> Average Can...	<input checked="" type="checkbox"/> Average Canc...	<input checked="" type="checkbox"/> Average Can...	<input checked="" type="checkbox"/> Average Can...	
Check Customer Account Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Check Order Handling Policy for Automatic Approval	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Order Handling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Review Order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ship Order to Customer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Update Order Database	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

9

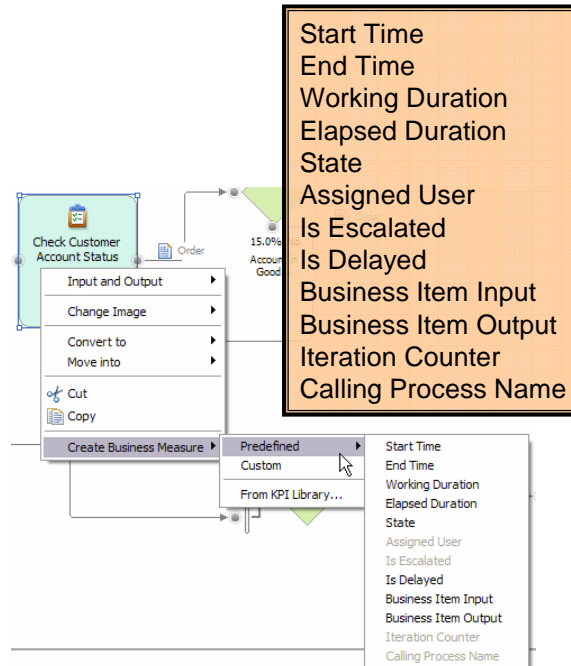
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You can identify attributes so that WebSphere Business Monitor can collect actual values as the process runs. You can use the real-life values of those attributes to update the values of the attributes in WebSphere Business Modeler. This information improves the accuracy of your model and simulations by providing realistic and accurate data derived from running the business process. The updated values are imported into WebSphere Business Modeler, using the 'WebSphere Business Monitor results' import type.

WebSphere Business Modeler does everything it can to help you create a complete business and monitor model which can be deployed to the WebSphere Business Space. Here you see that the list of the elements for specifying the monitored values has been created for you. All you need to do at this point is select the attributes to monitor. The supporting instance metrics are created automatically when the option is checked. The instance metrics are removed when the option is unchecked.

Predefined templates

- A set of business measure templates for commonly monitored business measures
- Select directly from the element in the process diagram
- Available in the business measures specification



There are several business measures that are used over and over again. For these commonly used business measures there are predefined templates that can be used. The quickest way to use one is to right-click the process element, select 'Create Business Measures', then 'Predefined', and finally, select the one you want from the list. This is shown in the screen capture.

Notice that there are some templates for duration but not for costs. There is no easy way to automatically create the attributes needed to calculate the costs. If you want to monitor costs then you will use the Business Item Output template. The business item output template lets you use any attribute of an output business item for the business metric.

Business measure details

Business Measure Details

Specify additional details to describe how the business measure is calculated.

Business Measure Information

Name: Check Customer Account Status Working Duration

Type: KPI Instance metric Aggregate metric Unspecified

Description: This metric measures the working duration of Check Customer Account Status.

Type and Default Value

Specify a default value and type

Type: Duration

Default value: 0 0 0 0 0

Instance Metric Calculation Details

Specify the method used to calculate this instance metric.

Specify how to calculate this instance metric

Using a predefined business measure template for a process element

Template: Working Duration

Process element: Check Customer Account Status

Using an expression involving other instance metrics

11

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Selecting a predefined template will take you directly to the *Business Measures Details* wizard.

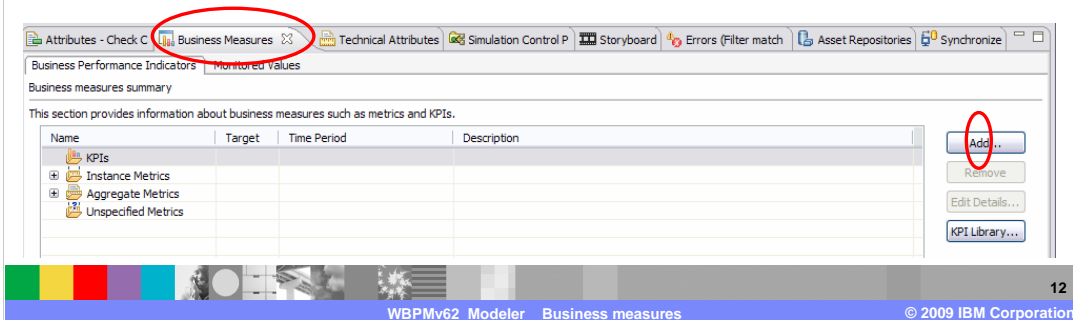
In this example, the working duration template for the “Create Customer Account” task was selected.

