

IBM WEBSPHERE BUSINESS MONITOR 6.1 – LAB EXERCISE

WebSphere Business Monitor V6.1

Create visual model

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What this exercise is about

The objective of this lab is to show you how to use SVG diagrams in the monitor visual model. You will see how to edit the visual model for the KPI context diagram and the monitoring context diagram. And you will use the diagram view in the Web dashboard to see the results of the visual actions. You will also use the instances view and the click to action capability to see diagrams for specific monitoring contexts.

Lab requirements

List of system and software required for the student to complete the lab.

- Rational Application Developer 7.0.0.3 or WebSphere Integration Developer V6.1
 - WebSphere Application Server V6.1.0.9 or WebSphere Process Server V6.1
- WebSphere Business Monitor V6.1 – Toolkit Installation including the Monitor Development Environment (Monitor Model editor) and Monitor Test Environment
- SVG view plug-in for your browser – for viewing SVG diagrams in the Diagram view

What you should be able to do

At the end of this lab you should be able to:

- Use Rational Application Developer or WebSphere Integration Developer to add and edit the visual model for a monitoring context and a KPI context
- Define a dashboard to view KPI context diagrams and monitoring context diagrams

Introduction

In this lab you will build on the ClipsAndTacks model which is described in another lab document titled 'WebSphere Business Monitor V6.1 ClipsAndTacks business activity monitoring lab'. You will import the full Clips and Tacks model, then update the visual model, deploy the changed model and submit events to the monitor model.

The SVG diagrams have been created for you so you can just import them into the workspace. The SVG diagrams were created using WebSphere Business Modeler V6.1.

For the monitoring context diagram, you will change the color of tasks in the diagram based on the order status. Shipped orders will cause the task 'Ship Order to Customer' to be displayed with a blue color. Cancelled orders will cause the task 'Cancel Order and Send Notification' to be displayed with a blue color. There is a metric called 'Order_Status' which already contains the status of the order so you will use that metric to cause the color changes.

For the KPI context diagram, you will change the color of tasks in the diagram based on the total number of shipped orders. If the total ship count is less than or equal to 2, then the task 'Ship Order to Customer' is displayed with a red color. If the total ship count is greater than 2, then the same task is displayed with a green color. You will also display the total number of orders as a text field underneath the task. There is a KPI called 'Ship_Count_KPI' which already contains the total count of shipped orders so you will use that KPI as a source for these visual actions.

URL Cheat sheet

These URLs might be helpful to you as you exercise this lab. Note that the port numbers in the URL of your installation may be different depending on your configuration.

- Server administrative console

<http://localhost:9061/ibm/console/>

- Web dashboard

<http://localhost:9081/BusinessDashboard/>

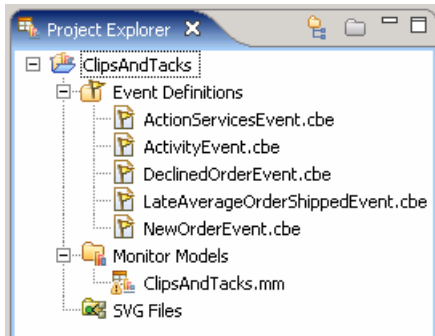
Prerequisite: Ensure that this software is installed:

- SVG Viewer V3.0.3 installed into a compatible browser

Part 1: Import the Clips and Tacks monitor model

In this section, you will import the Clips and Tacks monitor model into the workspace. If you already have the ClipsAndTacks model in your workspace after completing the Clips and Tacks lab, then you can skip this section.

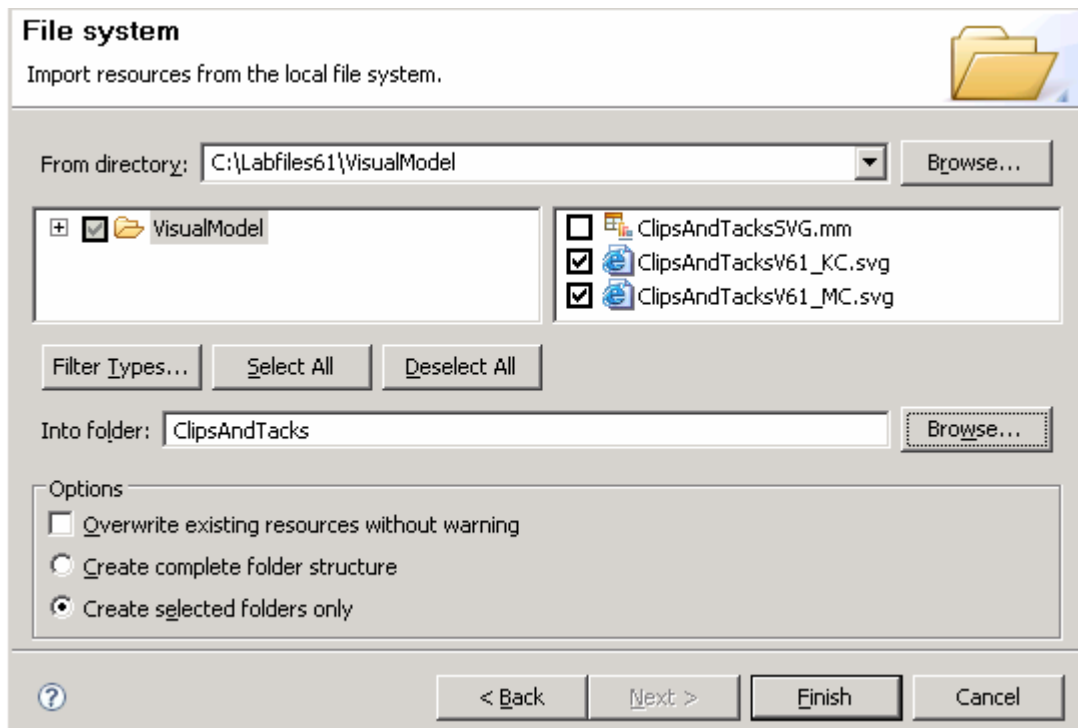
- ___ 1. Start Rational Application Developer or WebSphere Integration Developer and setup the environment.
 - ___ a. Start Rational Application Developer or WebSphere Integration Developer, and when prompted point to a new workspace such as c:\workspaces\ClipsAndTacks
 - ___ b. Close the Welcome tab.
 - ___ c. You want to open the Business Monitoring perspective. Select **Window > Open Perspective > Business Monitoring**.
 - ___ d. If it asks you to Confirm Enablement, then click **OK**.
- ___ 2. Create a new monitoring project.
 - ___ a. Right click the Project Explorer, then select **New > Business Monitoring Project...**
 - ___ b. For Project name, enter **ClipsAndTacks**
 - ___ c. Click **Finish**. You will see the new project in the Project Explorer view.
- ___ 3. Import the supplied mm and cbe files.
 - ___ a. Right click on **ClipsAndTacks** in the Project Explorer view, and then select **Import...**
 - ___ b. Select **General > File system**, click **Next**.
 - ___ c. Browse to the location containing the files, for example, c:\Labfiles61\ClipsAndTacks
 - ___ d. Select **ActivityEvent.cbe**
 - ___ e. Select **ClipsAndTacks.mm**
 - ___ f. Select **DeclinedOrderEvent.cbe**
 - ___ g. Select **LateAverageOrderShippedEvent.cbe**
 - ___ h. Select **NewOrderEvent.cbe**
 - ___ i. Click **Finish**.
- ___ 4. Expand the project in the Project Explorer view, then expand the Event Definitions and you will see the new events listed. Expand Monitor Models and you will see the new ClipsAndTacks model listed.



