FileNet Business Activity Monitor

Using FileNet BAM Dashboard

Release 3.5.1

November 2005

Notices

For notices regarding this documentation, refer to Help Directory > Notices in the FileNet P8 online documentation.

Typographical Conventions

This document uses the conventions in the following table to distinguish elements of text.

Convention	Usage
UPPERCASE	Environment variables, status codes, utility names.
Bold	Paths and file names, program names, clickable user-interface elements (such as buttons), and selected terms such as command parameters or environment variables that require emphasis.
Italic	User-supplied variables and new terms introduced in text.
<italic>	User-supplied variables that replace everything between and including the angle bracket delimiters (< and >).
Monospace	Code samples, examples, display text, and error messages.

Contents

Preface

FileNet Business Activity Monitor provides a central location for viewing and responding to the information critical to your business. Key to this tool are *dashboards*: the customizable presentations of the information specific to your business tasks and interests. Within each dashboard are one or more objects that display metrics about your business. You can view the objects together to get the big picture of what is happening, or *drill down* into any object to reveal more detailed information. Dashboards can list the alert notifications that you have received about exceptional business events, and can list the tasks you are participating in associated with some exceptional event.

FileNet BAM Dashboard is an easy-to-use interface to the information provided by FileNet Business Activity Monitor. The server receives data about the activities in your business and looks for exceptional events, as defined by your application developers and rule managers. The server also produces aggregated information that is always current to the latest event, and is available for presentation on a dashboard in FileNet BAM Dashboard.

This manual describes how to use FileNet BAM Dashboard, and how to create and configure the interface to display the information critical to you. Specifically, it has:

- "Common Features" on page 9 used throughout FileNet BAM Dashboard.

- "Alert Messages" on page 19 are notifications about exceptional business events.

- "Working with Dashboards" on page 25 are the principal interface that collect and display your business metrics, alerts, and tasks.

- "Process Diagrams" on page 36 graphically show the steps or actions that accomplish a task, and present statistics about the process instances.

- "Tasks" on page 38 allow you and another user to track and manage an event identified by an alert notification

- "Dashboard Objects" on page 43 are the individual presentations of specific metrics.

- "Charts" on page 48 are graphical presentations for comparing similar data.

- "Indicators" on page 60 are graphical presentations for a number's position on a scale of numbers.

- "Watchpoints" on page 68 send an alert when a value is at or near a target value.

- "Business Rules" on page 74 monitor events looking for exceptional business conditions, and produce alert messages that describe the conditions when they exist.

- "Tables" on page 76 are tabular presentations of numbers.

- "Plans" on page 84 are visual elements that allow you to see where a value is in relation to some target or range of values.

Starting FileNet BAM Dashboard

Before starting FileNet BAM Dashboard, the following requirements must be met:

- FileNet BAM Server must be running.

- Your browser compatible with Microsoft Internet Explorer 6.0 or newer.

- You must have a user account created by your FileNet Business Activity Monitor administrator.

NOTE: Before starting FileNet BAM Dashboard, turn off any pop-up blockers in your Web browser.

NOTE: Systems with Single Sign-On enabled bypass the login screen. Consult with your administrator to enable this feature. For more information, see *Working with single sign-on settings* in the Using FileNet BAM Workbench documention.

To start FileNet BAM Dashboard:

- In your browser, open FileNet BAM Dashboard from the application server that manages the FileNet BAM Server. For example:

  ```
  http://filenetbam_host:port/filenetbam/dashboard
  ```

After logging in, you will see your default dashboard.

NOTE: To change the default, see .

Common Features

This chapter describes the common features you will encounter as you use FileNet BAM Dashboard.

In this Chapter:

Account settings

The Account Settings page controls your default settings and delivery profiles, as well as your login password.

Setting	Description
Refresh interval for Alerts and Tasks	How frequently the your dashboards look for new or updated Alerts and Tasks. Do not set this frequency unnecessarily fast because it will impact overall performance. For most situations, every 10 minutes is sufficient.
Password	Changes your login password. A password may contain any alpha-numeric text or punctuation characters. **Note:** Your login password is the same for FileNet BAM Dashboard and for FileNet Business Activity Monitor.
Minimize Alert List at login	Whether or not the Alert messages list appears on your dashboards when you login. Select **Yes** to include the list; select **No** to minimize the list to an icon. For information about the list, see "Alert messages list" on page 21.
Minimize Task List at login	Whether or not the *task list* appears on your dashboards when you login. Select **Yes** to include the list; select **No** to minimize the list to an icon. **Note:** For information about the list, see "Viewing the task list" on page 39.
Default dashboard	Whether or not to have a default dashboard, and if so, which it is. If you have a default it is displayed immediately when you login; otherwise, you see the list of dashboards available to you. See "Setting a default dashboard" on page 30 for more details.
Delivery profiles list	Described below.

Delivery profiles list

The Delivery Profiles List shows your profiles, notes which are the ones that are automatically assigned to your new alert subscriptions, and is where you create and manage you profiles. Delivery profiles are destinations that can receive alert notifications sent to you. The Dashboard Profile directs notifications to the Alert Manager. Additional profiles identify external systems (such as email or text messaging).

You can assign specific profiles to use on a per alert basis, see "Assigning delivery profile for notification" on page 24 for details.

To create a delivery profile:

1. Click **Create New Profile**.

2. Assign the name and destination properties on the Delivery Profile Properties dialog.

    Optionally, select to assign this as one of the profiles to automatically assign to new alert subscriptions.

3. Save the profile.

The profile appears in the Delivery Profiles List and is immediately available for alert subscriptions.

NOTE: You system administrator can create additional delivery profiles for you in FileNet BAM Workbench.

Permissions

Permissions identify who may see or edit *specific objects* (dashboards, charts, indicators, and tables). When editing an object's properties you see a list of the users and roles that have access to the object. If they appear in the list, they have at least Read access to the object; if they are not in the list they do not have *explicit* access.
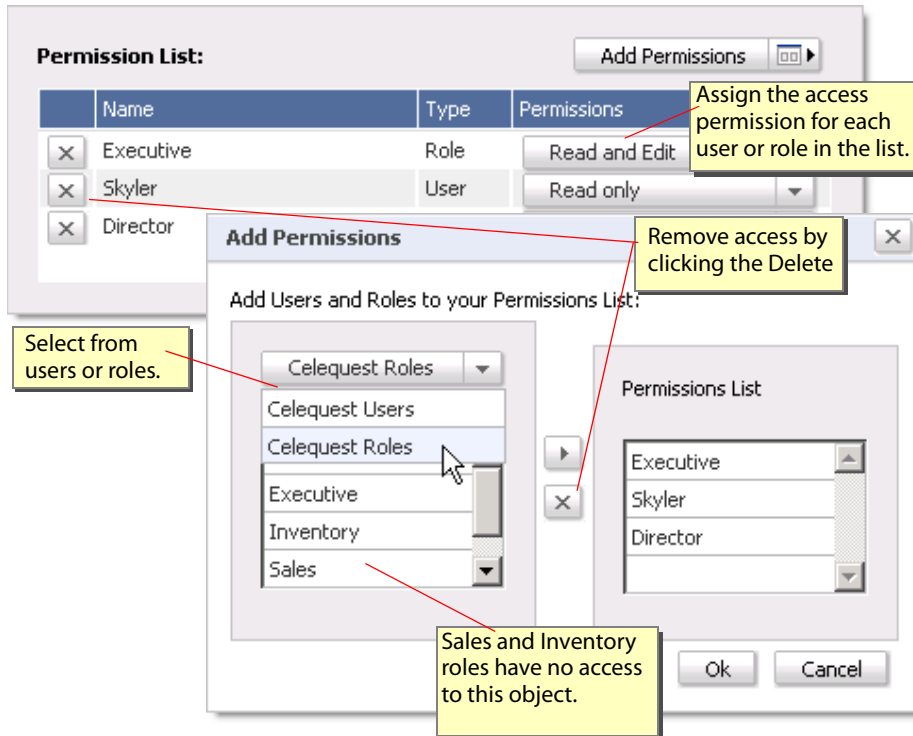
Users who belong to a role are not listed individually, so you cannot assume that a specific user does not have access to the object unless you know that user doesn't also belong to a roles in the list. System administrators define roles and role memberships in FileNet BAM Workbench.

NOTE: The "system" user has full access to all objects and does not appear in any list.

In addition to permission to the Dashboard Object, the user must also have Read permission on the data source on which the object is defined. When a user does not have permission to see the data in a source view or cube, they cannot see the data in dashboard object. When a user does have permission to see a Dashboard Object but not the data source, they see either the "Data source is restricted" error message instead of the usual object presentation.

Removing permissions

You can remove users or roles from the list or demote their permissions provided that you do not lower their permission below the class permissions defined in FileNet BAM Workbench for that user or role. For example, if a user or role has Read permission on all dashboards (as defined in FileNet BAM Workbench), *you cannot deny them access* to a specific dashboard. Though you can demote them from Read and Edit permission to just Read.

NOTE: When you attempt to demote a permission below a user's or role's permission, you can save the change without receiving an error, but when you return to the list, you will again see the user or role in the list.

Understanding permissions

In FileNet Business Activity Monitor, permissions can be granted to users and roles on:

• Specific objects in FileNet BAM Dashboard

• Classes of objects in FileNet BAM Workbench

Further, users may belong to one or more roles which may have permissions different from those specifically assigned to the user.

To determine a user's permission on any object, the system uses the greatest permission:

• Assigned to the user

• All roles to which the user is assigned

• The user's permission for the class of objects

• The user's specific object permission

Example for a user

For example, consider a user named Skyler. By default in FileNet BAM Workbench, Skyler's access permission to the Dashboard Objects class is No Access. If Skyler belongs to no roles and has no permission to any specific dashboards, then Skyler cannot see any dashboards.

In FileNet BAM Dashboard, you can grant permissions to Skyler on any specific dashboard. For example, you can grant Read and Edit permission to the *Total Sales* dashboard, and he will immediately be able to see and edit that dashboard.

Determine who will have access to this dashboard:

Permission List:		Add Permissions
Name	Type	Permissions
✕ Skyler	User	Read and Edit ▼

Subsequently, you can demote Skyler's permission on the Total Sales dashboard to Read, or you can restrict all access by removing him from that dashboard's permission list. However, if Skyler's access permission to the dashboard class was raised to Read-Only, you would never be able to deny his access to any specific dashboard.

NOTE: Remember too that Skyler additionally needs Read access on the source views or cubes, or he will not see the metrics that the dashboard objects present.

Example with roles

Consider the two following roles:

- Director, with has Read permission to the Dashboard class

- Executive, with Read and Edit permission to the class

If you add Skyler to the Director role he can *see all dashboards*. Further, adding Skyler to the Executive role allows him to *see and edit all dashboards*, because the Executive's role has the highest permission. At this point, there is nothing you can do in FileNet BAM Dashboard to deny Skyler's ability to see and edit dashboards. Further, if you edit a specific dashboard's permissions, you will not see Skyler listed, though you will see the Director and Executive roles.

| Permission List:		Add Permissions
Name	Type	Permissions
✕ Executive	Role	Read and Edit ▼
✕ Director	Role	Read only ▼

You can edit the list and remove either or both of those roles, and receive no errors or warnings when you save the change. However, when you return to the list you will again see both of those roles listed because you may not restrict a user or role from an object to which their class permission is greater than No Access.

Navigation tree

The navigation tree on the left side of all pages controls which managers or objects you see in the contents on the right side of the page. Switch between the managers by choosing them from the drop down.
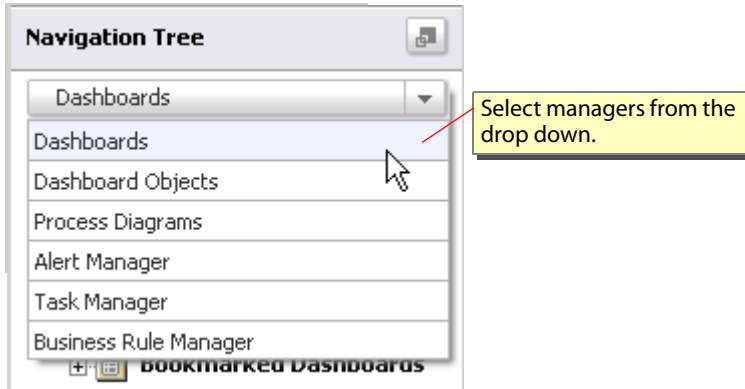

When minimized, the navigation tree shows only icons of the dashboards that you have bookmarked as being of interest to you. For more information, see .
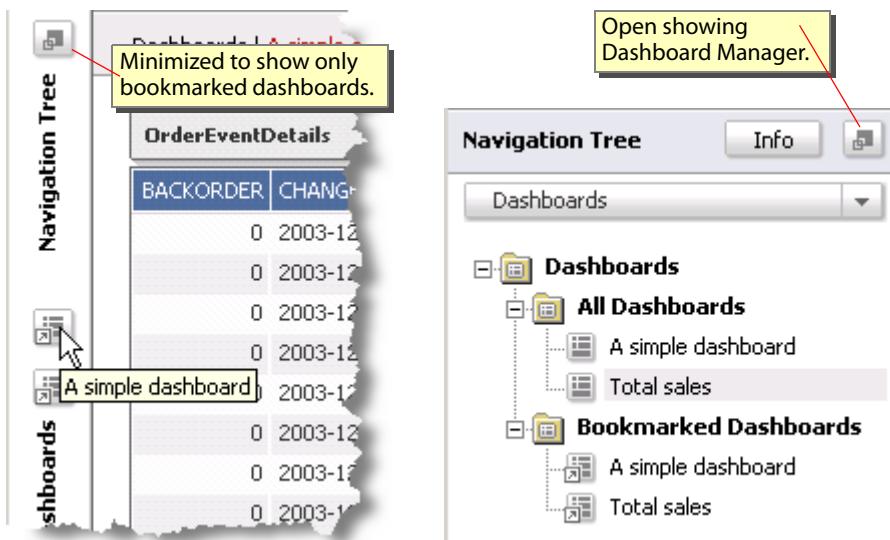
Associated dashboards

Associated dashboards present metrics related to the ones that the object presents. Such relationships are arbitrary and do not mean that the object appears on an associated dashboard. Rather, the relationship means that someone has identified the dashboard as having related information.