Looking at the list on the left you’ll notice that there are already a few metrics that have been created. These were automatically created when the monitoring values were selected previously.

Notice that an instance metric is being created and the ‘Working Duration’ template is being used.

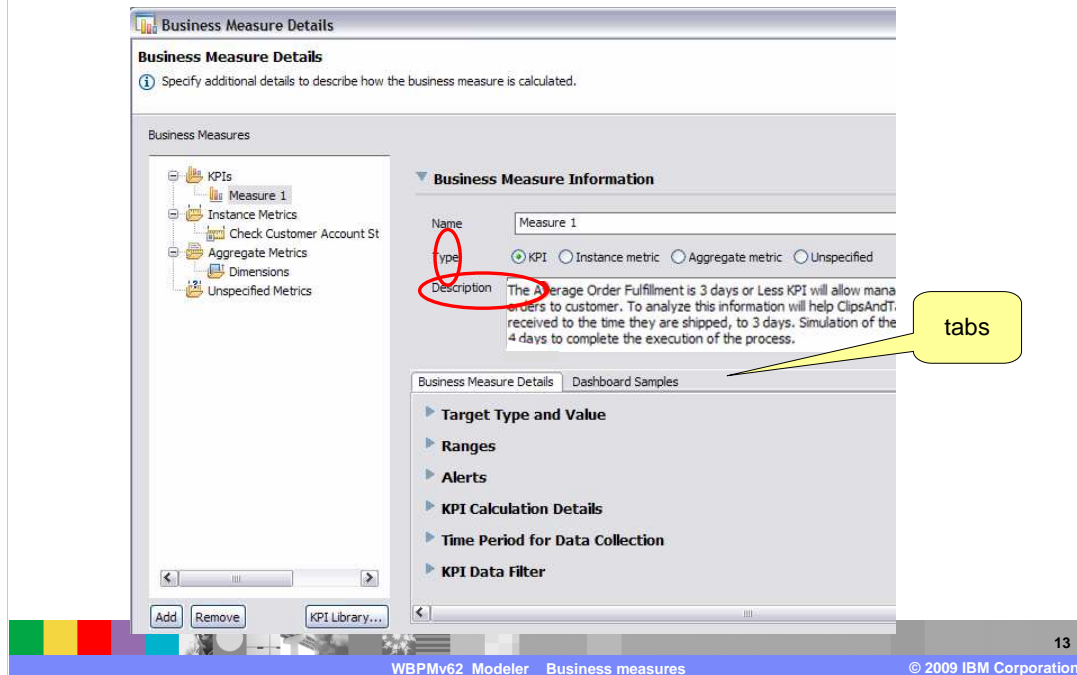
Getting started

- Start from the Business Measures view
 - ▶ Add invokes the *Business Measures Details* wizard
- KPIs use instance and aggregate metrics
 - ▶ Define the metrics first



To get started, go to the 'Business Performance Indicators' tab of the business measures view and select the add button. This will invoke the business measures details wizard. The wizard is where all the work is done.

Business measure details wizard



The first thing to notice when creating KPIs or metrics is that the same wizard does it all.

The Description field is the most important field in the entire specification. The responsibility of the business analyst is to describe what the business measure will do.

The metrics defined here are hints and guidelines for the integration developer implementing the monitoring model with the WebSphere Business Monitor development toolkit. For this reason it is very important to have a complete description of the intent and purpose of the business measure.

Looking at the radio buttons in the type field you'll see that each of the different kinds of business measures is available. Selecting the radio button will change the information available in the tabbed section below.

There are two tabs, one for Business Measure Details and another which provides information about how each kind of business measure can be displayed in a dashboard, the Dashboard Samples.

