Peregrine

BI Portal 5.1

User Guide

For Windows, AIX, and Solaris

Peregrine
S Y S T E M S

Contents

About this Guide

The *BI Portal User Guide* shows you how to use BI Portal to generate queries and reports.

The following table shows you where in this guide to find the information you need.

This section	Provides information about
Chapter 1, Overview of BI Portal	BI Portal user interfaces and key concepts of BI Portal
Chapter 2, Sample Reports	Sample reports included in BI Portal
Chapter 3, Working with Reports	How to work with sample and custom reports in BI Portal
Chapter 4, Using the RDS Universe	The structure of the Reporting Data Store (RDS) universe in BI Portal
Chapter 5, Advanced Reporting Functions	How to create ad hoc queries and create custom reports in BI Portal
Appendix A, User Exercises	Performing tasks such as accessing report data, reporting, and analyzing data

Related documentation

In addition to this guide, the following documentation is available for the BI Portal product and for WebIntelligence.

This manual…	Provides information about
BI Portal Administration Guide	Security, data connection and transfer, configuring components after a custom installation, and performance tuning.
BI Portal Installation Guide	Installing and configuring the application and Web servers for BI Portal.
BI Portal Release Notes	Last-minute enhancements, known issues, and closed issues.
WebIntelligence User's Guide	Building and running queries, reporting, and analysis.

Typographical conventions

This guide uses typeface conventions to indicate special terms and actions.

Convention	Meaning
Bold	Information that you must type exactly as shown appears in **bold**. The names of buttons, menus, and menu options also appear in **bold**.
Italics	Variables and values that you must provide are in *italics*. New terms and book titles also are in *italics*.

Monospace	Code or script examples, output, and system messages are in a monospace font.
	`var msgTicket = new Message( "Problem" );`
	…
	`msgTicket.set( "_event", "epmc" );`
	
	An ellipsis (…) indicates that portions of a script have been omitted because they are not needed for the current topic. Samples of code are not entire files, but they are representative of the information discussed in a particular section.

Sans Serif	Filenames, such as login.asp, appear in a sans serif font.

Special elements

This guide uses special elements to help you locate information. These special elements and their uses are in the following table.

Element	Usage
Important:	Information that is required to complete a task
Note:	Information that is of general interest
Tip:	Information that can make a task easier or faster
Warning:	Information that is needed when there is a risk of losing data

Need more assistance?

For help with this release, you can contact customer support, download documentation or schedule training.

Customer Support

For further information and assistance with Product Name Short in general, contact Peregrine Systems' Customer Support at the Peregrine CenterPoint web site.

To contact customer support:

1 In a browser, navigate to http://support.peregrine.com

2 Log in with your user name and password.

3 Follow the directions on the site to find the information you need.

The KnowledgeBase contains informational articles about all categories of Peregrine products. If the KnowledgeBase does not contain an article that addresses your concerns, you can search for information by product; search discussion forums; and search for product downloads.

Documentation web site

For a complete listing of current BI Portal documentation, see the Documentation pages of the Peregrine Customer Support web site.

To view the document listing:

1 In a browser, navigate to http://support.peregrine.com.

2 Log in with your login user name and password.

3 Click either **Documentation** or **Release Notes** at the top of the page.

4 Click the BI Portal link.

5 Click a product version link to display a list of documents that are available for that version of BI Portal.

6 Documents may be available in multiple languages. Click the Download button to download the PDF file in the language you prefer.

You can view PDF files using Acrobat Reader, which is available on the Customer Support Web site and through Adobe at http://www.adobe.com.

Important: Release Notes for this product are continually updated after each release of the product. Ensure that you have the most current version of the Release Notes.

Education Services web site

Peregrine Systems offers classroom training anywhere in the world, as well as "at your desk" training via the Internet. For a complete listing of Peregrine's training courses, refer to the following web site:

http://www.peregrine.com/education

You can also call Peregrine Education Services at +1 858.794.5009.

1 Overview of BI Portal

CHAPTER

The goal of Peregrine BI Portal is to help you access, analyze, report, and share information about your organization. BI Portal stores information in a database called the *Reporting Data Store* (RDS) and uses RDS data to create the reports and charts you want to see.

All BI Portal reports are based on data sets created by database queries that you can add, maintain, store, and execute. You can execute a query at any time to refresh the data set. You can copy queries and you can change queries to produce new data sets.

BI Portal includes two report types:

- *Sample* reports, which are provided out-of-box, contain data stored in the Reporting Data Store.
- *Custom* reports, which users can create, contain data stored in the Reporting Data Store.

This chapter contains the following sections:

BI Portal workspaces

BI Portal has two main workspaces:

- *The BI Portal Reporting module* opens when you first log on to the BI Portal. Use the BI Portal Reporting module to run all the sample reports included with BI Portal, and to make basic changes to them.

- *The WebIntelligence Reporting module*, which requires users to have permission, or *user capability*, can open from the BI Portal Reporting module. Use the WebIntelligence Reporting module to create custom queries and reports, and to make advanced changes to existing reports.

Note: Refer to the *BI Portal Administration Guide* for more information about user capabilities.

The BI Portal Reporting module

The BI Portal Reporting module displays sample BI Portal reports. Your user capability determines the list that you see.

The following matrix shows the BI capabilities required for the BI Portal functions on the Reporting module activity menu.

Portal Function	Description	BI_Admin	BI_Create	BI_View
Corporate Documents	View the sample reports, based on user capability.	X	X	X
Personal Documents	View the reports that you created.	X	X	X
Inbox Documents	View the reports that are in your inbox.	X	X	X
Search	Find reports based on criteria that you define.	X	X	X
Refresh list	Refresh the document list.	X	X	X
Upload	Send a PDF or Excel report from your hard drive to the BI Portal.	X		
Group Management	Create your own groups where you can place your personal reports.	X		
User Management	Assign users to a document group.	X		
Document Management	Assign your reports to any group that you belong to. You can view reports that other users own.	X		
Manage Addresses	Create e-mail addresses for non-Business Objects users. You can then send reports to these addresses.	X	X	X
Synchronize Users	Synchronize application users with proper BI capabilities between the RDS database and the Business Objects repository.	X		
Publish Sample Documents	Copy sample reports from the BI Portal server to the Business Objects server.	X		
Scheduled Documents	View the queue of documents that have been scheduled to run.	X	X	X

For more information about each function, see *BI Portal reporting functions* on page 15. For more information about user capabilities and other security-related issues, refer to the *BI Portal Administration Guide*.

The WebIntelligence Reporting module

The WebIntelligence Reporting module is a powerful, easy-to-use tool that creates queries and reports and performs advanced edits on existing reports. It helps you access and examine your data quickly and easily. For complete information about WebIntelligence, refer to the *WebIntelligence User's Guide*, which describes how to use WebIntelligence for building and running queries, reporting, and analysis.

WebIntelligence includes:

- A Query Manager (on the left) that displays the hierarchy of classes and objects that are available for inclusion in a query. See *Universes, classes, and objects* on page 33 for more information.

- A Result Objects pane that shows those objects selected for a query.

- A Query Filters pane that displays filters that limit the results of a query to objects having specified attributes.

The Query Manager displays the rds universe.
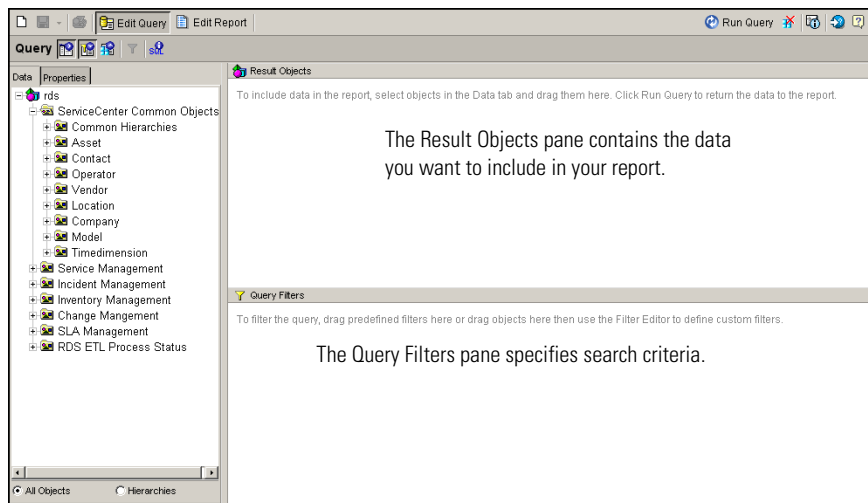
To use the WebIntelligence Reporting module

▶ Do one of the following:

- From the BI Portal Reporting module, run a report, then click **Edit**.

  The WebIntelligence Reporting module opens and displays the report and its structure. Click **Edit Query** to display all the classes and objects in the RDS that are available for addition to your query and report.

- From the BI Portal Reporting module, click **Create** to create a custom query and report.

  The WebIntelligence Reporting module displays all classes and objects in the RDS that are available for inclusion in a new query and report.

BI Portal reporting functions

The BI Portal Reporting module activity menu has a list of functions that you can perform based on your user capability. See the matrix on page 13.

Viewing corporate documents

You can select a document group from the Document Groups drop-down list to display only a subset of the sample reports.

Drop-down list of document groups

List of current reports

Note: The report list can contain previously published reports.

Click a report to run it. After you view the report, you can:

- Add objects to, replace objects in, or remove objects from the report to recalculate.
- Sort the report by column.
- Apply filters to limit the data displayed in the report.

Refer to the *WebIntelligence User's Guide* for more information about these features.

You also can perform the following tasks in the BI Portal Reporting module. The matrix shows the BI capabilities required for the BI Portal Reporting tasks.

Reporting task	Description	BI_Admin	BI_Create	BI_View
Create	Create new reports using the WebIntelligence Reporting module. Refer to the WebIntelligence User's Guide for more information.	X	X	
Delete	Delete published documents.	X		
Back	Return to the list of Corporate Documents. Use the browser Back button to return to the previous page.	X	X	X
Download	Download the report to your local computer in Microsoft Excel or PDF format. See page 44 for more information.	X	X	X
Drill	Drill down into the report to examine its details more closely. See page 45 for more information.	X	X	X
Refresh	Refresh the report display. See page 42 for more information.	X	X	X
Edit	Edit the report. See page 50 for more information. **Note:** You can perform only simple reformatting tasks in the BI Portal Reporting module. Use the WebIntelligence Reporting module to perform all advanced report reformatting and editing tasks.	X	X	
Save	Save the report to your Personal Documents folder. When you save a report, it is stored in this folder. You can then regenerate, edit, delete, send, or publish the report. See page 54 for more information.	X	X	X
Publish	Publish or save the report to the Corporate Documents folder, where others in your organization can share it. See page 55 for more information.	X		
Schedule	Schedule reports to run automatically.	X	X	X
Send	Send the report to Business Objects users as well as non-Business Objects users. See page 59 for more information.	X	X	X

Reporting task	Description	BI_Admin	BI_Create	BI_View
View in PDF/HTML	View and Print reports in PDF and HTML formats. See page 60 for more information.	X	X	X
Maximize	Maximize the report to view it in a new full-screen window. See page 61 for more information.	X	X	X
Page/Draft Mode	Toggle between viewing the report in Draft mode and Page mode. See page 61 for more information.	X	X	X

Refer to the *BI Portal Administration Guide* for more information about user capabilities and other security-related issues.

Managing personal documents

Whenever you save a report, it is stored in your Personal Documents folder. You can create categories for your reports.

To manage personal document categories

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Personal Documents** > **Categories** to open the Category Management form.

To create a Personal Documents category

1 Enter the name of the category you want to create.

2 Click **Create** to add the category.

3 Click **Close** to return to the list of Personal Documents.

To change a Personal Documents category

1 Click the category you want to change from the Category Management list to display it in the **Category** field.

2 Change the name of the category.

3 Click **Update** to list the new name in the Category Management list.

4 Click **Close** to return to the list of Personal Documents.

To delete a Personal Documents category

1 Click the category you want to delete from the Category Management list to display it in the **Category** field.

2 Click **Delete**. The category no longer displays in the Category Management list.

3 Click **Close** to return to the list of Personal Documents.

Viewing inbox documents

You can run reports that other users send to your inbox.

To view inbox documents

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Inbox Documents** to display the list of available documents.

3 Click a report to run it.

Searching for reports

You can search for reports in BI Portal according to the following criteria.