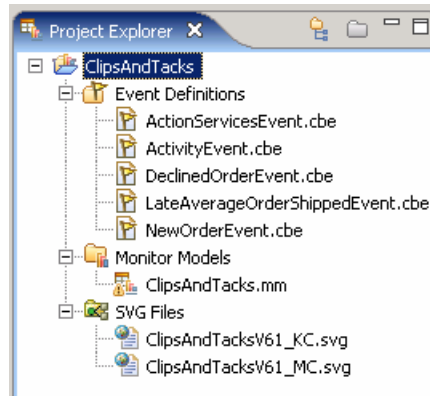
Part 2: Edit the visual model for the monitoring context diagram

In this section you will use Rational Application Developer or WebSphere Integration Developer to edit the visual model for the monitoring context diagram.

- ___ 1. Import the supplied SVG diagrams
 - ___ a. Right click in the Project Explorer view and then select **Import...** from the pop-up menu
 - ___ b. Select **General** → **File system** from the **Import** dialog and click **Next**
 - ___ c. In the following panel, click the **Browse** button to locate the files, for example, **<LABFILES61>VisualModel**
 - ___ d. Select **ClipsAndTacksV61_KC.svg**
 - ___ e. Select **ClipsAndTacksV61_MC.svg**
 - ___ f. Click the **Browse** button and select **ClipsAndTacks** from the “Import Into Folder” dialog



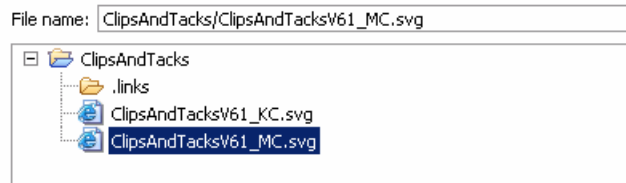
- ___ g. Click **Finish**.
- ___ h. Expand the project in the Project Explorer view, then expand the SVG Files and you will see the new SVG files listed



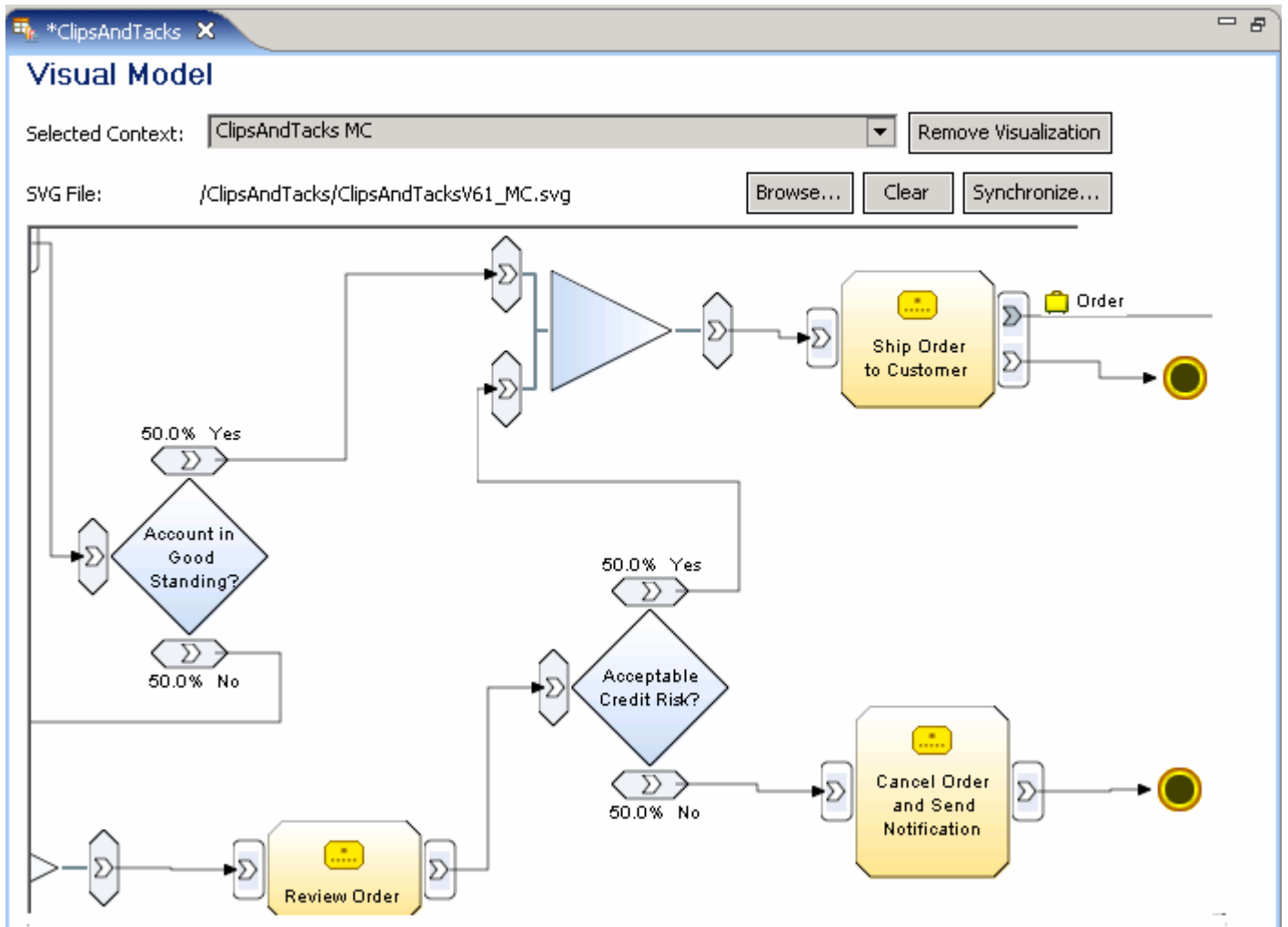
- ___ 2. In the project explorer, navigate to **ClipsAndTacks** → **Monitor Models** and then double click on '**ClipsAndTacks.mm**' to open the editor on the model
- ___ 3. Select the **Visual Model** tab at the bottom of the editor view
- ___ 4. The '**Selected Context**' defaults to the monitoring context '**ClipsAndTacks MC**'
- ___ 5. To '**Choose an SVG file**' click the '**Browse...**' button and navigate to **ClipsAndTacks** → **ClipsAndTacksV61_MC.svg** in the SVG Resource Selection dialog

Select SVG file

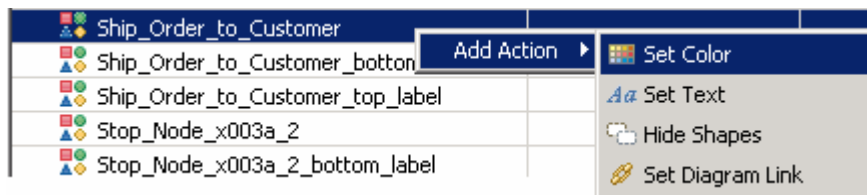
Choose an SVG file to associate with the selected context.



