



QAD Enterprise Applications

User Guide **QAD Business Intelligence Portal**

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BI Portal Version 3.9
September 2013

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Change Summary

The following table summarizes significant differences between this document and the previous version.

Date/Version	Description	Reference
September 2013/QAD BI 3.9	Added Best Practices section to Ch. 3	33
March 2013/QAD BI 3.8.1	Editorial review; rebranded for QAD BI 3.8.1	--
November 2012/QAD BI 3.8	No updates made	--
September 2012/QAD BI 3.7	Added an Introduction chapter	1
	Moved the Collaboration chapter into Chapter 2: BI Portal Overview and Navigation	19
	Designer chapter changed to Chapter 3	31
	Administration chapter changed to Chapter 4	77
	Moved OEE chapter to the new BI Modules and Key Performance Indicators User Guide	--
	Major revisions throughout	--
March 2012/QAD BI 3.6	Added chapter on Overall Equipment Effectiveness (OEE) metrics available in Capacity Planning and Control - Production Lines Dashboard	--
September 2011/QAD BI 3.5	Rebranded for QAD BI 3.5	--

Introduction

This chapter provides an introduction to QAD Business Intelligence (BI).

Overview 2

The key features and benefits of QAD Business Intelligence.

BI Components 2

An overview of the main components of BI: Data Warehouse Designer, the modules, and the BI Portal.

Overview

QAD Business Intelligence (BI) improves decision making through easier access to data, prepackaged analytics, and integrated collaboration. The BI Portal allows business managers to see that data in a summarized, visual format that supports better decisions.

The key features of QAD BI are as follows:

- Daily, scheduled batch updates from source systems
- Browser-based, industry-standard portal framework
- Easy-to-use queries, reports, and dashboards using Flash-based visualization
- Graphing capabilities
- Historical perspectives
- Customizable and extensible

The benefits of BI are as follows:

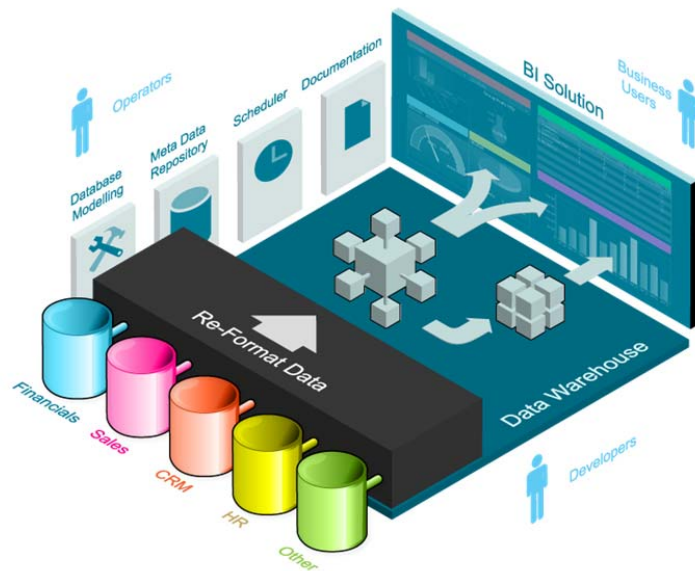
- Enables management by fact
- Identifies key performance indicators that require attention
- Provides easy-to-use investigative tools through the dashboard framework
- Identifies causes of problems or potential problems
- Harmonizes information, consolidates data from disparate systems
- Improves strategic and tactical decision making
- Reduces elapsed time to reach a quality decision
- Facilitates collaboration to support communication and decision implementation

BI Components

QAD BI is made up of the following components:

- Data Warehouse Designer (DWD)
- Modules
- The BI Portal

Fig. 1.1
QAD BI Solution



Data Warehouse Designer

The DWD, the engine to the BI solution, consolidates QAD and non-QAD data sources into a single data warehouse optimized for simple, fast access. When a business has quick and easy access to data, the decision making in the business improves. The following are key features of the DWD:

- Data consolidation, optimization
- Multi-currency consolidation
- Support for database maintenance tasks
- Single repository for transformation logic
- Consolidation into a single warehouse optimized for simple, fast access
- QAD and non-QAD data sources
- Auto-generation of data warehouse documentation
- Scheduler

Modules

The BI solution provides out-of-the box ERP and EAM-aware modules, which streamline access to current and historical QAD ERP data. The QAD modules are preformatted groupings of data, based on QADs extensive application and vertical knowledge. The key features of the modules are as follows:

- Contain QAD-specific transformation logic
- Allow fast initial setup of the BI, including historical data
- Include QAD standard queries, reports, visual items, and dashboards
- Contain a clear upgrade path to new versions of QAD ERP

- Extensible, to support non-QAD data sources
- ERP aware
- Can be installed separately

The BI solution contains the following modules and submodules:

- | | |
|---|---|
| <ul style="list-style-type: none">• Financials<ul style="list-style-type: none">• General Ledger• Accounts Payable• Accounts Receivable• Order Management<ul style="list-style-type: none">• Invoices• Bookings• Shipments | <ul style="list-style-type: none">• Operations<ul style="list-style-type: none">• Inventory Control and Management• Direct Materials Purchasing• Capacity Planning and Control• Enterprise Asset Management (Early Adopter only)<ul style="list-style-type: none">• Plant Maintenance• Supply Chain<ul style="list-style-type: none">• Transportation Management |
|---|---|

Collaborative Portal

The Collaborative Portal provides you with all the tools required to filter through large amounts of data and display it in a quick and simple format. It allows you to easily see exceptions and trends in the business that can lead to better decision making. The portal provides users with a quick, at-a-glance snapshot of business data; designers with the ability to build custom visual items, reports, and dashboards; and administrators with the ability to manage user access and portal security.

The key features of the Collaborative Portal are as follows:

- | | |
|---|---|
| <ul style="list-style-type: none">• Browser-based delivery• Industry-standard portal framework• Flash-based visualization• Dashboards, visual items, and reports | <ul style="list-style-type: none">• Customizable and extensible features• Collaboration forums• Data-based security• Mobile capability |
|---|---|

Fig. 1.2
BI Collaborative Portal



QAD BI Portal Overview and Navigation

This chapter provides an overview of the QAD BI Portal as well as information about use and navigation.

It discusses the following topics:

***Navigating the BI Portal* 6**

Logging in to the portal and navigating portal menus.

***BI Portal Dashboard* 9**

Navigating the dashboard and using the visual items.

***Report* 17**

Viewing and running reports.

***Collaboration* 19**

Accessing, navigating, and posting to the forums.

***Mobile Capability* 23**

Downloading the mobile app and accessing the portal using a mobile device.

***Internationalization* 27**

Changing the UI language and translating object names.

***Help* 29**

Using the Help menu options.

Navigating the BI Portal

Access the BI Portal through your web browser using a link the administrator provides you.

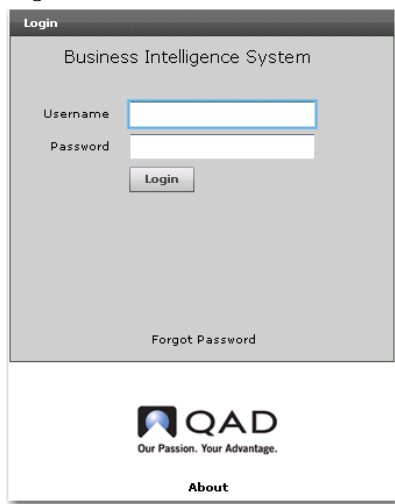
Note The portal can also be accessed using a mobile device. See “Mobile Capability” on page 23.

Logging Into the BI Portal

Follow these steps to log in to the portal:

- 1 Open your web browser and click the link your administrator provides you.
- 2 The login window appears.

Fig. 2.1
Login Window



- 3 Fill in the following fields:
Username. Enter a username.
Password. Enter a password.
- 4 Click Login.

Forgot Password

Follow these steps if you have forgotten your password:

- 1 In the login window, click Forgot Password.
- 2 Enter a user ID and click Request New Password.
- 3 A new password is generated and sent to your primary e-mail address.
- 4 To return to the login window, click Cancel/Back.

Fig. 2.2
Forgot Password Window

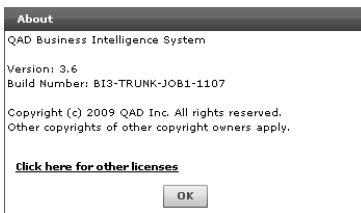


About BI

To view the BI version number, click the About button on the login window.

Note The About window can also be accessed through the Help drop-down menu.

Fig. 2.3
QAD BI About Window



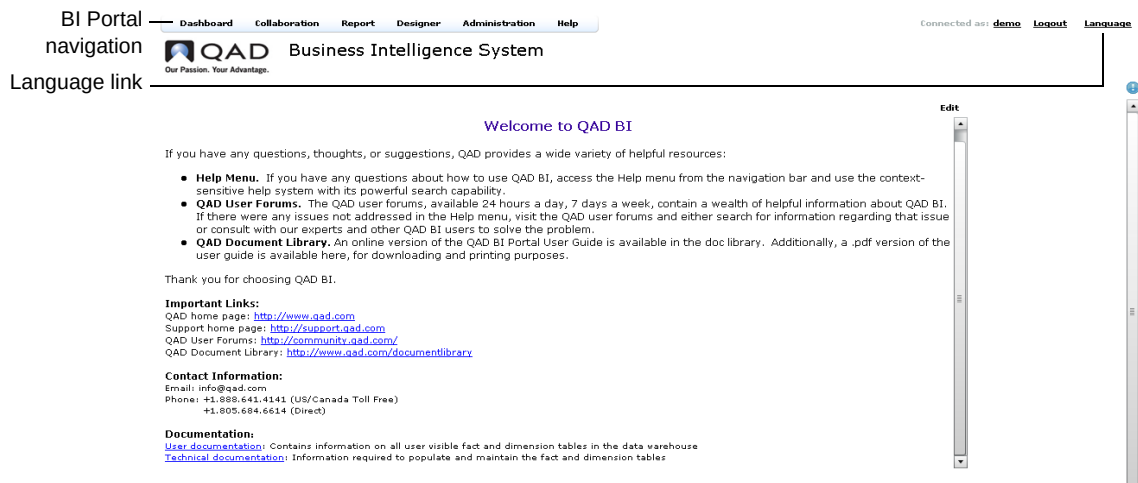
BI Portal Menus

At the top of the portal window is the navigation bar where you can access the following drop-down menus:

- **Dashboard.** Links to all dashboards.
- **Collaboration.** A link to forum home where you can collaborate on visual items or dashboards.
- **Report.** A link to report home where you can view and run reports.
- **Designer.** Links to the query, report, visual item, and dashboard designers.
- **Administration.** Links to administrator functions.
- **Help.** Links to a soft copy of the *BI Portal User Manual* and the QAD Support website.

Note Depending on the user role and the security restrictions the administrator sets up for you, some drop-down menus might not be visible on the portal.

Fig. 2.4
Welcome Screen



Note You can access the welcome screen from the Dashboard drop-down menu.

User Roles

Your experience in the portal is dependent on your user role. Four pre-installed user roles in BI can perform specific functions within the portal:

- Dashboard Only
- Designer
- User
- Administrator

Dashboard Only

- **Access:** Dashboard menu
- **Permissions:** Read-only access to dashboards

User

- **Access:** Dashboard, Collaboration, and Report menus
- **Permissions:** View dashboards, run reports, and collaborate with other users in the forums.

Designer

- **Access:** Dashboard, Collaboration, Report, and Design menus
- **Permissions:** View, edit, and create queries, reports, visual items, and dashboards. See Chapter 3, “QAD BI Portal Designer,” on page 31.

Administrator

- **Access:** All menus.
- **Permissions:** Manage user access, portal security, and the Data Warehouse Designer. See Chapter 4, “Administration,” on page 77.

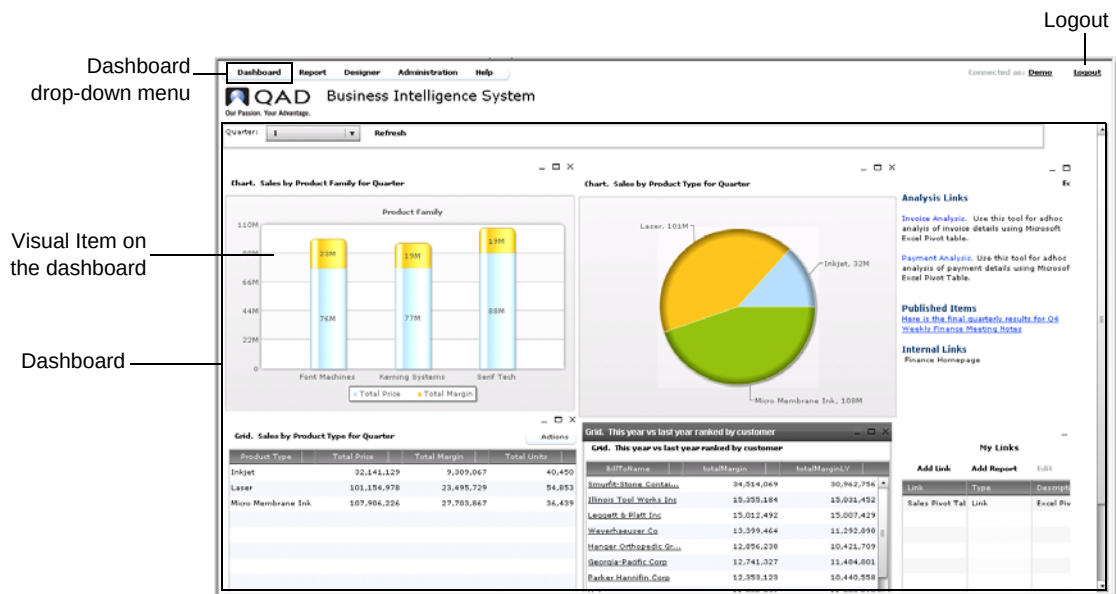
Note All users have access to the Help menu.

BI Portal Dashboard

The dashboard, which is the front page view for the data warehouse analysis, is the first screen the system displays when you log in.

The dashboard is a collection of visual items that gives a snapshot view of the current business state; for example, a sales dashboard that shows the current sales figures for each product. The dashboard can be fully customized so that you see information in a quick, easily analyzed format, which allows for better and more informed decision making.

Fig. 2.5
BI Portal Dashboard



The following is a list of dashboard actions:

- **View a Dashboard.** To view a specific dashboard, select that dashboard from the Dashboard drop-down menu. This drop-down menu contains a list of all available dashboards.

Note When you log in again, the system displays the last dashboard viewed.

- **Export an Image of a Dashboard.** The export image option allows you to export an image of a dashboard as a .png file. The image file can then be saved anywhere on a local hard drive or network.

To export an image of a dashboard, right-click on the header bar, and then select *Export image of this dashboard*. Click Save and then choose the location to save the file.

- **Collaborate on a Dashboard.** The collaborate option allows you to enter the forums from a dashboard so you can discuss that dashboard with coworkers. When you select the collaborate option, an image of the dashboard is attached to the forum topic.

To collaborate on a dashboard, right-click anywhere on the dashboard, select *Collaborate on this dashboard*, and then post your comment in the forums. See “Forums” on page 14.

Visual Items

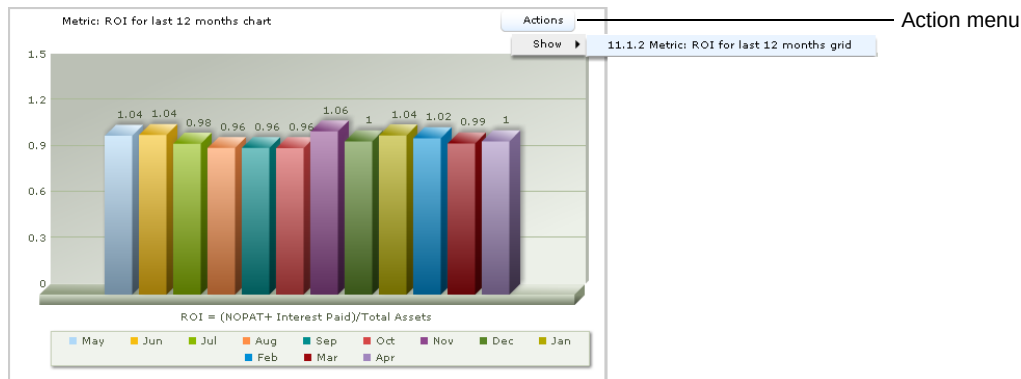
Visual items, such as grids or charts, display the results of a query; for example, a pie chart showing the total sales of each product type in the current quarter. Visual items can be moved, minimized, maximized, closed, and restored. Items can have drill capabilities so that you can drill in to other visual items or drill out to reports to see more detailed information.

Note When a visual item is closed on the dashboard, it is only removed from that session. The item returns in the default area the next time you access the dashboard.

The following is a list of visual item actions:

- **Action Menu.** Some visual items have an action drop-down menu located in the top right corner of the item. Click Show from the Action drop-down menu to view the list of options; for example, in Figure 2.6, the Action menu gives the option to view the data in a grid.

Fig. 2.6
Visual Item Action Menu



- **Export Image of a Visual Item.** The export image option allows you to export an image of a visual item as a .png file. The image file can then be saved anywhere on a local hard drive or network location.

To export an image of a visual item, right-click on the header bar, and then select *Export image of this item*. Click Save and then choose the location to save the file.

- **Collaborate on a Visual Item.** The collaborate option allows you to enter the forums from a visual item so you can discuss that visual item with coworkers. When you select the collaborate option, an image of the item is attached to the forum topic.

To collaborate on a visual item, right-click on the header bar, select *Collaborate on this dashboard*, and then post your comment in the forums. See “Forums” on page 14.

Visual Item Types

The following is a list of the types of visual items available in the portal:

- Grids
- Charts
- Gauges
- Heat Maps
- Free Form Items
- Parameter Bars
- Images
- Messages
- Forums
- Report Browser
- Links List

Grids

The grid is a simple, straightforward arrangement of information in a sortable format.

Fig. 2.7
Grid

Grid. This year vs last year ranked by customer

BillToName	totalMargin	totalMarginLY
Smurfit-Stone Container Corp	34,514,069	30,962,756
Illinois Tool Works Inc	15,355,184	15,031,452
Leqgett & Platt Inc	15,012,492	15,007,429
Weyerhaeuser Co	13,399,464	11,292,898
Hanger Orthopedic Group Inc	12,856,238	10,421,709
Georgia-Pacific Corp	12,741,327	11,484,801
Parker Hannifin Corp	12,353,123	10,440,558
Unknown	11,095,246	11,393,569
International Paper Co	11,054,052	11,567,703
Gannett Co Inc	9,997,103	11,663,258
Willamette Industries Inc	9,470,981	8,368,604
Packaging Corp Of America	8,702,316	11,918,585
Thermo Electron Corp	8,411,849	9,024,587
Lamar Advertising Co	8,024,007	7,700,510
Rock-Tenn Co	7,745,295	7,259,805
ConAgra Foods Inc	7,561,094	7,765,638
Consolidated Graphics Inc	7,549,410	8,930,821
Interstate Bakeries Corp	7,358,730	6,966,654

The following is a list of grid actions:

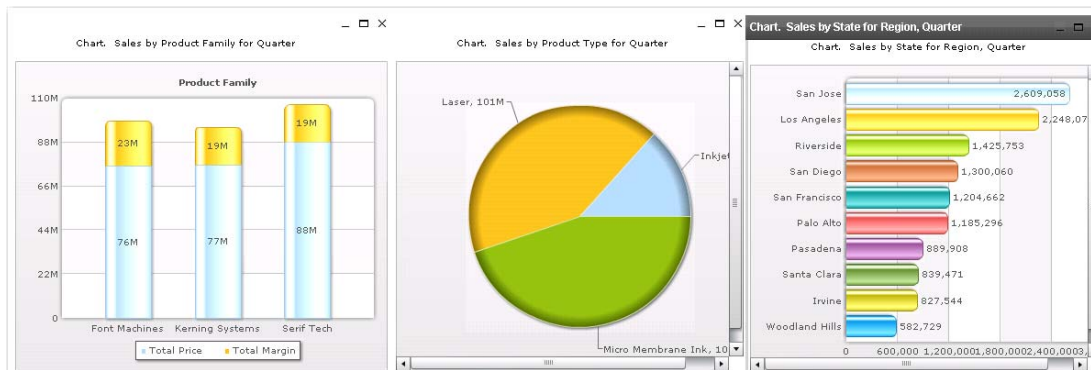
- **Sorting.** The columns within a grid are sortable. Click the column heading to sort in ascending, descending, and nested sort order.
- **Drilling.** If the grid can be drilled into, the data is underlined, similar to a link. Click the data to drill into the other visual item or report. Use the breadcrumbs at the top of the item frame to return to the grid.

Charts

Charts display information in the following formats:

- Column 2D
- Column 3D
- Pie 2D
- Pie 3D
- Line
- Bar
- Area
- Doughnut 2D
- Doughnut 3D

Fig. 2.8
Charts

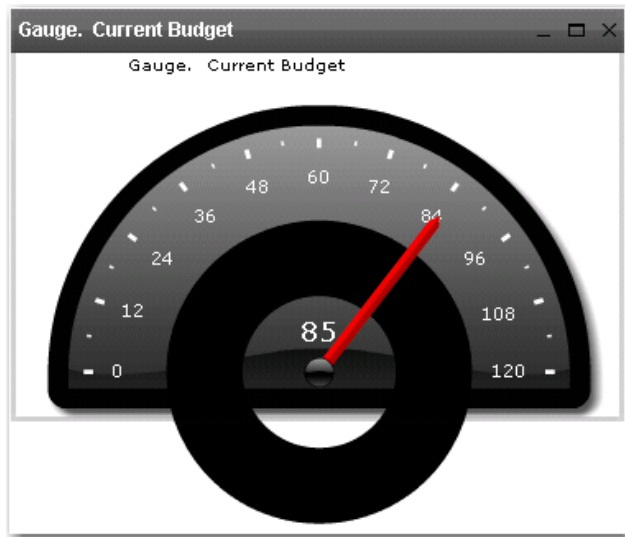


If a chart allows for drilling, the cursor changes to a hand when dragged over that section of the chart. Click that section and drill into the other visual item or a report. Return to the chart using the breadcrumbs at the top of the image frame.

Gauges

A gauge is a specialized form of visual item used to show some value compared to a target; for example, current sales compared to the sales forecast.

Fig. 2.9
Gauge

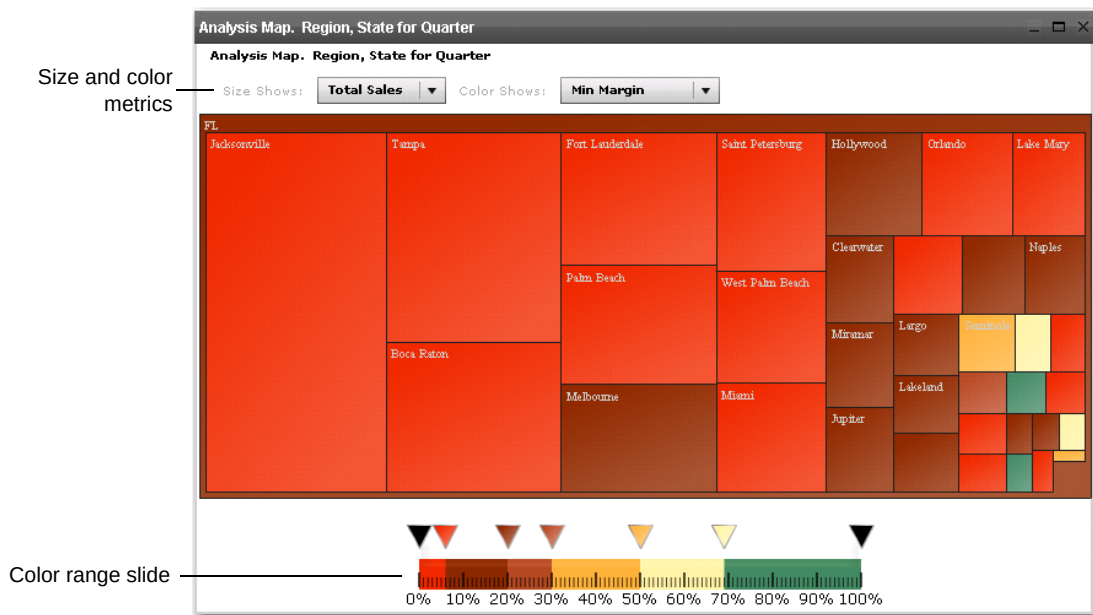


If a gauge allows for drilling, the cursor changes to a hand when dragged over that section of the gauge. Click that section and drill into the other visual item or a report. Return to the gauge using the breadcrumbs, or back arrow button, at the top of the image frame.

