ER/Studio® Enterprise Portal 1.1
User Guide

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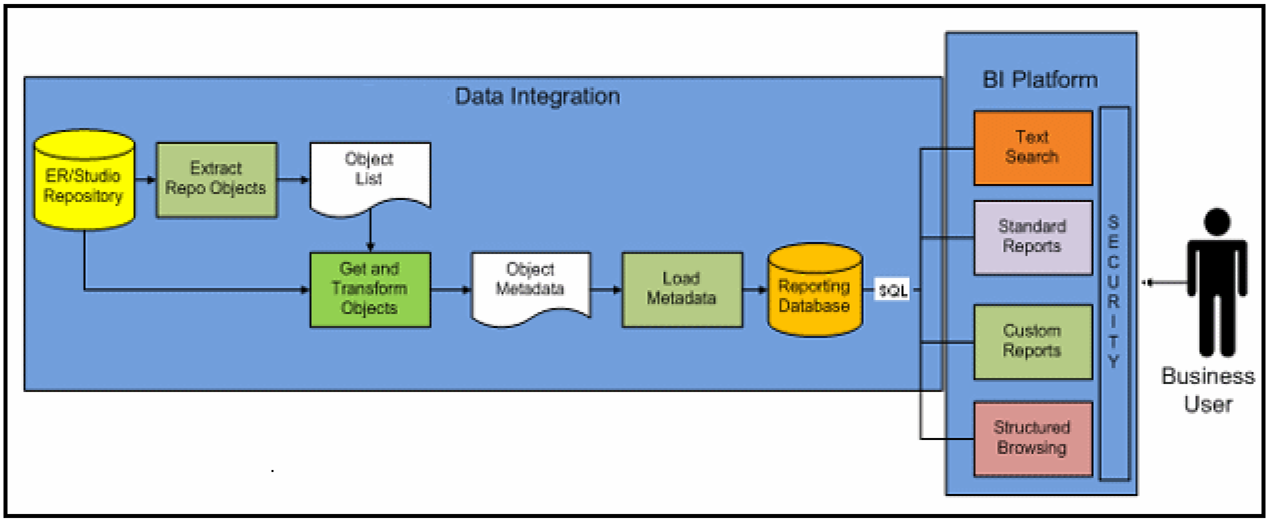
Welcome to the ER/Studio Enterprise Portal

The ER/Studio Enterprise Portal enables you to search for all kinds of data in your ER/Studio Repository database, create reports, and then read the generated reports in an easy-to-read format.

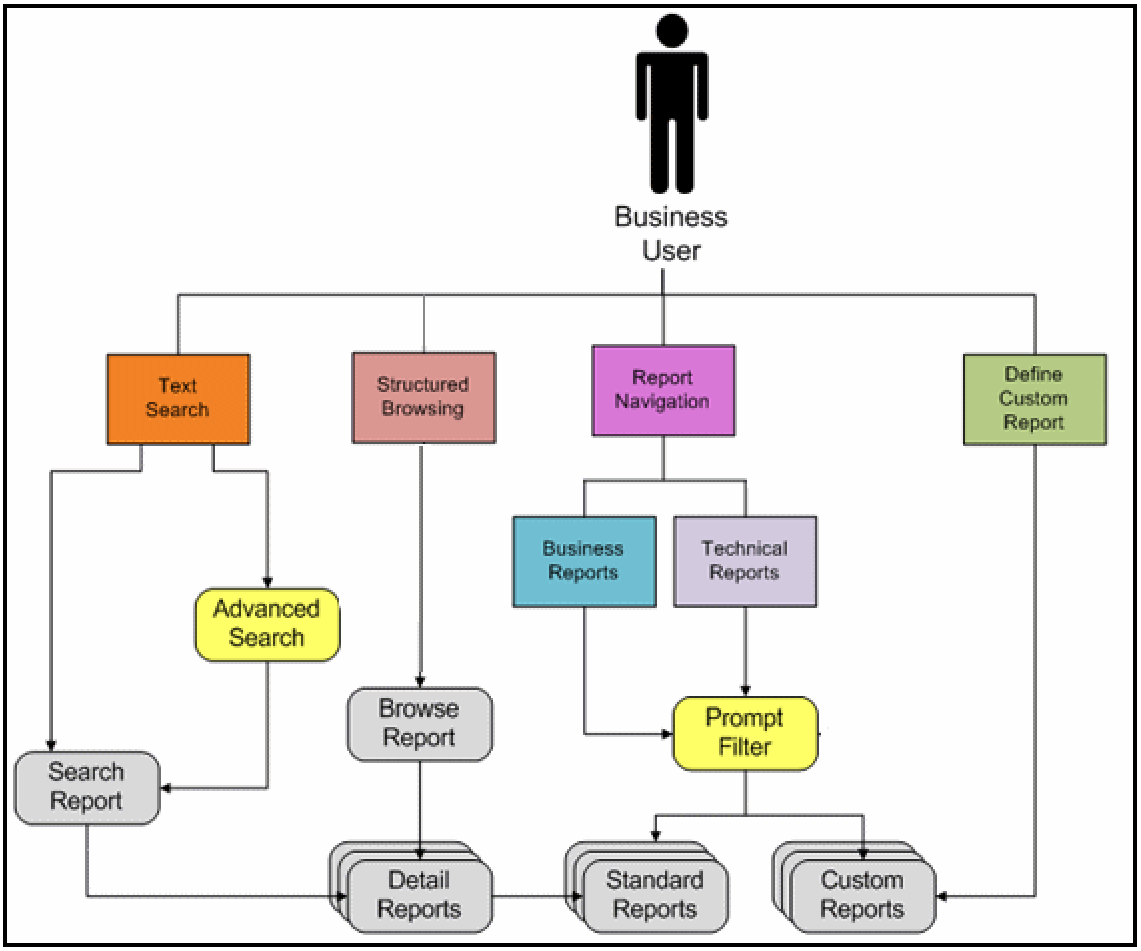
In addition, application development teams can use the portal to see what types of data already exist in the company. This eliminates replicating new data or deviating from the standard format data types needed to be implemented in existing applications.

The Enterprise Portal enables you to communicate all the information you need and lets you view the data model diagram as well. You can search for and save frequently-used reports. You will always know where to get the up-to-date information you need.

The following shows the progression of data integration and the different way to access ER/Studio Repository data.



The following gives an overview of the different ways to search for information and the navigation path through new or existing reports.