Each section in the details list is expandable. They are all optional. The details can be added later, using WebSphere Business Modeler or the WebSphere Business Monitor toolkit.

When creating a business measure, the business user is not required to know the difference between a KPI, an instance metric and an aggregate metric. It is perfectly valid to leave the type as 'unspecified' and just write a textual description of what the business measure is supposed to provide.

Dashboard samples

Business Measure Details | Dashboard Samples

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 dashboards:

- [KPI Table:](#) 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.
- [KPI Gauge:](#) Displays an individual KPI value, relative to the KPI range and target in a full or half gauge format, if applicable.
- [Simple KPI:](#) Displays a set of KPIs and shows the current value of each KPI relative to the target. The color reflects the current range color.
- [KPI Bar:](#) Displays an individual KPI value, relative to the KPI range and target in bar format, if applicable.
- [Alerts:](#) Displays alerts that notify users of defined situations occurring at run time.

Links change the view

KPI Table

KPI Name	Status	Value	Target	Range
Orders	↑	90	50.0	
Minimum	↓	4.0	20.0	
Percentage	↓	3	55.0	
Total Order	↑	390.0	100.0	

Customize View

Sample

14

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The dashboard samples gives a definition of what a KPI is along with some examples.

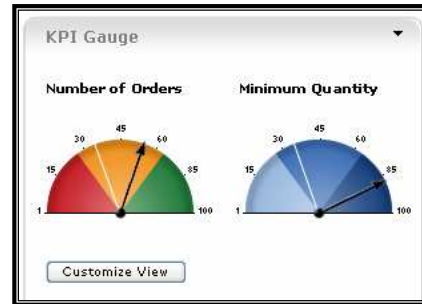
Each item in the left column is a link. Selecting the link will change the display on the right, giving a nice example of what a KPI can do for you.

Spend some time getting familiar with these examples before creating your own.

If you change the type of the business measure from KPI to instance metric, then there are fewer dashboard options. You'll only have alerts and instances tables. With aggregated business measures you can only have dimensions and reports charts.

Key performance indicator (KPI)

- Additional fields that are available for the *KPI* business measure.
 - ▶ Target type and value
 - ▶ Ranges
 - ▶ Alerts
 - ▶ KPI calculations
 - ▶ Time period for data collection
 - ▶ KPI data filter

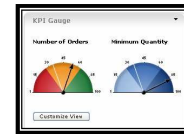


Selecting the radio button for the KPI type will reveal that there are several additional fields available. They are listed here on this slide.

Each of these areas provides a way for you to further specify the business measure. They are all optional. The more completely the business measure is defined, the easier it is to implement. If your goal is to deploy directly to the WebSphere Business Space, then you will see warnings and errors that will guide you in completing the specification as necessary.

The following slides will go over each of these fields.

KPI, target type and value



- Target type and value
 - ▶ Type can be a number or duration (days, hours, ...)
 - ▶ The value is the value you expect the KPI to achieve

Notice the check box. This indicates that this is an optional parameter.

The Type is limited to Number or Duration and the duration can be days, hours, minutes, seconds or milliseconds as shown in the slide.

If the Type is number, then the target value displayed will change to a single field for entering decimal numbers.

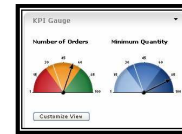
If the type is 'unspecified', the target value is optional and can be any text.

KPI, ranges

- Range details

- A range or set of ranges against which to track the KPI

- Percentage of the target value
 - Actual value



Business Measure Details | Dashboard Samples

Target Type and Value

Ranges

Specify range details:

Ranges can be defined as percentages of the target value or as fixed, actual values.

Percentage of target value (target value = 100%)

Actual value

Specify ranges

A range is a set of values, such as allowable margins or lower and upper limits, against which track your KPI.

Range Name	Start Value	End Value
Day 1	0 Seconds	< 1 Day 0 Seconds
Day 2	1 Day 0 Seconds	< 2 Days 0 Seconds
Day 3	2 Days 0 Seconds	< 3 Days 0 Seconds
Day 4	3 Days 0 Seconds	< 4 Days 0 Seconds

Add Remove Sort

Edit button

This is where you specify the ranges that should be displayed, something like high, medium, or low.

There are two options, the percentage of the target value can be used or the actual value can be used.