Heat Maps

The heat map displays information through size and color. Hover the cursor over a rectangle to see more detailed information about that section.

Fig. 2.10
Heat Map



The following is a list of heat map actions:

- **Metrics.** Use the Size and Color drop-down lists to change the size and color metrics of the heat map.
- **Color Ranges.** Use the range slide at the bottom of the window to change the color ranges in the heat map. Click and drag the desired color triangle to the appropriate value.
- **Drilling.** If a heat map allows for drilling, the cursor changes to a hand when dragged over that section of the heat map. Click that section and drill into another visual item or a report that shows more detailed information. Return to the heat map using the breadcrumbs at the top of the image frame.

Free Form Items

The free form item is an advanced metric display, which supports conditional formatting of the content. For example, if the value in the cell reaches a certain threshold, a cell changes to red.

Fig. 2.11
Free-Form Item

Metrics. Product Family for Current Year			
Product Family: Font Machines			
	MTD	QTD	YTD
Revenue	499,212	679,212	979,212
Margin	23,134	63,134	93,134
Units	231	278	356
Returns	95	278	356
Survey	95	96	95

With a free-form item, you can drill out to reports. If a free-form item allows for drilling, the cursor changes to a hand when dragged over that section of the item. Click that section to drill out to the report. Return to the free-form item using the breadcrumbs at the top of the image frame.

Parameter Bars

A parameter bar is used to set the subject or parameters that other visual items display on the dashboard. Click the parameter bar to view a drop-down list of the available options. You can also type inside the parameter bar to find items in the drop-down list that begin with the characters you enter. Click Refresh to view the changes.

Images

Image items are photos or graphics that can be applied to a dashboard to create a custom and personalized look; for example, a company logo or a customized graphic associated with the dashboard.

Messages

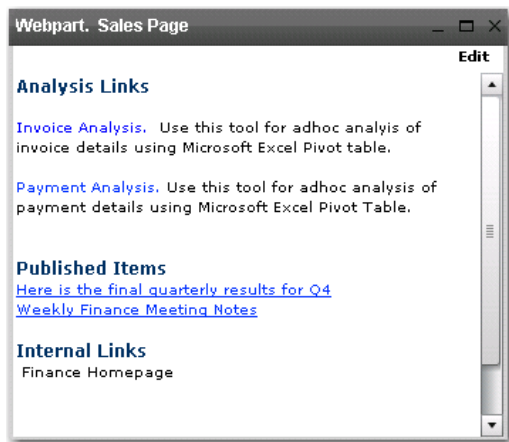
A message item is a fully customizable text block that can be placed on a dashboard; for example, a descriptive paragraph related to the dashboard items or a bulleted list of hyperlinks and important information.

Message items can be read-only or they can be editable:

- **Read-only.** Only the designer can edit the text area.
- **Editable.** End users can edit or add to the text content directly from the dashboard. To edit a message, click the Edit button, make the appropriate changes, then click Save.

Note The ability to edit a message, which is based on user roles, is determined by the designer.

Fig. 2.12
Message



Forums

The forum is an item on the dashboard that allows you to view and collaborate on the latest topics in a forum. Depending on the design, the forum shows the topics from all or selected forums.

To view the latest topics in a forum, click Refresh. To collaborate on a topic, click the topic and click Post Comment. See “Collaboration” on page 19.

Fig. 2.13
Forum

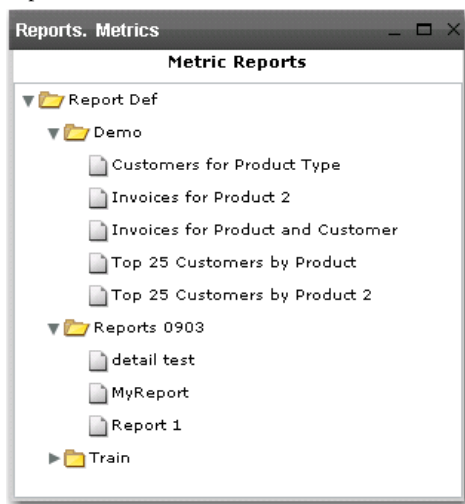
The screenshot shows a web browser window titled 'EE Accounts Payable Forum'. It contains a table with the following data:

Topic	Author	Comments	Last Post
Use Payment in Process Acct Primarily used in Europe; if Yes, payments credit the bank's payment in process	demo	0	6/25/2012
Confirmed Vouchers Enter No if vouchers are normally entered unconfirmed pending	demo	0	6/25/2012
Next Journal Incremented whenever the system creates AP-related GL transactions for confirmed	demo	0	6/25/2012
Batch Process	demo	0	6/25/2012

Report Browser

The report browser displays a list of reports, which you can view and run directly from the dashboard. Double-click the desired report to view the report in a new tab. To return to the dashboard, close the tab.

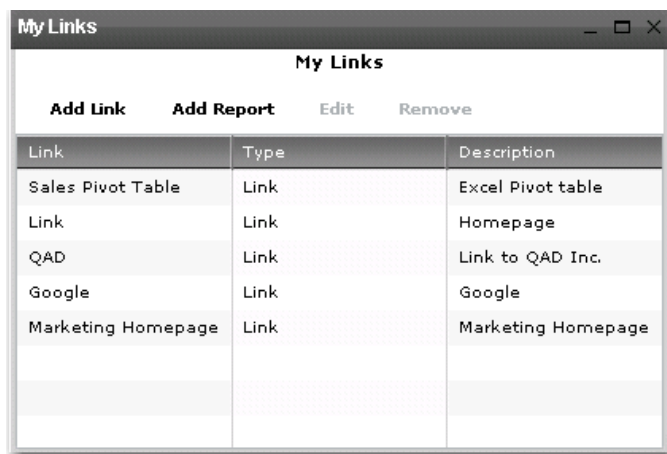
Fig. 2.14
Report Browser



Links List

The links list is an organized table of links to web sites and reports.

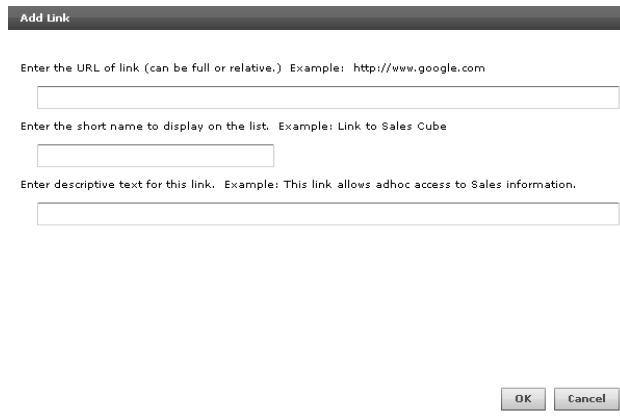
Fig. 2.15
Link List



If a links list is editable, the following actions are available:

- **Add Link.** To add a link to the list, click Add Link. Enter the URL, a title for the link, and a brief description, and then click OK.

Fig. 2.16
Add Link to Link List



Add Link

Enter the URL of link (can be full or relative.) Example: <http://www.google.com>

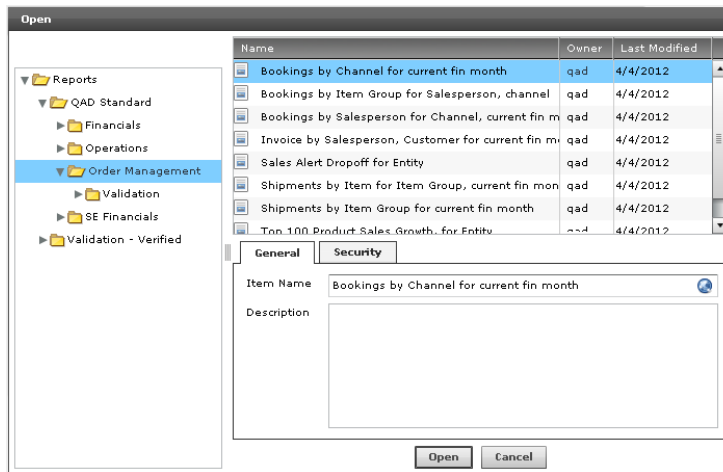
Enter the short name to display on the list. Example: Link to Sales Cube

Enter descriptive text for this link. Example: This link allows adhoc access to Sales information.

OK Cancel

- **Add Report.** To add a report to the list, click Add Report. Navigate through the folders, select the desired report, and then click Open.

Fig. 2.17
Add Report to Link List

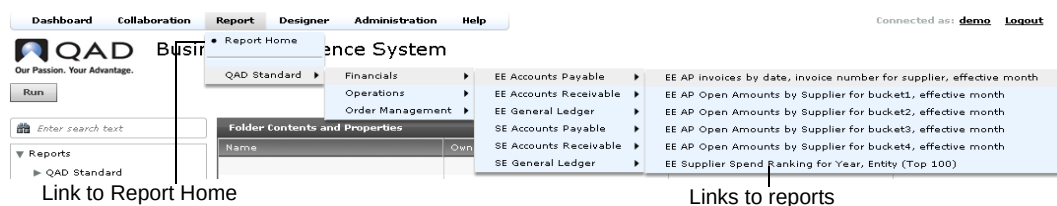


Note If you edit the link list, the changes are visible to you only and do not affect other users and their dashboards.

Report

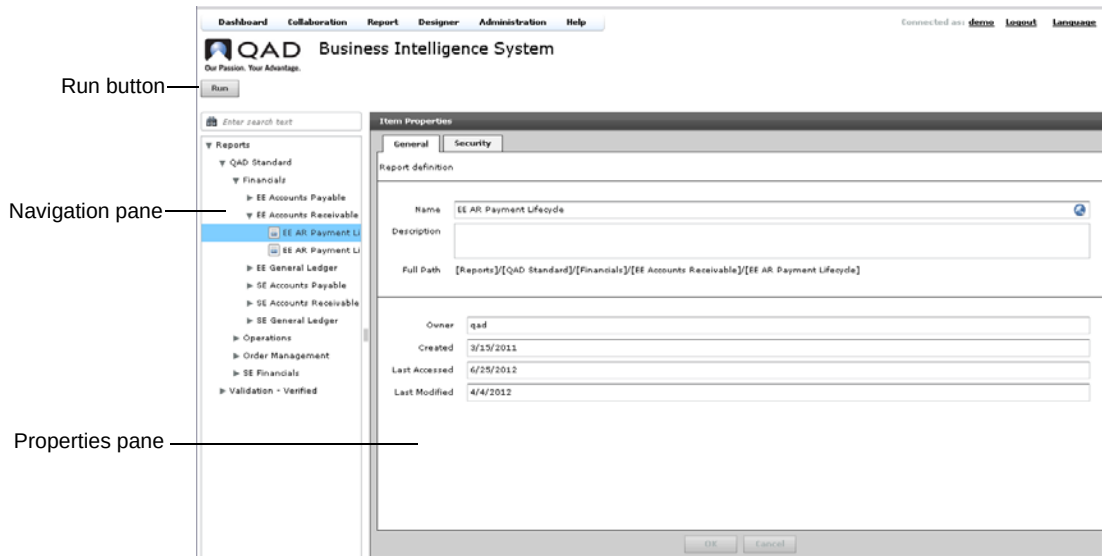
From the Report menu, you can access the Report Home or a hierarchical list of available reports.

Fig. 2.18
Report Menu



To access Report Home, select Report Home from the Report drop-down menu.

Fig. 2.19
Report Home



A navigation pane listing all existing reports is on the left side of the window. A properties pane, which displays information about folders and reports, is on the right side of the window.

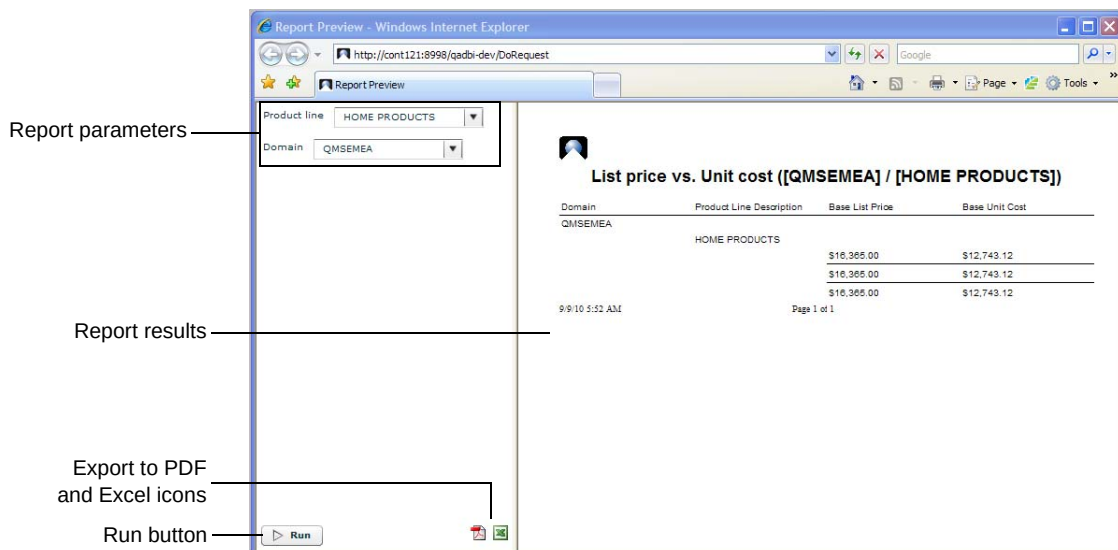
Running Reports

To run a report, select a report from the Report menu and then click Run.

Use the parameter bars, located in the top left corner of the window, to change the report parameters. Click Run to view the report.

Export the report to PDF or Microsoft Excel by clicking the appropriate export icon.

Fig. 2.20
Report Preview



Collaboration

The Collaboration menu allows you to access the forums, where they can discuss and collaborate on dashboards and visual items.

Access the forums in the following two ways:

- Select Forums from the Collaboration drop-down menu.
- Right-click anywhere on the dashboard or visual item, then select one of the following choices:
 - **Collaborate.** Links you directly to the forums.
 - **Collaborate on this dashboard.** Links you to the forums and attaches a screenshot of the dashboard to the forum topic.
 - **Collaborate on this item.** Links you to the forums and attaches a screenshot of the visual item to the forum topic.

Navigating the Forums

Access the forum home to view the list of available forums. Information about each of the forums is organized into the following columns:

- **Name.** The name of the forum. Click a name to enter the forum.
- **Description.** A brief description of the forum.
- **No. of Topics.** The number of topics that have been posted in the forum.

Fig. 2.21
Forum Home

Forget Search Context link

Name	Description	No. of Topics
Accounts Payable	Discuss all issues related to Accounts Payable	1
Accounts Receivable	Discuss all issues related to Accounts Receivable	0
Financials	Discuss all issues related to Financials	3
Inventory	Discuss all issues related to Inventory	1
Manufacturing	Discuss all issues related to Manufacturing	0
Miscellaneous	Discuss any miscellaneous issues in this forum	0
Operations	Discuss all issues related to Operations	1
Purchasing	Discuss all issues related to Purchasing	0

Forums

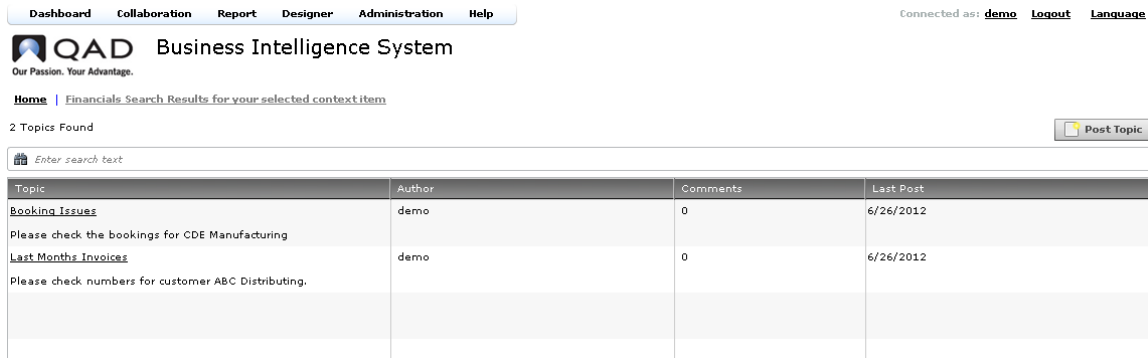
Click a forum to view the topics within that forum. Information about each of the topics is organized into the following columns:

- **Topic.** The title of the topic.
- **Author.** The name of the user who posted the topic.
- **Number of comments.** The number of comments that have been posted in response to topics.
- **Date of last post.** The date that the last comment was posted.

Click any of the columns to sort in ascending or descending order.

Note When you enter the forums from a dashboard or visual item, the forum applies a filter that shows only the topics that relate to that dashboard or visual item. If you would like to remove the filter and see all the topics in the forum, click the Forget Search Context link in the Forum Home window. See Figure 2.21.

Fig. 2.22
Forum Topics

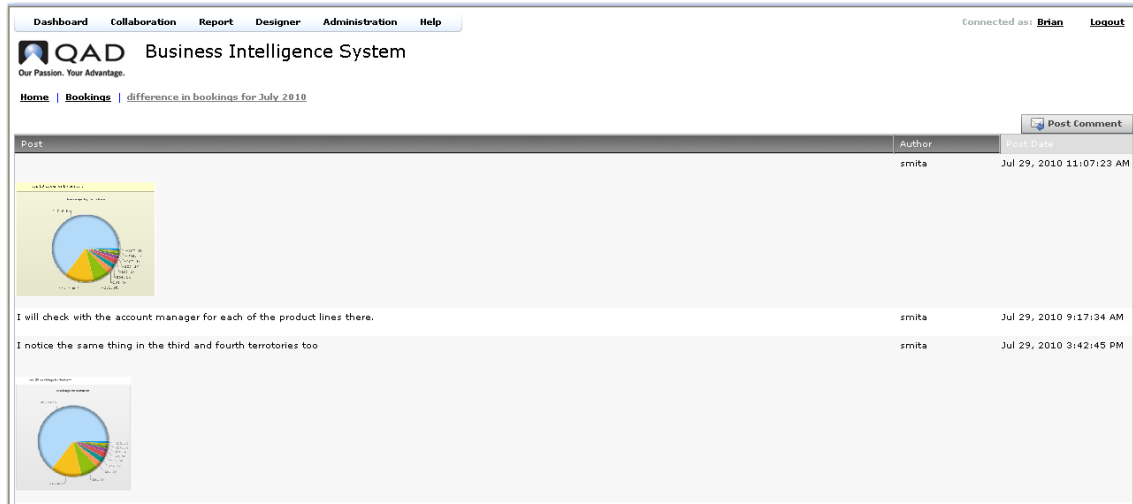


Topic	Author	Comments	Last Post
Booking Issues Please check the bookings for CDE Manufacturing	demo	0	6/26/2012
Last Months Invoices Please check numbers for customer ABC Distributing.	demo	0	6/26/2012

Click a topic to view the comments that have been posted in response to the topic. Information about each of the comments is organized into the following columns:

- **Post.** The content of the comments, including the text and any attached images.
- **Author.** The name of the user who posted the comment.
- **Post Date.** The date the comment was posted.

Fig. 2.23
Topic Comments



Post	Author	Post Date
 I will check with the account manager for each of the product lines there.	smita	Jul 29, 2010 11:07:23 AM
I notice the same thing in the third and fourth territories too	smita	Jul 29, 2010 9:17:34 AM
	smita	Jul 29, 2010 3:42:45 PM

Posting a Topic

Follow these steps to post a topic to a forum:

- 1 Access the forums.
- 2 Click a desired forum.
- 3 Click Post Topic.

4 Enter information in the following fields:

Topic Summary/Subject. Enter the title of the topic.

Description. Enter a detailed description of the issue.

Tag(s) (separated by space). Enter keywords, separated by a space, that are associated with the topic.

Fig. 2.24
Post New Topic

5 If you are collaborating on a visual item or a dashboard, the image of the graphic appears at the bottom of the new topic window. Select the check box to include the graphic with the topic. Click a graphic to see an enlarged view. Click X to close the image and return to the topic.

Note When you attached an image to a post, collaborators can comment on the same version of the dashboard or visual item, even when updates to the DWD result in changes to the item.

Fig. 2.25
New Topic with Graphic

6 Click OK to post the topic.

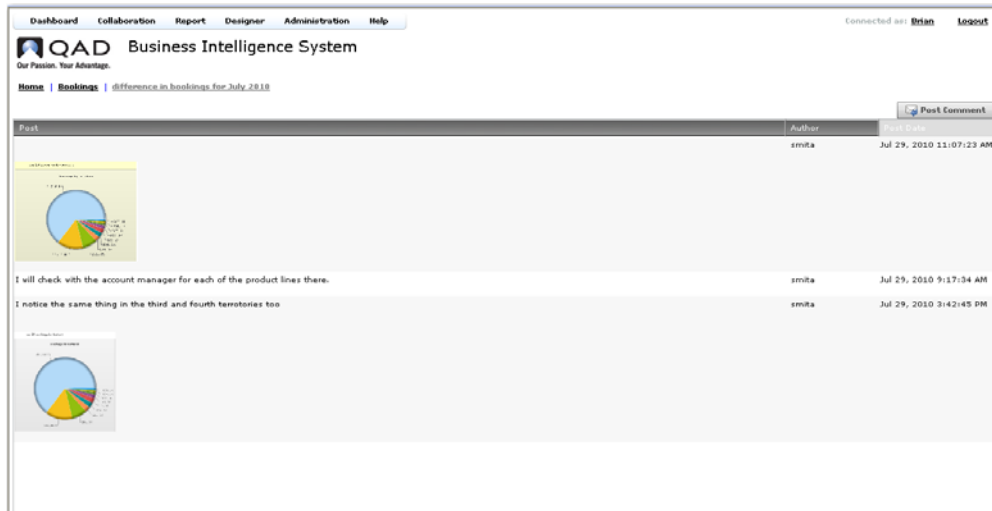
Note If you decide to cancel the post, click Cancel at any time.

Post a Comment

Follow these steps to post a comment in a forum topic:

- 1 Access the desired forum.
- 2 Select the topic.
- 3 Click Post Comment.

Fig. 2.26
Forum Post



- 4 Enter your response in the Comment field.
- 5 In the Tags field, enter keywords, separated by a space, that are associated with the topic.

Fig. 2.27
Post a Comment

- 6 Click OK to post the comment.

Note If you decide to cancel the post, click Cancel at any time.

Mobile Capability

Access the BI Portal using an iPad or an Android mobile device that supports Flash.

Android

There is no mobile application required for the Android device. Access the portal using the web browser.

iPad

For the iPad, there is a native QAD Mobile BI app that can be downloaded from the Apple App Store. With the iPad app, you can view and perform the following tasks:

- Navigate through available dashboards.
- View and collaborate on charts. The chart content is identical on the iPad to what is shown on the PC.

Note All other visual items, including grids and parameter bars are, not supported on the iPad.

- Zoom in and out on charts with the pinch-zoom capability.
- Drill down into underlying charts if they are drill-down enabled.

Note Currently, the iPhone and Blackberry are not supported.

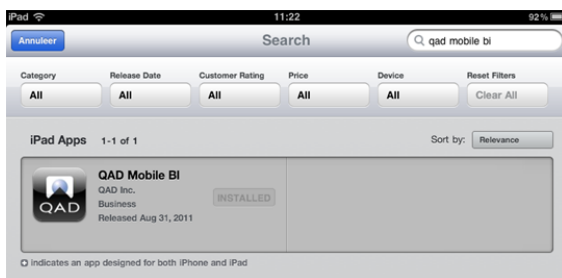
Because iPad dashboards only support charts, it is recommended that you create specific dashboards for mobile consumption. See “Creating Mobile BI Dashboards” on page 74.