Product Benefits

The Enterprise Portal gives access to metadata information stored in ER/Studio models. This browser-based solution allows you to search, browse, and report on ER/Studio Repository information. For example, a business analyst can look up a definition for a business term used in a report or can research data definitions related to a particular project or subject area.

The Enterprise Portal makes it inexpensive, easy, and expedient to access metadata information. With self-service reporting, authorized personnel can have real-time access to data metadata. The Enterprise Portal enables the organization to more effectively visualize, distribute, and communicate their data models and metadata.

Modeling teams of both large and small organizations can share the metadata across their companies. Business analysts, data executives, developers or data stewards no longer have to depend on the Data Modeler to provide access to, reports on, or updated spreadsheets of the latest metadata.

This Web interface:

- Enables you to distribute repository metadata enterprise-wide to developers, database administrators, business analysts, and data analysts.

- Has an easy-to-use console to manage connections and maintain access to portal actions and controls.
- Is easy to use and navigate, with extensive search capabilities.
- Can be customized and integrated into existing intranet portals.
- Eliminates the need for spreadsheets and other stand-alone documents.
- Has standardized HTML reporting of repository metadata.
- Has structured browsing and navigation of repository hierarchy.
- Allows for increased compliance with standards and regulations.

The portal has the following features:

Feature	Description
Home Page	Interact with the Enterprise Portal through the Home Page. You can navigate to the Business and Technical reports, and create a custom report. You can also access favorite searches and reports to share with other Portal users or to email their results to users and non-users. For more information, see "Dashboards" on page .
Search	Can search for text within the repository across object properties and object types. Search includes both simple and advanced searches. The simple search searches all text properties of all object types and all diagrams for a match on the search string you supply. The search text you provide is treated as one string by the search engine and is matched accordingly. For more information, see "Searching the Reporting Database" on page .
Advanced Search	The advanced search options allow you to refine your query with specific parameters. You can then save these queries to email, print, and share. For more information, see "Using the Advanced Search" on page .
Explore	Browse the contents of the repository. A list of projects and the diagrams contained within each project folder of the repository are available. From this list, browse the contents of any diagram by selecting the diagram you want to navigate. When a diagram is selected, the Diagram Detail Report is displayed for that diagram. From that point, continue to browse the contents of the diagram by navigating the detailed report links. The structured browsing interface allows selection of models and submodels, in addition to diagrams, and provides corresponding detail reports. For more information, see "Explore" on page .
Reports	Several standard reports are available that can be executed. Reports are grouped and organized into folders. These folders include: Business Reports and Technical Reports. The following standard reports are available: • Business Reports: Attribute Definitions, Business Rules, and Entity Definitions • Technical Reports: Column Data Lineage; Domain Bindings; Entity, Model, Submodel and Diagram Report; Entity Attachments; Reference Values; and Security Classifications. When choosing to run one of the standard reports, you are prompted to supply parameters that filter and format the results of the report. You can format the report output as HTML, PDF or XLS. By default, all standard reports search the entire reporting database. Alternatively, restrict the report contents by Project, Diagram, Model, Submodel, and Table/Entity. The prompts to filter the reports are interdependent, for example the Diagram filter is dependent on the Project filter value and the Model filter is dependent on the Diagram filter. You can save reports to run later and share them with other users. You can also print and email the reports. For more information, see "Reports" on page

Feature	Description
Customized Reports	You can create a report and customize the report based on the following criteria: content, format, sort, aggregation, and filter. The generated reports can be saved, shared, and rerun at a later date by you and other users. These are the same directories where standard reports are saved and can be added to by an administrator. The content of the Custom Reports is limited to the structured Business Views created using metadata. The Metadata module generates SQL based on Business Views you specified during development. You can modify the business views using the Pentaho Metadata software. For more information, see "Creating a Custom Report" on page .
Export, Print, and Email	Export, print, and email all standard and custom reports.
Usage Reporting	See who is currently logged in to the Enterprise Portal, as well as a historical chart of Website usage. For more information, see "Activity" on page .

About this Document

This guide focuses on the key features and capabilities of the Enterprise Portal.The table below describes the sections this guide is comprised of:

Section	Description
"ER/Studio Enterprise Portal Overview" on page	Provides a basic overview of the available functions. A link to additional information is provided for each function.
"Using the ER/Studio Enterprise Portal" on page	Explains how to use the various dashboards to access and view metadata information stored in ER/Studio models.
"Administrator's Guide" on page	Discusses the responsibilities and functions that can only be performed by a system administrator.
"Glossary" on page	Defines words used in Enterprise Portal and this documentation.

Additional Product Resources

The Embarcadero Web site is an excellent source for additional product information, including white papers, articles, FAQs, discussion groups, and the Embarcadero Knowledge Base.

Go to www.embarcadero.com/support, or click any of the links below, to find:

- Documentation
- Online Demos
- Technical Papers
- Discussion Forums
- Knowledge Base

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> **NOTE:** Evaluators receive free technical support for the term of their evaluation (14 days).

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When contacting Embarcadero Technologies Technical Support please provide the following to ensure swift and accurate service:

Personal Information

- Name
- Company name and address
- Telephone number
- Fax number
- Email address

Product and System Information

- Embarcadero product name and version number. This information is found under Help, About.
- Your client operation system and version number.
- Your database and version number.

Problem Description

A succinct but complete description of the problem is required. If you are contacting us by telephone, please have the above information, including any error messages, available so that an Embarcadero Technical Support Engineer can reproduce the error and clearly understand the problem.

There are three ways to contact Embarcadero's Technical Support department:

- Via the Web
- Via Phone
- Via Email

Via the Web

Embarcadero Technical Support provides an online form that lets you open a Support case via the Web. To access this form, go to http://www.embarcadero.com/support/open_case.jsp.

We normally acknowledge the receipt of every case on the same day, depending on the time of submission.

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- upgrade@embarcadero.com - Request upgrade information
- key@embarcadero.com - Request a product key
- wish@embarcadero.com - Make a suggestion about one of our products

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- uk.support@embarcadero.com- Get technical support for users and evaluators
- uk.upgrade@embarcadero.com - Request upgrade information
- uk.key@embarcadero.com - Request a product key
- uk.wish@embarcadero.com - Make a suggestion about one of our products

ER/Studio Enterprise Portal Overview

Architecture and Security, two key components of the Enterprise Portal are covered in this section:

- "Architectural Overview"
- "Security Overview"

Architectural Overview

The following architectural components are explained with links to related topics:

- "ER/Studio Repository"
- "Business Intelligence (BI) Platform"

ER/Studio Repository

The ER/Studio Repository database is the only source of data for the Enterprise Portal. A separate reporting database, created by the database Admin, is synchronized with the ER/Studio Repository. The synchronization is scheduled by the Enterprise Portal system administrator. For more information, see "Administrator's Guide" .

