Defining metrics and KPIs to monitor your business

This edition applies to version 6, release 1, modification 1 of WebSphere Business Modeler Advanced (product number 5724-I75) and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. Defining metrics and KPIs to monitor your business

Using business measures, you can model information in WebSphere® Business Modeler that can be captured in WebSphere Business Monitor. In this tutorial, you will learn how to add business measures to a process, identify attributes so that WebSphere Business Monitor can collect real-life values as the process runs, export business measures, and update the attributes in WebSphere Business Modeler after the process has been monitored.

Business measures is a collective term for metrics and key performance indicators (KPIs). Business measures identify the information that will tell you how well your business is doing. After you add business measures to a process and identify the attributes that you want returned, you export the business measures as a monitor model. The monitor model is imported into the WebSphere Business Monitor development toolkit, which runs on WebSphere Integration Developer or Rational Application Developer. A developer completes the monitor model by specifying how it will derive the business measures from incoming events that the running process generates. Then you collect, calculate, and further analyze the business measures results in WebSphere Business Monitor, viewing the metrics and KPIs on dashboards. You can update the attributes in WebSphere Business Modeler with actual values to improve the accuracy of the model.

This tutorial covers only the actions you take in WebSphere Business Modeler and does not cover the actions that a developer takes in WebSphere Business Monitor.

Learning objectives

This tutorial will guide you through the following tasks:
- Importing an existing business process
- Determining the business measures that are required
- Adding an instance metric, an aggregate metric, and two KPIs
- Specifying attributes so that the values can be collected in WebSphere Business Monitor
- Exporting the monitor model
- Importing the results from WebSphere Business Monitor after the process has run

Time required

The tutorial should take you no longer than 50 minutes to complete.

Chapter 2. Scenario

In this tutorial, you play the part of a business analyst working for KateWay Animal Park. Suppose that you previously modeled the online ticket sales process in WebSphere Business Modeler and now you are going to add monitoring capabilities to the process.

KateWay Animal Park is a local success story. Besides wandering the park, visitors can pay online to spend the afternoon at a show, such as "Think Like a Gorilla" and the more recent "Meet the Tigers." Much of the park's revenue comes from the shows.

The park board has been running local radio ads for years but is now considering a television campaign. The board hopes that the TV campaign will not only bring in more visitors but will encourage more of them to attend a show. Ideally the board would like about 2000 visitors a month to attend each show. It plans to run a one-month trial of the TV ads, from April 1st to April 30th.

The board has asked you to track the impact of the TV campaign. It wants to know how many visitors buy tickets for each of the shows and which of the two shows the visitors are more likely to attend. The board would like to monitor the results immediately, instead of having to wait for the monthly reports.

When you modeled the process initially, about 65% of visitors attended a show, but monitoring will enable you to verify that your percentage is still accurate.

The first step is to import the business process that you created earlier, and then you can start adding the metrics and KPIs that the scenario requires.

Chapter 3. Importing the sample

In this first lesson, you will import the sample ticket order process so that you can focus on adding the business measures.

There are two ways to complete the tutorial. To follow along with the tutorial exercises, import the AnimalParkTutorial.mar file. If you would rather just read the tutorial exercises, you can import the complete sample project: AnimalParkTutorialComplete.mar.

The AnimalParkTutorial.mar file represents the process that you, as the business analyst, would already have modeled.

To import the process, complete the following steps:

1. Open WebSphere Business Modeler.
2. Right-click the Project Tree view and select **Import**.
3. Select **WebSphere Business Modeler project (.mar, .zip)** and click **Next**.
4. Click **Browse**. Navigate to the folder where you put the samples and click **OK**.
5. Select the AnimalPark.mar tutorial project. (Or select the AnimalParkComplete.mar if you are not planning to complete the exercises yourself.)
6. Click **Finish**. When the import is complete, a confirmation window opens. Click **OK** to close it.

