

IBM WEBSHERE BUSINESS MONITOR 6.1 – LAB EXERCISE

WebSphere Business Monitor V6.1

Portlet-based dashboards

What this exercise is about	2
Lab requirements	2
What you should be able to do	2
Introduction	3
Part 1: Import the Clips and Tacks visual monitor model	6
Part 2: Install the monitor model to the server	9
Part 3: Create a new portlet-based dashboard	15
Part 4: Run events to exercise the model	29
Part 5: Configuring the portlet-based dashboards	30
Working with the Instances view:	30
Working with the Diagrams view	31
Working with the KPIs view	33
Working with the Alerts View	35
Working with Instances and Diagram View in a cooperative mode	36
Part 6: Configuring the Alphablox portlet-based dashboards	40
Working with the Reports view	40
Working with the Dimensions View	45
Part 7: Working with the portlet-based dashboards utilities	50
Working with the KPI manager	50
Working with the Export Values utility	52
Working with the Alerts Subscription utility	53
What you did in this exercise	54

What this exercise is about

The objective of this lab is to show you how to use Portlet-based dashboards including Alphablox views.

Lab requirements

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

- WebSphere Business Monitor V6.1 Server and Portlet-based dashboards including Alphablox views installed.
- Security enabled with a federated repository

What you should be able to do

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

- Import the ClipsAndTacks model into a new workspace
- Create a new portlet-based dashboard and add the dashboard views
- Configure portlet-based dashboards such as Instances, Diagram, KPI and Alerts
- Configure Alphablox portlet-based dashboards such as Dimensional and Reports
- Learn how to use the portlet-based dashboard tools such as KPI Explorer, Alerts Subscription and Export Values

Introduction

WebSphere Business Monitor V6.1 Dashboard delivers a highly rich user experience made possible by Web 2.0. WebSphere Business Monitor V6.1, Portlet-based Dashboards use the WebSphere Portal Server's Dojo-based client side aggregation framework to provide the Web 2.0 capabilities.

WebSphere Business Monitor V6.1 Portlet-based Dashboard runs on the WebSphere Portal Server V6.0.1.1 which includes enhanced Portal features and capabilities. Portlet-based Dashboard provides the advanced capabilities like role based access control, click to action, people awareness, page aggregation and personalization; also the ability to combine with Portlets from other sources.

WebSphere Business Monitor V6.1 Dashboards effectively uses AJAX, the web-client architectural style achieving harmony with the service based REST architectural style.

WebSphere Business Monitor V6.1 Dashboard is designed to give a rich user experience made possible by Dojo based AJAX, a key technique of Web 2.0. AJAX stands for **A**synchronous **J**avaScript and **X**ML. AJAX is a combination of several existing technologies, each at its best, coming together in powerful new ways. AJAX incorporates: standards-based presentation using XHTML (XML + HTML) and CSS; dynamic display and interaction using the Document Object Model (DOM); data interchange and manipulation using XML and XSLT; asynchronous data retrieval using XMLHttpRequest; and JavaScript binding everything together.

The entire data required by the Dashboard is retrieved from a **REST** style URI landscape. REST stands for **RE**presentational **S**tate **T**ransfer. REST is a broad term that defines an architectural style for interaction between systems. REST is not a protocol or a standard; rather it's an architectural style — an important distinction. The Monitoring data is returned in JSON format. **JA**vaScript **O**bject **N**otation or **J**ASON is a lightweight syntax for representing data.

The RESTful services running on the Monitor Server abstract the monitoring data to a language and platform independent format for consumption by anyone. As a result, the AJAX-based Dojo Widgets use these services to obtain the relevant data returned in JSON format.

WebSphere Business Monitor V6.1 Portlet-based Dashboard installed on WebSphere Portal Server V6.0.1.1 uses REST services proxy application to communicate with REST services residing on the Monitor Server.

WebSphere Business Monitor V6.1 Portlet-based Dashboard supports eight views, out of which two are optional Alphablox (ABX) based views. The supported views are:

Portlet-based Dashboards: KPIs, Instances, Diagrams, Alerts and Human Task

Optional Alphablox Portlet-based Dashboards: Dimensions, Reports and Organizational

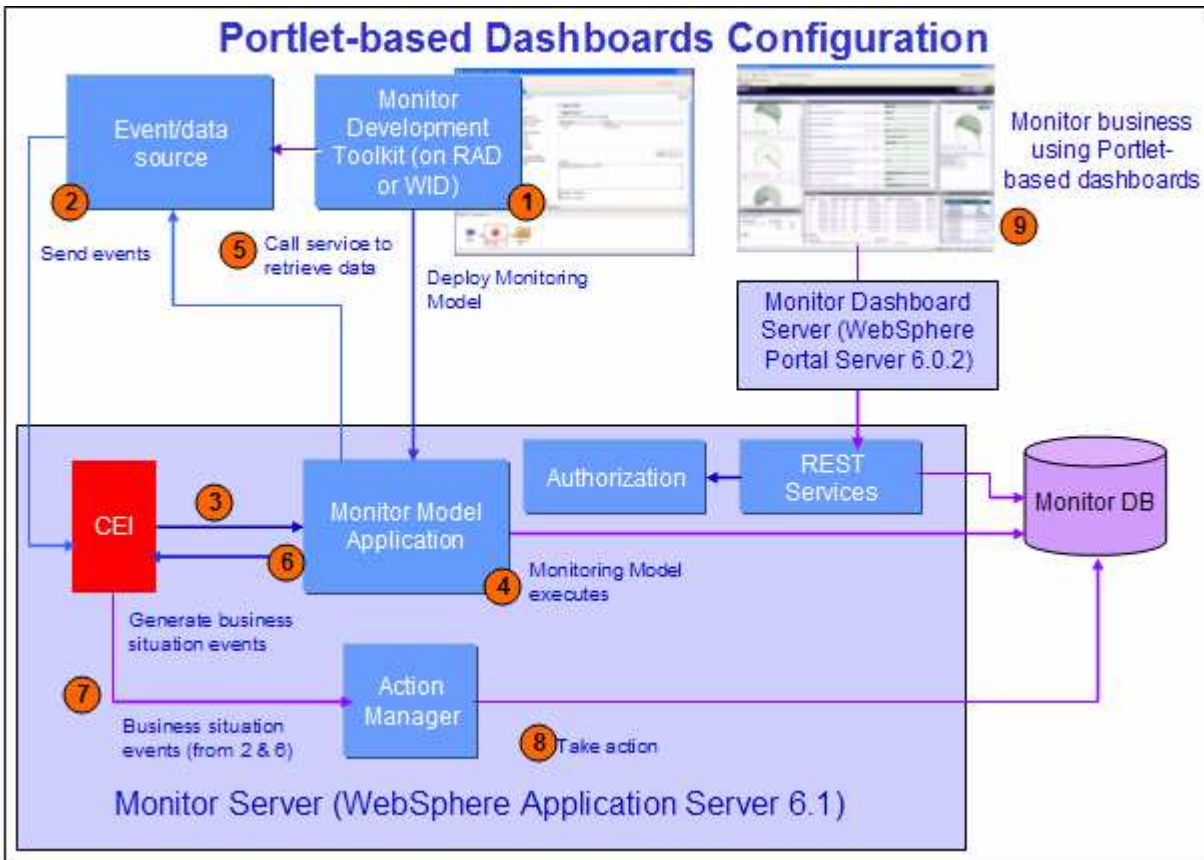
WebSphere Business Monitor V6.1 also provides these tools for the business users:

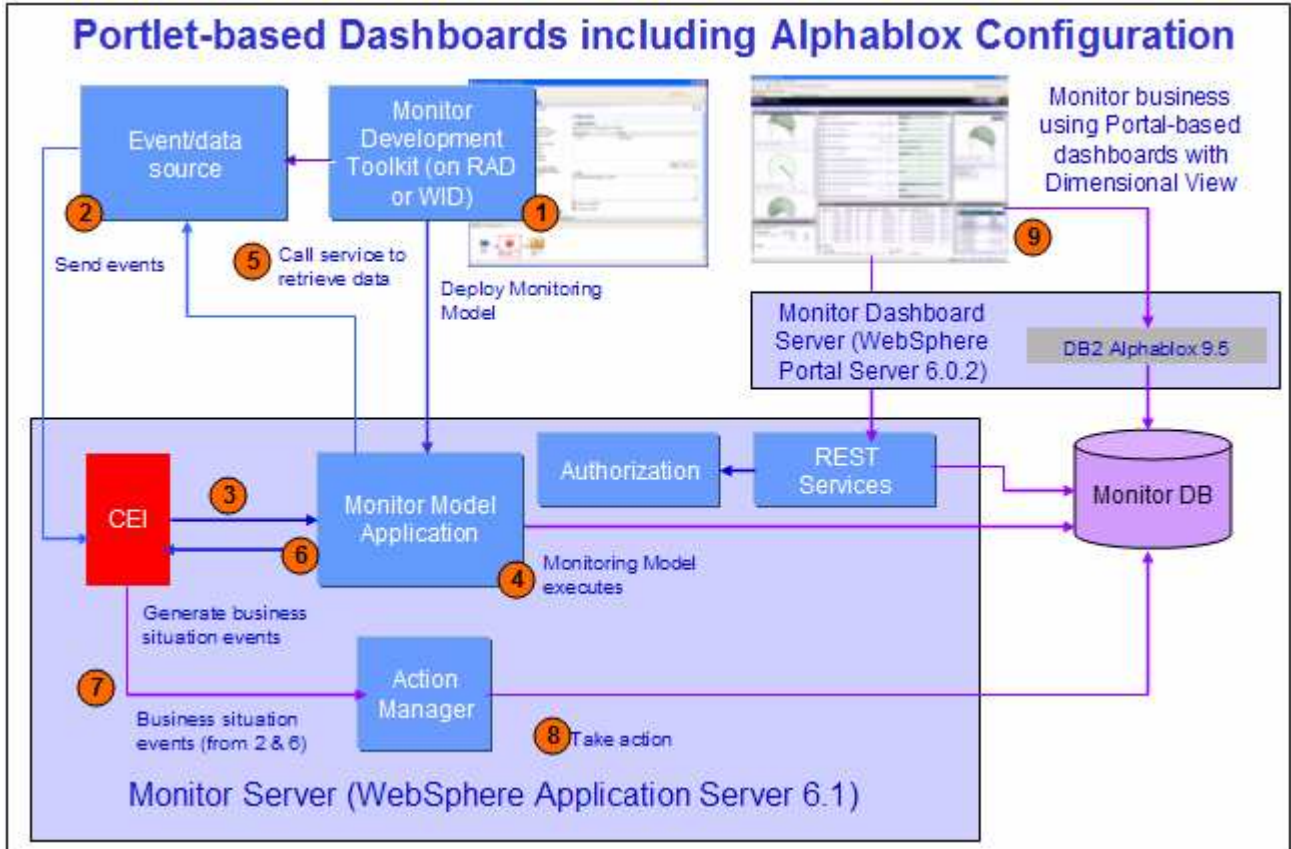
- 1 KPI manager
- 2 Alerts subscription
- 3 Export values

Prerequisite: Ensure that the following software is installed:

- SVG Viewer V3.0.3

The following diagrams depict the highly functional Portlet-based Dashboards configuration:

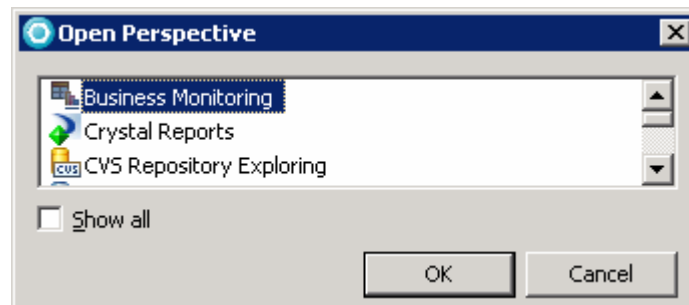




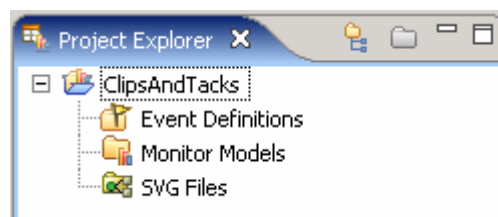
Part 1: Import the Clips and Tacks visual monitor model

In this part of the lab, you will import the Clips and Tacks visual monitor model into the workspace. If you already have the ClipsAndTacks visual model in your workspace after completing the Clips and Tacks visual model lab, you may 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. Click **OK**
 - ___ c. Close the Welcome tab
 - ___ d. By default, you are in the Business Integration perspective. You want to open the Business Monitoring perspective. From the main menu select **Window → Open Perspective → Other**. The “**Open Perspective**” dialog opens

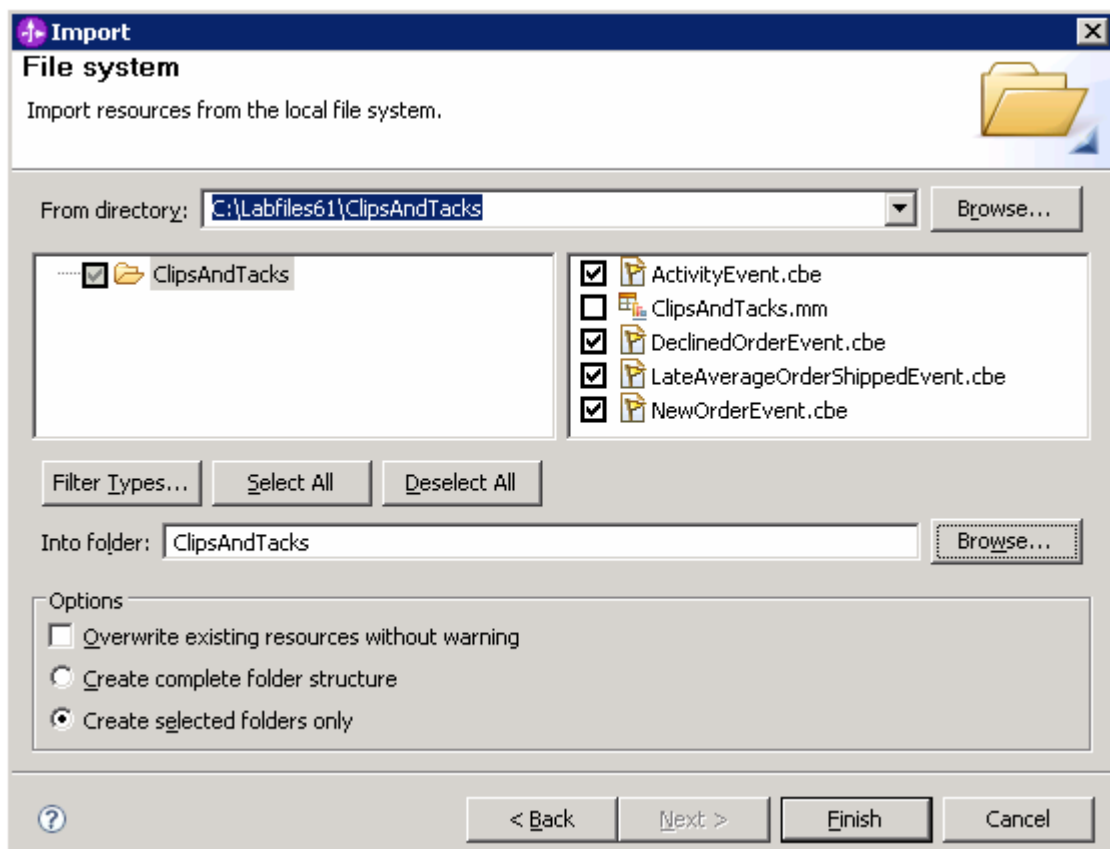


- ___ e. Select “**Business Monitoring**” list in the “Open Perspective dialog. Select the check box next to “Show all” if the it is not listed
 - ___ f. If prompted for Confirm Enablement, click **OK**
- ___ 2. Create a new monitoring project
 - ___ a. Right click the Project Explorer, then select **New → Business Monitoring Project...** from the pop-up menu
 - ___ b. Enter **ClipsAndTacks** in the 'Project name' field
 - ___ c. Click **Finish**. You will see the new project in the Project Explorer view



- ___ 3. Import the supplied **.cbe** files with the ClipsAndTacks lab files
 - ___ a. Right click in the Project Explorer view, and then select **Import...** from the pop-up menu

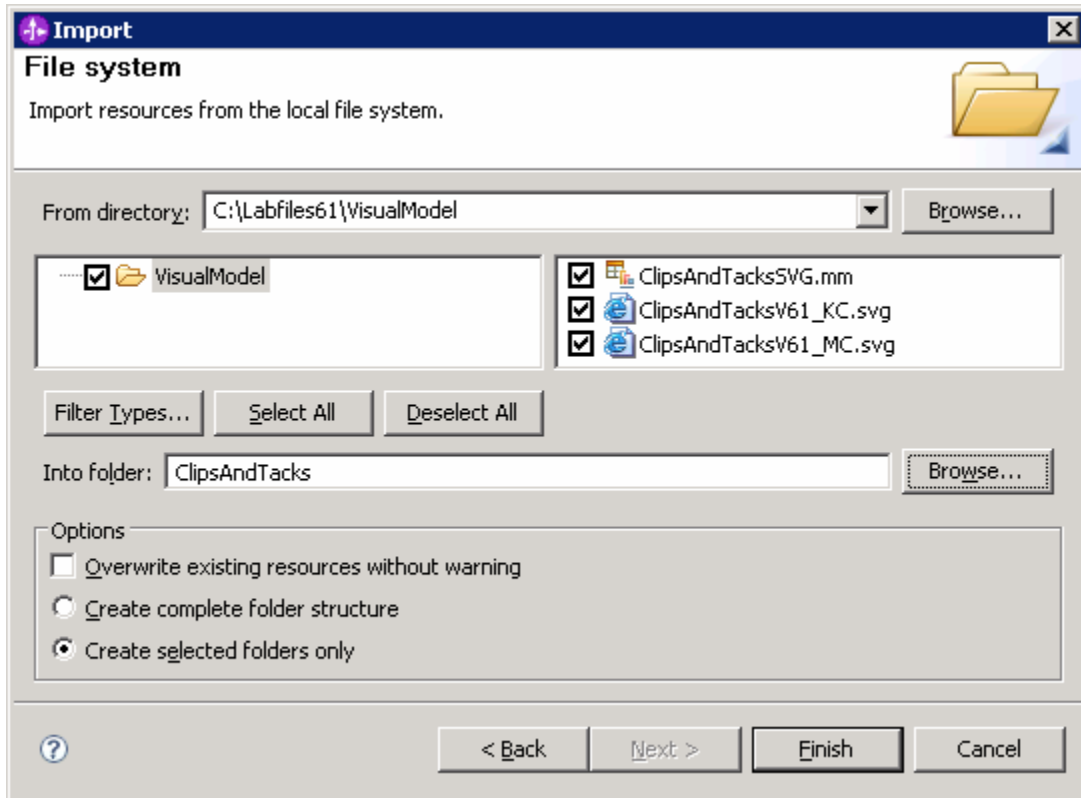
- ___ b. Select **General → File system** from the **Import** dialog and click **Next**
- ___ c. In the next panel, click the **Browse** button to locate the files, for example, **<LABFILES61>ClipsAndTacks**
- ___ d. Select **ActivityEvent.cbe**
- ___ e. Do not select the mm file in this folder
- ___ f. Select **DeclinedOrderEvent.cbe**
- ___ g. Select **LateAverageOrderShippedEvent.cbe**
- ___ h. Select **NewOrderEvent.cbe**
- ___ i. Click the **Browse** button and select **ClipsAndTacks** from the “Import Into Folder” dialog