The reporting database is optimized for quick and efficient reporting of business-related metadata. Access to the Reporting database is provided by JNDI (Java Naming and Directory Interface) connections and allows access to SQL Server, and Oracle, DB2 (among others). All queries and reports are sourced from the Reporting database.

The reporting database contains properties for logical and physical model objects.

NOTE: Initially, physical properties that are specific to a relational database platform and/or version will not be extracted from the ER/Studio Repository or transferred to the reporting database.

The following ER/Studio object types are synchronized between the two databases:

Model Objects	Dictionary Objects	Data Lineage Objects
Project	Dictionary	Data Lineage Source
Diagram	Attachment type	Data Lineage Table
Model	Attachment	Data Lineage Column
Submodel	Attachment Text List	Data Movement Column
Entity	Bound Attachment	
Entity Display	Domain	
Relationship	Reference Value	
Relationship Display	Reference Value Pair	
Attribute	Security type	
View	Security Property	
View Column	Security Text List	
View Display	Bound Security Property	

Business Intelligence (BI) Platform

The Pentaho Open Source Business Intelligence Platform (version 1.7 GA) is the heart of the Enterprise Portal. The BI Platform receives and processes all user data requests and sends the results to the browser for presentation. User authentication is performed against the ER/Studio Repository database. Diagram access granted in the ER/Studio Repository is also used by the Enterprise Portal reporting.

Pentaho's reporting capabilities are combined with the Repository Reporting database to build the Enterprise Portal. The following Pentaho BI Platform functionality is in use:

- Solution Engine: Accepts user requests and invokes the required component to satisfy the user request.
- Data Integration Engine: Runs the Extract, Transform and Load (ETL) jobs designed using the Data Integration Designer.

Security Overview

The Pentaho BI Platform authenticates users prior to running queries and reports. Each user must type in a user name and password that is assigned by the ER/Studio Repository administrator and stored in the ER/Studio Repository database. Authentication is performed against the user name and password.

NOTE: The user of the portal does NOT have to be an ER/Studio user. The licensing for the two products are separate.

All authenticated users are granted the ability to access the following pages:

- Home
- Explore
- Reports
- Activity
- Search and Advanced Search

Security Components

The primary components of security in the Enterprise Portal are users, groups, and permissions. Users and groups are not defined within the Enterprise Portal itself, but within the ER/Studio Repository. Permissions are granted based on a role.

NOTE: Permissions in the Enterprise Portal are specified by role, not user.

Default Roles

Two default roles are provided initially in the ER/Studio Repository. These roles are granted permissions to access actions in the Enterprise Portal.

Role	Definition
User	Users assigned to this role can execute Shared Custom Reports as well as Business and Technical Reports.
Super User	Users assigned to this role has the ability to run any reports or searches and can perform functions in the Administration console.

Action Security

After authenticated in the platform, each user is restricted to perform actions granted to the user’s role, which must be explicitly granted by the Admin. Other users can be assigned to the role of Admin in the Enterprise Portal at the Admin’s discretion. A user with Admin permissions must first grant permission to other groups before the member users of those groups can execute actions.

Object Security

Each user is restricted to accessing the data related to the diagrams that they have access to in the ER/Studio Repository. Upon successful user authentication, the BI Platform runs a query against the ER/Studio Repository to determine the list of diagrams that the user has access to.

Using the ER/Studio Enterprise Portal

This chapter discusses how to share, browse, and report on the data contained in the ER/Studio Repository using the various Web pages, information panels, and wizards. The information is divided into the following topics:

- “Starting the Enterprise Portal Application”
- “Dashboards”
- “Searching the Reporting Database”

Starting the Enterprise Portal Application

Once the installation is complete, open a supported Web browser and browse to `http://<`**`host`**`>:<`**`port`**`>/ersportal/`, where <host> and <port> are the values you specified during the Enterprise Portal installation. The browser will show the portal Login page. Enter a valid login and password for the ER/Studio Repository as specified in the Enterprise Portal installer. If the Administrator enabled Lightweight Directory Access Protocol (LDAP) support during the installation, you will need to provide your domain name as part of your user name in the format of *domain name**username*. The login must be a user with the Super User role in the ER/Studio Repository to access the Admin functionality in the portal.

NOTE: If, during the login process, an error message displays such as “Template could not be loaded...”, the Enterprise Portal server may need to be restarted. In this case, please contact the Enterprise Portal Administrator.

Dashboards

Your interaction with the Enterprise Portal is via the Business Information (BI) Platform. The dashboard displays various information panels. The information that appears depends on which link you click.

Link	Icon	Information Panel
“Home”		Gives you access to four frequently used functions in the Enterprise Portal. It also gives quick access to Favorite Searches and Favorite Reports. This is the default page that appears when you first start the Enterprise Portal.
“Explore”		Provides both a tree interface for structured browsing and detailed reports for selected diagrams, models, and submodels.
“Reports”		Gives you access to existing shared reports: Business and Technical. The Solution Browser, available via the Reports menu item, includes not only the “standard” reports provided by Embarcadero but also any custom reports that have been created for shared use.
“Activity”		Displays three information panels displaying login activity, connection activity, and object history. Reports based on this information can be generated and viewed.

Link	Icon	Information Panel
“Admin”		In order to see the Admin link and view the Admin dashboard, you must be logged in as an administrator. Administrators can manage licenses, permissions, data synchronization, schedules, and refresh the Business Intelligence (BI) Server settings on the Admin page.

The following navigational commands appear in the upper right corner of the Web page: Logout and Help. The simple and advanced search features also appear on the toolbar. For more information, see “Using the Simple Search” and “Using the Advanced Search” .