Search criteria	Description
Document type	This includes Corporate Documents, Personal Documents, and Inbox Documents.
Document name	You can search for the entire name, or for documents whose name contains a phrase.
Document keywords	You specify keywords when you publish reports. See *Publishing reports* on page 55 for more information about keywords.
Dates	The search uses the report creation date.

Further, you can sort the results of your search by document name, size, or type.

To search for reports

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Search**.

The Search For Document form opens.

3 Specify your search criteria in the following fields:

　Document name contains

　Keywords

　Date between

4 In the **Order by** field, select the order to sort the results.

5 Click **Search**.

　The BI Portal Reporting module displays the results of your search.

Uploading reports

You can send a PDF file or Excel spreadsheet from your hard drive to the BI Portal and publish it as a corporate document.

To upload reports

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Upload**.

3 In the **Enter the document name** field, type the name of the file to upload.

　You have the option to overwrite the document if it already exists.

4 In the **Select the destination doc groups** field, select which group to store the file.

5 In the **Enter the file location** (**.PDF or .XLS**) field, type, or browse and select, the file name.

6 Click **Publish**.

The uploaded files appear in the document group list.

PDF file ——————
Excel spreadsheet ——————

7 To delete the files, select the check box next to the file and click **Delete**.

- Click **OK** to delete the file.

You see the message status: Documents successfully deleted at the bottom of the form.

8 Click **Back to Document List** to return to the main menu.

Managing groups

In BI Portal, report data is organized and grouped to facilitate the management of reports and report data. There are system-defined groups and user-defined groups.

Note: You must have BI_Admin capability to use this function.

Note: Group names must contain at least one alpha character.

The system-defined groups are pre-set (out-of-box), and you cannot add, delete, or rename any of the system-defined groups. These groups are based on the ServiceCenter applications. The system-defined groups are:

- Change Management
- Incident Management
- Inventory Management

- Root Cause Analysis
- Service Level Management
- Service Management
- sc

Important: The sc group is a name used for the Peregrine Systems ServiceCenter application and is user-defined on the Admin page.

The sc group contains all of the BI Portal users in ServiceCenter. These groups are based on the hierarchy defined in the Peregrine repository in Business Objects (BO). BI Portal uses these groups to manage the reports and data. For a complete description of the repositories in Business Objects, see the Business Objects documentation.

If you name or rename the ServiceCenter group name in the Supervisor tool with a prefix that is the same as the BI Portal group name, then the ServiceCenter group name that appears in the Portal truncates the prefix part of the name. For example, using the Supervisor tool, you call the BI Portal group name BIPortal and the ServiceCenter group name BIPortal_SC. The ServiceCenter group name in the portal is SC because the prefix is truncated.

The Group Management function in BI Portal enables you to manage the user-defined groups. With the Group Management function, you can create new groups, delete groups, or rename groups. Once you have created these groups, you can add users and documents to these groups.

Note: You must have BI_Admin capability to use this function.

In BI Portal, each report is assigned to a group. All the sample reports are assigned to pre-defined groups. In addition, you can create new groups and assign reports to them. When you assign each user to one or more groups, you control the reports that the user can execute and view.

The following table lists the reports and data that are available for querying and viewing by users assigned various groups.

This group...	Provides a view to these reports...
Change Management	All reports and data related to Change Management. See the section *Sample Reports for Change Management* in the *BI Portal User Guide* for more information.
Incident Management	All reports and data related to Incident Management. See the section *Sample Reports for Incident Management* in the *BI Portal User Guide* for more information.
Inventory Management	All reports and data related to Inventory Management. See the section *Sample Reports for Inventory Management* in the *BI Portal User Guide* for more information.
Root Cause Analysis	All reports and data related to Root Cause Analysis. See the section *Sample Reports for Root Cause Analysis* in the *BI Portal User Guide* for more information.
Service Level Management	All reports and data related to Service Level Management. See the section *Sample Reports for Service Level Management* in the *BI Portal User Guide* for more information.
Service Management	All reports and data related to Service Management. See the section *Sample Reports for Service Management* in the *BI Portal User Guide* for more information.

To create a group

1 Log into BI Portal.

2 From the Reporting module activity menu, click **Group Management**.

The Group Management form opens.
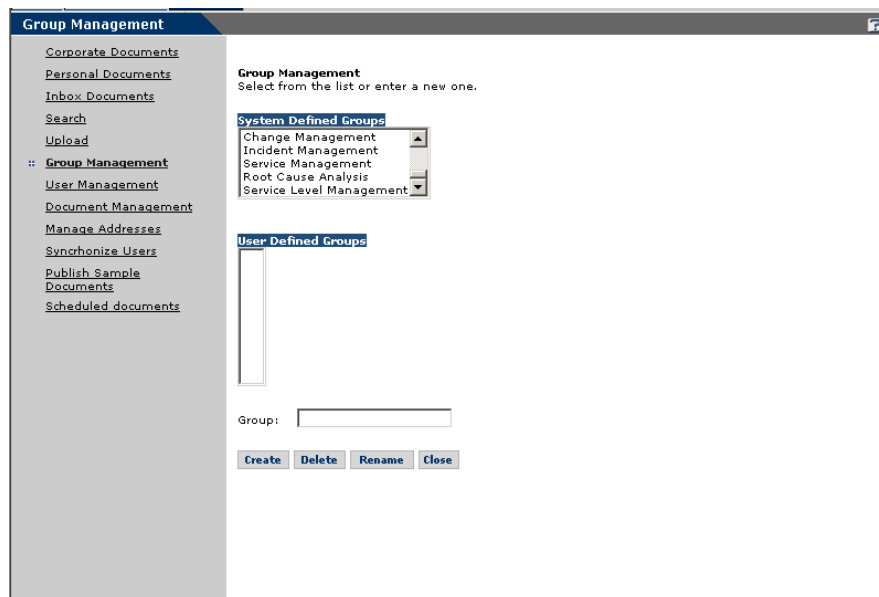
3 In the **Group** field, type the name of the new group.

4 Click **Create** to add the new document group to the **User Defined Groups** list.

The name of the group you created appears in the **User Defined Groups** list.

To delete a user defined group

1 Log into BI Portal.

2 From the Reporting module activity menu, click **Group Management**.

The Group Management form opens.

3 In the **User Defined Groups** list, select the group you want to delete.

4 Click **Delete**.

The group you selected is removed from the list.

To rename a user defined group

1 Log into BI Portal.

2 From the Reporting module activity menu, click **Group Management**.

The Group Management form opens.

3 In the **User Defined Groups** list, select the group you want to rename.

4 In the **Group** field, type the new name of the group.

5 Click **Rename**.

The group you selected is renamed in the list.

Managing users

The User Management function allows you to assign each user to as many document groups as required.

Note: You must have `BI_Admin` capability to use this function.
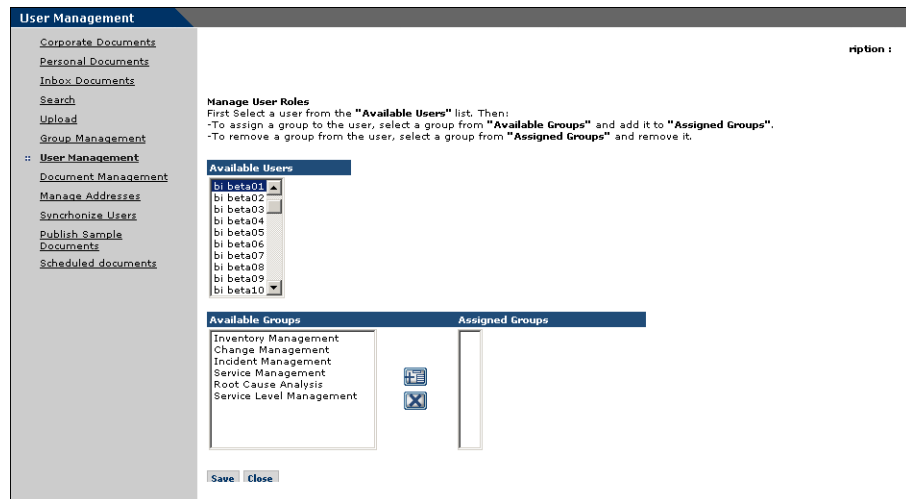
To assign a user to a document group

1 Log into BI Portal.

2 From the Reporting module activity menu, click **User Management**.

3 Click a user in the **Available Users** list to highlight the user's name.

4 In the **Available Groups** list, double-click a group to move it to the **Assigned Groups** list.

You can also click a group in the **Available Groups** list and click the Add button to move the group to the **Assigned Groups** list.

5 To remove a user from a group, double-click the group in the **Assigned Groups** list to move it to the **Available Groups** list.

…

 You can also click the group in the **Assigned Groups** list and click the Remove button to move the group to the **Available Groups** list.

6 Click **Save** to commit the group assignments.

Managing documents

The Document Management function allows you to assign unassigned documents to a group so that the document is available to all users in that group. This form displays the list of groups that you are allowed to assign documents to and your lists of unassigned and assigned documents. You can also view the documents of other users that are unassigned. However, you are not allowed to change these documents since you are not the author.

Note: You must have BI_Admin capability to use this function.
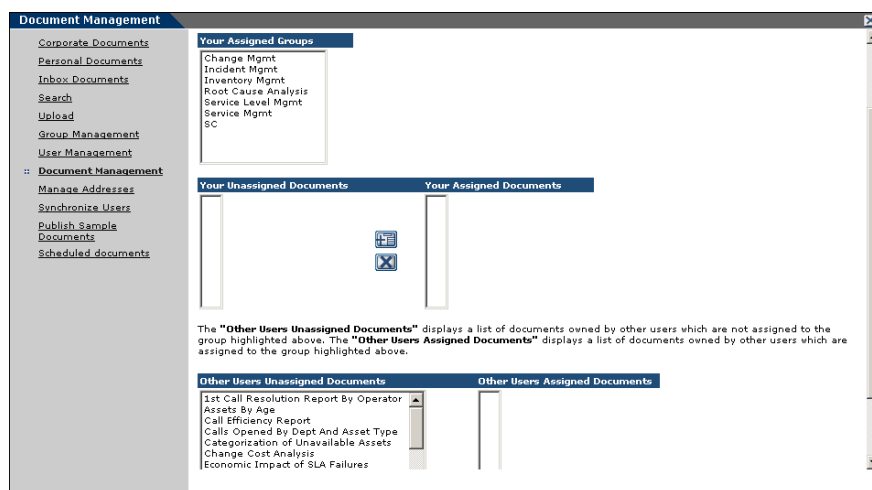
To assign a user to a group

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Document Management**.

3 Click a group in **Your Assigned Groups** to highlight the group.

4 In **Your Unassigned Documents**, double click a document to move it to **Your Assigned Documents**.

 You can also click a document in **Unassigned Documents** and click the Add button to move the document to **Your Assigned Documents**.

5 To remove a document from **Your Assigned Documents**, double-click the document in the list to move it to **Your Unassigned Documents**.

You can also click the document in **Your Assigned Documents** and click the Remove button to move the document to **Your Unassigned Documents**.

6 Click **Save** to commit the document assignments.

Managing addresses

The Manage Addresses function allows you to create e-mail addresses for non-Business Objects users. Using the reports Send feature (see page 59), you can then send documents to these users.

To add an e-mail address

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Manage Addresses**.

The Manage Addresses form opens.

3 In the **Name** field, type the name of the new user.

4 In the **Email Address** field, type the e-mail address of the new user.

5 Click **Add** to add the new user.

You see the message status: Added successfully at the bottom of the form. The new name and e-mail address are displayed in a list.

6 Click **Close** to return to the main menu.

To delete an e-mail address

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Manage Addresses**.

The Manage Addresses form opens.

3 Click the link of the name you want to delete.

This populates the **Name** and **Email Address** fields.

4 Click **Delete**.

You see the message status: Deleted successfully at the bottom of the form. The deleted name and e-mail address are removed from the list.

5 Click **Close** to return to the main menu.

To update an e-mail address

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Manage Addresses**.

The Manage Addresses form opens.

3 Click the link of the name you want to change.

This populates the **Name** and **Email Address** fields.

4 Edit the fields as needed.

5 Click **Update**.

You see the message status: Updated successfully at the bottom of the form. The updated name and e-mail address are displayed in a list.