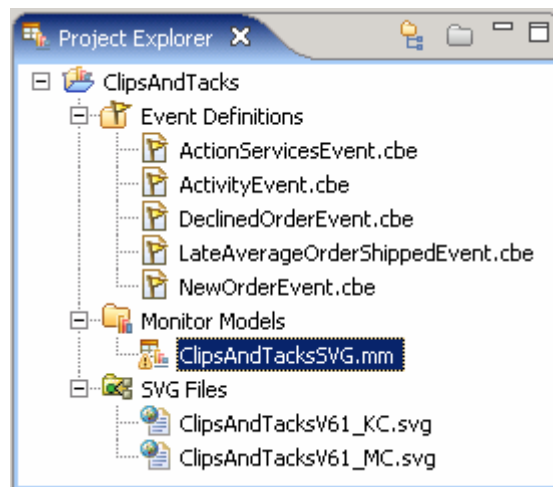
- ___ j. Click **Finish**

- ___ 4. Import the supplied **mm** and **svg** files in the visual model lab files
 - ___ 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 next panel, click the **Browse** button to locate the files, for example, **<LABFILES61>VisualModel**
 - ___ d. Select **ClipsAndTacksSVG.mm**

- ___ e. Select **ClipsAndTacksV61_KC.svg**
- ___ f. Select **ClipsAndTacksV61_MC.svg**
- ___ g. Click the **Browse** button and select **ClipsAndTacks** from the “Import Into Folder” dialog



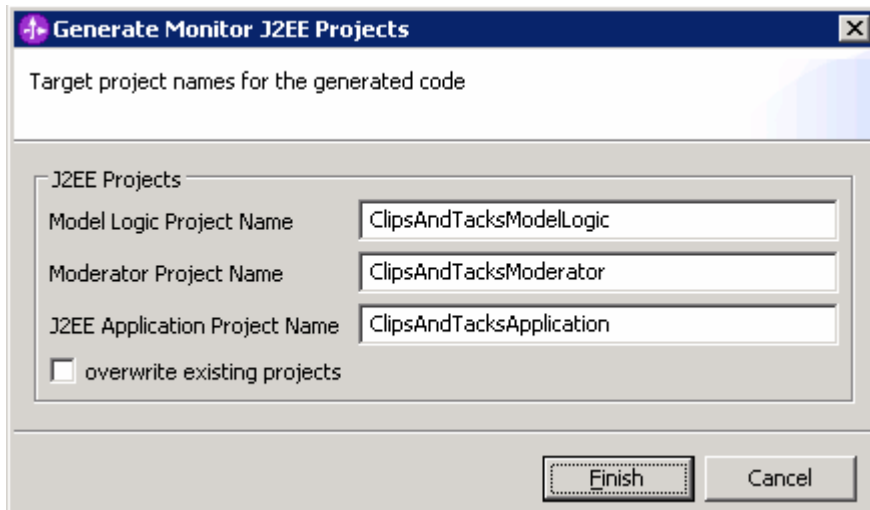
- ___ h. Click **Finish**
- ___ 5. Expand the project in the Project Explorer view, then expand the Event Definitions and you will see the new events listed. Expand Monitor Models and you will see the new ClipsAndTacks model listed. Expand the SVG files and you will see the SVG files listed.




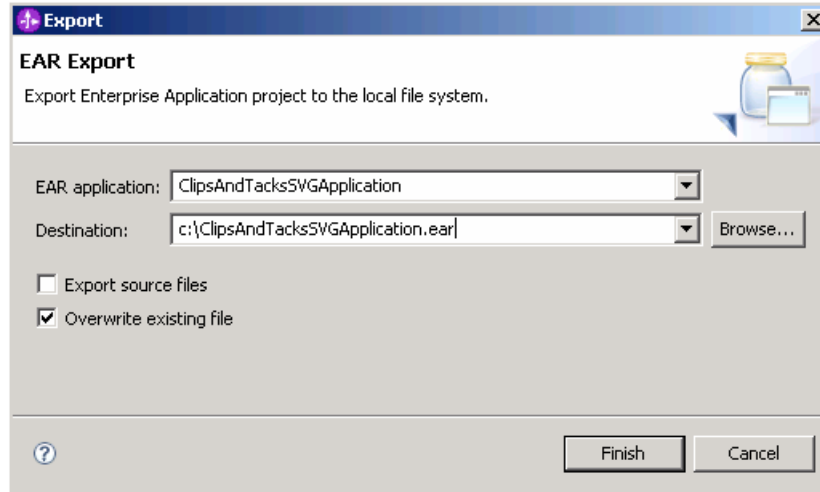
Part 2: Install the monitor model to the server

In this section you will export the monitor model enterprise application and deploy it to the monitor server. Follow the instructions below:

- ___ 1. In Project Explorer, expand **ClipsAndTacks** → **Monitor models** → **ClipsAndTacksSVG.mm**. Right click over **ClipsAndTacksSVG.mm** and then select **Generate Monitor J2EE Projects** from the pop-up menu
- ___ 2. If you have already generated the ClipsAndTacks model for another lab, then you might need to select 'overwrite existing projects'.

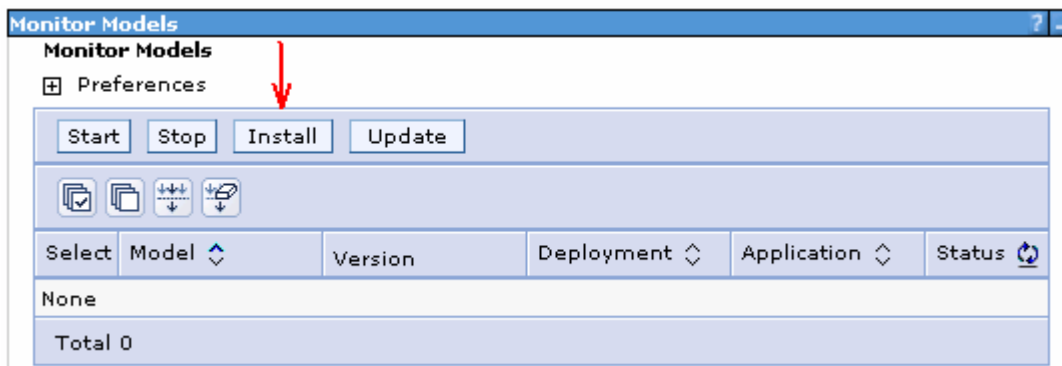


- ___ 3. Click **Finish**
- ___ 4. A progress dialog shows the status of the operation and it closes when the operation is complete. Check for errors in the Problems view. There might be warnings, but there should not be any errors.
- ___ 5. You need to prepare the Monitor Java EE application for deployment before exporting the enterprise application (EAR) file. Switch to the J2EE perspective (Window → Open Perspective → Other and select J2EE from the open perspective dialog)
- ___ 6. In the J2EE perspective, right click on '**ClipsAndTacksSVGApplication**' listed in the project explorer and select '**Prepare for Deployment**' ( Prepare for Deployment) from the pop-up menu
- ___ 7. Now right click again on the on '**ClipsAndTacksSVGApplication**' listed in the project explorer and select **Export** → **Ear file** from the pop-up menu
- ___ 8. In the 'EAR Export' dialog, enter the destination location



- ___ 9. Click **Finish**
- ___ 10. Now install the ClipsAndTacks monitor model enterprise application to the monitor server. Follow the instruction below:
 - ___ a. Launch the monitor server administrative console (URL: <http://monitorsrv.austin.ibm.com:9060/admin>), enter the user name and password credentials and click the log in button
 - ___ b. Expand '**Applications**' in the left pane and click on the '**Monitor Models**' link
 - ___ c. In the following 'Monitor Models' screen, click the 'Install' button

Note: If any other version of the ClipsAndTacks lab is already in the list of monitor models, then you should remove them. For example you may see ClipsAndTacksApplication listed. You can remove them using the Applications > Enterprise Applications menu option in the administrative console. Select the application then click Uninstall. After uninstalling the application, if you still see it listed in the monitor models list then you will also need to purge the monitor model. Return to the monitor models list, click on the link in the Model column for the application, then select Purge, and this should remove it from the monitor models list.



- ___ d. In the 'Preparing for the application installation' screen, select the radio button for 'Local File System' and click the **Browse** button for 'Full Path' to locate the monitor model enterprise application

Path to the new application

Local file system

Full path
TacksSVGApplication.ear

Remote file system

Full path

Context root
 Used only for standalone Web modules (.war files) and SIP modules (.sar files)

How do you want to install the application?

Prompt me only when additional information is required.

Show me all installation options and parameters.

- ___ e. Click **Next**
- ___ f. In the following screen, accept the defaults and click **Next**
- ___ g. In the following 'Map modules to servers' screen, ensure that the modules are mapped to server1 and click **Next**
- ___ h. In the following screen, review the application installation summary and click **Finish**
- ___ i. Ensure that the monitor model application is installed successfully as shown below:

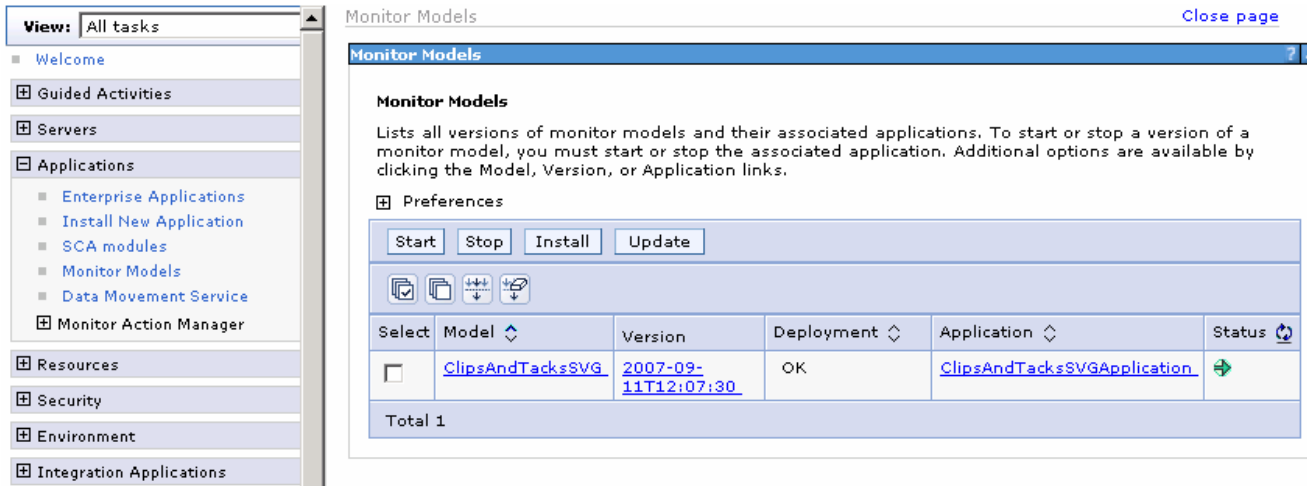
Application ClipsAndTacksSVGApplication installed successfully.

To start the application, first save changes to the master configuration.

Changes have been made to your local configuration. You can:

- [Save](#) directly to the master configuration.
- [Review](#) changes before saving or discarding.

- ___ j. Click the **Save** link to save to the master configuration
- ___ k. The monitor model application automatically starts once the configuration is saved. Ensure that the application has started successfully. Follow the instruction below:
 - 1) In the left pane of the administrative console, expand '**Applications**' and click on the '**Monitor Models**' link. The application should show green status indicating that it has started successfully



Note: If the model shows red (stopped) arrow, wait a moment and then refresh by clicking on the icon (↻) to the right of **Status** in the last column of the table. You should see green (started). If it does not show green, be patient and keep refreshing until it does show green.

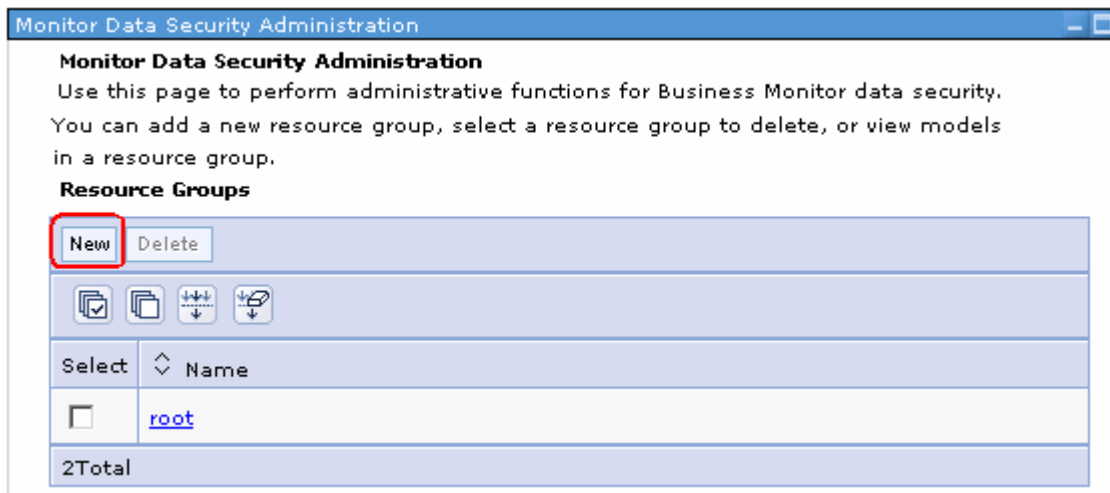
___ I. Check the server log to ensure there are no problems. You can check this in the console view

___ 11. Setup Monitor data security

___ a. In the left navigation pane. expand '**Security**' and click '**Monitor Data Security**' link

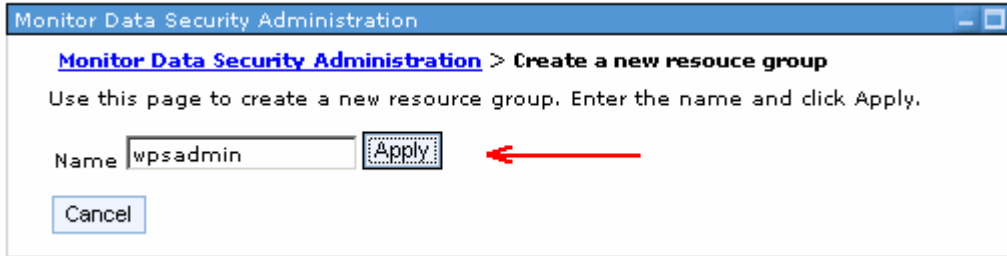


___ b. In the following '**Monitor Data Security Administration**' to the right, click the '**New**' button to add a new 'Resource Group'

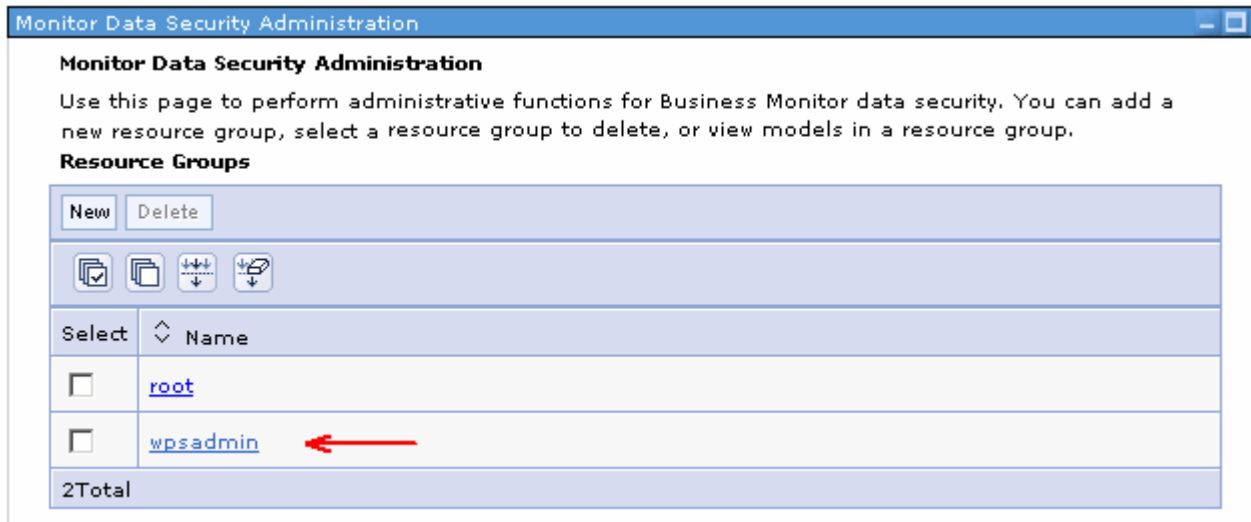


___ c. In the following screen, Enter the name for the 'New Resource Group'

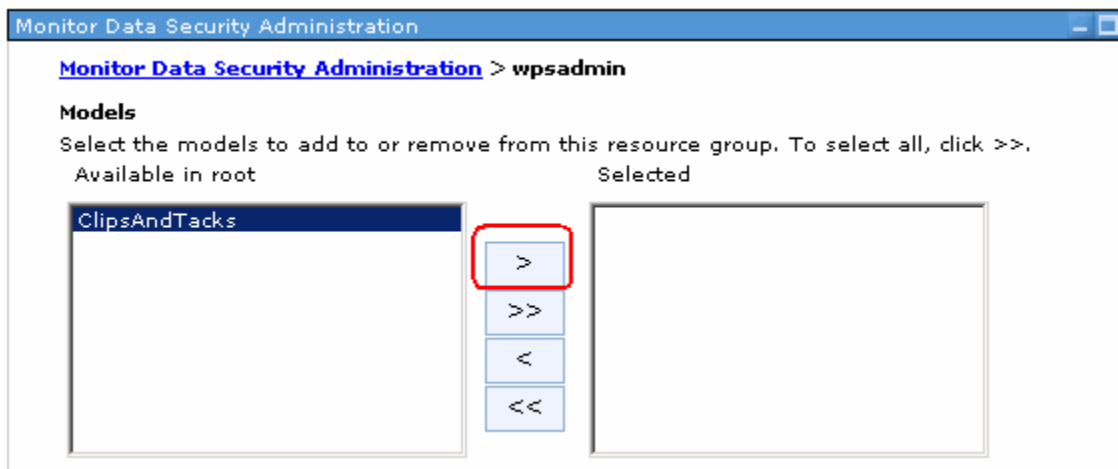
- Name : **wpsadmin** (An authorized user that is used to administer the portlet dashboard)