Downloading the QAD Mobile BI App

Follow these steps to download the QAD Mobile BI app:

- 1 On your iPad, go to the Apple App Store.
- 2 In the search window, search for QAD Mobile.
- 3 Choose and install the QAD Mobile BI app.

Fig. 2.28
QAD Mobile BI App in Apple App Store



User and Server URL information

When you launch the QAD Mobile BI app for the first time, it prompts you for the user and server URL information. Enter your username, password, and the server URL. If you do not know the server URL, see your administrator.

Note Use the same server URL and user settings you use to access the portal through the web browser on the PC. These settings can be changed by going into the settings on the iPad and scrolling down to the QAD Mobile BI app.

Fig. 2.29
Log in to Mobile BI App

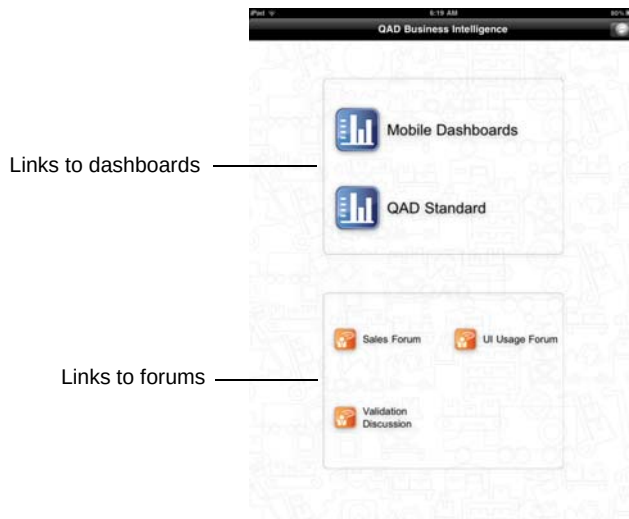
After you enter the user and server information, the iPad displays the home page with links to dashboards and forums.

Note There is no local data stored on the iPad. All data presented in the QAD Mobile BI app is presented and rendered in real time.

Mobile BI Dashboards

On the mobile home page, tap on the dashboard icon to view the list of dashboards.

Fig. 2.30
Mobile Home Page



Links to all available dashboards are in the left pane. A thumbnail view of the dashboard appears in the right pane.

Fig. 2.31
Mobile Dashboards



Tap on the dashboard to see a full-screen view of the dashboard. The QAD Mobile BI app supports iPad orientation mode so you can flip the iPad between portrait and landscape mode and still retain the full functionality. The app also supports all the standard iPad finger gestures such as pinch-zoom and dragging.

The following is a list of additional dashboard actions on the iPad:

- Tap on a chart to see a full-screen view of that chart.
- If a particular chart is enabled for drill-down, tap and select a particular area of the chart and then tap once again to drill down. Tap the small green arrow in the top left corner to go back up one level and the small red X in the top right corner to close a chart.

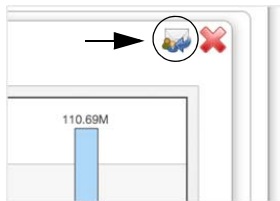
Fig. 2.32
Dashboard Full-Screen View



- If a discussion exists for a specific chart, tap the forum icon to navigate directly to the forum discussion.

Note Currently it is not possible on the iPad to start a discussion directly from a chart.

Fig. 2.33
Link to Forum Discussion



Mobile BI Forums

The forums available on the iPad are identical to the forums on the PC, providing a seamless experience when switching between the iPad and PC.

You can enter the collaboration forums with the iPad and perform the following actions:

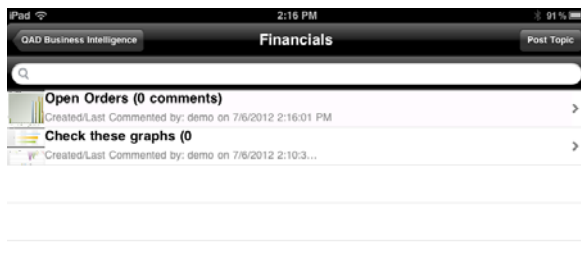
- View, browse, and search the forums and topics.
- Post new topics and comments in the forums.

On the mobile app home page, there are links to all available forums. See Figure 2.30.

Tap a forum icon to view the topics in that forum. Double-tap on a topic to view the comments within that topic. If a post contains an attached image, tap on the image to view an enlarged screen view.

Note The ability to attach images to a topic, which is available on the PC, is not available on the iPad.

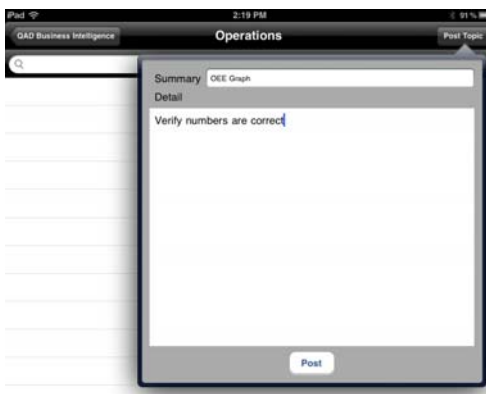
Fig. 2.34
Mobile Forum Topics



Post a New Topic

To post a new topic in a forum, select the desired forum and then tap Post Topic. Enter a topic name in the Summary field and a description of the topic in the Detail field, and then tap Post.

Fig. 2.35
Mobile Forum Topic Post



Post a New Comment

To post a comment in a forum, select the topic and tap Post Comment. Enter your comment in the field and tap Post.

Fig. 2.36
Mobile Forum Comment Post



Internationalization

The BI Portal can be configured for all 14 QAD-supported languages:

- English (United States)
- Chinese
- Chinese (Traditional)
- Czech
- Dutch
- French
- German
- Italian
- Japanese
- Korean
- Polish
- Portuguese (Brazil)
- Spanish
- Spanish (Mexico)

When you change the UI language, the system automatically displays major UI elements such as frame labels, messages, and button labels in the selected language.

Additionally, you can translate object names—such as the names of queries, reports, visual items, and dashboards—into any of the 14 QAD-supported languages.

Changing the User Interface Language

In the right corner of the portal window is a link to change the language of the user interface (UI). See Figure 2.4 on page 8. Click the Language link, select the desired language from the drop-down list, and then click OK.

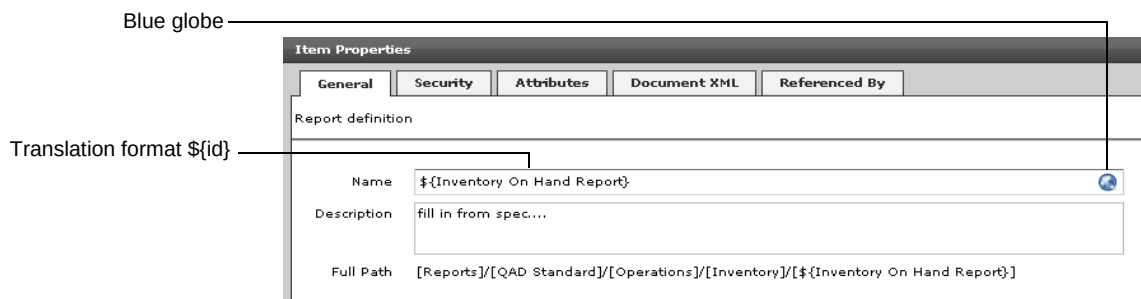
Fig. 2.37
Change Language



Translating Object Names

The portal gives you the ability to translate individual object names; for example, the names of reports, queries, and visual items. The fields that can be translated have a blue globe icon on the right side of the field.

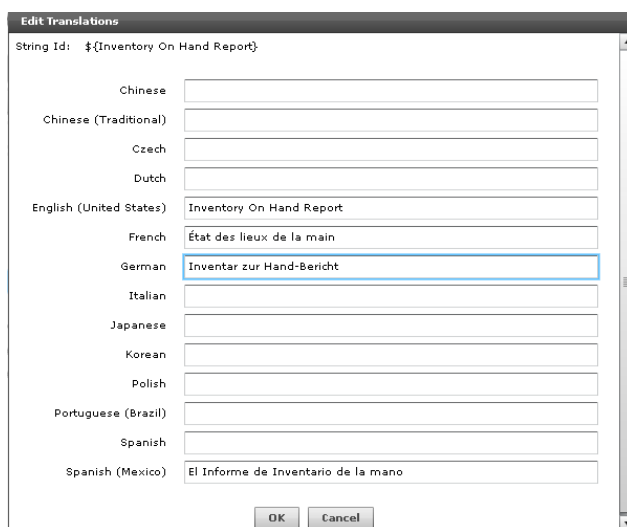
Fig. 2.38
Translating Object Names



Follow these steps to translate an object name:

- 1 Click Rename.
- 2 Apply the `${id}` format to the object name to identify it as translatable.
- 3 Click the blue globe icon.
Note If you click the blue globe without the object name in the `${id}` format, the system displays an error message.
- 4 Enter the translations in the appropriate language fields. For example, to translate an object name into Spanish, French, and German, enter the translations in those fields.

Fig. 2.39
Edit Translation



- 5 Click OK.
- 6 When the language setting changes to Spanish, French, or German, the user sees the object name translated into that language.
Note If there are no translations entered in any of the language fields, the user sees the `${id}` format for the object name.

Help

If you have any questions regarding QAD BI, click the Help menu. The Help menu contains links to the soft copy version of the *BI Portal User Manual* and the QAD Support Web site, where you can access the QAD User Forums and post questions to BI experts and other BI users.

QAD BI Portal Designer

This chapter provides steps and information about designing content for the QAD BI Portal.

It discusses the following topics:

Overview 32

An overview of the design menu and the item properties pane.

Queries 34

Navigating query home and the query designer; creating queries.

Reports 41

Navigating report home and the report designer; creating reports.

Visual Items 50

Navigating visual item home and the visual item designer; creating visual items.

Dashboards 70

Navigating dashboard home and the dashboard designer; creating dashboards for PC and mobile devices.

Overview

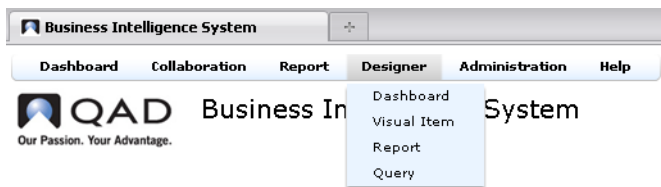
Designers are at the heart of the BI Portal because they are responsible for building all the components in the portal: queries, visual items, reports, and dashboards.

These components, or building blocks, are reusable and can be designed with security and run-time parameters to provide distinct information without proliferating the components.

Designer Menu

To create a query, visual item, report, or dashboard, access the appropriate menu from the Designer drop-down menu.

Fig. 3.1
Designer Drop-down Menu

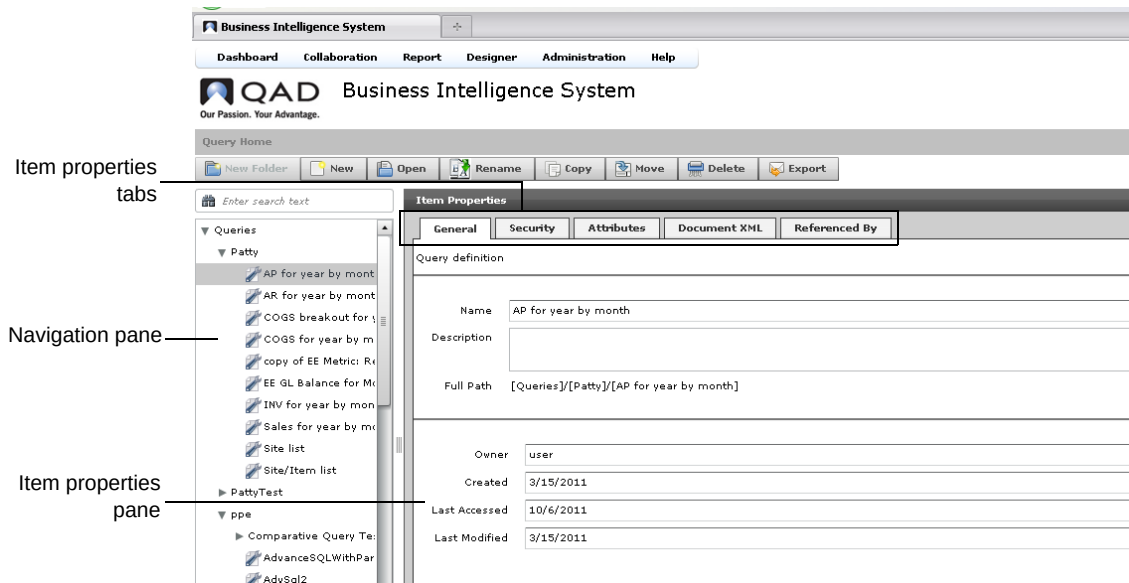


Item Properties

The Item Properties pane displays important information about an item. When you click an item, such as a query, the following tabs in the Item Properties pane provide information about the item:

- **General.** Contains general information about the selected item, such as the item name, date created, and a description.
- **Security.** Displays the object security groups that can view and edit this item. To change the security restrictions for this item, select the groups that can view and edit this item, and then click OK.
- **Attributes.** Used for debug purposes.
- **Document XML.** Displays the item in XML.
- **Referenced By.** Contains reference information for the item. For example, if the item is a query, this tab lists any visual items or reports that use the query and any dashboards that use those visual items or reports.

Fig. 3.2
Item Properties



Saving an Item

Follow these steps to save a query, report, visual item, or dashboard:

- 1 When you finish creating the item, click Save.
- 2 In the Save window, navigate through the folders and select the appropriate location to save the new item.
- 3 Enter the name of the item in the Item Name field and a brief description in the Description field.
- 4 Select the Security tab. Select the security roles that can view and edit the item.
Note If there are no security roles selected, all the security roles can view and edit the item.
- 5 Click Save.

Best Practices

Do Not Modify QAD Standard BI Portal Objects

Designers should not modify the original QAD Standard BI Portal objects. If you want to modify a QAD Standard BI Portal object, create new folders in the Query, Visual Items, Reports, and Dashboard sections. Copy the object to the new folder and make the modifications.

Object Description

When creating new objects, always include a description of the object.

Queries

Queries, which are the primary building blocks of the portal, are used to access data from the data warehouse for use in visual items, reports, and dashboards.

Query Home

Query Home is the front page of the Query menu where the designer can navigate through a list of all available queries. Access the Query Home by choosing Query from the Designer drop-down menu.

A link to the Query Home is located in a navigation bar at the top of the window. If there are any queries open, a link to each query appears in the navigation bar, each separated by a spacer symbol.

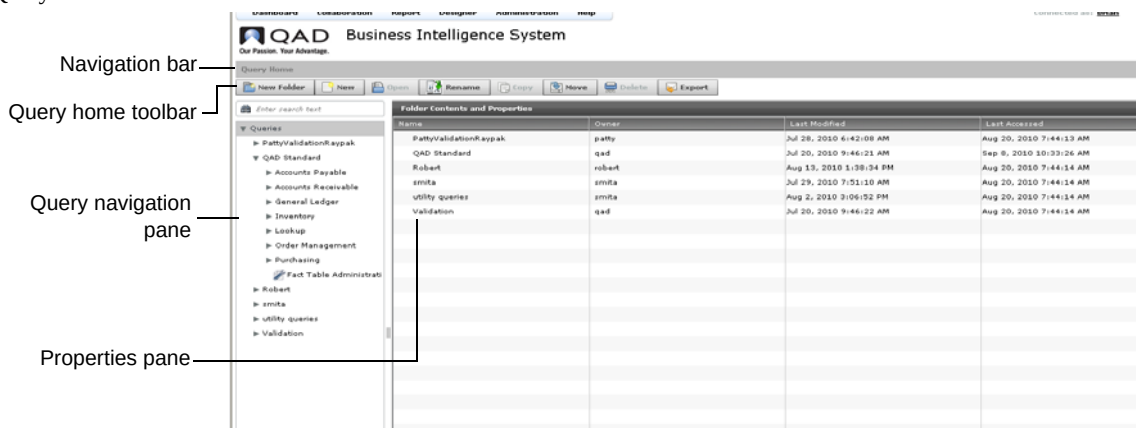
The query home toolbar, located beneath the navigation bar, consists of the following buttons:

- **New Folder.** Create new folder in the navigation pane.
- **New.** Create a query.
- **Open.** Open a query.
- **Rename.** Rename a query or folder.
- **Copy.** Make a copy of a query.
- **Move.** Move a query or a folder to a different location in the navigation pane.
- **Delete.** Delete a query or folder.
- **Export.** Export the selected query into a .zip folder as an .xml file. Use this feature to copy or migrate a specific query from one portal environment to another.

A list of all existing queries is located in the navigation pane on the left side of the window. The properties pane, which displays information about folders and queries, is on the right side of the window.

To open a query, double-click the query name or select the query and click Open.

Fig. 3.3
Query Home



Query Designer

The query designer is used to build or modify queries. To access the query designer, click New or open an existing query.

The query designer contains three tabs:

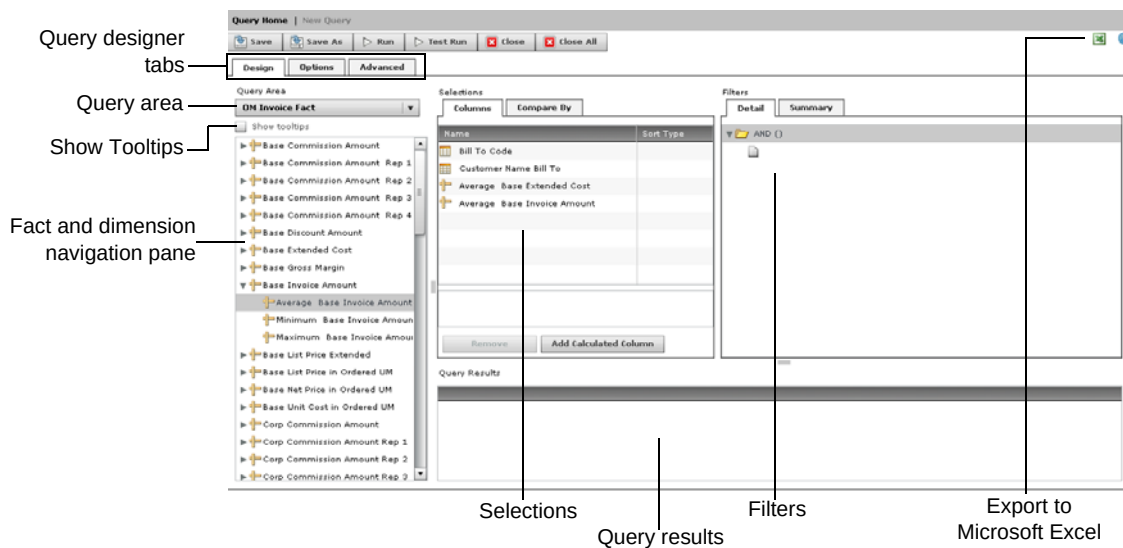
- **Design.** Contains the essential frames to build a query.
- **Options.** Contains options to limit the number of results in a query.
- **Advanced.** Displays the query SQL so that the designer can further fine-tune the query results using SQL.

Design Tab

The design tab, which contains the essential tools to build a query, includes the following elements:

- **Query Area drop-down list.** Displays a list of fact tables.
- **Fact and Dimension navigation pane.** Displays a list of the facts and dimensions associated with the selected query area. Facts, which can be analyzed, are at the top of the list while dimensions, or selection criteria, are at the bottom.
- **Show Tooltips check box.** If selected, displays SQL names when the cursor hovers over the dimension or fact.
- **Selections pane.** Displays the facts and dimensions used to build the query. Drag and drop facts and dimensions into this pane to build the query.
- **Filters pane.** Displays the filters used in the query. Filters are applied to the query in this pane.
- **Query Results pane.** Displays the results of the query after you click Run or Test Run.
- **Excel icon.** Exports the query to Microsoft Excel.

Fig. 3.4
Query Designer



Options Tab

In the Options tab, you can limit the number of query results that are returned. This tab includes the following elements:

- **Top N.** Enter a number in this field to set how many query results are returned.
- **Distinct Rows Only.** Select this option if the dimensions used for the query result in multiple rows when a single row is needed.
- **Dimension Only.** Select this option if you are displaying information that does not include any facts; for example, a list of cost centers and their related descriptions.

Fig. 3.5
Query Designer Options Tab



Advanced Tab

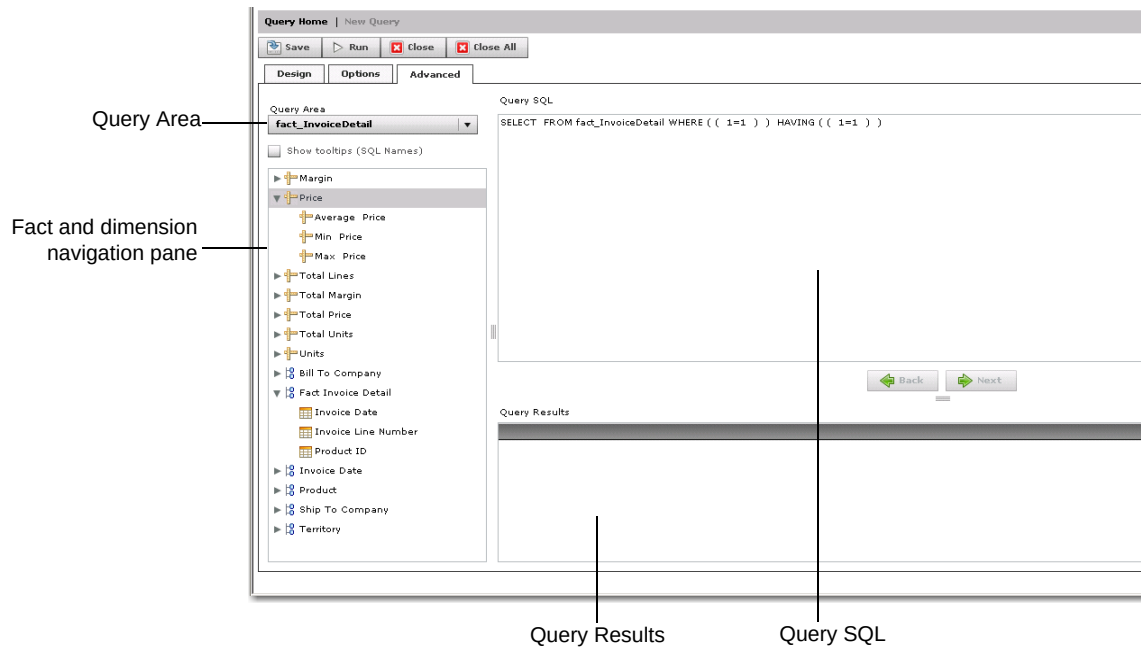
The Advanced tab gives you the ability to directly edit the query SQL to further fine-tune the query results. Queries that are created in the Design tab can be refined in the Advanced tab to create SQL that the designer does not support.

Note After you alter the SQL in the Advanced tab, maintain the query in the Advanced tab because the drag-and-drop features of the query designer are no longer functional.

The Advanced tab includes the following elements:

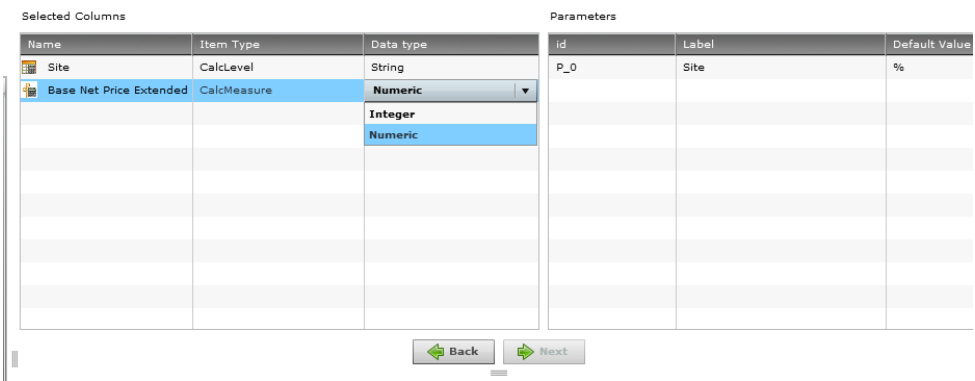
- **Query Area drop-down list.** Displays a list of fact tables.
- **Fact and Dimension Navigation pane.** Displays a list of the facts and dimensions associated with the selected Query Area. Facts, which can be analyzed, are at the top of the list while dimensions, or selection criteria, are at the bottom. Drag and drop a dimension or fact from the navigation pane to the Query SQL pane.
- **Query SQL pane.** Displays the query in SQL language. If desired, edit the SQL as needed and click Next to see details on Measures, Levels, and Parameters for your query. Add/Edit any default values for your parameters. Modify the datatypes for your Measures and Levels if desired. Run to check SQL syntax and to run the query.
- **Query Results pane.** Displays the results of the query after you click Run.