6 Click **Close** to return to the main menu.

Synchronizing users

The Synchronize Users function allows you to synchronize application users with the appropriate BI capabilities between the RDS database and the Business Objects repository. User synchronization is for on-demand synchronization, and normally, user data is synchronized automatically for a predefined interval defined by the value specified in **User Synchronization Interval** on the BI Portal Setting page of the BI Administration function.

Note: You must have BI_Admin capability to use this function.

To synchronize users

1 Log in to BI Portal.

2 From the Reporting module activity menu, click **Synchronize Users**.
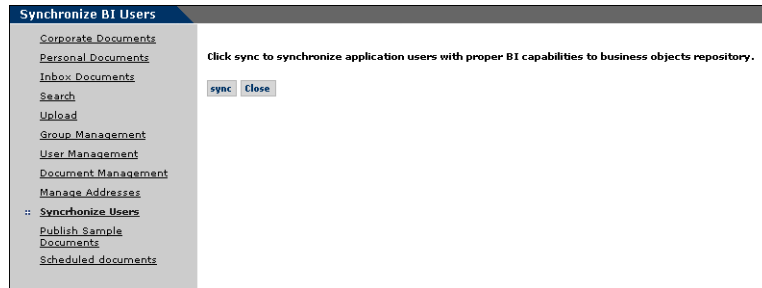
3 Click **sync**.

You see the message

Success: Synchronize Users request is submitted and will be processed immediately.
at the top of the form.

4 Click **Close** to return to the main menu.

Publishing sample documents

The out-of-box version of BI Portal provides a set of sample documents that you can publish. When you publish these documents, you make them available in the Corporate Documents to all BI Portal users. Use the Publish Sample Documents link on the Reporting module activity menu to publish the sample documents.

Note: You must have `BI_Admin` capability to use this function.
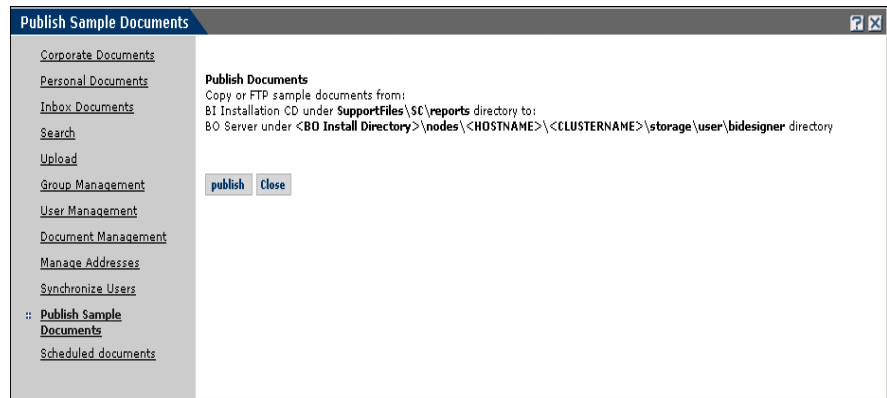
To publish the sample documents

1 Log in to BI Portal.

2 If this is the first time the sample documents are being published, you must copy the sample documents from:

BI Installation CD under `SupportFiles\SC\reports`

to:

BO Server under `<BO Install Directory>\nodes\<hostname>\<clustername>\storage\user\<BO designer user name>`

3 From the Reporting module activity menu, click **Publish Sample Documents**.

The Publish Documents window opens.

4 Click **Publish**.

You see confirmation messages.

```
Success: Connecting to WebIntelligence Server ...
Finished Connecting to WebIntelligence Server.
Finished Logging in.
Publishing Document : "Change Cost Analysis" Category: "PRGN_BIP_Change Mgmt"
Publishing Document : "Failed Changes" Category: "PRGN_BIP_Change Mgmt"
Publishing Document : "Tasks Under Change" Category: "PRGN_BIP_Change Mgmt"
Publishing Document : "Incident Closure Analysis" Category: "PRGN_BIP_Incident Mgmt"
Publishing Document : "Incident Cost Analysis" Category: "PRGN_BIP_Incident Mgmt"
Publishing Document : "Incident Management Ad Hoc Crosstab" Category: "PRGN_BIP_Incident Mgmt"
Publishing Document : "Assets By Age" Category: "PRGN_BIP_Inventory Mgmt"
Publishing Document : "Categorization of Unavailable Assets" Category: "PRGN_BIP_Inventory Mgmt"
Publishing Document : "Recurrent Outages" Category: "PRGN_BIP_Inventory Mgmt"
Publishing Document : "Root Cause Analysis Recommendations" Category: "PRGN_BIP_Root Cause Analysis"
Publishing Document : "Root Cause Cost Analysis" Category: "PRGN_BIP_Root Cause Analysis"
Publishing Document : "1st Call Resolution Report By Operator" Category: "PRGN_BIP_Service Mgmt"
Publishing Document : "Call Efficiency Report" Category: "PRGN_BIP_Service Mgmt"
Publishing Document : "Calls Opened By Dept And Asset Type" Category: "PRGN_BIP_Service Mgmt"
Publishing Document : "Service Management Ad Hoc Crosstab" Category: "PRGN_BIP_Service Mgmt"
Publishing Document : "Economic Impact of SLA Failures" Category: "PRGN_BIP_Service Level Mgmt"
Publishing Document : "Service Contract Cost Analysis" Category: "PRGN_BIP_Service Level Mgmt"
Publishing Document : "SLA Availability Successes" Category: "PRGN_BIP_Service Level Mgmt"
Publishing Document : "SLA Response Time Successes" Category: "PRGN_BIP_Service Level Mgmt"
Finished Processing Documents. Available Documents: 19 Published Documents: 19


Publish Documents
Copy or FTP sample documents from:
BI Installation CD under SupportFiles\SC\reports directory to:
BO Server under <BO Install Directory>\nodes\<HOSTNAME>\<CLUSTERNAME>\storage\user\bi_designer directory


publish  Close
```

5 Click **Close** to return to the document list.

Viewing scheduled documents

The Scheduled Documents function allows you to view the queue of reports that are scheduled to run. You schedule reports (see page 57) to automatically run at specified intervals and be sent to your inbox. You can also schedule the reports to be sent to other users.

To view the list of scheduled documents

1 Log in to BI Portal.

2 From the Reporting module activity menu, click Scheduled Documents.

The Scheduled Documents window opens.
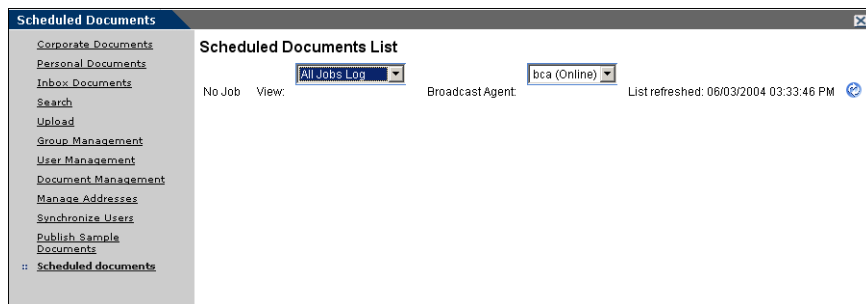
You can view all jobs, pending jobs, or failed jobs.

Universes, classes, and objects

The information in the RDS database is stored in a single universe called *rds*. Whenever you run a sample report in BI Portal, modify an existing one, or create a custom report, you use the metadata in the RDS universe.

The BI Portal hierarchy consists of *universes*, *classes*, and *objects*. A universe contains classes, which combine similar information into groups. The RDS universe includes a class for common objects in ServiceCenter called ServiceCenter Common Objects, and other specific classes such as Service Management and Incident Management. Classes are similar to folders. Classes can contain other classes as well as objects.

See *Using the RDS Universe* on page 63 for more information about the RDS universe.

2 Sample Reports

CHAPTER

Peregrine BI Portal includes nineteen sample reports that provide a wide variety of information about your organization. This chapter describes the sample reports.

In addition to the sample reports, you can use the WebIntelligence Reporting module to modify the sample reports and to create custom reports that suit the specific requirements of your business.

For more information about creating, saving, running, and publishing sample and custom reports, see *Chapter 3, Working with Reports*. For more information about running ad hoc queries and creating custom reports, see *Chapter 5, Advanced Reporting Functions*.

Sample Reports

BI Portal sample reports have six categories:

- Change Management
- Incident Management
- Inventory Management
- Root Cause Analysis
- Service Level Management
- Service Management

Sample reports for Change Management

These reports provide information to help you manage change requests in your organization.

Report name	Description	Format
Change Cost Analysis	A bar chart listing differences between expected and actual costs for changes, grouped by Company.	Bar chart
Failed Changes	A detailed listing of all Changes that were backed out or given an incomplete Completion Code.	Record detail report
Tasks Under Change	A detailed listing of all Tasks under the user-specified Change number.	Record detail report

Sample reports for Incident Management

These reports provide information to help you manage service call incidents in your organization.

Report name	Description	Format
Incident Closure Analysis	A summary of closed incidents based on one of the following fields: Assignment Group, Category, Cause Code, or Closed Group.	Bar chart
Incident Cost Analysis	A pair of bar charts listing the Parts and Labor costs associated with Incidents. These costs can be grouped based on user selection by Company, Location, Assignment Group, Category, or Cause Code.	Bar chart
Incident Management Ad Hoc Crosstab	A crosstab summary of all open Incidents grouped by any two of the following user-selectable fields: Assignment Group, Category, Company, Location, and Severity.	Crosstab

Sample reports for Inventory Management

These reports provide information to help you manage assets in your organization.

Report name	Description	Format
Assets by Age	An analysis of the outage costs over time for all assets, grouped by the amount of time since installation.	Bar chart with a table
Categorization of Unavailable Assets	A summary of unavailable assets (due to repair, upgrade, or move) grouped by type.	Bar chart with a table
Recurrent Outages	A summary of asset downtime, cross-referenced once by Asset Type and Vendor, and again by Model over time.	3-D bar chart and bar chart

Sample reports for Root Cause Analysis

These reports provide information to help you manage incident root causes.

Report name	Description	Format
Root Cause Analysis Recommendations	All Incidents NOT associated with a root cause are grouped by category. Any category comprising more than the user-specified percent of those tickets are flagged as recommended for Root Cause Analysis.	Table
Root Cause Cost Analysis	A listing of the Parts and Labor costs for all Incidents associated with root causes, grouped by cause.	Table

Sample reports for Service Level Management

These reports provide information to help you manage service level agreements (SLA).

Report name	Description	Format
Economic Impact of SLA Failures	A pair of bar charts listing the time and money costs incurred by assets that suffered downtime in excess of SLA thresholds, grouped by SLA name.	Stacked bar chart and bar chart
Service Contract Cost Analysis	A table listing each Service Contract, and the monthly Parts and Labor costs for each.	Table
SLA Availability Successes	Measurements of how well SLA availability requirements have been met.	Line chart and stacked bar chart
SLA Response Time Successes	Measurements of how well SLA response times have been met.	Line chart

Sample reports for Service Management

These reports provide information to help you manage service calls in your organization.

Report name	Description	Format
1st Call Resolution Report by Operator	An analysis of the percentage of calls solved without creating Incidents or Changes.	Line chart and 3-D bar chart
Call Efficiency Report	An average of the phone call time based on one of the following fields: Asset Type, Assignment Group, Category, Company, Location.	Bar chart
Calls Opened by Dept and Asset Type	A summary of the number of calls in the system cross referenced by the Department making the call and the type of Asset involved.	Bar chart, pie chart, and 3-D bar chart
Service Management Ad Hoc Crosstab	A crosstab summary of all open Calls grouped by any two of the following user-selectable fields: Assignment Group, Category, Company, Location, and Asset Type.	Crosstab

3 Working with Reports

CHAPTER

Peregrine BI Portal offers two types of reports:

- Sample reports, which are pre-defined reports provided out-of-box with BI Portal.
- Custom reports, which you design and save using the WebIntelligence Reporting module.

This chapter describes how to run reports and use the reporting tasks that are available:

Overview of reporting tasks

All reports, both sample and custom, are assigned to a document group. All of the sample reports reside in one of the following document groups:

- Change Management
- Incident Management
- Inventory Management
- Root Cause Analysis
- Service Level Management
- Service Management

After you create custom reports, you assign them to groups. See *Managing groups* on page 22 for more information.

