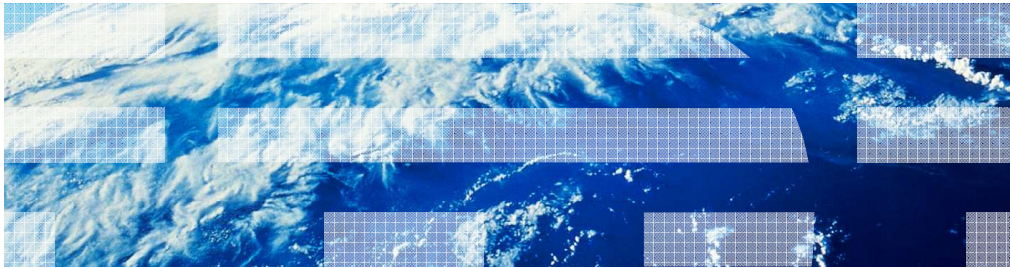IBM

IBM Business Monitor

Model deployment

This presentation should show you options for development and production deployments of monitor models for use with IBM Business Monitor.

Goals

- Show the deployment options for installing monitor models

Model deployment

This presentation will show you how to use the monitor toolkit and administrative console for managing deployments of your monitor models.

Agenda

- Deployment using the toolkit
- Integrated test client
- Event recording and playback
- Test iterations
- Production deployment using the administrative console
- Production server un-deployment

　　　　Model deployment　　　　

This is the agenda for this presentation. You will see how to use the monitor toolkit to deploy monitor models. In addition the presentation will cover tools for testing, such as the integrated test client and event recording and playback. You will review the procedure for deploying monitor models in the administrative console, and you will see some of the unique monitor model pages in the deployment wizard. Finally you will take a look at the procedure for removing a monitor model from a production server.

Deployment using the toolkit

- Install using "Add and Remove Projects…" dialog

- Single version per model

- Procedure
  – Generate projects
  – Add projects to the server
  – Emit test events
    • Integrated test client
    • BPC explorer
    • Inspector or process portal
    • Application emitters
  – Verify results in business space
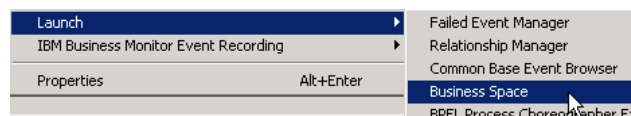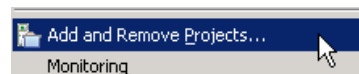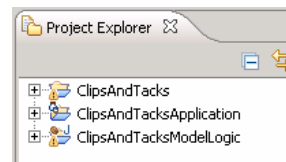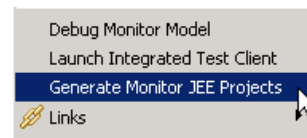
When you are deploying a monitor model using the toolkit, you can install using 'Add and Remove Projects' in the server view menu. In this case, the schema is created automatically along with the Cognos cubes. Note that you can only have one version per model in the development environment.

First you will need to generate the Java Enterprise Edition (JEE) projects using the menu option 'Generate Monitor JEE Projects'. This creates the Java application which is installed on the server. Next you will add the project to the server using the menu option 'Add and Remove Projects…'. For testing your monitor model, you have several options. You can use the integrated test client to submit events to the models. In the case of a monitor model based on a BPEL process, you can use the BPC explorer to submit process instances which will emit the events. In the case of a monitor model based on a process application, you can use the inspector in process designer to create process instances. For process applications you can also use the process portal to create process instances. If you have emitters for your specific application then you can use them to submit the events to CEI. To verify your model logic you can launch business space and view the monitored data in the appropriate widgets in the dashboard.