Select percentage of target value to have the target value treated as 100% for setting the ranges, or select Actual value if you have no target or want to specify exact values.

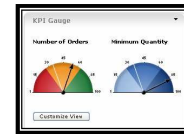
For example, you might have an acceptable range that is from 90% to 100% of the target and a Good range that is from 100% to 110% of the target.

Or, using actual values, you might have an Acceptable range that is from five to ten and a Good range that is from ten to twenty.

The values that you can input here depend on the target type and value specified in the previous section. The values are entered by editing the cell in the table.

KPI, alerts

- Describe the conditions under which an alert should be sent and what should happen as a result of the alert.
- The description is used by the Monitoring Model implementer.



Example: "If the value of the KPI dips into the Poor range, send an e-mail to the manager"

Business Measure Details | Dashboard Samples

▼ Alerts

You can specify instructions for notification when specific conditions occur. For example, when this measure exceeds a certain value, send an email.

Specify when to send an alert and the action to take as a result

Alert Description	
Poor performance alert - If the value of the KPI dips into the poor range, send an e-mail to the manager	Add
Excellent performance alert -If the value of the KPI exceeds the target, notify Marketing	Remove

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Alerts are fairly straightforward. You can have an alert sent by selecting this box. The text in the description will tell the integration developer when the alert should be sent and to whom.

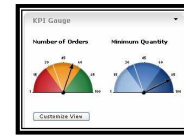
A clear and concise description is paramount for this option.

Alert description: Describe the conditions under which an alert should be sent and what should happen as a result of the alert.

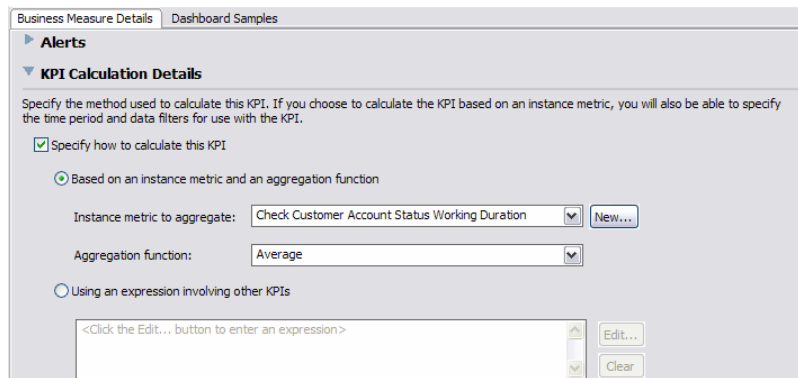
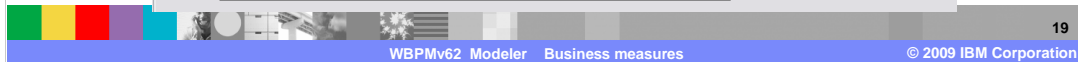
For example, you can type "If the value of the KPI dips into the poor range, send an e-mail to the manager."

Another example; "If the value of the KPI exceeds the target, notify Marketing."

KPI, calculations



- Aggregated instance metric
 - ▶ Function: average, count, max, min, sum
- Expression using other KPIs

A screenshot of the 'Business Measure Details' dialog box in IBM Business Measure Modeler. The 'Alerts' section is expanded, and the 'KPI Calculation Details' section is visible. It contains a checkbox 'Specify how to calculate this KPI' which is checked. Below it are two radio button options: 'Based on an instance metric and an aggregation function' (selected) and 'Using an expression involving other KPIs'. The first option has a dropdown for 'Instance metric to aggregate' with the value 'Check Customer Account Status Working Duration' and a 'New...' button. It also has a dropdown for 'Aggregation function' with the value 'Average'. The second option has a text area for an expression with a placeholder '<Click the Edit... button to enter an expression>' and 'Edit...' and 'Clear' buttons.

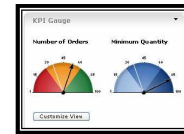
This section lets you specify how to calculate the key performance indicator.

It can be based on an aggregated instance metric, using one of the available aggregation functions or it can be based on an expression that uses other KPI definitions. Before using the expression editor make sure that the KPIs you plan to use have been defined.

If you use the aggregated instance metric then the instance method must be defined first. You can create a new instance metric using the new button.