You now have a KateWayAnimalParkTutorial project in your workspace.

Open the TicketSalesProcess and examine how KateWay Animal Park processes its ticket orders. KateWay Animal Park receives the order and identifies whether a show is included. If so, KateWay Animal Park checks that the show is not sold out and then records the show order in a database, processes the payment, and sends a confirmation to the customer. If a show is not included, KateWay Animal Park displays an ad for an upcoming show, processes the payment, and sends a confirmation to the customer.
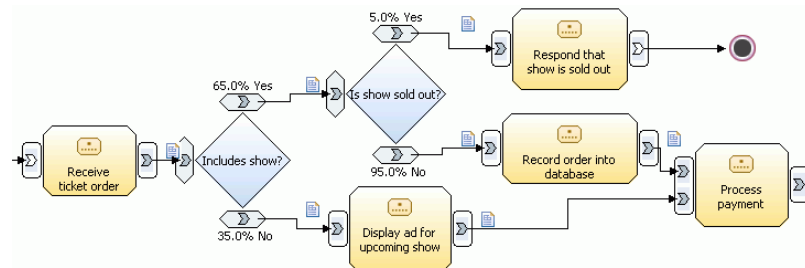
Open and examine the TicketOrder business item. The business item indicates which show was purchased, how it was paid for, and how many adults and children are included in the ticket order.
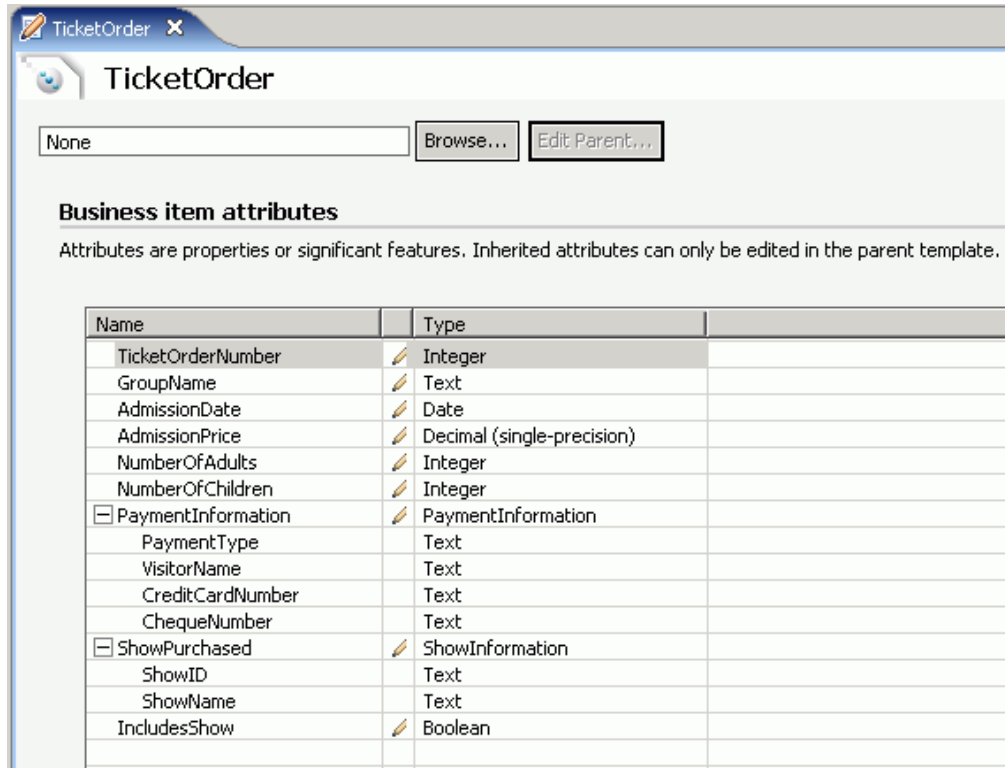
Lesson checkpoint

In this lesson, you imported the sample project. In the next lesson, you will determine the business measures to define.