Fig. 3.6
Query Designer Advanced Tab



- **Advanced Columns and Parameters panes.** Click Next to view these panes. Displays the following elements:
 - **Selected Columns.** Displays the columns selected for the query. Select the data type from the drop-down list.
 - **Parameters.** Displays the parameters defined for the query. You can change the label and data type.

Fig. 3.7
Advanced Column and Parameter Panes



The SQL used in the Advanced tab is enhanced to support display of query area names in a user's desired language by using the language support built into the QAD Data Warehouse. Special lookup codes, which retrieve the appropriate translation of the column name, replace the SQL column names. Add these column names to the SQL in the standard Design tab by dragging and dropping the columns into the query before you edit it in Advanced mode. Manually entering the lookup codes does not display the desired translated names.

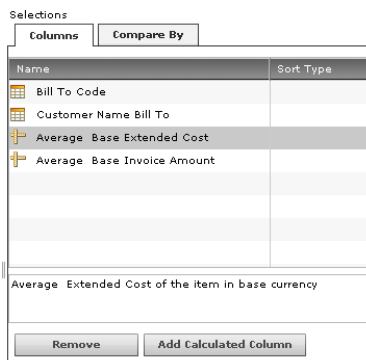
For more information on using SQL in the Advanced tab, review other queries supplied by QAD in the QAD Standard folder or consult Microsoft SQL Server documentation.

Creating Queries

Follow these steps to create a query:

- 1 Click New from the Query Home toolbar.
- 2 Choose the Design tab.
- 3 Choose a query area from the drop-down list.
- 4 Drag and drop facts and dimensions from the navigation pane into the Selections pane.
To change the arrangement or order of the items, drag and drop them into the desired position.
To remove an item, select it and click Remove.

Fig. 3.8
Query Designer



- 5 To sort the results, select ascending or descending in the Sort Type column.
- 6 Follow these steps to add a side-by-side comparison:
 - a Click the Compare By tab and then drag and drop a dimension into the pane. Comparisons are limited to only one dimension but as many values or measures as you want within that dimension.
 - b Click the dimension to display the Edit and Value tabs:
 - **Edit.** Enter a display label for the side-by-side comparison.
 - **Value.** Select a value from this drop-down list of dimension values.
- 7 If needed, create calculated columns for the query. See “Adding Calculated Columns”.
- 8 If needed, apply filters to the query. See “Adding Filters”.
- 9 To view the first 100 rows of query results, click Test Run.
- 10 To view all the query results, click Run.
- 11 When you finish building the query, click Save. See “Saving an Item” on page 33.

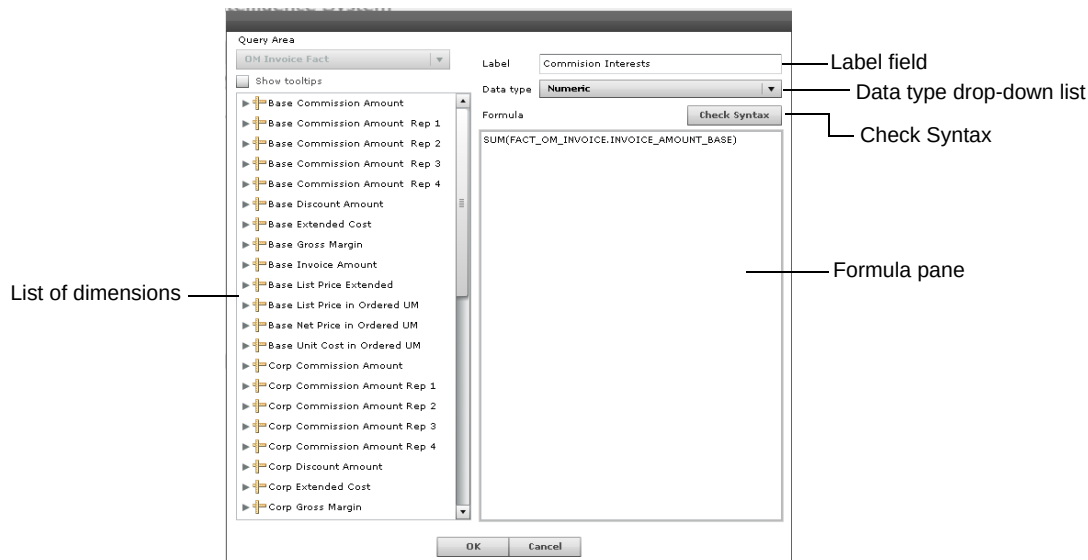
Adding Calculated Columns

Calculated columns display the results of mathematical operations between columns.

Follow these steps to add a calculated column:

- 1 Click Add Calculated Column.
- 2 Enter a title in the Label field.
- 3 Choose Numeric or Integer from the Data Type drop-down list:
 - **Numeric.** Displays numbers with decimals.
 - **Integer.** Displays whole numbers.
- 4 Drag and drop a dimension into the formula pane to begin building a formula using SQL syntax. Use mathematical operators, such as *, +, /, -, and parentheses to properly build the formulas.

Fig. 3.9
Calculated Column Window



- 5 Click Check Syntax to ensure that no errors exist in the formula.
- 6 When finished, click OK.

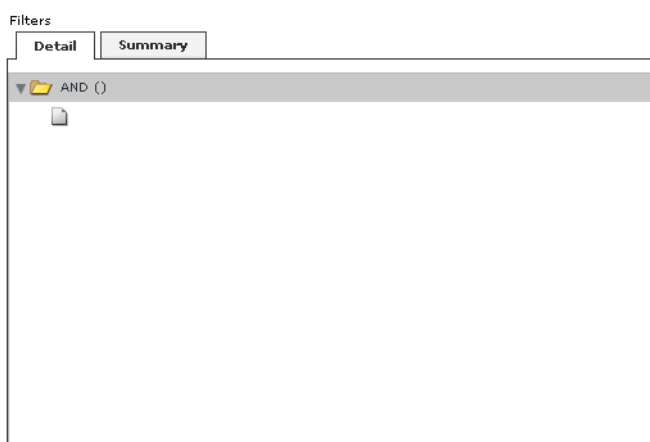
Adding Filters

The Filters pane is used to apply filters to the query.

Follow these steps to apply a filter to the query:

- 1 Select the type of filter by clicking the Detail or Summary tab:
 - **Detail.** Applies the filter to each row or record.
 - **Summary.** Applies the filter to rows or records after they are extracted by the detail filter.

Fig. 3.10
Filters Pane



- 2 Click the AND folder, then choose AND or OR from the drop-down list.
Note This folder is the setting for the Boolean logic used to join the filters. The default setting is AND.
 - **AND.** A narrowing term. When connecting a filter with the AND operator, the filter returns records that match all of the criteria you chose.
 - **OR.** A broadening term. When connecting a filter with the OR operator, the filter returns records that match any of the criteria you chose.
- 3 Drag and drop a selected fact or dimension under the AND/OR folder.
- 4 Click the dimension and configure the filter using one of the following tabs:
 - **Edit.** Filter on a single fixed value that is entered into a field.
 - **Column.** Filter on a selected column.
 - **Value.** Filter on multiple defined values. To select multiple values, press the Ctrl or Shift button while clicking the value.
 - **Parameter.** Allows the user to select the filter values at runtime. Use this type of filter to prompt for a value, either interactively or in a drill-down of reports or dashboards.
- 5 Click Run and verify that the query results are correctly filtered. Modify the filter if necessary.

Filter Tabs

Each filter tab contains a drop-down menu of the following filter operators:

Operator	Definition
In	Finds records that include one or more of the values entered. Value and Parameter tabs only.
Not In	Finds records that do not match the values entered. Value and Parameter tabs only.
Like	Finds records that are similar to the value entered. Wildcards, such as %, can be used.
Not Like	Finds records that are not similar to value entered. Wildcards, such as %, can be used.
Equal to	Finds records that exactly match the value entered.
Not Equal to	Finds all records except for the value entered.
Less than	Finds all records that are less than the value entered.

Operator	Definition
Less than or equal to	Finds all records that are less than or equal to the value entered.
Greater than	Finds all records that are greater than the value entered.
Greater than or equal to	Finds all records that are greater than or equal to the value entered.

Filter Options

Right click the AND/OR folder to display the following options:

Option	Definition
Add Group	Adds another AND/OR folder.
Add Filter	Adds a filter under the parent folder.
Add Child Group	Adds a child AND/OR folder under the parent folder.
Add Child Filter	Adds a filter under the parent folder.

Reports

Reports, which are built using queries, display information in a spreadsheet format. The report designer allows you to create a brand new report or upload a report that was created outside of the portal—in iReport, for example.

Report Home

Report Home is the front page of the Report menu where the designer can navigate through a list of all available reports. Access the Report Home by choosing Report from the Designer drop-down menu.

A navigation bar, which contains a link to the Report Home, is at the top of the window. If there are any reports open, a link to each report appears in the navigation bar, each separated by a spacer symbol.

The report home toolbar, located beneath the navigation bar, consists of the following buttons:

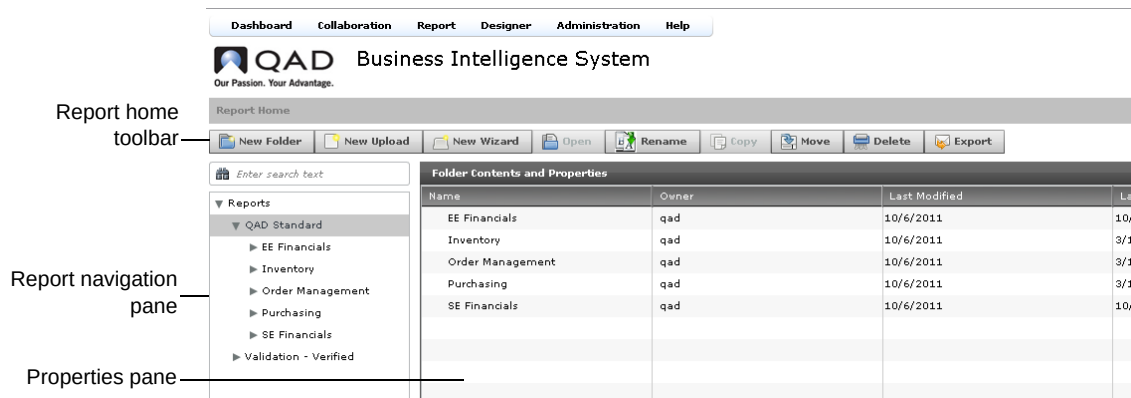
- **New Folder.** Create a folder in the navigation pane.
- **New Upload.** Upload a report designed outside of the BI Portal, such as with iReport.
- **New Wizard.** Create a report.
- **Open.** Open a report.
- **Rename.** Rename a report or folder.
- **Copy.** Make a copy of a report.
- **Move.** Move a query or a folder to a different location in the navigation pane.
- **Delete.** Delete a report or folder.
- **Export.** Export the selected report into a .zip folder as an .xml file. Use this feature to copy or migrate a specific report from one portal environment to another.

When you export a report, the report, and the underlying query are exported.

A navigation pane, which contains a list of all existing reports, is on the left side of the window. A properties pane, which displays information about folders and reports, is on the right side of the window.

To open a report, double-click the report name or select the report and click Open.

Fig. 3.11
Report Home



Report Designer

The Report Designer is used to build or modify reports. To access the report designer, click New Wizard or open an existing report.

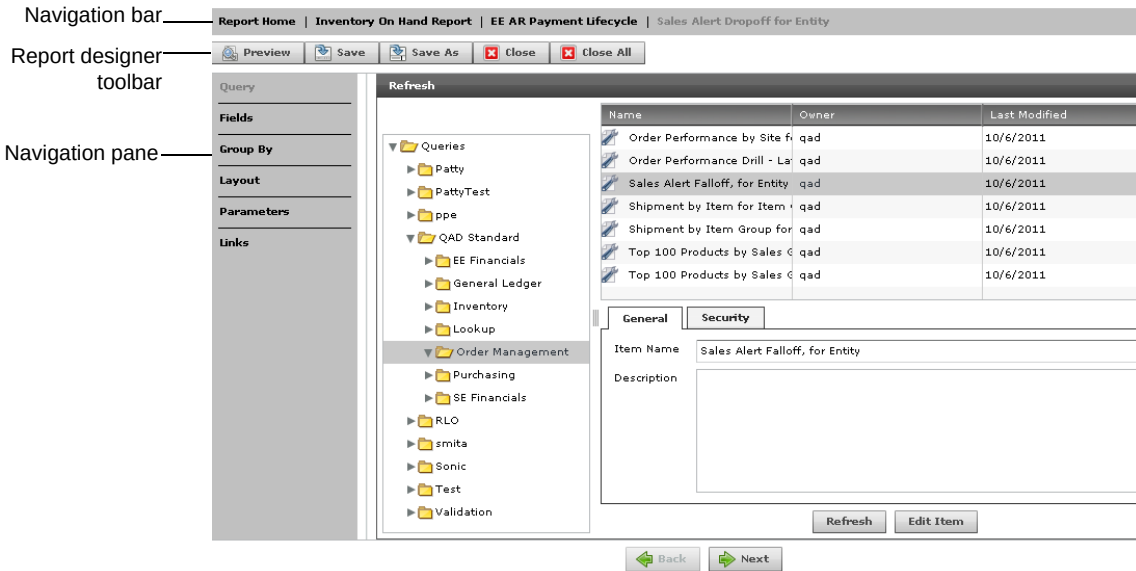
The report designer toolbar, located below the navigation bar, contains the following buttons:

- **Preview.** View a report.
- **Save.** Save a report.
- **Save As.** Save a copy of a report under a new name or location.
- **Close.** Close the report.
- **Close All.** Close all reports that are open.

The navigation pane on the left side of the window displays the sections of the report designer:

- **Query.** Select the query to create the report.
- **Fields.** Select and format the fields from the query.
- **Group By.** Add field groups, subtotals, and report totals to the report.
- **Layout.** Modify the layout of the report.
- **Parameters.** Apply parameters to the report.
- **Links.** Apply linking actions to a report, which allow a user to drill down from one report to another, more detailed report.

Fig. 3.12
Report Designer



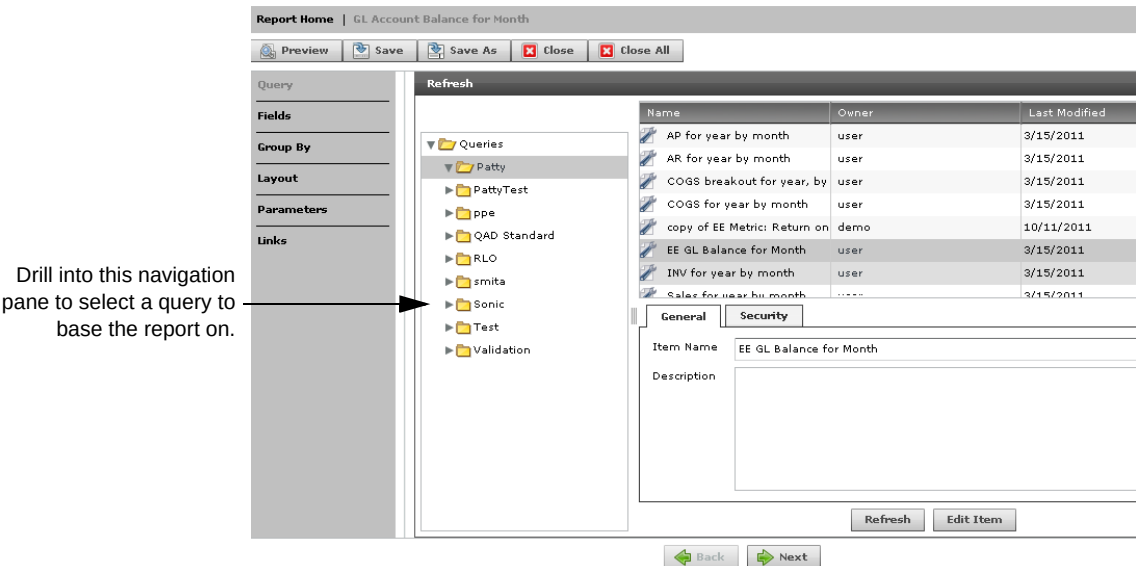
Creating a New Report

Follow these steps to create a report:

- 1 Click New Wizard from the Report Home toolbar.
- 2 Navigate through the folders and select a query.

Note The General tab displays the name and a brief description of the query. The Security tab displays the security roles that can view and edit the query.

Fig. 3.13
Report Designer Query Section



- 3 Select Fields or click Next.

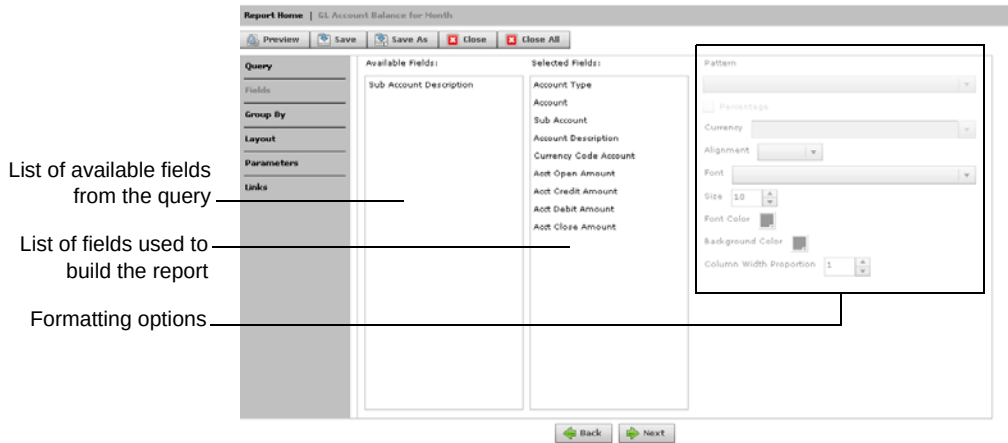
4 Drag and drop fields from the Available Fields pane into the Selected Fields pane.

- **Available Fields.** The list of available fields from the query.
- **Selected Fields.** The fields that are used to build the report.

Change the arrangement or order of the items manually by dragging and dropping the items to the desired position.

Remove items by dragging and dropping the field back into the Available Fields pane.

Fig. 3.14
Report Designer Fields Section



5 Edit the fields using the following formatting options:

- Pattern
- Font
- Font Color
- Alignment
- Font Size
- Background Color

6 Select Group By or click Next.

- 7 To group information by a specific field, select the field from the Group 1 drop-down list.
To add a subtotal to the report, select the desired field from the Subtotals list.
To add more groupings, repeat this step using the Group 2 and 3 drop-down list.

Fig. 3.15
Report Designer Group By Section

The screenshot displays the 'Group By' configuration window in the QAD BI Portal Designer. The window title is 'GL Account Balance for Month'. On the left, a sidebar lists navigation options: Query, Fields, Group By (selected), Layout, Parameters, and Links. The main workspace is titled 'Pick the Groupings for the Report:'. It contains three rows for grouping: Group 1, Group 2, and Group 3. Each row has a dropdown menu for selecting a field to group by. To the right of each dropdown is a 'Sub Totals:' section with a list of checkboxes for 'Account Type', 'Account', and 'Sub Account'. A 'Report Totals:' section is located at the bottom left of the main workspace, also with checkboxes for the same three categories. At the bottom of the window are 'Back' and 'Next' buttons.

8 To add totals to the report, select the desired fields from the Report Totals drop-down list.

9 Select Layout or click Next.

10 Adjust the layout of the report by configuring the following options:

- **Orientation.** Select between Portrait and Landscape.
- **Report Title.** Enter the title that appears at the top of the report.
Insert the value of any parameter into the title by specifying the parameter name, surrounded with braces, and prefixed with a capital P. For example, enter Report Title: P{current_year} if you want the title to always display the current year.
- **Page Header.** Select Logo to include a graphic in the report header.
This logo or graphic is system wide and identified when the portal is installed. In most cases, the graphic is an approved company logo.
- **Page Footer.** Select this option to add page numbers to the bottom of the report.
- **Current Date.** Select this option to add the date to the report.

11 Select Parameter or click Next.

12 Set up the report parameters. See “Report Parameters” on page 47.

13 Select Links or click Next.

14 Link this report to another report. See “Report Links” on page 47.

15 Preview the report. See “Report Preview” on page 45.

16 When you are finished creating the report, click Save. See “Saving an Item” on page 33.

Report Preview

To preview the report, click Preview.

The report opens in a new browser tab using default parameter values.

Use the parameter bars, located in the top left corner of the window, to change the report parameters. Click Run to view the report.

Click the PDF or Microsoft Excel icon, located in the bottom right of the parameter pane, to export the report to PDF or Microsoft Excel.

Adjust the relative sizes of the parameter and report output pane by hovering the cursor over the divider line, then dragging the icon as needed.

Fig. 3.16
Report Preview

Report parameters

Supplier Name: Xia Electronics

Fin Month: 201103

Report results

AP Invoice Detail for Supplier [Xia Electronics] for 201103

Effective Date	Invoice Number	Voucher Number	Base Amount	Base Applied Amount	Base Charge Amount	Base Open Amount	Base Check Amount	Base Discount Charge	Base Hold Amount	Base H Dispo Amnt
2011-03-15	0000000000002010233	63	1,695.00	-1,695.00	.00	.00	-1,695.00	.00	.00	.
2011-03-15	0000000000002010433	63	1,695.00	-1,695.00	.00	.00	-1,695.00	.00	.00	.
2011-03-15	0000000000002020778	63	1,695.04	-1,695.04	.00	.00	-1,695.04	.00	.00	.
2011-03-15	0000000000002133387	63	1,695.00	-1,695.00	.00	.00	-1,695.00	.00	.00	.
2011-03-15	0000000000002140983	63	1,695.00	-1,695.00	.00	.00	-1,695.00	.00	.00	.
2011-03-15	0000000000002209312	67	1,695.00	-1,695.00	.00	.00	-1,695.00	.00	.00	.
2011-03-15	0000000000002222226	63	1,695.00	-1,695.00	.00	.00	-1,695.00	.00	.00	.
2011-03-15	0000000000002268041	96	1,695.00	-1,695.00	.00	.00	-1,695.00	.00	.00	.
			13,560.04	-13,560.04	.00	.00	-13,560.04	.00	.00	.

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Export to PDF and Microsoft Excel

Run button

Report Parameters

Apply parameters to a report to limit the list of values the user can select from. Follow these steps to apply parameters to a report:

- 1 Select Parameters from the left navigation pane.

Fig. 3.17
Report Designer Parameters Section

- 2 Enter a label in the Display Label field. The display label appears to the left of the parameter bar.
- 3 Choose between Combo Box and Selection List from the Selection Control drop-down list:
 - **Combo Box.** Permits a single selection.
 - **Selection List.** Permits multiple selections at the same time.
- 4 Set the Parameter Selection Source.
 - **Use Dimensional Value.** Select this option if a dimension contains all the values required for the drop-down list. Click Browse, select a dimension, and click OK.
 - **Use Query Library.** Select this option to limit the number of values to display to the users. Click Browse, select a dimension, and click OK.

If specific values are required in the parameter drop-down list, create a query with those values before setting up the report parameters.
- 5 Set the Parameter Default Value. This step is optional, but it is a good idea to specify a default value.
 - **Supply Value.** Select this option and enter a default value in the field.
 - **Use Query Library.** Select this option and click Browse. Select a dimension and click OK.