When viewing an object click Activities > Associated Dashboards to see the list. Select a dashboard from that list to open that dashboard.
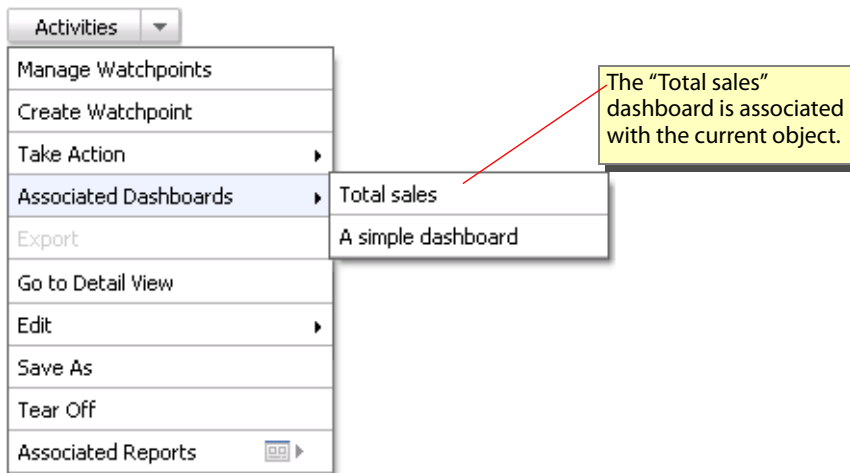
Users with Read and Edit permission on an object can associate dashboards when in Advanced Mode in the object's Edit Object Properties page.
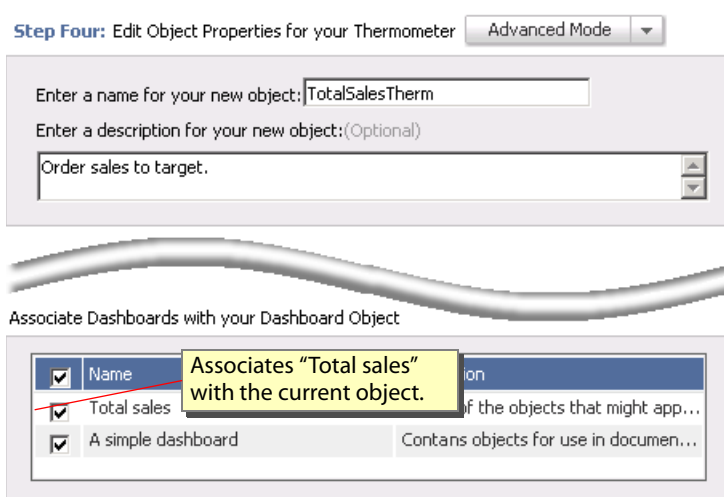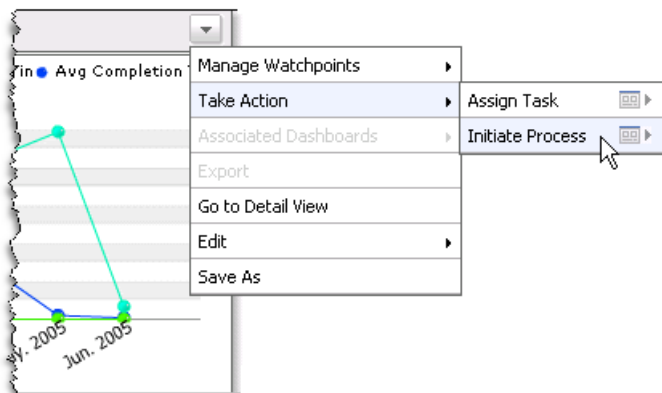
Initiating processes

When viewing an alert message or dashboard object, you can send the item to an external process for handling. For example, the process might distribute the message to other external systems, archive it, or work to correct the condition.
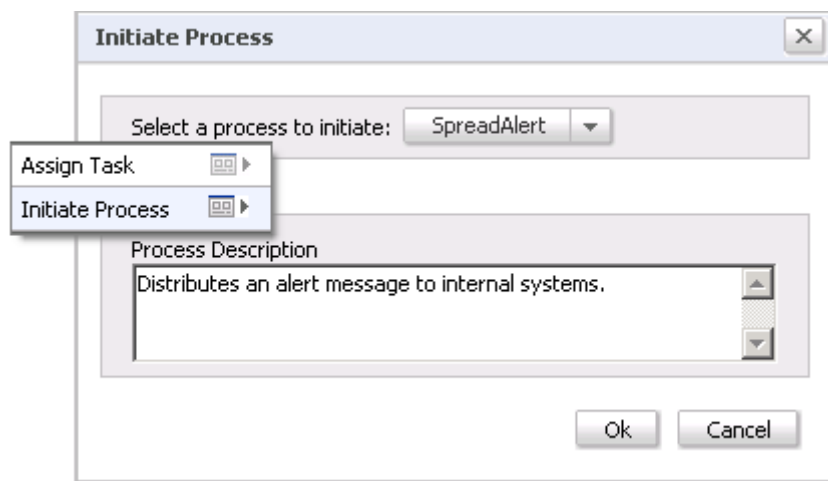
To send the item to an external process:

1. In the dashboard object, click the arrow icon in the upper right corner.

2. From the dropdown menu, select **Take Action > Initiate Process**.

The Initiate Process dialog box displays.

3. Select the process to receive the item.

The available processes are those to which you have Read permission.

4. Define external processes.

5. Assign permissions to them in FileNet BAM Workbench, as described in the Getting Started.

NOTE: For detailed information about external processes, including the information sent to the external process, see Web service external processes.

Message center

The Message Center tells you when you have new alert or task messages. When new messages are available, the Message Center briefly displays a summary of up to five messages, and provides a link to the associated manager. Click on any subject line to read the message, or click the Go to button to open the associated manager.
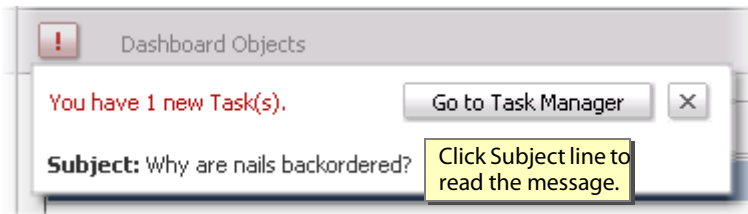
After four seconds, the automatic summary fades away, and the Message Center icon continues to slowly flash. At any time you can see which managers have new messages by clicking the Message Center icon.
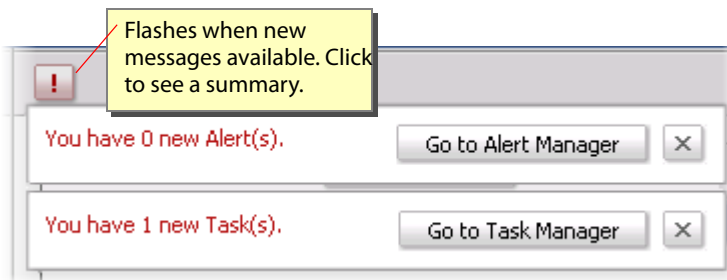
The automatic summary appears only when there are new messages *since the automatic summary last appeared*. Control how often the Message Center looks for new messages and shows the automatic summary, with the Refresh interval for Alerts and Tasks setting. See "Account settings" on page 10 for details.

Alert Messages

Alert messages are notifications of exceptional events in your business' activities. They can be a simple message indicating that an event has occurred, or they can be detailed with contextual information that describes why the event happened or provides options for responding to the exception.
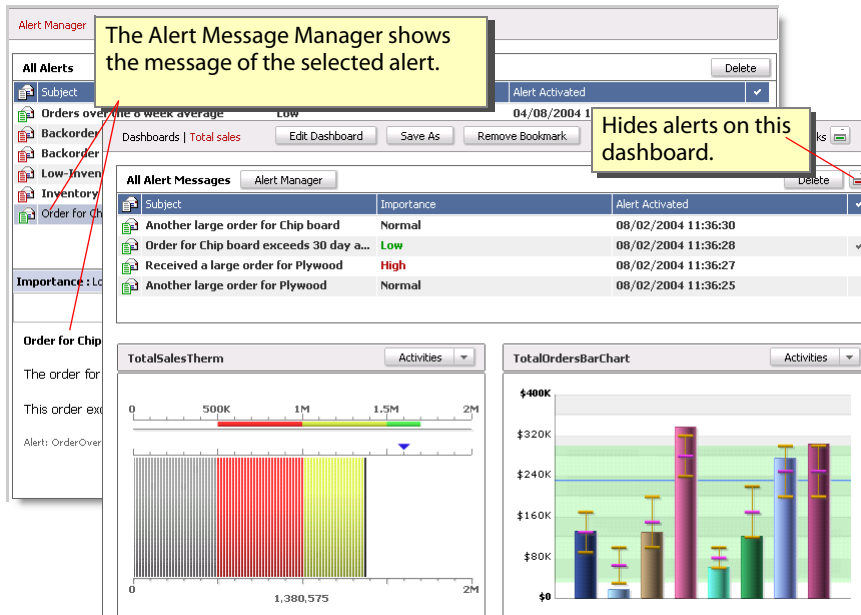
In this Chapter:

Interacting with alerts

FileNet BAM Dashboard provides two places for interacting with alerts:

• Every dashboard can list the alert notifications that you have received. Hide or open the list by clicking the alert list icon (the icon is red ▣ when you have unread messages and green ▣ when all have been read). When the list is open, double-click a notification to read its message in a new window.

You can specify whether to show or hide the list by default when you login with your Account Settings. See "Account settings" on page 10 for details.

• The Alert Message Manager lists and displays messages, and is where you change your notification profiles and define each alert's external delivery options. Click a notification in the navigation tree to list just the messages received for that alert, or click All Alerts to list all of the messages that you have received.

When viewing a message, you can open an task to mange the exception, delete the message, and if available, acknowledge it. See "Viewing notification details" on page 22 for information about how to respond to an alert notification.

Alert messages list

The alert messages list on dashboards and on the Alert Message Manager shows the alert notifications that you have received. Unread messages appear in a **bold** face font. Icons in the first column identify the state and type of the alert as either raised, lowered, or fired (one-time). The last column indicates notifications that need to be or have been acknowledged.

To respond to a raised alert, take one of the following actions:

• Open the message and click the link in the message body.

• Select **Activities > Acknowledge** when viewing the notification.

• Click **Needs Acknowledgement** in the list.

NOTE: One-time (*fired*) alerts are always marked as acknowledged upon receipt.

In the Alert Message Manager, you can filter the list to show only the notifications that belong to a specific alert by clicking the alert in the navigation tree. Further, selecting a notification in the list displays its message below the list

To display the notification details in a new window:

• In either a dashboard or the Alert Message Manager, double-click the notification.

Viewing notification details

The notification details window displays the alert notification message, and provides options for responding to the alert. From this window, you can:

- View the message when it is activated (or, for a lowered alert, when it was reset).

- Permanently delete the message.

- Assign a task to the message. Tasks allow you and another user to track and manage an event identified by an alert notification. See "Tasks" on page 38 for details.

- Initiate a process by sending the message to an external Web service method for handling. See "Initiating processes" on page 17 for details.

- Acknowledge a message requiring acknowledgement. See "Alert messages list" on page 21 for details.

NOTE: Deleting a message permanently removes it from your list. If you don't delete the message, the system will eventually purge it based on the limit of days defined by your system administrator. See Viewing user interface for details.

Setting notification properties

The Notification Properties page lists the business rules and alerts available to you, which of them you are currently subscribed to, and identifies where their notifications are sent.

There are two kinds of notifications:

- Mandatory

  You always receive mandatory notifications.

- Optional

  You can unsubscribe and not receive these notifications.

To edit the list of mandatory subscribers to a notification:

- Edit the associated alert using the Scenario Modeler in FileNet BAM Workbench.

To subscribe or unsubscribe:

1. Click **Edit Subscription**.

2. Remove all profiles from the Selected Deliveries Profiles column.
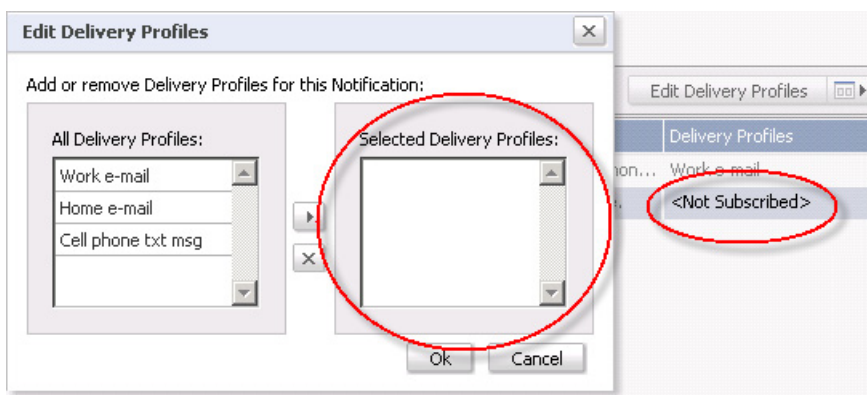
Assigning delivery profile for notification

Notifications are always sent to at least one of your delivery profiles (such as the Dashboard, email, or text messaging), and can be sent to multiple profiles.

To assign delivery profiles:

1. Select the alert in the list and select **Edit Subscription**.

2. Assign one or more Selected Delivery Profiles.

3. Save the change.

NOTE: Define your delivery profiles from the Account Settings page (see "Delivery profiles list" on page 11 for details).

Suspending external notification delivery

You can temporarily suspend delivery of one or more optional alerts. This is useful if you are going to be away from your message system for a length of time.

NOTE: Notifications are always delivered to the dashboard.

To suspend delivery:

1. Select the alert in the list and select **Edit Subscription**.

2. Delete all Selected Delivery Profiles.

3. Save the change.

When you are ready to receive alerts again, re-assign delivery profiles to the alerts.

Unsubscribing from an optional alert

To unsubscribe from an optional alert:

1. Select the alert in the list and select **Edit Subscription**.

2. Delete all Selected Delivery Profiles.

3. Save the change.

NOTE: Use the Alert Editor in FileNet BAM Workbench to restore users to an alert's subscription list.

Working with Dashboards

A dashboard is a central location for presenting multiple bits of business information that is of specific interest. You can have one or more dashboards, each customized to your preference. Further, you can declare one of the dashboards to be your *default dashboard*: the one that you see when you login, as described in "Setting a default dashboard" on page 30.

In this Chapter:

Dashboards at a glance

When viewing a dashboard, you can access more detailed information about any of the items, as described in "Viewing dashboard information" on page 27.