- ___ 6. Click **OK**
- ___ 7. A question dialog pops up asking, '**Create shape sets based on SVG files?**' Click **Yes**
- ___ 8. The SVG diagram opens in the visual editor as shown below:






- ___ 9. Scroll to the right in the diagram and you see the tasks '**Ship Order to Customer**' and '**Cancel Order and Send Notification**' which are the tasks that you will manipulate
- ___ 10. Set the color of the task '**Ship Order to Customer**' to blue if the order is shipped. Use the metric **Order_Status** to determine if the order has been shipped
 - ___ a. In the bottom left portion of the visual editor view, that is "**Add and Edit Shape set Actions**" section, you see the SVG shapes that are available for use in this file. Find the shape set action '**Ship_Order_to_Customer**' in this list. Right click on this item and then select **Add Action → Set Color** from the pop-up menu



- ___ b. The set color action is added beneath the task in the list.

- ___ c. Click in the cell to the right of '**condition**'. A button (⋮) appears in the expression field. Click on the button and then use content assist (Ctrl-space) or type in this expression in the 'Expression dialog': **Order_Status eq 'Shipped'**

Set color	
ⓐ condition	 Order_Status eq 'Shipped'
ⓐ fill color	
ⓐ outline color	

- ___ d. Click in the cell to the right of '**fill color**'. A button (⋮) appears. Click the button, select the **blue** color from the color dialog and click **OK**

Ship_Order_to_Customer	
Set color	
ⓐ condition	 Order_Status eq 'Shipped'
ⓐ fill color	 #0000ff
ⓐ outline color	

- ___ e. Press **Ctrl-S** to save your work



___ 11. Test the changes using the diagram test facility

- ___ a. In the lower right corner of the visual editor view, you see the metrics listed that are referenced in the visual model. You can set values for the metrics to see how the model will behave. Enter a value for the metric '**Order Status**' as follows:

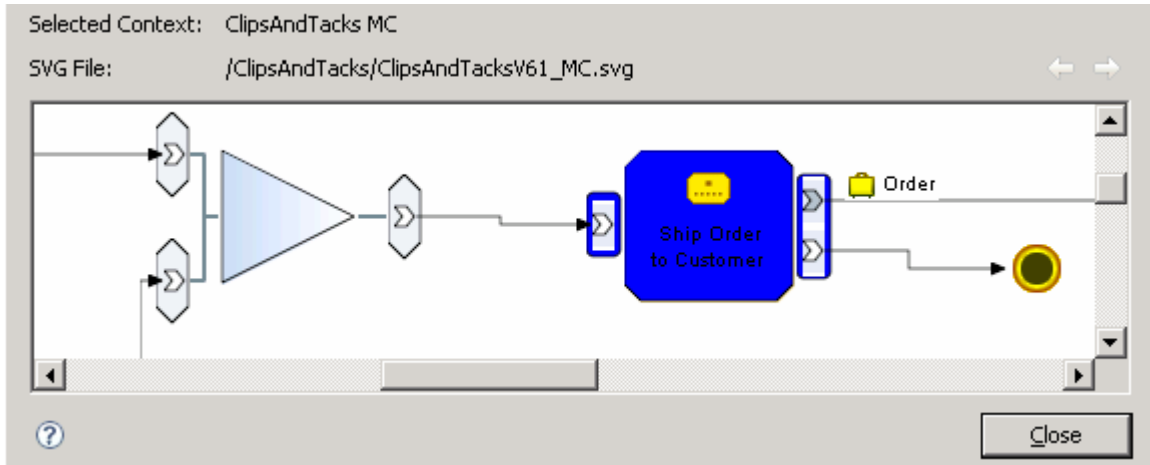
- Value : **Shipped**

Sample Metric Values

Enter values for metrics that appear in the shape set action expressions. Click Test to see a preview of the runtime diagram.

Metric Name	Type	Value
 Order Status	string	 Shipped

- ___ b. Click the **Test** button. A diagram preview window is opened. Scroll to the right and you can see that the task '**Ship Order to Customer**' has been changed to blue color.






__ c. **Close** the diagram preview window


___ 12. Set the color of the task '**Cancel Order and Send Notification**' to blue if the order is cancelled. Use the metric `Order_Status` to determine if the order has been cancelled.




__ a. In the bottom left portion of the visual editor view, that is "**Add and Edit Shape set Actions**" section, you see the SVG shapes that are available for use in this file. Find the shape set '**Cancel Order and Send Notification**' in this list. Right click on this item and then select **Add Action → Set Color** from the pop-up menu

__ b. The set color action is added beneath the task in the list.

__ c. Click in the cell to the right of **condition**. A button () appears in the expression field. Click on the button and then use content assist (Ctrl-space) or type in this expression in the 'Expression dialog': **Order_Status eq 'Cancelled'**

Cancel_Order_and_Send_Notification	
Set color	
condition	 Order_Status eq 'Cancelled'
fill color	
outline color	

__ d. Click in the cell to the right of '**fill color**'. A button () appears. Click the button, select the **blue** color from the color dialog and click **OK**

Cancel_Order_and_Send_Notification	
Set color	
condition	 Order_Status eq 'Cancelled'
fill color	 #0000ff
outline color	

__ e. Press **Ctrl-S** to save your work

___ 13. Test the changes using the diagram test facility

___ a. In the lower right corner of the visual editor view, you see the metrics listed that are referenced in the visual model. You can set values for the metrics to see how the model will behave. Enter a value for the metric '**Order Status**' as follows:

- Value : **Cancelled**

Sample Metric Values

Enter values for metrics that appear in the shape set action expressions. Click Test to see a preview of the runtime diagram.

Metric Name	Type	Value
Order Status	string	Cancelled

___ b. Click the **Test** button. A diagram preview window is opened. Scroll to the right and you can see that the task 'Cancel Order and Send Notification' has been changed to blue color

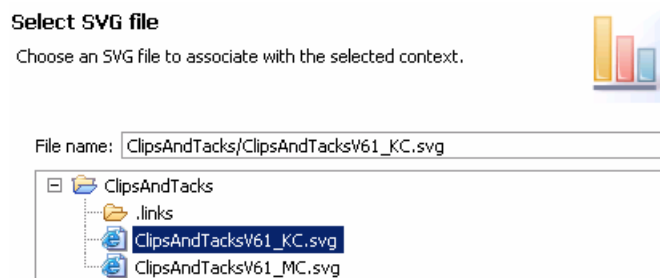
___ c. **Close** the diagram preview window

___ 14. Check for any errors in the Problems view. You should resolve any errors before continuing. Warnings and informational messages may be present but these are not a problem