KPI, time period for data collection

- Time period over which the business measure is monitored.
 - ▶ Repeated (daily, monthly, yearly)
 - ▶ Rolling
 - Number of previous days, up to or including the current day.
 - ▶ Fixed



The screenshot shows the 'Business Measure Details' dialog box with the 'Time Period for Data Collection' section expanded. The 'Specify a time period over which the business measure will be monitored' checkbox is checked. Underneath, there are three radio buttons: 'Repeating', 'Rolling', and 'Fixed'. The 'Fixed' radio button is selected. The 'Period type' dropdown is set to 'Yearly'. The 'Last' field is set to '30' and the unit is 'days'. The 'Time zone' dropdown is set to 'GMT-5'. The 'Base period on' section has two radio buttons: 'Last full period' (selected) and 'Period in progress'. The 'Start date' field is set to 'January 29, 2009' and the 'End date' field is set to 'February 28, 2009'. The 'Time zone' dropdown for the end date is also set to 'GMT-5'. The dialog box has tabs for 'Business Measure Details' and 'Dashboard Samples'. The bottom of the dialog box shows 'WBPMv62 Modeler Business measures' and '© 2009 IBM Corporation'.

This section lets you specify when to collect the KPI data.

There are three different approaches for defining the time period. Either a repeated, rolling or fixed time period can be used.

For Repeated, select the Period type (daily, monthly, or yearly) and specify whether you want to see the last full period or the period in progress. For example, if you select daily, then the KPI can either show the value from yesterday, or the value based on the day so far.

For Rolling, select the Number of previous days that you want to see and specify whether you want to include the last full day (yesterday) or the day in progress. For example, if you select 30 days, you will see the value of the KPI based on the last 30 days either up until yesterday, or up to the current time.

There are a few restrictions. Rolling dates are limited to 100 days, and start and end dates cannot be more than 100 days apart.

KPI, data filter



- Restrict the information that is included in the calculation of the KPI
- Cannot use KPIs based on expressions

Example: to use data only for London, you can set the *operator* to 'equal to' *value to include* to London

Business Measure Details | Dashboard Samples

KPI Data Filter

You can restrict the information that will be included in the calculation of the KPI. For example, for your Sales In London KPI, you could set the data filter name to City and the value to London.

Specify data filters to limit the values included in the calculation of this KPI

Data Filter Name	Instance Metric	Operator	Values to Include
City	Region	equal to	London
L cities	Region	like	L%

Add Remove

wildcard

21

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With the KPI data filter you can restrict the data that is used in calculating the KPI to a specific subset.

There is a complete range of operators available for the various data types.

When using the 'like' and 'not like' operators with text data, the percentage sign can be used as a wildcard.

Data filters cannot be specified for KPIs that are calculated based on an expression using other KPIs.

Instance metrics

- Used to capture specific information about a single run of the business process
- Additional fields that are available for the *instance metric*
 - ▶ Target type and value
 - ▶ Instance metric calculation details
 - ▶ Alerts
 - Same as with *KPIs*

Business Measure Information

Name:

Type: KPI Instance metric Aggregate metric Unspecified

Instances

CustNameDisp	dateOrderedDisp	order_
Smith	2007-07-13 11:10:04,1	↓
Zucker	2007-08-12 11:12:02,2	↓
store 1	2007-09-24 11:09:05,6	↓

Page 1 of 1 Go to page:

Drill Up Personalize View

An instance metric is used to capture specific information about a single run of the business process.

An example of an instance metric might be the number of items in a given order.

The instance metric is the fundamental data element.

In the monitor dashboard, the instances view displays the modeled instance metrics.

The dashboard administrator selects the instances or set of instances to display.