For more information about sample reports in BI Portal, see *Sample Reports* on page 35. For more information about creating ad hoc queries and custom reports, see *Advanced Reporting Functions* on page 71.

**Important:** The WebIntelligence Reporting module is very complex. It includes both an online help system and a *WebIntelligence User's Guide* to help you take full advantage of its rich functionality. A comprehensive discussion of the WebIntelligence Reporting module is beyond the scope of this guide. This chapter presents only an introduction to the functionality of the WebIntelligence Reporting module.

Running sample or custom reports

The following procedure describes how to run a sample or custom report.

To generate a sample or custom report

1 Log in to BI Portal.

2 Click the **Reporting** tab to open the Reporting module.

Drop-down list of document groups
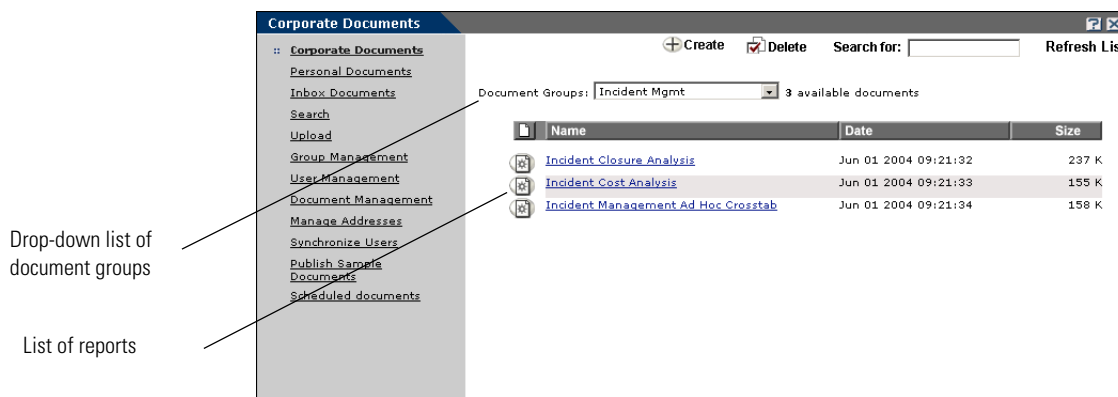
List of reports

3 Find the report you want to run by doing one of the following:

- Choose any report from the list.
- To narrow your search, choose a type of report from the **Document Groups** drop-down list; only reports in that document group are displayed. For example, choose **Incident Mgmt** to view only those reports associated with incidents.
- Click **Inbox Documents** to see only reports in that folder.
- Click **Personal Documents** to see only reports in that folder.

Note: To see information about a report before you run it, click the Document icon to the left of the report name. Read the information, and then click **Back to Document List**.

4 Click a report to open it.

Downloading reports

You can take the information from a report and download it to an Excel spreadsheet or to a PDF document.

To download a report

1 Open the report you want to download and click **Download**.
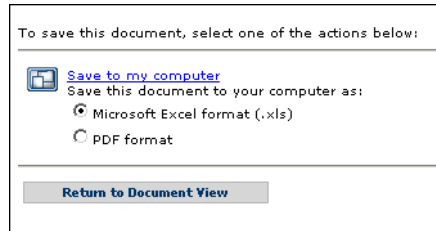
2 Choose either **Microsoft Excel format (.xls)** or **PDF format**.

3 Click **Save to my computer**.

4 In the File Download dialog box, select **Save**.

5 In the **Save As** dialog box, navigate to the location where you want to save the file. If needed, type a new name.

6 Click **Save**.

The file is saved as an Excel or PDF file in the location you specified.

7 Click **Close**.

8 Click **Return to Document View** to see the report.

Drilling into the report

After you generate a report, you can examine the data in more detail. This is called drilling into the report. It takes you to the next level of information.

Drilling down

You can drill down to see the lower-level data behind the visible data in a report. This can help explain a certain result. For example, if you are comparing sales results, your report might show that the East region significantly out-performed the West in 2003. You can drill down to the state level to analyze the more detailed data behind that result. How far you can drill down along a drill path depends on the scope of analysis you set for that report. If the scope of analysis is set to one level, then you can only drill one level down along that hierarchy's drill path. For example, if your report shows data for year, you can only drill down to Quarter.

Drilling up

You drill up on a dimension value to see how the more detailed data aggregates to a higher-level result. For example, if you drill down on Year to examine data for each quarter, you can drill up to see how this data aggregates to yearly results.

When you drill up on a dimension value, you move along a hierarchy's drill path from lower-level to higher-level data. For example, if you drill down on Year to Quarter, you drill up on Quarter to return to Year.

Drilling by

When you drill down or up, you move through a hierarchy's drill path one dimension at a time. However, you might want to skip several dimensions in the same hierarchy or move to another hierarchy altogether. You do this by drilling by.

Note: You can drill by to a dimension in a hierarchy that is not displayed in your report only if that dimension to which you want to drill is included in the scope of analysis or if your security profile allows you to drill beyond the data in the document and thereby edit the query.

To drill into a report

1 Run the report.

2 Click **Drill**.

The report is refreshed, and items in the report that contain detailed information are underlined.

3 Place the cursor over the report and choose a drill option from the shortcut menu.
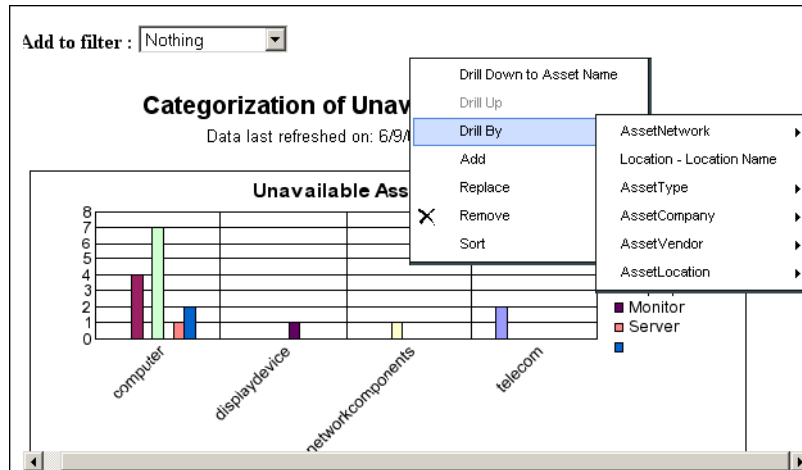
A report is displayed that shows more detailed information.

4 To end drill mode, click **End Drill**.

If you modify a sample report and save it this way, it becomes a custom report.

Drilling and the object hierarchy

There are hierarchies defined in the universe that are applied to most attributes on the reports. When a report is displayed in a tabular format, you can drill upward or downward in fields that are in hierarchies. An arrow next to a field on the report indicates that you can drill on that field within the hierarchy.

For example, if a report contains an Asset Tag column, clicking the Drill link displays an up arrow next to the column heading. Clicking the up arrow causes the field to change to the attribute that is one level higher within the hierarchy; in this case, Subtype.

To view the entire hierarchy of objects and attributes in the RDS universe

1 Click **Create** in the BI Portal Reporting module to open the WebIntelligence Reporting module.

2 Click the **Hierarchies** option button in the left pane of the WebIntelligence Reporting panel to display the entire RDS hierarchy.
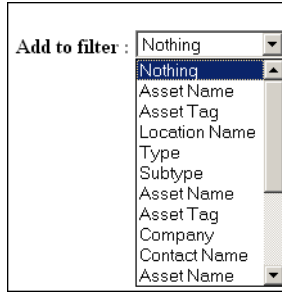
To drill down into a report

1 Run a report in the BI Portal Reporting module.

2 Click **Drill** to drill down.

The following example shows a drill-down of the Categorization of Unavailable Assets report.

computer				

Atlanta ⇧

Asset Name ↕	Asset Priority	Contact Name ↕	Type	Asset Tag ↕
AdamPC	Normal	MILLER, ADAM	computer	

Chicago ⇧

Asset Name ↕	Asset Priority	Contact Name ↕	Type	Asset Tag ↕
ACMEserver002	Normal	MUSER, AL	computer	

Corporate Headquarters ⇧

Asset Name ↕	Asset Priority	Contact Name ↕	Type	Asset Tag ↕
BobPC	Normal	HELPDESK, BOB	computer	
DavePC	Normal	HENNESEY, DAVID	computer	
DavidHPC	Normal	HENNESEY, DAVID	computer	C-000012
JenJoPC	Normal	JOHNSON, JENNIFER	computer	
JoePC	Normal	EMPLOYEE, JOE	computer	L-89341
JohnPC	Normal	EDWARDS, JOHN	computer	L-89321
MaxPC	Normal	MANAGER, MAX	computer	
SusiePC	Normal	SUPERTECH, SUSIE	computer	

3 Do one of the following:

a Choose a parameter from the **Add to filter** drop-down list at the top of the report to dynamically display the list of objects relevant to the report.

Add to filter : Nothing

Nothing
Asset Name
Asset Tag
Location Name
Type
Subtype
Asset Name
Asset Tag
Company
Contact Name
Asset Name

b Click an underlined, hyperlink field within the report to examine information specific to that field.

For example, to drill down to computer subtypes in the Categorization of Unavailable Assets report, click **computer** in the Type column.

The resulting drill-down report shows the type of computer.

computer

Atlanta

Asset Name	Asset Priority	Contact Name	Subtype	Asset Tag
AdamPC	Normal	MILLER, ADAM	Desktop	

Chicago

Asset Name	Asset Priority	Contact Name	Subtype	Asset Tag
ACMEserver002	Normal	MUSER, AL	Server	

Corporate Headquarters

Asset Name	Asset Priority	Contact Name	Subtype	Asset Tag
BobPC	Normal	HELPDESK, BOB	Desktop	
DavePC	Normal	HENNESEY, DAVID	Laptop	
DavidHPC	Normal	HENNESEY, DAVID	Laptop	C-000012
JenJoPC	Normal	JOHNSON, JENNIFER	Laptop	
JoePC	Normal	EMPLOYEE, JOE	Laptop	L-89341
JohnPC	Normal	EDWARDS, JOHN	Laptop	L-89321
MaxPC	Normal	MANAGER, MAX	Laptop	
SusiePC	Normal	SUPERTECH, SUSIE	Laptop	

4 To end the drill and return to the original report, click **End Drill** at the top of the form.

Refreshing reports

While viewing your report, you can synchronize with current data in the database and recompile the report. You see the new date and time after you refresh the report.

Your administrator assigns you security rights that determine how your reports refresh.

- If you have the Security feature enabled, your report refreshes automatically prior to opening.

  If a report is saved with the **Refresh on Open** option, then each time you click on that report, the report refreshes automatically prior to opening.

- If you have data restriction filters and the Security feature is NOT enabled and the report was not saved with the **Refresh on Open** option, when you click on a report, you see all the data (even data that is restricted). When you manually refresh the report, it generates again and this time the restricted data in the report does not display.

To manually refresh a report

▶ Open a report, then click **Refresh**.

The report shows the updated date and time.

Editing reports

After you run a report, you can change it in two ways: in the BI Portal Reporting module and in the WebIntelligence Reporting module.

Editing a report in the BI Portal Reporting module

By scrolling the cursor over a column in the report, you access an interactive menu and can perform simple editing tasks in the BI Portal Reporting form.

Note: Variable names that start with BIP have a URL in the formula definition and are reserved for sample reports with links. These variables do not appear in the list of objects when adding or replacing objects using the Interactive Menu. Peregrine Systems recommends that you do not use variable names that start with BIP.

The following options are available for reformatting the viewable report.

- Add an object to an axis
- Replace an object
- Remove an object
- Apply a filter to the report
- Sort the report by columns in ascending or descending order

You can then save the report to your Personal documents.

Note: Refer to the *WebIntelligence User's Guide* for more information about these features.

Adding an object to an axis

Follow these steps to add an object.

To add an object to an axis

1 Run the report.
2 Place the cursor over a column in the report to view the shortcut menu.
3 Click **Add** to select the axis where you want to add an object.
4 Choose an object from the **Result Objects** > **Objects** list that opens to the left of the report.
5 Click **Apply**.

The report now displays data for the object you chose.

Replacing an object

Follow these steps to replace an object.

To replace an object

1 Run the report.

2 Place the cursor over a column in the report to view the shortcut menu.

3 Click **Replace** to dynamically display the list of all objects for the report.

4 Select the object to replace.

5 Choose an object from the **Result Objects** > **Objects** list that opens to the left of the report.

6 Click **Apply**.

The report now displays data for the object you chose.