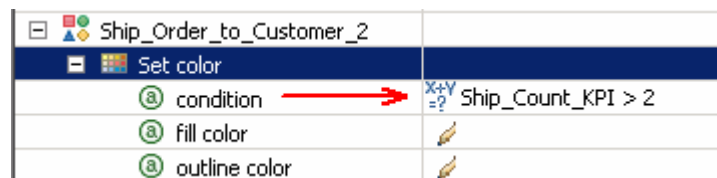
Part 3: Edit the visual model for the KPI context diagram

In this section you will use Rational Application Developer or WebSphere Integration Developer to edit the visual model for the KPI context diagram


- ___ 1. If not already open, navigate to **ClipsAndTacks → Monitor Models** and then double click on '**ClipsAndTacks.mm**' to open the editor on the model in the project explorer
- ___ 2. Select the **Visual Model** tab at the bottom of the editor view
- ___ 3. Select "**My KPI Context**" for the '**Selected Context**' field from the drop down list
- ___ 4. To choose and SVG file, click the '**Browse...**' button and navigate to **ClipsAndTacks →ClipsAndTacksV61_KC.svg** in the SVG Resource Selection dialog



- ___ 5. Click **OK**
- ___ 6. A question dialog pops up asking, '**Create shape sets based on SVG files?**' Click **Yes**
- ___ 7. Now you will see the SVG diagram opened in the visual editor
- ___ 8. Set the color of task '**Ship Order to Customer**' to green if the total number of shipped orders is greater than 2. Use **Ship_Count_KPI** in the KPI model which contains the total number of shipments
 - ___ a. In the bottom left portion of the visual editor view, that is "**Add and Edit Shape set Actions**" section, you see the SVG shapes that are available for use in this file. Find the shape set '**Ship_Order_to_Customer_2**' in this list. Right click on this item and then select **Add Action → Set Color** from the pop-up menu
 - ___ b. The set color action is added beneath the task in the list.
 - ___ c. Click in the cell to the right of **condition**. A button (⋮) appears in the expression field. Click on the button and then use content assist (Ctrl-space) or type in this expression in the 'Expression dialog': **Ship_Count_KPI > 2**




- ___ d. Click in the cell to the right of '**fill color**'. A button (⋮) appears. Click the button, select the **green** color from the color dialog and click **OK**




Ship_Order_to_Customer_2	
Set color	
condition	$X+Y \geq ?$ Ship_Count_KPI > 2
fill color	 #00ff00
outline color	


9. Set the color of the task 'Ship Order to Customer' to red if the total number of shipped orders is less than or equal to 2. Use **Ship_Count_KPI** in the KPI model which contains the total number of shipments



a. In the bottom left portion of the visual editor view, that is “Add and Edit Shape set Actions” section, you see the SVG shapes that are available for use in this file. Find the shape set 'Ship_Order_to_Customer_2' in this list. Right click on this item again and then select **Add Action → Set Color** from the pop-up menu

b. The set color action is added beneath the task in the list.

c. Click in the cell to the right of **condition**. A button () appears in the expression field. Click on the button and then use content assist (Ctrl-space) or type in this expression in the 'Expression dialog': **Ship_Count_KPI <= 2**

Ship_Order_to_Customer_2	
Set color	
condition	$X+Y \geq ?$ Ship_Count_KPI > 2
fill color	 #00ff00
outline color	
Set color	
condition	$X+Y \geq ?$ Ship_Count_KPI <= 2
fill color	
outline color	

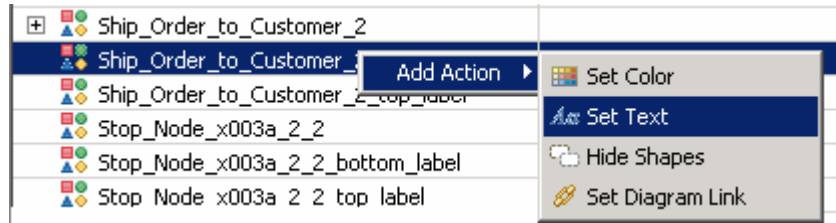
d. Click in the cell to the right of 'fill color'. A button () appears. Click the button, select the **red** color from the color dialog and click **OK**

Ship_Order_to_Customer_2	
Set color	
condition	$X+Y \geq ?$ Ship_Count_KPI > 2
fill color	 #00ff00
outline color	
Set color	
condition	$X+Y \geq ?$ Ship_Count_KPI <= 2
fill color	 #ff0000
outline color	

e. Press **Ctrl-S** to save your work

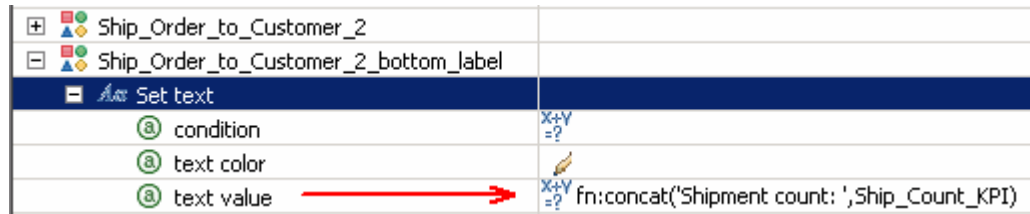
10. Set the text for the task 'Ship_Order_to_Customer_2_bottom_label' so the Ship_Order_to_Customer_2 will show the actual number of shipments. Use Ship_Count_KPI in the KPI model which contains the total number of shipments

a. In the bottom left portion of the visual editor view, that is “Add and Edit Shape set Actions” section, you see the SVG shapes that are available for use in this file. Find the shape set 'Ship_Order_to_Customer_2_bottom_label' in this list. Right click on this item again and then select **Add Action → Set Text** from the pop-up menu



__ b. The set text action is added beneath the task in the list.

__ c. Click in the cell to the right of 'text value'. A button (⋮) appears in the expression field. Click on the button and then use content assist (Ctrl-space) or type in this expression in the 'Expression dialog': **fn:concat('Shipment count: ',Ship_Count_KPI)**.