Home

The Home dashboard gives you quick access to the major features available in the Enterprise Portal:

Feature	Description
“Explore”	You can explore diagrams, models, submodels, and objects of existing ER/Studio Enterprise projects.
“Advanced Search” on page 36	Search the ER/Studio Enterprise Repository with this advanced search feature. Refine your search of the Repository using parameters such as modification date and object type, and various wildcard characters.
“Favorite Searches”	Save search criteria in a named search that appears in the My Searches list. Saved searches can be shared and when shared will appear to other Portal users in the Shared Searches area. From here you can also email the search results or delete the search.
“Custom Reports” on page 21	Create and publish custom reports using a quick and easy wizard.
“Shared Reports” on page 19	Displays the Solution Browser where you can run existing Business and Technical reports. Saved custom reports can also be run.
“Favorite Reports”	Save report parameters in a named report that appears in the My Reports list. Saved reports can be shared and when shared will appear to other Portal users in the Shared Reports area. From here you can also email the reports or delete the report.

Explore

Browse the Repository using the Explore dashboard which can be accessed by either clicking in the Browse the ER/Studio Repository or by clicking the Explore dashboard icon. The Explore dashboard provides a hierarchical-based navigation of the repository projects. This hierarchy displays the project name, diagram, model, and submodel of the report repository. As you click the links in this hierarchy, reports open. From the reports you can then drill down into detailed reports, save these reports in various file formats and view images of models and submodels. For more information, see “Viewing Model and Submodel Images” .

1 Click **Explore** and a hierarchy of the projects in the report repository open.

2 You can explore and create reports for diagrams, model, and submodels. For more information, see

- “Viewing Diagram Reports”
- “Viewing Model Reports”
- “Viewing Submodel Reports”

Viewing Model and Submodel Images

The actual images of both the models and submodels can viewed after you have opened a basic report from the repository hierarchy.

1. Click **Explore** to view the report hierarchy.
2. Expand the hierarchy and click a model or submodel in the hierarchy.
3. In the report that appears, click **View Image** located on the right side of the page.

   The submodel diagram, which has been reduced to fit on one page, appears.
4. Zoom in to view the details on the diagram.

   The zoom behavior is browser-specific. For example, in Internet Explorer, you can use `Ctrl` + the mouse wheel to zoom to an arbitrary level of detail.

Viewing Diagram Reports

This report displays the diagram name and models in that diagram.

1. Click **Explore** to view the report hierarchy.
2. Expand the hierarchy and click a diagram name in the hierarchy and a basic report appears.
3. Click **View as report** and the associated report appears displaying the following options and information:

Field	Description
View As PDF View as XLS	Click the respective link to view the report in PDF format within the browser or save the report in XLS format.
Diagram File	Name of the diagram is displayed.
Author	Creator of the diagram.
Version	Iteration of the diagram.
Company	Name of the company generating the diagram.
File Name	Name of the dm1 file containing the diagram.
Project	Name of the Repository project containing the diagram.
Create/Modified Date	Creation date of the diagram. The Modified date displays the last time the diagram was modified.
Related Reports	Click the Attachments link to run a separate “Attachments of Objects” report which can be viewed and/or saved.
Definition	Definition of the diagram.
Logical Model	Lists all logical models associated with the diagram. The Notation, Style, and Platform of each model are also displayed. Click on the Logical Model name to open the report for that model.
Physical Model	Lists all physical models associated with the diagram. The Nation, Style, and Platform of each model are also displayed. Click on the Physical Model name to open the report for that model.

4. Click a Logical and/or Physical model, to drill down to detailed submodel, entity, relationship information, and to view reports.
5. The report displays by default in HTML format, which you can save and print as usual. You can also view or save your report in either PDF or XLS formats by clicking the appropriate View as link.

Viewing Model Reports

This report displays the model name, submodels, entities, relationships, and views associated with the selected model.

1 Click **Explore** to view the report hierarchy.

2 Expand the hierarchy and click the model name to view the basic model report.

3 Click **View as report** and the associated report appears displaying the following information:

Field	Description
View as PDF View as XLS	Click the respective link to view the report in PDF format within the browser or save the report in XLS format.
Model	Displays the model name.
Notation	Displays the type of relationship notation used in the model.
Style	Displays the type of model.
Project	Name of the Repository project containing the model.
Diagram File	Displays the diagram file name. Click the name of the diagram file to open a diagram detail report for the dm1 file containing the diagram.
Related Reports	Related reports displaying additional information. The available reports are: **Attribute Definitions**: Displays the detail report displaying model attributes. **Entity Definitions**: Displays the detail report of entity definitions for the model. **Business Rules**: Displays the detail report of business rules for the model. **Attachments**: Displays the Entity Attachments detail report for the model. **Security Information**: Displays the detail report of security classifications of objects for the model.

4 The report displays four sections: Submodels, Entities, Relationships, and Views. You can open detailed reports for the elements listed in each of these sections.

- The Submodels section displays the Submodel name and image. Click the model name to open a detailed report on the selected submodel with information on Entities, Relationships, and Views. Click **View Image** for a selected submodel and a graphic of the submodel appears. Save, copy and/or print this image by right-clicking in the image and choosing the desired command from the context menu.
- The Entities section displays the Name and Definition of each associated entity. Click the entity name and a detailed report appears showing the Name, Definition, Data type, Domain, Key Type and Allow Nulls information for the selected entity.
- The Relationship Section displays the Parent Entity, Child Entity, Type, Existence, Cardinality, Verb, and Inverse for each associated relationship. Click the Parent or Child Entity name to open a detailed report showing Name, Definition, Data Type, Domain, Key Type, and Allow Nulls information for the selected item.
- The Views section displays the View and Owner of the associated view. Click the name of the view and a detailed report appears displaying the Name, Alias, Expression, and Sequence of the selected item.

Viewing Submodel Reports

The submodel report shows the entities, relationships, and views of the submodel associated with the model.

1 Click **Explore** to view the report hierarchy.

2 Expand the hierarchy and click the submodel name to view the basic submodel report.

3 Click **View As Report** and the associated report appears displaying the following information:

Field	Description
View as PDF View as XLS	Click the respective link to view the report in PDF format within the browser or save the report in XLS format.
Submodel	Displays the name of the submodel.
Notation	Displays the type of relationship notation used in the model.
Style	Displays the type of model.
Project	Name of the Repository project containing the submodel.
Diagram File	Displays the diagram file name. Click the name of the diagram file to open a diagram detail report for the dm1 file containing the diagram.
Parent Model	Displays the parent model. This is linked to the detailed report for that model.
Related Reports	Related reports displaying additional information. The available reports are: **Attribute Definitions**: Displays the detail report displaying the attributes and their definitions for the model. **Entity Definitions**: Displays the detail report of entity definitions for the submodel **Business Rules**: Displays the detail report of business rules for the submodel. **Attachments**: Displays the Entity Attachments detail report for the submodel. **Security Information**: Displays the detail report of security classifications of objects for the model.