Chapter 4. Determining the required business measures

In this lesson, you determine the business measures to model so that WebSphere Business Monitor will collect the information that the park board requested and display it on the dashboards. You also determine the results that you need from WebSphere Business Monitor to improve the accuracy of the process model.

When you open the ticket order process in the Process editor, the business measures information is shown in the Business Measures view.

Business measures information in WebSphere Business Modeler is separated into two types:

*   Information that is to be displayed on the dashboards and analyzed (specified in the **Business Performance Indicators** tab). This information is specified as metrics and KPIs whose values are collected in WebSphere Business Monitor and displayed on the dashboards as the process runs.
*   Information that is collected from running process instances and used to update attributes in the process model with real-life values (specified in the **Monitored Values** tab). WebSphere Business Monitor can collect real-life values as the process runs, and you can use the values to model alternative process designs more accurately, based on actual results.

In this tutorial, you specify the following questions that you would like answered as a result of monitoring the ticket order process in WebSphere Business Monitor:

*   Which show is associated with each ticket order?
*   How many visitors come to the park each month?
*   What is the attendance for each show?
*   What is the percentage of visitors who attend each of the shows?
*   What is the percentage of visitors who are turned away from a sold-out show?

For some types of information, such as which show is associated with a ticket order, you need the results of each ticket order. Because this information is based on each individual run (or instance) of the process, it is modeled as an instance metric.

You also want to collect information that spans ticket orders, such as the number of visitors. Because you need the results of all the ticket orders and not just the number of visitors represented by a single ticket order, this value can be modeled as an aggregate metric.

For other types of information, such as the attendance for each show, you are measuring the performance of the business. You need results based on all the visitors to indicate how well the TV campaign is working. Because there are specific goals that the board would like to achieve (2000 visitors per month per show), and we can characterize how well the business is performing based on how close they are to this target, this information is modeled as key performance indicators (KPIs).

Using the questions, you can determine the information that you need to extract from the business process.

Question to Answer	Information Required	How to Model
Which show is associated with each ticket order?	The name of the show in the ticket order	Instance metric
How many visitors come to the park each month?	The total number of visitors	Aggregate metric
What is the attendance for each show?	The number of visitors that attend each show, and whether the goal of 2000 visitors a month per show is achieved	Two KPIs
What is the percentage of visitors who attend each of the shows?	Correct percentage for each decision branch in the process model	Monitored value
What is the percentage of visitors who are turned away from a sold-out show?	Correct percentage for each decision branch in the process model	Monitored value

You have now defined the business measures that you need to add so that you can capture the information that you want.

Lesson checkpoint

In this lesson, you determined the business measures to add to the model, as well as the attributes that you want to monitor. In the next lesson, you will start to define the metrics and KPIs.

Chapter 5. Defining instance metrics

Instance metrics return the result from one run (or instance) of the process. In this lesson, you use a predefined business measure template to define an instance metric.

For the ticket order process, each run of the process is a different ticket order. As you learned in the previous lesson, for some types of information, such as which show the visitors attend, you need the results of each ticket order. Because this information is based on each individual run of the process, it is modeled as an instance metric. At run time, an instance metric holds a different value for each run of the process.

Business measure templates help you create instance metrics that are frequently required, such as the working duration of a task in the process or specific information that a business item carries through the process. In this case, you can retrieve the specific information that you need from the ShowPurchased attribute in the TicketOrder business item. You can use the business item input template to add an instance metric that returns the ShowID from the ShowPurchased attribute.

To define the instance metric, complete the following steps:

1. In the process diagram, right-click the `Record order into database` task. The input to this task is a business item that contains the information that you want, which is the ID of the show (if any) that is part of the ticket order.

2. Select **Create Business Measure** → **Predefined** → **Business Item Input**. The Business Measures Detail window opens with a new instance metric. A default name and description have been entered based on the template that you chose.