Removing an object

Follow these steps to remove an object.

To remove an object

1 Run the report.

2 Place the cursor over a column in the report to view the shortcut menu.

3 Click **Remove** to dynamically display the list of all objects for the report.

4 Select the object to remove.

The report now displays records without the object you chose.

Applying a filter to a report

Follow these steps to add a filter to a report.

To filter a report in the BI Portal Reporting module

1 Run the report.

2 Place the cursor over a column in the report to view the shortcut menu.

3 Click **Filter By** to display a Dynamic Filters list that includes all values shown in that column of the report.

4 Choose the values you want to see.

To choose multiple values, press **Ctrl** and click the values.

5 Click **Apply**.

The report now displays only records that include the values you chose.

Sorting report data

Follow these steps to sort the data in a report.

To sort a report in the BI Portal Reporting module

1 Run the report.

2 Place the cursor over a column in the report to view the shortcut menu.

3 Click **Sort** and choose a sort order, either **Default**, **Ascending**, or **Descending**.

The report is now sorted for that column in the specified order.

Editing a report in the Reporting module

To edit a report

1 Run a report in the BI Portal Reporting module.

The following is an example of an Incident Cost Analysis report.
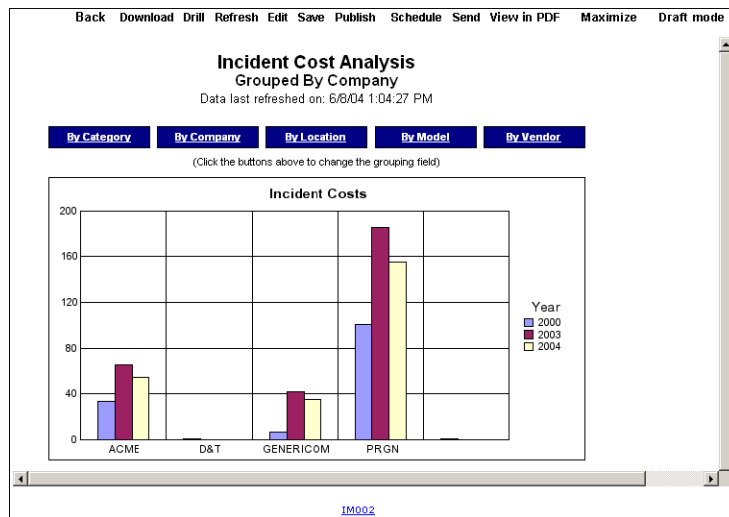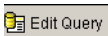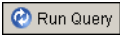
2 Click **Edit** to open the WebIntelligence Reporting module, which opens with the **Edit Report** tab selected.
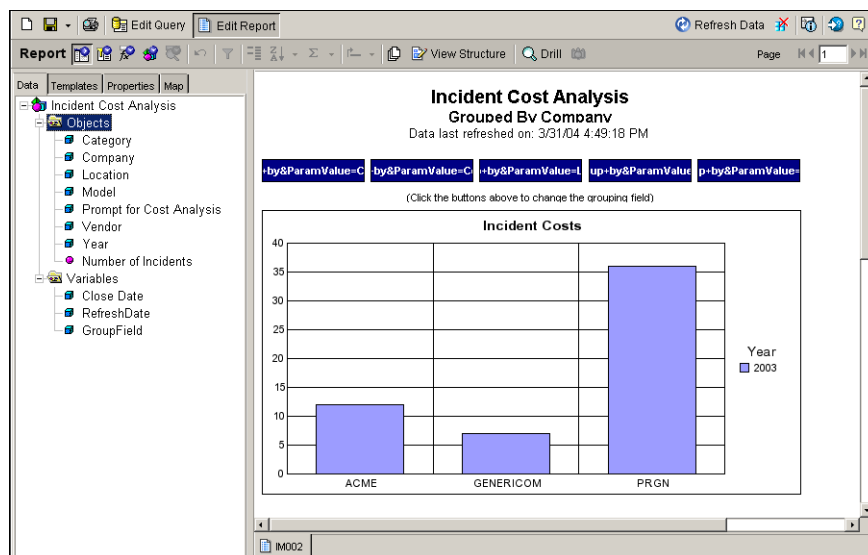
You can drag and drop objects to rearrange columns in the report, right-click to delete columns and rows, clear cell contents, reformat the cell, and more.

> **Important:** The WebIntelligence Reporting module offers extensive functionality that is beyond the scope of this user guide. To learn more about the WebIntelligence Reporting module, click **Help** and read the *InfoView User's Guide* that opens. You also can refer to the *WebIntelligence User's Guide.*

3 Click **Edit Query** [Edit Query] to change the query and specify information on which the report is based.

4 Click **View SQL** [SQL] to open the SQL Viewer and examine the SQL that executes when you run the query.

5 Click **Close** to return to Edit Query.

6 Click **Run Query** [Run Query] to execute the query and generate the report.

7 While the report is displayed, click **View Structure** [View Structure] to examine its structure, then click **View Results** [View Results] to return to the report.

8 To create a section in the report, drag and drop an object onto the report pane, above the report itself.

9 Click **Save**, then choose a location to save the report.

To publish the report, see page 55. To send the report to other users, see page 59.
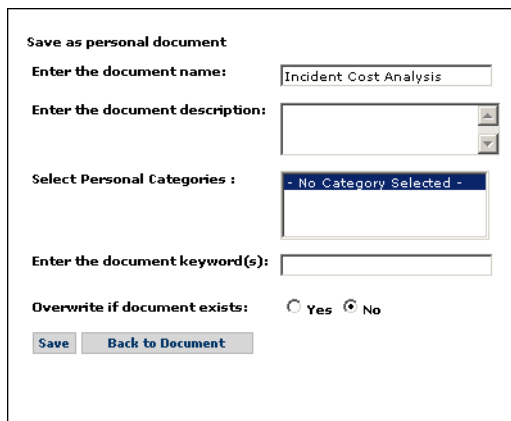
Saving reports

When you generate a sample or custom report, you can save it to your Personal Documents folder. Later you can run the same report to update its data.

To save a report

1 Run the report.

2 Click **Save**.

The BI Portal Reporting module opens the Save as personal document form.

3 Complete the following information.

a In **Enter the document name**, specify the name you want assigned to the document.

b In **Enter the document description**, type a description of the document to help others identify it.

c In **Select Personal Categories**, choose a personal category if you created any and want the document in that category.

    d In **Enter the document keywords**, add text to help you find the document later. Use only individual keywords, not phrases. Separate multiple keywords with spaces. For more information about searching for reports, see page 20.

    e Finally, choose whether to overwrite an existing version of the document.

4 Click **Save** to save the report to your Personal Documents folder.

You see the message status: Document successfully saved at the bottom of the form.

5 Click **Back to Document** to return to the report.

Note: Sample reports that you modify cannot be saved using their original names. You specify a different name for each sample report that you modified and want to publish.

To access a saved report

1 From the activity menu, click the **Personal Documents** link to see a list of your saved reports.

2 Select your report from the list to open and edit it as needed.

Publishing reports

When you publish a report, you assign it to a document group. It becomes part of the list of reports in the Corporate Documents folder. All users assigned to a group that contains the report can then use the report.

To publish a report

1 Run the report you want to publish.

2 Click **Publish**.

The Publish as corporate document form opens.

3 Complete the following information.

   a In **Enter the document name**, specify the report name.

   b In **Enter the document description**, type a description of the document to help others identify it.

   c In **Enter the document keywords**, add keywords to help other users search for the report. Use only individual keywords, not phrases. Separate multiple keywords with spaces. For more information about searching for reports, see page 20.

   d Select the group.

   To select multiple groups, press **Ctrl** and click the groups.

   e Finally, choose whether to overwrite an existing version of the document.

4 Click **Publish**.

You see the message status: Document successfully published at the bottom of the form. The report is published to the Corporate Documents folder in the groups you chose.

Note: Sample reports cannot be published using their original names. You specify a different name for each sample report that you want to publish.

5 Click **Back to Document** to return to the report.

Note: If you later want to edit a document's name, description, category, keywords, and groups, or reset its overwrite and refresh options, run the report and publish it again.

Scheduling reports to run automatically

Since the information stored in databases is constantly changing, it is useful to run queries and reports frequently to keep them up-to-date. You can schedule automatic generation of any sample or custom reports to which you have access, whether they are stored in your Inbox Documents or Personal Documents folders or Corporate Documents.

You can view a status log of all your schedule reports from the BI Portal Reporting module activity menu. See *Viewing scheduled documents* on page 32 for more information.

To schedule a report

1 Run the report.

2 Click **Schedule** at the top of the form.

The Scheduling Options form opens where you choose how frequently to generate the report.

You determine the frequency of the report's schedule.

Scheduling Options

Refresh frequency:

- ⊙ Once
- ○ Hourly
- ○ Daily
- ○ Weekly
- ○ Monthly
- ○ Monthly Interval
- ○ User-Defined

Refresh date and time

Date (mm/dd/yyyy) 6 / 7 / 2004
Time (hh:mm)   4 : 19 : PM

These options change depending on the frequency you choose.

Select the destination users: bi_admin / bi_connector / bi_create / bi_designer / bi_reserve

OK   Back

a Choose a refresh frequency from the options on the left.

b Choose additional details on the right.

For example, if you choose **Monthly** as the Refresh frequency, choose the day of the month, the time of day, and the start and end dates for the generation cycle.

Schedule when the report runs each month, and for how many months to run the report.

c Click **View prompts** if you want to specify how to group the fields before you run the report, then click **Run Query**.

d Select the users who you want to receive the report.

To select multiple users, press **Ctrl** and click the users.

3 Click **OK**.

You see the message Status: Document successfully scheduled to be sent to the inbox of the selected users at the bottom of the form.The regenerated report appears in the Inbox folder according to the schedule you set. The users you selected also see the report in their Inbox folder according to the schedule you set.

Sending reports

When you send a report, it is forwarded to another user's Inbox Documents folder. You also can send the report to non-Business Objects (BO) users if their e-mail addresses are defined to the BI Portal Reporting module. See *Managing addresses* on page 28 for more information.

To send a report

1   Run the report.

2   Click **Send**.

The Send document to users form opens.

3   Complete the following information.

   a   In **Enter the document name**, specify the name of the document.

   b   In **Enter the document description**, type a description of the document to help others identify it.

   c In **Enter the document keywords**, add text to help you find the document later. Use only individual keywords, not phrases. Separate multiple keywords with spaces. For more information about searching for reports, see page 20.

   d In **Select the destination BO users** list, click the names of the users who you want to receive the report.

      To select multiple users, press **Ctrl** and click the names.

   e Click whether to **Send Email Notification** to the user list.

   Note: Non-Business Objects users will always receive an e-mail notification with the document attached to the e-mail. Business Objects users will receive e-mail notification that the document has been sent to their BI Portal Inbox folder only if this option is selected.

   f In **Select other users**, click the names of the non-Business Objects users who you want to receive the report.

      To select multiple users, press **Ctrl** and click the user names.

   Note: You must define these users to BI Portal. See for more information.

   g In **Choose file select**, select either PDF or XLS format.

   Note: Documents that you send to Business Objects users are viewable only in HTML format, regardless of the format type that you select to send. Non-Business Objects users will see the document in the format that you selected, either PDF or XLS.

4 Click **Send**.

The report is sent to the Inbox Documents folders of the BI Portal users and to the e-mail inbox of other users. The message status: Document successfully sent verifies that the report is sent.

5 Click **Back to Document** to return to the report.

Viewing reports in PDF and HTML formats

You have the option to view reports on the screen in PDF and HTML formats.

To view reports

1 Run the report you want to view.

The report opens in HTML format.

2 Click **View in PDF** to view the report in Adobe Acrobat reader.

Save or close the file when you finish viewing it.

3 Toggle between PDF and HTML views.

Maximizing the viewing screen

Using the Maximize mode, you can open a new instance of the browser with the report displayed in full-screen mode. You can keep the report open in Maximize mode and view multiple reports at one time in different windows.

To maximize the viewing screen

1 Run the report you want to view.

2 Click **Maximize** to view the report in a new full-screen window.

3 Click **Close** to return to the BI Portal Reporting view.

Viewing reports in Page and Draft mode

By default, all documents open in Page mode. When you have long reports, this helps navigate to specific pages. Draft mode does not display documents page-by-page. Instead, the entire document is on one page.