At the top of the page, every dashboard can list the alert messages that you have received, and the tasks that are assigned to you. Open or hide a list with the associated list button.
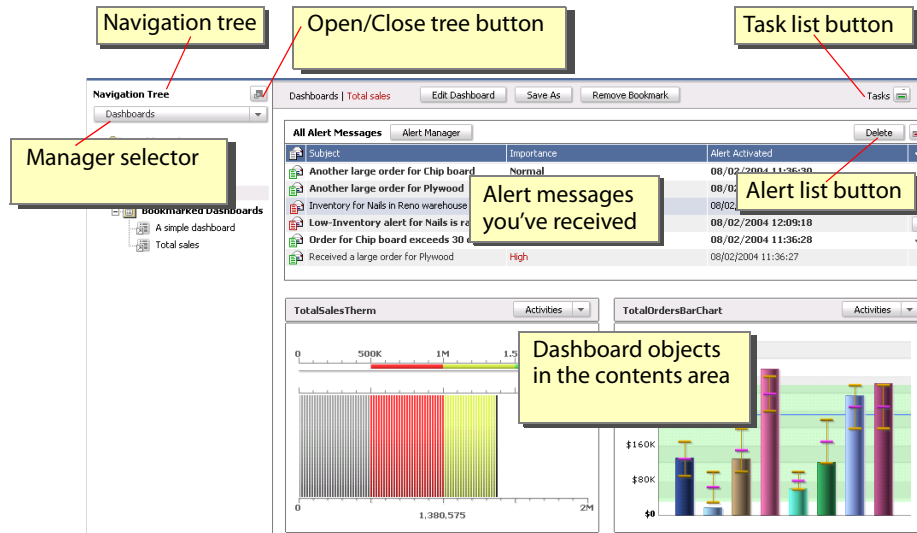
NOTE: If you do not see an alert-list or task-list button, change the configuration with your Account Settings [*see* "Account settings" on page 10].

Viewing dashboard information

The navigation tree on the left side of the page provides access to all dashboards you have permission to see. Click on a name in the list to open that dashboard. The dashboards are categorized within the tree view in two ways:

- All Dashboards

  This folder lists all of the dashboards to which you have Read permission. See "Permissions" on page 12 for details about permissions.

- Bookmarked Dashboards

  This folder lists the dashboards that have been bookmarked, as described in "Bookmarking a dashboard" on page 34.

When the navigation tree is minimized, it displays one icon for each bookmarked dashboard. Point to an icon to see the dashboard's name. You provide a name when you create or edit the dashboard [*see* "Creating a dashboard" on page 33].
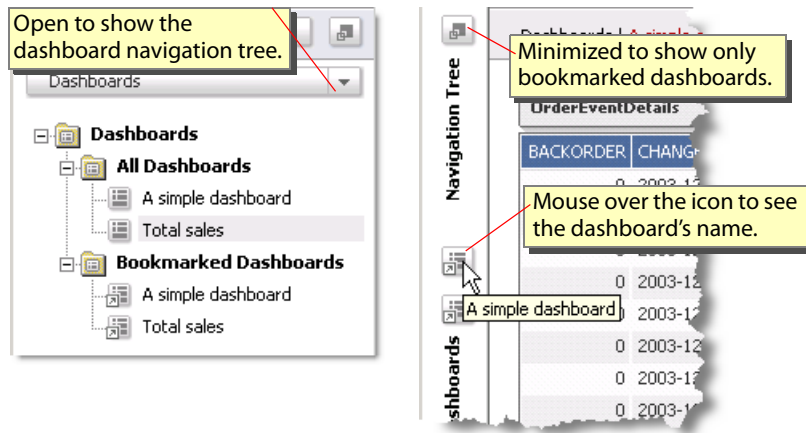
Viewing and editing dashboard properties

The dashboard Info button opens a description of the current dashboard. You can edit this description and other dashboard properties, as listed in the following table:

Component	Description
Name	Identifies the dashboard. The name can contain letters and numerals only, and must be unique among all dashboards.
Description	Optional description that appears in the dashboard's Info panel and is the description for the dashboard when its name appears in list.
Refresh interval	How frequently to check for new data and to update the contents with any new information. **Note:** The faster the refresh, the greater the negative impact on impact overall performance.
Permission list	Identifies which users or roles have explicit permission to see or edit the dashboard. Any user or role in the list can see the dashboard. Further, those with Edit permission can alter the dashboard.

To view and/or modify dashboard info:

1. In the navigation tree, select the dashboard whose description you wish to access.

2. (Optional) Click the **Info** button.
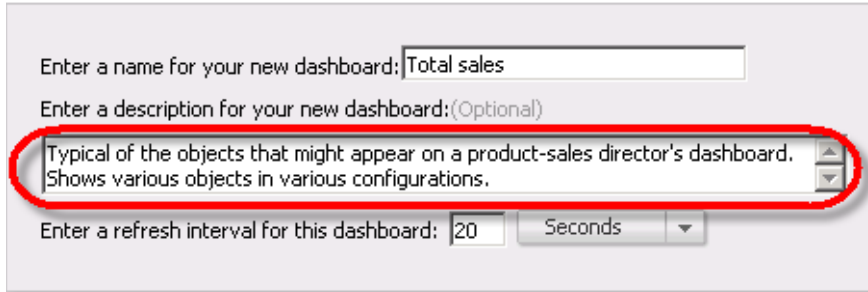
   The left panel redisplays to show the description of the selected dashboard.
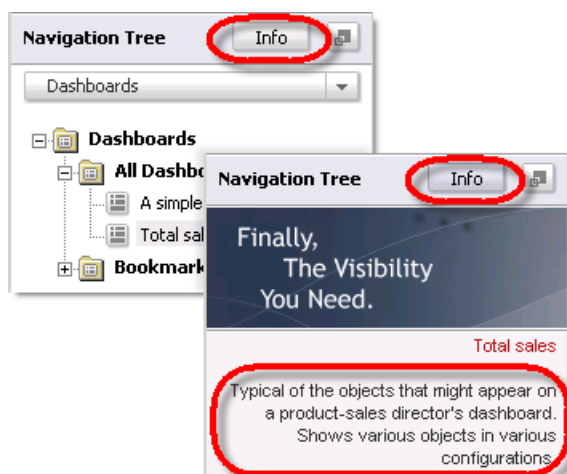
3. At the top of the dashboard, click on **Activities**.

4. Select **Edit>Edit Properties** from the pop-up menu.

The Edit Dashboard Properties page displays. It contains the description of the selected dashboard.

5. Modify the text as desired.

6. Modify additional properties as desired.

7. When finished, click **Save**.

   The dashboard page redisplays.

Setting a default dashboard

You can specify a specific dashboard to display as the default view when you log in to FileNet BAM Dashboard.

To specify a dashboard as your default:

1. Open the Account settings page.
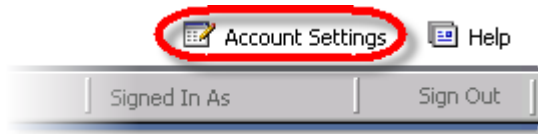
2. Select the dashboard you want.

3. Save the settings.

When you next login the default dashboard will be the first page you see.

Defining dashboard content and layout

What makes a dashboard unique is the metrics it provides as its content. You can define the objects to include on your dashboard via the Select Dashboard Content page.

To define the objects to include on your dashboard:

1. In the navigation tree, select the dashboard whose description you wish to modify.

2. At the top of the dashboard, click on **Activities**.

3. Select **Edit>Edit Dashboard** Content from the pop-up menu.

   The Edit Dashboard Content and Layout page display, listing all of the objects that you may place on a dashboard. These are the objects to which you have Read permission.

4. Select the objects to include on your dashboard.

NOTE: You can see what an object looks like by clicking its preview button to the right of the object's description.

5. Use the Dashboard Layout Editor, located directly below the object list, to determine the position and size of the objects on your dashboard:

   • Position objects by dragging the object's title bar to the new location.

   • Size objects by dragging an edge or corner.

NOTE: Objects have a minimum size of 2 by 2.

6. Release the object.

The object snaps into place with the new position or size. If the change doesn't fit at the location, the object snaps back to its original location and size.
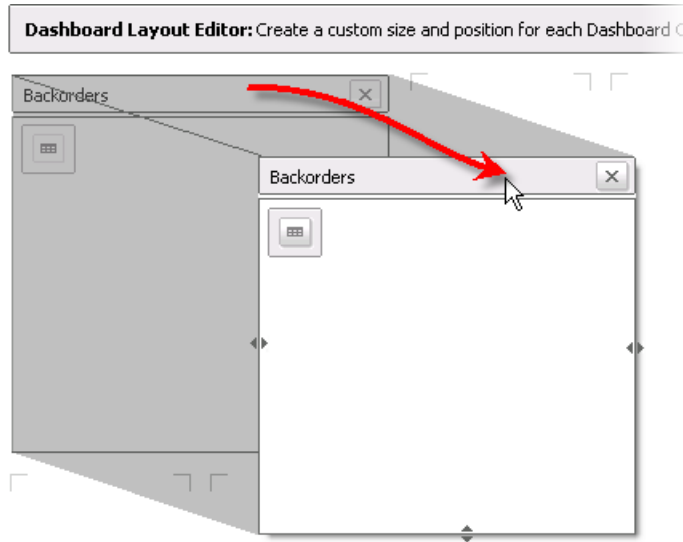
7. To remove objects from the Layout Editor:

    • Deselect them in the Content List

      OR

    • Click the close button in the upper-right corner of the object.

8. When finished, click **Continue**.

    The Edit Dashboard Properties window displays.

9. Save or modify the properties, as described in "Viewing and editing dashboard properties" on page 28.

Creating a dashboard

You can create a new dashboard from scratch, or copy an existing dashboard and modify the parameters and save it as a new dashboard.

Before creating a dashboard, the user must have the following permissions:

*   Create permission for the dashboard class of objects, and which is defined in FileNet BAM Workbench.

*   Read permission for all the Dashboard Objects you want to include on the page.

To create a new dashboard from scratch:

1. In the navigation tree, select the **All Dashboards** node.

2. In the right panel, click the **Create Dashboard** button at the top of the page.

    The Select Dashboard Content and Layout page displays.

3. Select the desired objects from the list.

    The selected objects display in the grid of the Dashboard Layout Editor below the objects list.

4. Position and resize the objects on the grid as desired.

    For more information, see "Defining dashboard content and layout" on page 31.

5. Define the dashboard's name, description, refresh rate, and access permissions.

    For more information, see "Viewing and editing dashboard properties" on page 28.

6. When finished, click **Continue**.

    The Edit Dashboard Properties window displays.

7. Set and save the properties, as described in "Viewing and editing dashboard properties" on page 28.

NOTE: If you assigned access to other users, this dashboard will appear in their All Dashboards folder the next time they access their list of dashboards.

To create a new dashboard from an existing dashboard:

1. In the navigation tree, select the dashboard that will serve as the starting point for the new dashboard.

2. In the right panel, click the **Activities** button at the top of the page.

3. Select **Save As** from the pop-up menu.

   The Save as New Dashboard page displays.

4. Complete the following:

   • Enter a name for the new dashboard.

   • Enter a description for the new dashboard.

   • Add permissions by clicking the appropriate button and using the resulting dialog box.

5. When finished, click **Save as New**.

6. The new dashboard displays in the navigation tree.

7. Modify the dashboard as desired.

   For more information, see "Defining dashboard content and layout" on page 31.

**NOTE:** If you assigned access to other users, this dashboard will appear in their All Dashboards folder the next time they access their list of dashboards.

Bookmarking a dashboard

For quick access, you can bookmark dashboards of special interest to you.

To bookmark a dashboard:

1. Open the dashboard you wish to bookmark.

2. At the top of the window, select **Activities > Add Bookmark** to add it to the bookmark folder.
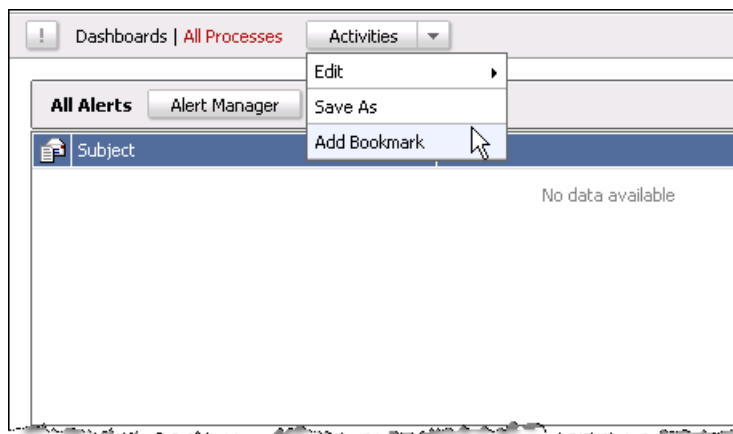
Tearing off a dashboard object

To better view a dashboard object, you can use the tear-off feature to open the object in a new window that can be resized and scaled.

Tear-off windows update automatically with the original or parent object. For example, if you drill down in the parent object, the tear-off window also drills down. Similarly, if you close the parent, the tear-off window automatically closes as well.

NOTE: Tear-off windows do not permit user interaction; interaction is limited to the parent object.

To tear off a dashboard:

1. Open the dashboard or dashboard detail.

2. Use one of the following methods:

   • From the **Activities** menu of the dashboard or dashboard detail, select the **Tear off** command.

   • Click the dashboard or process design title bar and drag sideways.

     After a moment the object displays in a second window.