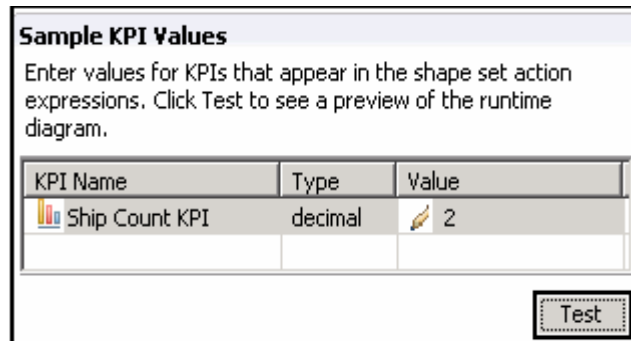


__ d. Press **Ctrl-S** to save your work

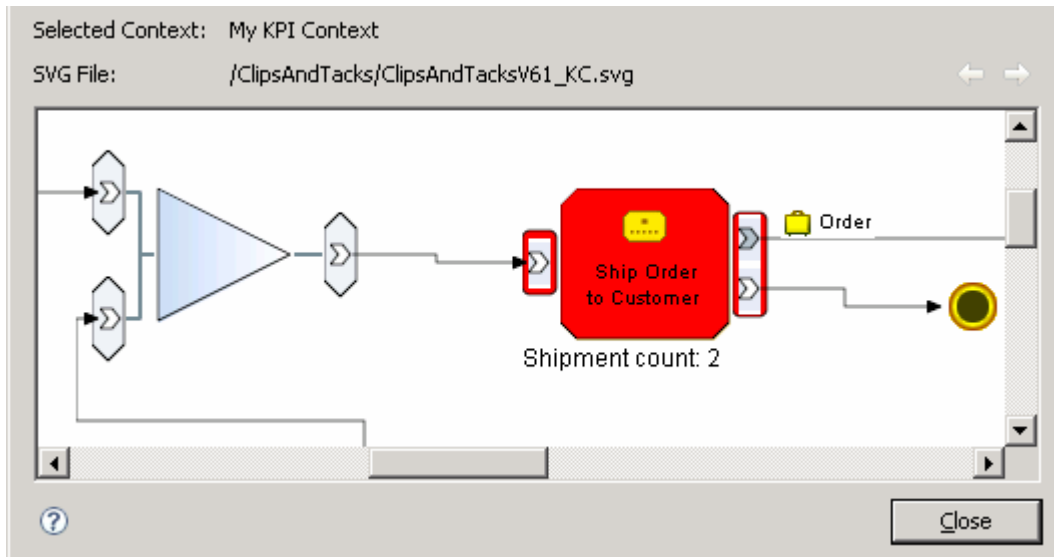
___ 11. Test the changes using the diagram test facility

__ a. In the lower right corner of the visual editor view, you see the KPIs listed that are referenced in the visual model. You can set values for the KPIs to see how the model will behave. Enter a value of **2** for Ship_Count_KPI as follows:

- Value : 2



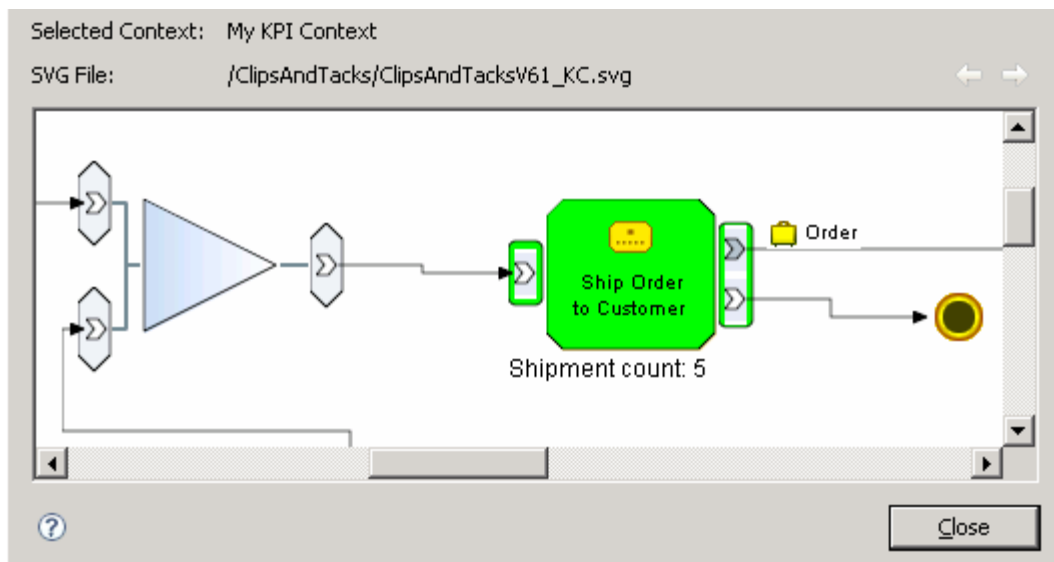
__ b. Click the **Test** button. A diagram preview window is opened. Scroll to the right and you can see that the task 'Ship Order to Customer' has been changed to red color, and the number of shipments is shown beneath the task:



___ c. **Close** the diagram preview window

___ d. Now test the **green** condition. Enter a value of **5** for Ship_Count_KPI in the sample KPI values table

___ e. Click the Test button. A diagram preview window is opened. Scroll to the right and you can see that the task 'Ship Order to Customer' has been changed to green color, and the number of shipments is shown beneath the task



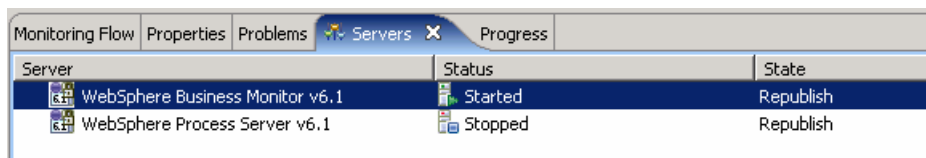
___ f. **Close** the diagram preview window

___ 12. Check for any errors in the Problems view. You should resolve any errors before continuing. Warnings and informational messages may be present but these are not a problem

Part 4: Publish the model to the server

In this section you will use Rational Application Developer or WebSphere Integration Developer to publish the monitor model to the monitor server.

- ___ 1. In Project Explorer, expand ClipsAndTacks → Monitor models → ClipsAndTacks.mm. Right click over ClipsAndTacks.mm and then select Generate Monitor J2EE Projects from the context menu
- ___ 2. If you have already generated the ClipsAndTacks model for another lab, then you may need to select 'overwrite existing projects'. Then click **Finish**.
- ___ 3. A progress dialog shows the status of the operation and it closes when the operation is complete. Check for errors in the Problems view. There may be warnings, but there should not be any errors. If you see errors, then try to perform a clean to see if the errors can be removed: Project > Clean... > select 'Clean all projects', then click OK.
- ___ 4. Click the Servers tab, then right click and select the **Start** option to start the server WebSphere Business Monitor V6.1. This may take a few minutes to complete.



- ___ 5. Right click in the servers view, then select 'Add and Remove Projects...'
- ___ 6. Click Add to move the ClipsAndTacksApplication from the list of available projects to the list of configured projects. Click Finish. Note: If the application is already in the list of configured projects, then you may have run another lab and published this application already, so in that case, cancel this window and select the 'Publish' option from the server menu.
- ___ 7. A progress message is displayed in the lower right corner of the window.
- ___ 8. Check the messages in the console view. You should see the following message when the application has been started:

Application started: ClipsAndTacksApplication
- ___ 9. In the servers view, right click, then select **Run administrative console**. You should see it open in a separate tab. It will prompt you for user ID and password. Enter 'admin' without the quotes for the user ID, and then enter 'admin' without the quotes for the password.
- ___ 10. Click **Log in**
- ___ 11. Click **Applications > Monitor Models**. The application should show green status if it started successfully.

Monitor Models

Use this page to manage all versions of monitor models and their associated applications. To start or stop a version of a monitor model, you must start or stop the associated application. All models are initially added to the root resource group and may not be visible by its intended dashboard users. Use the Monitor data security panel to assign permission to the models.

