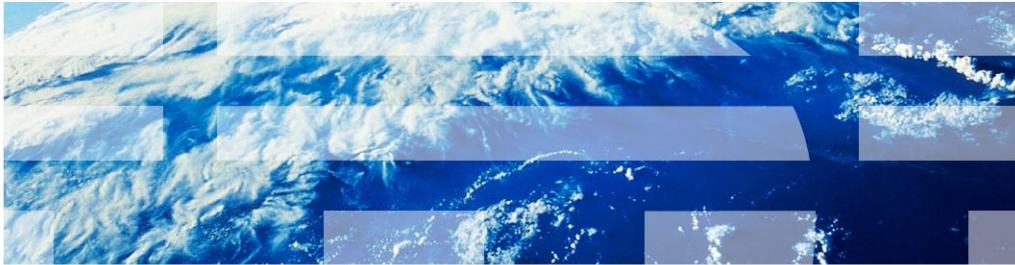# IBM Business Monitor

## Multi-module Monitoring

This presentation should give you an understanding of multi-module monitoring for IBM Business Monitor.

# Goals

- Introduce multi-module monitoring in IBM Business Monitor

This presentation will give you an understanding of the use of the multi-module monitoring wizard for creation of monitor models which can monitor multiple modules simultaneously.
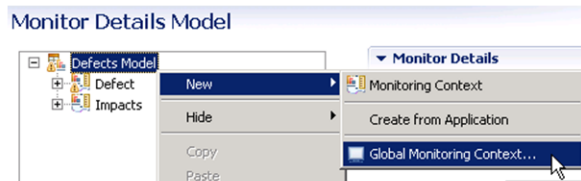
# Agenda

- Overview
- Using the wizard
- The resultant monitor model

Multi-module monitoring © 2010 IBM Corporation

This is the agenda for this presentation. You will review the pupose of the multi-module monitoring wizard. Then you can see screen captures showing usage of the wizard. Finally you see the resultant monitor model after the wizard has completed the operation.

## Overview

- In Integration Designer it is easy to generate monitoring models for process applications, business process execution language (BPEL) applications and other modules

- A wizard creates a global monitor model for you using correlation that you specify

- Scalable vector diagram (SVG) for the overall process application is not generated automatically

- Wizard is built into the monitor model editor
    - Works with any number of monitoring contexts
    - It generates a high level monitoring context which uses generated outbound events from the low level contexts

**Monitor Details Model**

| | | Monitor Details |
|---|---|---|
| Defects Model | New ▶ | Monitoring Context |
| Defect | Hide ▶ | Create from Application |
| Impacts | Copy | ☐ Global Monitoring Context... |
| | Paste | |

You can use the multi-module monitoring wizard to create a single monitor model for monitoring any number of modules. You can manually create a model to do the same thing, but it requires some work to build outbound events to send to the global model. The wizard creates these event defintions for you based on correlation that you specify. So you can pick correlation keys in each model to tie them together, for example, using customer order number as the key. If you have SVG diagrams in the lower level models, the new combined model will not have an SVG diagram that represents the combined model, but you can create one yourself using the individual diagrams. The multi-module monitoring wizard is built into the monitor model editor in the Integration Designer.

Start the wizard and specify keys

- Start the wizard for the model
  - If you have generated for this project previously then this option is disabled
  - Combine models first before starting the wizard

- Name the new global monitoring context

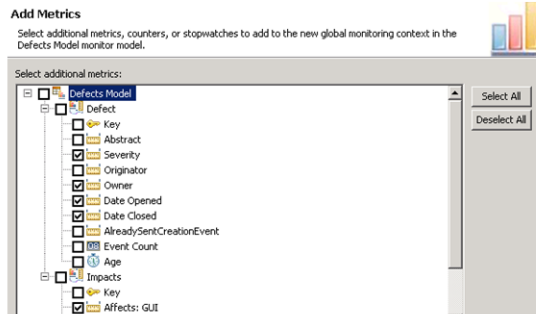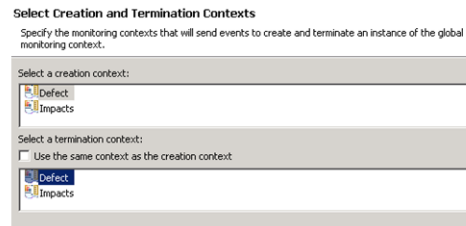- Specify the correlation information
  - Must be string metrics
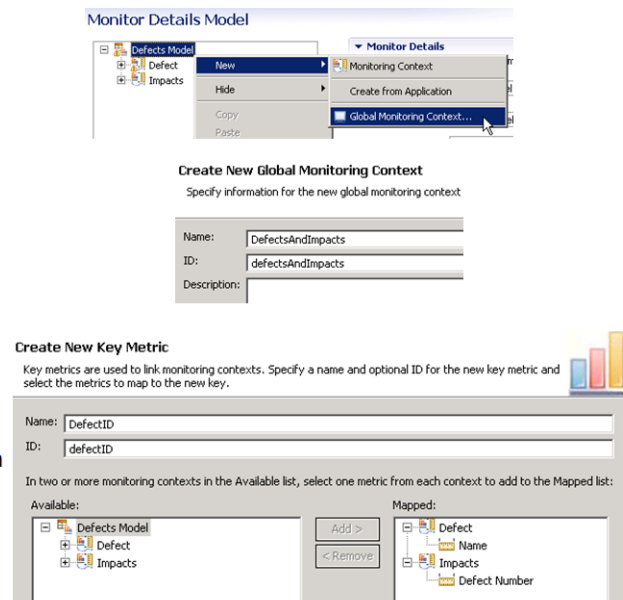
To start the wizard for generating the model, select the menu option called 'Global Monitoring Context…'. You are only allowed to run this operation once, so the option is disabled if you have run the wizard previously. Note that you need to have a single monitor model that contains the monitoring contexts that you will process. Before you run the wizard, combine the monitor models into a single model. You can do this with the menu option 'Combine monitor models'. When you start the global monitoring context wizard, you provide a name for the new global monitoring context. In this example there are two monitoring contexts, called 'Defect' and 'Impacts', so the name given to the new context is 'DefectsAndImpacts'. Next you specify the correlation keys that tie the monitoring contexts together. These two monitoring contexts track defect numbers, so ,metric 'Name' is mapped from one and metric 'Defect Number' is mapped from the other. Their names are different in the two contexts, but they track the same business payload, namely, defect number.