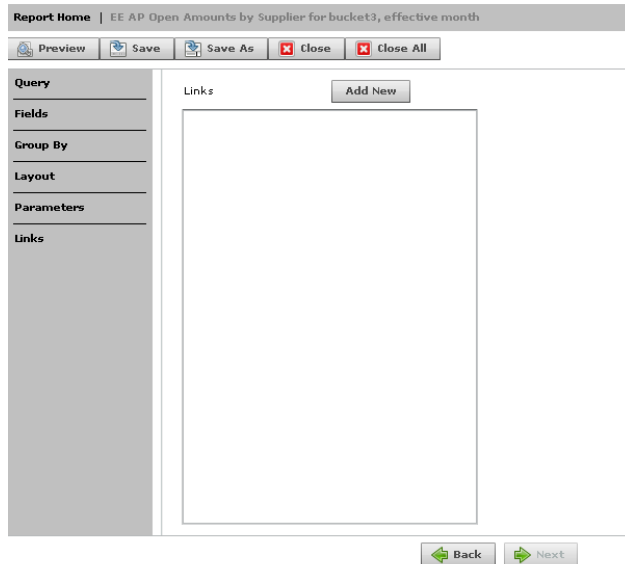
Report Links

The Links section gives you the ability to link two reports together so that the user can drill from one report down to another, more detailed report.

Follow these steps to link two reports together:

- 1 Select the Links section.

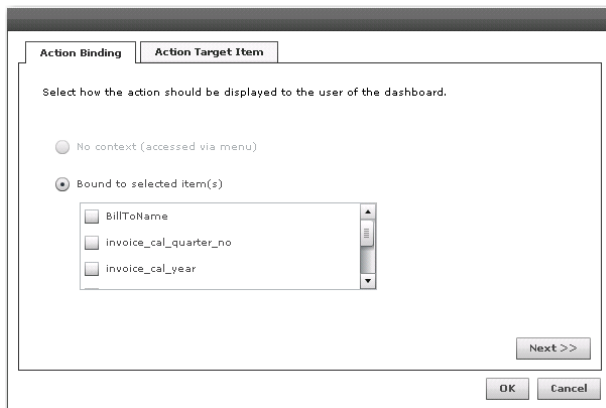
Fig. 3.18
Report Designer Links Section



- 2 Click Add New.
- 3 Select items from the *Bound to selected items* list. The items on this list represent columns on the report. The columns you select become hyperlinks that are used to drill down to the other report.

Note At this time, the *No context (accessed via menu)* option does not serve a function.

Fig. 3.19
Action Binding



- 4 Choose the Action Target Item tab.

Fig. 3.20
Action Target

- 5 With *Link to library item* selected, click **Browse**.

Note The *Link to hierarchy* feature has no function at this time and is a placeholder for a future BI release.
- 6 Navigate through the folders, select the link-to report, and click **Open**.
- 7 If a list of dimensions appears in the **Parameter Binding** columns, select the desired value in the **From** drop-down list:
 - **From.** The **From**-column values represent the columns available in the query that underlies the current report. Select which value is sent to the query in the link-to report as a value for the required parameter.

If you are linking to a report that requires a parameter, but you do not have any value in your current query that matches that parameter, choose *Use Default* in the **From** column. This option forces the query that underlies the link-to report to use its default value for the parameter.

To. This value represents the parameters in the query that are used in the link-to report.
- 8 When finished, click **OK**.

Note After the report links are configured, the link information appears in the **Links** frame. To edit the report link, click **Edit**. To delete the report link, click **Delete**.

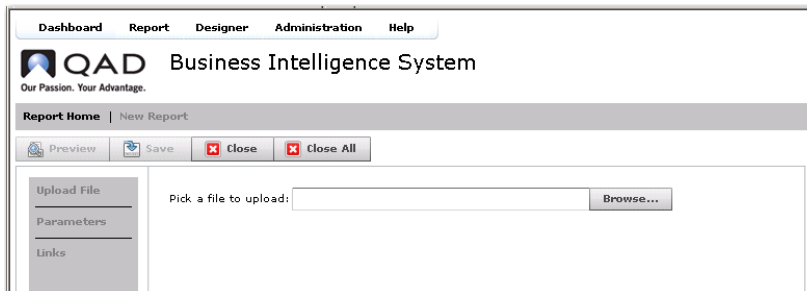
Fig. 3.21
Report Link Options

Uploading a Report

The Report Designer allows you to upload a report created outside of the portal. The report must be a .jrxml file, such as an iReport. To upload a report, follow these steps:

- 1 Click New Upload from the Report Home toolbar.
- 2 Click Browse.

Fig. 3.22
Upload a Report



- 3 Navigate to the folder containing the .jrxml file and click Open.
- 4 After the file is uploaded, the system displays the parameters section.
- 5 Set up the report parameters. See “Report Parameters” on page 47.
- 6 Select Links or click Next.
- 7 Link this report to another report. See “Report Links” on page 47.
- 8 Preview the report. See “Report Preview” on page 45.
- 9 When finished, click Save. See “Saving an Item” on page 33.

Visual Items

Visual items are built using queries. All visual items created and saved in the visual library are used as content for dashboards.

Visual Item Home

The Visual Item Home is the front page of the Visual Item menu where the designer can navigate through a list of all available visual items. Access the Visual Item Home by choosing Visual Item from the Designer drop-down menu.

A navigation bar, which displays a link to the Visual Item Home, is at the top of the window. If there are any visual items open, a link to each item is listed in the bar, each separated by a spacer symbol.

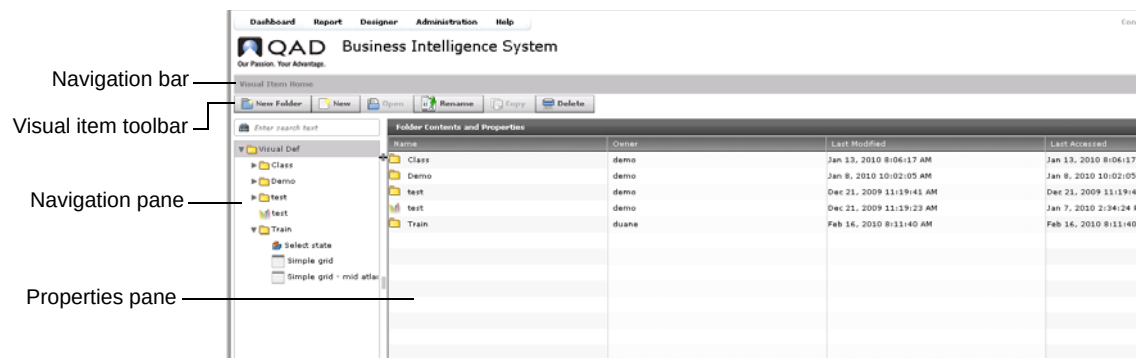
The visual item home toolbar, located beneath the navigation bar, consists of the following buttons:

- **New Folder.** Add a subfolder.
- **New.** Create a visual item.

- **Open.** Open a visual item.
- **Rename.** Rename a visual item or a folder.
- **Copy.** Make a copy of a visual item.
- **Delete.** Delete a visual item.

A navigation pane listing all existing visual items is on the left side of the window. A properties pane, which displays information about folders and visual items, is on the right side of the window.

Fig. 3.23
Visual Item Home



Visual Item Designer

The visual item designer is used to build or modify visual items. To access the visual item designer, click New or open an existing visual item.

The visual item designer toolbar, located below the navigation bar, contains the following buttons:

- **Save.** Save a visual item.
- **Save As.** Save a copy of a visual item under a new name or location.
- **Close.** Close the visual item.
- **Close All.** Close all visual items that are open.

Creating Visual Items

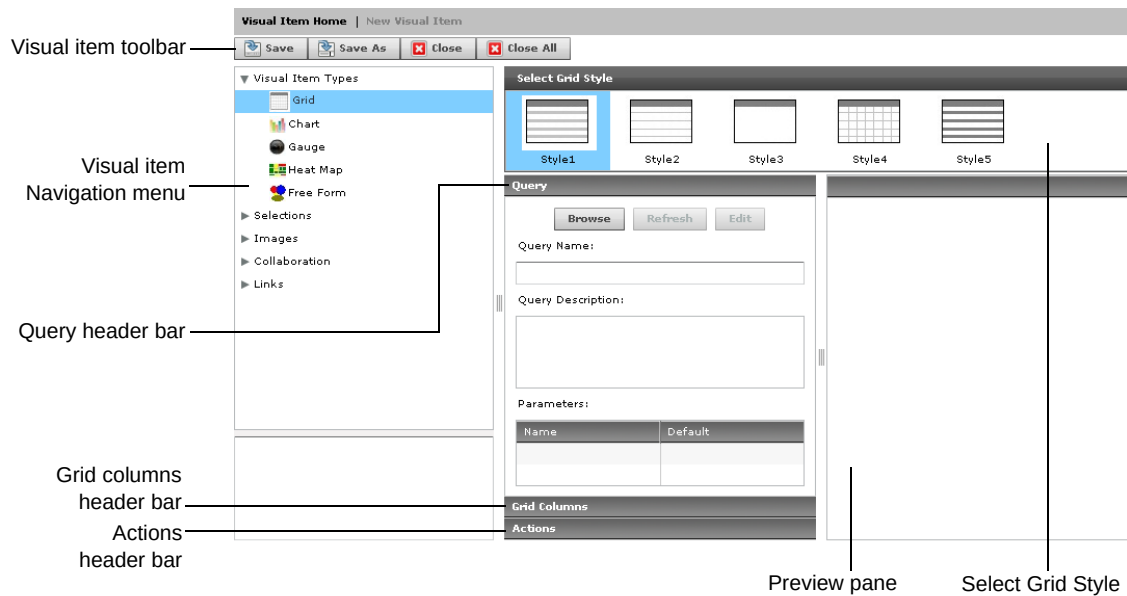
The following visual items can be created in the portal:

- Grids
- Free-Form Items
- Forums
- Charts
- Parameter Bars
- Report Browsers
- Gauges
- Image Items
- Link Lists
- Heat Maps
- Messages

Grids

The grid allows for a simple, straightforward arrangement of information in a sorted format. The columns within a grid are sortable, either ascending, descending, or nested sort.

Fig. 3.24
Grid Designer

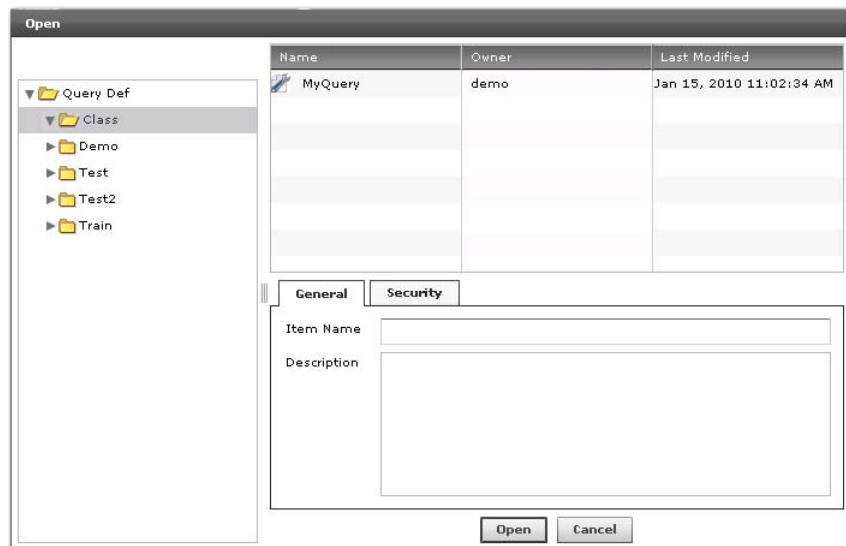


Follow these steps to design a grid:

- 1 Click New from the visual item toolbar.
- 2 The designer opens with the Grid item type selected.
- 3 Choose a grid style.
- 4 In the Query selection pane, click Browse. Navigate through the folders, select a query, and click Open. The information from the query populates the right pane.

Note The General tab displays the name and a brief description of the query. The Security tab displays the security roles that can view and edit the query.

Fig. 3.25
Query Folder



- 5 Click the Grid Columns header bar.
- 6 Select a measure's check box to add it to the grid. Measures that are unselected do not appear on the grid.

Fig. 3.26
Grid Columns

Query		Territory City				Total Margin		Average Margin		Margin Percent	
Grid Columns											
Available Columns											
Measure	Selected										
Territory City	☒										
Total Margin	☒										
Average Margin	☒										
Min Margin	☐										
Max Margin	☐										
Margin Percent	☒										
Format Options (selected column)											
Pattern:											
Alignment:											
Font:											
Size:											
Font Color:											
Actions											

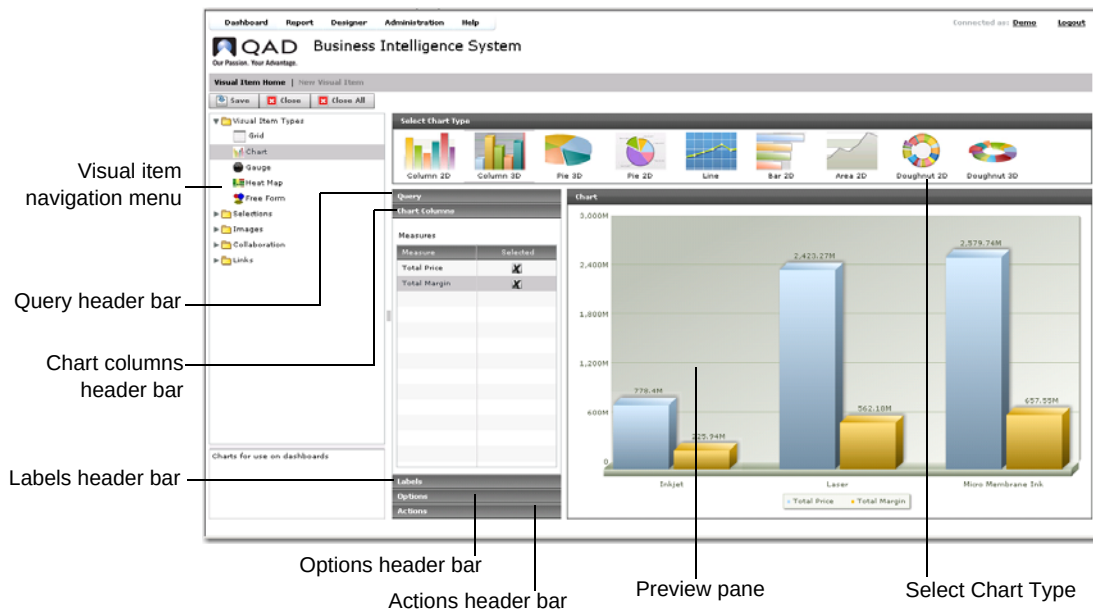
- 7 Click a measure and format the text using the following options:
 - Pattern
 - Font
 - Font color
 - Alignment
 - Font size
- 8 If desired, click the Actions header bar and link this grid to another visual item or report. For more information, see “Linking Visual Items” on page 57.
- 9 When finished, save the grid. See “Saving an Item” on page 33.

Charts

Charts allow the designer to display information in the following graphical options:

- Column 2D
- Column 3D
- Pie 3D
- Pie 2D
- Line
- Bar 2D
- Area 2D
- Doughnut 2D
- Doughnut 3D

Fig. 3.27
Chart Designer



Follow these steps to create a chart:

- 1 Click New from the visual item toolbar.
- 2 Select Chart from the list of visual items.
- 3 Choose a chart type.
- 4 Click the Query header bar and click Browse. Navigate through the folders, select a query, and click Open. The information from the query populates the right pane.

Note The General tab displays the name and a brief description of the query. The Security tab displays the security roles that can view and edit the query.

- 5 Click the Chart Columns header bar.
- 6 Select the levels and measures to display in the chart. To remove a level or measure from the chart, unselect the check box.

Note Levels represent dimensions and measures represent the facts in a query.

- 7 Click the Labels header bar and enter labels in the following fields:

Title. Appears above the chart.

Subtitle. Appears directly below the title.

X Axis Label. Appears along the horizontal axis.

Y Axis Label. Appears along the vertical axis.

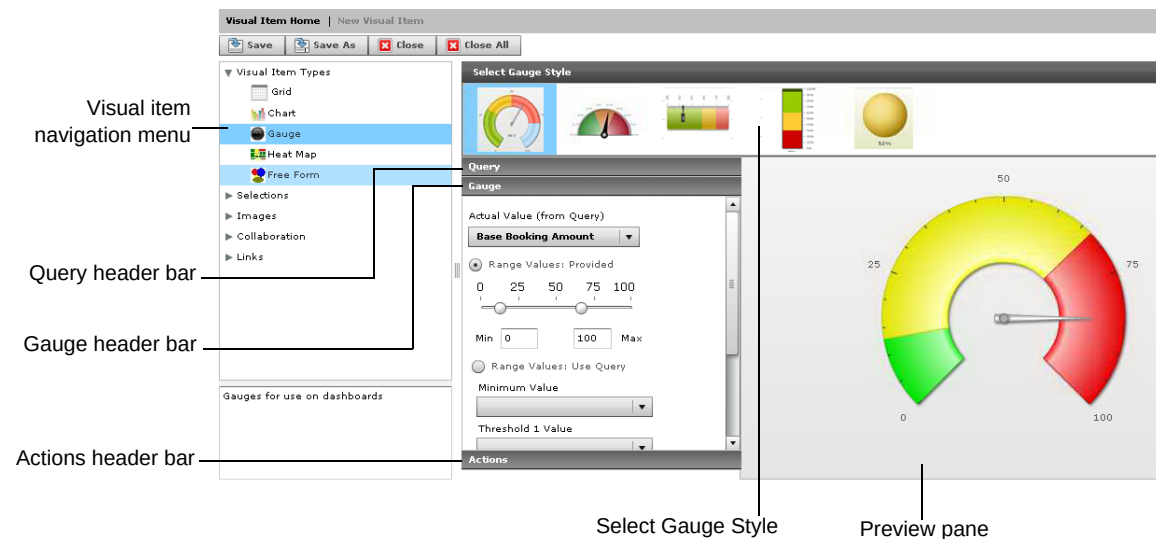
- 8 Click Refresh Chart to see the titles and labels displayed on the chart.
- 9 Click the Options header bar. Select any of the formatting options:

- **Stacked (multiple measure).** Displays different measures proportionally related to each other.
 - **Scroll.** Adds another scroll bar within the visual item when you have a significant range of data to display on a chart. This option only works on multi-measure 2D charts with more than one measure being displayed.
 - **Show Value Labels.** Displays the full value on the chart.
 - **Abrv Value Labels.** Displays an abbreviation of the value on the chart.
 - **Decimal Display.** Determines how many numbers are after a decimal point. Select 0 if you do not want to show the decimal point.
 - **Glass effect (2D charts).** Applies a glass effect to 2D charts.
- 10 If desired, click the Actions header bar and link this chart to another visual item or report. For more information, see “Linking Visual Items” on page 57.
 - 11 When finished, save the chart. See “Saving an Item” on page 33.

Gauges

Gauges are a specialized form of visual item used to show some value compared to a target.

Fig. 3.28
Gauge Designer



Follow these steps to create a gauge:

- 1 Click New from the visual item toolbar.
- 2 Select Gauge from the list of visual items.
- 3 Choose a gauge style.
- 4 Click the Query header bar and click Browse. Navigate through the folders, select a query, and click Open. The information from the query populates the right pane.

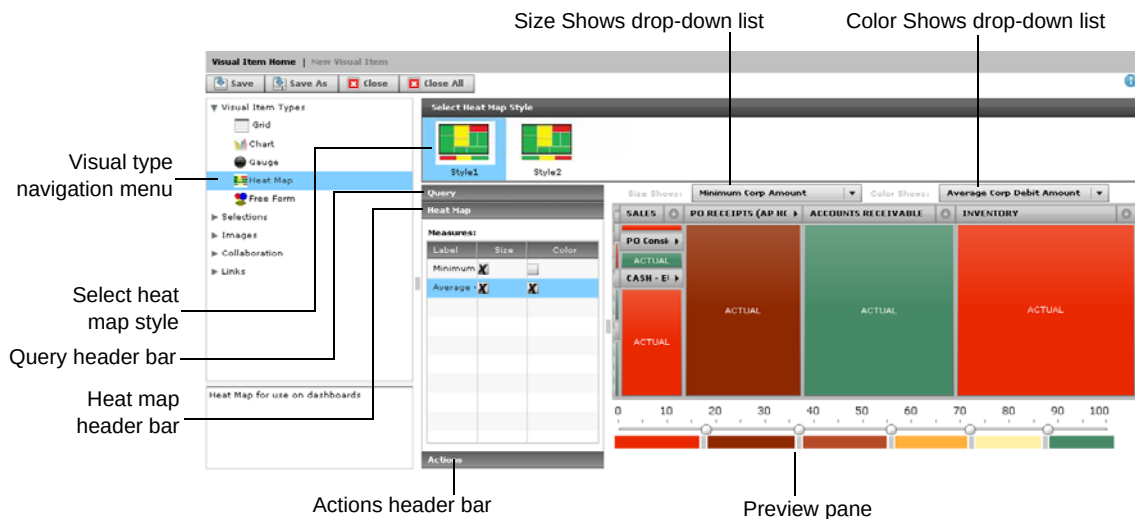
Note The General tab displays the name and a brief description of the query. The Security tab displays the security roles that can view and edit the query.

- 5 Click the Gauge header bar.
- 6 From the *Actual Value (from Query)* drop-down list, choose a value to represent the gauge needle.
- 7 Choose between the two Range Value options for the gauge:
 - **Range Values: Provided.** Displays ranges based on percentages. Click and move the colored triangles on the color bar to adjust the ranges corresponding to the colors. Enter minimum and maximum values in the Min and Max fields.
 - **Range Values: Use Query.** Displays ranges based on values from the query. From the drop-down lists, choose the values of Minimum Value, Threshold 1 Value, Threshold 2 Value, and Maximum Value.
- 8 Choose the range colors that represent the values on the gauge. The range colors default to green, yellow, and red.
- 9 If desired, click the Actions header bar and link this gauge to another visual item or report. For more information, see “Linking Visual Items” on page 57.
- 10 When finished, save the gauge. See “Saving an Item” on page 33.

Heat Maps

Heat maps allow you to compare information displayed through size and color.

Fig. 3.29
Heat Map Designer



Follow these steps to create a heat map:

- 1 Click New from the visual item toolbar.
- 2 Select Heat Map from the list of visual items.
- 3 Choose a heat map style. The styles provide options for the color value display:
 - **Style 1.** Small values are red and large values are green.
 - **Style 2.** Small values are green and large values are red.

- 4 Click the Query header bar and then click Browse. Navigate through the folders, select a query, and click Open. The information from the query populates the right pane.
Note The General tab displays the name and a brief description of the query. The Security tab displays the security roles that can view and edit the query.
- 5 Click the Heat Map header bar.
- 6 Select the measures for the Size and Color drop-down lists:
 - **Size.** The selected measures appear in the Size Shows drop-down list.
 - **Color.** The selected measures appear in the Color Shows drop-down list.
- 7 If desired, click the Actions header bar and link this heat map to another visual item or report. For more information, see “Linking Visual Items” on page 57.
- 8 When finished, save the heat map. See “Saving an Item” on page 33.

Linking Visual Items

The Actions pane gives you the ability to link two visual items together so that the user can drill from one visual item to another item with more detailed information. Linking actions can be applied to grids, charts, gauges, and heat maps.

Follow these steps to add a linking action to a visual item:

- 1 In the visual item designer, click the Actions header bar and click Add New.

Fig. 3.30
Visual Item Actions Pane



- 2 From the Action Type tab, select whether the user drills into a visual item or drills out to a report:
 - **Drill In.** Changes the viewer and adds breadcrumbs. The drill-in option is only available when linking two visual items together.
 - **Drill Out.** Opens a report in another window. The drill-out option is only available when linking a visual item to a report.

Fig. 3.31
Visual Item Action Type

Action Type | Action Binding | Action Target Item

Select the desired behavior from the following choices.