Mode type	Description
Page	In long reports, view the report one page at a time.
Draft	Scroll through the report using vertical and horizontal scroll bars.

To view reports in Page and Draft mode

1 Run the report you want to view.

The report opens in Page mode.

2 Click **Draft Mode**.

The report changes to Draft mode.

3 Toggle between Page mode and Draft mode as needed.

4 Using the RDS Universe

CHAPTER

This chapter describes the structure of the RDS universe in BI Portal, including its hierarchy and the types of objects it contains.

Note: Only users with `BI_Create` or `BI_Admin` capability can create ad hoc reports using the RDS universe.

Refer to the *BI Portal Administration Guide* for information on scheduling automatic data synchronization.

Topics in this section include:

- *Security* on page 64.
- *Understanding the structure of the RDS universe* on page 65.
- *Report writing basics* on page 69.

Security

For BI Portal to work properly in a contact-based authentication environment, users must edit the rds_user scenario and turn the flag for transferring contact data into RDS. This causes both Contact and Operator data to be pushed to the `RDS_USER` table. Refer to the *BI Portal Administration Guide* for more information about security issues.

Contact-based authentication environment

In a contact-based authentication environment, the `RDS_USER` table has both `Contacts` and `Operators` data in it. Therefore, the portal users are:

- `Operators` who appear with their user name as usual; for example, `Admin`.

- `Contacts` who appear with a suffix of the operator name they belong to. For example, if the Operator name is `Admin` and the Contact name is also `Admin`, then the user list in the portal shows the following information.

User name	Description
Admin	This is the Operator.
Admin(Admin)	This is the Contact and the Operator it belongs to is indicated in parenthesis after the Contact name; for example: `contact_name(operator_name)`.

Note: The Operator option in the rds_user scenario must never be turned off. Only the Contact option can be turned on or off.

Understanding the structure of the RDS universe

The information in the Reporting Data Store (RDS) database is stored in a single universe called RDS. Whenever you run a Sample report in the BI Portal Reporting module, modify an existing one, or create a custom report, you use the data in the RDS universe.

The BI Portal hierarchy consists of universes, classes, and objects. A universe contains classes, which combine similar information into groups. The RDS universe includes a class for common objects in ServiceCenter (SC) called ServiceCenter Common Objects and other specific classes such as Service Management and Incident Management. Classes, which are similar to folders, are represented in the user interface by a folder icon. Classes can contain other classes and can also contain objects.

RDS elements

The RDS structure has four basic elements. You can identify each element by its icon.

Element	Description	Icon
Folders	Folders are a general grouping of data fields that do not map to anything in the database. Use folders to organize fields into meaningful groups.	
Dimensions	Dimensions are non-quantifiable attributes such as Name, Company, and Location. Typically, this data creates report sections or shows detail.	
Measures	Measures are quantifiable attributes that you include in totals, averages, and other metrics. You can use the numeric data (such as counts, summaries, finances, and elapsed times) in the same manner as dimensions. You also can use the data in roll-up or summary operations.	
Filters	Filters are pre-made common data filters, used to quickly construct limitations on the data displayed in the report. For example, Service Management has a filter to show only Open Calls.	

RDS object hierarchy

The RDS uses the basic elements to structure data. The following illustration is a typical RDS hierarchy.
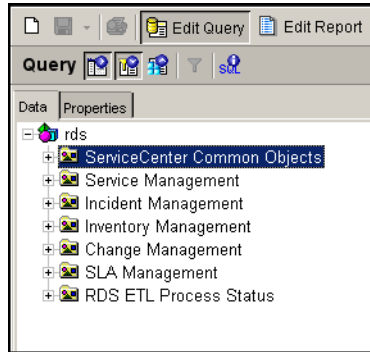
The root of the hierarchy has seven folders.
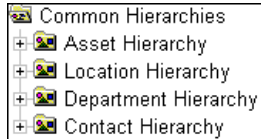
RDS object	Description
ServiceCenter Common Objects	This folder contains fields from tables that are referenced from every ServiceCenter module, such as Contacts, Assets, and Locations. Most of these objects are on the Support tab of the main menu of an out-of-box ServiceCenter system. Many of your reports use data from one ServiceCenter module, supported by data from the Common Objects (see page 67) area.
Service Management	This data maps directly to the ServiceCenter call tracking system and its supporting tables.
Incident Management	This data maps directly to the ServiceCenter ticket tracking system and its supporting tables.
Inventory Management	This data contains advanced Asset handling data.
Change Management	This data maps to the ServiceCenter Software Change Request (SCR) and Task areas.

RDS object	Description
Service Level Management	This data maps to the ServiceCenter Service Level Management area, including SLA and contract management statistics.
RDS ETL (Extracting, Transforming and Loading) Process Status	This data contains information about the mapping of data between ServiceCenter and the RDS. It includes when the data was last updated, relevant keys, and historical updates. Use this folder primarily for troubleshooting and logging, not for day-to-day reporting.

ServiceCenter Common Objects

The Asset, Contact, Operator, Vendor, Location, Company, and Model Common Objects folders map directly to their equivalent objects in ServiceCenter. Additional Common Objects include Common Hierarchies and Timedimension.
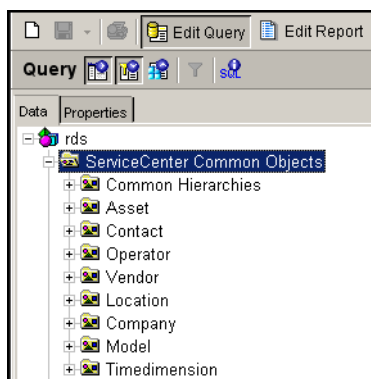
Common object	Description
Common Hierarchies	ServiceCenter has four supporting tables that are self-referential; that is, some records are parents of other records in the same table. The Hierarchy folder maps to special tables that only exist in the RDS. In this case, the Asset, Location, Department, and Contact levels clearly display parent-child relationships. This facilitates OLAP reporting, where you can drill down on these fields. By default, 5 levels are defined. You can customize this, as needed.
Timedimension	Use this special generic Date–Time field for OLAP drill-downs.

ServiceCenter modules

Currently, the RDS supports five ServiceCenter modules.

- Change Management
- Incident Management
- Inventory Management
- Service Level Management
- Service Management

The ServiceCenter module folders all conform to a basic standard hierarchy. Each main folder has three subfolders: Dimensions, Measures, and Filters. See *RDS elements* on page 65 for more information about the elements.

This element	Consists of
Dimensions	Folders.
	One folder contains the common details. These are fields that typically are most important to report designers, such as IDs, status, priority, open and close details, and so on.
	Other folders are grouped by area, such as relevant asset information, contact information, parts and labor.
	The Related Records folder maps associated records from other modules; for example, incidents tied to calls.
Measures	Common numeric data.
	The Aggregated Measures folder contains pre-calculated sums and averages, provided to add efficiency for reports only concerned with totals.
Filters	Pre-made filters.
	Most filters are self-explanatory. For example, the Closed Calls Only filter in Service Management shows only those calls that are closed.

Report writing basics

Before you start designing a report, you must determine the type of report you want to create. To begin, answer the following three questions.

- Which ServiceCenter module do you want to report on?
- Do you want a Sample or OLAP report?
- Do you want to include historical data?

Which ServiceCenter module?

This is straightforward. If you want information regarding calls, use Service Management. If you want to track tickets, use Incident Management. If you are looking for information regarding SCRs and tasks, use Change Management. For assets, use Inventory Management. And for response time and outages, use Service Level Agreement.

Sample or Online Analytical Process (OLAP)?

A Sample report is a typical display of data. Data is shown on a single record or a group of records, and usually displays information in detail. Examples of a Sample report show the full details, including notes, of an Incident, or show a list of all computers sorted by network and domain. This is the most common report to design.

OLAP reports deal with grouping and drilling. High-level information is cross-referenced by one or more dimensions, allowing users to drill on any dimension to show the information in greater granularity. For example, an OLAP report can contain a cross-tabular table showing the number of calls made by company and category, where the user drills down on company into department and contact, and on category into subcategory and product type.

Include historical data?

When an updated ServiceCenter record changes a key field (for example, contact name), the RDS creates a new record rather than overwriting the old one. You can then track changes and do reports on these updates. Old records are marked as obsolete to distinguish them from the active data.

You must decide whether you want to exclude this historical data from your report.

5 Advanced Reporting Functions

CHAPTER

This chapter addresses the following advanced reporting functions:

- *Who can use advanced reporting functions?* on page 72
- *Running ad hoc queries to create custom reports* on page 72
- *Finding additional information about WebIntelligence* on page 77

Who can use advanced reporting functions?

To use the WebIntelligence Reporting module, your system administrator assigns you user *capabilities* that grant you access to the module's various functions. The administrator can assign new capabilities if you need them.

Note: Only users with `BI_Create` or `BI_Admin` capability can create ad hoc reports using the RDS universe.

Running ad hoc queries to create custom reports

To create a custom report, you build and run an ad hoc query in the WebIntelligence Reporting module.

After you create a custom report, you can save it for personal use or publish it for others to see. See *Publishing reports* on page 55 for more information.

Note: You can migrate custom reports when you upgrade to a new release of BI Portal. Refer to the *BI Portal Installation Guide* for more information. You must recreate the reports if you included clock management or root cause analysis attributes in your custom reports.

Using the WebIntelligence Reporting module

You can use the WebIntelligence Reporting module to build and run a query, and to view and format the report that shows the information returned by the query.

To use the WebIntelligence Reporting module to run a query

1 From the **Corporate Documents**, **Personal Documents**, or **Inbox Documents** page, click **Create**.

The BI Portal Reporting module lists the universes that are available for queries and reporting. In BI Portal, the only universe is **rds**.
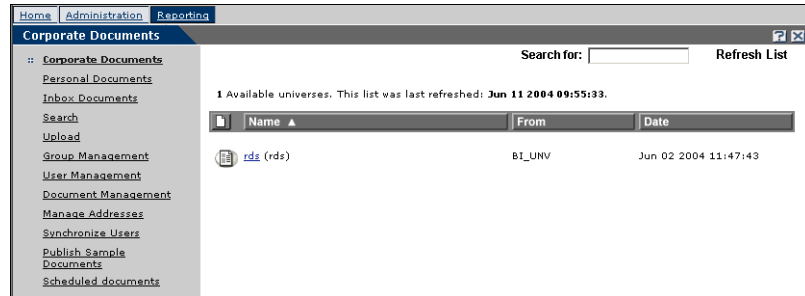
2 Click **rds**.

The WebIntelligence Reporting module opens in **Edit Query** mode.
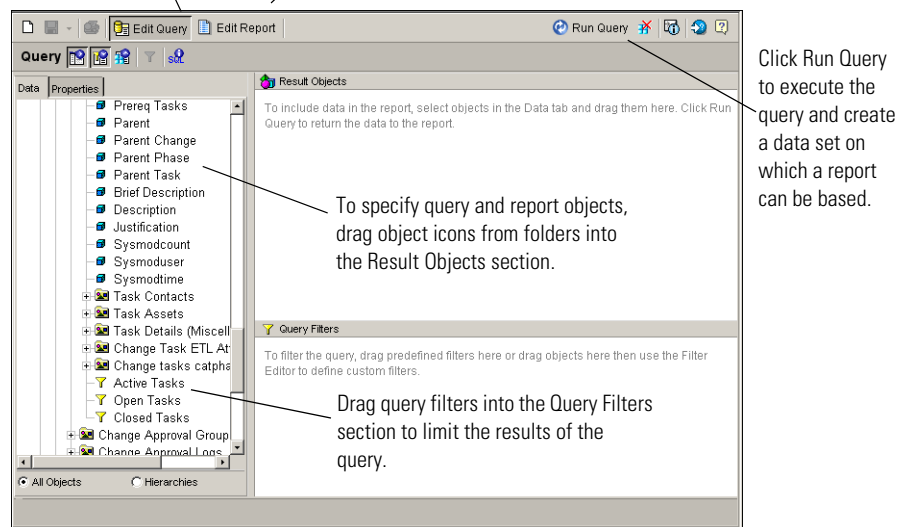
In the left pane, the WebIntelligence Query Manager includes all the objects that you can include in your query. Objects are grouped in classes, which are similar to folders. If you do not see an object you want to use, open the folders that contain the object. See *RDS elements* on page 65 for more information about the types of objects in the WebIntelligence Reporting module.