__ b. Click the '**Apply**' button. Ensure that the new resource group is successfully created as shown below:



__ c. Click the newly created resource group link (Example: ClipsGroup) to assign the 'ClipsAndTacks' model

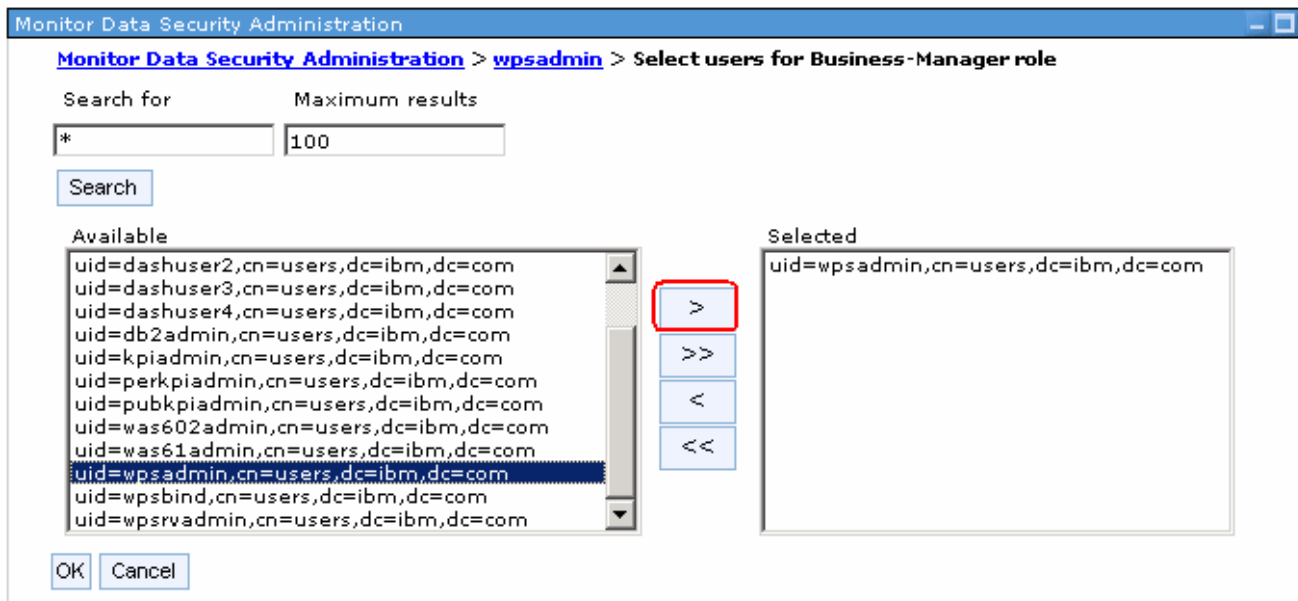


__ d. Select the '**Available**' ClipsAndTacks model and click the '>' button to select the model

- ___ e. While you are here in the **'Monitor Data Security Administration'** screen, scroll down to assign the roles

Users		Groups
Select	Name	
<input checked="" type="radio"/>	Business-Manager	
<input type="radio"/>	Personal-KPI-Administrator	
<input type="radio"/>	Public-KPI-Administrator	
<input type="radio"/>	KPI-Administrator	

- ___ f. Select the radio button for **'Business-Manager'**
- ___ g. Click the **'Users'** button. This action takes you to a screen where the available users can be searched and eventually assigned as business manager
- ___ h. In the following screen, accept '*' as the search string and click the **'Search'** button



- ___ i. Click the '>' button to move the available user to the selected text area and click **OK**
- ___ j. Repeat the above steps to add 'wpsadmin' user for roles **'Personal-KPI-Administrator'**, **'Public-KPI-Administrator'** and **'KPI-Administrator'**

Part 3: Create a new portlet-based dashboard

In this part of the lab, you will make copies of the dashboard portlets, create a new dashboard page, add views to the dashboard page and configure them. Launch the dashboard site and follow the instructions below to create a new Portlet-based dashboard and add the views to the dashboard canvas.

Prerequisite 1:-

If the default security is enabled on the monitor server profile, you can not access the model data on the portlet-based dashboard side. In order to access the model data you have to configure security for monitor server and portlet-based dashboards server with a federated repository.

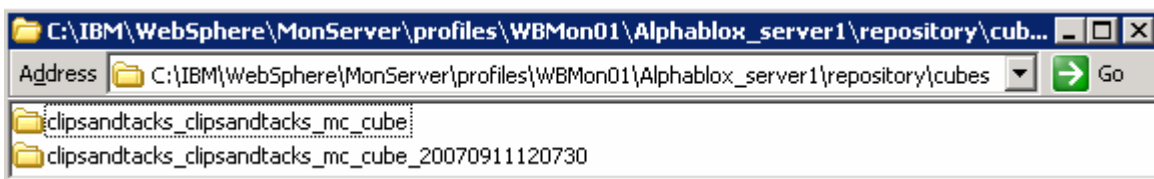
You must use a federated repository and configure '**Cross-Cell Single Sign-on**' between the monitor server profile and the portlet-based dashboards profile. Instructions for the same can be found in '**WBIMonitor61-EndtoEndSecurity(LDAP)**' document.

Prerequisite 2:-

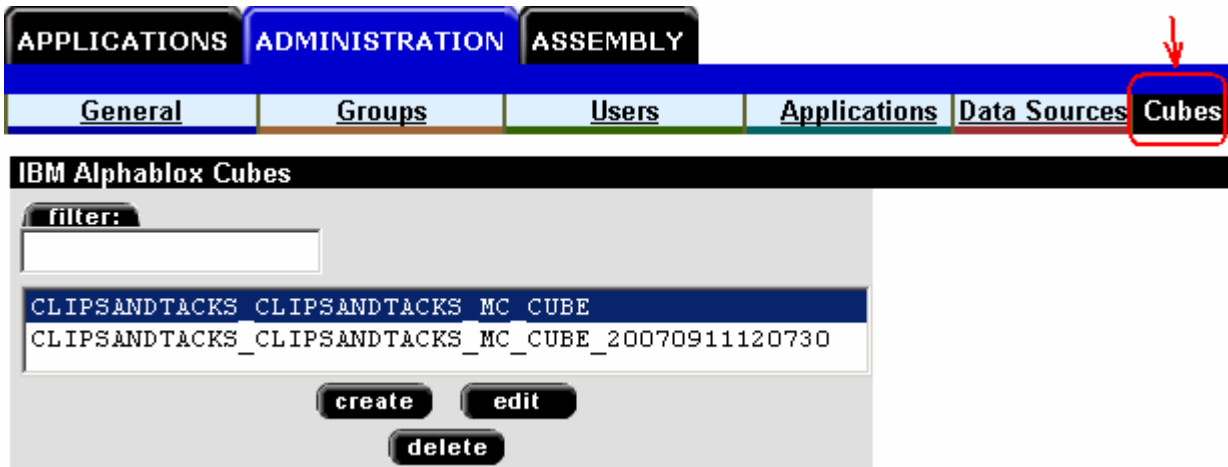
The Alphablox cubes can only be deployed to a single Alphablox server. If you are using dashboards both on Monitor Server and on WebSphere Portal, then you can only deploy to one of these Alphablox servers. To deploy to both, you will need to setup Alphablox clustering across the Monitor Server and WebSphere Portal Alphablox servers. In this case, you deploy the cubes to one of the servers, and the cubes will automatically be replicated to the other server. However, below you will find a simplified procedure which is not a 'best practice' for a production environment, but this technique may be useful in a test environment.

Copy the cubes directory from the Alphablox instance on the monitor server, after the model has been installed:

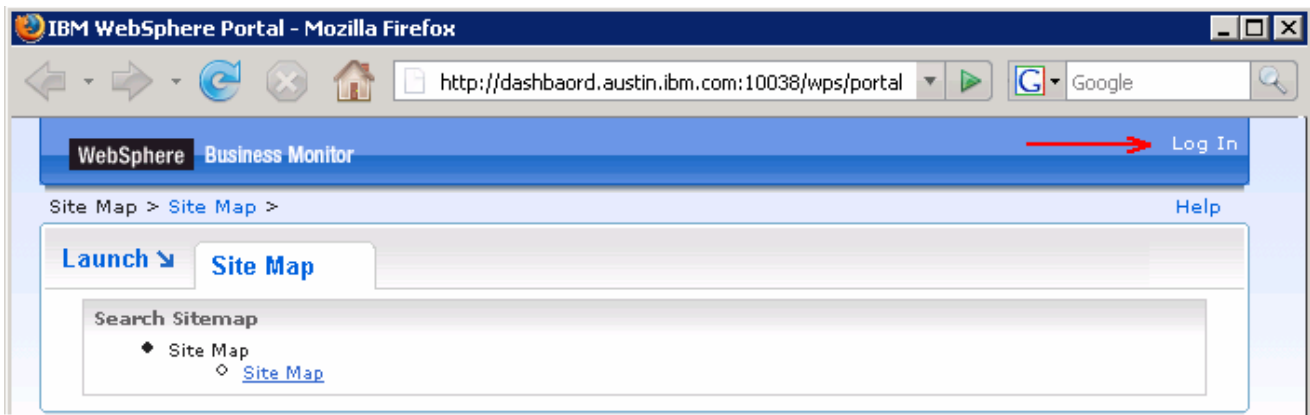
- Locate the **cubes** directory at **<WBMONITOR_HOME>\Alphablox_server1\repository** (Example: C:\IBM\WebSphere\MonServer\profiles\WBMon01\Alphablox_server1\repository) on the monitor server machine and copy it to **C:\IBM\WebSphere\profiles\wp_profile\Alphablox\repository** on the Portlet-based Dashboards machine. The contents of the **cubes** directory are as shown below:



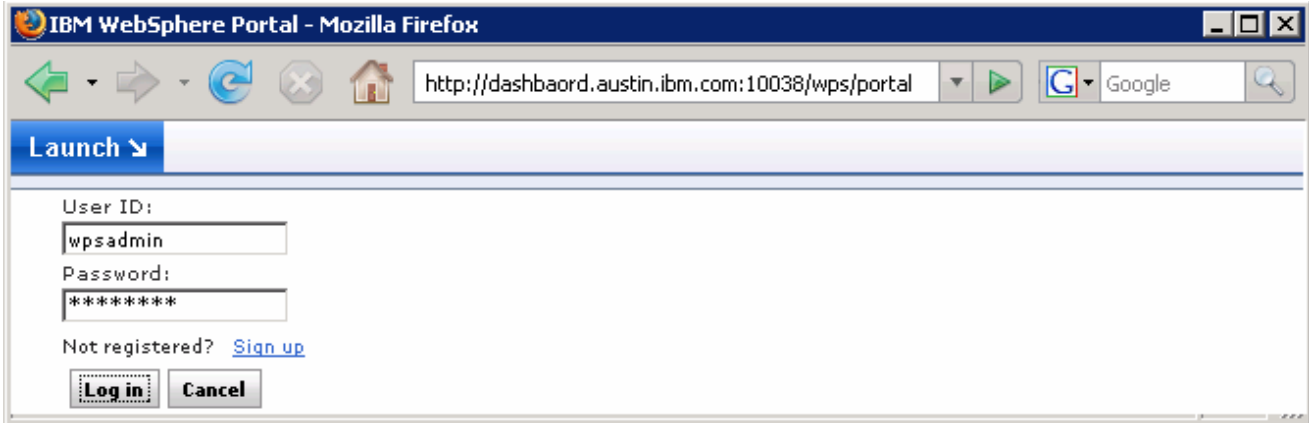
- Restart the **WebSphere_Portal** server
 - stopServer.bat WebSphere_Portal –username was602admin –password was602admin
 - startServer.bat WebSphere_Portal
- Launch the Alphablox administrative console (Example: <http://localhost:10038/AlphabloxAdmin>), enter the WebSphere Application Server username and password (was602admin/was602admin) and click login



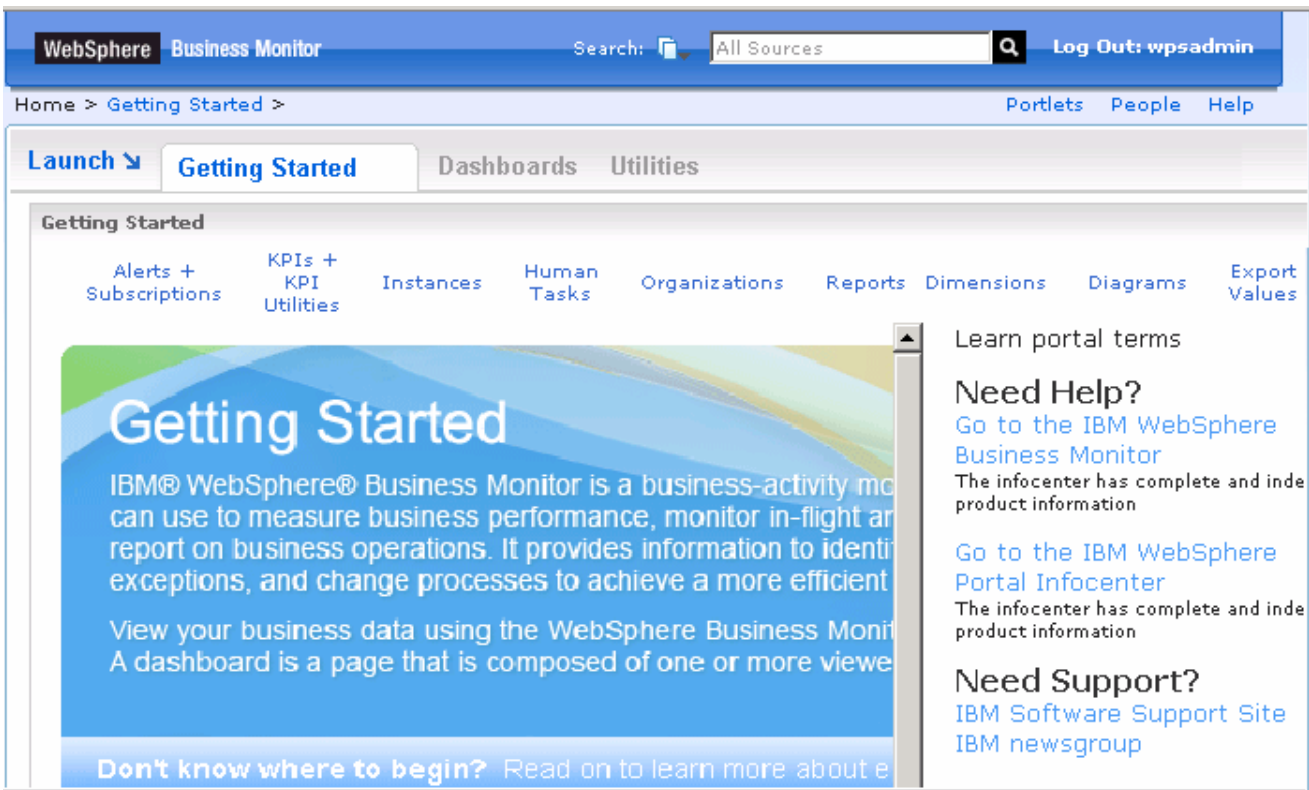
1. Launch the Portlet-based dashboard site using the URL, <http://<host name>:<HTTPport>/wps/portal>
Where <host name> is the fully qualified host name of the Portlet-based Dashboards machine;
<HTTPport> is the default HTTP port number of the portal server
Example: http://dashbaord.austin.ibm.com:10038/wps/portal
2. Click the 'Log in' link on the top right corner of the dashboard site



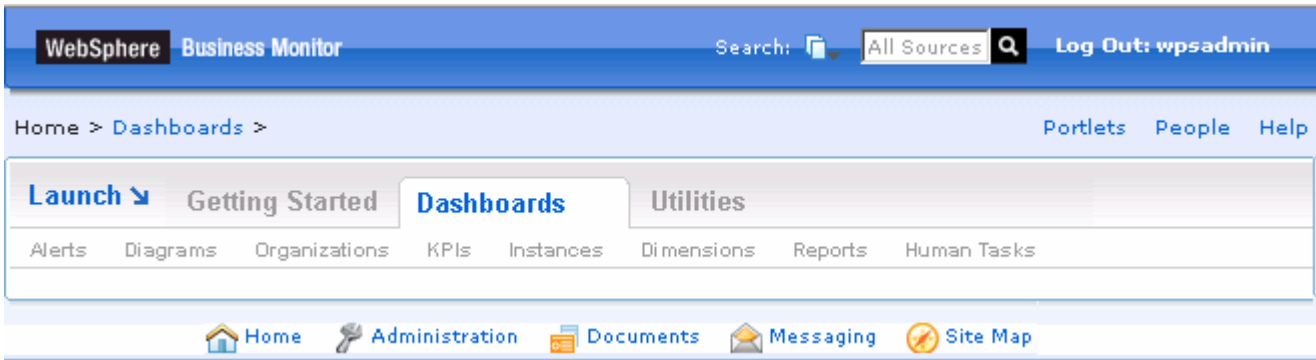
3. In the following, Portlet-based Dashboards login screen, enter the **User ID** and **Password**
 - User ID : **wpsadmin**
 - Password : **wpsadmin**



4. Click **Log in**. The Portlet-based Dashboards “**Getting Started**” page opens

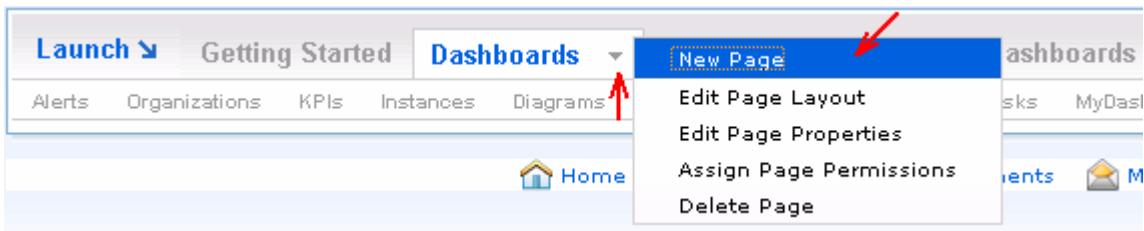


5. The dashboards are created for you with the available views. Select the **Dashboards** tab and review the available dashboard views as shown below:



___ 6. You can create a new dashboard by creating a new page under '**Dashboards**' tab, drag the dashboards portlets to the new page or an existing page

___ a. Select '**New Page**' from the page menu



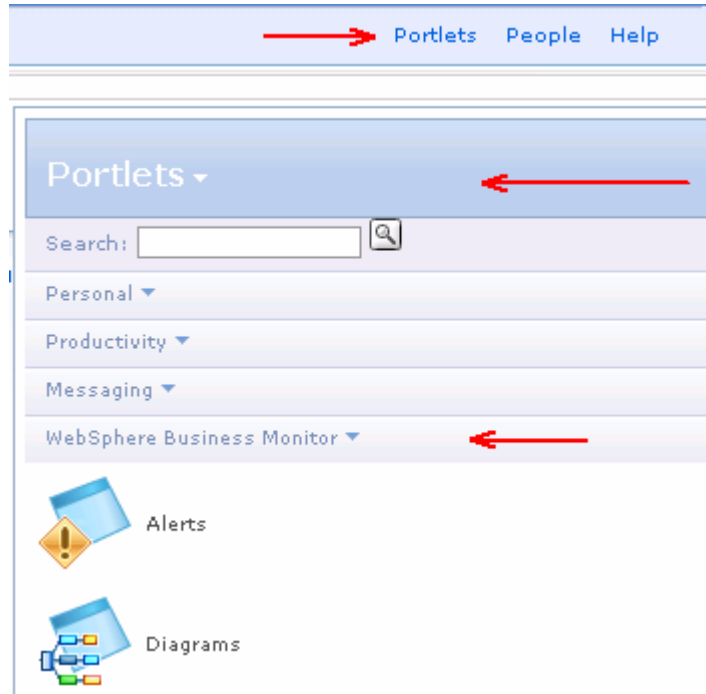
___ b. In the following page, enter the name of the page as '**NewDashboard**'

___ c. Click **OK**

___ d. In the following page, select the '**One Column**' layout and click '**Done**'. Do not add any portlets

___ e. Now that the new page is created. Click the '**NewDashboard**' link. This displays an empty page.

___ f. Click the '**Portlets**' link located on the top right corner. This action brings in a portlet tab from the right side of the browser.