☐ Drill In. This action changes the viewer and adds breadcrumbs

☐ Drill Out. This action opens a report in another window

Next >>

OK Cancel

- 3 Choose the Action Binding tab and select how the visual items are linked:
 - **No context (accessed via menu).** Links the visual item by a menu.
 - **Bound to selected item(s).** Links the visual item by the selected items in the visual item; for instance, a section of a pie chart or a column in a grid. From the drop-down list, select the columns on the visual item that you want to link.

Fig. 3.32
Visual Item Action Binding

Action Type | **Action Binding** | Action Target Item

Select how the action should be displayed to the user of the dashboard.

☒ No context (accessed via menu)

☐ Bound to selected item(s)

☐ Effective Fin Month
☐ Effective Fin Month Name
☐ Base Amount Open 1-30

Next >>

OK Cancel

- 4 Choose the Action Target Item tab to identify the link-to object; for example, a more detailed visual item or report that was previously created.

Fig. 3.33
Visual Item Action Target

Select how the action should be displayed to the user of the dashboard.

☒ Link to library item ☐ Link to hierarchy

Name: Chart. Sales by Product Family for Quarter, Pr

Parameter Binding:

From	To
Product Type	Quarter
Total Price	Product Type

- 5 With *Link to library item* selected, click Browse.

Note The *Link to hierarchy* feature has no function at this time and is a placeholder for a future BI release.

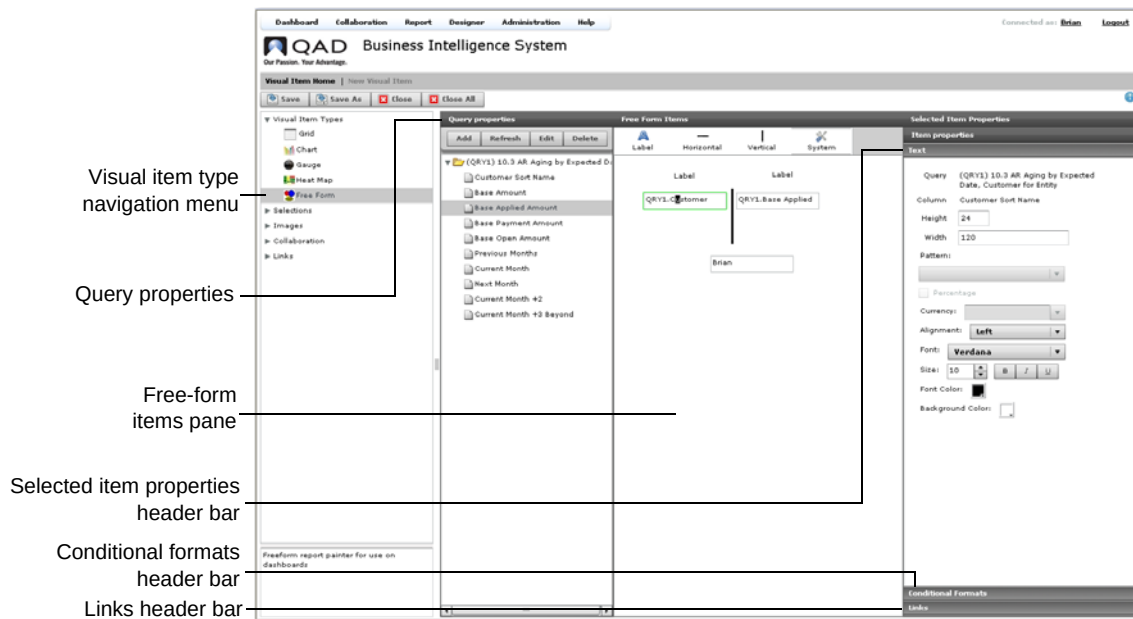
- 6 Navigate through the folders, select the desired report, and click Open.
- 7 If a list of dimensions appears in the Parameter Binding columns, select the desired value in the From drop-down list:
- **From.** The From-column values represent the columns available in the query that underlies the current visual item. Select which value is sent to the query in the link-to item as a value for the required parameter.
If you are linking to a visual item that requires a parameter, but you do not have any value in your current query that matches that parameter, choose *Use Default* in the From column. This option forces the query that underlies the link-to item to use its default value for the parameter.
 - **To.** This value represents the parameters in the query that are used in the link-to item.
- 8 When finished, click OK.

Note After the visual item links are configured, the link information appears in the Actions frame. To edit the link, click Edit. To delete the link, click Delete.

Free-Form Items

The free-form item is an advanced metric type of visual item that allows for conditional formatting. This visual item gives you the ability to develop a high-level summary on a dashboard where the totals come from different queries. Because a free-form item allows formatting on a per-cell basis, the format of the cell can change depending on the value of the data within the cell. For example, a cell can be highlighted in red if the figure falls below a given threshold.

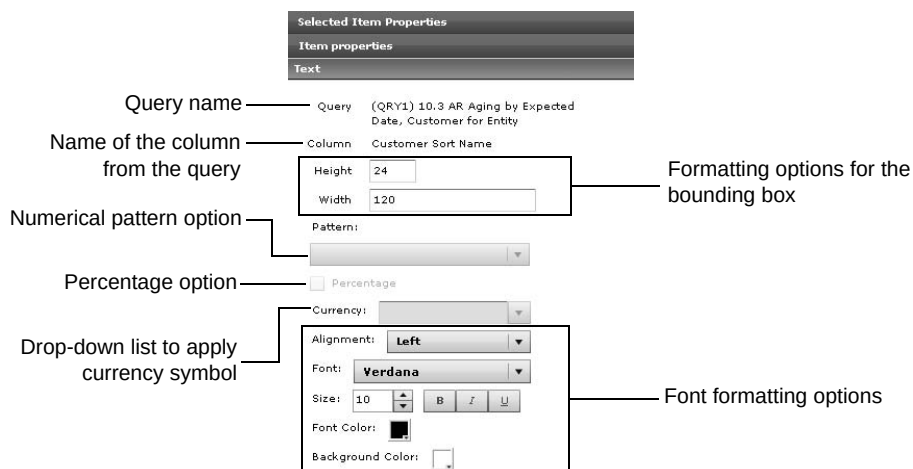
Fig. 3.34
Free Form Designer



Follow these steps to design a free-form item:

- 1 Click New from the visual item toolbar.
- 2 Select Free Form from the list of visual items.
- 3 In the Query Properties pane, click Add. Navigate through the folders, select a query, and click Open. The information from the query populates the right pane.
Note The General tab displays the name and a brief description of the query. The Security tab displays the security roles that can view and edit the query.
- 4 To add additional queries to the free-form item, click Add and select another query.
- 5 A folder for the query appears in the Query Properties pane. Open the folder and then drag and drop the value into the Free Form items pane.
- 6 Click the query item.
- 7 Click the Text header bar to modify the font and bounding box. For numerical values, apply any changes to the pattern and add any currency and percentage symbols if needed.

Fig. 3.35
Free-Form Text



- 8** With the query item selected, click the Conditional Formats header bar and add conditional formats to the item. For example, a cell can be highlighted in red if the figure falls below a given threshold.

Follow these steps to add conditional formatting:

- a** Click Add. An operator appears in the conditional format pane.
- b** Select the desired value from the When drop-down list.
- c** Select the appropriate operator.
- d** Set the value of the item by entering a specific number in the value field or by selecting a value from the drop-down list.
- e** Set the font and background color options. These format options are applied when the conditions created in steps b through d are met.

Fig. 3.36
Free-Form Conditional Format

- 9 With the query item selected, click the Links header bar to link the query item to a report. Click Browse, navigate through the folders, select a report, and click Open.
 - **From.** The From-column values represent the columns available in the query that underlies the current report. Select which value is sent to the query in the link-to report as a value for the required parameter.

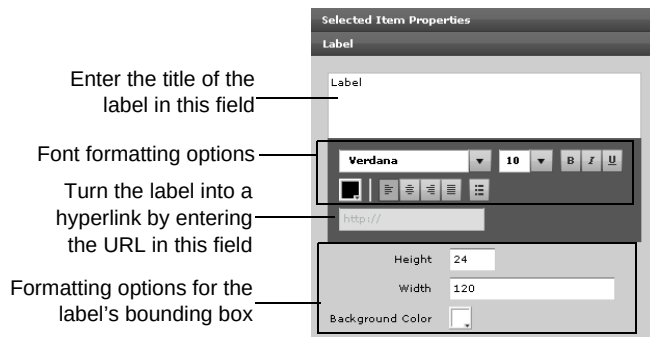
If you are linking to a report that requires a parameter, but you do not have any value in your current query that matches that parameter, choose *Use Default* in the From column. This option forces the query that underlies the link-to report to use its default value for the parameter.

 - **To.** This value represents the parameters in the query that are used in the link-to report.

Fig. 3.37
Free-Form Links

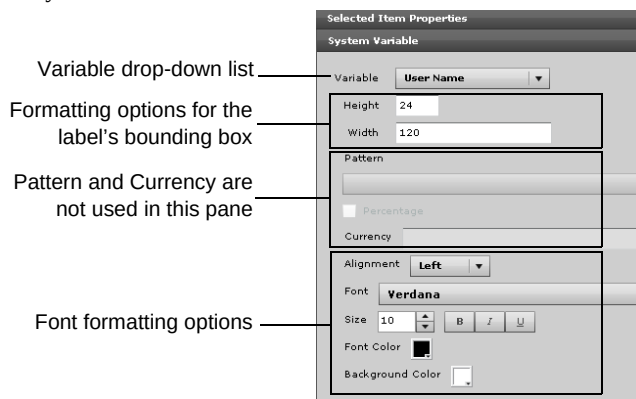
- 10 Drag and drop any of the following graphic items into the Free Form items pane:
- Label
 - Horizontal Line
 - Vertical Line
 - System
- 11 Format the graphic items using the options available in the Selected Item Properties pane:
- **Label.** Select the label to modify the title of the label, the font, and the bounding box.

Fig. 3.38
Free-Form Label Item



- **Vertical and Horizontal Line.** Select a line to modify the length, width, and color.
- **System.** Select the system variable to modify the variable type, the font, and the bounding box. The following variable types are available:
 - **User Name.** Adds the user name to the dashboard. For example, the designer can add Welcome{username} so that the user sees a personalized greeting when logging on to the dashboard.
 - **Email Address.** Adds the user's e-mail address to the dashboard.

Fig. 3.39
Free-Form System Variable



- 12 When finished, save the free-form item. See “Saving an Item” on page 33.

Parameter Bars

Parameter bars allow the user to change the parameters for one or more visual items on a dashboard. For example, if there is a series of visual items showing the sales data for the current month only, a parameter bar can be added to the dashboard that would allow the user to pick the month for which the system displays sales data.

Follow these steps to create a parameter bar:

- 1 Click New from the visual item toolbar.
- 2 Select Parameter Bar from the list of visual items.
- 3 Click Add to create a parameter bar selection.

Note To delete any parameter bar selections, select the item and then click Remove.

Fig. 3.40
Parameter Bar Designer

- 4 Click the parameter bar selection and enter a new title in the Display Label field. The default display label for new parameter bars is *Please Select*.
- 5 From the drop-down list, choose a selection control for the parameter bar:
 - **Combo Box.** Permits a single selection.
 - **Selection List.** Permits multiple selections at the same time.
- 6 Set the Parameter Selection Source:
 - **Use Dimensional Value.** Select this option if a dimension contains all the values required for the drop-down list. Click Browse, select a dimension, and click OK.
 - **Use Query Library.** Select this option to limit the number of values to display to the users. Click Browse, select a dimension, and click OK.

If specific values are required in the parameter drop-down list, create a query with those values before setting up the report parameters.
- 7 Set the Parameter Default Value. This step is optional.
 - **Supply Value.** Select this option and enter a default value in the field.
 - **Use Query Library.** Select this option and click Browse. Select a dimension and click OK.
- 8 When finished, save the parameter bar. See “Saving an Item” on page 33.

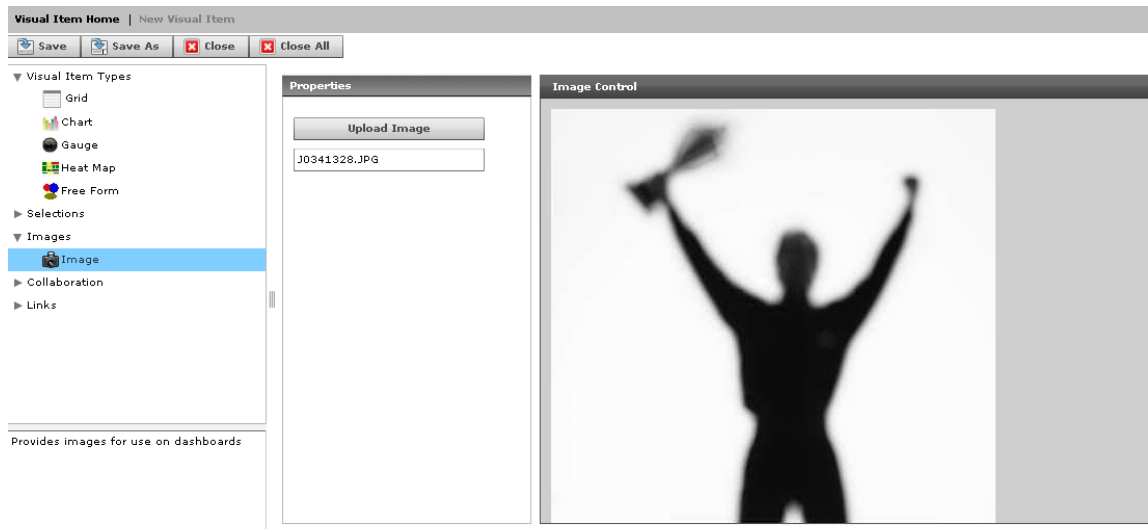
Image Items

With the image item, the designer can add any graphic to the dashboard.

Follow these steps to create an image:

- 1 Click New from the visual item toolbar.
- 2 Select Image from the list of visual items.

Fig. 3.41
Image Designer



- 3 Click Upload Image. Navigate through the system folders, locate the image file, then click Open.
- 4 A preview of the image appears in the Image Control pane.
- 5 When finished, save the image. See “Saving an Item” on page 33.

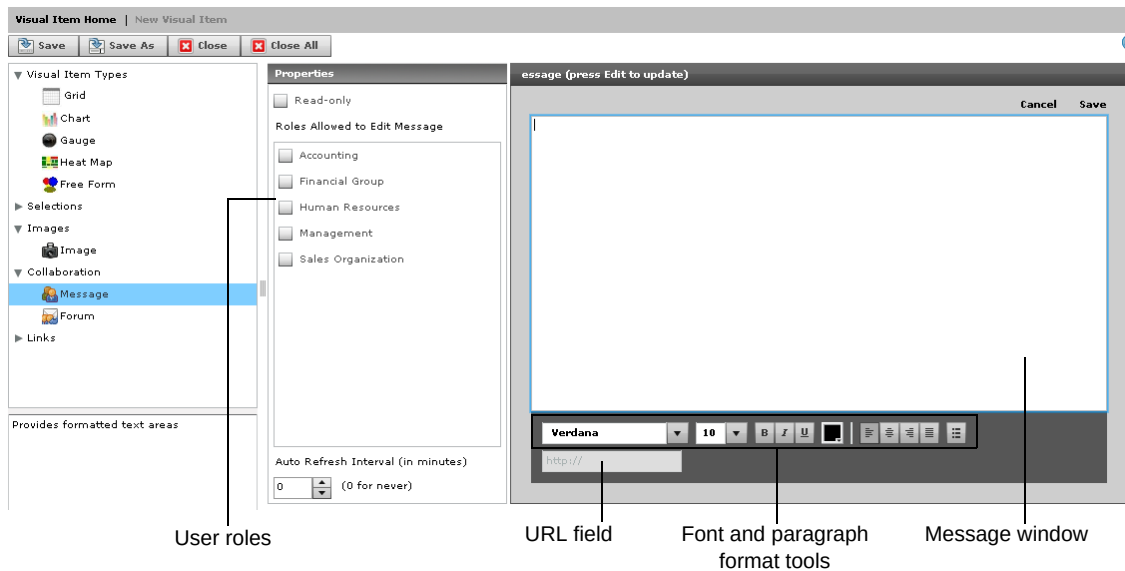
Messages

The message item allows you to create custom messages for a dashboard such as text blocks, organized lists, or links to Web sites.

Follow these steps to create a message item:

- 1 Click New from the visual item toolbar.
- 2 Select Message from the list of visual items.

Fig. 3.42
Message Designer



- 3 Click Edit and enter the content in the message window.
- 4 Edit the content using the font and paragraph formatting tools.
- 5 If desired, add hyperlinks. To add a hyperlink, highlight the text in the message and then enter the Web address in the URL field.
- 6 Select the user roles that are allowed to edit the content of the message. The users who are given editing access can edit the content directly from the dashboard.
Note If all the user roles are unselected, including the Read-only check box, all roles can edit the message.
- 7 Select Read-only if you do not want the message to be edited by anyone.
- 8 Select the Auto Refresh Interval. The refresh interval is set in multiples of 5 minutes with a range of 0-30 minutes.
- 9 When finished, save the message. See “Saving an Item” on page 33.

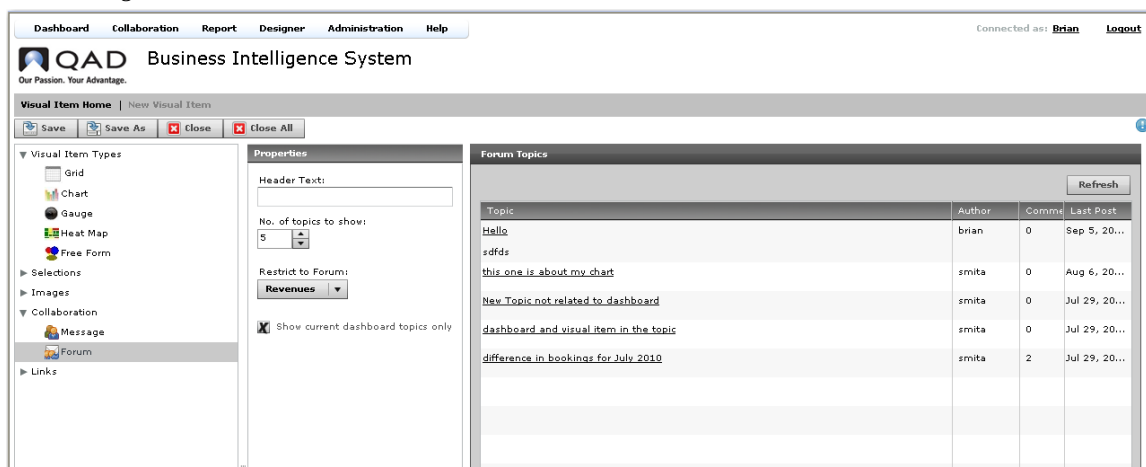
Forums

The forum item can be placed on a dashboard to allow users to see the most recent topics for all or selected forums.

Follow these steps to create a forum:

- 1 Click New from the visual item toolbar.
- 2 Select Forum from the list of visual items.

Fig. 3.43
Forum Designer



- 3 Enter a title in the Header Text field.
- 4 Set the number of topics that appear in the forum by clicking the up and down arrows.
- 5 Select a forum from the *Restrict to Forum* drop-down list to display topics from that forum only.
Note If this choice is left blank, this forum displays topics from every forum.
- 6 If desired, select the check box to show current dashboard topics only.
Note If this option is selected, the forum displays topics that were generated in that dashboard only. If this option is not selected, the forum displays the topics that were generated in all dashboards.
- 7 Click the refresh button to update the forums list.
- 8 When finished, save the forum. See “Saving an Item” on page 33.

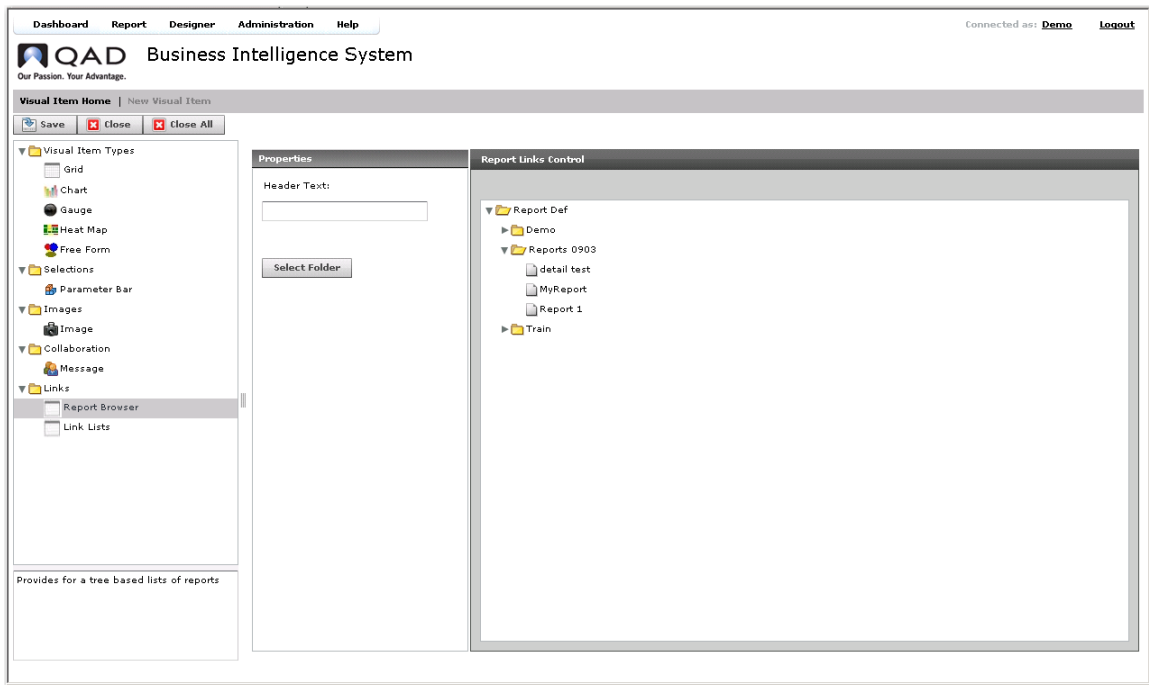
Report Browsers

The report browser displays a list of reports, which you can view and run directly from the dashboard.

Follow these steps to create a report browser:

- 1 Click New from the visual item toolbar.
- 2 Select Report Browser from the list of visual items.

Fig. 3.44
Report Browser Designer



- 3 Enter a title in the Header Text field.
- 4 Click Select Folder. Navigate through the folders, select the desired folder, and click Open.
- 5 The folder appears in the Report Links Control pane.
- 6 When finished, save the report browser. See “Saving an Item” on page 33.

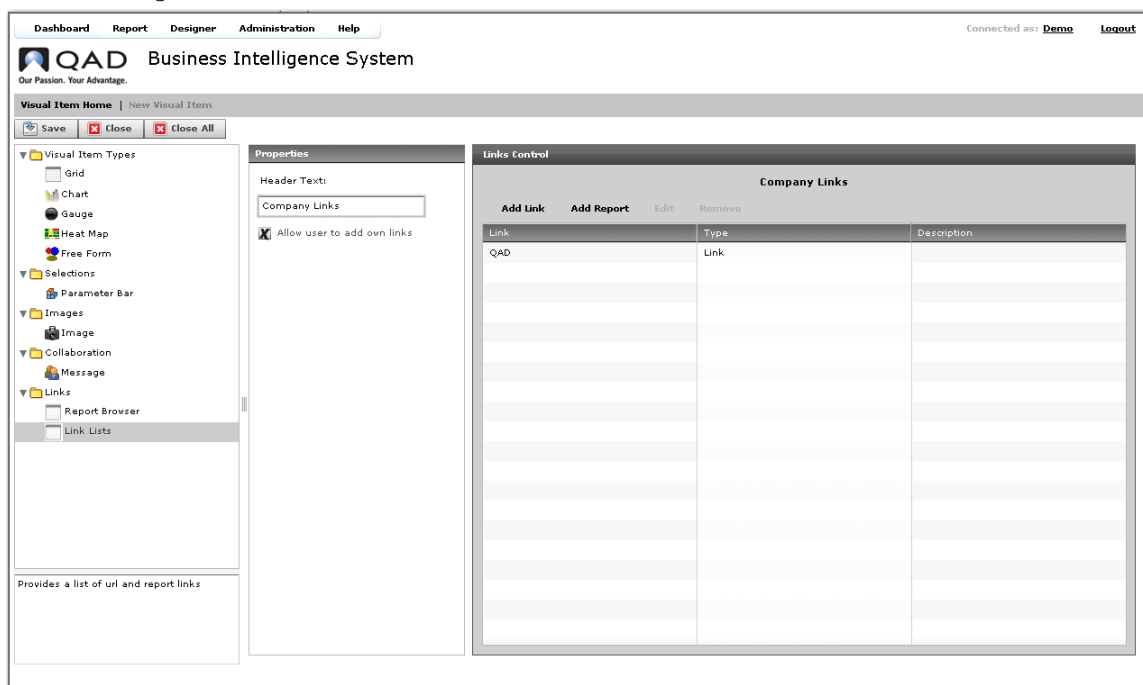
Link Lists

The links list is an organized table of links to Web sites and reports.