Preferences

Start Stop Install Update

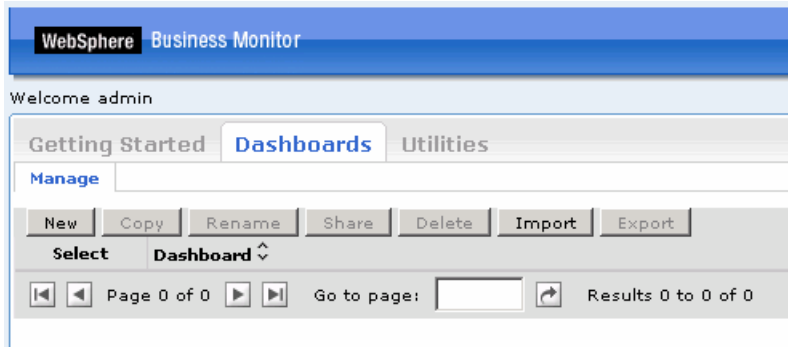
Select	Model	Version	Deployment	Application	Status
<input type="checkbox"/>	ClipsAndTacks	2007-09-11T12:07:30	OK	ClipsAndTacksApplication	➔
<input type="checkbox"/>	GlobalHTMM	2007-06-18T09:54:38	OK	IBM_WBM_HUMAN_TASK_MONITOR_MODEL	➔
Total 2					

- _____ 12. If the model shows red (stopped), then wait a moment, then refresh by clicking on the icon to the right of Status in the last column of the table. You should see green (started) for the model. If it does not show green, be patient and keep refreshing until it does show green.
- _____ 13. Check the server log to ensure there are no problems. You can check this in the console view.
- _____ 14. If you are using the integrated server within WebSphere Integration Developer or Rational Application Developer, then you do not need to setup Monitor data security, since the admin user is automatically authorized to all models. If you are using a different server, then you should open the administrative console, navigate to **Security > Monitor Data Security**, then add the model, role and user information to a resource group.

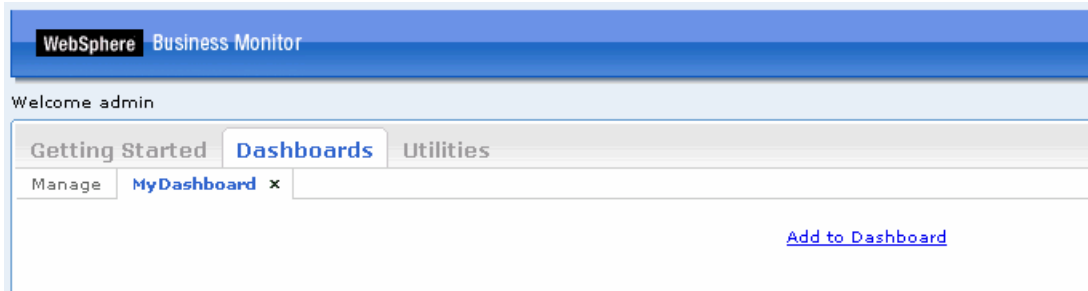
Part 5: Create a dashboard

In this section you will build a dashboard. You will add views to the dashboard and configure them.

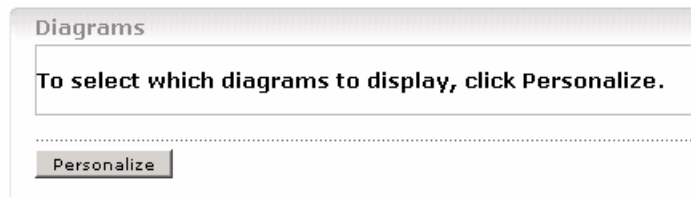
- ___ 1. Open the dashboard.
 - ___ a. You should install the SVG viewer into your browser, then use that browser in this lab. Open this browser and go to this URL: <http://localhost:9081/BusinessDashboard/>. Ensure the correct default HTTP port number is used.
 - ___ b. When prompted, enter **admin** for the user ID and enter **admin** for the password. You must log in with 'admin' so that you can view the alerts which were setup in action manager to be sent to this particular user ID. Also, in the toolkit environment, this is the user that is automatically defined on the secured server.
 - ___ c. Click the **Dashboards** tab.



- ___ d. Click **New**, then enter a name for the dashboard, then click **OK**.

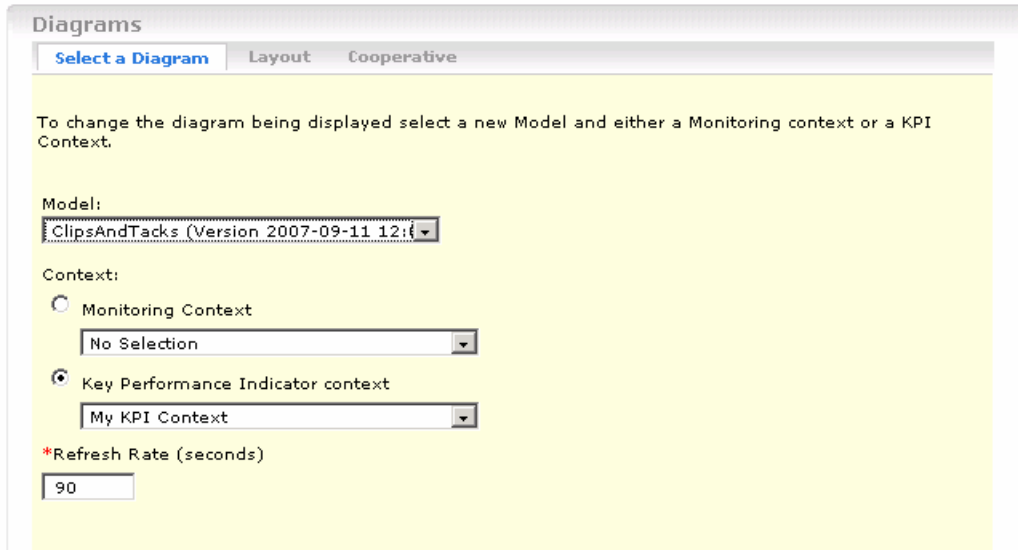


- ___ 2. Click **Add to Dashboard**, and then select **Diagrams** from the drop down list. Click **OK**

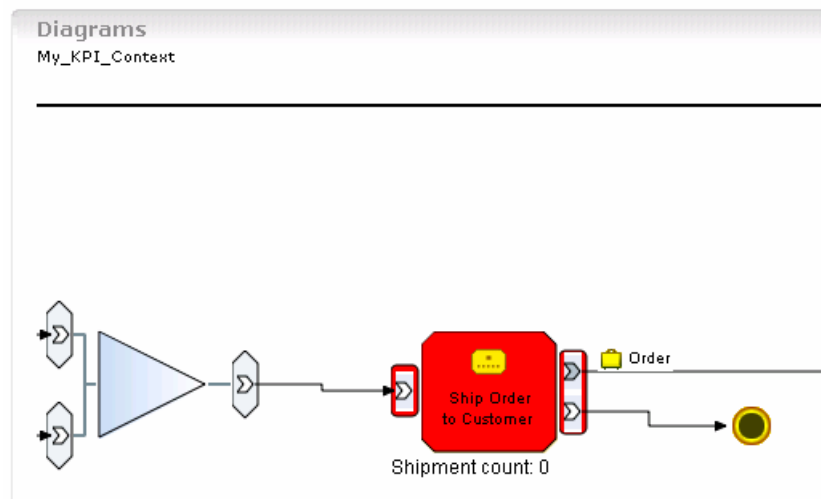


- ___ a. Click **'Personalize'**. You can either view the monitoring context or the KPI context of the selected monitoring model. Follow the instructions below to configure the Diagram view to view the **KPI Context** of the ClipsAndTacks model

- Select the **ClipsAndTacks model** you want to view from the drop down list
- Select the radio button next to “**Key Performance Indicator context**”
- Select “**My KPI Context**”



- ___ b. Click **OK**. You should see the diagram displayed in the view. Scroll to the right and you see the ship task is marked with red color and the total shipment count is zero. This is correct because you have not processed any events yet, and in the model you specified that the color should be red if the shipment count is less than or equal to 2.