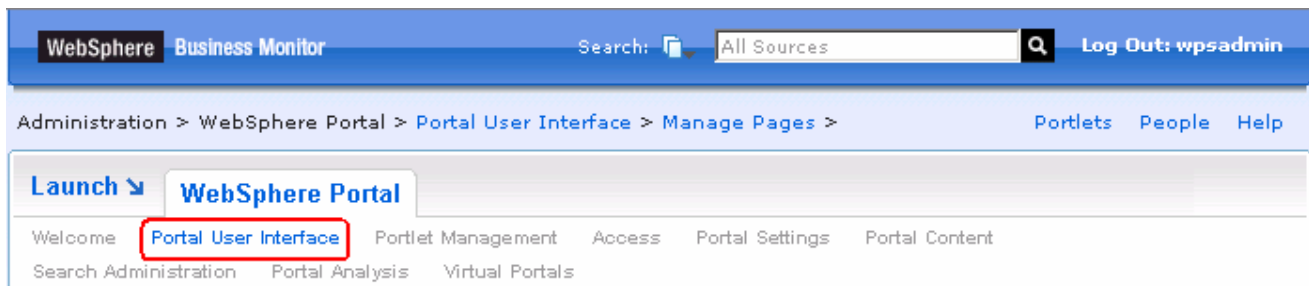



___ g. Now select the desired dashboard portlet for example, **Diagrams**, drag it over the **'NewDashboard'** page. Note that when you drop the Diagrams portlet, ensure that a yellow line is shown confirming that the portlet can be dropped on to the page.

- ___ 7. In this lab, you will create customized dashboards to suit the requirements of the ClipsAndTacks business model. Follow the instructions below to create a **'ClipsAndTacks Dashboards'**. In this process, you will create a new page under the portal home page (Context Root →Home)
- ___ 8. On the left corner of the dashboard site, click the **Launch** tab to view the main menu and select **'Administration'**. The WebSphere Portal administration site opens



___ 9. On the WebSphere Portal administration site, click on the **'Portal User Interface'** link



- ___ 10. In the following screen, click **'Manage Pages'** on the left navigation menu
- ___ 11. In the following **'Manage Pages'** screen to the right, click on **'Context root'** ( [Content Root](#)) link

My pages Add, Edit, Delete, and Reorder pages

Page 1 of 1

Title	Unique name	Status	
Content Root	wps.content.root	Active	

Page 1 of 1

___ 12. In the following screen, click on the 'Home' ([Home](#)) link

___ 13. In the following screen, click the 'New Page' button. The page properties page opens

Manage Pages

[Select Page](#) > [Content Root](#) > [Home](#) ←

Pages in Home Add, Edit, Delete, and Reorder pages

New Page New Label New URL

Title	Unique name
Welcome	ibm.portal.Home.Welcome
Getting Started	com.ibm.wbimonitor.GS
Dashboards	com.ibm.wbimonitor.Dashboards
Getting Started	ibm.portal.Getting Started

___ 14. In the following 'Page Properties' screen, enter 'ClipsAndTacks Dashboards' in 'Title' field and accept the defaults for the rest of the parameters

Page Properties

Title: ←

Theme:

Navigation type (theme policy):

Icon:

I want to make this page my private page

Page Properties

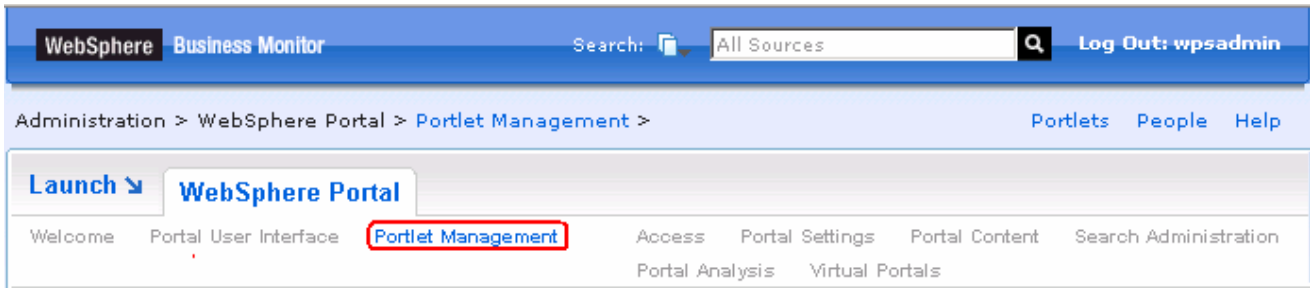
Type of Page

Page Cache Options

___ 15. Click **OK**

___ 16. Now make copies of the dashboard portlets. Follow the instructions below:

___ a. While you are in the WebSphere Portal administration site, click '**Portlet Management**' link

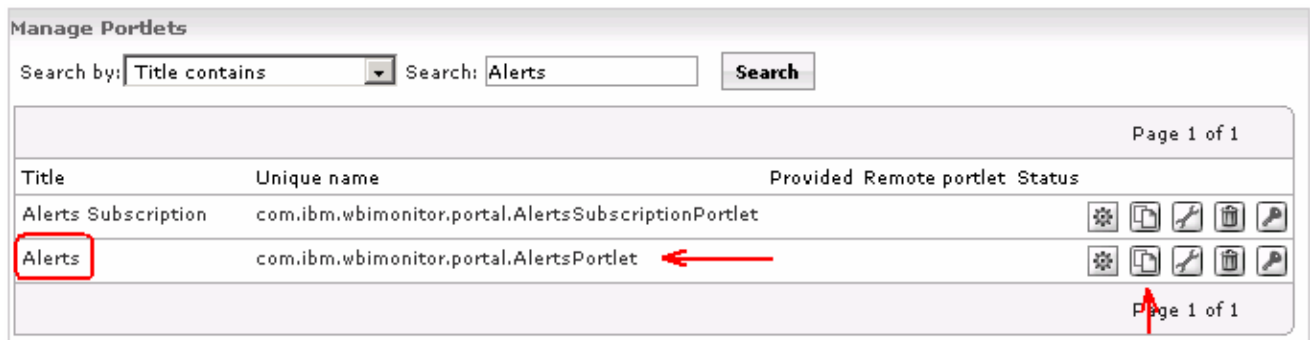


__ b. In the following screen, click '**Portlets**' on the left navigation menu

__ c. In the following '**Manage Portlets**' screen to the right, enter the search text as '**Alerts**' in the '**Search**' field and select '**Title Contains**' from the "**Search By**" drop down list as shown below:



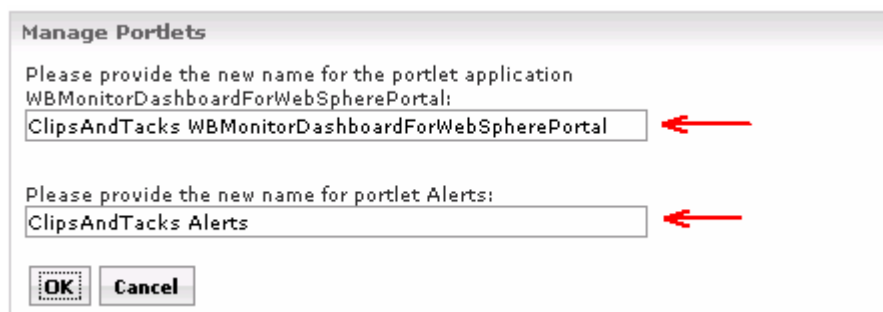
__ d. Click the '**Search**' button. Two portlets with title containing 'Alerts' are listed as shown below. You are interested in the 'Alerts' portlet only at this time.



__ e. Click the '**Copy portlet**' icon (📄) on the right as shown above to make a new copy of the 'Alerts' portlet

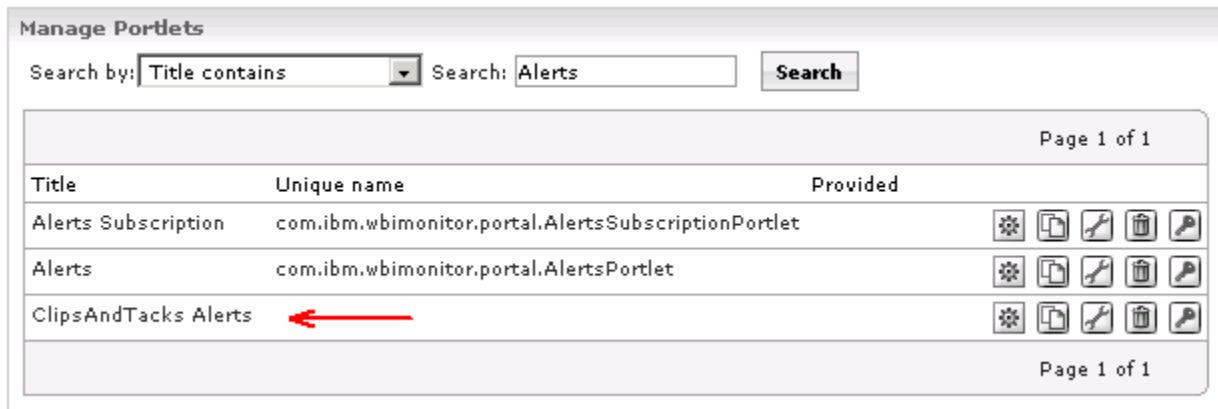
__ f. In the following '**copy portlet**' screen, modify the names for the portlet application and the 'Alert' portlets as shown below:

- Portlet Application name : **ClipsAndTacks WBMonitorDashboardForWebSpherePortal**
- Alerts portlet name : **ClipsAndTacks Alerts**



__ g. Click **OK**

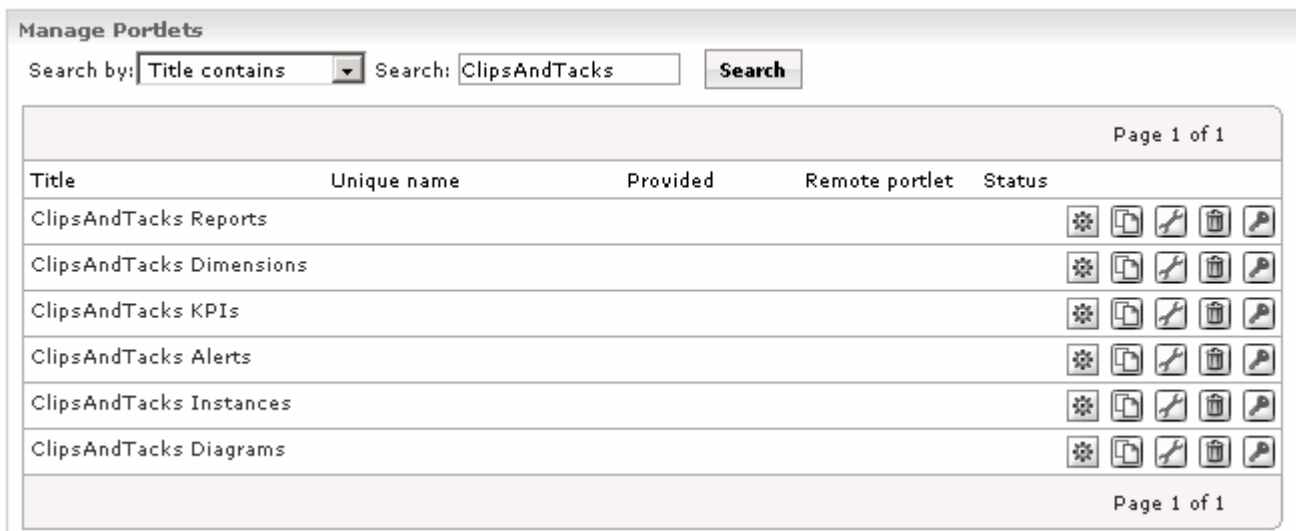
__ h. You should see the new copy of the 'Alerts' portlet listed as shown below:



__ i. The following are the remaining dashboard portlets for which you are going make copies. Repeat the copy portlet task for the remaining dashboard portlets

- KPIs
- Instances
- Diagrams
- Dimensions (Alphablox view)
- Reports (Alphablox view)

__ j. Once the copy dashboard portlets task is complete, you will see the following new copies listed when searched with the text '**ClipsAndTacks**' as shown below:

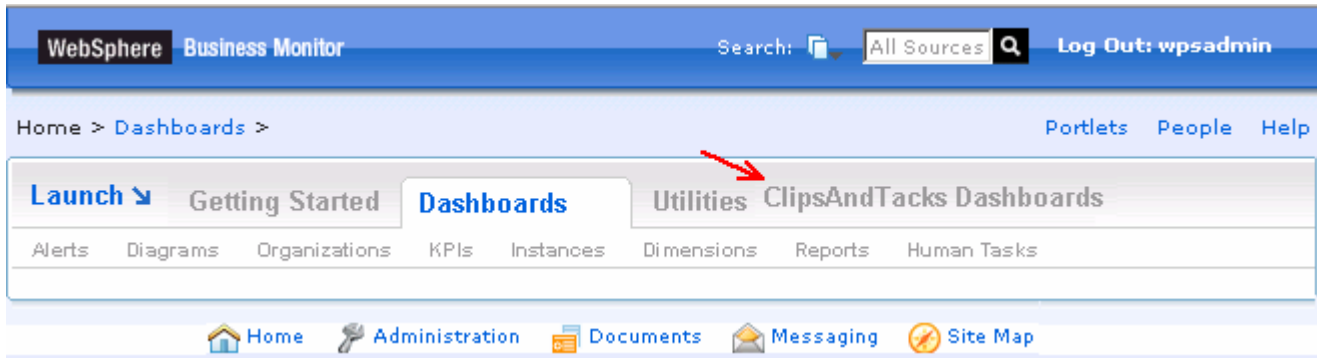


__ k. The copy dashboard portlets task is complete

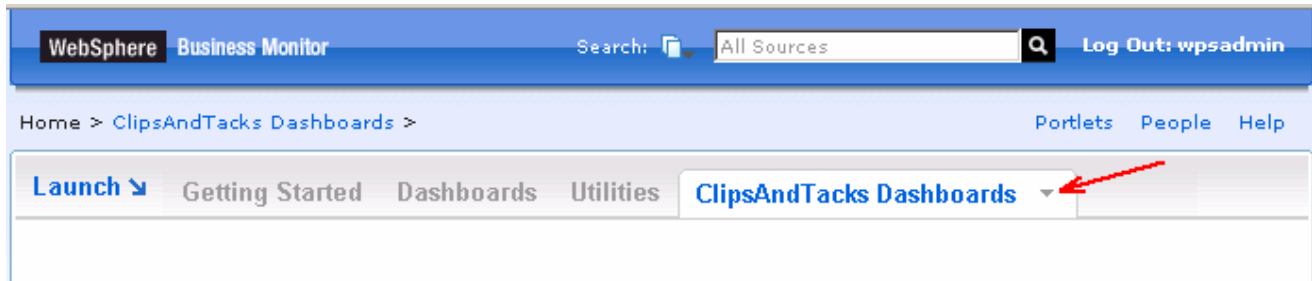
____ 17. On the left corner of the dashboard site, click the **Launch** tab to view the main menu and select '**Home**'



___ 18. The Portal home site opens and you can see the new '**ClipsAndTacks Dashboards**' tab you created

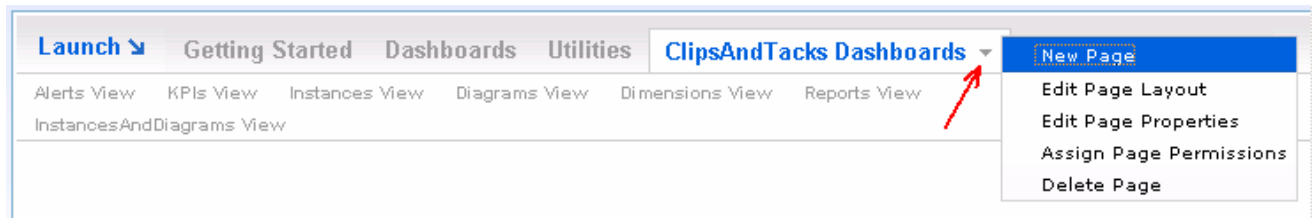


___ 19. Now select the '**ClipsAndTacks Dashboards**' tab and hover the mouse icon over the right corner of the tab and click on the icon (▼) that appears to view the 'Page Menu' as shown below:

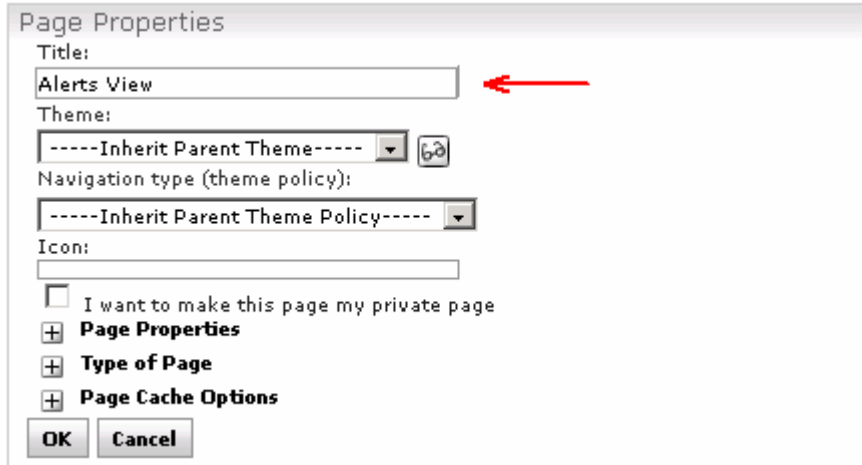


___ 20. Now create pages for '**ClipsAndTacks Dashboards**'.

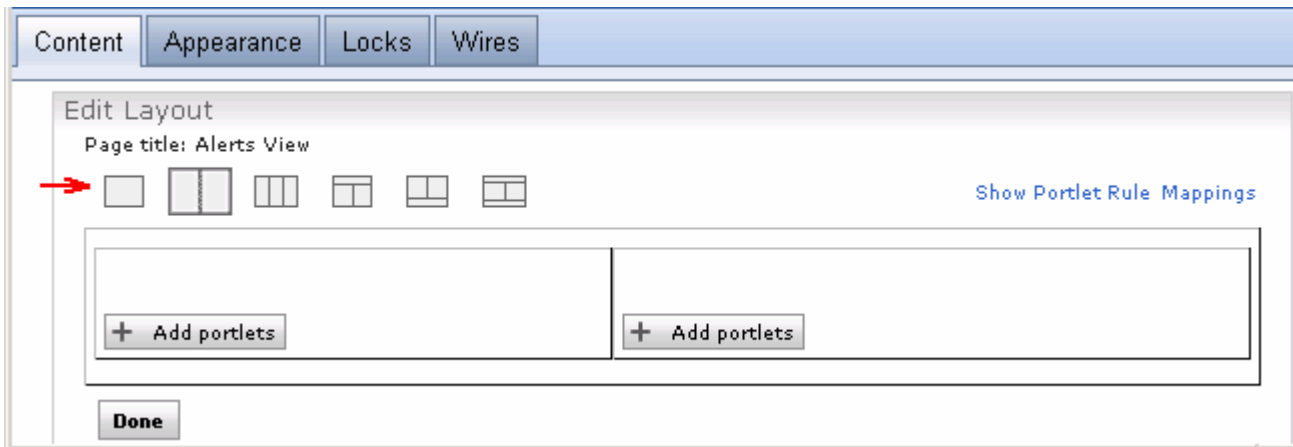
___ 21. Select '**New Page**' from the page menu