You can divide the report into subsections according to object categories, or you can simply include objects and display their values in the report.

3 From the **Query Manager** left pane:

a Drag and drop the objects you want to include in your query to the **Result Objects** pane.

Note: While the new objects you added show up on the left pane, to see them on the actual report, you must drag the object and place it on the right location on the report in the right pane.

b Drag and drop filters to the **Query Filters** pane.

For example, the following query includes information about Service Management calls: the Call ID, Severity, Owner, and Status. The query filters only calls that are currently open from the GENERICOM company.
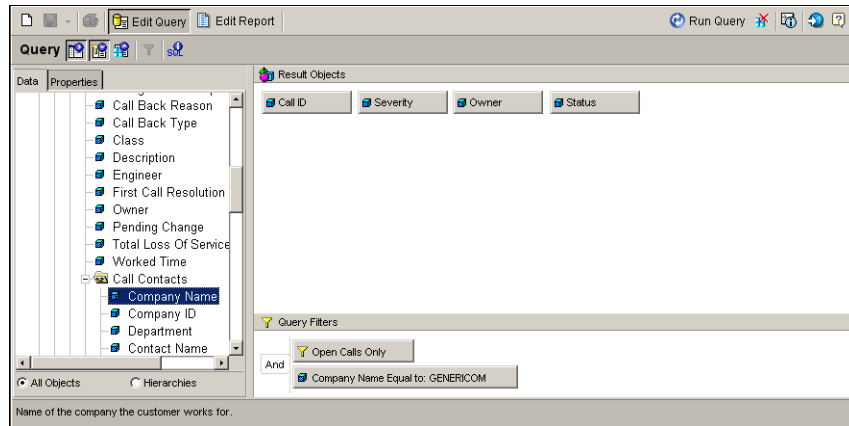
Note: The RDS is, by default, configured to keep historical entries for all records updated in the system. You can use these to create tracking and change reports. If you are not interested in historical data (that is, your report is only concerned with statistics about the current state of the system), you MUST add a filter to remove these extra records. If not, you will receive multiple copies of certain records and your results will be skewed.
In the Filters folder for each major module, there are pre-existing filters to remove historical records. Under Dimensions, **Ignore Historical Data** will filter out old records from your dimension objects. Under Measures, **Ignore Historical Data** will do the same for measure objects. To prevent erroneous statistics, add these filters to any report you create.

4   Click **Run Query** to execute the query.

The report, based on your queries, opens on the right side of the form.

Edit Report is highlighted
after you run the query.
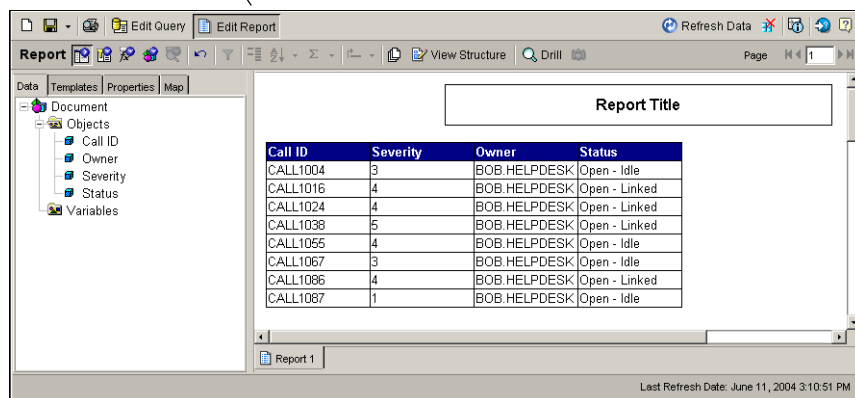
The WebIntelligence Reporting module is now in **Edit Report** mode. Only those objects and filters included in the query are available in the Report Manager, which is now in the left pane.

5   To change the information you see in the report, click **Edit Query**, and do one of the following:

a   To add objects, drag and drop from **Query Manager** to **Result Objects** and **Query Filters**, then click **Run Query**.

b   To remove objects, drag and drop from **Result Objects** and **Query Filters** to **Query Manager**, then click **Run Query**.

c   Click the **New Document** icon.

  ■   Build an entirely new query.

  ■   Click **Run Query**.

Reformatting reports

After you create a custom report or generate a sample report, you can change the report's appearance.

Use the BI Portal Reporting module to perform simple reformatting tasks on reports. For more information, see *Editing a report in the BI Portal Reporting module* on page 50.

To perform more advanced reformatting tasks, or to change the query on which any report is based, use the WebIntelligence Reporting module.

To edit a report in the WebIntelligence Reporting module

1 Run a sample or custom report.

2 Click **Edit** to open the WebIntelligence Reporting module.

In Edit Report mode, you can perform most of your report formatting tasks.

a Click the **Properties** tab to open the Report Format dialog box.

Report Properties button: Enter a name and description for the report.

Report Format button: Choose a background color or skin, and hyperlink colors for Visited and Unvisited.

Report Page Layout button: Select page size, orientation, and margins.

Filters button: Choose report filters to limit information displayed even further.
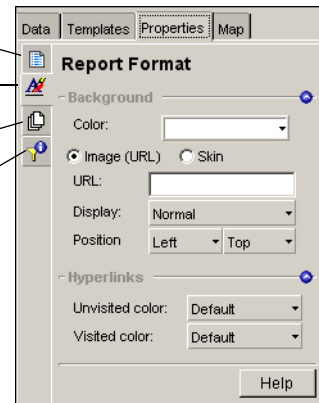
b Click inside the report to open the Cell Format dialog box.

Cell Properties button: Specify cell width, height, and other properties.

Cell Format button: Select font, style, color, border, and other text properties.

Break Properties button: Create section and page breaks when column values change.

Sort button: Sort the report in descending, ascending, or default sort order.
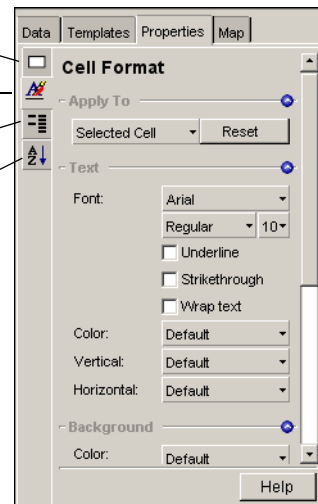
c Right-click a column to display a cell formatting shortcut menu.

```
Set as Section

Clear Cell Contents
Delete
Delete Row
Delete Column

Format Number...
Formula Toolbar
Edit Format
```
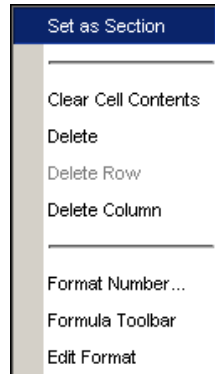
Finding additional information about WebIntelligence

The WebIntelligence Reporting module is a very complex and powerful query and report generation tool. This guide demonstrates only a small subset of the functions that are available when building and running queries, and formatting reports. For complete information about the WebIntelligence Reporting module, click the Help icon within WebIntelligence or refer to the *WebIntelligence User's Guide*.

A User Exercises

APPENDIX

This appendix includes exercises that demonstrate how to perform tasks in BI Portal. The goal is to show you BI Portal features and functionality.

- *Accessing report data* on page 80
- *Creating and formatting reports* on page 82
- *Analyzing data* on page 89

Accessing report data

This section presents a set of tasks that demonstrate how you access report data.

How to access report data

1 Log in to BI Portal and click the **Reporting** tab to open the Reporting module.

2 From the **Document Groups** drop-down list, select **Inventory Mgmt**.

3 Click the Document Properties icon beside Categorization of Unavailable Assets to view the properties of this report.

Document Properties

Name:	Categorization of Unavailable Assets
Description:	
Document Group:	Inventory Mgmt
Keywords:	

Back to Document List

4 Click **Back to Document List** to return to the document list.

5 Click **Categorization of Unavailable Assets** to run the report.

6 Scroll to the Corporate Headquarters table and sort the Asset Name column.

  a Hold the cursor over the column or title.

  b Click **Sort** > **Ascending** to sort the names from the shortcut menu.

7 Click **Refresh** to synchronize with current data in the database and recompile the report.

When you schedule a report to run automatically, you can specify how often you want to refresh the report. See *Scheduling reports to run automatically* on page 57 for more information about scheduling reports.

8   Click **View in PDF** to open the report as a PDF file.

   a   Close the PDF file.

   b   Click **View in HTML** to re-display the report in HTML format.

   c   Click **Refresh** to refresh the data.

   The HTML format of the report that opens in your browser is dynamic and its data can be refreshed.

   The PDF format is static and is used for printing.

9   Click **Maximize** to open a new instance of the browser with the report displayed in full-screen mode.

   Because you open a new instance of the browser, you can leave the report open in Maximize mode and view multiple reports at one time.

10   Click **Close** to return to the report.

11   Click **Back** to display the entire document list.

   Note: The browser Back button takes you to the previous page. The Back option at the top menu of the report takes you to the document list.

Creating and formatting reports

This section describes how to create a Closed Tickets by Severity query, format the report, generate a report based on the query, and add a chart.

Creating a query

You create a report by defining what objects you want to query. You move the objects from the Query Manager to the Results Objects pane and Query Filters pane.

To create a query

1 Log in to the BI Portal Reporting module.

2 Click **Create**.

The BI Portal Reporting module displays a list of all available universes. See *Universes, classes, and objects* on page 33 and the *WebIntelligence User's Guide* for more information.

3 Click **rds** to select the RDS universe.

By default, the Edit Query page opens in the WebIntelligence Reporting module. See *Understanding the structure of the RDS universe* on page 65 for more information about the WebIntelligence Query Manager.

4 From the WebIntelligence Reporting module, do the following.

From Query Manager, expand	Drag this object	Drop to this pane
Incident Management > Incident Management Dimensions > Incident Details	Incident Number Severity Owner Name Close Time	Result Objects
Incident Management > Incident Management Dimensions > Incident Details > Incident Contacts	Company	Result Objects
Incident Management > Incident Management Measures	Incident Count	Result Objects
Incident Management > Incident Management Filters	Closed Incidents Only	Query Filters

5 Create a filter that prompts users to specify a minimum Close Time.

a Drag and drop the Close Time object in the Result Objects pane to the Query Filters pane.

The WebIntelligence Reporting module opens the Filter Editor dialog box.
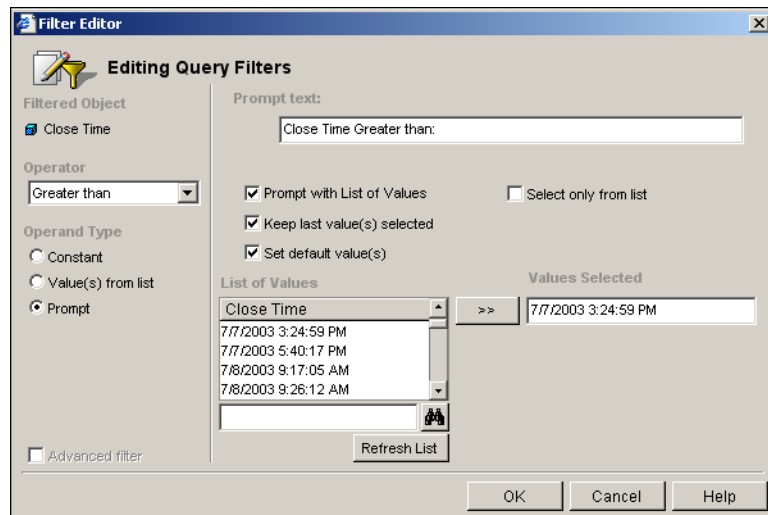
- From the Operator drop-down list, choose **Greater Than**.

- In Operand Type, select **Prompt**.

- Select **Prompt with List of Values**, **Keep last value(s) selected**, and **Set default value(s)**.

- In the **Values Selected** field, type a Close Time default value for the filter to use in case the user does not enter a value when prompted.

  This example shows a default Close Time of **7/7/2003 3:24:59 PM**. If the user does not enter a Close Time when prompted, the query will return information about only those Incidents with a Close Time later than 7/7/2003 3:24:59 PM.

b Click **OK**.