- ___ c. Do not close the browser, since you will come back here to check results later. Proceed to the next section to process some shipments.

Part 6: Run events to exercise the model

Rather than installing a Java EE application to actually create the events that you want to monitor, you are going to use a program to simulate the submission of events from the application.

The supplied program is 'BatchCBEWriter61' and it will submit the events to the Common Event Infrastructure. Look for the program in \Labfiles61\ClipsAndTacks\BatchCBEWriter. This program reads XML files which represent the Common Base Events for the model.

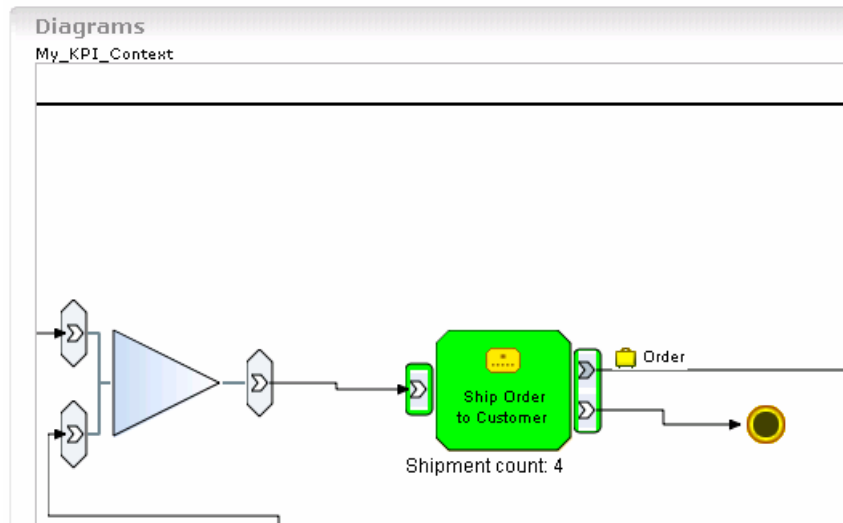
- ___ 1. Update BatchCBEWriter61.bat to point WAS_HOME to the monitor server home, for example 'set WAS_HOME=C:\IBM\WebSphere\AppServer'. If you are using the integrated monitor server in WebSphere Integration Developer, the path is <WID-Install-Path>\pf\WBMonSrv_wps. If you are using the integrated monitor server in Rational Application Developer, the path is <RAD-Install-Path>\pf\WBMonSrv.
- ___ 2. Update config.properties, setting the serverName and portNumber. You can find the port number by browsing the server log and finding 'bootstrap port'. For example, check for the log at C:\IBM\WebSphere\AppServer\profiles\WBMon01\logs\server1\SystemOut.log . For the integrated server in WebSphere Integration Developer, the path is <WID-Install-Path>\pf\WBMonSrv_wps\logs\server1\SystemOut.log and the portNumber is 2810. For the integrated server in Rational Application Developer, the path is <RAD-Install-Path>\pf\WBMonSrv\logs\server1\SystemOut.log and the portNumber is 2810. Here is an example of the config.properties settings:
 - ___ a. connect.serverName = localhost
 - ___ b. connect.portNumber = 2810
- ___ 3. Open a command window, then change directory to the folder containing BatchCBEWriter61, for example, type this command
 - ___ a. cd \Labfiles61\ClipsAndTacks\BatchCBEWriter
- ___ 4. Run commands to load the common base events to the server.
 - ___ a. batchcbewriter61 -Dsource.filename="c:/labfiles61/clipsandtacks/cbe/allevnts.xml"
 - ___ b. When it prompts you for user identity and password, enter 'admin' for both (without the quotation marks)
- ___ 5. When you run BatchCBEWriter61, you should see results such as:

```
C:\drivers\events>batchcbewriter61 -Dsource.filename="c:/drivers/events/clipsandtacks/allevnts.xml"
Getting CBEs.
Getting Emitter.
Removing GlobalInstanceIds.
Setting missing values.
Changing Instance Ids.
Updating timestamps.
Validating CBEs.
Sending CBEs.
START=09:14:10.875
Sending cbe101.
Sending cbe1201.
Sending cbe1301.
Sending cbe1401.
Sending cbe1501.
Sending cbe1601.
Sending cbe1701.
Sending cbe1801.
END=09:14:24.390
TotalTime=13515 milliseconds.
CBEs/second=6.215316315205327
```

Part 7: Check the diagram view for the KPI context

Now that you have created the events, there should be shipments, so now you can check your dashboard to see how this is reflected in the diagram view for the KPI context.

1. Return to the dashboard that you created previously.
2. Take a look at the diagram view in the dashboard. To get the latest results, you may need to reload the page in the browser. Scroll to the right and you see the ship task is marked with **green** color and the total shipment count is 4. This is correct because in the model you specified that the color should be green if the shipment count is greater than 2



3. Do not close the browser, since you will need your dashboard in the next section

Part 8: Add the diagram view for monitoring contexts

In this section you will add the instances view to the dashboard so you can see the monitoring context instances. You will also add the diagram view for monitoring contexts. Then you will be able to click a monitoring context instance in the instances view and see the diagram for that specific instance.

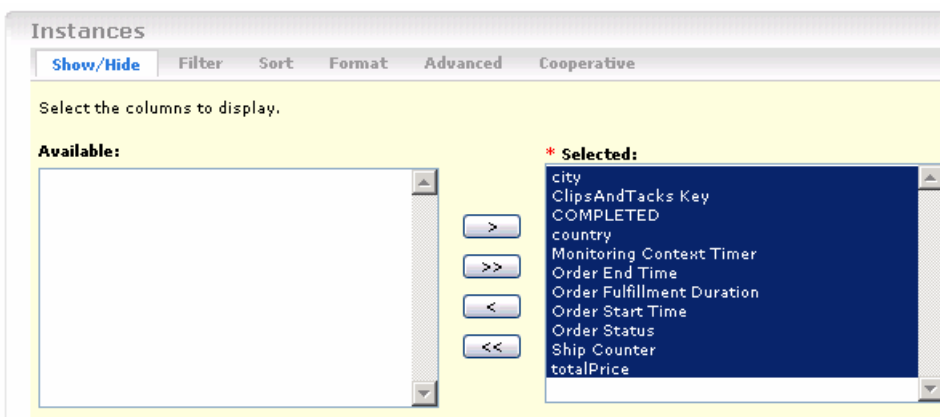
- ___ 1. Return to the dashboard that you created previously
- ___ 2. Add the instances view to the dashboard
 - ___ a. Click **Add to Dashboard**, then select **Instances**, then click **OK**. Note that you can also add a view by dragging the view from the palette on the right and dropping it onto the dashboard.