4 The report is divided into four sections: Definition, Entities, Relationships, and Views.

- The Definition section displays the definition or description of the submodel.
- The Entities section displays the Name and Definition of each associated entity. Click the entity name and a detailed report appears showing the Name, Definition, Data Type, Domain, Key Type and Allow Nulls information for the selected entity.
- The Relationship section displays the Parent Entity, Child Entity, Type, Existence, Cardinality, Verb and Inverse for each associated relationship. Click the Parent or Child Entity name to open a detailed report showing Name, Definition, Data Type, Domain, Key Type, and Allow Nulls information for the selected item.
- The Views section displays the View and Owner of the associated view. Click the name of the view and a detailed report appears displaying the Name, Alias, Expression, and Sequence of the selected item.

Saving Your Reports

To save reports in different file formats.

File Format	Description
PDF (Portable Document Format)	Displays an Adobe Acrobat® document.
XLS (Microsoft Excel Spreadsheet)	When you click this format a File Download dialog appears. Click Save and a Save As dialog appears. **Note**: You can also select Open where the report appears in a spreadsheet as a read-only file. Select the location, enter a file name, and click Save. The report is saved with an .XLS file extension.

Reports

The Reports command displays the Solution Browser. The two sections are:

- **Shared Reports** which displays pre-prepared reports installed in the portal as well as any reports created for public use. For more information, see “Generating a Shared Report” .
- **User Actions** which displays user-created reports and their execution status. *My Reports* shows details of reports that have been scheduled for execution in the background or have already been executed, and *New Report*, which lets you create custom reports. For more information, see “Viewing the Status of Reports Running in the Background” and “Creating a Custom Report” .

You can change the appearance of this page by clicking on the View options located in the upper right corner of the Solution Browser:

Command	Description
Icons	Displays an icon and the action or report name for each Solution.
List	Displays an icon, the action or report name, and a description of each Solution. It also displays and Author column showing who created the Solution item.
Default	Displays the same information as the List command.

Generating a Shared Report

The Shared Reports section of the Solution Browser displays standard reports available with the portal as well as any reports created for public use. You can also access these reports by clicking Run a Shared Report on the Home page.

Generating a Shared Report

1. Click **Reports** on the Dashboard.
2. Click **Business Reports** or **Technical Reports** located in the Shared Reports section of the Solution Browser.
3. Click the name of the report you want to run.

   TIP: See the notes that follow for descriptions of standard reports.

   NOTE: Although other users can see all shared reports, they can only successfully run reports that access objects that their user permissions grant them access to. Attempting to run a shared report that accesses objects to which permission has not been granted will result in an error.

4. On the new Report page that opens, choose the parameters for the report.
5. From the **View as** list, choose the desired type of output for the report results: html, pdf or xls.
6. *To run the report immediately*, click **Run**.

   To run the report in the background, click **Run in Background**. You can view the status of reports run in the background by clicking **Reports** dashboard **> User Actions** section **> My Reports** option.

   To add the report with your chosen parameters to the Report Favorites section of the Home page, click **Add to Favorites**. In the **Add to Favorites** dialog that opens you have an opportunity to share the report and make it public.

   To send the report results to an email address, click **Send by email**. In the **Email Report** dialog that opens, enter the email of the intended recipient.

The following describes the standard types of shared reports and their uses:

Business Reports: There are three available business reports for logical models:

- **Attribute Definitions**: The detail of this report list attribute names and definitions. This report is also accessible from the Logical Model and Logical Submodel reports. If the report is run from the Shared Reports section, you are prompted to supply values for Project, Diagram, Model, and Submodel. Your selection filters the results of the report. If the report is run from any of the detail reports, the values will come from that report.
- **Business Rules**: The detail of this report lists the business rules. This report is also accessible from the Logical Model, Logical Submodel, and shared business reports. If the report is run from the shared reports, you are prompted to supply values for Project, Diagram, Model, and Submodel within the project. Your selection filters the results of the report. If the report is run from any of the detail reports, the values will come from that report.
- **Entity Definitions**: This report lists the entity names and their definitions. The details of this report list entity names and their definitions. This report is also accessible from the Logical Model, Logical Submodel and shared business reports. If the report is run from the shared reports, you are prompted to supply values for Project, Diagram, Model, and Submodel within the project. Your selections will filter the results of the report. Otherwise, if the report is run from any of the detail reports, the values will come from that report.

Technical Reports: When you click the Technical Reports link in the Shared Reports section of the Solution Browser, five different reports are available:

- **Column Data Lineage**: Displays the data lineage for physical columns or logical attributes within a specified entity. This report is part of the technical reports. The details of this report list the column data lineage properties. This report is accessible from the Table Detail report and technical reports. If the report is run from the technical reports, you are prompted to supply values for Project, Diagram, Model, Submodel, and Entity within the project. Your selection filters the results of the report. Otherwise, if the report is run from any of the detail reports, the values will come from that report.
- **Domain Bindings**: Displays information about the attributes or columns bound to a domain within a specified data dictionary. The details of this report list the objects to which the domain is bound. This report is also accessible from the Domain detail report. If the report is run from any of the detail reports, the values will come from that report.
- **Entity, Submodel, Model, Diagram**: Displays the names of the model, submodels, and entities in a specified diagram. The details of this report list information about all of the entities in a selected project, diagram, model, and submodel in the diagram. You are prompted to supply values for Project and Diagrams within that project. Your selection filters the results of the report. Otherwise, if the report is run from any of the detail reports, the values will come from that report.You can navigate to the Models, Submodels, and Entities of that diagram by clicking on the model name, submodel name, or entity.
- **Entity Attachments**: Reports on the attachments bound to a specified entity. The details of this report list the attachments bound to an object. This report is accessible from the Diagram, Logical Model, Logical Submodel, Physical Model, Physical Submodel, Entity, Table, Logical View, Physical View, and Domain reports, and technical reports. If the report is run from the technical reports, you are prompted to supply values for Project, Diagram, Model, Submodel, and Entity within the project. Your selection filters the results of the report. Otherwise, if the report is run from any of the detail reports, the values will come from that report. This report will contain a grouping by attachment type, with attachment types sorted alphabetically.
- **Reference Values**: Displays the reference values for attributes within a specified entity. The details of this report list the reference values of attributes. If the report is run from the technical reports, you are prompted to supply values for Project, Diagram, Model, Submodel, and Entity within the project. Your selection filters the results of the report. Otherwise, if the report is run from any of the detail reports, the values will come from that report.
- **Security Classifications**: Displays information about the security classifications of a specified entity. The details of this report list the security attachments bound to objects. This report is accessible from the Diagram, Logical Model, Logical Submodel, Physical Model, Physical Submodel, Entity, Table, Logical View, Physical View, and Domain reports, and technical reports. If the report is run from the Technical Reports, you are prompted to supply values for Project, Diagram, Model, Submodel, and Entity within the project. Your selection filters the results of the report. Otherwise, if the report is run from any of the detail reports, the values will come from that report.