Follow these steps to create a link list:

- 1 Click New from the visual item toolbar.
- 2 Select Link Lists from the list of visual items.

Fig. 3.45
Link Lists Designer



- 3 Enter a title in the Header Text field.
- 4 Select *Allow user to add own links* to allow users to add to the link list directly from the dashboard.
Note If this check box is unselected, only the designer can add to the links list in the Designer menu.
- 5 Click Add Link.
- 6 Enter the URL, a title for the link, and a brief description, and click OK.

Fig. 3.46
Add Link Window

Add Link

Enter the URL of link (can be full or relative.) Example: <http://www.google.com>

Enter the short name to display on the list. Example: Link to Sales Cube

Enter descriptive text for this link. Example: This link allows adhoc access to Sales information.

- 7 To add a report, click Add Report. Navigate through the folders, select the desired report, and click Open.
- 8 If necessary, remove items from the list by clicking the Remove button.
- 9 If necessary, edit items on the list by clicking the Edit button.
- 10 When finished, save the links list. See “Saving an Item” on page 33.

Dashboards

The dashboard is a collection of visual items that gives a snapshot view of the current business state; for example, a sales dashboard that shows the current sales figures for each product. The dashboard can be fully customized so that the user sees information in a quick, easily analyzed format to allow for better and more informed decision making.

Dashboard Home

The Dashboard Home is the front page of the Dashboard menu where you can navigate through a list of all available dashboards. Access the Dashboard Home by choosing Dashboard from the Designer drop-down menu.

A list of all available dashboards is located in a navigation pane on the left side of the window. A properties pane, which displays information about folders and queries, is on the right side of the window.

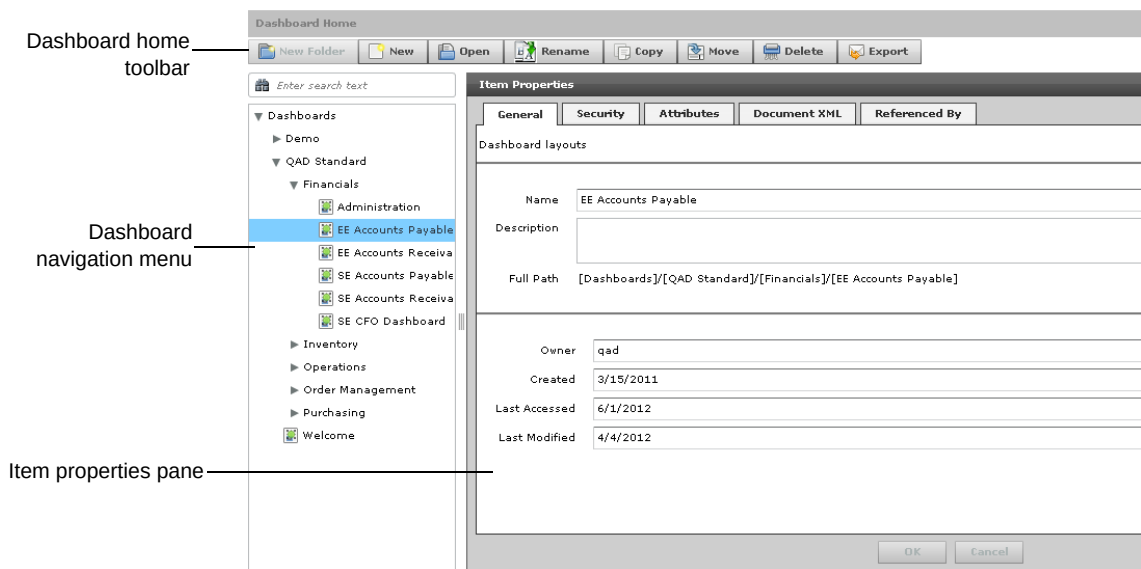
The dashboard home toolbar consists of the following buttons:

- **New Folder.** Create a folder in the navigation pane.
- **New.** Create a dashboard.
- **Open.** Open a dashboard.
- **Rename.** Rename a dashboard or folder.
- **Copy.** Make a copy of a dashboard.
- **Move.** Move a dashboard or a folder to a different location in the navigation pane.
- **Delete.** Delete a dashboard or folder.
- **Export.** Export the selected dashboard in .zip xml format. Use this feature to copy or migrate a specific dashboard from one portal environment to another.

Note When you export a dashboard, the visual items on the dashboard and all underlying queries are exported as well.

To open a dashboard, double-click the dashboard name or select the dashboard and click Open.

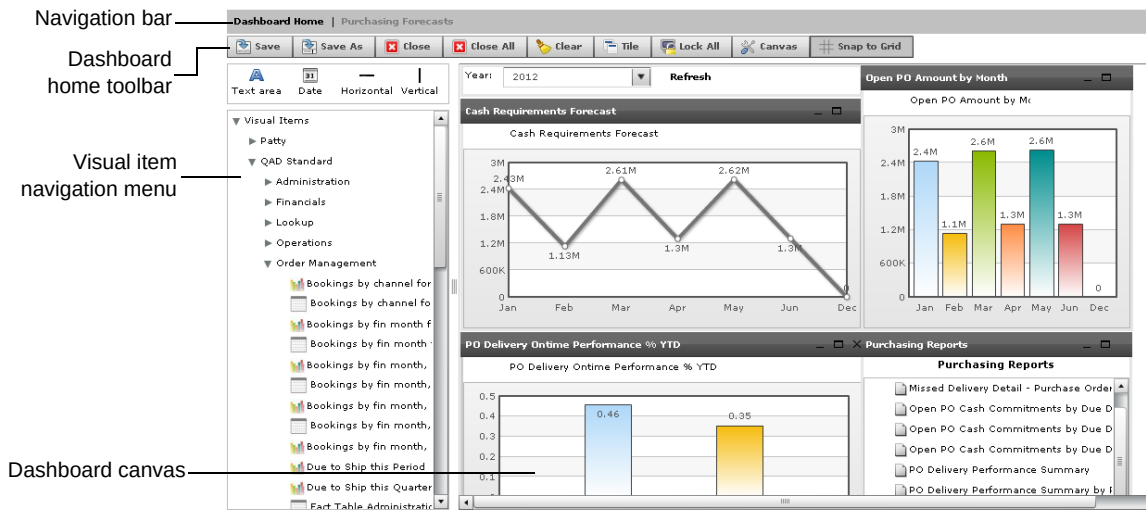
Fig. 3.47
Dashboard Home



Dashboard Designer

The dashboard designer is used to create new dashboards. To access the dashboard designer, click New or open an existing dashboard.

Fig. 3.48
Dashboard Designer



A link to Dashboard Home is located in the navigation bar at the top of the window. If there are any dashboards open, a link to each dashboard appears in the navigation bar, each separated by a spacer symbol.

The dashboard designer toolbar, located below the navigation bar, contains the following buttons:

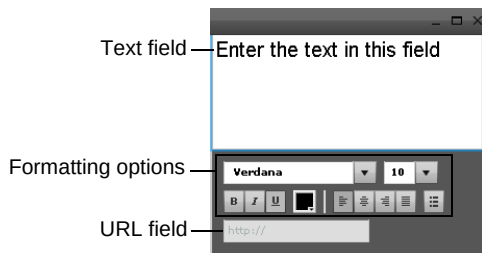
- **Save.** Save a dashboard.
- **Save As.** Save a copy of a dashboard under a new name.

- **Close.** Close the dashboard.
- **Close All.** Close all dashboards that are open.
- **Clear.** Delete all visual items from the canvas.
- **Tile.** Resize and tile the visual items for an organized view.
- **Lock or Unlock All.** Lock or unlock visual items in place.
- **Canvas.** Adjust the canvas size and the background color of the dashboard.
- **Snap to Grid.** Snap an item's upper left corner to an invisible grid when the item is moved. This feature allows items to be easily aligned.

The following graphic items, located below the toolbar, can be dragged and dropped onto the dashboard canvas:

- **Text Area.** Add a block of text to the dashboard. To change the format of the text, highlight the text and use the font and alignment tools. Add hyperlinks by highlighting text and entering the Web address in the URL field.

Fig. 3.49
Text Area Designer



- **Date.** Add the date to the dashboard. The date item always displays the current date.
- **Horizontal line.** Add a horizontal line to the dashboard.
- **Vertical line.** Add a vertical line to the dashboard.

The dashboard canvas is on the right side of the canvas. To build a dashboard, drag and drop visual items onto the canvas.

Creating a Dashboard

Follow these steps to create a dashboard:

- 1 Click New from the Dashboard Home toolbar.
- 2 Drag and drop visual items onto the dashboard canvas.
- 3 Move and resize the visual items however desired.
- 4 To delete any items, right-click on an item and select *Delete this item*.
- 5 If desired, modify the item properties. See “Changing the Properties of a Visual Item” on page 73.
- 6 If desired, link any parameter bars to the visual items. For more information, see “Link a Visual Item to a Parameter Bar” on page 74.

7 When finished, save the dashboard. See “Saving an Item” on page 33.

Changing the Properties of a Visual Item

To change the default characteristics of a visual item, right-click the header bar and select properties.

Fig. 3.50
Visual Item Properties

The following options are available to edit:

- **General.** Edit the title of the visual item that appears in the header bar. Lock the window by selecting the lock window option, which is useful if you want to lock a single visual item.
- **Position.** Adjust the positioning of the visual item by entering new values in the X and Y-axis location fields. Resize the visual item by entering new values in the Height and Width fields.
- **Controls.** The following control settings are available:
 - **Show title bar.** Determines if the header bar appears on the visual item. Select this check box to add the header bar and clear the box to remove it.
 - **Show borders.** Determines if the borders appears on the visual item. Select this check box to add borders and clear this box to remove them.
 - **Close allowed.** Determines if the window can be closed. If this check box is cleared, the close symbol is removed from the header bar and the visual item cannot be closed by the user or the designer.
 - **Resize allowed.** Determines if the window can be resized. If this check box is cleared, the item cannot be resized by the user or the designer.
 - **Window can be moved.** Determines if the window can be moved. If this check box is cleared, the window cannot be moved by the user or the designer.
- **Colors and Fonts.** Adjust the background color of the visual item or select the Match desktop background option.

Note To allow the designer to create items easily, some settings for window movement and border control take effect at runtime and not at design time. Border shading and item movement restrictions are different at runtime than they are at design time.

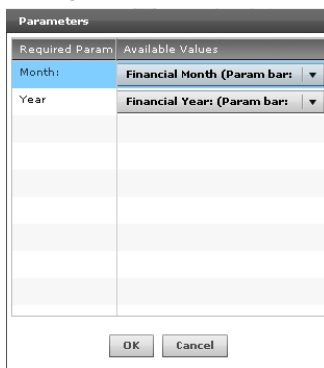
Link a Visual Item to a Parameter Bar

Follow these steps to link a visual item to a parameter bar:

- 1 Right-click the header bar of the visual item and select Parameters.
- 2 From the Available Values drop-down list, select the parameter bar that you want to link the visual item to. Click OK.

Fig. 3.51

Linking the Visual Item to the Parameter Bar



Note Parameter definitions are not required if the query underlying the visual item specifies a default. The default is always used on the dashboard.

- 3 The parameter functionality for a visual item is set, and the visual item reacts to a selection change in the parameter bar.

Creating Mobile BI Dashboards

QAD recommends that you create simplified dashboards for the iPad so that the information is presented in a clear and easy-to-read format.

Fig. 3.52

Mobile Dashboard



Visual Items

Because the Mobile BI App for the iPad only supports charts and graphs, the mobile BI dashboards must not contain parameter bars, grids, or any other types of unsupported visual items.

Note If you have existing dashboards that fit this criteria, they can be accessed through the iPad app so you do not need to rework every dashboard.

You can create the Mobile BI dashboard using the same charts and graphs as on other dashboards. It is not required that you create specific visual items for use on the iPad. The charts and graphs used on a mobile dashboard retain the same security restrictions as those items used on a portal dashboard.

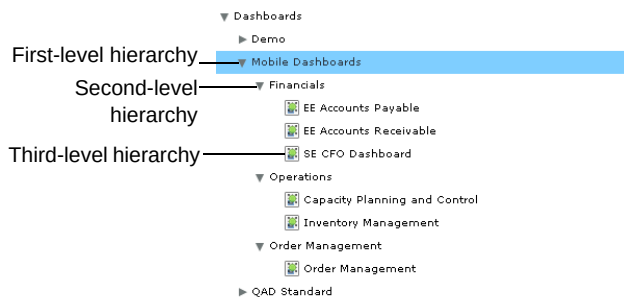
Canvas Size

When you create a mobile BI dashboard, set the canvas size of the dashboard to the screen size of the mobile device. See “Dashboard Designer” on page 71.

Folder Hierarchy

Organize the mobile dashboards in a three-level folder hierarchy. In a standard Web platform, there are no restrictions to how many levels are in the folder structure. In the Mobile platform, the folder hierarchy is restricted to three levels and then it flattens out.

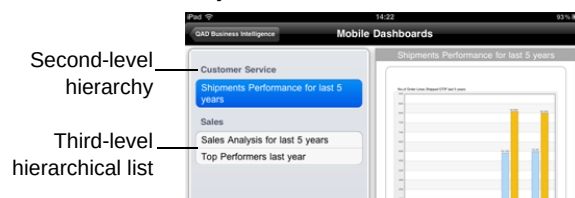
Fig. 3.53
Dashboard Hierarchy



On the iPad, the dashboard hierarchy appears on the left side of the screen.

Note If the folder hierarchy exceeds three levels on the Web portal, the extra levels are not shown on the iPad. All dashboards are flattened out and listed in the third-level hierarchical list.

Fig. 3.54
Mobile Dashboard Hierarchy



Administration

This chapter covers the administration of all user and data security.

It includes the following topics:

Overview 78

An overview of the Administration menu options.

User 78

An overview of the User menu; adding new users.

Object Security Group 80

Introduction to the Object Security Group menu; creating, editing, and deleting groups.

Data Security Model 82

Introduction to the Data Security Model menu; creating new models and using the model builder.

Model Administration 88

Introduction to the Model Administration menu; build security, rebuild master data model, and revoke security.

Data Migration 90

Introduction to the Data Migration menu; exporting and importing data.

Library Administration 92

Introduction to the Library Administration menu; build item references and queries.

Forums Administration 92

Introduction to the Forums menu; creating, editing, and deleting forums.

Overview

The Administration function in BI handles all data and user security. From the Administration menu, the administrator sets the access levels of users and user groups, and the security for data groups and data values.

The Administration drop-down menu contains the following options:

- **User.** Add, edit, enable, and disable user profiles in the BI Portal.
- **Object Security Group.** Examine, edit, and create security groups.
- **Data Security Model.** Build data security.
- **Model Administration.** Update, rebuild, or remove all data security.
- **Data Migration.** Migrate items from one portal to another.
- **Library Administration.** Rebuild the data library.
- **Forums.** Add, edit, and delete forums.

User

In the User menu, the administrator manages the profiles of the end users. The administrator adds users to the portal, edits a user's profile, and enables or disables a user's access.

Access the User menu by selecting User from the Administration drop-down menu.

Information about the user is organized into the following columns:

- **User ID.** The username used to log in to the BI Portal.
- **First and Last Name.** The first and last name of the user.
- **Status.** The current status of the user:
 - **A.** Active.
 - **P.** Pending. A new user who has not logged in to the portal and has not changed the initial password.
 - **D.** Disabled.
- **Email.** The user's e-mail address.
- **Application Role.** The role assigned to the user.

The user toolbar consists of the following buttons:

- **New.** Add a user.
- **Edit.** Edit existing user information and access.
- **Disable.** Disable a user.
- **Enable.** Enable a user.
- **Refresh.** Refresh the list to show recent changes.

Fig. 4.1
User Administration Menu

User ID	Last Name	First Name	Status	Email	Application Role
tom	Andez	Tom	A	dbg@ngq.com	Administrator
monica3	Graves	Monica	P	monica@aol.com	User
monica9	Borrell	Monica	A	mob@qad.com	Administrator
eric	Halvson	Eric	A	eric@analytics.com	Administrator
judy	Rodes	Judy	A	rodes@aol.com	Designer
duane	Smith	Duane	A	dsmith@gogetem.com	Administrator
josh	Stevens	Josh	A	dan@aol.com	Administrator
demo	User	Demo	A	demo@qad.com	Dashboard Only

Adding a New User

Follow these steps to add a user:

- 1 Click New from the User toolbar.

Fig. 4.2
Add a New User

User Information

User ID:

Password:

Confirm Password:

AD User:

AD Domain:

First Name:

Last Name:

Common Name:

Email address:

Status:

Locale:

Application Role:

Object Security Groups

☐ Human Resources

☐ Sales Organization

☐ Management

☐ Accounting

☐ Financial Group

Data Security Models

☐ Full Access

- 2 Enter the user information in the following fields:

User ID. Enter the login ID for the user.

AD User. Do not enter anything in this field; used to control access to the Cubes only.

AD Domain. Do not enter anything in this field; used to control access to the Cubes only.

First Name. Enter the user's first name.

Last Name. Enter the user's last name.

Common Name. Enter the user's first name or nickname. The name entered in this field displays in the top right corner of the portal window.

Email address. Enter the user's e-mail address.

Note The Password and Confirm Password fields are grayed out. Do not enter anything in these fields because users set up their own passwords when they log in to the portal for the first time.

- 3 Choose a language from the Locale drop-down list. When the user logs in to the portal, the translatable objects in the UI translate into the selected language.
- 4 Choose an application role from the Application Role drop-down list. This setting determines which applications in the portal the user can access. The following roles are pre-installed in the BI portal:
 - **Dashboard Only.** Read-only access to view dashboards.
 - **User.** Views and collaborates on dashboards, reports, and visual items; access to Dashboard, Collaboration, and Report menus.
 - **Designer.** Views, edits, and creates queries, reports, visual items, and dashboards; access to the Design menu as well as the Dashboard, Collaboration, and Report menus.
 - **Administrator.** Manages user access, portal security, and the data warehouse; access to the Administration menu as well as the Dashboard, Collaboration, Report, and Design menus.

Note All users have access to the Help menu.

- 5 Select the Object Security Groups and Data Security Models the user can access.

Note The administrator can add additional Object Security Groups and Data Security Models. See “Object Security Group” on page 80 and “Data Security Model” on page 82.
- 6 Click Save.
- 7 After adding a user, rebuild the data security model. Select Model Administrator from the Administrator drop-down menu.
- 8 Click the Build Security button. See “Build Security” on page 89.
- 9 An automated e-mail, which contains an auto-generated password and a link to the portal, is sent to users notifying them that they have access to the portal.
- 10 When the user logs in to the portal and creates a password, the user status changes to A(Active).

Object Security Group

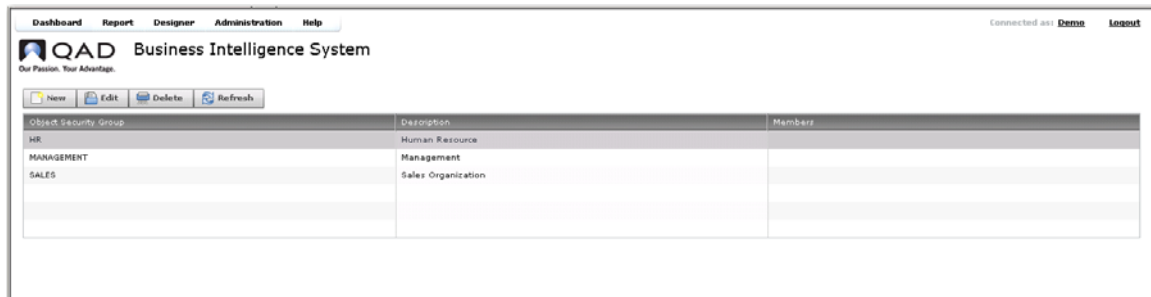
The object security group is a security feature used to restrict access to dashboards, visual items, reports, and queries. When the designer assigns an object security group to an object, only users in that group can use that object. This feature is useful if you want to restrict access to specific objects that display sensitive data.

The system ships with three object security groups:

- Human Resources

- Sales Organization
- Management

Fig. 4.3
Object Security Group



Add an Object Security Group

Follow these steps to add an Object Security Group:

- 1 Select Object Security Group from the Administration drop-down menu.
- 2 Click New.
- 3 Enter the name of the group in the Object Security Group field.
- 4 Enter the description in the Description field.
- 5 Click Save.

Edit or Delete an Object Security Group

Follow these steps to edit or delete an Object Security Group:

- 1 Select Object Security Group from the Administration drop-down menu.
- 2 Select and highlight the object security group.
- 3 To edit a group, click Edit and edit the Object Security Group and Description fields as required. Then click Save.
To delete a group, click Delete and then click OK to confirm that you want to delete the group.

Assign an Object Security Group to a User

Follow these steps to assign an Object Security Group to a user:

- 1 Select User from the Administration drop-down menu.
- 2 Select and highlight the user and click Edit.
- 3 Select the appropriate Object Security Groups to assign to the user.

Fig. 4.4

Assign an Object Security Group to a User

4 Click Save.

Data Security Model

The data security model is used to control the specific content in the data warehouse that is accessible by a group of users. These models can control what type of data a user can access as well as which instances of data a user can access. For example, these models can restrict access to orders or invoices for only customers in California.

The data security model is a powerful security feature that can be used to do the following:

- Limit the dimension and fact tables a designer can access when defining queries.
- Expose only a subset of the columns in a specific dimension or fact table; for example, show price, but not cost to a group of users.
- Constrain the rows that are exposed; for example, define a sales territory or product line a user can access.

To define specific instances in the model, you can define a constraint with filters as part of the model. Each constraint requires the selection of a column from the dimension followed by the selection of the distinct values for the column that is included in the data security model.

With data security models in place, a designer can create a common dashboard with visual items that expose all the content in a data warehouse; for example, all product lines and all sales territories. Users of the dashboard see a view that limits their content to the product lines and sales territories that are exposed in the data security models of which they are members.

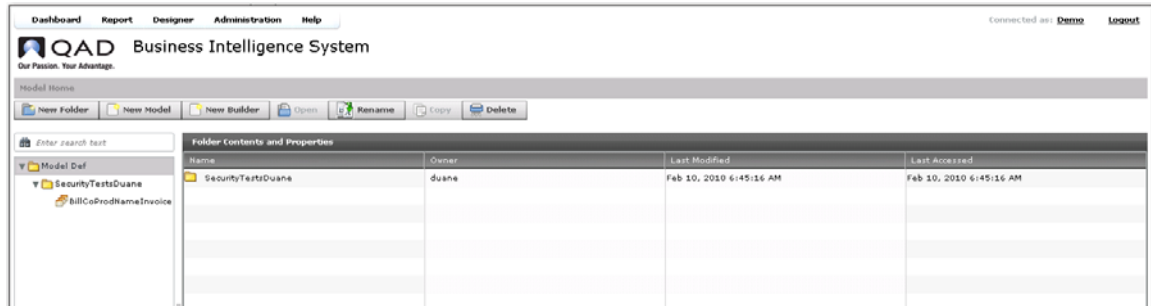
Access the data security model by clicking Data Security Model from the Administration drop-down menu.

The data security model toolbar contains the following buttons:

- **New Folder.** Create a folder.

- **New Model.** Assign access to dimensions and facts to build a new data security model.
- **New Builder.** Build a new data security model based on characteristics of the data.
- **Open.** Open a selected model.
- **Rename.** Rename a model.
- **Copy.** Copy a model.
- **Delete.** Delete a model.