3. Click **Browse** beside the **Attribute** field and select the type of information that you want. In this case, select the ShowID attribute of the ShowPurchased business item inside the TicketOrder business item. Click **OK**. The red X goes away after you select an attribute from the business item.

4. Change the name of the business measure from `Record order into database Business Item Input` to `Purchased Show ID`. Change the description to `Keeps track of which show is included in this ticket purchase`.

5. Under the **Description** section in the Business Measures Details window, click the small arrow labeled **Dashboards** to open the Dashboards section. This section shows sample representations of how instance metrics can be displayed in the WebSphere Business Monitor dashboards. These samples help you confirm that you are creating the correct type of business measure (instance metric rather than aggregate metric or KPI) based on how you want that information to be shown. To see a quick sample of a dashboard (which is not related to the actual business measure that you are defining), click a dashboard name. In this tutorial, you will not specify an alert so Alerts is not applicable.

   * Click **Dimensional** to see how multidimensional reports can be used to analyze different aspects of information. In the next lesson, when you define an aggregate metric, you will add a dimension so that you can analyze the total number of visitors based on which show they attend. Two additional dimensions, creation time and termination time, are provided automatically so that you can break down your information in the dashboards based on the time of each ticket order.

- Click **Reports** to see how performance reports are displayed relative to a time axis. Historical values of numeric business measures are shown in tables and graphs for analysis. For example, you could see how many ticket orders came in each day and then whether there was a specific time of day that was more popular for placing ticket orders.
- Finally, click **Instances** to see how each individual instance of the ticket sales process can be displayed in the dashboards. You will be able to see the value of the Purchased Show ID metric for each instance.

6. Under **Specify a default value and type**, notice that the type has been set to **text** to correspond to the type of the ShowID attribute. You do not need to complete any other fields.

7. Click **OK**. The `Purchased Show ID` instance metric is added to the **Business measures summary** table in the Business Measures view.

You have now defined an instance metric to retrieve the information about the purchased show ID.

If you wanted to, you could right-click the **Record order into database** task again and add more instance metrics to retrieve other information, such as the admission price for each ticket order.

Lesson checkpoint

In this lesson, you defined an instance metric.

You learned:
- Why you would define an instance metric
- How instance metrics are shown in the dashboards
- How to define an instance metric based on a predefined business measure

In the next lesson, you will add an aggregate metric.

Chapter 6. Defining aggregate metrics

Aggregate metrics calculate the average, maximum, minimum, or sum of a particular value across multiple runs of the process, or track the number of times a particular value occurs across multiple runs of the process. In this lesson, you define an aggregate metric to keep track of the total number of visitors to the park.

Aggregate metrics use instance metrics and apply a function (average, maximum, minimum, sum, or count) to get a useful result. There are two ways to specify aggregate metrics. You can either define an aggregate metric directly, as in this lesson, or you can define an instance metric and specify that you would like to have an aggregate metric based on the instance metric using a specific function.

In some cases, the information that is necessary to calculate business measures is not available in the process. For example, you want to measure the total number of visitors per ticket order, but the business item only has attributes for number of adults and number of children. If you define the aggregate metric, the developer using the Monitor Model editor in the WebSphere Business Monitor development toolkit will supply the underlying instance metric.

To define the aggregate metric, complete the following steps:

1. Click the Business Measures view tab.

   Tip: If you close this view, you can open it from the menu bar by selecting **Window** ＞ **Show View** ＞ **Business Measures**.
2. On the **Business Performance Indicators** tab, click **Add**. The Business Measures Detail window opens with a new business measure.
3. Change the name of the business measure from `Measure 1` or a similar name to `Total Number of Visitors`. Add the following description: `Total number of people who visit the animal park`.
4. Change the type of the business measure from **Unspecified** to **Aggregate metric**.
5. Under the **Description** section in the Business Measures Details window, click the small arrow labeled **Dashboards** to see sample representations of how aggregate metrics can be displayed in the WebSphere Business Monitor dashboards. Only **Dimensional** and **Reports** are available for aggregate metrics.
6. Click **Specify how this measure is aggregated across multiple runs of the process** and select **Sum** because you want to add up the total number of visitors represented by each ticket order.
7. Click **Specify the categories that will be available in the dashboards for analysis of the metric** and type `Show Name`. Using the dimensional analysis capability of the dashboards, you can analyze the total number of visitors based on the name of the show that they attended.
8. Click **OK**. The `Total Number of Visitors` aggregate metric is added to the **Business measures summary** table in the Business Measures view.

You have now defined an aggregate metric to retrieve the information about the total number of visitors who visit the animal park.

Lesson checkpoint

In this lesson, you defined an aggregate metric.

You learned:
- Why you would define an aggregate metric
- How aggregate metrics are shown in the dashboards
- How to add an aggregate metric to a process
- How to add a category (or dimension) to an aggregate metric

In the next lesson, you will add key performance indicators (KPIs).

Chapter 7. Defining KPIs

Key performance indicators (KPIs) are the significant measurements used to track performance against business objectives. A KPI uses a target, ranges, or both, to measure the improvement of or deterioration in the performance of an activity that is critical to your business. In this lesson, you define KPIs to measure the attendance at each of the two shows. You set a target of 2000 visitors per show per month and add a set of ranges to track how well the business is performing.

A KPI can measure an aspect of the business relative to a defined target. In WebSphere Business Monitor, the KPI target is compared to the actual results to determine the level of success. Each KPI that you create should have a target, ranges, or both so that it can be meaningfully displayed on the dashboards.

The two KPIs that you define in this lesson will measure the attendance at the two shows. You will be able to determine whether the TV campaign has increased attendance during the chosen month and which show is more popular.

Because these two KPIs are very similar, you can define one and then copy it. To define the KPIs, complete the following steps:

1. Click the Business Measures view tab. On the **Business Performance Indicators** tab, click **Add**. The Business Measures Detail window opens with a new business measure.
2. Change the name of the business measure from `Measure 1` or a similar name to `Total Number of Visitors that Watch "Meet the Tigers"`. Add the following description: `Keeps track of how many visitors purchase tickets for the "Meet the Tigers" show.`
3. Change the type of the business measure from **Unspecified** to **KPI**.
4. Open the **Dashboards** section to see sample representations of how KPIS can be displayed in the dashboards. Because KPIs measure the performance indicators that are most important to the business, you can view KPIs in many more ways than metrics.
   - Click **KPI Table** to see the KPIs displayed in table form. A graph displays the position of the KPI value relative to the KPI target and ranges. The dashboard user can define a different color for each range.
   - Click **KPI Gauge** to see the KPI values represented on a gauge, like a speedometer. A dial represents the position of the KPI value relative to the target and ranges. A needle on the dial indicates the current value of the KPI. If the KPI has a target, a gray line on the gauge represents that target.
   - Click **KPI Bar** to see the KPIs displayed in graphs. In each graph, a black vertical line represents the KPI target and a gray horizontal line represents the current value of the KPI.
5. Click **Specify a target value and type**. There are two types of targets: durations and numbers. KPIs with duration targets are shown in the KPI dashboards as days, hours, minutes, and seconds. KPIs with number targets are shown with numeric values.
6. Select **Number** as the type for the KPI. Because the park board would like 2000 visitors a month to attend each of the shows, type 2000 as the target.
7. Click **Specify range details** to enter a set of ranges to track the KPI against. For ranges, you can select whether you want to specify each range as a

percentage of the target value (that is, the target is treated as 100%) or as an actual value. You must use an actual value if you have no target.

8. Leave the default **Percentage of target value**. Click **Add** to add a range. For the name, type Show is under attended. For the start value, type 0 and for the end value, type 95.