Integrated test client
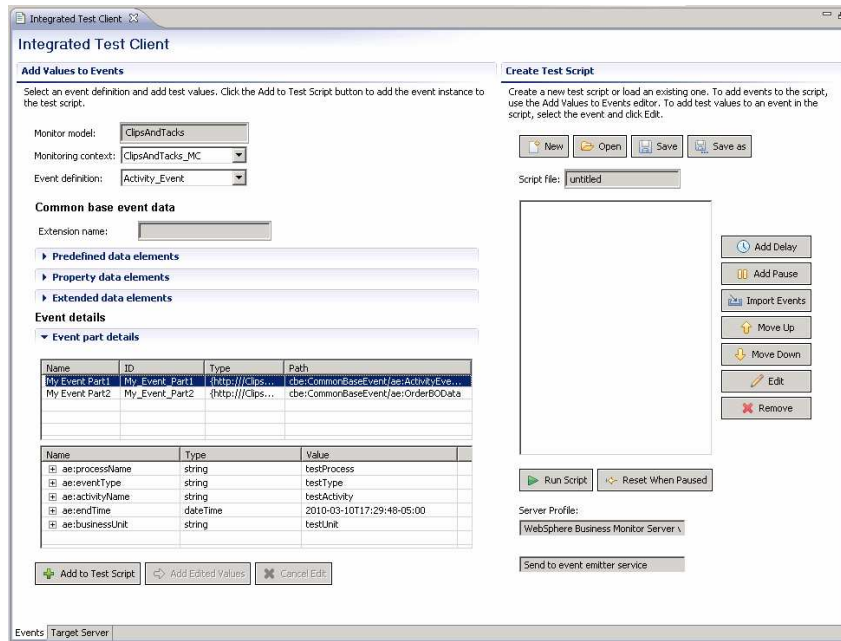
The Integrated Test Client is used to emit sample events for the Monitor test environment server and to quickly and conveniently test a monitor model. The Integrated Test Client panel has two sections, the Add Values to Events section and the Create Test Script section. In the Add Values to Events section, you can select, modify, and add events from the monitor model to the test script. In the Create Test Script section, you can add and edit commands, rearrange events and commands, and import events into the test script.

Event recording and playback

- Use toolkit server menu to manage recording during development cycle
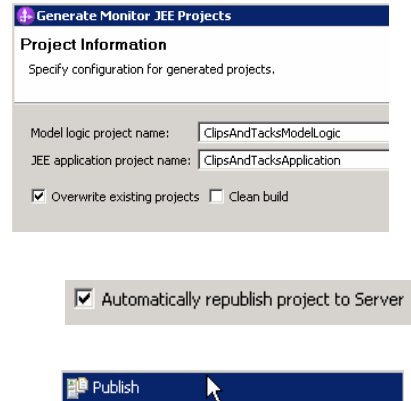- Use integrated test client to import the recorded events

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The event recording feature allows you to record an event sequence for subsequent playback. This is very useful if you want to iteratively test a monitor model as you continually change and develop the model. For a BPEL application, process application or any other application, you can enable event recording, then manually step through the process or the application which will then generate the event sequence. The event sequence is saved to a database, so then you can replay the event sequence later to re-run the test. You can use scripts or the administrative console to manage these functions. Also, you can activate the event recording in the monitor toolkit. And you can import these events into an integrated test console script.

To enable event recording, you can use the administrative pages or you can also use the server menu in the monitor toolkit.

Test environment iteration

- Make changes to a monitor model
  - Update model in the toolkit
  - Generate projects
  - Publish on server menu
    - Auto publish can be selected on the monitor preferences, and this overrides the server settings for auto publish
- Delete a monitor model
  - Uninstall using "Add and Remove Projects…" dialog

Generate Monitor JEE Projects

Project Information
Specify configuration for generated projects.

Model logic project name: ClipsAndTacksModelLogic
JEE application project name: ClipsAndTacksApplication

☑ Overwrite existing projects   ☐ Clean build

☑ Automatically republish project to Server

Publish

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In the toolkit it is easy to iterate in the test environment. For the initial deployment, you can quickly deploy to the server, then use the test client, common base event browser and dashboard to help test the application.

When you are ready to make changes, then you can open the monitor model editor in the toolkit to make updates to the monitor model. Then, you re-generate the projects. If the auto publish option is selected in the monitor preferences then the projects are automatically republished to the server. If the republish is not automatic, then you can invoke it yourself in the menu. Then you are ready to test the revised application. In a non-production environment versions are not supported so the republish will replace the existing application and you can test only the latest version.