Viewing the Status of Reports Running in the Background

The My Reports command displays the collection of reports you have submitted to run in the background on the server.

To gain access to these reports:

1. Click **Reports** on the dashboard to open the Solution Browser page.
2. Click **My Reports** located in the User Actions section of the page.

   The report is divided into three sections:

   Waiting: These are the reports that you have submitted to run in background on the server. The table shows the following data:

   - Name of the report
   - Date and time the report is scheduled to be run
   - Size of the report shown in kilobytes
   - Type of report: The completed report can be displayed in either application or PDF
   - Action for each report: Cancel

   Complete: The reports that have already run.

   - Name of the report run
   - Date and time the report was run
   - Size of the report shown in kilobytes
   - Type of report: The completed report can be displayed in either text or HTML
   - Action for each report: **View** or **Delete**

   Subscriptions: You can cancel ones that have not run yet, and you can view or delete ones that have.

There is also a Clear Toolbar Alert command. If you run reports in the background, when the report is finished, a **New Files** message appears. This option removes that message.

Creating a Custom Report

The **New Report** command displays a wizard which steps you through the creation of a business model report. Custom reports are created using the Web Adhoc Query and Reporting tool (WAQR), a report generation tool designed to help you easily generate adhoc reports using the BI platform.

1. Click **Create a Custom Report** on the Home page.

   TIP: Alternatively, click **Reports** on the Dashboard, and then click **New Report** located in the User Actions section of the page. This displays the creation wizard.

2. Follow the four steps required to create a new report.

- "Step One:" : Select a Business Model and apply a template
- "Step Two" : Select elements to include in the report
- "Step Three" : Set constraints, formatting, calculations, and column sorting options
- "Step Four" - Configure report appearance settings

Step One: **Select a Business Model**

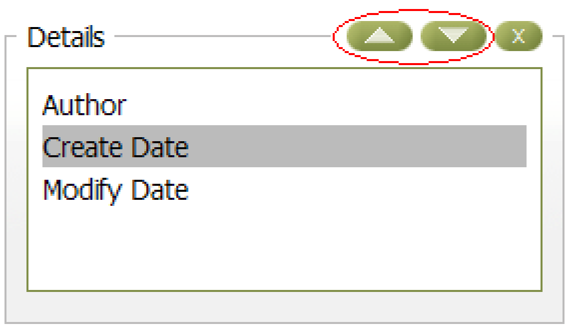
1. First, select a business model. Notice that as you select a model, the associated details and descriptions appear in the panels to the right of the Business Models list
2. Select a template for your report. A thumbnail of the selected template appears when you select a template type. The template provides pre-selected values for the report header/footer content and colors, page header/footer content and colors, and header/footer font name, size, text color and alignment.

Step Two: **Make Selections**

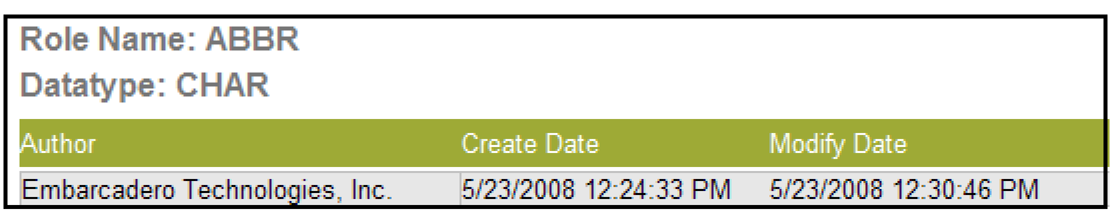
1. Click **Next** to advance to Step Two. The Available Items for the Business Model you selected are listed. You can then use the available items to add data to your report.
2. To add an item to one of the Groups, Details, or Filters lists, begin by clicking on any of the available items shown. If you want to select more than one item, hold down the Ctrl-key while clicking on the items.
3. Then click on one of the arrow buttons next to the Groups, Details, and Filters lists, or drag and drop the item onto the desired list. When you have moved an item, that item appears italicized in the Available Items list boxes.

NOTE: In the Groups section, if you want to place items in Levels 2-5, you must drag and drop items into those levels. If you select an item and click the right arrow, all items are placed in Level 1.

- Reorder items in a list by selecting the desired item, and clicking the up or down arrows. You can also drag and drop to reorder items in the list. Use drag and drop if you want to move items between the Groups, Details, and Filters lists.



- Delete an item by selecting it and then clicking  .
- Select the items you want to include in the Group selections. You can have up to five levels. The group selection determines how the data is grouped. In the following example Level 1 is *Role Name* and Level 2 is *Datatype*.



Role Name: ABBR
Datatype: CHAR

Author	Create Date	Modify Date
Embarcadero Technologies, Inc.	5/23/2008 12:24:33 PM	5/23/2008 12:30:46 PM

- The Details selections determine what data is to be generated in each column for the report. In the following example, the Company, Project Name, Create Date, and Modify Date items were selected.

Company	Project Name	Create Date	Modify Date
Embarcadero Technologies	Back Office	5/23/2008 12:29:18 PM	5/23/2008 12:29:39 PM
Embarcadero Technologies	Back Office	5/23/2008 12:32:45 PM	5/23/2008 12:33:09 PM
Embarcadero Technologies	Back Office	5/23/2008 12:35:36 PM	5/23/2008 12:37:32 PM
Embarcadero Technologies	Data Warehouse	5/23/2008 12:25:19 PM	5/23/2008 12:27:51 PM
Embarcadero Technologies	Investments	10/18/2005 12:17:56 PM	5/23/2008 9:59:03 AM
Embarcadero Technologies, Inc.	Back Office	5/23/2008 12:23:56 PM	5/23/2008 12:31:24 PM
Embarcadero Technologies, Inc.	Work In Progress	5/23/2008 12:24:33 PM	5/23/2008 12:30:46 PM

NOTE: The only requirement for a valid report is to have at least one column in the Details list. When you add a column to the details list, the Go**,** Save, and Save As buttons become enabled.

