

This presentation provides an overview of WebSphere Business Monitor V6.0.2.



You will see the new features of WebSphere Business Monitor Version 6.0.2 and the changes from the previous version.



First, an overview is provided for WebSphere Business Monitor V6.0.2. Then you will see the new features of the product and how it differs from previous versions. You will look at the target software and hardware environment for installing WebSphere Business Monitor. And you will review migration from previous versions of the product.



Business Process Modeling enabled by SOA delivers continuous life-cycle improvement driving innovation in the business process and business model. Capabilities from both the software and the expertise follow a logical life cycle approach for modeling, optimizing, designing, deploying, and managing business processes.

Business Activity Monitoring is the ability to monitor process performance and detect events that may influence performance, analyzing process efficiency and efficacy and aligning process improvement with enterprise goals and objectives.



WebSphere Business Monitor allows you to monitor the performance of your processes and to check key performance indicators as they relate to specified targets.

Monitor also allows you to detect potential problem situations and deliver alerts using email or other means to notify users to take corrective actions.

Another key feature of Monitor is the ability to use multi-dimensional analysis to slice and dice your business measures to verify the state of your business.

V6.U	V6.U.2	
Business measures model	Monitor model	
Business measures editor	Monitor model editor	
Business measures container	Monitoring context	
State database	Monitor database	
History database	Datamart database	
Schema generation	Data services generation	
Replication manager	Data movement services	

There are a few new names which are used in Monitor V6.0.2. In the first column are the current names in V6.0.1 and in the second column are the new names. Notice that a business measures model is now called a monitor model, and the model editor is now called the Monitor Model Editor. There have also been some name changes relative to the database and schema generation. Note that the new term for schema generation is Data Services Generation.



Monitor V6.0.2 contains many new features, including new life cycle support for deployments, a new XML based programming model, and support for monitoring any application submitting Common Base Events. KPI's have been dramatically improved, and there is a new Integrated Test Environment to simplify testing. There are improvements across the board including installation, administration, and version handling. And the database has been simplified significantly.



This chart shows the new model life cycle compared to the previous version life cycle. In version 6.0.1 the business measures model was created in the BME in Modeler and the model was tightly coupled to the business process. In version 6.0.2, the monitor model is create in the Monitor Model Editor but there is a loose coupling with the modeled process. In the new version you can also create a high level model in the Business Measures View in Modeler, then complete the model in the Monitor Model Editor.



Monitor version 6.0.2 now includes support for Business Activity Monitoring (BAM) which is based on events that can come from any source. Monitor supports monitoring BPEL applications, which includes processes, human tasks, SCA components and ESB flows. And, just like in the previous version, Monitor supports monitoring BPEL with the usage of Modeler for creation of the starter model and a closed loop to feed actual values from Monitor into Modeler.



This chart shows the four scenarios that are supported in version 6.0.2, namely monitoring BPEL with or without the use of Modeler, and monitoring non-BPEL sources with or without the use of Modeler.

	IBM Software Group							
5	5 Pieces 4 scenarios							
	1	2	3	4	5			
	Specify what _ to monitor	Produce events → for Monitor - consumption	→ Create Monitor _ Model	➡ Unit Test	→ Deploy and Configure			
	Business Analyst	Integration Developer / Developer	Developer	Developer	IT Administrator / Portal Administrator			
1 BAM for BPEL w/ Modeler	Define business metrics in Modeler using the Business Measures view	Author or import the BPEL application	Create with the Monitor Model editor	Validate with Integrated test environment	Deploy with Administrative Console / Configure Dashboard			
2 BAM for BPEL	Define business metrics in "English" (using PowerPoint [®] , Word,)				pages in Portal			
3 BAM for the rest of us		Define Common Base Events with Monitor Toolkit						
4 General BPM	Define business metrics in Modeler using the Business Measures view							
		WebSobere Bu	siness Monitor V6.0.2 - Over	view	@ 2007 IBM Corporation			

Here you see the four monitoring scenarios and the tools and high level processes that are involved.

- For BPEL monitoring using Modeler, an analyst defines KPIs using the Business Measures view in Modeler. Then the BPEL application is created by the integration developer. The monitor model is created using the Monitor Model Editor, and validated in the integrated test environment and finally deployed to the Monitor Server and Dashboard Server.
- For BPEL monitoring without Modeler, the process is the same except the KPIs are defined in English and conveyed to the integration developer.
- For non-BPEL monitoring with or without Modeler, the processes are similar, except the applications are nonBPEL, so you need to instrument them to create common base events.



Here you see a graphical depiction of the different deployment scenarios. In step 1, if you define the high level metrics using the Business Measures view in Modeler, or you define them in English. In step 2 you build the BPEL application or instrument your application to emit Common Base Events. In step 3, you create the monitor model using the Monitor Model Editor in WebSphere Integration Developer and test it using the Integrated test environment. In step 5, you deploy the monitor model and if you are using BPEL, then you also deploy the BPEL application. And you configure your dashboard in the Dashboard Server.