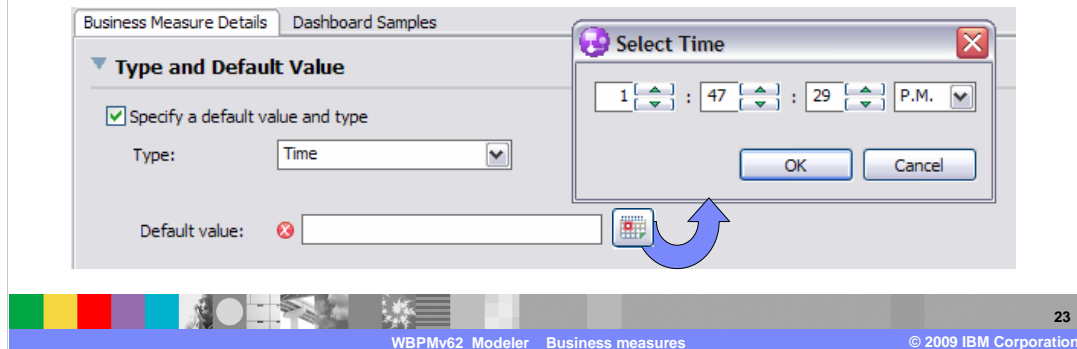
The administrator can connect the instances view to the Alerts view.

When a user clicks the source of an alert in the Alerts view, the process instance that triggered the alert is displayed in the Instances view.

Similarly, the administrator can connect the Instances view to the Diagram view. The instance diagram can be highlighted based on the instance selected from the Instances view.

Instance metric, type and default value

- Elemental types
 - ▶ Boolean, Date, DateTime, Decimal, Duration, Integer, Text, Time, unspecified
- Dynamic input fields
 - ▶ Based on the data type selected



The instance metric is the fundamental piece of data. The elemental types, Boolean, Date, DateTime, Decimal, Duration, Integer, Text, and Time are available from a drop down list. The input fields will change based on the data type selected.

In this example the type is 'Time'. Once a type has been selected a default value is required. Selecting the button to the right of the field invokes the 'select time' dialog, ensuring the proper format. Each data type has input helpers appropriate to their type.

Instance metric calculation details

- Based on a template
 - ▶ Business item output provides the mechanism for creating your own
- Derived from other instance metrics

CustomerID	dateOrdered	order_
5000	2007-07-13 11:10:04.1	4
5000	2007-08-12 11:12:02.2	4
5000	2007-09-24 11:09:05.6	4

Business Measure Details | Dashboard Samples

▶ Type and Default Value

▼ Instance Metric Calculation Details

Specify the method used to calculate this instance metric.

Specify how to calculate this instance metric

Using a predefined business measure template for a process element

Template: Working Duration

Process element: Check Customer Account Status

Using an expression involving other instance metrics

<Click the Edit... button to enter an expression>

Clear

Start Time
End Time
Working Duration
Elapsed Duration
State
Assigned User
Is Escalated
Is Delayed
Business Item Input
Business Item Output
Iteration Counter
Calling Process Name

The instance metric calculation provides a way to specify where the instance metric is going to come from.

Remember the discussion earlier about the predefined templates. One, very easy way to create an instance metric is to use one of the predefined templates. If you select a predefined template then you'll also have to specify a process element. The instance metric is associated with a business process or a business process element.

If there is no predefined instance metric that meets your requirement then you can model your own and use the business item output or input. If you select business item output or input as the template, an additional 'attributes' field is displayed. The attributes field will let you select the attribute in the output or input data that has the data you need.

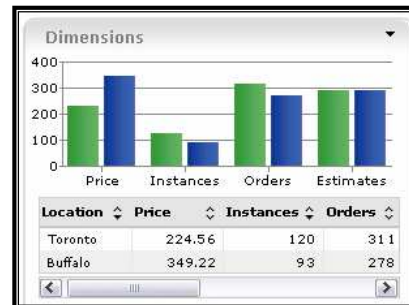
Aggregate metric

- Aggregate metrics capture the results across multiple runs of the business process
- Are *measures* in the WebSphere Business Monitor toolkit
- Additional fields that are available for the aggregate *metric*
 - Aggregation function
 - Aggregate metric calculation details
 - Dimensions for analysis

Business Measure Information

Name: My Aggregate Metric

Type: KPI Instance metric Aggregate metric Unspecified



The key thing to remember about aggregate metrics is that they are accumulated over the course of multiple runs of the business process.

Examples of aggregate metrics are the average working duration of a process, the minimum response time for a supplier, and the maximum cost of the risk assessment step in an insurance process.

When the business measures are exported from WebSphere Business Modeler, the aggregate metrics that you created become part of the dimensional model of the monitor model and are called *measures*. The dimensions are also part of the dimensional model.