To uninstall a monitor model from the development server, just use the menu option 'Add and Remove Projects.'

Test server reset

- The server profile and associated databases are reset to the same state following an initial install of IBM Business Monitor.
- This drops all installed monitor model applications and related runtime database tables.
- Embedded development server only

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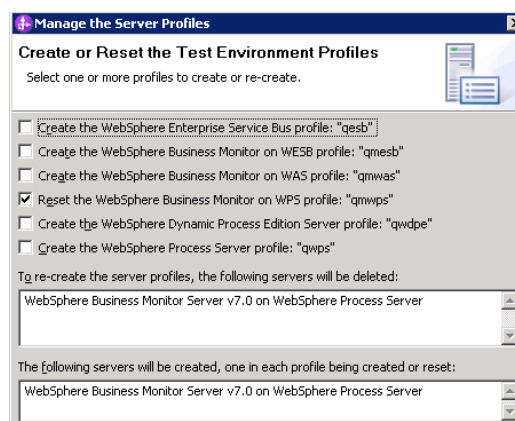
To reset the test server profile to the initial state immediately after the monitor install, then you can invoke the manage server profiles option in the toolkit server page. This function removes all monitor model applications and related database tables. If you have added an external server to the servers view, then you will not see the menu option for 'Manage server profiles'. This feature only works for the embedded server in the monitor toolkit.

Production server deployment

- Install EAR using administrative console "New Enterprise Application" link
- Specify detailed rather than fast path, to see all options
- Panels to select monitor model options, select Cognos options, select CEI options, configure security
- Support for versions - previous version CEI distribution mode set to "active (no new MC instances)"

How do you want to install the application?

○ Fast Path - Prompt only when additional information is required.

◉ Detailed - Show all installation options and parameters.

Step 11 Select Monitor model options

Step 12 Select to publish Cognos cube package

Step 13 Select Monitor model CEI options

Step 14 Configure security for the monitor model

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For a production server deployment, you have much more control over how you deploy the monitor model. In the administrative console, you install the application and there are some pages which are specific for monitor model applications. You have the option to run the schema scripts, to setup cubes, to setup CEI and to configure model security. If this is a new version of an existing model, then you can migrate user-defined KPIs from the previous version. If this is a new version of an existing model then the older versions are set with distribution mode "active (no new MC instances)".

When you are installing a monitor application using the administrative console, you are given the option to show detailed installation options, so you should choose this to gain additional control over the deployment. On the right, you see the four steps in the installation wizard that are specific to monitor models.

Model options and Cognos package

Select Monitor model options

Specify information about database scripts, model runtime options, KPI merge and business situations merge.

Database options
- ☑ Run scripts to create the schema
- ☐ Run scripts to enable Data Movement Services
- ☐ Run scripts to delete the schema during uninstallation

Runtime options

Processing Strategy
- ○ 6.0.2 emulation
- ◉ Scalable

- ☐ Enable event reordering

KPI merge
- ☐ Enable KPI merge from previous version

Business Situations merge
- ☐ Enable Business Situations merge from previous version

Select to publish Cognos cube package

Specify whether to create Cognos cubes. The Cognos location and security information is defaulted based on the environment, but can be overridden from the global Monitor configuration.

- ☑ Publish Cognos cube package

To publish the Cognos cube package, IBM Business Monitor needs to connect to Cognos at the location specified by the external dispatcher URI.

The location specified below can be changed in the Configure Cognos Service panel.

External dispatcher URI
http://wac130.austin.ibm.com:9080/p2pd/servlet/dispat

On the Monitor model options page you can run scripts to create the schema and to enable data movement services. If you enable data movement service when you install the model, data is moved at regular intervals from the operational tables to the reporting tables and terminated instance data is removed, improving reporting performance. If performance is not a concern initially, you might want to perform a simpler installation and choose not to enable data movement service at this time. If you do not choose to run these scripts during installation, they can be run after the monitor model is installed. If the server is in development mode, the database options are disabled, so the model schema is created automatically when the model is installed, and Data Movement Service is disabled.