The monitor programming model is completely new in version 6.0.2. It is now based on XML rather than XMI. As you edit the model in the Monitor Model Editor using the editor panels, you are making updates to the underlying XML, but you are also given the option to edit the XML directly if you choose. The model is much easier to read in XML notation and the names of the model artifacts are in human readable form in the XML file. The Monitor Model Editor uses the XSD model schema to perform validation operations as you save changes to the model.

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Monitor programming m	odel co	oncepts
Monitoring Context Name Monitoring Context (MC)	Map name Map	Takes input event and updates a metric Corresponds to a table
Event Display Name Event Type Event Type Wonitor	Metric name: type	column that stores monitor data
Inbound Event Event Display Name Event Type Dutbound Event	StopWatch Name	Specifies a timer that can be started and stopped Elapsed Duration & Working Duration are 2 common examples
Condition Specifies a trigger condition in monitor Trigger	Counter Name 1 - 2 - 3 Counter	Specifies a counter that can be incremented, decremented or reset to 0
KPI name: type KPI	Key Name Key	Identifies an event
WebSphere Business Mor	nitor V6.0.2 - Overview	v © 2007 IBM Corporation

Many of the model artifacts carry over from the previous version. These include triggers, KPIs, metrics, stopwatches and counters. Now that Monitor uses event based models, a monitoring context is used to identify each new instance of a monitored entity. Inbound events are used to specify what events that the model will observe. Outbound events can be created in the model for many uses including situation detection. Maps are used to identify how payload is used from inbound events to update metrics. Keys are used to identify which events apply to which monitored instance.

IBM Software Group	Consider State State Filler Filler De Cal Leving Syst. Event. Set of the Performance VIP Tests Workson Lybb De Cal Leving Syst. Dig - 1 (A)
 6.0.2 Highlights Design time: "What" as opposed to "How" separation: Modeler can optionally be used to specify <i>what</i> should be monitored about a business process. Monitor Model Editor is used to specify and test <i>how</i> events should monitored. When used with IBM's BPM, provides "first class" support for range of WebSphere Process Server and ESB event types and integrates together with WebSphere Integration Developer. For other event sources, Monitor provides a toolkit with examples for emitting events from a database or a flat file 	Image:
WebSphere Busi	iness Monitor V6.0.2 - Overview © 2007 IBM Corp

In version 6.0.2 there is improved Business Activity Monitoring Support. At design time, you can optionally use Modeler to specify what business measures needs to be monitored at a high level. Then you use the Monitor Model Editor to show what events are used to calculate these business measures.

There is first class support for IBM's business process events that are emitted by WebSphere Process Server and ESB. You can auto-generate the event definitions and a starter model.

For other event sources, you can use the Monitor toolkit to define the events and the monitor model to be deployed to the Monitor Server.



The Business Activity Monitoring environment includes the Monitor Model Editor. It provides graphical panels for updating the XML model, and also a text editor for editing it directly. The Monitor Model Editor is delivered as a plug-in for WebSphere Integration Developer. Unlike the previous version, the output from the model editor is a deployable EAR file.



This is a screen capture of the Monitor Model Editor showing the Monitor Details Model, which is just one of several sub-models within the monitor model. Using panels similar to these, you can update the model information.



This is a screen capture of the text editor for the monitor model. As you make updates in the graphical panels, the underlying XML model is updated automatically, but you can also use this text editor to update the XML directly.



In version 6.0.2 you can monitor any target application which can be instrumented to emit common base events. In the previous version you could only monitor BPEL targets, but in version 6.0.2, you can monitor BPEL or non-BPEL targets. And you can easily monitor events which are produced from these sources at the same time using the Common Event Infrastructure.

There are sample event emitters which you can use to monitor events from file sources and DB2 sources. These use a common framework which you could extend to handle other event sources as well.

There will also be additional best practice documentation to help you in this new monitoring environment.



Key Performance Indicators are greatly improved in version 6.0.2. In the previous version, the KPIs displayed values for all historical information, but in the new version you can show KPIs qualified based on time or any other dimension that you setup in the model. For example, this could be used to display year-to-date KPI values for a specific geographical region.

Since KPI values are now based on cubes, KPI values in the KPI views now match exactly the values in the dimension and report views. And you can easily use multi-dimensional analysis to slice and dice your KPI data.

Another nice feature in this version is the capability to update KPI target and ranges at runtime to meet changing business conditions. Also, users can personalize the colors and icons and the ranges for their own dashboards, and this is saved just for that user.



There is a new integrated test environment that is very lightweight because it does not include the dashboard prerequisites, so installation is much faster. Also, you can deploy a monitor model directly onto the server from the integrated test environment, and then test the output of monitored data by using a new set of JSPs. This is very handy for rapid deployment and testing purposes.