Aggregate metric, aggregation function

- Available functions
 - Average, count, minimum, maximum, sum



Business Measure Details | Dashboard Samples

▼ **Aggregation Function**

Specify how to aggregate this measure across multiple runs of the process

Function: ▼



When working with multiple instances of the data you have to decide how you want it represented. Are you interested in the total number of orders, perhaps you need to have the total as part of a calculation of a different KPI?

The functions available for aggregating the data are; average, count, minimum, maximum and sum.

Aggregate metric calculation details

- What is the instance metric to aggregate?
 - ▶ If none available, select new
 - Still need to specify the details for the newly created instance metric



▼ **Aggregate Metric Calculation Details**

Specify an instance metric to use to calculate this aggregate metric.

Specify how to calculate this aggregate metric

Instance metric to aggregate:

Specification of the instance metric to aggregate is straightforward. If one exists, select it from the list. If a new one is created using the 'new' button, you can complete the specification of the aggregate but must also complete the specification of the new instance metric before you are done.

Aggregate metric, dimensions for analysis

■ Dimensions

▶ Dimensions are used to calculate sub-groups

- The data categories that are used to calculate the value of the KPI
 - By country, sales, representative, or growth

■ Requires IBM DB2® Alphablox®

Depends on existing instance metrics



Business Measure Details Dashboard Samples

▼ Dimensions for Analysis

You can provide an instance metric as the implementation for each dimension. For example, an instance metric that holds the name of a city can be the implementation for the city dimension.

Specify the dimensions that will be available in the dashboards for analysis of this metric

Dimension	Instance Metric
Order Handling Dimension	items

Add Remove

28

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Dimensions are used to calculate sub-groups for analyzing the data.

Dimensions help to answer questions like what are the total sales for each product by location, which products are selling best over time and who is your highest-performing salesperson?

To completely specify the model, you identify the business items that have the information you are interested in; for example, product, city, sales representative.

Next you find out where these business items are being used in your business process.

You right-click a task that receives the business item and create three business measures based on the predefined business item input template, one for each of the attributes in the business item. Then, in the aggregate metric dimensions, you specify that the dimensions in the aggregate metric are based on those three instance metrics.

The dimensional model depends on having the supporting instance metrics, which come from the business item attributes of the business model.

IBM Software Group IBM

Unspecified

- Minimal specification
- Name and description only

Location	Price	Instances	Orders	Returns
Toronto	224.56	120	311	
Buffalo	209.22	93	238	

Business Measure Information

Name:

Type: KPI Instance metric Aggregate metric Unspecified

Description:

Business Measure Details | Dashboard Samples

Select a business measure type above to enter additional attributes for the business measure. For a preview of how each type of business measure can be displayed on the WebSphere Business Monitor dashboard, click the Dashboard Samples tab.

29

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If you do not know the difference between an instance metric, a KPI or an aggregate metric, it's perfectly valid to leave the type as 'unspecified' and just write a textual description.

The details of the implementation will have to be completed by the integration developer creating the monitor model in the WebSphere Business Monitor toolkit.

Summary

- Modeling for monitoring
- Definitions
 - ▶ Business measures
 - ▶ Predefined templates
 - ▶ Monitored values
- Creating business measures
- Monitor model
 - ▶ Export to WebSphere Business Monitor toolkit
 - ▶ Deploy directly to WebSphere Business Space



Modeling for monitoring requires knowledge of the business performance goals and a solid understanding of the business model. The business analyst is the person with this unique perspective of the business. By providing the ability to specify the business measures in WebSphere Business Modeler, the business analyst can capture the business performance goals such that they can be easily turned into a monitoring model that can be run in a WebSphere Business Monitor server.

Business measures describe the performance management aspects of a business that are required for real-time business monitoring. They are composed of instance and aggregate business metrics that are derived from the attributes of the business model.

Predefined templates are provided to assist the business analyst in creating commonly used instance metrics.

There is a special class of business measures called monitored values that are used to provide feedback about the business performance to the business model. The monitored values are used to further refine the accuracy of the modeling simulations.

With WebSphere Business Modeler, creating business measures is a natural extension of the business modeling activity. The business measures editor provides a single focal point for creating and editing the business measures.

When the business model has been updated with the business measures information, the monitor model can then be exported to WebSphere Business Monitor toolkit or deployed directly to the WebSphere Business Space.

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