Select the scalable processing strategy to ensure that you are able to use event reordering and the failed event queue. However, only 6.0.2 emulation is available in some cases for models that do not support multithreading or reordering, or if the previous version of the model is in Inactive (event queue recoverable) state.

Select event reordering if you have defined an event sequence field in your model and want to ensure that your events are processed in order. This option is not available for 6.0.2 emulation and is optional for scalable.

If you are installing a new version of an existing model, then you can specify options to copy KPI's and business situations from the previous version.

On the Cognos page you can specify that the cube package should be created. You will need Cognos cubes to use the report widgets in the dashboard.

CEI and security

Select Monitor model CEI options

Specify information about CEI configuration.

Location

○ Local   ○ Remote

Host name for standalone server or deployment manager

RMI port for standalone server or deployment manager

Security

○ Disabled   ○ Enabled

User ID

Password

[Refresh List]

Event group profile list name

Select	Event group profile list name	Scope
☑	Event groups list	cell=wac130Node01Cell, node=wac130Node01, server=server1

Distribution mode

○ Active (Queue-based event delivery)
● Active (Table-based event delivery)
○ Inactive

Configure security for the monitor model

If application security is enabled, installed monitor models are not available unless Monitor data security is configured correctly. In the following table, select the appropriate resource group for the monitor model.Note: If you selected the option Publish Cognos cube package on a previous step, the cube package permissions will be based on the current Monitor data security settings. You may want to add users and groups to the resource group before installing the model or publishing the Cognos cube package.

Data Security

○ Select an existing resource group

Select	◇ Resource Group	Members Assigned	Description
○	root	yes	The 'root' resource group is the default, parent resource group

○ Create a new resource group

Name

Description

On the CEI options page you can specify the location and security information for the CEI server. Select the event-group profile list name from the list. If this location is remote, ensure that the host name, the RMI port, and security, if required, are entered, and click Refresh to see the event-group list names for that server.

You can be given a choice of distribution mode for queue-based or table-based event delivery. If so, consider that table-based performs better because processed events are distributed directly into the model's event database tables. For the embedded server in WebSphere Integration Developer, it is only configured for queue-based. For a stand-alone server, it is automatically configured for both queue-based and table-based. For a remote CEI server, the person performing the installation and configuration will determine which options are configured.

On the security page you can select the resource group for the monitor model. The resource group specifies the users that will have access to the monitor models.

Production server un-deployment

- Uninstall using administrative console "Uninstall" button on "Enterprise Applications" page
  - For production server, delete scripts are not run automatically so monitored data is preserved
  - For development server, delete scripts are run automatically
- Version remains in repository and on Monitor models page in administrative console -marked as uninstalled
- On model version page
  - Run schema delete scripts which deletes monitored data
- Purge model version on version page
  - Must uninstall EAR and delete schema first; also deletes Cognos cubes
- Purge model on model page
  - Run after all versions of a model are uninstalled and version schemas deleted

Model ⇕	Version	Deployment ⇕	Application ⇕
ClipsAndTacks	2007-09-11T12:07:30	OK	Uninstalled

Version Properties

- Manage schema
- Manage Cognos cubes

- Purge model version

- Purge model

To uninstall a monitor model from a production server, you can use the uninstall option in the administrative console on the enterprise applications page. Note that the delete scripts are not automatically run on a production server so your monitored data can be preserved for use in dashboards or other reporting. For a development server, the delete scripts are run automatically. Also, the model version remains in the repository so you will see it on the monitor models page of the console, but it is marked as uninstalled. After uninstalling the application for a model version you will run the schema delete scripts which are accessed from the model version page using the option 'Manage schema'. Then you will purge the model version using the option 'Purge model version' on the model version page. Note that you must uninstall the application and delete the schema before it will let you purge. To purge a model and all its versions, you must uninstall all versions of a model and delete all their schemas before you can use the option to purge the model and its versions.

Summary

- Covered the development deployment and testing, along with production deployments and un-deployments

Model deployment

In summary, this presentation covered the usage of the monitor toolkit to deploy models and iteratively test them. You also saw how to deploy and un-deploy monitor models in a production environment.

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