Add metrics in the wizard

- Add metrics from the source contexts

**Add Metrics**
Select additional metrics, counters, or stopwatches to add to the new global monitoring context in the Defects Model monitor model.

Select additional metrics:

- Defects Model
  - Defect
    - Key
    - Abstract
    - ☑ Severity
    - Originator
    - ☑ Owner
    - ☑ Date Opened
    - ☑ Date Closed
    - AlreadySentCreationEvent
    - Event Count
    - Age
  - Impacts
    - Key
    - ☑ Affects: GUI

Select All
Deselect All

- Specify creation and termination information

**Select Creation and Termination Contexts**
Specify the monitoring contexts that will send events to create and terminate an instance of the global monitoring context.

Select a creation context:
- Defect
- Impacts

Select a termination context:
- ☐ Use the same context as the creation context
- Defect
- Impacts

In the wizard you add metrics to be placed in the global context. You can select from keys, metrics, counters, and stopwatches. Note that any cube measures or dimensions associated with the selected metrics will also be copied over.

Next you specify creation and termination information for the new global context. So choose which monitoring context sends the creation event for the global context. Also, choose which monitoring context termination results in sending the event that terminates the global context instance. In this example the life cycle of the global context, both creation and termination, is tied to the monitoring context name 'Defect'.
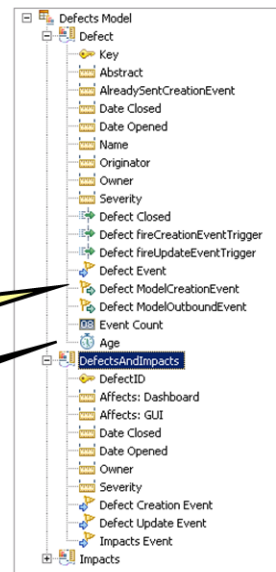
The output from the wizard

- The result is a new global monitoring context, containing metrics from the source contexts
- KPI model is not updated – add new KPI's for the global context if needed
- Dimensional model – new cube created for the global context, copying over existing measures and dimensions

Outbound events are built to create and update the global context instances

The new global monitoring context with key, metrics, inbound events

Monitor Details Model

- Defects Model
  - Defect
    - Key
    - Abstract
    - AlreadySentCreationEvent
    - Date Closed
    - Date Opened
    - Name
    - Originator
    - Owner
    - Severity
    - Defect Closed
    - Defect fireCreationEventTrigger
    - Defect fireUpdateEventTrigger
    - Defect Event
    - Defect ModelCreationEvent
    - Defect ModelOutboundEvent
    - Event Count
    - Age
  - DefectsAndImpacts
    - DefectID
    - Affects: Dashboard
    - Affects: GUI
    - Date Closed
    - Date Opened
    - Owner
    - Severity
    - Defect Creation Event
    - Defect Update Event
    - Impacts Event
  - Impacts

When the wizard completes, the result is a new global monitoring context in the monitor model. The global context contains metrics that are copied from the source context. Also the source contexts are updated to use 'On Value Change' triggers to send outbound events containing the selected metric values. The new global context receives these events and populates the values of the metrics. In the screen capture you see the new global context named 'DefectsAndImpacts' that contains the key information which is the defect number. It also contains all the metrics that you selected in the wizard plus inbound events for updating the values of the metrics.

The KPI model is not updated, so you can create KPI's if you need additional ones. But generally you don't need new KPIs, since metrics in the global context have the same value as their corresponding metrics from the source contexts.

The dimensional model is updated with a new cube which contains the measures and dimensions that were copied from the source contexts.

# Summary

- Covered multi-module monitoring in IBM Business Monitor

Multi-module monitoring

In summary, this presentation covered the use of multi-module monitoring in IBM Business Monitor.