___ 22. In the following 'Page Properties' screen, enter '**Alerts View**' in the '**Title**' field and accept the defaults for the rest of the parameters

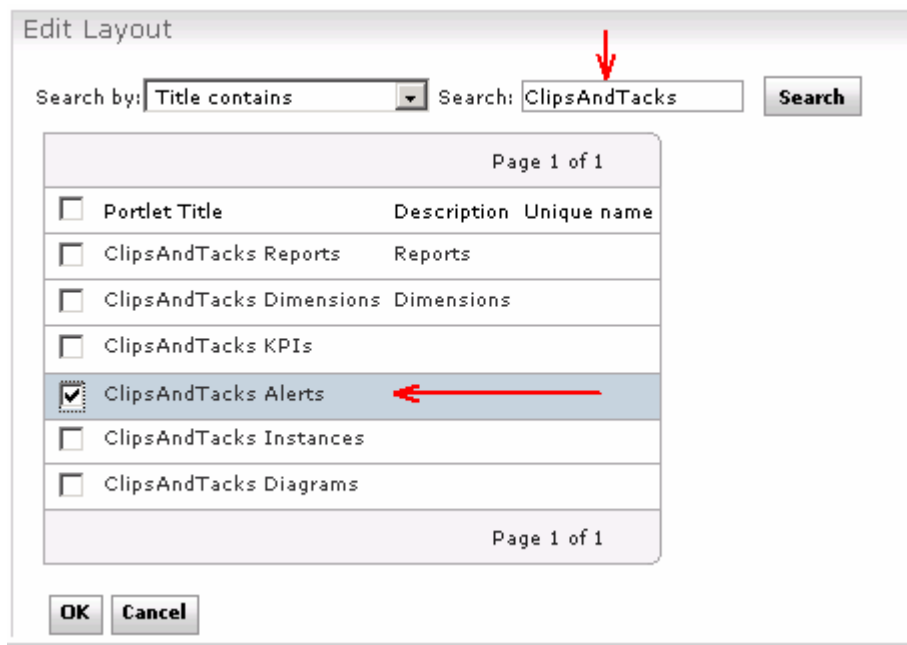


___ 23. Click **OK**. The **'Edit Layout'** page opens



___ 24. In the **'Edit Layout'** screen, ensure the **'Content'** tab is selected and follow instructions below:

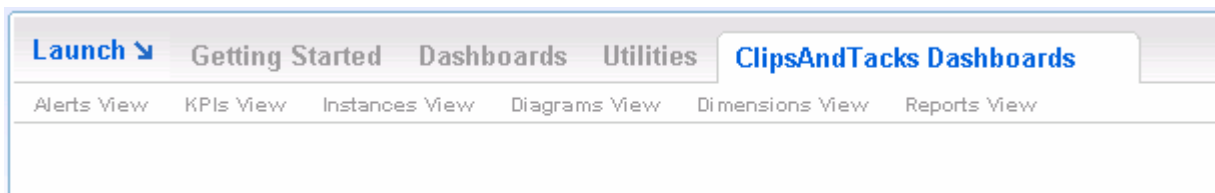
- ___ a. Click the one column layout icon () to select the **'One Column'** layout. Click **OK** on the message dialog
- ___ b. Now click the **'Add portlets'** button to add the **'ClipsAndTacks Alerts View'** portlet
- ___ c. In the following screen, enter the search text as **'ClipsAndTacks'** in the **'Search'** field and select **'Title Contains'** from the **"Search By"** drop down list as shown below:
- ___ d. Click the **'Search'** button. All the **'ClipsAndTacks'** dashboard portlets are listed as shown below:



- ___ e. Select the check box for '**ClipsAndTacks Alerts**' and click the **OK** button
- ___ f. Click the '**Done**' button on the '**Edit Layout**' page. You will see the 'Alerts' portlet added to the new page

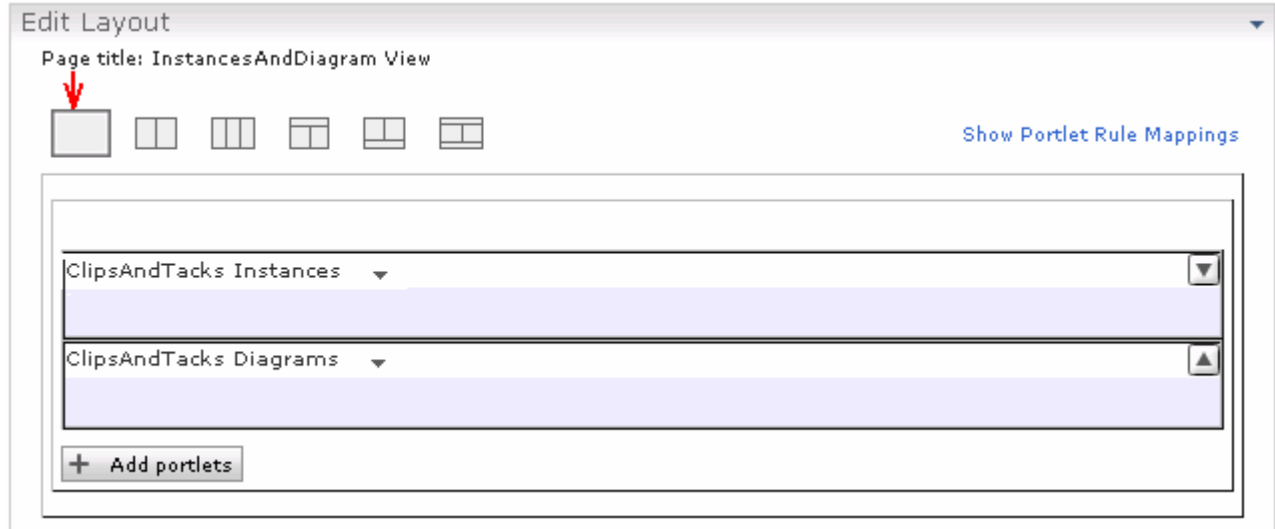
___ 25. Repeat the steps to create the pages and add portlets for the following views:

- KPIs View
- Instances View
- Diagrams View
- Dimensions View
- Reports View

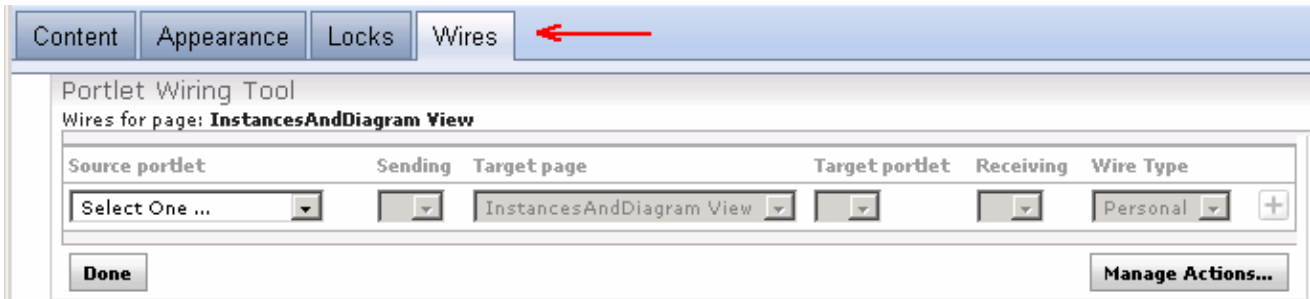


___ 26. Complete the following instructions to create the 'InstancesAndDiagram View' page, add the Instances and Diagram portlets and eventually configure wires among them:

- ___ a. Repeat the above steps to create a new page named '**InstancesAndDiagram View**'
- ___ b. Click the '**Add portlets**' button to add the 'ClipsAndTacks Instances' portlet
- ___ c. Now click the '**Add portlets**' button again to add the ClipsAndTacks Diagrams' portlet
- ___ d. You will see the following 'Edit Layout' screen:

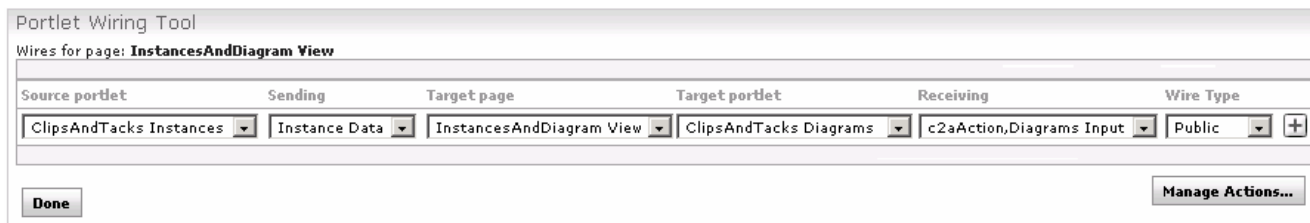



__ e. Now, wire the Instances and Diagram portlets using the 'Portlet wiring tool'. To achieve this, select the **'Wires'** tab at this top of 'Edit Layout' page



__ f. Select the following parameters in their respective fields to configure the wire:

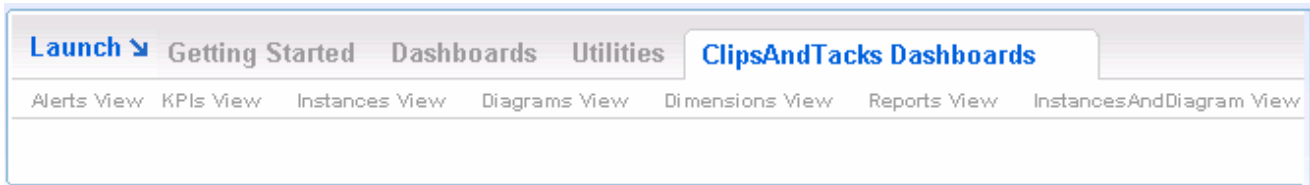
- Source portlet : **ClipsAndTacks Instances**
- Sending : **Instances Data**
- Target page : **InstancesAndDiagram View**
- Target portlet : **ClipsAndTacks Diagram**
- Receiving : **c2aAction,Diagram Input**
- Wire Type : **Public**



- Click the '+' icon () to add the wire

___ g. Click the **'Done'** button

___ 27. The new 'ClipsAndTacks Dashboards' you created will look like the picture shown below:



___ 28. The following table describes the portlet-based dashboards and the icons used to represent them:

Dashboard Views	Description	Icon
KPIs	The KPIs view displays details of modeled Key Performance Indicators (KPIs) such as KPI value relative to the defined ranges and the target, if applicable, and the status.	
Instances	The Instances view displays the available monitoring context in either individual instances or user-defined groups of context instances.	
Diagrams	The diagrams view lets you view a process diagram associated with a particular monitoring context or KPI context. In addition, when the diagram is in the 'wired' mode, users can view detailed annotated diagrams associated with process instances.	
Alerts	The Alerts view displays the subscribes alerts that notify users of defined situations occurring at run time	
Human Tasks	The Human Tasks view displays all available human tasks and lets you perform actions on them. Supported for WebSphere Process Server only.	
ABX Dashboard Views	Description	Icon
Reports	The Reports view displays performance reports relative to a time axis. Such reports typically contain tables and graphs with textual descriptions of the analysis.	
Dimensions	The Dimensions view provides a multidimensional view of business performance data. Users can drill down and up on any business dimension to view details of its performance.	

___ 29. The Monitor V6.1 Dashboard provides functionality for the business user. The following utilities are available:

___ a. **KPI explorer:** The KPI Explorer lets you define, copy, and update KPIs directly from the Dashboard interface.

___ b. **Export values:** The Export Values lets you export data resulting from a specific monitor model and duration to an XML file that can be imported by WebSphere Business Modeler.

- ___ c. **Alerts subscription:** The Alerts Subscription utility enables the business user to subscribe and unsubscribe to different alerts defined in the model. Along with subscribing to an alert, you can choose the type of notification channel associated with each alert (Dashboard alert, e-mail, pager, telephone).

Part 4: Run events to exercise the model

Rather than installing a Java EE application to 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 the **BatchCBEWriter61.bat** script to point the **WAS61_HOME** variable to the monitor server home, for example **'set WAS61_HOME= C:\IBM\WebSphere\MonServer'**
- ___ 2. Update the **config.properties** file, with the **serverName** (host name) and **portNumber** (ORB bootstrap port) of the monitor server. You can find the port number by browsing the server log, with a search text 'bootstrap port'. Here is an example of the config.properties settings:
 - ___ a. connect.serverName = **monitorsrv.austin.ibm.com**
 - ___ b. connect.portNumber = **2809**
- ___ 3. Open a command window, then change directory to the folder containing **BatchCBEWriter**, for example, type following command:
 - ___ a. **cd <LABFILES61>\ClipsAndTacks\BatchCBEWriter**
- ___ 4. Run the following command to load the Common base Events to the server
 - ___ a. **batchcbewriter61.bat -Dsource.filename="C:/labfiles61/clipsandtacks/cbe/allevnts.xml"**

```

C:\WINDOWS\system32\cmd.exe
C:\Labfiles61\BatchCBEWriter>batchcbewriter61 -Dsource.filename="c:/labfiles61/c
be/allevnts.xml"
Getting CBEs.
Getting Emitter.
Removing GlobalInstanceIds.
Setting missing values.
Changing Instance Ids.
Updating timestamps.
Validating CBEs.
Sending CBEs.
START=15:39:25.609
Sending cbe[10].
Sending cbe[20].
Sending cbe[30].
Sending cbe[40].
Sending cbe[50].
Sending cbe[60].
END=15:39:29.140
TotalTime=3531 milliseconds.
CBEs/second=19.25800056641178
  
```

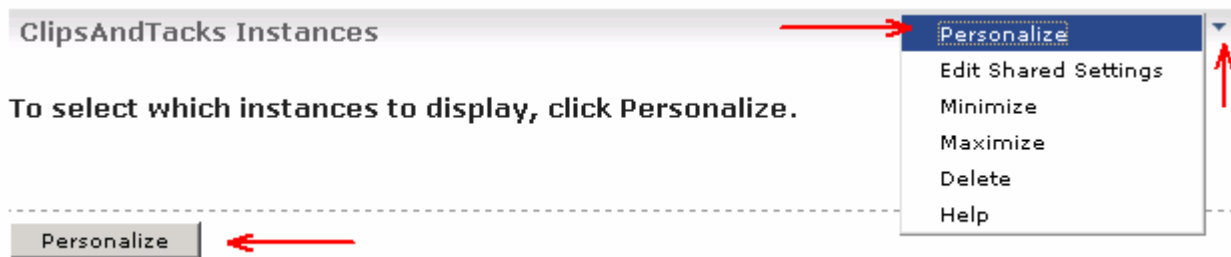
Part 5: Configuring the portlet-based dashboards

In this section you will configure the Instances, Diagram, KPI and the Alert views. You will also configure Instances and Diagram views together on a one portal page, wired to communicate and share instance data.

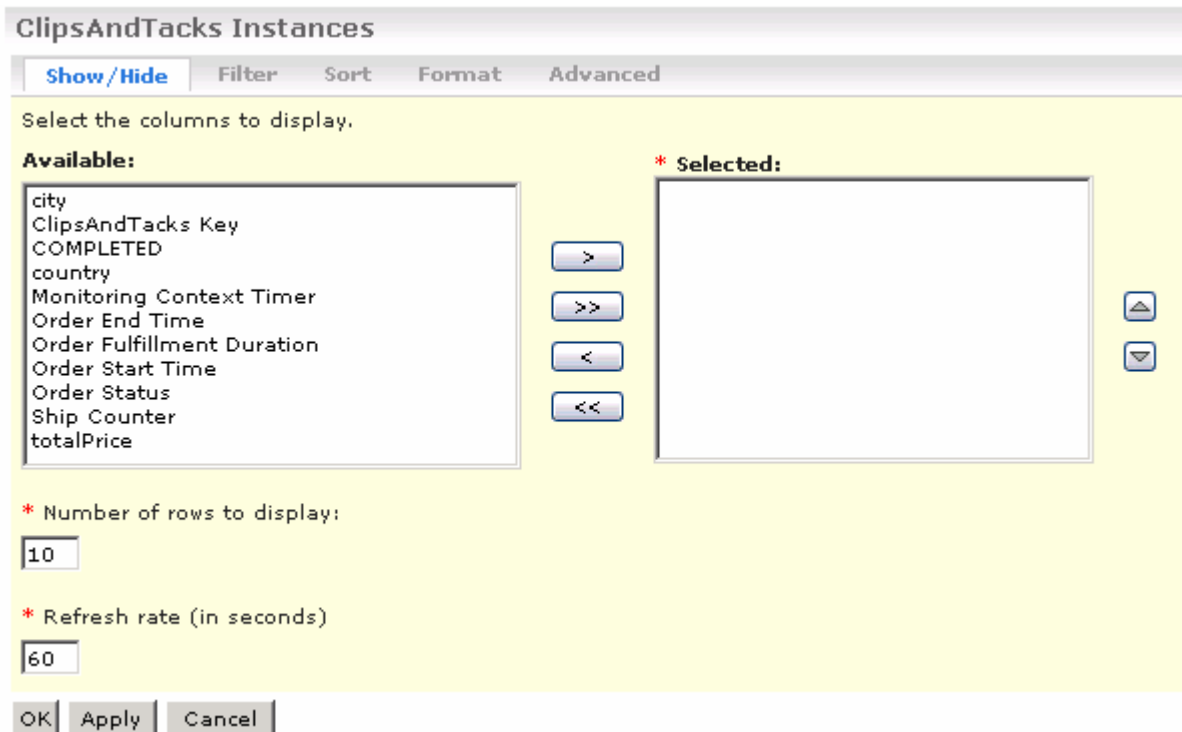
- ___ 1. Launch the Dashboard site, log in using the appropriate credentials (wpsadmin/wpsadmin) and select the 'ClipsAndTacks Dashboard' tab

Working with the Instances view:

- ___ 2. Select the **Instances View** tab. This action displays the 'Instances view'



- ___ a. Click the '**Personalize**' button or hover the mouse over the right corner of the portlet to select '**Personalize**' from the 'Portlet menu'.



- ___ b. Click '>>' to copy all the metrics from the available list to the selected list. You should see a list of monitoring context instances for the events that you just processed.

ClipsAndTacks Instances

Show/Hide Filter Sort Format Advanced

Select the columns to display.