NOTE: You can preview your report as you create it. From the **Preview As** drop-down box, select the type you want the report displayed in (HTML, PDF, Excel, and CSV). When you have selected the **Preview As** type, click **Go** and the report preview appears.

- Filters provide a mechanism for identifying columns that you can apply constraints to, but that do not appear in the report. A constraint limits the set of values returned for the constrained column. You can apply constraints to filters in the next step.

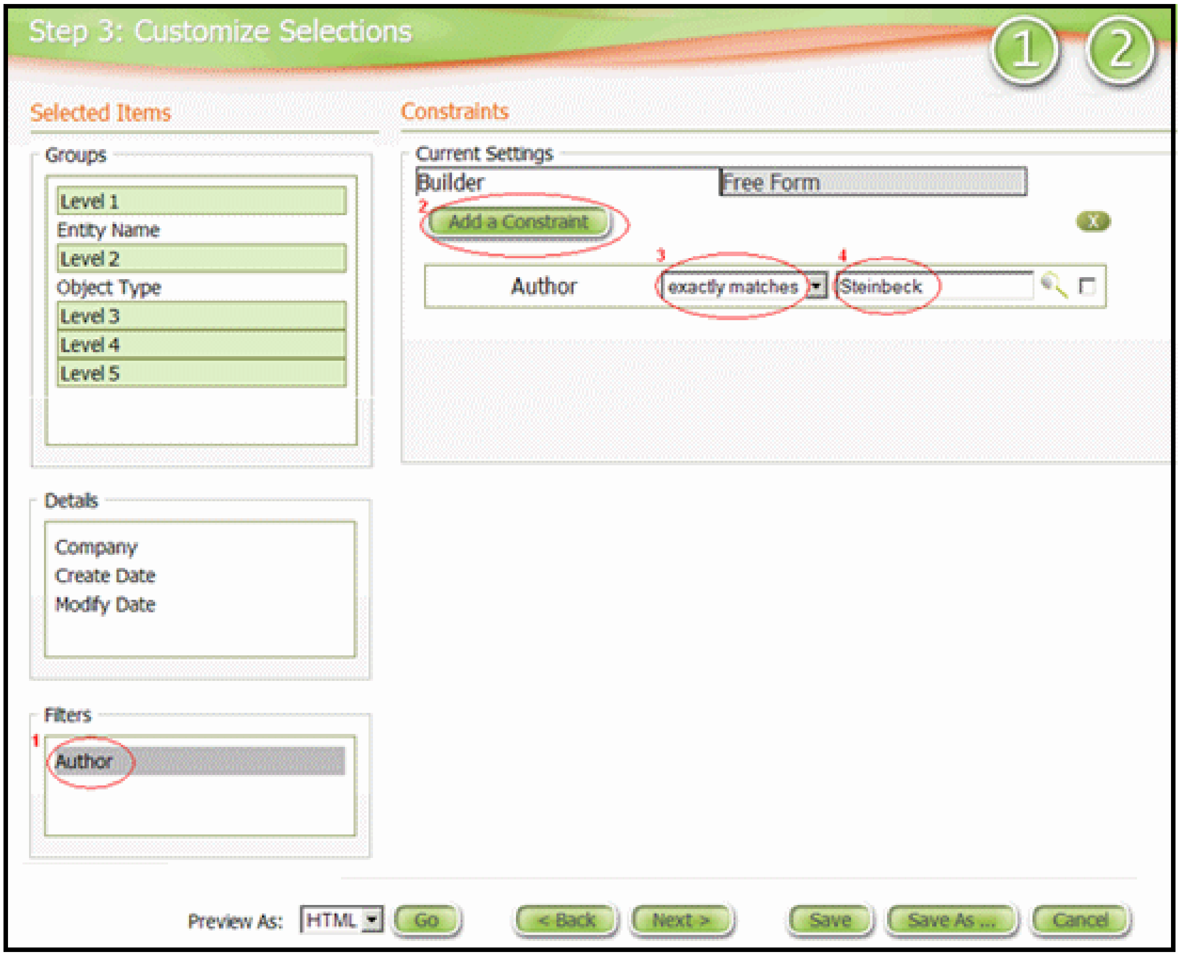
Step Three: **Customize Selections**

In Step Three you can set constraints, formatting, calculations, and column sorting options. You can also customize the appearance of your selections. Your selected items are shown on the left side of the page.

1 Click **Next** to advance to Step three.

2 Do the following to set constraints for each data item to filter what information appears in the report.

- Select the data item in the Filters box
- Click **Add a Constraint**
- Select the constraint you want to set from the drop-down list: exactly matches, contains, ends with, begins with, or does not contain.
- Enter the information that determines the constraint.