Installation has been improved significantly by allowing you to choose to install on existing prerequisites. Also there are two types of installation, either Basic or Advanced, which are used based on whether you are using it for development or production. The Portal footprint has been reduced so installation times have also been improved in this area. And now there is a separate installer for the Monitor Development Toolkit which allows you to install an Integrated Development Environment on top of WebSphere Integration Developer.



Administration has been improved by providing a seven step life cycle management process which guides you through the deployment of a monitor model. As part of this life cycle, the creation of the Alphablox cubes has been automated. Also, you can now use a command line interface to invoke mBean operations which allows you to run scripts to invoke the life cycle steps and also to run scripts to do general purpose administration too.



In version 6.0.2 Monitor has improved version handling support. You can make changes to a monitor model and deploy the new model which will run alongside any existing versions of the model. The existing monitor context instances use the old model, but any new instances are created using the new version.



The database has been simplified. Instead of five databases like in version 6.0.1, there are just two databases. The Runtime database has been removed and the Repos and State databases are combined into the new Monitor database. The History database is now called Datamart and the action manager database has also been removed, and the associated action manager tables have been moved to the Monitor database.

This also reduces the number of replications from two to one.

Also, the table names and column names are now in human readable form so it is easy to find the tables and columns that relate to specific monitor models and the metrics in those models.



With version 6.0.2 each monitor model runs as an independent J2EE application, so there are also separate JMS queues for each model to handle events. Because of this independence any problems occurring with one model will not impede the operations of any other models.

New support for WebSphere ND means that each model can run on a separate server so that increased throughput is available. Also, failover capability exists since Monitor servers can be federated into an ND cell and clusters can be setup to automatically provide backup servers to run your models.



Dashboards have been refined in various ways. They make better use of white space, use a more attractive color palette, provide new click to action capability for custom portlets, and use a new streamlined configuration. The KPI scorecard has been merged into the KPI view. The Diagram portlet provides the ability to display SVG diagrams which are associated with your model, plus it will display metric and KPI values which have been annotated into the visual model.



A new software development kit is provided which allows you to develop your own dashboard portlets so that you can easily access the Datamart database using the Cube Views APIs and Alphablox APIs. This should also allow you to integrate monitored data with other reporting products. Samples are provided on the Web to help you develop your own customized portlets.



These are the target environments for WebSphere Business Monitor version 6.0.2. The Monitor servers run on the listed Windows and AIX platforms. WebSphere Integration Developer runs on the listed Windows platforms, and, although WebSphere Integration Developer can be installed on Linux, use of the Monitor Model Editor is not supported on Linux. Modeler runs on the listed Windows platforms. The supported database is DB2 8.2 fix pack 6 on Windows, Sun, AIX or Linux.



These are the target runtime engines for WebSphere Business Monitor V6.0.2. WebSphere Business Monitor V6.0.2 supports monitoring BPEL applications that are running on WebSphere Process Server 6.0.2.

WebSphere Business Monitor V6.0.2 itself runs on WebSphere Process Server 6.0.2. Due to license restrictions, the BPEL applications that are monitored must run on WebSphere Process Server 6.0.2 on a separate server from Monitor Server.

Of course, Monitor will also work with any application which has been adapted to submit common base events to a CEI Server.



These are the products that are included in the software bundle that is provided for your installation of WebSphere Business Monitor V6. Monitor Server runs on top of WebSphere Process Server. The Dashboards use Portal Server for configuration and display. Note that WebSphere Portal Server does not run on WebSphere Process Server at this release level, so WebSphere Application Server is used for the Dashboard Server. Alphablox widgets are used to display the multidimensional charts in the Dimensional views on the Portal page. DB2 Enterprise Server Edition contains data base support and DB2 Cube Views is used for multidimensional analytics. WebSphere Business Modeler contains the Business Measure View for specifying high level business measure information. WebSphere Integration Developer is used for the Monitor Model Editor for developing Monitor models.



These are the hardware requirements for WebSphere Business Monitor V6.0.2. Disk space, processor speed and memory is suggested. Your needs will vary depending on the complexity and number of models that you have deployed.



You can import V4.2.4 org files into WebSphere Business Modeler, and you can also import Modeler project files from version 5 and 6.0.1. However, this will migrate your process models only. Any business measure information will not imported. At this time there are not any automated tools to assist with the process, but there are Service Offerings that are available to assist with migration of your models and data.



Here is a list of restrictions to be aware of when using Monitor V6.0.2. BPEL applications to be monitored should run on Process Server V6.0.2. Portal Server must not be installed on Process Server. For version 6.0.2 only English language is provided.



This chart lists the various help resources that are available. There are "readme" files, plus help in the Launchpad, Dashboard portlets, the Administrative Console, plus the Information Center. It also lists the URL for the announcement of the version 6.0.2 products.



This chart lists some additional references.



In summary, you have seen an overview of WebSphere Business Monitor version 6.0.2 including some of the new and enhanced features which are available in this release.