Available:

*** Selected:**

city
 ClipsAndTacks Key
 COMPLETED
 country
 Monitoring Context Timer
 Order End Time
 Order Fulfillment Duration
 Order Start Time
 Order Status
 Ship Counter
 totalPrice

> >> < <<

* Number of rows to display:

* Refresh rate (in seconds):

OK Apply Cancel

___ c. Click the **OK** button to save the configuration

ClipsAndTacks Instances

Model: ClipsAndTacks Version: All Versions Monitoring Context: ClipsAndTacks MC

Search for: Reset

city	ClipsAndTacks Key	COMPLETED	country	Monitoring Context Timer	Order End Time	Order Fulfillment Duration	Order Start Time	Order Status	Ship Counter	totalPrice
Mexico City	o18		Mexico	43 s		0 s	August 24, 2006 4:01:22 AM	New	0	950
Mexico City	o8		Mexico	43 s		0 s	August 22, 2006 4:01:22 AM	New	0	450
Mexico City	o13		Mexico	43 s		0 s	August 23, 2006 4:01:22 AM	New	0	700
Mexico City	o3		Mexico	43 s		0 s	August 7, 2006 4:01:22 AM	New	0	200
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
Raleigh	o11	★	USA	0 s	August 29, 2006 2:20:05 AM	6 d, 0 h, 0 m, 0 s	August 23, 2006 2:20:05 AM	Shipped	1	600
Raleigh	o4		USA	43 s		0 s	August 10, 2006 5:01:34 AM	New	0	250
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
Raleigh	o14		USA	43 s		0 s	August 23, 2006 5:01:34 AM	New	0	750
Raleigh	o9		USA	43 s		0 s	August 22, 2006 5:01:34 AM	New	0	500

Page 1 of 2 Go to page: Results 1 to 10 of 20

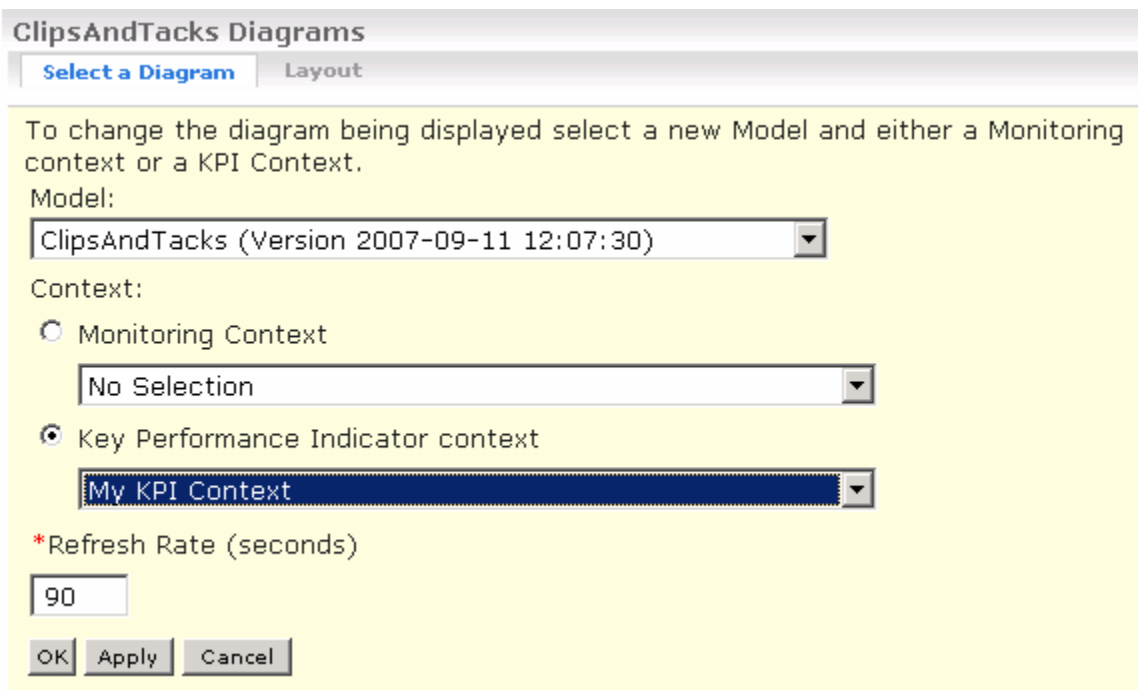
Personalize

Working with the Diagrams view

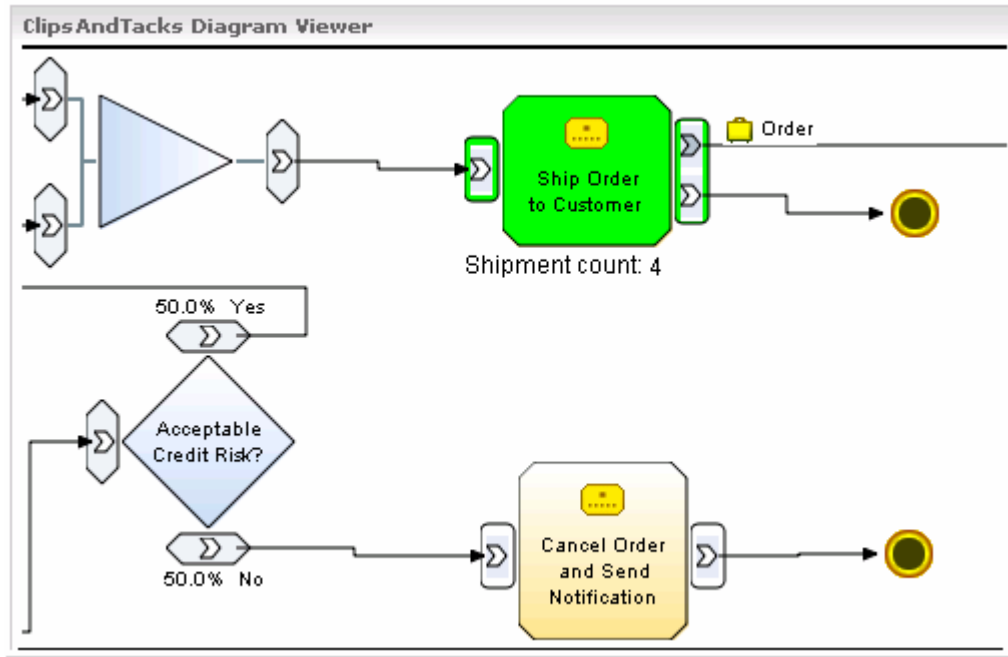
___ 3. Select the **Diagrams View** tab on the left pane. This action displays the 'Diagrams view'.



- ___ a. Click the '**Personalize**' button. 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 **Model** you want to view from the drop down list
 - Select the radio button next to “**KPI Context**”
 - Select '**My KPI Context**' from the drop down list

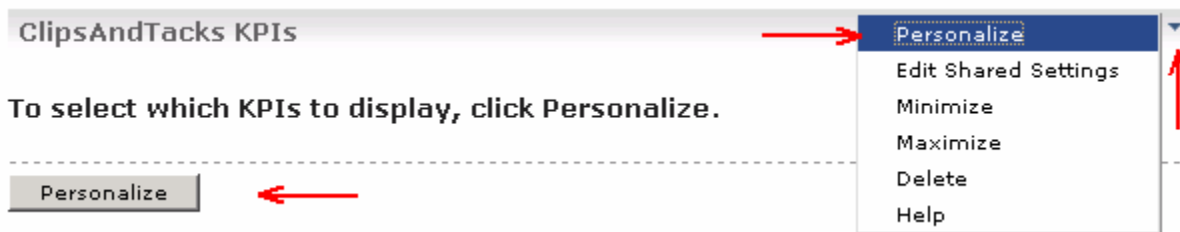


- ___ b. Click **OK**. You should see the diagram displayed in the view. Scroll to the right and you see the ship task is marked with **green** color and the total shipment count as 4.



Working with the KPIs view

___ 4. Select the **KPIs View** tab on the left pane. This action displays the 'KPIs view'



To select which KPIs to display, click **Personalize**.

___ a. Click '**Personalize**' button. This action lists the available monitoring models for configuration

___ b. Click the (+) icon to expand the ClipsAndTacks model's available KPI metrics



___ c. Select the check boxes next to the KPIs you want to monitor and click **OK**

___ d. The KPIs are vertically displayed in the default table layout mode as shown below:

ClipsAndTacks KPIs				
KPI Name	Status	Value	Target	Value in Range
Average Order Fulfillment KPI August 2006		3 d, 18 h, 0 m, 0 s	3 d, 0 h, 0 m, 0 s	
Average Order Price KPI (Dollars)		575	300	
Declined Order KPI		4	3	
Order Count KPI		20		
Percent of Orders Approved KPI		20	90	
Ship Count KPI		4		

Personalize

___ e. To view the KPIs in a different layout, click the “Personalize” button again, select the **'Layout'** tab on the top of the KPI view. Follow the instruction below to configure to display the KPIs vertically in a **Table View** layout:

- Select a display mode : **Half Gauge**
- Select a layout : **Horizontal**
- Size : **Medium**

ClipsAndTacks KPIs

Select KPIs **Layout**

Select a display mode:

Select a layout:

Columns:

Select a size for visualization elements:

* Refresh rate (in seconds):

___ f. Click the **OK** button



Working with the Alerts View

___ 5. Select the **Alerts View** tab on the left pane. This action displays the 'Alerts view' to the right pane

Note: The **Action Manager** must be configured and running in order to subscribe to the alerts for use by the **Alerts** view. Refer to the **ClipsAndTacks** lab to see how to configure the Action Manager.

ClipsAndTacks Alerts

Page 1 of 0 Results 1 to 0 of 0

[Personalize](#) ←

___ a. Click **Personalize View** link. This action lists the subscribed alerts marked as **Read** or **Unread**

Note: If the alerts are not listed, the reason might be that either the alerts are not subscribed to, or there are no events at all. To subscribe to the alerts, select the **Alerts Subscription** tab and select the check boxes next to the alerts you want to subscribe under the **Dashboard Alert** category. Then click **Apply**.

___ b. To forward the alerts to another user, select the check boxes next to an alert and click the **Forward Alert** button. This action displays a text field where you can enter the user ID of the user you want to transfer the alerts.

___ c. To Change the color of the alert message display, click the **Personalize View** button and change color of the read and unread alerts

Working with Instances and Diagram View in a cooperative mode

___ 6. Select the **InstancesAndDiagram View** tab on the left pane. This action displays the 'Instances' and 'Diagram' views wired to cooperate with each other

ClipsAndTacks Instances

To select which instances to display, click **Personalize**.

Personalize ←

ClipsAndTacks Diagrams

To select which diagrams to display, click **Personalize**.

Personalize ←

- ___ a. Click the '**Personalize**' button for the Instances view
- ___ b. Click '>>' to copy all the metrics from the available list to the selected list. You should see a list of monitoring context instances for the events that you just processed.
- ___ c. Click the **OK** button to save the configuration

Diagram	city	ClipsAndTacks Key	COMPLETED	country	Monitoring Context Timer	Order End Time	Order Fulfillment Duration	Order Start Time	Order Status	Ship Counter	totalPrice
	Mexico City	o18		Mexico	27 m, 7 s		0 s	August 24, 2006 4:01:22 AM	New	0	950
	Mexico City	o8		Mexico	27 m, 7 s		0 s	August 22, 2006 4:01:22 AM	New	0	450
	Mexico City	o13		Mexico	27 m, 7 s		0 s	August 23, 2006 4:01:22 AM	New	0	700
	Mexico City	o3		Mexico	27 m, 7 s		0 s	August 7, 2006 4:01:22 AM	New	0	200
	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
	Raleigh	o11	★	USA	0 s	August 29, 2006 2:20:05 AM	6 d, 0 h, 0 m, 0 s	August 23, 2006 2:20:05 AM	Shipped	1	600
	Raleigh	o4		USA	27 m, 7 s		0 s	August 10, 2006 5:01:34 AM	New	0	250
	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
	Raleigh	o14		USA	27 m, 7 s		0 s	August 23, 2006 5:01:34 AM	New	0	750
	Raleigh	o9		USA	27 m, 7 s		0 s	August 22, 2006 5:01:34 AM	New	0	500

Page 1 of 2 Go to page: Results 1 to 10 of 20

- ___ d. Now click the '**Personalize**' button for the Diagrams view. You can either view the monitoring context or the KPI context of the selected monitoring mode. Follow the instructions below to configure the Diagram view to view the **Monitor Context** of the ClipsAndTacks model
 - Select the **Model** you want to view from the drop down list
 - Select the radio button next to "**Monitor Context**"
 - Select '**ClipsAndTacks MC**' from the drop down list

ClipsAndTacks Diagrams

Select a Diagram Layout

To change the diagram being displayed select a new Model and either a Monitoring context or a KPI Context.

Model:

Context:
 Monitoring Context


 Key Performance Indicator context


*Refresh Rate (seconds)

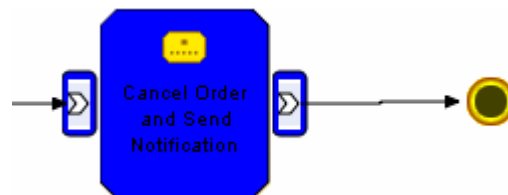
OK Apply Cancel

___ e. Click the **OK** button to save the configuration. Review the generic ClipsAndTacks visual model diagram

___ f. Scroll up to the instances view and find one of the monitoring contexts that shows '**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
---	---------	----	---	-----	-----	----------------------------	--------------------	----------------------------	------------------	---

___ g. For this item, click the diagram 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




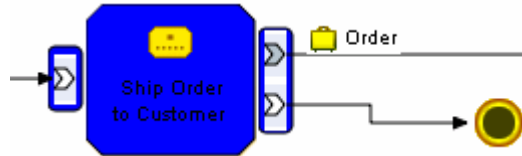
___ h. Click '**Restore Original Context**' at bottom of this diagram to return this diagram to the generic diagram

Restore Original Content

___ i. Scroll up to the instances view again 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
	Raleigh	o11	★	USA	0 s	August 29, 2006 2:20:05 AM	6 d, 0 h, 0 m, 0 s	August 23, 2006 2:20:05 AM	Shipped

___ j. For this item, click the diagram 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



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

Restore Original Content

Part 6: Configuring the Alphaslox portlet-based dashboards

In this section you will configure the Dimensional and Report views.

Working with the Reports view

- ___ 1. Select the **Reports View** tab on the left pane. This action displays the 'Reports view' to the right pane



- ___ a. Click the **'Personalize'** button

ClipsAndTacks Reports

Select Reports to display.

Personalize

Model:

Monitoring context:

Dimension:

Analysis type:

Weighing factor:

Measures

- Reports View Measures
 - Sum of new items
 - Sum of resolved items
- Modeled Measures
 - InstancesCount
 - Average Order Price
 - Sum Order Price
 - Order Count

Time range (filters the data to report by the time range you specify)

From:

To:

Frequency:

Hide menu bar
 Hide toolbar

- ___ b. In the Reports view's personalize view screen, select the following values

- Monitoring Model : **ClipsAndTacks (ALL Versions)**
- Monitoring Context : **ClipsAndTacks MC**
- Dimension : **Location**
- Analysis Type : **Basic**
- Time range :
 - From : **1/1/2006**
 - To : **<Today's date>**
- 2. Frequency : **Monthly**
- 3. Measures :
 - Select the check box next to **'Instances Count'**

ClipsAndTacks Reports

Model: ClipsAndTacks (All Versions) ←

Monitoring context: ClipsAndTacks MC ←

Dimension: Location ←

Analysis type: Basic

Weighing factor: 0.18

Measures

- [-] Reports View Measures
 - Sum of new items
 - Sum of resolved items
- [-] Modeled Measures
 - InstancesCount
 - Average Order Price
 - Sum Order Price
 - Order Count

Time range (filters the data to report by the time range you specify)