NOTE: The click-drag method only works with dashboards and process designs; for detail views, you must use the **Tear off** command on the **Activities** menu.
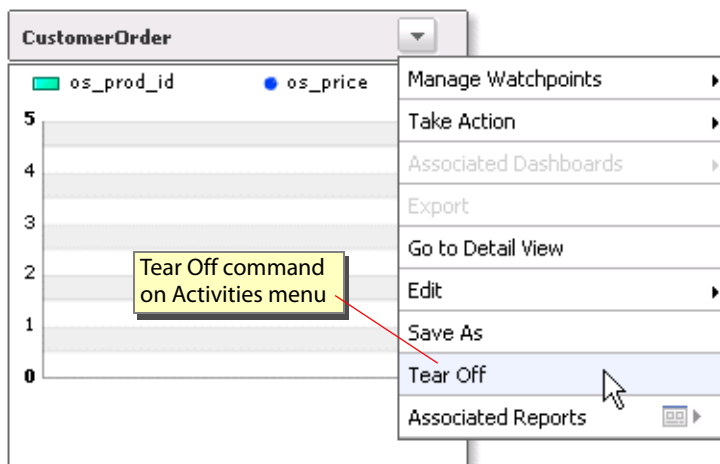
Process Diagrams

Process diagrams graphically show the steps or actions that accomplish a task, such as the picture below of a four-step process for making a request for approval. Below each diagram is a table of statistics about each step in the process. You can also view the statistics for a specific task by pointing to it in the picture.
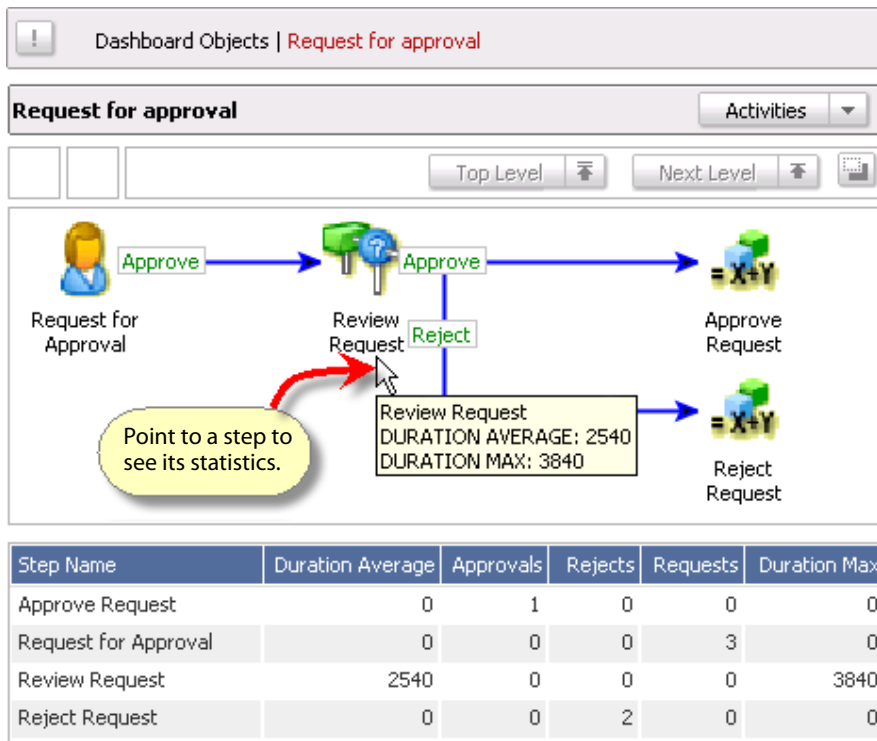
A real transaction through a process is called a *process instance*, such as a specific request for approval. To query the status of a specific process instance, see "Querying process status" on page 37.

NOTE: For a complete discussion about processes and how they work in FileNet Business Activity Monitor, see Processes in the *Business Activity Monitor Reference* documentation.

Creating a process diagram

You create process diagrams for FileNet Business Activity Monitor in the Process Diagram Manager.

The follwoing prerequisites apply:

• Process definitions must be already defined in FileNet BAM Workbench. A process definition tells FileNet BAM Dashboard what steps to diagram, and associates the diagram with the source view or cube that provides the process statistics.

• You need at least Read permission on the view or cube that determines the process instance statistics.

To create a process diagram:

1. Open the Process Diagram Manager and click **Create Diagram**.

2. Select the process definition to use.

3. Identify the columns from the source view or column to include in the statistics table, and in the individual step-statistics in the diagram.

4. Name the diagram, and optionally, provide a description.

5. Save the process diagram.

The new diagram immediately appears, and the statistics update as process instance details arrive in the system.

Querying process status

When enabled, you can query the status of a specific process instance.

To query the status of a specific process instance:

1. At the top of the Dashboards page, click **Activities**

2. From the pop-up menu, select **Search for Process Instance**.

Tasks

Tasks allow you and other users to track and manage an event identified by either an alert notification or a dashboard object. This collaboration allows you to work on a resolution to the event, and to track the status of that resolution.

FileNet BAM Dashboard provides two places for interacting with tasks:

• Every dashboard can list the incomplete tasks that you are tracking. Hide or open the list by clicking the task list icon (the icon is red when you have unread tasks and green when they have all been reviewed). When the list is open, double-click an task to read its details in a new window.

   You can specify whether to show or hide the list by default when you login with your Account Settings. See "Account settings" on page 10 for details.

• The Task Manager lists and displays tasks. Click a task in the navigation tree to select the task in the Task List and to display the task's details below the list. Click a folder to see just the complete or incomplete tasks, or click **All tasks** to see all of the tasks you are tracking.

Task list

Task details

Original object presentation

The rest of this topic discusses:

Viewing the task list

The task list on dashboards and on the Task Manager shows the tasks that you are tracking. Updated tasks — ones with new messages or status changes — appear in bold. Completed tasks have a green icon, while incomplete ones are red. Filter the list to see only the tasks that are complete or incomplete by clicking the appropriate folder in the navigation tree.

Select a task in the list to display its details below the list, or double-click the task to display the details in a new window.

Viewing task details

The task details window displays information about the task, and shows the original alert message or dashboard object presentation from which the user initiated the task. From this window you can:

• View the task, its follow-up messages, when it was created and who owns it, its status and severity, and when it was last changed.

• Change task details including the severity, ownership, status, and additional users to include, all from the **Activities** menu.

• Permanently delete the task from your lists.

NOTE: Deleting a task does not remove the task from the list of the other user also tracking the task. As such, if they subsequently add comments or change the severity, you will not see the change in the list — though you will continued to receive notifications of changes.

Creating tasks

Tasks track and manage an event identified by an alert message or dashboard object.

To create a task:

1. When viewing a dashboard object or alert message, click **Take Action > Assign Task**.

2. Identify the user to own the task, and any additional users who will track it.

    All recipients receive update notifications to their default delivery profiles.

NOTE: When the user's default profile is a Web service — such as when the "user" is an application receiving messages via the service — the message is sent with data from the alert and the task. Further, when the service acknowledges receipt of the message, *the task is marked as complete* and the creator receives that notification.

3. Assign a Severity of Low, Normal, or High.

4. Provide a brief description of the task in the Subject field, and enter the first comment associated with the task.

5. (Optional) Identify a deadline for when the task should be competed.

6. Save the task to immediately put it into your list and the other users' Task List.

To subsequently change a task, follow the instructions in Managing tasks.

Managing tasks

As more information about the event being tracked becomes available, use the Task Details page to modify the task's severity and status, add a comment, or delete the task.

To manage a task:

- Select the task in a Task List and make changes in the display below the list, or double-click the task in the Task List and make changes in the Task Details dialog.

When you add a comment, change severity, or change status to complete, the change appears in the other user's session when that user opens the task, or when the user's Task List refreshes. See "Account settings" on page 10 for details about changing the refresh rate.

When you delete a task, it is permanently purged from your Task List. It is not removed from the other users' list. As such, if they subsequently add comments or change the severity, you will not see the change in the Task list — though you will continued to receive notifications of changes.

Dashboard Objects

This chapter describe dashboard objects, which visually represent dara in the form of charts and indicators.

In this Chapter:

About dashboard objects

Dashboard Objects present business metrics graphically as charts or indicators, or as numbers in a table as follows:

- Charts, which are visual presentations of a series of related data values. Charts are useful for quickly seeing comparisons, patterns, and trends in data. See "Charts" on page 48 for details.

- Indicators, which are visual presentations of a number's position on a scale of numbers. Indicators are useful for identifying progress towards a target and for quantity levels within a range. See "Indicators" on page 60 for details.

- Tables which are columnar arrangement of the current contents of a a business view. Tables show all the numbers related to an event, or of the latest aggregation. See "Tables" on page 76 for details.

Each object presents the information stored in a source business view or cube. As data change in the source, all dependent objects update their presentation to reflect the change. Depending on the type of object, the presentation can represent data from the following:

- One cell only, represented as indicators

- Several cells in the row, represented as bar and line charts

- Several rows in a column, represented as pie charts

- Multiple rows and columns, represented as tables

For detailed information about each of the object types, see the pages noted above. The rest of this discussion covers topics general to all Dashboard Objects, including:

- "Object manager" on page 45

- "Object activities" on page 46

- "Object error messages" on page 47

Object manager

The Dashboard Objects manager provides a navigation tree that lists all of the objects available to you (any object to which you have at least Read permission). Open a folder to see the list. Click an object to open it and see its presentation.
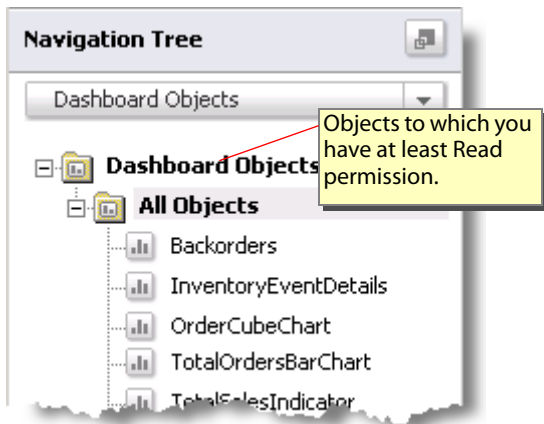
The detailed list shows all of the objects available to you. From this list you can create a new object, alter or purge an existing one, make a copy of the selected object, or see a preview of the object.
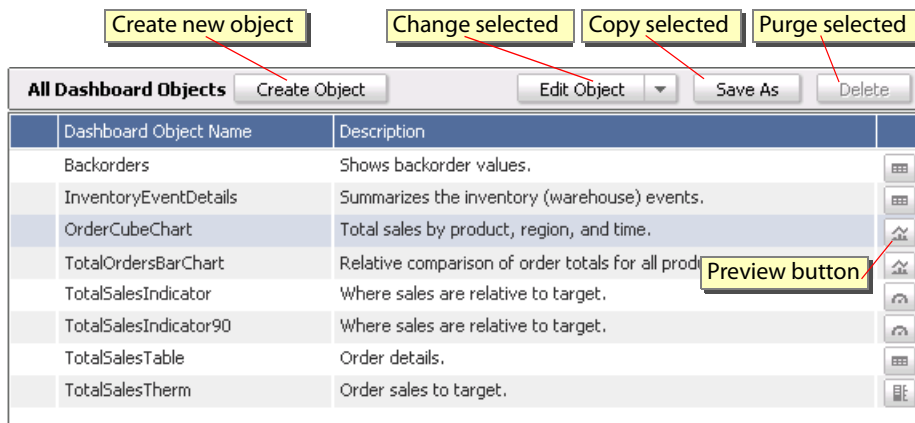
Object activities

The **Activities** menu provides actions for objects.
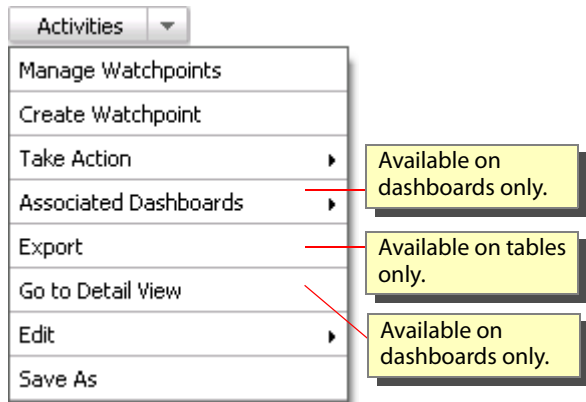
The activities available depend on the type of object, and your access permissions to the object. Among the activities are:

Action	Description
Manage Watchpoints	Opens the Watchpoint Manager. See "Watchpoints" on page 68 for details.
Create Watchpoint	Creates a new watchpoint. See "Creating and editing watchpoints" on page 72 for details.
Take Action	Opens the Take Action menu. Assign Task creates a task See "Creating tasks" on page 41 for details. Initiate Process sends the item to an external system. See "Initiating processes" on page 17 for details.
Associated Dashboards	(*Dashboards only*) Lists any associated dashboard. See "Associated dashboards" on page 16 for details.
Export	(*Table objects only*) Copies the contents of the current table to the Microsoft Windows clipboard as tab-separated text. This format suitable for pasting into an Microsoft Excel spreadsheet.
Go to Detail View	(*Dashboard only*) Enlarges the presentation to show just the object. You can also click on the object's name to open the detail view.
Edit	(*Object specific*) Opens the editor for the object to the specified editor page. This option is available only when you have edit permission on this object or class of objects.
Save As	Makes a copy of the object.

Object error messages

If the object cannot present its usual display, it shows one of these messages instead:

Setting	Description
Deleted or Restricted	The object is not available to you because it was either deleted and the dashboard still references it, or you do not have permission so see it.
	You need to have Read permission on the object to see it. Having Read permission to the dashboard does not grant you permission to see its objects.
	Note: See "Permissions" on page 12 for more information about this permissions.
Data source is invalid	The source data object is invalid, possibly because another object that it depends on is invalid or deleted. Use FileNet BAM Workbench to validate the source.
Data source is not available	The source data object is disabled: not receiving data. Use FileNet BAM Workbench to re-enable the source.
Invalid due to change in data source	The dashboard object is referencing a column that is no longer in the source. Edit the object to correct the reference.
	Note: This requires Edit permission on the object.
Data source is restricted	You do not have Read permission to the source view or cube; though you do have access to the dashboard object.
	Note: See "Permissions" on page 12 for more information about this.
No data available	In tables, the source view or cube is empty.
	This might be the result of an access filter that restricts you from seeing the data.

Charts

Dashboard charts are visual presentations of a series of related data values. Charts are useful for quickly seeing comparisons, patterns, and trends in data. Dashboard charts retrieve the metrics from an underlying business view, where the data to chart is in one or more columns in the view, and each row is an element of the chart series.

There are two categories of charts:

- "Pie charts" on page 51

- "Grid charts" on page 55
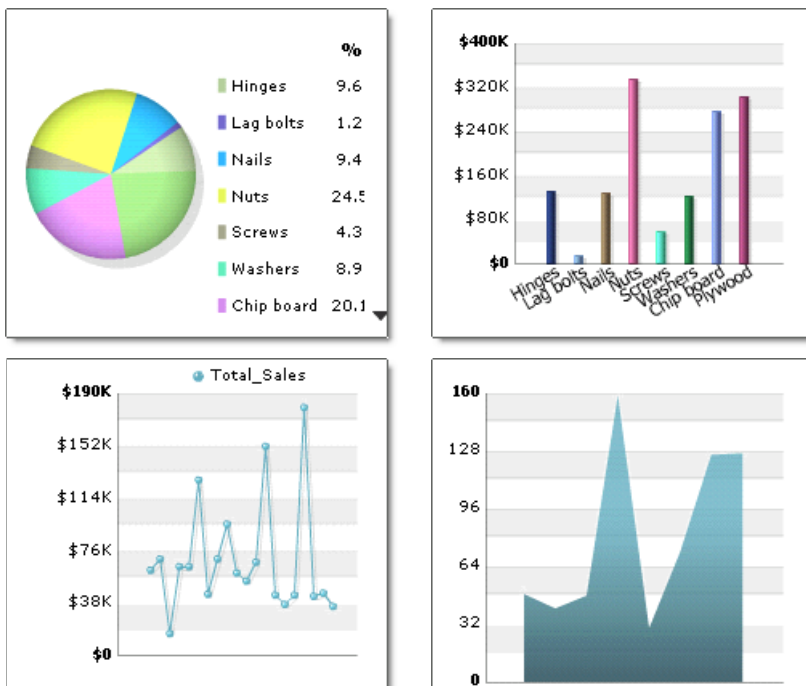
NOTE: Some of the common features of dashboard charts are described in "Working with charts" on page 49.