The Result Objects and Query Filters panes in the WebIntelligence Reporting module contain the following objects.
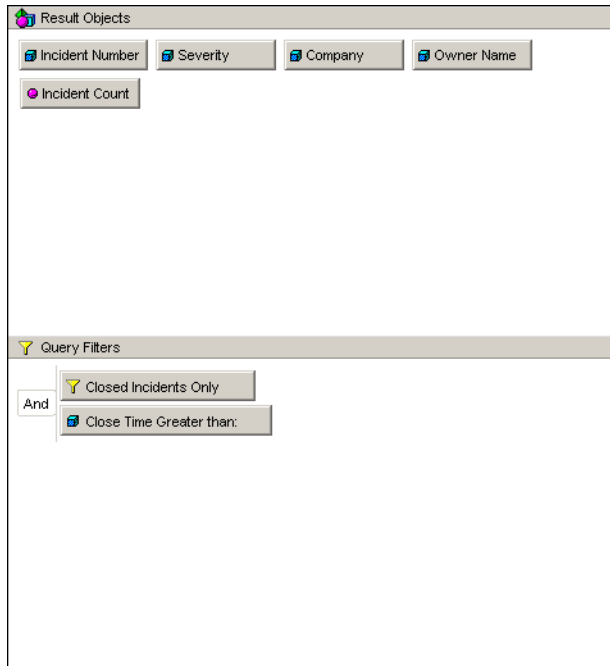
6   Click the **View SQL** button to examine the SQL code that you generated.

    The SQL Viewer contains the SQL that executes when you run the query.

7   Click **Close** in the SQL Viewer when you are satisfied with the SQL code.

Formatting a report

You can customize a report's appearance by changing the cell and table formats.

To format the report

1 Using the query in *Creating a query* on page 82, create a section.

   a Click **Edit Report** to switch to Edit Report mode.

   b Drag and drop **Owner Name** above the table to create a section.

      Report sections repeat once for each unique value. When you drag a field over to the left top side, you automatically create a section. If you do not want an object in the section, drag and drop it to the Report Manager on the left to remove it, and then delete the section.

2 Make the **Owner Name** section delineator into a section header.

   a Click the Owner Name box above the table to highlight it.

   b Click the **Properties** tab in Report Manager to open the **Cell Format** dialog box.
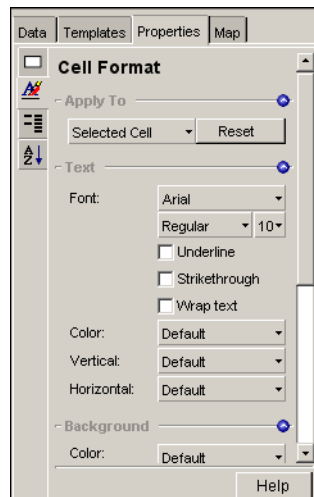
   c In the **Cell Format** dialog box, specify the font, style, color, and other properties of the section header.

3 Sort the report on the Severity column.

   a With the **Properties** tab in the Report Manager selected, click the Severity column to highlight it.

b From the menu bar, click **Sort**. 🔼

c In the Sort options, click **Ascending**.

4 Create a break on the Severity column.

Note: Whenever the value of a column with a break changes, a blank row and a new title bar are inserted to highlight the changed value. Breaks are used only on sorted columns.

a With the **Properties** tab in the Report Manager selected, click the Severity column to highlight it.

b From the menu bar, click **Break**. ▦

5 Create a count on the Incident Count column.

a With the **Properties** tab in the Report Manager selected, click the Incident Count column to highlight it.

b From the menu bar, click **Insert Sum** and choose **Count** from the list.

Σ	Sum
n	Count
x̄	Average
≫𝑥	Min
≪𝑥	Max
⁺Σ	Percentage
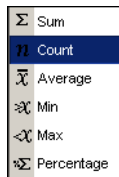
6 Move the cursor into the table area to highlight the table.

Note: There is an empty row that has =[**Count**] on the left side. Now that you have the summary option on the Incident count column, it is safe to delete this row. To delete the row:

a Click =[**Count**] in the empty row to highlight it.

b Right-click to display the menu.

c Click **Delete Row** to remove the row.

7 Format the table with alternate row coloring.

a With the **Properties** tab in the Report Manager selected, move the cursor near the table, but not within it, so that a border surrounds the table.

b Click to highlight the entire table.

Note: If you click *within* the table, you select a single field.

The Table Format dialog box opens.
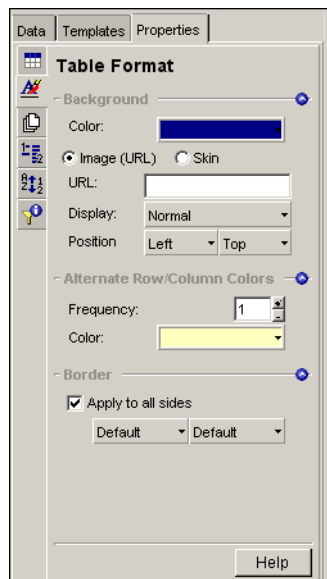
c In the **Frequency** field, select **1** to alternate every other row.

d Choose a color to use in alternate rows.

Generating a report

After you define your query requirements, you are ready to run the report.

To generate a report

1. Using the example in *Creating a query* on page 82, click **Edit Query**.

2. Click **Run Query** to run the query and generate a report.

Adding a chart

When you run the query, you see the report in View Results mode. To change the report, you first must switch to the View Structure mode.

1. Run a report (see the previous section, *Generating a report*).

2. Click **View Structure** to toggle to View Structure mode.

   You create new charts from View Structure mode.

3. To create a bar chart, do the following:

    a Click near, but not inside, the table structure to highlight it.

    b Drag the table structure to a lower location on the screen to make room for a chart.

    c Click the **Templates** tab in the Report Manager.

    d Expand the Charts folder.

    e Expand the Bar folder.

    f Click the 3D Bar object to highlight it.

    g Drag and drop the 3D Bar object to the space above the table structure.

    h Click the **Data** tab in the Report Manager.

    i Drag and drop the Severity object from the Report Manager to the portion of the bar chart labeled **Place dimension objects here**.

    j Drag and drop the Incident Count object from the Report Manager to the portion of the bar chart labeled **Place measure objects here**.

    k Click **View Results** to display the bar chart and reports.

4 Change the chart from a bar chart to a pie chart.

    a Click the **Templates** tab in the Report Manager.

    b Expand the Pie folder.

    c Drag and drop the Pie object to the chart.

       The chart becomes a pie chart.

5 Add a blank cell that contains a title for the report.

    a Expand the Free-Standing Cells folder.

    b Expand the Formula and Text Cells folder.

    c Drag and drop the Blank Cell object to the report, above the pie chart.

    d Re-size the blank cell and center it on the report. When the blank cell is highlighted, the Formula Editor is available.

    e Type **Closed Tickets by Severity** as the title for this report.

    f Click **Validate** to insert the title into the blank cell.

6 From the menu bar, click the down-arrow beside **Save** to open the Save menu.
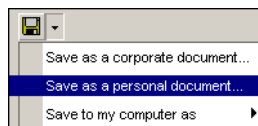
7 Choose **Save as a personal document**, type a name, and click **OK**.

Analyzing data

This section describes how to create and view Online Analytical Process (OLAP) reports. These reports, which deal with grouping and drilling, present high-level information that is cross-referenced by one or more dimensions. You drill on any dimension to show the information in greater granularity.

Creating an OLAP report

Follow these steps to create an OLAP report where you can drill into the data.

1 In the BI Portal Reporting module, click **Create**.

2 In the WebIntelligence Reporting module, create a new query that contains the following objects.

From Query Manager, expand	Drag this object	Drop to this pane
ServiceCenter Common Objects > Common Hierarchies > Location Hierarchy	Level 0 Name	Result Objects
Service Management > Service Management Measures	Call Count	Result Objects
Incident Management > Incident Management Measures	Incident Count	Result Objects
Inventory Management > Inventory Management Measures	Asset Count	Result Objects

3 Create a new table block by copying the existing one.

   a Click **Edit Report**.

b To create a new table block, drag and drop the Objects folder in the Report Manager to the report, below the existing table block.

4 Drag and drop one or both table blocks to align them and to make sufficient space for a bar chart.

5 Click the **Templates** tab in the Report Manager.

a Expand the Charts folder.

b Expand the Bar folder.

c Drag and drop the Vertical Grouped object to the table block that you want to change into a bar chart.

d Click the bar chart to select it.

6 Click the **Properties** tab to open the Chart Properties dialog box.
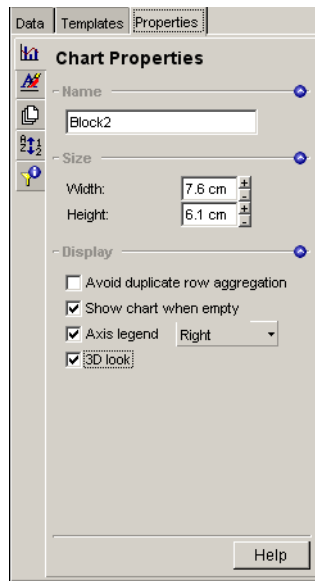
7 Check **Axis legend** and **3D look**.

8 Click **Edit Query** > **Run Query** to execute the query and generate the report and bar chart.

9 Hide X-axis and Y-axis labels.

a In Edit Report mode, right-click the chart and choose **Edit Format**.

b From the **Apply To** drop-down list in the Chart Format dialog box, select **X Axis Label**.

c Clear the **Show Object Name** check box.

    d From the **Apply To** drop-down list in the Chart Format dialog box, select **Y Axis Label**.

    e Clear the **Show Object Name** check box.

10 From the menu bar, click the down-arrow beside **Save** to open the Save menu.
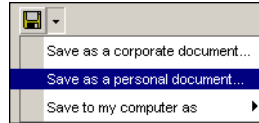
11 Choose **Save as a personal document**.
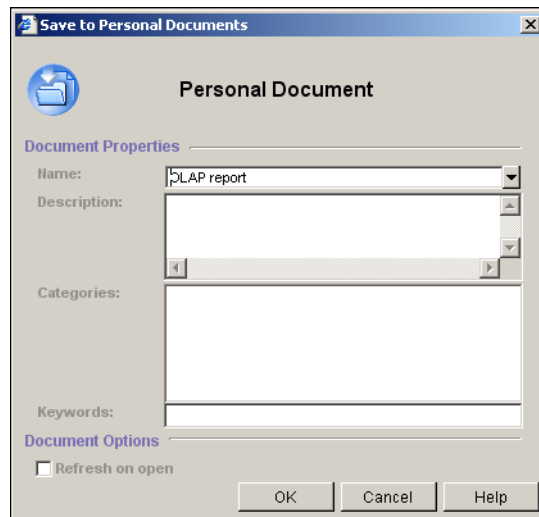
    a Type **OLAP report** in the **Name** field.

    b Click **OK**.

Viewing the OLAP report

After you run a report, you can drill to the next level of information to view additional data that is not initially displayed when you view a document. See *Drilling into the report* on page 45 for more information.

To view the OLAP report

1 Log in to BI Portal.

1 Click **Personal Documents** > **OLAP report** to open the report that you created and saved (see *Creating an OLAP report* on page 89).

2 Click **Drill**.

The values in the report are now underlined hyperlinks.

a To drill down, hold the cursor over a hyperlink field and click **Drill Down to Level** 1 **Name** from the shortcut menu.

Down is the next lower level field.

b To drill further, select a **Level** or **Location Name** and click **Run Query**.

c To drill up, do one of the following:

- Hold the cursor over a hyperlink field and click **Drill Up to Level 0 Name** from the shortcut menu.

- Click the up arrow in the column title.

3 To sort the report by a column, hold the cursor over the column or title, then click **Sort** > **Ascending** (or **Descending**) from the shortcut menu.

4 To filter the report and display only specified values:

a From the **Add to filter** drop-down list, select a level.

b In the Level 0 name drop-down list, do one of the following.

- Choose **Level 0 Name** * to view all records at that level.

- Choose a value.

- Choose a value; click **Remove** to delete the value from the list; then choose **Level 0 Name** * to view all records *except* those that have the value you deleted.

c In the Level 1 name drop-down list, do one of the following:

- Choose **Level 1 Name** * to view all records at that level.

- Choose a value.

- Choose a value; click **Remove** to delete the value from the list; then choose Level 1 Name * to view all records except those that have the value you deleted.

5 Click **End Drill** to return to the report.

Index