From: Sunday, January 01, 2006 1:58:57 PM ←

To: Wednesday, December 12, 2007 1:58:57 PM

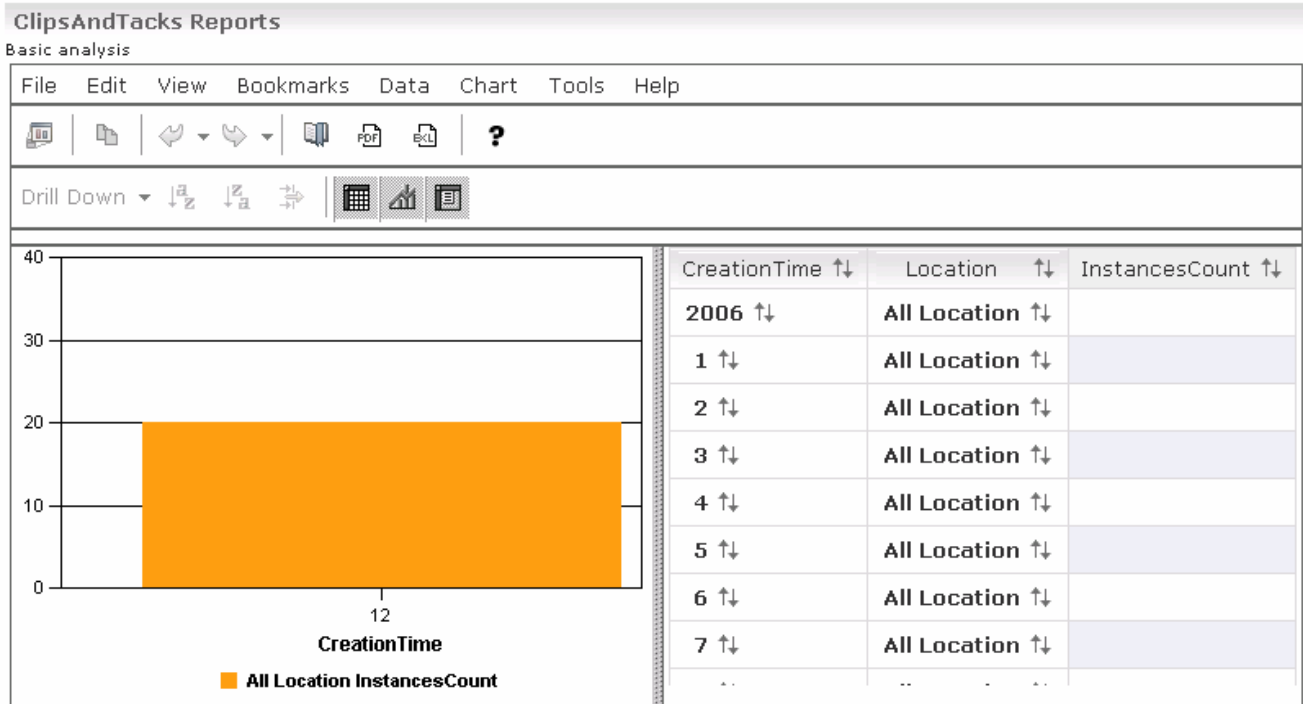
Year to Date | Month to Date

Frequency: Monthly ←

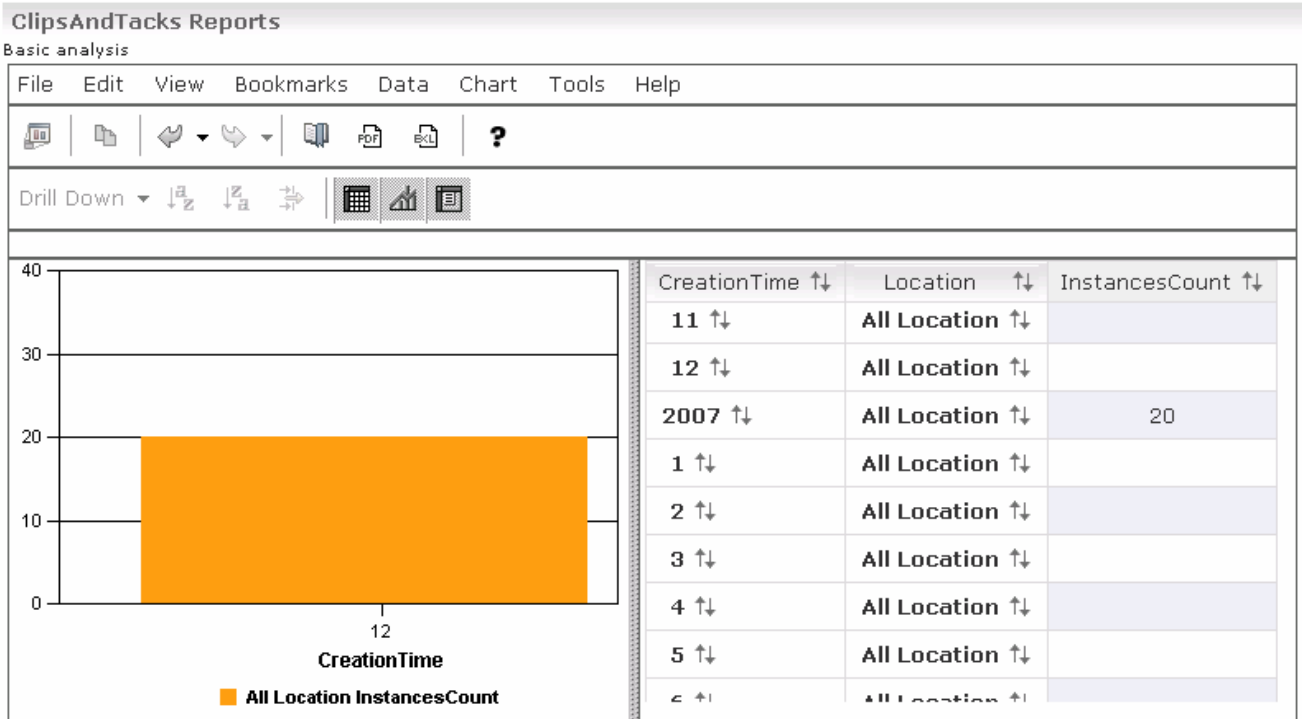
- Hide menu bar
- Hide toolbar

OK | Cancel

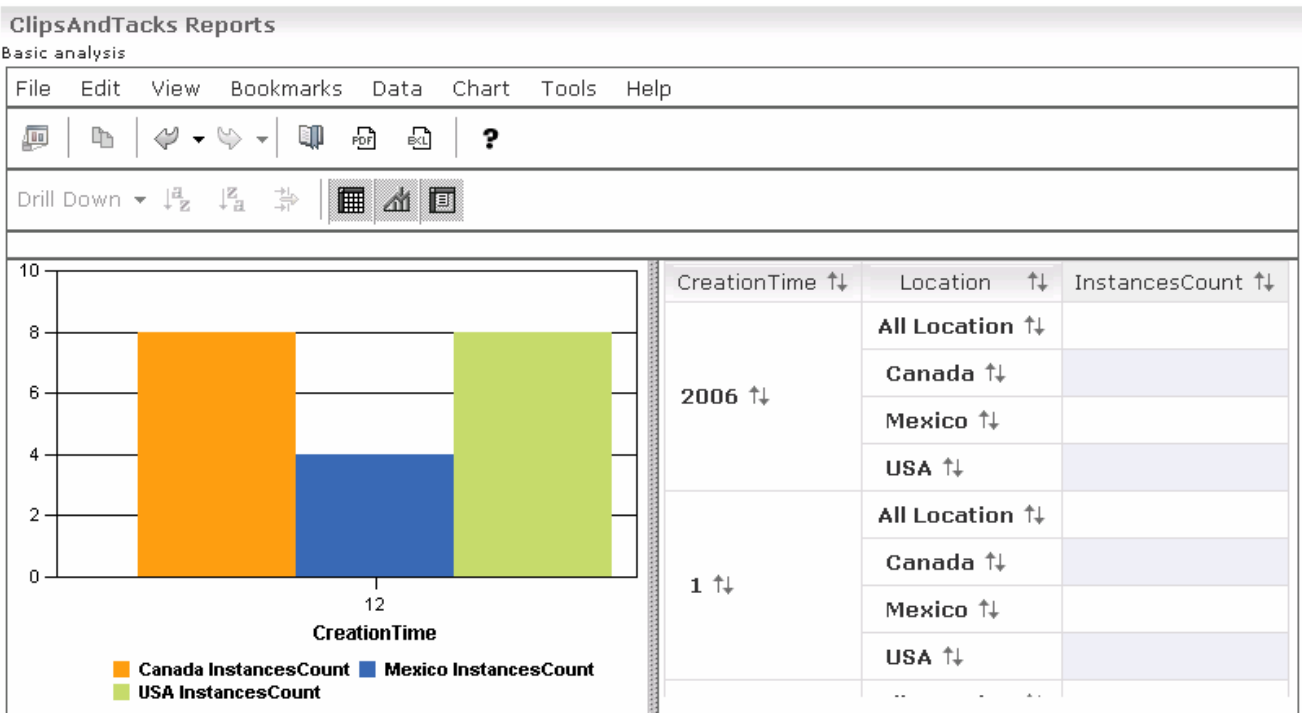
- ___ b. Click the **OK** button to save the configuration
- ___ c. The Reports view displays the instances count based on location relative to creation time as shown below.



- ___ d. Double click on the last year displayed (**2007** in this example) to drill down on date for that year.



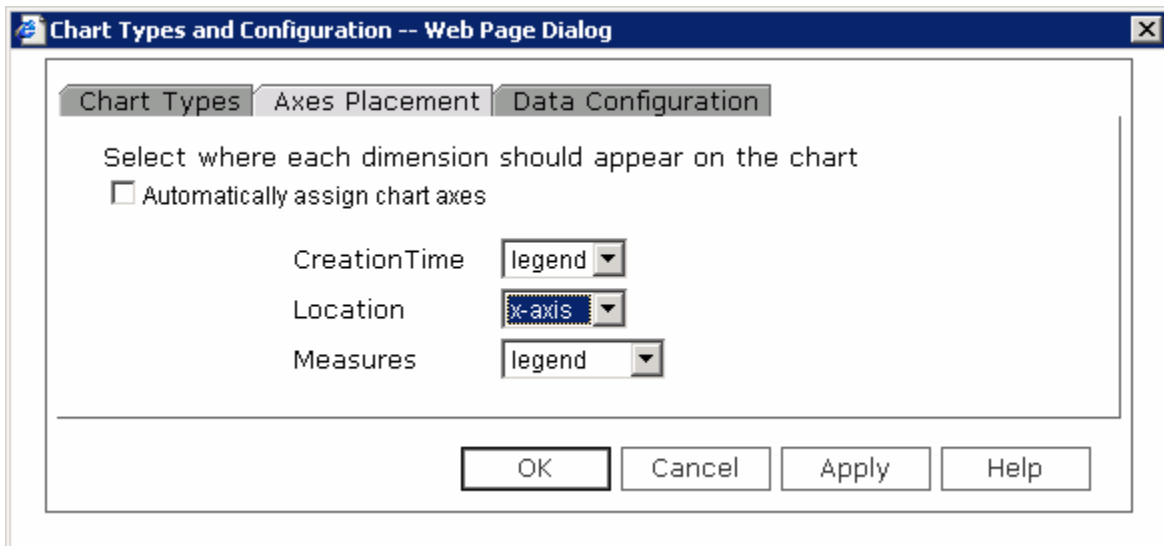
___ e. Double click on **All Location** on one of the rows to drill down by location.



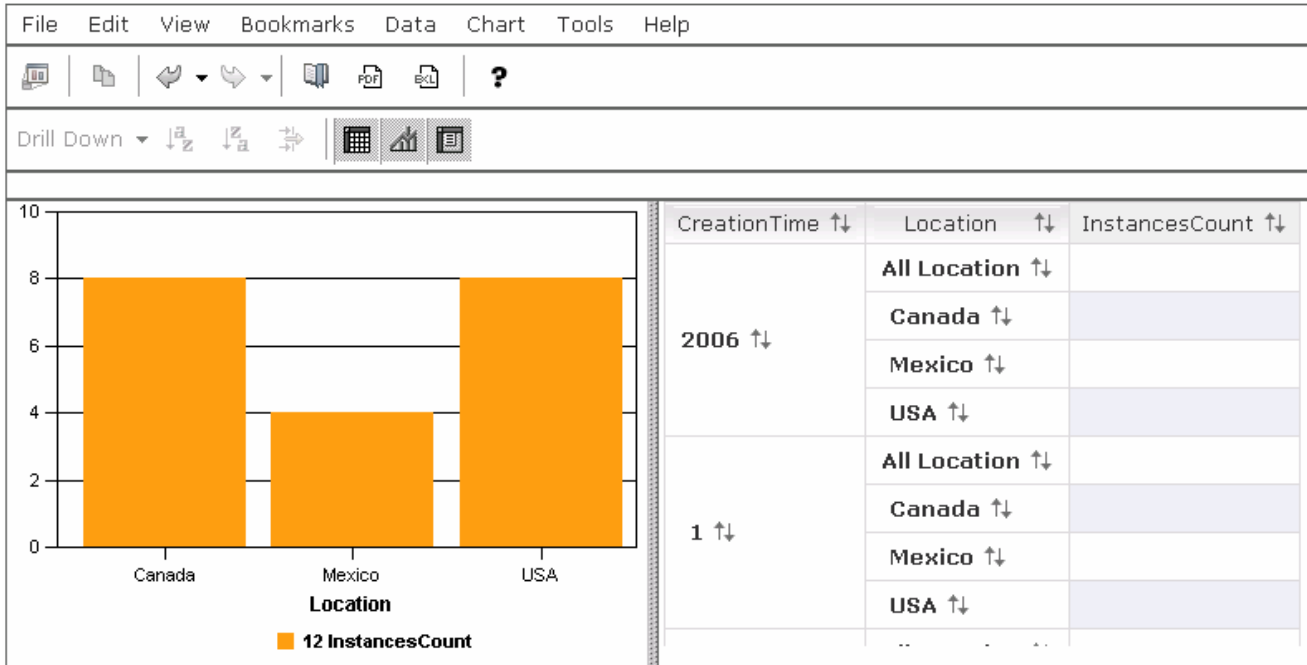
___ f. Use the main menu of the reports view to manipulate the visualization of the performance analysis to your needs



- ___ g. You can also see additional measures in this view. To do this, repeat the above process by clicking the Personalize View button and select the **Sum of resolved items** or any of the **Modeled Measures** and save the configuration.
- ___ h. If you want to see how to place a different dimension other than CreationTime on the X axis of the chart, then follow this procedure.
 1. Click **Chart → Axis Placement...**
 2. Change CreationTime to '**legend**', and change Location to '**x-axis**'. This will put Location on the X axis of the chart.