   Remember: You are specifying a percentage of the 2000 target.

   Enter the following additional values:

Range name	Start value	End value
Show attendance is just fine	95	105
Show is very popular	105	120

The end value for each column must be the same as the start value of the next range. The percent signs (%) and less than signs (<) are entered for you. The final ranges should look like this:

Specify ranges

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

Range name	Start value	End value
Show is under attended	0 %	< 95 %
Show is just fine	95 %	< 105 %
Show is very popular	105 %	120 %

The dashboard user can assign colors to each of the ranges, perhaps making "Show is under attended" red, "Show attendance is just fine" yellow, and "Show is very popular" bright green.

9. Click **Specify a time period over which the business measure will be monitored**. Click **Rolling** to track the results from the last 30 days. The rolling interval means that the KPI data is calculated over a period of time that slides continuously. The 30 days of the month of April, when the TV campaign runs, will be particularly interesting.

   You could also choose a repeating time period and have the KPI calculated over the last calendar month, but the KPI would always be in the "Show is under attended" range until you are near the end of the month. Another option would be to choose a fixed time period and measure a single month, such as from April 1, 2008 to April 30, 2008.

10. Click **Select the dimensions to be used as filters and add the values of interest**. For this KPI, you must specify a dimension to restrict the set of information that will be used to calculate the value of the KPI at run time. You want this KPI to measure only the visitors that attend the "Meet the Tigers" show.

11. You already have a Show Name dimension defined as part of the aggregate metric. Select the check box to indicate that you want the KPI to be filtered based on the Show Name. For the text to use as the filter, click the **Values to Include** cell and type Meet the Tigers.

☑ **Select the dimensions to be used as filters and add the values of interest**

For example, you have a City dimension but only want to include values from New York and Los Angeles.

Dimension	Values to Include
☑ Show Name	Meet the Tigers

12. Click **OK**. The `Total Number of Visitors that Watch "Meet the Tigers"` KPI is added to the **Business measures summary** table in the Business Measures view.

13. To create the second KPI, right-click the KPI in the table and select **Copy**. Right-click again and select **Paste**.

14. Double-click the new KPI to open it. Change the name of the KPI to `Total Number of Visitors that Watch "Think Like a Gorilla"`. Change the description to `Keeps track of how many visitors purchase tickets for the "Think Like a Gorilla" show`.

15. Scroll down to the dimensions table. The `Show Name` dimension is selected. Change the **Values to Include** cell to `Think Like a Gorilla`. You want this KPI to measure only the visitors that attend the "Think Like a Gorilla" show.

16. Click **OK**. The second KPI is added to the **Business measures summary** table.

You have now defined KPIs to track the visitors at each of the two shows.

Lesson checkpoint

In this lesson, you defined two KPIs.

You learned:
- Why you would define a KPI
- How KPIs are shown in the dashboards
- How to add a KPI to a process
- How to add a target and a set of ranges
- How to filter a KPI based on a value

In the next lesson, you will specify the attributes to be collected in WebSphere Business Monitor and used to improve the accuracy of the modeled process.

Chapter 8. Specifying attributes to return

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. In this lesson, you identify the percentage of times each branch in a decision is taken as an attribute that you want to collect in WebSphere Business Monitor and use to replace the values in the process.

In the ticket order process, there are two decision nodes. They route the ticket order to one of two paths depending on whether the ticket order includes the purchase of a show or whether the show is sold out. You want to know what percentage of the time each branch in the decision is taken.

By specifying the process information to collect in WebSphere Business Monitor, you can improve the accuracy of your model because you will be using realistic and accurate data derived from running the process. You can also improve the accuracy of your simulations.