Working with charts

Charts on dashboards are reduced to fit in the dashboard's contents area.

When viewing charts, either on a dashboard on in detailed view, you can see the value that a chart element represent by pointing the graphical element. For example, in a bar chart, point to a bar to see the value it represents.
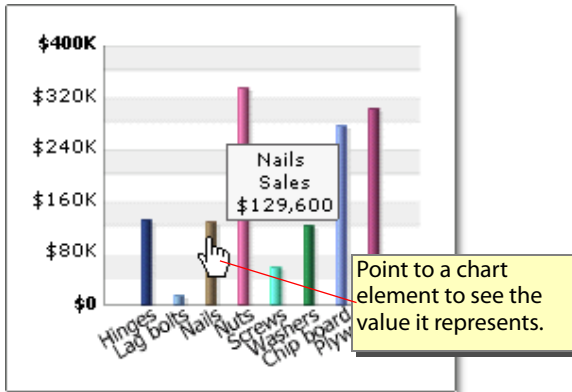
When you define a chart, you identify a source view or cube that has the data to chart, and the column that contains the value or values to represent on the chart. You also identify a "category" column for views or dimension for cubes that identifies what to chart. In the illustration above, the values come from the Total_Sales column and the category columns is Products. The pointer is over a product named "Nails" whose value is $129,600.

In detailed view, below each chart is a table that shows the data in the view. Both chart and table update to show new data with a frequency defined by the refresh rate. You can force an update by re-selecting the chart in the dashboard or navigation tree.

To view a larger and more detailed presentation:

• Click the chart name.

   OR

• Click **Activities** and select **Go to Detail View** from the pop-up menu.

Cube charts

When viewing a chart of a cube, additional controls allow you to select the dimensions and levels to present, and filter controls permit you to limit the set of items presented.
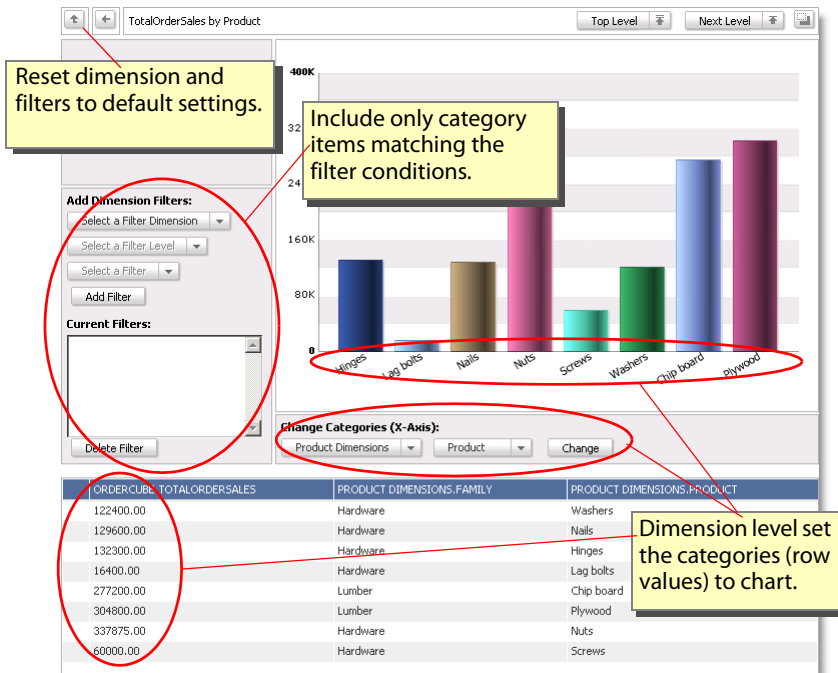
Category controls

Categories identify what to, and are determined by the selected dimension level. When you create a cube chart, you select the dimension level to display as the default category. See "Creating a grid chart" on page 58 for more details. On the chart, you select the category to display, or you "roll-up" to a higher dimension level in the category with the controls. You can "drill-down" to a lower level by clicking the chart element.
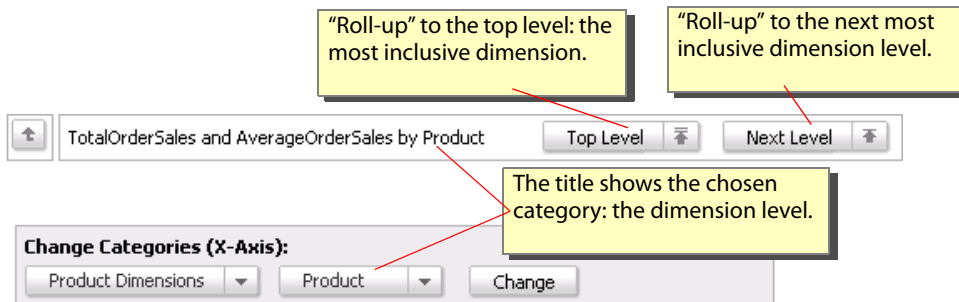
Filter controls

Filters further limit the categories by showing only the result for items matching the filter conditions. For example, the filters in this illustration limit the results to those that occurred during the fourth fiscal quarter, in the West business region, and for Hardware and Lumber products only:

Add Dimension Filters:

Location Dimensions ▼

Region ▼

West ▼

Add Filter

Four filters applied to the current category.

Current Filters:

Quarter = 'Q4'
Region = 'West'
Family = 'Hardware'
Family = 'Lumber'

Delete Filter   Edit Filter

Pie charts

Pie charts present a single column's data as a filled-in circle, where each row in the *values* column is a slice in the circle proportional to its percentage of the sum of whole column. When you create a pie chart you first identify the values column, and then identify the category column that contains the labels for each slice.
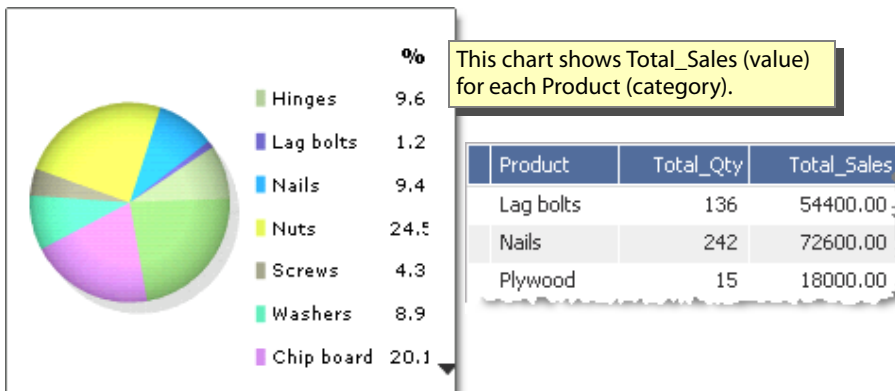
	%
Hinges	9.6
Lag bolts	1.2
Nails	9.4
Nuts	24.5
Screws	4.3
Washers	8.9
Chip board	20.1

This chart shows Total_Sales (value) for each Product (category).

Product	Total_Qty	Total_Sales
Lag bolts	136	54400.00
Nails	242	72600.00
Plywood	15	18000.00

When viewing an indicator, point to the arrow to see the value it represents. On a dashboard, to see a more detailed presentation, click the object name, the chart, or select **Go to Detail View** on the **Activities** menu.

Pie chart properties

Pie charts have the following object properties:

Property	Description
Name	Identifies the Dashboard Object. The name can contain letters and numerals only, and must be unique among all Dashboard Objects.
Description	Optional description that may contain any text characters. This description appears at the top of the Object Details page when users view the details.
Display type	Always Chart for this object type.
Display sub-type	Always Pie for this type of object.
Permission list	Identifies which users or role have explicit access permission to the object. See "Permissions" on page 12 for a complete discussion of permissions.
Associate dashboards	Dashboards that present metrics related to the object. See "Associated dashboards" on page 16 for details.

Custom pie chart properties

Pie charts have the following custom properties:

Property	Description
Include labels	Whether or not to include category labels on the chart next to the associated wedge in the pie.
Numeric prefix	Text to appear immediately before mouse-over numbers on the chart. Useful for currency notations.
Numeric suffix	Text to appear immediately after mouse-over numbers on the chart. Useful for currency notations.

The prefix and suffix for numbers are text labels to place before or after the mouse-over numbers on the chart. This illustration shows a one chart with a dollar sign ($) for a prefix, and another indicator with "USD" as the suffix.
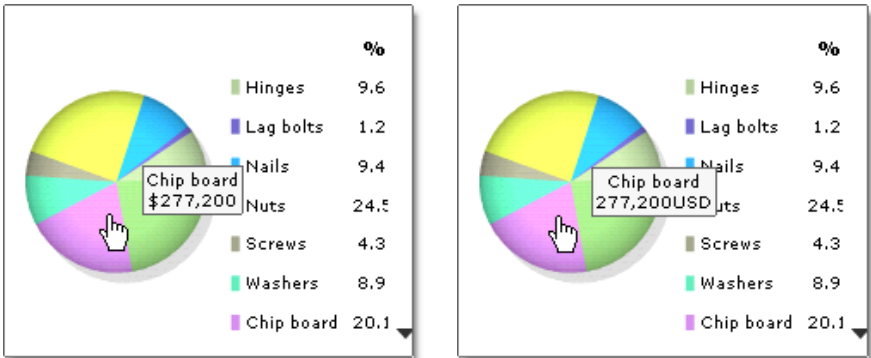
Creating a pie chart

This topic describes how to create a dashboard chart. Charts represent information from one of two types of columns:

- Value columns, which contain the numbers to represent, such as the total sales or average quantity

- Category columns, which contain the "names" associated with each row in the source, such as product names, months of sales, or business regions

Basis	Result
A view	The category name comes from a column in the view.
A cube	The category is a dimension in the cube, and the default value is a level in the dimension. **Note:** See "Cube charts" on page 50 for more information. For cubes, you can also define filters to apply by default to the data. For more information, see "Filter controls" on page 51.

Before creating a dashboard chart, you must have:

- Create permission for Dashboard Objects

- Read-Only permission on the view or cube that you want to chart

To create a dashboard chart:

1. Open the Dashboard Objects navigation tree and select the **Dashboard Objects** folder.

2. Click **Create Object**.

3. Select the view or cube that contains the data this chart will report on.

NOTE: You can see the data currently in the source by clicking the preview button to the right of view's description.

4. Click **Continue** to move to the next step.

5. Select **Chart** as the display type, and Pie as the sub-type for the object.

6. Click **Continue** to move to the next step.

7. Select the columns from the view that contains the data to chart.

8. Click **Continue** to move to the next step.

9. Assign a name and optional description.

10. (Optionally) Define:

    •   Associations

        Associations are dashboards that contain related metrics. For more information, see "Associated dashboards" on page 16.

    •   Permissions

        Permissions determine who can see the indicator and to what extent they can access it. For more information, see "Permissions" on page 12.

11. Optionally, define the appearance of the chart by choosing Customize.

    For more information, see "Custom pie chart properties" on page 52.

12. Save the chart.

    The chart is immediately available for use in dashboards.

Grid charts

Grid charts map their presentation onto a rectangular area using a horizontal and vertical axis, where a column's data (a category) as a series of data points or columns along the horizontal axis, and where the height of the point or column is representative of the category item's value. Grid charts are either area charts, or line, bar, or a combination of line and bar.
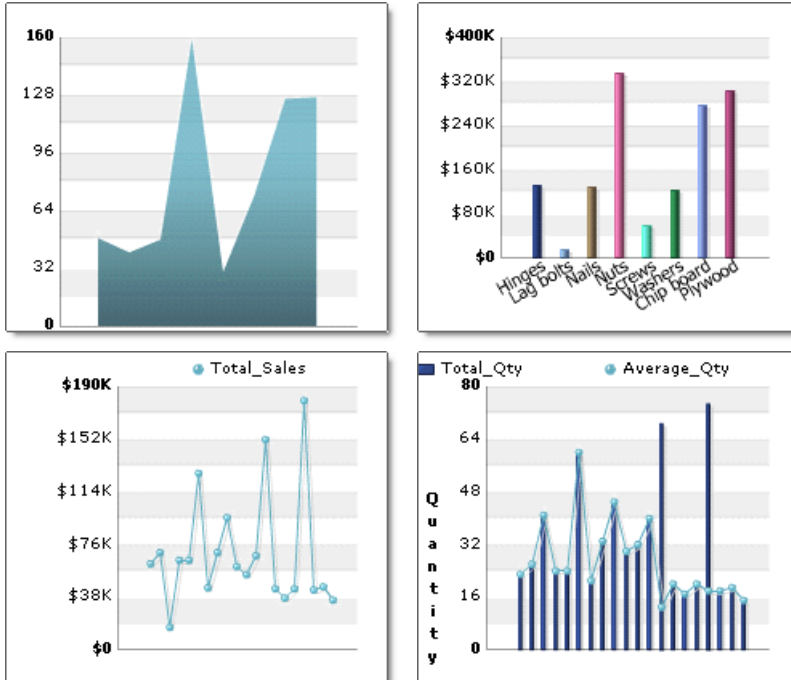
When viewing an indicator, point to the arrow to see the value it represents. On a dashboard, to see a more detailed presentation, click the object name, the chart, or select **Go to Detail View** on the **Activities** menu.

Grid chart properties

Grid charts have these object properties:

Property	Description
Name	Identifies the Dashboard Object. The name can contain letters and numerals only, and must be unique among all Dashboard Objects.
Description	Optional description that may contain any text characters. This description appears at the top of the Object Details page when users view the details.
Display type	Always Chart for this object type.
Display sub-type	Either Area, and Line and Bar for this type of object.
Permission list	Identifies which users or role have explicit access permission to the chart. See "Permissions" on page 12 for a complete discussion of permissions.
Associate dashboards	Dashboards that present metrics related to the object. See "Associated dashboards" on page 16 for details.

