

IBM Software Demos

WebSphere Business Monitor End to End

Using a Services oriented approach, companies can quickly develop flexible and agile business processes that incorporate existing applications, human activities, external services and other resources.

We'll see in this demonstration how IBM WebSphere Business Monitor, in conjunction with the other IBM Process Integration software provides the management and monitoring tools needed to ensure these composite applications are performing as intended.

We start by watching as Marie Taylor, a business analyst at JK, uses WebSphere Business Modeler to complete the design of a new account verification process.

Previously, she used Modeler to complete the sequence of process steps including running simulations to optimize the process. She just finished reviewing this model with John Shafer, JK's Director of Operations. John specified the key performance indicators and other business measures he wants to gather from the process which will enable him to manage the business process and to measure its efficiency. He also identified any out of tolerance situations that might require his immediate attention.

Marie can now add this information to the process design. She starts by opening the Create Business Measures option.

On this first screen, Marie can specify which process steps are to be tracked. By default, Process Server will automatically generate events for each process step when it has started and has completed. WebSphere Business Monitor will then process this information to track the status and durations of the running processes.

First, John asked to be notified whenever a customer request exceeds 8 hours. Marie sets this as the maximum duration parameter. Next, she defines a new event, called Maximum Duration Exceeded that Process Server will emit when this value is exceeded.

Marie then specifies the Customer Application business object should be part of the information included in the **generated** event. This allows WebSphere Business Monitor to include data from the customer application when it generates a notification.

Marie now proceeds to specify that this event should be generated when the Process is Delayed flag is set. This flag is set automatically by Process Server when the maximum duration value Marie provided is exceeded.

This event generation framework is very flexible, enabling John to be alerted of any number of situations. And as we've seen, these are implemented without requiring any programming by Marie, or by her IT staff.

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With that complete, Marie proceeds to define one of the Key Performance Indicators John requested. Specifically he wants to track the percentage of requests that exceed the 8 hour duration. Marie switches to the KPI and Aggregate Metrics editor and specifies that she wants to create a new KPI and names it “Percent applications exceeding Max Duration”. Monitor provides a set of predefined methods for calculating a KPI, but in this case Marie specifies “User defined” to calculate the desired percentage.

The graphical expression builder leads Marie to build the calculation to divide the total number of applications exceeding the maximum duration by the total number processed and multiplying this by 100 to get the percentage value.

Next, Marie adds John’s target value of 14.5 percent and the acceptable range of plus or minus 3% to complete the definition of this KPI. Monitor has the ability to define and calculate a wide variety of KPI’s and other metrics that businesses might need to manage their process effectively.

We jump ahead to immediately after Marie has completed defining the other measurements and alerts that John requested. She can now use the export option of Modeler to generate the information the integration specialist can use to implement the overall process.

Here we see the integration specialist using WebSphere Integration Developer to implement Marie’s design by wiring together the various services and components.

We see here, that when Marie’s model is imported into the Integration Developer tool, each process step is already flagged to indicate that monitoring information should be generated when the step is executed.

This will cause WebSphere Process Server to automatically generate an alert when the step starts and when it ends. WebSphere Business Monitor will receive this event via the Common Event Infrastructure and use this to track the status of the process.

This will be done automatically without requiring any development effort by the integration specialist. In fact, he does not have to implement any of the metrics or KPI’s that Marie specified.

Independent of this implementation work, Marie’s original model is also imported into WebSphere Business Monitor. Monitor uses the model to configure the filters it will use to capture the information necessary to generate the required alerts and to calculate the desired metrics and KPI’s.

We now skip ahead after the process has been in production for a while and watch as John Shafer uses the WebSphere Business Monitor’s dashboard to examine the status of

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the new process. The Portal based dashboard allows John to customize and configure the various charts and reports as he wants.

The alerts portlet on his dashboard home page displays the list of processes that exceeded the maximum duration as Marie specified in Modeler. Additionally he has a Scoreboards view showing the Key Performance Indicator's he requested and Marie implemented. Here we see that the percentage of applications exceeding the maximum duration is well below the target.

The Monitor Dashboard provides a wide range of graphs, charts, and reports that allow John to examine other aspects of the health of this process including the ability to drill down and examine data in different formats or across different dimensions.

Closing the loop, John and Marie can export data generated from WebSphere Business Monitor and then import this back into the original model to improve its accuracy. For example, when the model was first generated, Marie estimated the expected distribution at each decision point. Monitor can provide her with the actual distribution which she can apply to her model, improving the accuracy, and helping her identify potential process improvements.

As we've seen in this demonstration, WebSphere Business Monitor is key part of IBM's process integration software supporting the entire life cycle of service oriented architecture based solutions.