To specify the values to collect, complete the following steps:

1. Click the Business Measures view tab.
2. Click the **Monitored Values** tab. Each row in the table represents one process element. Each column in the table represents a process attribute that can be monitored and collected while the process runs and then updated in WebSphere Business Modeler with a real-life value. The check box in the column is enabled only if the value represented by the column applies to the process element.
3. Click the **Includes show?** decision element in the table. Scroll over to the **% Per Branch** cell and select the check box.
4. In the same way, click the **Is show sold out?** decision element in the table. Scroll over to the **% Per Branch** cell and select the check box.
5. Select **File** → **Save** on the menu bar or press `Ctrl-s` to save your changes.

You have specified attributes to be collected in WebSphere Business Monitor so that their values can be replaced in WebSphere Business Modeler with real-life values.

Lesson checkpoint

In this lesson, you selected attributes to collect during monitoring.

You learned:
- How to improve the accuracy of the model by selecting process attributes to be replaced with real-life values
- How to specify the process attributes as part of the monitor model

In the next lesson, you will export the monitor model.

Chapter 9. Exporting business measures

After you add the business measures and specify the attributes to be monitored, you are ready to export a monitor model that contains your business measures.

This tutorial assumes that the application to be monitored, in this case an online ticket order application, is already running. This application was created in WebSphere Integration Developer and is based on an earlier model that you exported from WebSphere Business Modeler using the WebSphere Integration Developer export before you added the business measures.

In this lesson, you will export the monitor model so that it can be imported into the WebSphere Business Monitor development toolkit. Then a developer can complete the model so that the business measures can be calculated from incoming events that are generated by the running process. The business measures results can be collected, calculated, and viewed on the dashboards in WebSphere Business Monitor.

To export the monitor model, complete the following steps:

1. Save the process and make sure that there are no errors in the Errors view.
2. In the Project Tree view, right-click the **KateWayAnimalParkTutorial** project and select **Export**. The Export wizard opens.
3. Select **WebSphere Business Monitor Development Toolkit (.mm)** and click **Next**.
4. Click **Browse** and browse to the directory where you want to put the files.
5. Make sure that **Export entire project** is selected and click **Finish**. A window opens when the export process is complete.
   - If there are any errors or warnings, click **Details** to read them. The tutorial should not have any errors, so save the errors and then fix each of them before trying the export again.
   - Otherwise, click **OK** to close the window.

A monitor model (.mm) file and two Scalable Vector Graphics (SVG) files are created in the directory you chose.

File	Description
TicketSalesProcess.mm	The monitor model file. A developer imports this file into the WebSphere Business Monitor development toolkit for further editing.

File	Description
TicketSalesProcess_MDM_ TicketSalesProcess_MC.svg	An SVG representation of the process to be used for monitoring each process instance. Individual SVG elements are created for each shape in the process diagram. In the monitor model, these are collected into shape sets to represent single conceptual units (such as a task node with its labels). A developer using the WebSphere Business Monitor development toolkit can associate each shape set with an action to be performed, for example, a color change, based on a change in the value of an instance metric.
TicketSalesProcess_KM_ TicketSalesProcess_KC.svg	An SVG representation of the process to be used for monitoring all the instances together. A developer can associate each shape set with an action to be performed, for example, displaying text or hiding a shape, based on a change in the value of a KPI.

A developer can import the three files into the WebSphere Business Monitor development toolkit and specify further details. The resulting monitor model can be deployed to WebSphere Business Monitor to begin collecting the data used to calculate the business measures and to display the results on the dashboards.

Lesson checkpoint

In this lesson, you exported the monitor model.

You learned:
- How to export the monitor model
- Details of the files that are exported

In the next lesson, you will import the values returned from WebSphere Business Monitor.

Chapter 10. Importing returned values

After the monitored process has been running for some time, you can export the values that are collected in WebSphere Business Monitor to an XML file and import them into WebSphere Business Modeler. In this lesson, you import the values into WebSphere Business Modeler to determine the percentage of times that each branch in a decision is taken.

In this tutorial, the developer has implemented and deployed the monitor model, and the dashboard administrator has configured the WebSphere Business Monitor dashboards to show the metrics and KPIs that you specified. The park board can monitor the values as the ticket order process runs.