Custom grid chart properties

Grid charts have these custom properties:

Property	Description
Include labels	Displays the labels for each item below the horizontal axis. The label values come from the category column definition.
Numeric prefix	Text to appear immediately before all numbers on the chart. Useful for currency notations.
Numeric suffix	Text to appear immediately after all numbers on the chart. Useful for currency notations.
Horizontal grid lines	Count of horizontal grid lines to display between the bottom and top of the chart, and behind the bars or lines. The default is 4.
Axis labels	Labels to identify the horizontal (X-axis) and vertical (Y-axis) axes. Omit the value to leave the label display blank.
Y-axis minimum and maximum values	Upper and lower range limits of the vertical scale. When references are defined for the chart, they may exceed these limits, and thereby force a larger range on the scale. Omitting limits and references uses "best-fit" values, with zero (0) as the base line.

This illustration demonstrates some of the custom chart properties:
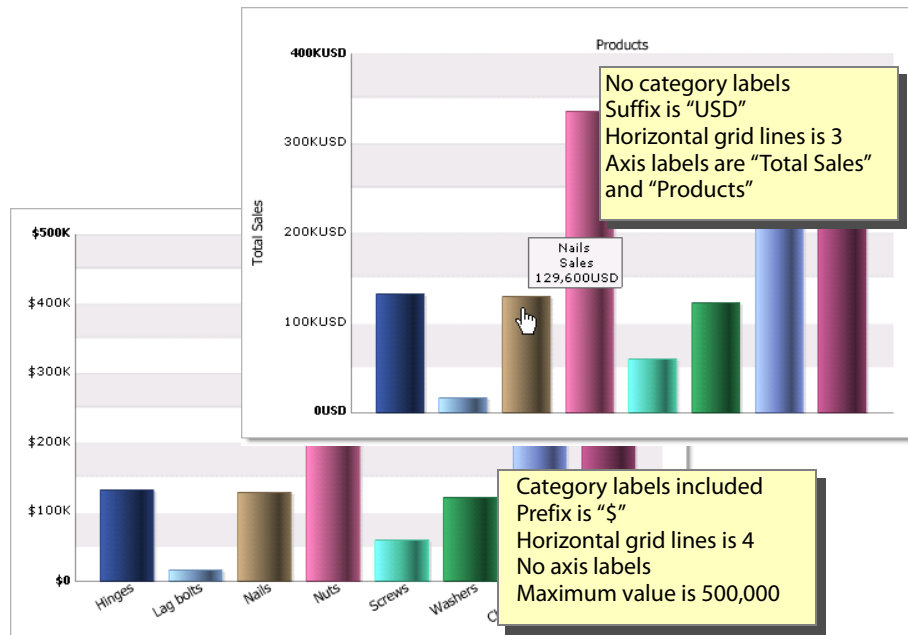
Grid chart plans

Plans are visual elements on charts that allow you to quickly see where the presented value is in relation to some "target" or range of values. See "Plans" on page 84 for a detailed discussion. Define grid chart plans in Step Five: Create Plan of the chart's editor.

Plans have these appearances on grid charts:

- Line Overlays: Horizontal lines in entire chart (constant value) or just the columns of the category item being plotted (dynamic values).

- Range Overlays: Two reference lines and the area between them. When the reference values are dynamic (data-driven), the lines are connected by a vertical line to present an "I-beam" on top of the

category column. When the vales are constant, the lines are behind the columns and fill the width of the chart.
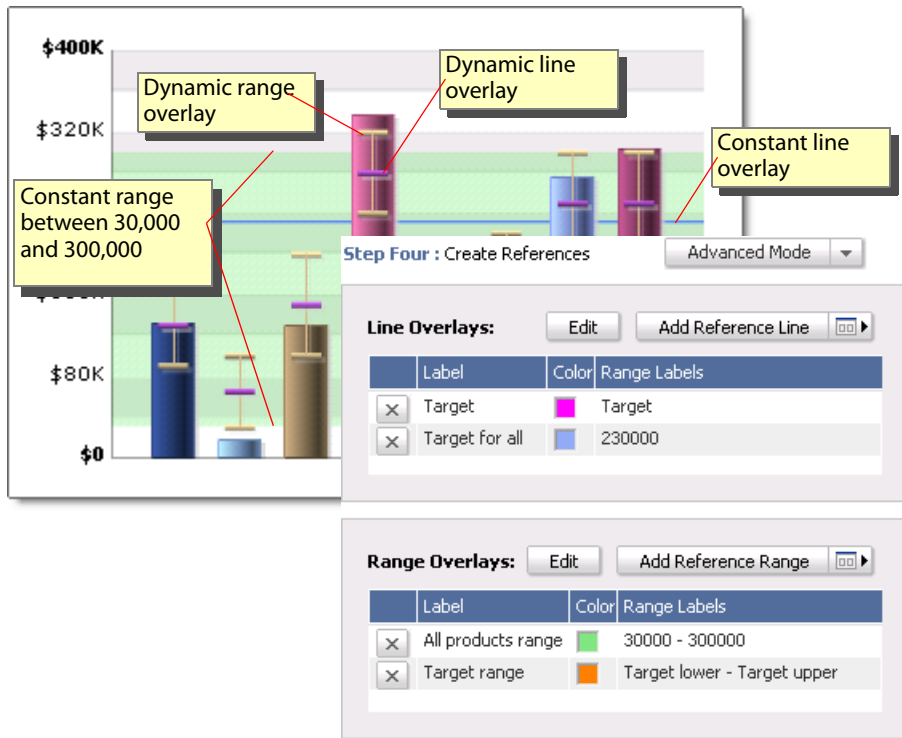
NOTE: When a reference value exceeds either of the Y-axis minimum and maximum values, the chart size automatically adjusts to accommodate the reference.

Creating a grid chart

When you create a grid chart you first identify the values column (or columns for combined charts), and then identify the category column that contains the labels for each point or bar.

Before creating a grid chart:

• You need create permission for Dashboard Objects.

• You need at least Read-Only permission on the view or cube that you want to chart.

To create a grid chart:

1. Open the **Dashboard Objects** navigation tree and select the **Dashboard Objects** folder, and click **Create Object**.

2. Select a data source by selecting the view or cube that contains the data this chart will report on.

NOTE: You can see the data currently in the source by clicking the preview button to the right of view's description.

3. Click **Continue**.

4. Select **Chart** as the display type, and **Area** or **Line and Bar** as the sub-type for the object.

5. Click **Continue** to move to the next step.

6. Select the columns from the view or cube that contains the data to chart.

   • Value (Y-axis) columns contain the numbers to represent, such as the total sales or average quantity. Additionally:

   • For line and bar charts, identify the chart type to display for this value: either Line or Bar.

   • You must select one or more values to chart. Additionally for combined charts, you may have none, one, or more sets of values for the lines.

• Category (X-axis) columns contain the "names" associated with each row in the source, such as product names, months of sales, or business regions. When the chart is based on a

   • view, the category name comes from a column in the view.

   • cube, the category is a dimension in the cube, and the default value is a level in the dimension. See "Cube charts" on page 50 for more information.

   Optional for cubes: Define any filters to apply by default to the data. See "Filter controls" on page 51 for more information.

7. Click **Continue** to move to the next step.

8. Define the chart's name and properties.

9. Optionally, define the following properties:

   • Description

   Description to appear in the Dashboard Objects list.

   • Associations

   Associations are dashboards that contain related metrics. For more information, see "Associated dashboards" on page 16.

   • Permissions

   Permissions determine who can see the indicator and to what extent they can access it. For more information, see "Permissions" on page 12.

   • Appearance

   See "Custom grid chart properties" on page 56 for details.

10. Optionally, define a plan to appear on the indicator. See "Grid chart plans" on page 57 for examples. Continue to the next step.

11. Save the chart.

The chart is immediately available for use in dashboards.

Indicators

A dashboard indicator is a visual representation of a number's position on a scale. Indicators are useful for identifying progress towards a target, and quantity levels within a range.
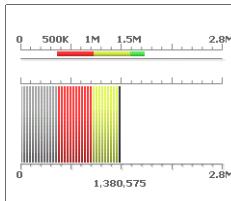
In this Chapter:

Viewing indicators

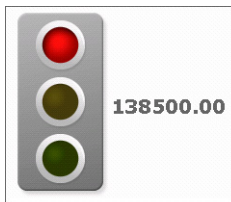FileNet BAM Dashboard provides these indicators:

*   Speedometers present a radial scale
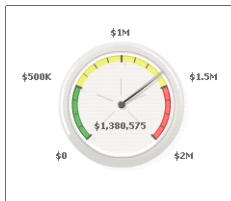
*   Thermometers present a horizontal linear scale

*   Traffic Lights present a vertical four-state scale

To view indicator details:

*   With the dashboard in view, select **Activities>Go to Detail View**.

    This displays a larger presentation and a table showing the value in the source that the indicator is built on. The value represented is a single cell in the source view or cube.

NOTE: In views, when there are multiple rows in the source, the value is the latest (most recently added) in the column. In cubes, the indicator applies to the face of the cube on which the indicator is defined.

Indicator properties

Indicators have the following general properties:

| Property	Description
Name	Identifies the indicator. The name can contain letters and numerals only, and must be unique among all Dashboard Objects.
Description	Optional description that may contain any text characters. This description appears at the top of the Object Details page when users view the details.
Permission list	Identifies which users or role have explicit access permission to the indicator. See "Permissions" on page 12 for a complete discussion of permissions.
Associate dashboards	Dashboards that present metrics related to the object. See "Associated dashboards" on page 16 for details.

Appearance properties

The following properties affect the appearance of the indicator:

| Property	Description
Scale angle	(Speedometer only) Angle of the arc of the indicator's display. See Scale angle," below, for examples.
Intervals	(Speedometer and thermometers only) Count of major steps in the scale. Intervals include a numeric value describing the value of the step on the scale. See Intervals and marks," below, for examples.
Marks	(Speedometer and thermometers only) Count of minor steps between interval steps on the scale. See Intervals and marks," below, for examples.
Numeric prefix	Text to appear immediately before numbers on the indicator. Useful for currency notations. See Numeric prefixes and suffixes," below, for examples.
Numeric suffix	Text to appear immediately after numbers on the indicator. Useful for currency notations. See Numeric prefixes and suffixes," below, for examples.
Range labels	(Speedometer and thermometers only) Text describing the lower and upper range limits. Omit the labels to display the numeric values of the limits. See Range labels," below, for examples.
Range limits	(Speedometer and thermometers only) Upper and lower range limits of the scale. See Range limits," below, for examples.

Scale angle

For speedometers only) The scale angle defines the angle of the arc of the indicator's display. The options are 90, 180, and 270 degrees of arc.

90°

270°

180°
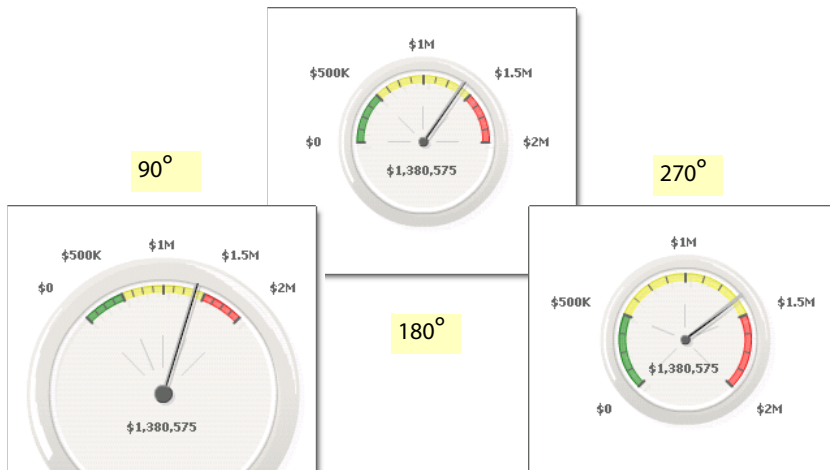
Intervals and marks

(For speedometers and thermometers only) Interval and marks are the notches that reveal steps in the scale. An interval is a bold notch that includes a the numeric value of the step, while a mark is a small notch showing the small steps between the intervals.

Mark

Interval

2 intervals
3 marks

1 interval
5 marks

3 intervals
2 marks
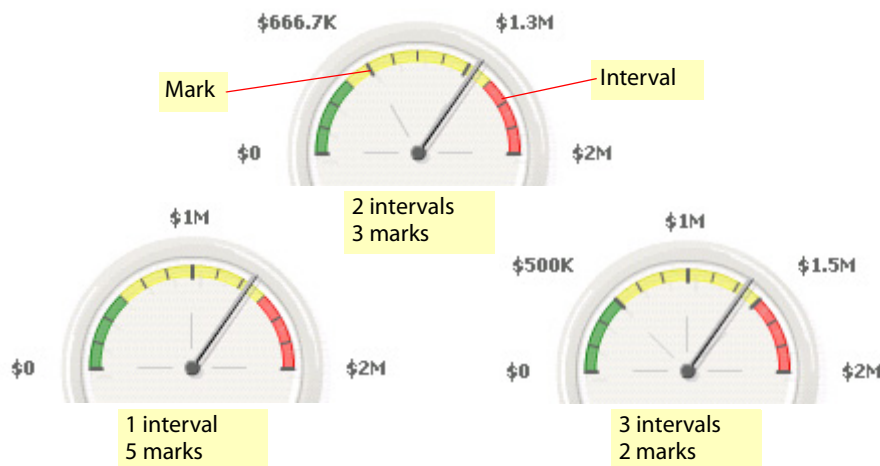
Numeric prefixes and suffixes

The prefix and suffix for numbers are text labels to place before or after the numbers on the indicator. This illustration shows a one indicator with a dollar sign ($) for a prefix, and another indicator with " USD" as the suffix.
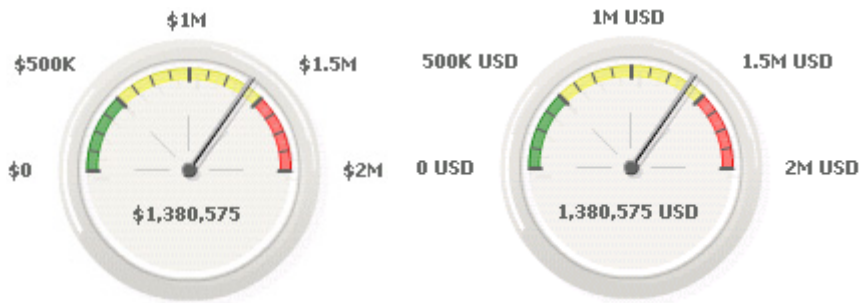
Range labels

(For speedometers and thermometers only) Assigns labels to replace the numbers for the lower and upper range limits. By default, the indicator shows the numbers of the range limits. These options replace the numbers with the text you specify. This illustration uses "None" as the minimum label, and "Target" as the maximum.
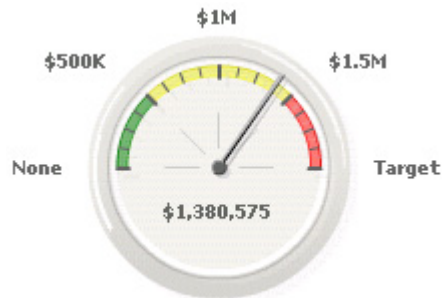
Range limits

(For speedometers and thermometers only) Sets the lower and upper limits for the range of the scale. By default, the indicator uses zero (0) and one (1) as the lower and upper limits.