Fig. 4.5
Data Security Model

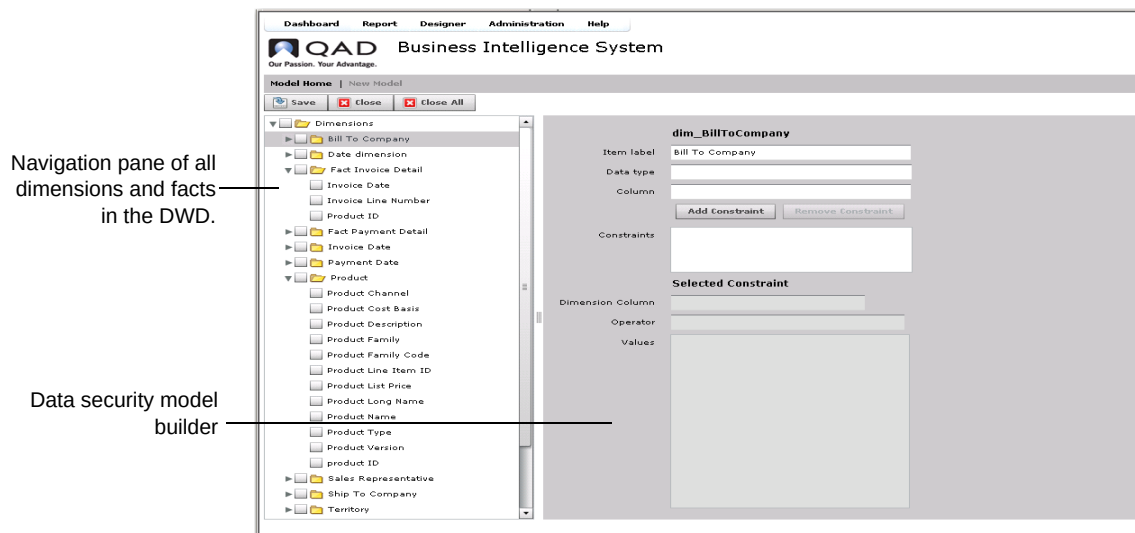


Add a Data Security Model

Follow these steps to add a data security model:

- 1 Select Data Security Model from the Administration drop-down menu.
- 2 Click the New Model button.
- 3 The navigation pane on the left displays a hierarchical list of all dimensions and facts within the DWD. The data security model builder is in the right pane.

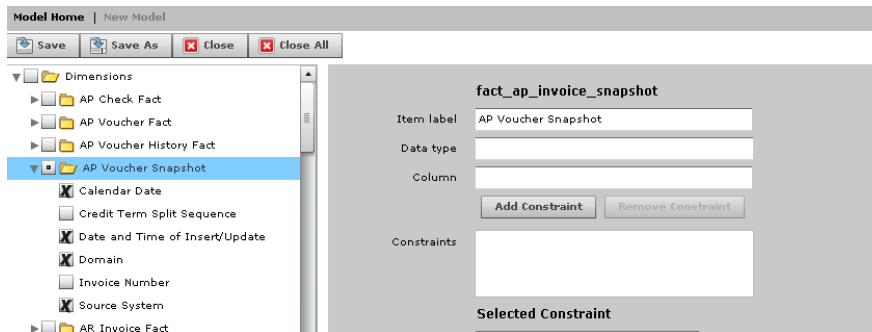
Fig. 4.6
Add a New Data Security Model



- 4 Navigate through the folders and select the desired facts and dimensions that users can view with access to this security model.

Note If a folder is selected, the child items within that folder can be accessed as well. If one or more of the child items within the folder are not selected, a dot appears in the box next to the folder, indicating partial access to the folder.

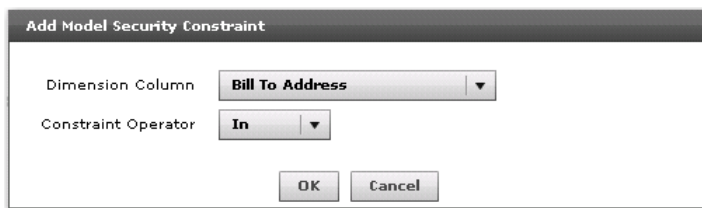
Fig. 4.7
Partial Access to a Folder



- 5 If desired, add a constraint to a dimension. Constraints restrict access to specific values within a dimension; for example, the sales territory dimension can be constrained so that users see data for their territory only.

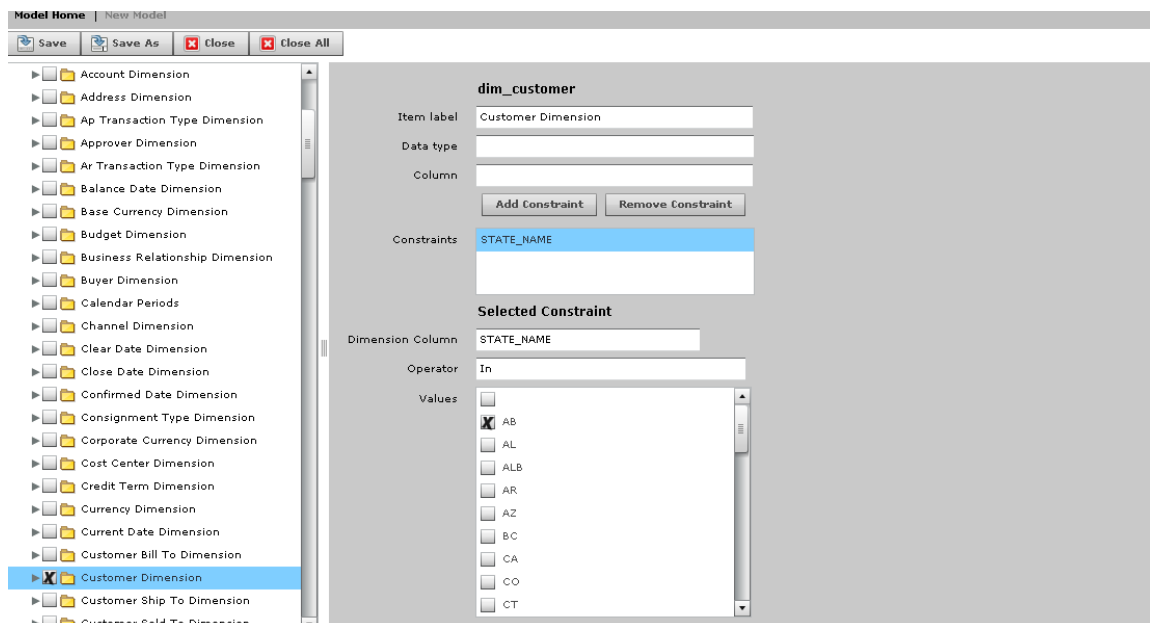
To add a constraint, select the dimension and click Add Constraint.

Fig. 4.8
Add Model Security Constraint



- 6 Choose a dimension column from the Dimension Column drop-down list.
- 7 Choose In or Not In from the Constraint Operator drop-down list.
- 8 Click OK.
- 9 Select the values that are included in the constraint.

Fig. 4.9
Constraint Values



10 Save the data security model by clicking Save.

- a** In the Save window, navigate through the folders and select the appropriate location to save the model.
- b** Enter the name of the model in the Item Name field and a brief description in the Description field.
- c** Select the Security tab. Select the security roles that can view and edit the model.

Note If no security roles are selected, all security roles can view and edit the data security model.

- d** Click Save.

11 After saving the model, rebuild the data security model by clicking Build Security in the Model Administrator menu. See “Build Security” on page 89.

Data Security Model Builder

The data security model builder allows the administrator to build a new data security model based on an existing model. The advantage of using the builder is that it automates the process of building new models. Rather than creating one model at a time, the administrator instantly creates multiple models, all based on the same constraint.

Follow these steps to create data security models using the builder:

- 1** Select Data Security Model from the Administration drop-down menu.
- 2** Click New Folder and create a folder. This folder serves as the output location for all the new models you create.
- 3** Click New Builder.

Fig. 4.10
New Model Builder

- 4 Click the *Base on Model* Browse button.
- 5 Navigate through the folders, select the desired data security model, and click Open.

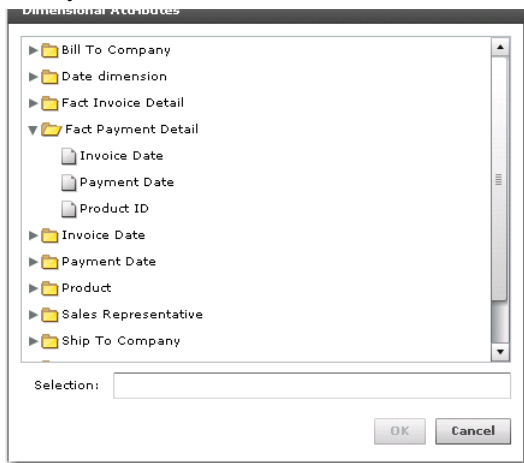
Fig. 4.11
Base on Model

Name	Owner	Last Modified
SecurityModelMidAtlantic	Duane	Feb 17, 2010 3:59:14 AM
test	demo	Feb 18, 2010 10:39:29 ...
test.1 Allied Dr	Duane	Feb 18, 2010 10:40:08 ...
test.1 American Rd	Duane	Feb 18, 2010 10:44:57 ...
test.1 Batterymarch Pa	Duane	Feb 18, 2010 10:49:46 ...
test.1 Bauhaus Dr	Duane	Feb 18, 2010 10:41:37 ...
test.1 Becton Dr	Duane	Feb 18, 2010 10:42:51 ...
test.1 Carrier Pl	Duane	Feb 18, 2010 10:44:22 ...

- 6 Click the *Security Column* Browse button to set the dimensional attributes of the model.
- 7 Navigate through the folders, select the desired attribute, and click OK.

Warning The model builder does not prevent you from creating an inordinate number of models. Always select a security column with a limited number of unique values; for example, a state or a sales territory. Using a column with many values is permitted but it could generate thousands of unique models, which can prove unmanageable and lead to system performance issues.

Fig. 4.12
Security Column



- 8 Click the *Target Folder* Browse button.
- 9 Navigate through the folders and select the output location for the data security models you create.
- 10 Select the Security tab, select the User Roles that can view and edit these models, and click Open.
- 11 Save the model builder by clicking Save.

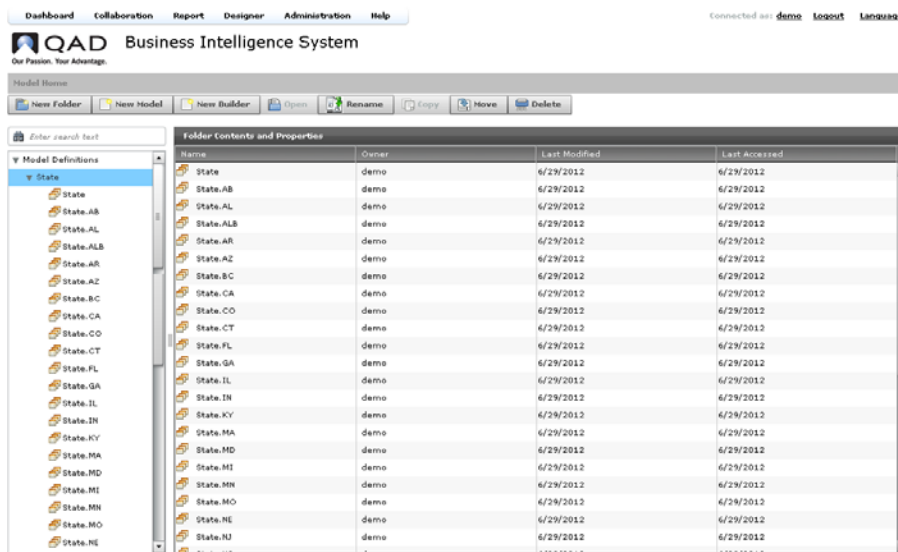
Note Save the model builder before generating all the models.

- a In the Save window, navigate through the folders and select the appropriate location to save the model builder.
- b Enter the name of the builder in the Item Name field and a brief description in the Description field.
- c Select the Security tab. Select the security roles that can view and edit the builder.

Note If no security roles are selected, all security roles can view and edit the security model builder.

- d Click Save.
- 12 Click Generate Model to automatically create all the models.

Fig. 4.13
Model Builder Results



- 13** After creating all the models, rebuild the data security model by clicking the Build Security button in the Model Administrator menu. See “Build Security” on page 89.

Model Administration

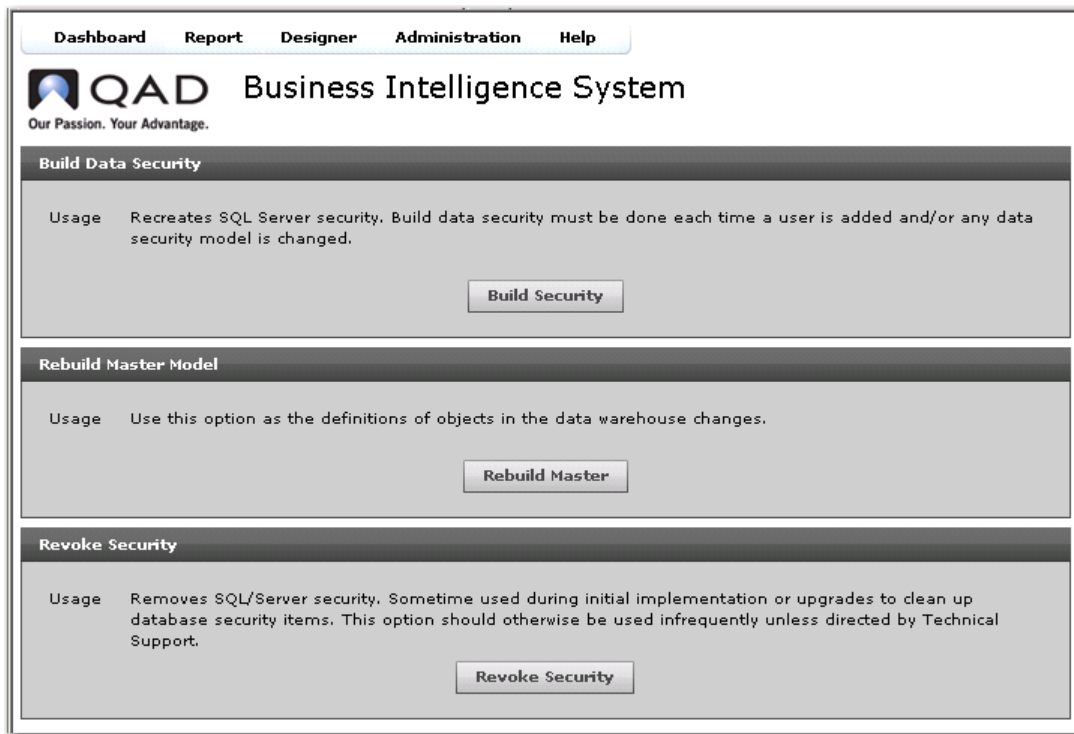
Model administration allows the administrator to update, rebuild, and revoke data security.

There are three synchronization functions in this menu:

- **Build Security.** Synchronizes data security models with the SQL Server’s security. Must be performed each time a user is added or any changes are made to the data security model.
- **Master Data model.** Synchronizes the portal data models with the DWD. Must be performed when there are changes made to the definitions of objects in the DWD.
- **Revoke Security.** Removes data security models from SQL Server’s security. Sometimes performed during initial implementation or upgrades to clean up the database security items.

Note Use this option infrequently unless directed by technical support.

Fig. 4.14
Model Administration



Build Security

Data security models and their relationship with users are maintained in the portal. The actual security is implemented in the SQL Server using the database security features. Once a set of security changes is made in the portal, it is necessary to replicate the changes to the SQL Server. Create or re-create the server security by accessing this function and executing a build security command.

The following changes require you to execute a build security command:

- Any change to a data security model; adding or removing tables, columns, and filters
- Associating a user with a data security model or removing an association

Note Due to the complexity of this activity, runtimes can be lengthy. Actual runtime depends upon the number of users, data security models, and analytical modules in use.

Rebuild Master Data Model

The data warehouse model is replicated in the BI Portal database. If data warehouse definitions change, administrators must rebuild the master model; for example, a column or new star schema added, or labels and descriptions created.

Important The rebuild master command does not delete or affect any of the existing data security models or the user relationships to those models because they are maintained in the BI Portal database.

Note To update the data security model, open and save the data security models that include objects affected by the change.

Revoke Security

The revoke security function removes the SQL Server security and is sometimes used during initial implementation or during upgrades to clean up database security items.

Important When the revoke security function is used, the data security models and user relationships in the portal are not deleted.

Note Use this option infrequently unless directed by technical support.

Data Migration

The data migration feature allows administrators to import and export visual items, queries, and dashboards in a .zip folder as an .xml file from one portal to another.

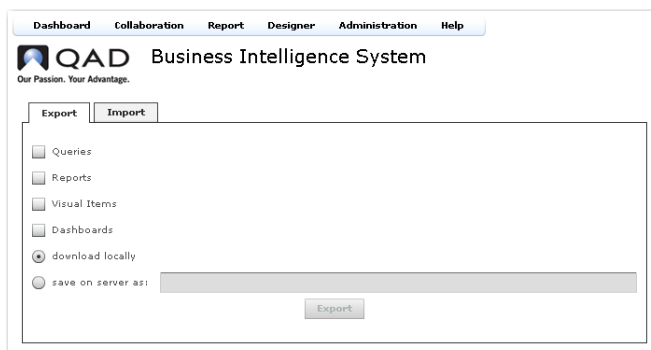
Export Data

Follow these steps to export data from one portal to another:

- 1 Select Data Migration from the Administration drop-down menu.
- 2 With the Export tab selected, select any or all of the following to export:
 - Queries
 - Visual Items
 - Reports
 - Dashboards
- 3 Select the export location:
 - **Download locally.** Saves the file to a local drive.
 - **Save on server as.** Enter a file name in the field. The file is exported to the Tomcat server in the `TOMCAT_HOME\webapps\WebAppName\export` directory.

If you would like to save the file to a specific location in the Tomcat export folder, enter the path in the field. For example, to save a file named `MyQueries` in the `Dir1` folder, enter `Dir1\MyQueries` in the field. An error message appears if the `Dir1` folder is not located in the export folder.

Fig. 4.15
Data Migration Export



- 4 When finished click Export.

Import Data

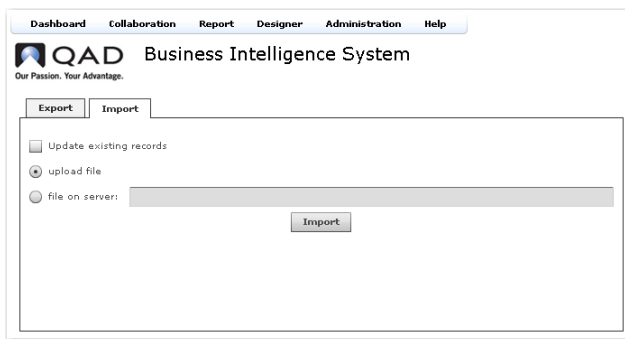
Follow these steps to import data:

- 1 Select Data Migration from the Administration drop-down menu.
- 2 Select the Import tab.
- 3 If desired, select the *Update existing records* check box.

Note If there are records in the .xml zip file that exist in the portal repository, then by default they are not changed. However, if the *Update existing records* check box is selected, the existing records are updated and replaced by the records in the .xml file.

- 4 Select from the following import options:
 - **Upload file.** Import a zipped .xml file that is on a local drive.
 - **Upload from a file on server.** Enter the name of the file to import.

Fig. 4.16
Data Migration Import



- 5 When finished click Import.
- 6 When the import is complete, a confirmation window appears. Click OK.

Fig. 4.17
Import Completed



Library Administration

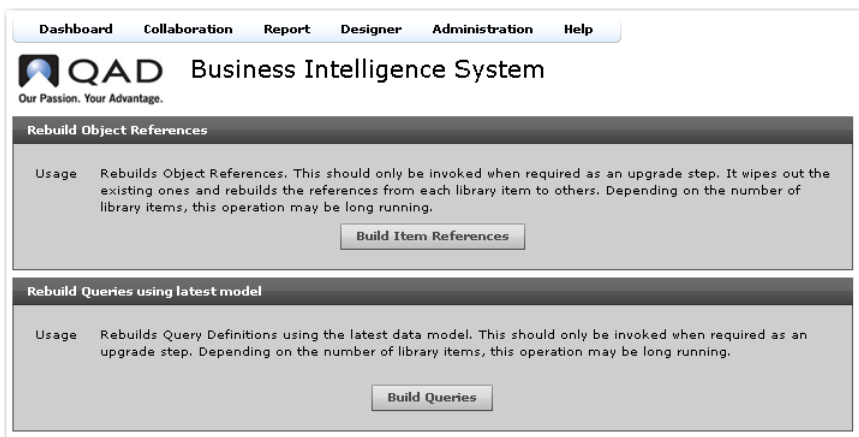
Library administration gives the administrator the ability to rebuild object references and query definitions.

Follow these steps to perform a command in the Library Administration menu:

Important Perform the library administration rebuild commands only when required as an upgrade step.

- 1 Select Library Administration from the Administration drop-down menu.
- 2 Click the rebuild option as instructed by the upgrade instructions:
 - **Build Item References.** Rebuilds object references. Wipes out the existing item references and rebuilds them from each library item to others. Depending on the number of library items, this operation can take a long time. Perform the Build Item References command only when required as an upgrade step.
 - **Build Queries.** Rebuilds query definitions using the latest data model. Depending on the number of library items, this operation can take a long time. Perform the Build Queries command only when required as an upgrade step.

Fig. 4.18
Library Administration



- 3 When the rebuild process is complete, a confirmation window appears. Click OK.

Forums Administration

Forums administration gives the administrator the option of adding, editing, or deleting a forum.

Accessing Forums Administration

To access forums administration, select Forums from the Administration drop-down menu.

Information about each of the forums is organized into the following sortable columns:

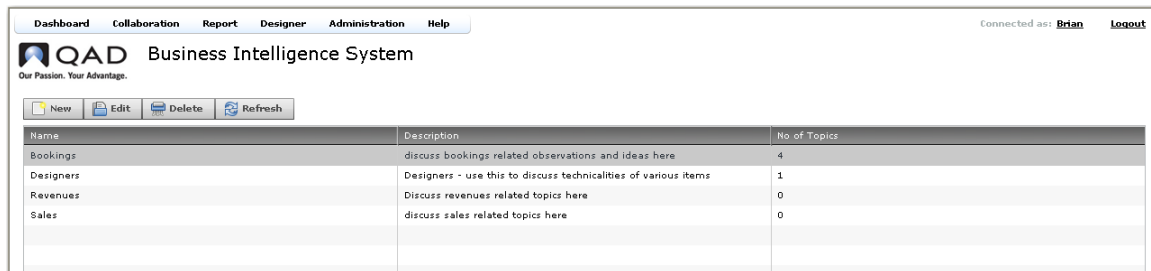
- **Name.** The name of the forum.
- **Description.** A brief description of the forum.

- **No. of Topics.** The number of topics that have been posted in the forum.

The forum toolbar consists of the following buttons:

- **New.** Add a forum.
- **Edit.** Edit an existing forum. You can also edit a forum by double-clicking the forum name.
- **Delete.** Delete a forum.
- **Refresh.** Refresh the forums list to display updated information.

Fig. 4.19
Forum Administration



Name	Description	No. of Topics
Bookings	discuss bookings related observations and ideas here	4
Designers	Designers - use this to discuss technicalities of various items	1
Revenues	Discuss revenues related topics here	0
Sales	discuss sales related topics here	0

Adding a New Forum

Follow these steps to add a forum:

- 1 Select Forums from the Administration drop-down menu.
- 2 Click New.
- 3 In the Name field, enter the name of the forum.
- 4 In the Description field, enter a brief description.

Fig. 4.20
Forum Information



Forum Information

General Security

Forum definition

Name: New Forum

Description:

Owner: 12/31/1969

Created: 12/31/1969

Last Accessed: 12/31/1969

Last Modified: 12/31/1969

Save Cancel

- 5 Select the Security tab and select the groups who can view and edit the forum.
- 6 Click Save.