After the process has run for a couple of weeks, you might decide to update the process attributes in WebSphere Business Modeler with the actual values. You want to find out how accurate your decision percentages are.

A dashboard user must go to the **Export Values** tab and export the results. The results are exported to an XML file.

To update the values in WebSphere Business Modeler, complete the following steps:

1. Because the existing values will be overwritten when the new values are imported, make a copy of the previous process. In the Project Tree view, right-click the **TicketSalesProcess** and select **Copy**. Right-click the **Processes** catalog and select **Paste**. Then right-click the new copy of **TicketSalesProcess**, select **Rename**, and give it a new name such as TicketSalesProcess_original.
2. Right-click the **KateWayAnimalParkTutorial** project and select **Import**. The Import wizard opens.
3. Select **WebSphere Business Monitor results (.xml)** and click **Next**.
4. Click **Browse**. Navigate to the folder where you put the samples and click **OK**.
5. Select the **TicketSalesProcessResults.xm**l file and click **Next**. If the TicketSalesProcess is currently open in an editor, you are prompted to click **Save and Close** before you can proceed.
6. On the Monitoring results import page, you can see that the TicketOrderProcess is selected. Click **Display Possible Updates** to see a table that shows how many of the actual values in the monitoring result XML file can be linked to a corresponding attribute in the process. This information gives you an early indication of how successful the import operation will be. In this case, you should see four elements, which are the four decision percentages.
7. Click **Finish**. A window shows the process that is being updated.
8. When importing is complete, click **Details** to see the elements that were updated. Click **Close** to close the details and **OK** to close the window.

The values in the process model are updated with the actual results of running the process. When you open the TicketSalesProcess, you can see that the percent of times each branch is taken has changed. The percentages are now accurate based on the monitoring results.

Compare the previous values in the TicketSalesProcess to the current values. You see that the `Includes show?` percentage has changed from 65% to 70% and the `Is`

show sold out? percentage has changed from 5% to 7%. The following diagram shows the process with the updated decision percentages.
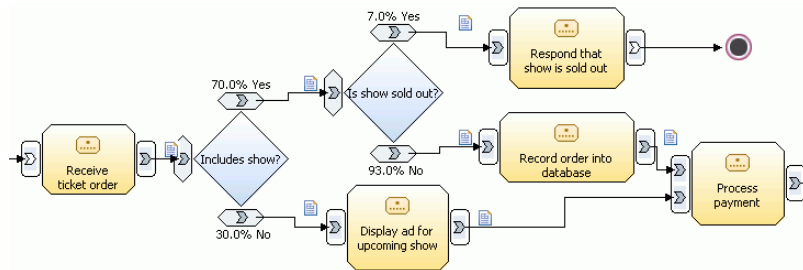
Lesson checkpoint

In this lesson, you imported more accurate values for the process.

You learned:

- How to update process attributes with real-life values from a running process
- The importance of saving your model before replacing the attributes

Chapter 11. Summary

In this tutorial, you learned how to define business measures, specify attributes to be monitored, export a monitor model to WebSphere Business Monitor, and import the results from WebSphere Business Modeler to update the values of attributes.

You have learned how to add useful information to business measures that the developer who will implement the monitor model can use in the WebSphere Business Monitor development toolkit.

In the scenario, the park board could view the metrics and KPIs in the dashboards, which provided the information that the board needed to evaluate the effectiveness of the TV ad campaign as it was running. The board was delighted with the spike in attendance that resulted from the TV ads and decided to continue the ad campaign. Because the board received such timely information from WebSphere Business Monitor, it could monitor the total number of visitors over the past 30 days and even adjust the marketing strategy mid-month based on a dramatic increase in attendance for the ″Meet the Tigers″ show. As a result, the park board met its goal of 2000 visitors partway through the month that the TV campaign ran.

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