NOTE: When you have defined both a reference and a defined limit, the scale adjusts to accommodate the reference. When the value to indicate is outside the range, the indicator appears on the limit. The display value, however, shows the actual number.


Range 0 to 200,000.

Range 200,000 to 500,000. Indicator is not within the range.
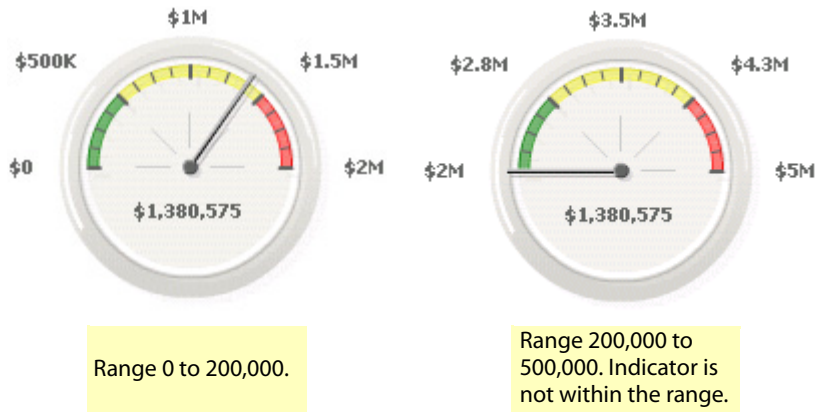
Indicator plans

Plans are visual elements that allow you to quickly see where the presented value is in relation to some "target" or range of values. On indicators, plans have these appearances:

Indicator	Plan Targets	Plan Ranges
Speedometers and thermometers	Marks in the scale.	Filled areas between upper- and lower-limits, or to extent of the scale.
Traffic light	Turn on the associated lamp when the data value *exactly* matches the target.	Turn on the associated lamp when its data value is *within* the range, inclusive.

Define indicator plans in Step Five: Create Plans of the indicator's editor. See "Plans" on page 84 for a detailed discussion about plans and their behaviors.

These two indicators have the same reference line and range definitions:
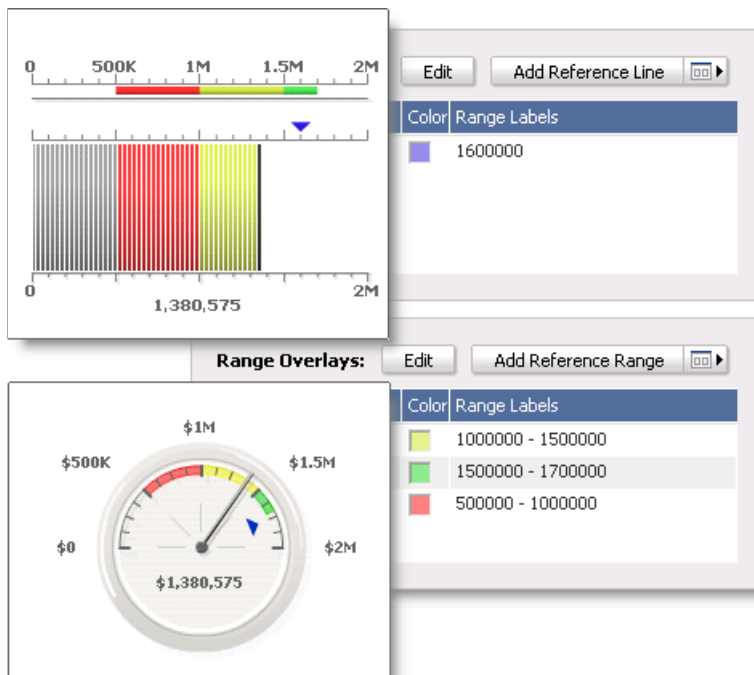
Creating an indicator

To create an indicator you must have create permission for Dashboard Objects and Read access permission on the view or cube that will be the source data for the indicator.

To create an indicator:

1. Open the Dashboard Objects navigation tree and select the **Dashboard Objects** folder, and click **Create Object**.

2. Select a data source:

    •   Select a view or cube that contains the data this indicator will report on.

    •   Click **Continue**.

NOTE: You can see the data currently in the source by clicking the preview button to the right side of view's description.

3. Select **Indicator** as the display type for the object, selecting **Speedometer**, **Thermometer**, or **Traffic Light** as the sub-type.

4. Click **Continue**.

5. Select the column from the view that contains the data value to chart, and click **Continue**

6. Assign a name and optional description.

7. Optionally, you can define the following:

    •   Associations: Associations refer to dashboards that contain related metrics. See "Associated dashboards" on page 16 for details.

    •   Permissions: Permissions determine who can see the indicator and to what extent they can access it. See "Permissions" on page 12 for details.

    •   Properties: Properties determine the appearance of the indicator. See "Indicator properties" on page 62 for details.

8. Optionally, define plans to control the appearance of the indicator.

    See "Indicator plans" on page 66 for examples.

9. Click **Continue** and save the indicator.

The indicator is immediately available for use in dashboards.

Watchpoints

Watchpoints are business rules associated with dashboard objects and which send an alert message when a value in the object is at or near a "target" value.

In this Chapter:

About watchpoints

Watchpoints monitor the *measure* of a *specific category item* of a dashboard object, such as the Sales measure of the Nails item in the Product category. The category and measure are always ones that the dashboard object presents.

Watchpoints can also optionally highlight table cells identified by the rule when the condition exists. (Every dashboard object has a table when shown in detailed view.)

NOTE: Watchpoints created on cubes monitor the default face of the cube only.

Viewing watchpoints

Every dashboard object has a Watchpoint Manager where you can create, edit, or delete the watchpoints associated with that object.

To access the Watchpoint Manager:

1. In the navigation tree, open the Dashboard Objects view.

2. Select the desired dashboard object.

3. At the top of the panel on the right, click **Activities**.

4. Select **Manage Watchpoints>Manage Existing Watchpoints** from the pop-up menu.

   The Watchpoint Manager page displays.

Watchpoint conditions

Watchpoint conditions look for values that are at, above, or below some target value — the *threshold* — which is either a plan for the category or a constant value you select. When the threshold is a plan range, a value matches the threshold whenever it is equal to the minimum or maximum values, or between them.
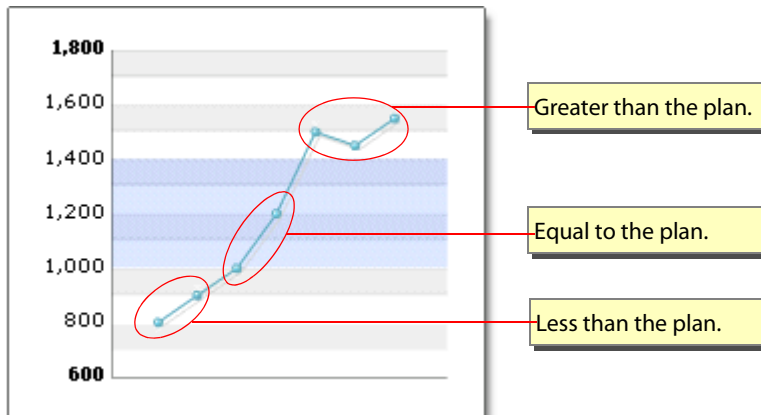
A threshold can also be a percentage of the target. Targets less than 100% are always below the threshold, and greater are always above.
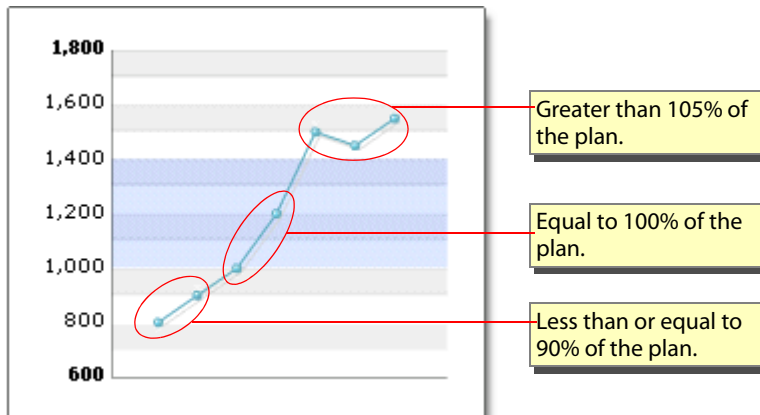
Creating and editing watchpoints

Watchpoints are associated with individual dashboard objects, and have the following attributes:

Attribute	Description
Rule parameters	Defines the watchpoint condition. See "Watchpoint conditions" on page 71 for details.
Name	Name of the watchpoint as it will appear in the Alert Manager list and when you move the mouse over an active watchpoint in a table.
Description	(Optional) Description of the watchpoint that appears in the optional alert message.
Display conditional formatting	Whether or not to identify those cells in the table that are tracked by watchpoints, and to highlight (color) those cells when the rule condition is met.
Color (Advanced mode)	Color to display behind the table cell when the watchpoint condition exits.
Alert parameters (Advanced mode)	How often to generate an alert message for the condition. The options are: • For each event — Every time the watchpoint condition is met. • Once for consecutive events — When a condition is met in consecutive events, only notify once until the condition is no longer met. Then notify with the next event that is true.

To create a new watchpoint:

1. Identify the dashboard object that contains the category item to watch.

2. At the top of the panel on the right, click **Activities**.

3. Select **Manage Watchpoints>Create Watchpoint** from the pop-up menu.

   The Create Watchpoint page displays.

4. Define the watchpoint rule condition parameters.

5. Define the watchpoint name and optional description, and optional color to use when the watchpoint is active.

NOTE: To control how often to send alert messages, select **Advanced Mode** and select the frequency.

6. Save the watchpoint.

The watchpoint immediately begins monitoring the source data.

To edit an existing watchpoint:

1. Identify the dashboard object that contains the category item to watch.

2. At the top of the panel on the right, click **Activities**.

3. Select **Manage Watchpoints>Manage Existing Watchpoints** from the pop-up menu.

    The Watchpoint Manager page displays.

4. Click **Edit Watchpoint**.

5. Modify the attributes as desired.

6. Save the watchpoint.

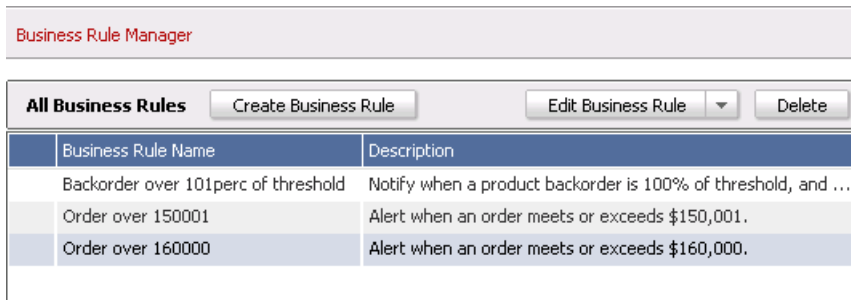   The watchpoint immediately begins monitoring the source data.

Business Rules

Business rules monitor events looking for exceptional business conditions, and produce *alert messages* that describe the conditions when they exist. Further, rules can monitor a found condition and identify when it no longer exists.

In FileNet BAM Dashboard, you can create business rules from templates that predefine conditional logic: you pick the rule condition and identify the values to test for, and the system notifies you when ever the condition is met. For example, with the rule "*When order total is greater than [amount]*" you identify the value of *amount*, and then receive notifications every time an order is larger than the amount you chose.

This discussion covers creating business rule from templates, and managing the rules in FileNet BAM Dashboard. Business rules templates are created in FileNet BAM Workbench. See Working with rule templates for details.

NOTE: FileNet Business Activity Monitor supports another kind of business rule: rules defined and managed entirely by the Scenario Modeler in FileNet BAM Workbench. See Working with rules and alerts for details.

The Business Rules Manager lists the rules available to you, and is where you create, manage, and delete them.

Deleting a business rule does not affect alert messages in the Alert Manager. Any messages in the Alert Manager generated from a business rule remain in the Alert Manager until removed.

Creating a business rule

You create business rules in the Business Rules Manager.

You need at least Read permission to the business activity in the Scenario Modeler where the rule template is defined.

To create a template-based rule:

1. Open the Business Rule Manager and click **Create Business Rule**.

2. Select the rule template to use.

3. Identify the parameter values for the rule.

4. Name the rule, and optionally provide a description.

5. Save the new rule.

The new rule appears in the Business Rule Manager, and the new rule immediately starts looking for new exceptional conditions.

NOTE: Business rules are based on the definition of the rule-template at the time of creation. Any subsequent changes to the template (including its alert message or reportlet) do not affect the existing business rules created from that template.

Tables

A table shows the contents of a business view or cube dimension level. As data in the view or cube changes, the table updates to reflect the new values.

For views, the table shows each row of the current view. By default, a view shows only the rows associated with the most recent event. However, you can change the count of events to maintain in the view's definition in FileNet BAM Workbench.

For cubes, the table shows one row for each category (element in the current dimension level) as defined in the cube. For details about working with tables based on cubes, see "Cube tables" on page 78.

When you create a table, you first identify the underlying business view, and then select which columns from the table to include in the display.

In this Chapter:

Table properties

Tables have the following object properties:

Property	Description
Name	Identifies the table. The name can contain letters and numerals only, and must be unique among all Dashboard Objects.
Description	Optional description that may contain any text characters. This description appears at the top of the Object Details page when users view the details.
Display type	Always Table for this object type.
Display sub-type	Always N/A for this type of object.
Permission list	Identifies which users or role have explicit access permission to the table. See "Permissions" on page 12 for a complete discussion of permissions.
Associate dashboards	Dashboards that present metrics related to the object. See "Associated dashboards" on page 16 for details.

Table custom properties

Tables have the following custom property:

• Column arrangement

The order that the columns appear in the table. By default, the order is the same as the data source.