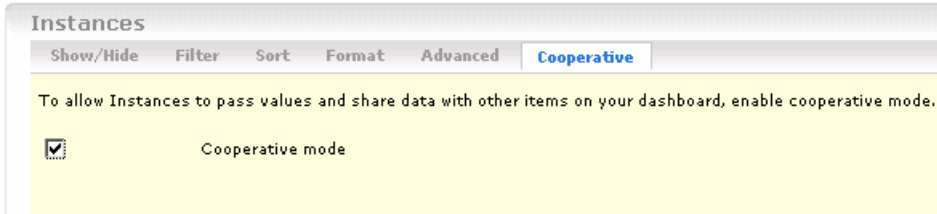
- ___ b. Click **Personalize**.
- ___ c. Click the **Advanced** tab, and select model 'ClipsAndTacks (All Versions)'



- ___ d. Click the **Show/Hide** tab.
- ___ e. Click **>>** to copy all the metrics from the available list to the selected list.



- ___ f. Click the **Cooperative** tab, then select 'Enable cooperative mode'



___ g. Then click **OK**. You should see a list of monitoring context instances for the events that you just processed.

The "Instances" window shows a table of monitoring context instances. The table has columns: Diagram, city, ClipsAndTacks Key, COMPLETED, country, Monitoring Context Timer, Order End Time, Order Fulfillment Duration, Order Start Time, Order Status, Ship Counter, and totalPrice. There are 10 rows of data.

Diagram	city	ClipsAndTacks Key	COMPLETED	country	Monitoring Context Timer	Order End Time	Order Fulfillment Duration	Order Start Time	Order Status	Ship Counter	totalPrice
	Raleigh	o1	★	USA	0 s	August 9, 2006 2:20:05 AM	2 d, 0 h, 0 m, 0 s	August 7, 2006 2:20:05 AM	Shipped	1	100
	Toronto	o2	★	Canada	0 s	August 11, 2006 3:14:55 AM	4 d, 0 h, 0 m, 0 s	August 7, 2006 3:14:55 AM	Shipped	1	150
	Mexico City	o3		Mexico	4 m, 58 s		0 s	August 7, 2006 4:01:22 AM	New	0	200
	Raleigh	o4		USA	4 m, 58 s		0 s	August 10, 2006 5:01:34 AM	New	0	250
	Toronto	o5		Canada	4 m, 58 s		0 s	August 12, 2006 6:12:22 AM	New	0	300
	Raleigh	o6	★	USA	0 s	August 26, 2006 2:20:05 AM	4 d, 0 h, 0 m, 0 s	August 22, 2006 2:20:05 AM	Cancelled	0	350
	Toronto	o7	★	Canada	0 s	August 27, 2006 3:14:55 AM	5 d, 0 h, 0 m, 0 s	August 22, 2006 3:14:55 AM	Cancelled	0	400
	Mexico City	o8		Mexico	4 m, 58 s		0 s	August 22, 2006 4:01:22 AM	New	0	450
	Raleigh	o9		USA	4 m, 58 s		0 s	August 22, 2006 5:01:34 AM	New	0	500
	Toronto	o10		Canada	4 m, 58 s		0 s	August 22, 2006 6:12:22 AM	New	0	550

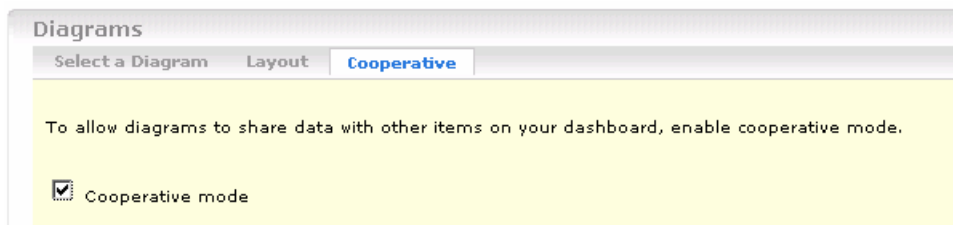
___ 3. Add another diagram view to the dashboard and configure it to display monitoring contexts

___ a. Click **Add to Dashboard**, then select **Diagrams**, then click **OK**

___ b. Click **Personalize**.

- Select the **ClipsAndTacks** model you want to view from the drop down list
- Select the radio button next to **"Monitoring context"**
- Select **"ClipsAndTacks MC"**

___ c. Click the **Cooperative** tab, then click to **'Enable cooperative mode'** Cooperative mode is used to link the monitoring context instances in the instances view to diagrams in this view.



___ d. Then click **OK**. You should see the diagram displayed in the view. This is the generic diagram without any visual actions displayed.

___ 4. Click the diagram icon in the instances view to see the diagram for specific instances.

___ a. In the dashboard, scroll up to the instances view and find one of the monitoring contexts that show 'Cancelled' in the order status column.

	Raleigh	o6		USA	0 s	August 26, 2006 2:20:05 AM	4 d, 0 h, 0 m, 0 s	August 22, 2006 2:20:05 AM	Cancelled	0	350
	Toronto	o7		Canada	0 s	August 27, 2006 3:14:55 AM	5 d, 0 h, 0 m, 0 s	August 22, 2006 3:14:55 AM	Cancelled	0	400

___ b. For this item, click the icon in the first column in the diagram column. This will cause the monitoring context diagram view to be updated for this specific monitoring context. Since this particular order is cancelled, the diagram should show the task 'Cancel Order and Send Notification' as blue in color.



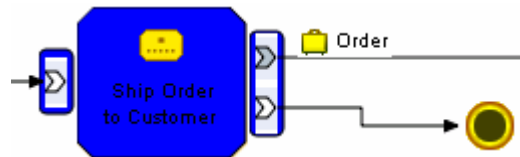
___ c. Click 'Restore Original Context' at bottom of this diagram to return this diagram to the generic diagram.



___ d. In the dashboard, scroll up to the instances view and then find one of the monitoring contexts that show 'Shipped' in the order status column.

	Raleigh	o1		USA	0 s	August 9, 2006 2:20:05 AM	2 d, 0 h, 0 m, 0 s	August 7, 2006 2:20:05 AM	Shipped	1	100
	Toronto	o2		Canada	0 s	August 11, 2006 3:14:55 AM	4 d, 0 h, 0 m, 0 s	August 7, 2006 3:14:55 AM	Shipped	1	150

___ e. For this item, click the icon in the first column, the diagram column. This will cause the monitoring context diagram view to be updated for this specific monitoring context. Since this particular order is shipped, the diagram should show the task 'Ship Order to Customer' as blue in color.



What you did in this exercise

In the lab, you edited the visual model for the monitoring context diagram and the KPI context diagram.

Then you published the model to the monitor server.

You used the supplied program to simulate the submission of events from the monitored application.

You configured dashboards to view KPI context diagrams. You also used click to action to view diagrams for monitoring context instances.

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