3. Click **OK**.
4. Now you will see Location on the X axis of the chart.

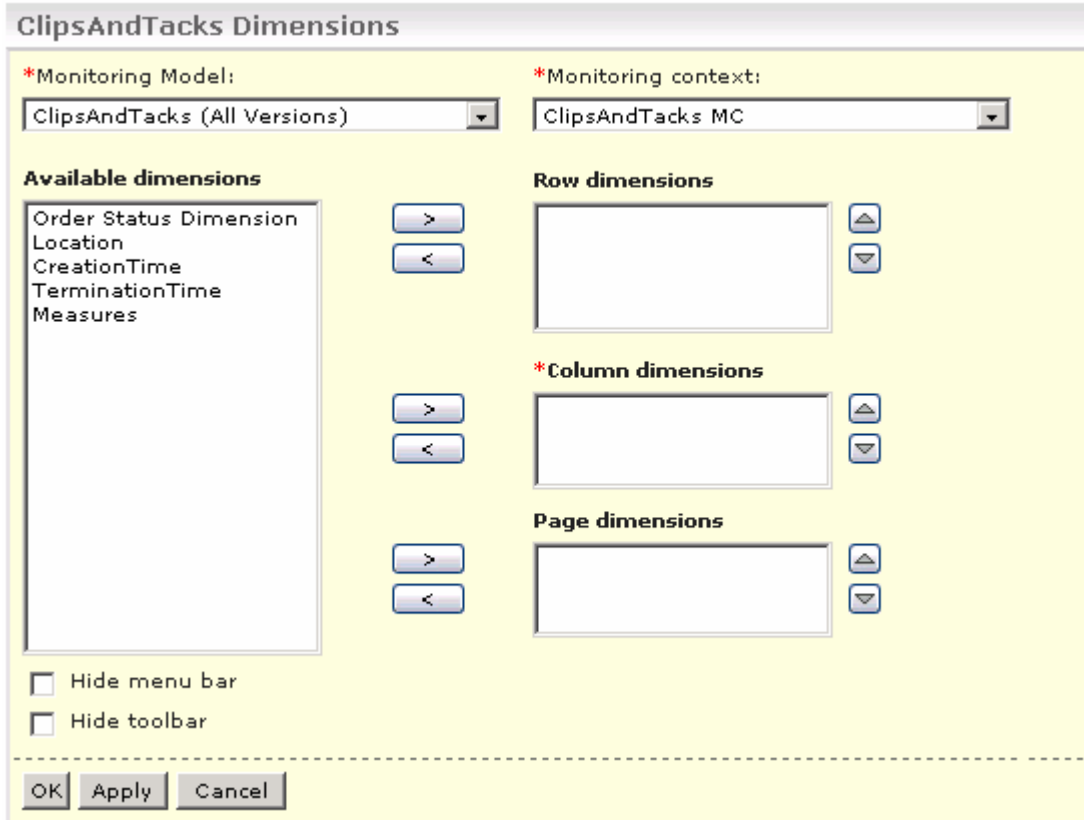


Working with the Dimensions View




___ 2. Select the **Dimensions View** in the left pane. This action displays the 'Dimensions' view

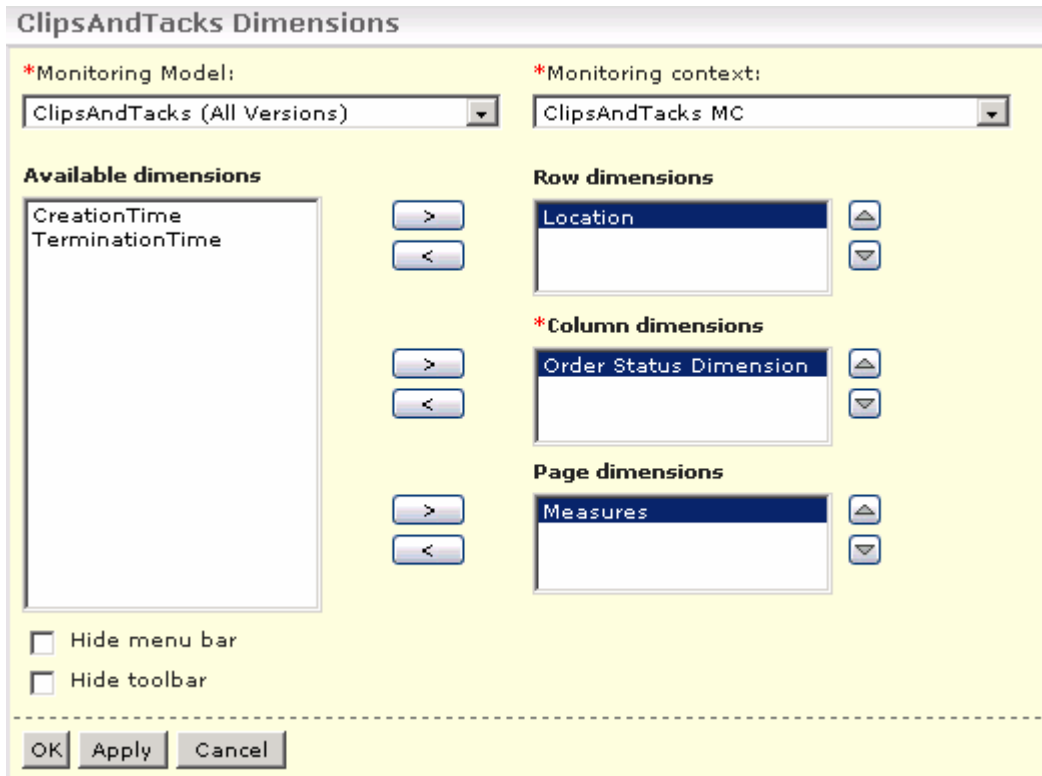


___ a. Click the **'Personalize'** link

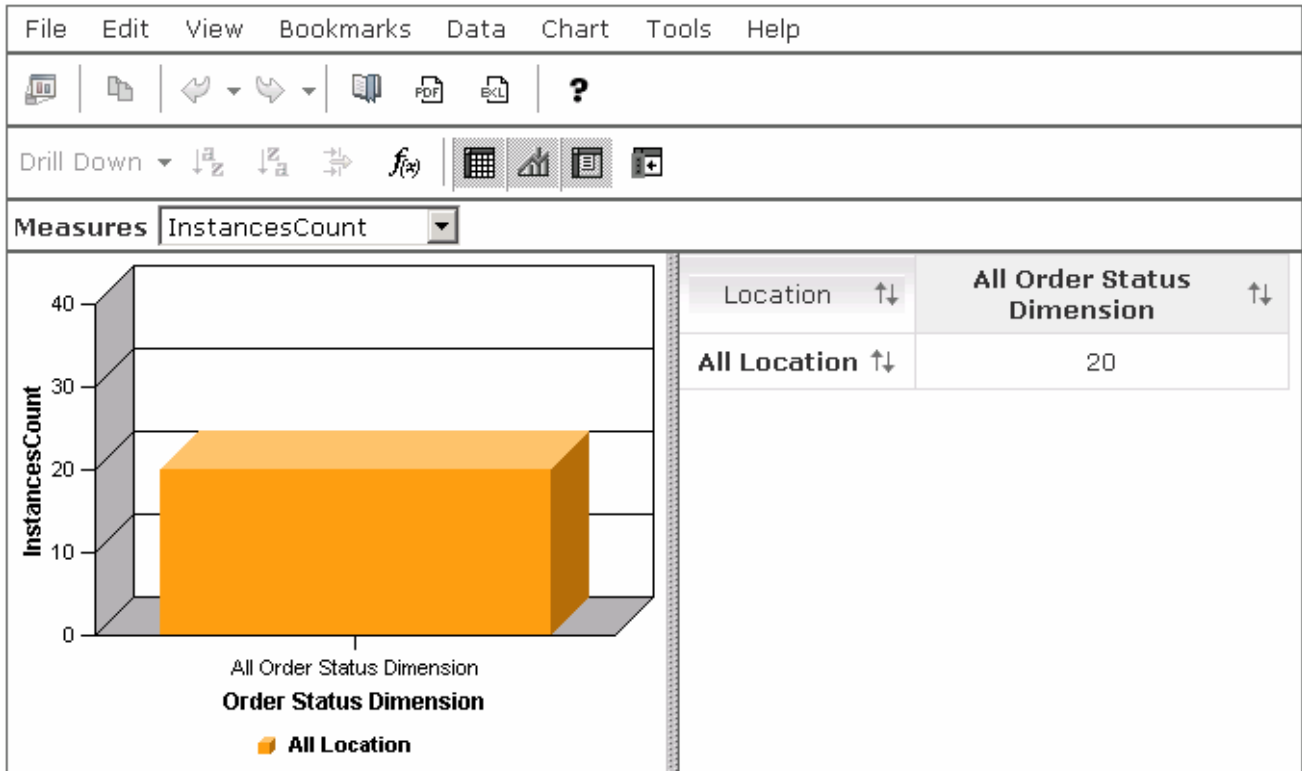


___ b. In the Dimensional view's personalize view screen, select the following values

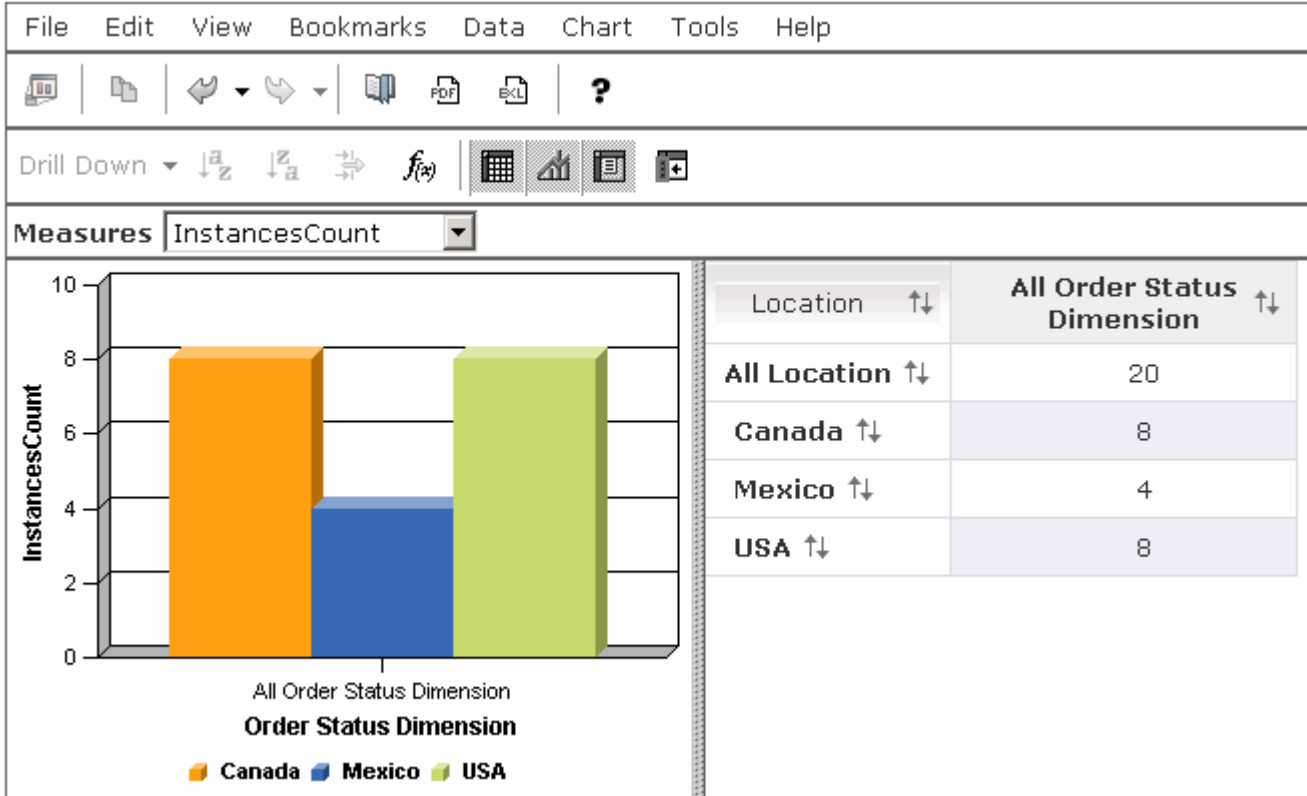
- * Model : **ClipsAndTacks (ALL Versions)**
- * Monitoring Context : **ClipsAndTacks MC**
- Select '**Location**' from the '**Available Dimensions**' list and click the right direction arrow () next to '**Row Dimensions**' text area
- Now select '**Order Status Dimension**' from the '**Available Dimensions**' list and click the right directional arrow () next to '**Column Dimensions**' text area
- Now select '**Measures**' from the '**Available Dimensions**' list and click the right direction arrow () next to '**Page Dimensions**'



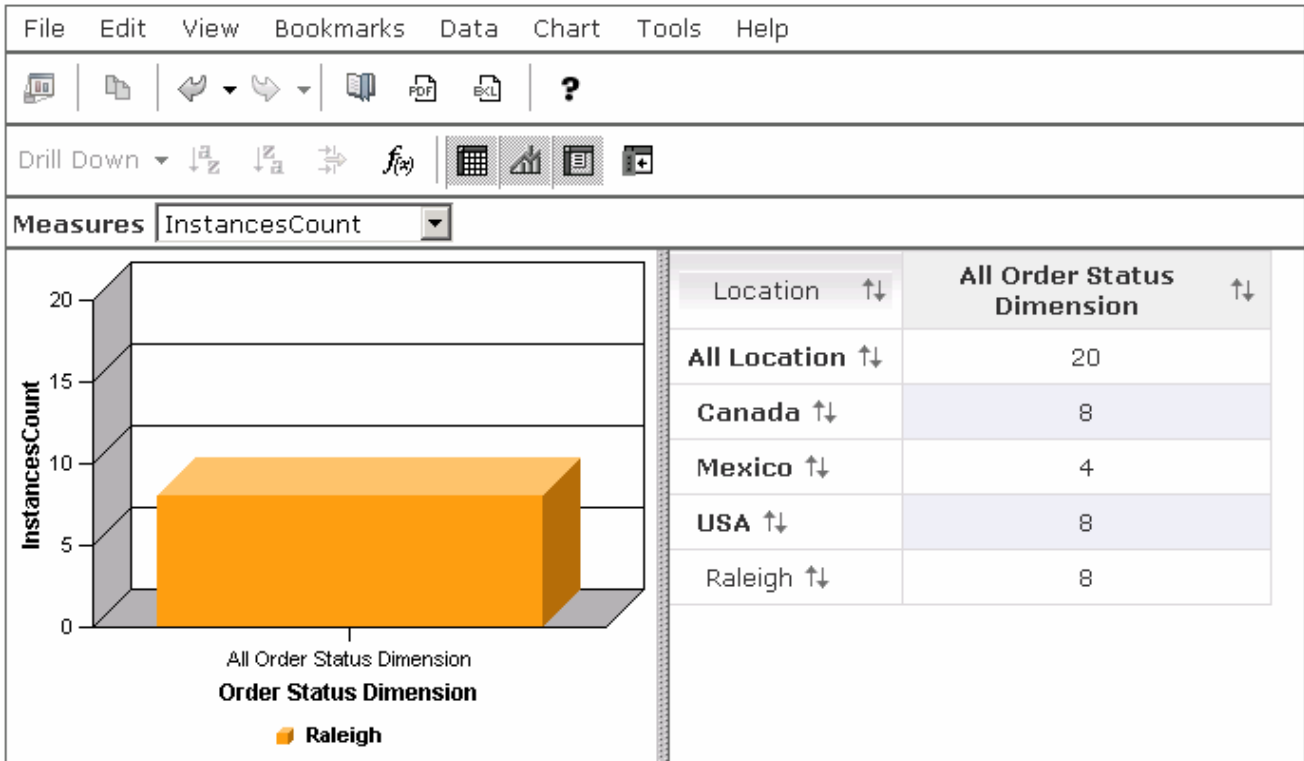
- ___ c. Click the **OK** button
- ___ d. The Dimensional view displays the instances count based on location and order status. You can double click on the location or order status to drill down into the data. You can also select different measures other than **InstancesCount** in the **Measures** drop down box



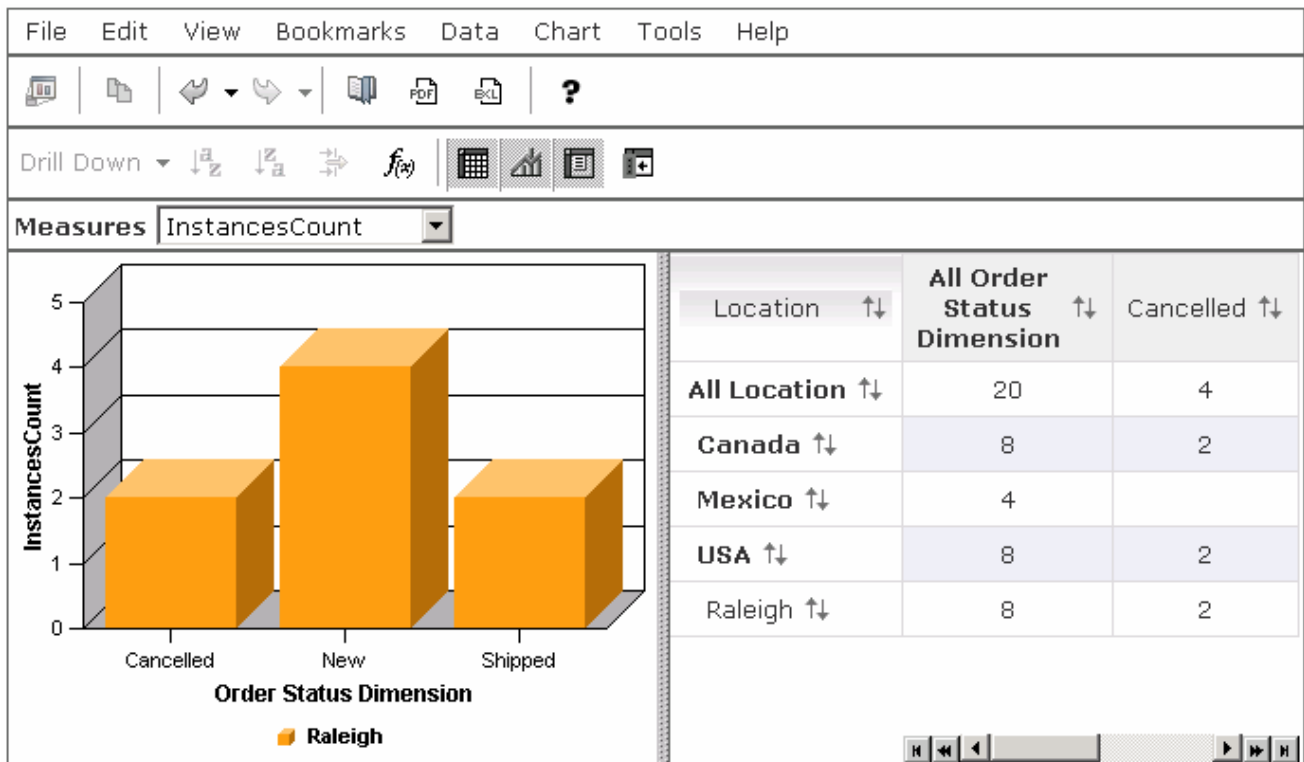
__ e. You can double click on **All Location** to drill down on location



__ f. You can double click on **USA** to drill down on country



__ g. You can double click on All Order Status dimension to drill down on order status



__ h. If you want to perform analysis on different dimensions in the model, select **Personalize View** and move different dimensions to the row, column and page dimensions

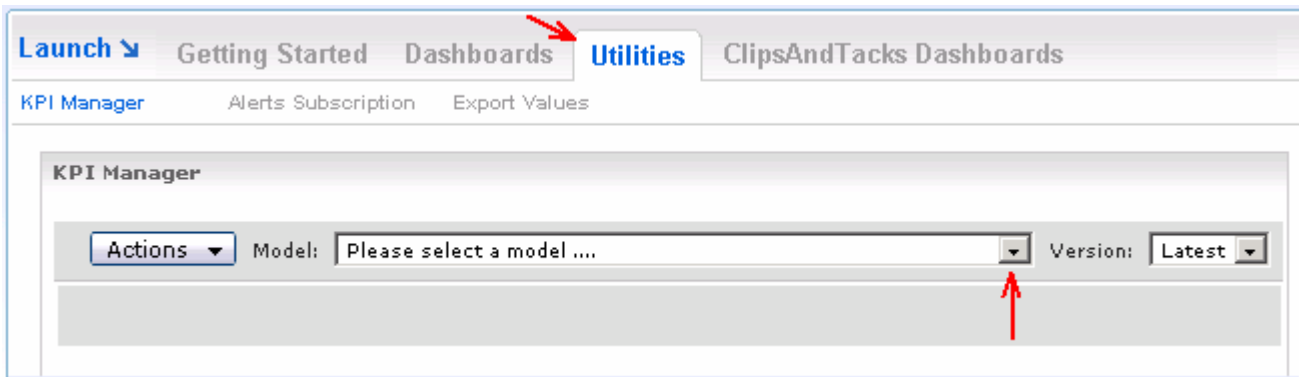
Part 7: Working with the portlet-based dashboards utilities

In this section you will see the usage of the dashboard utilities. The following tools are available in Portlet-based dashboards:

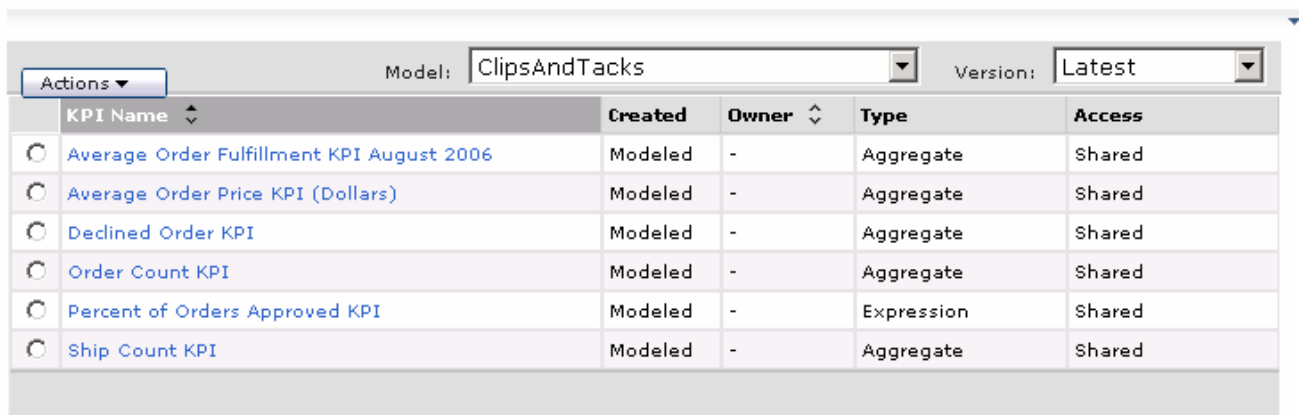
- **KPI manager:** The KPI Explorer lets you define, copy, and update KPIs directly from the dashboard interface.
- **Export values:** The Export Values lets you export data resulting from a specific monitor model and duration to an XML file that can be imported by WebSphere Business Modeler.
- **Alerts subscription:** The Alert Subscription tool enables the business user to subscribe and unsubscribe to different alerts defined in the model. Along with subscribing to an alert, you can choose the type of notification channel associated with each alert (Dashboard alert, e-mail, pager, telephone).

Working with the KPI manager

1. In the dashboard site, select the **Utilities** tab → **KPI Manager** tab to view the KPI Manager



2. In the 'KPI Manager' view, select 'ClipsAndTacks' as the 'Model' from the drop down list. You see a list of the existing KPIs that were defined using the Monitor Model Editor. You can click on the KPI Name to edit a KPI, or you can use the Actions button to create, edit, copy or delete KPIs



3. To create a new KPI, click the **Actions** button. You can create an aggregate KPI that performs a function against a metric. You can also create a calculated KPI that uses calculations that reference other KPIs. For this example, select **New Aggregated KPI** from the pop-up menu

New Aggregate KPI Properties

Name Definition Range Other Preview

* KPI name:

Description:

Model associated with KPI:

Access:
 Personal
 Shared

OK Apply Cancel

___ 4. Create a KPI that sums the total price of orders. Select the Name tab and enter the following information:

___ a. KPI Name : **Total Price KPI**

___ b. Select the Definition tab and enter this information:

- Operator: **Sum**
- Metric: Browse to **ClipsAndTacks MC > totalPrice** from the 'Metric Selection Tree'

New Aggregate KPI Properties

Name Definition Range Other Preview

* Operator: * Metric:

Time reference:

Data filter (Limits data to instances which match the specified criteria)

OK Apply Cancel

___ c. Take a look at the other tabs to see that you can enter target values, ranges, data filters, and many other preferences. You can also click the Preview tab to see how the KPI will look on the dashboard

___ d. Click **OK**

- ___ e. The new KPI has been added to the list of KPI's, and now it can be displayed in the KPI view of your dashboard

Actions ▾		Model: ClipsAndTacks ▾	Version: Latest ▾	
KPI Name ↕	Created	Owner ↕	Type	Access
<input type="radio"/> Average Order Fulfillment KPI August 2006	Modeled	-	Aggregate	Shared
<input type="radio"/> Average Order Price KPI (Dollars)	Modeled	-	Aggregate	Shared
<input type="radio"/> Declined Order KPI	Modeled	-	Aggregate	Shared
<input type="radio"/> Order Count KPI	Modeled	-	Aggregate	Shared
<input type="radio"/> Percent of Orders Approved KPI	Modeled	-	Expression	Shared
<input type="radio"/> Ship Count KPI	Modeled	-	Aggregate	Shared
<input type="radio"/> Total Price KPI	Dashboard	uid=wpsadmin,cn=users,dc=ibm,dc=com	Aggregate	Personal

Working with the Export Values utility

Note: The Export Values utility can only be used in a WebSphere Process Server environment.

- ___ 5. Select the **Utilities** → **Export Values** tab to view the tool

Launch ▾ Getting Started Dashboards **Utilities** ClipsAndTacks Dashboards

KPI Manager Alerts Subscription **Export Values**

Select a model:
 ClipsAndTacks 2007-09-11 12:07:30 ▾

Export data from:

All versions of the selected model

Only the selected model

Time range (filters the data to export by the time range you specify):

None

Specify time range

Preview Data

Export

- ___ 6. You can export monitor data based on the specified time range and import the results to WebSphere Business Modeler

Working with the Alerts Subscription utility

Note: The **Action Manager** is configured and running for the use of the subscribe alerts tool. Refer to the **ClipsAndTacks** lab on how to configure the Action Manager.

- ___ 7. Select **Utilities** tab → **Alerts Subscription** tab to view the tool. This action displays the 'Alerts Subscription' utility

Select the type of notification you want to receive when the subscribed alert is received by Business Monitor.

Alert Name	Description	Category	Create Date	Dashboard Alert	Cell Phone	E-mail	Pager
Declined			December 12, 2007 10:35:59 AM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Late			December 12, 2007 10:36:52 AM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 1 of 1 Go to page: Results 1 to 2 of 2

Apply

Personalize

- ___ a. Select the check box next to the alerts you want to subscribe to and click **Apply**

What you did in this exercise

In the lab, you imported the ClipsAndTacks model to a new workspace and published to the Monitor Test Environment

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

You created a new dashboard, added the views to the dashboard canvas and configured them. You also learned how to use the available dashboard tools.