Working with tables

When viewing a table, you can change the order of the items in the list by clicking the column heading. Further, if you have permission to create Dashboard Objects, you can copy the table with the **Save As** button. If you have Read-Write permission on the table, you can alter it with the **Edit Object** button.

Cube tables

When viewing a table of a cube, additional controls allow you to select the dimensions and levels to present, and filter controls permit you to limit the set of items presented. (If you are creating a pivot table, you must use a cube.)

Category controls

Categories are the general values to report on, and are determined by the selected dimension level. When you create a dashboard table, you select the dimension level to display as the default category. See "Creating a basic table" on page 80 for more details.
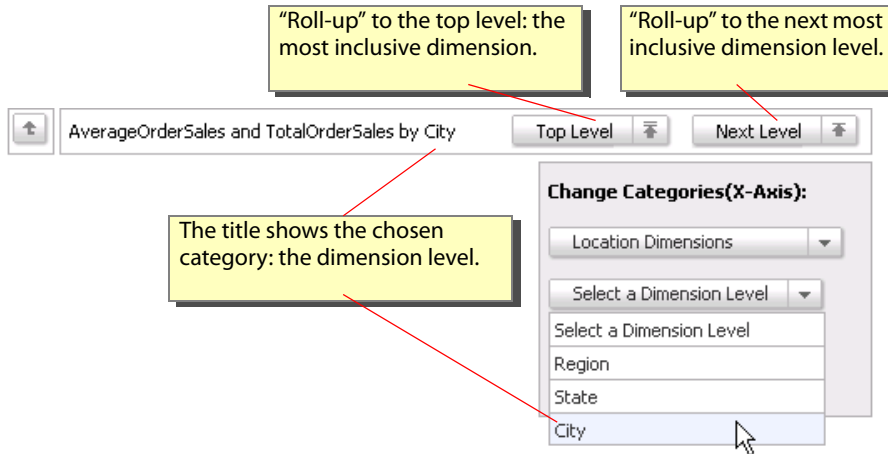
"Roll-up" to the top level: the most inclusive dimension.

"Roll-up" to the next most inclusive dimension level.

The title shows the chosen category: the dimension level.

Filter controls

Filters further limit the categories by showing only the result for items matching the filter conditions. For example, the filters in this illustration limit the results to those that occurred during the fourth fiscal quarter, in the West business region, and for Hardware and Lumber products only:

Four filters applied to the current category.
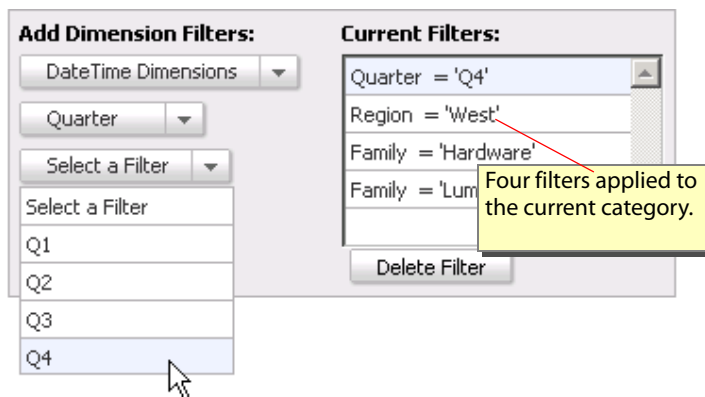
Creating a basic table

Before you can create a table, you must have Create permission for Dashboard Objects as well as Read-Only permission for the view or cube that you want to chart.

To create a basic table:

1. Open the **Dashboard Objects** navigation tree and select the **Dashboard Objects** folder,

2. Click **Create Object**.

3. Select a data source:

   • Select a view or cube that contains the data this table will report on

NOTE: You can see the data currently in the source by clicking the preview button to the right view or cube's description.

   • Click **Continue**.

4. Click on the **Select a display type...** button and specify **Table** for the object.

5. Click on the the **Select a display sub-type...** button and specify **Basic Table**.

6. Click **Continue** at the bottom of the page.

   The "Step Three: Select Data for your Table" page displays.

7. Select the columns to include in the table.

8. For cubes, take the following step:

   • Select the dimension and level to use for the categories (rows).

      There will be one row for each element in the level.

   • Optionally select any default filters. See "Filter controls" on page 79 for more information.

NOTE: References and plans are not available to tables at this time.

9. Click **Continue**.

10. Assign a name and optional description for the table.

11. Optionally define the following properties:

    •   Associations: Dashboards that contain related metrics. See "Associated dashboards" on page 16 for details.

    •   Permissions: Specifies who can see the table and with what permission they can access it. See "Permissions" on page 12 for details.

12. Optionally, click **Customize** to define the order that the columns appear in the table, and to declare the width to use when showing the table in thumbnail view on a dashboard.

13. Save the table.

The table is immediately available for use in dashboards.

Creating a pivot table

Before you can create a table, you must have Create permission for Dashboard Objects as well as Read-Only permission for the cube that you want to chart.

NOTE: For pivot tables, you must use a cube as a data source.

To create a pivot table:

1. Open the **Dashboard Objects** navigation tree and select the **Dashboard Objects** folder,

2. Click **Create Object**.

3. Select a cube as a data source.

NOTE: You can see the data currently in the source by clicking the preview button to the right view or cube's description.

4. Click **Continue**.

5. Click on the **Select a display type...** button and specify **Table** for the object.

6. Click on the the **Select a display sub-type...** button and specify **Pivot Table**.

7. Click **Continue** at the bottom of the page.

   The "Step Three: Select Data for your Table" page displays.

8. Complete the three following settings:

   • Select an item for the table values, which displays as the measure.

   • Select the horizontal dimension.

   • Select the vertical dimension.

NOTE: You must select different dimensions for the vertical and horizontal dimensions.

Measure category   Horizontal dimension

TOTAL AMOUNT by quarter and store_country   Activities ▼

quarter ▸	Q1	Q2	Q3	Q4	Summary
Canada	35960		37680	4710	78350
Mexico	125870	188800	161830	170840	934650
USA	107900	80930	107900	98890	631120

store_country ▴					
Summary	269730	269730	269730	269730	1644120

Vertical dimension

9. Optionally select any default filters.

See "Filter controls" on page 79 for more information.

10. Click **Continue**.

11. Assign a name and optional description for the table.

12. Optionally, click Advanced to access and define the following properties:

    • Associations: Dashboards that contain related metrics. See "Associated dashboards" on page 16 for details.

    • Permissions: Specifies who can see the table and with what permission they can access it. See "Permissions" on page 12 for details.

13. Optionally, click **Customize** to define order that the columns appear in the table, and to declare the width to use when showing the table in thumbnail view on a dashboard.

14. Save the table.

The table is immediately available for use in dashboards.

Exporting tables

When viewing a table, the **Activities** menu includes an **Export** option to copy the values in the table to the Microsoft Windows clipboard as tab-separated text.
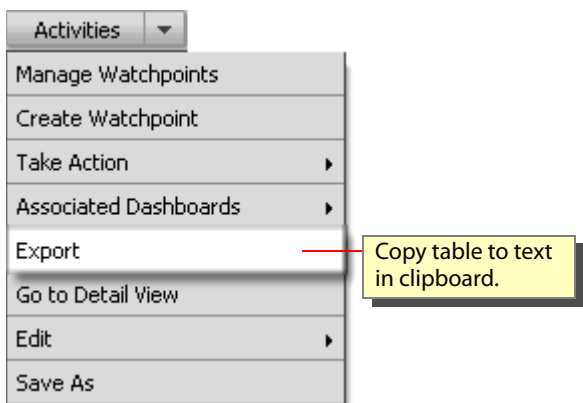
Plans

Plans are visual elements on charts and indicators that allow you to quickly see where the presented value is in relation to some target or range of values. For example, this bar chart shows dynamic plan lines and ranges for each bar, and shows a target line and a target range that each apply to the entire chart.
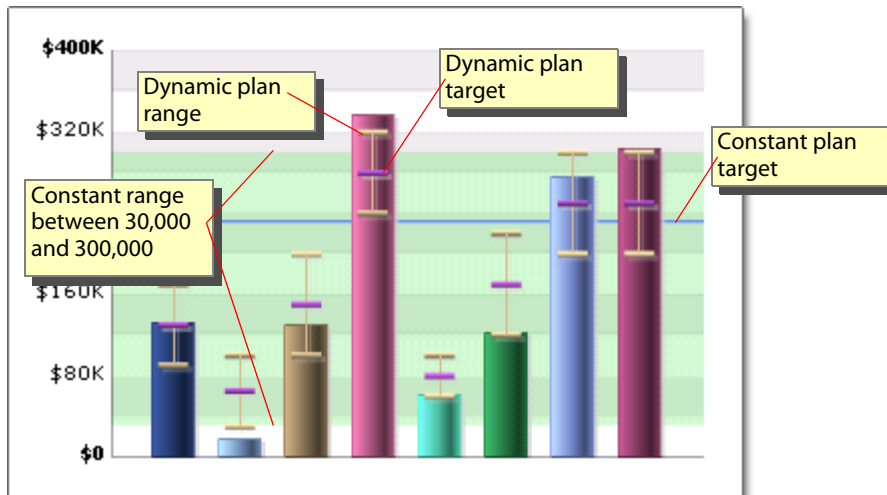
NOTE: Plans are not available for all dashboard object types. For tables, consider using watchpoints. See "Watchpoints" on page 68 for details.

In the Chapter:

Plan values

Plan values are numbers that are either the same (constant) for all categories on the chart, or dynamic (data driven) to the categories being presented:

• Constants

A constant plan value is the same for all presentations, regardless of the values of the category items. For example, on a grid chart a constant region or line appears behind the bars and applies to the entire chart.

• Dynamic

A dynamic value is specific to the category item being presented, and is retrieved from a data source when the item is drawn. To use a dynamic value, you first must have *plan relationships* associated with the source cube or view in FileNet BAM Workbench. See the for details about creating plan relationships.

This table summarizes the differences between the two types of values:

Object	Constant value	Referenced value
Grid charts	All lines appear on the same horizontal level of the chart's Y-axis. When used in a range, the value is the top or bottom of a range.	Line-segment locations adjust to positions specified in the plan values.
Speedometers/ Thermometers	The line or range appears at a fixed location on the scale.	The location adjusts to the position specified in the plan value.
Traffic Lights	Lights the associated traffic lamp when the value exactly matches the plan.	Lights the associated traffic lamp when the value is within the plan range.

NOTE: If a plan value outside the defined minimum and maximum scale for the chart or indicator, the plan does not appear on the presentation. For example, if a chart maximum scale limit is 100, but a plan target for the chart is 110, the chart does not display the target.

Dynamic plan values

Dynamic values allow plans to be specific to the category item being presented; unlike constant values which are applied to the entire set of category items. When the dashboard draws the chart or indicator it retrieves the value of each item to display. Further, when the item has an associated dynamic plan, the plan value is retrieved and presented as well.

For example, when charting the total sales for a set of products, you can also show the sales targets for each product as a plan target. When the dashboard draws the chart, it retrieves the plan value for each product as them draws the bars.

NOTE: To use a dynamic value, you first must have a *plan relationship* associated with the measure to chart. Do that by creating them in the source cube or view in FileNet BAM Workbench. See the Getting Started for details about creating relationships. Specifically, for view sources see Viewing plan relationships", and for cube sources see Cube plan relationships."

When you create a dashboard object, you select the data source (the view or cube) and select the data to present, such as the values to chart. If the values to chart have associated plan data, those plans appear in the Edit Plans page of the object editor. To include a data driven plan, create a plan target or range and select the plan from the dynamic data list.

Plan relationships defined in FileNet BAM Workbench and available to the current measure.
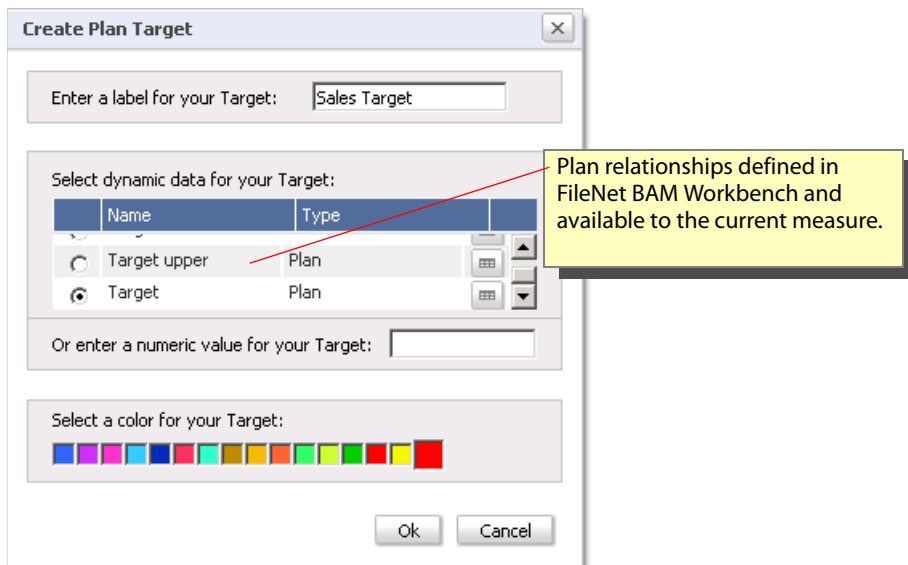
Creating plans

This section shows you how to create plans in the FileNet BAM Dashboard. Before creating a plan, you must have the following permissions:

• Read and Edit permission for the Dashboard Object

• Read access permission on the view or cube that will be the source data for the indicator

Optionally, to create a dynamic plan, you need an existing plan relationship defined with the source view or cube. For more information, see "Dynamic plan values" on page 86,".

To create a plan:

1. Open the plan editor for the object.

   • When creating or editing the object, go to **Step Five: Create Plans**.

   • When viewing the object, select **Activities > Edit > Edit Plan**.

   • When viewing the object name in the Dashboard Objects list, select the object and select **Edit Object > Edit Plan.**

2. Select either **Add A Plan Target** or **Add A Plan Range**.

3. Assign a label that identifies the plan within the object.

4. Identify the plan data:

   • For constant values, enter the numeric value.

   • For dynamic values, select from the list.

   For ranges, you may specify both the minimum and maximum values, or just one. When you omit one of the value, the range includes extent of the data displayed on the Dashboard Object.

5. Select the color for the plan on the object's presentation.

NOTE: For traffic lights, the three colors correspond to the lamps in the light: red, amber, green.

6. Save the plan, and optionally create additional plans for the object.

7. Save the Create Plans changes.

The plan is immediately applied to the object.

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