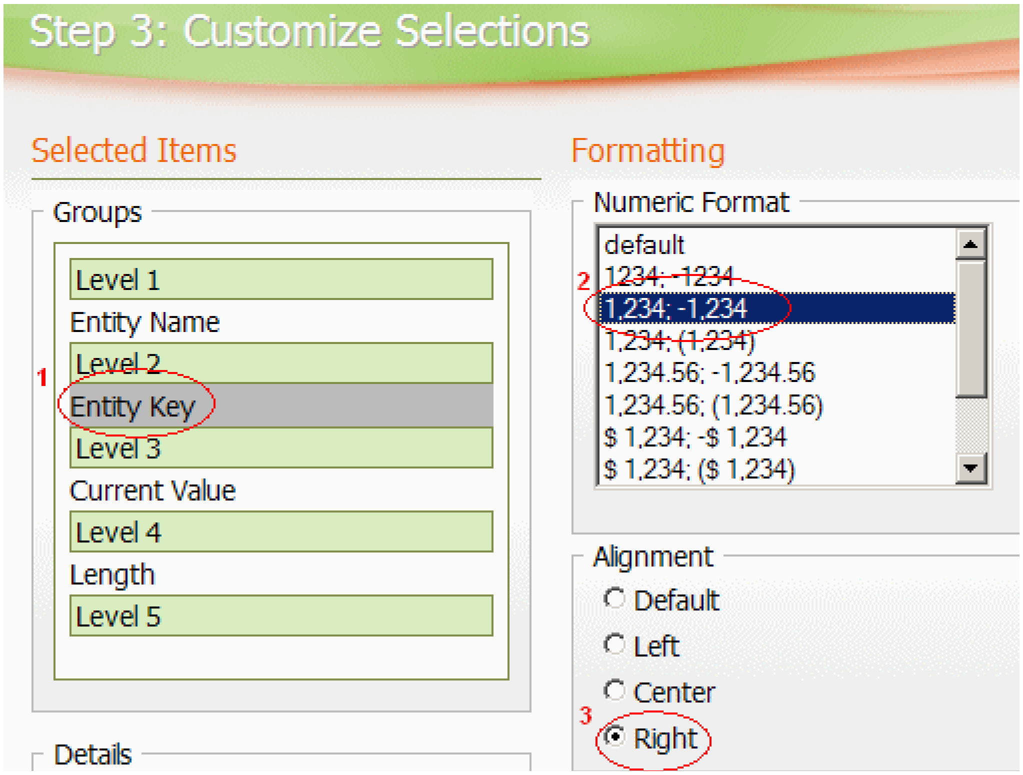


3 In the Groups section you can customize how you want each level to appear in the report. Click on a level, for example Level 1, and General options for customizing these levels appears.

- Enter a level name in the text box.
- In the Options section, you can choose to repeat the group header and/or show the group summary. If you select the Show Group Summary option, you can enter a label in the Group Summary Label text box.
- You can format where if you want group page breaks, and if so, where you want those breaks placed.

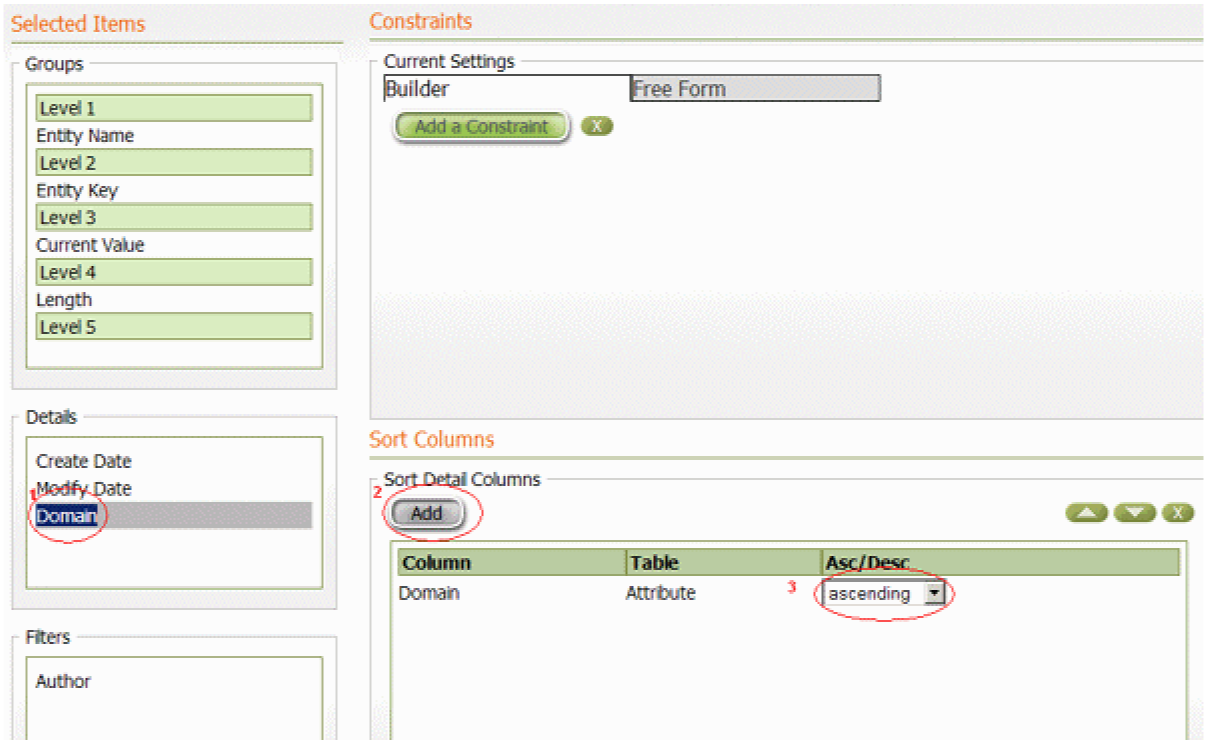
4 You can set formatting and calculations for selected items.

- Select an item in the Groups box. In the following example “Entity Key” is selected.
- In the Formatting panels, if your item is a number, select the numeric format you want to use.
- Select Alignment for where you want the Level name (if previously entered), and Level item placed on the report.



5 You can also set sort orders for column.

- In either the Groups or Details areas, select the item you want to set sort orders for.
- Click **Add** in the Sort Detail Columns panel and select the sort either ascending or descending from the drop-down box.



Step Four: Configure Report Settings

1 Click **Next** to advanced to Step Four where you configure the appearance of the report.

2 To configure the appearance of the report:

- Orientation of the report - how you want the paper to appear in the portrait or landscape orientation.
- Paper size - select the desired size from the drop-down list.
- Report description appears with the report on the Solutions Browser page.
- Header for the report and a header for the page.
- Footer for the report and a footer for the page.

3 When you have entered all the information you can do one of the following commands:

Action	Description
Preview As	Select the type you want the report displayed in (HTML, PDF, Excel, or CSV) and click Go.
Back	Returns you to the previous page where you can make changes to the report setup, etc.
Save	Displays the Save As dialog the first time you save the report. After the report has been saved, clicking Save just saves the report.
Save As	Displays the Save As dialog.
Cancel	Cancels the custom report creation process.

4 Enter the required information in the **Save As** dialog and then click **OK**.

When you save a report definition, three files are generated:

- An .xreportspec file, an XML file describing the report definition so existing reports can be edited and modified. This file has the extension `.xreportspec`.
- A JFreereport file, an XML file created from the xreportspec. This file is used by the JFreereport engine to generate the report. This file has the extension `.xml.`
- An Action Sequence file, an XML file allowing the BI Platform to generate a user interface that facilitates the creation of the report. This file has the extension `.xaction`.

So if you saved your report as "myReport", three files are created on the server:

- myReport.xreportspec
- myReport.xml
- myReport.xaction.

The saved report now appears on the Solution Browser page in the folder where you saved it, for example, in the Shared Reports > Business Reports.

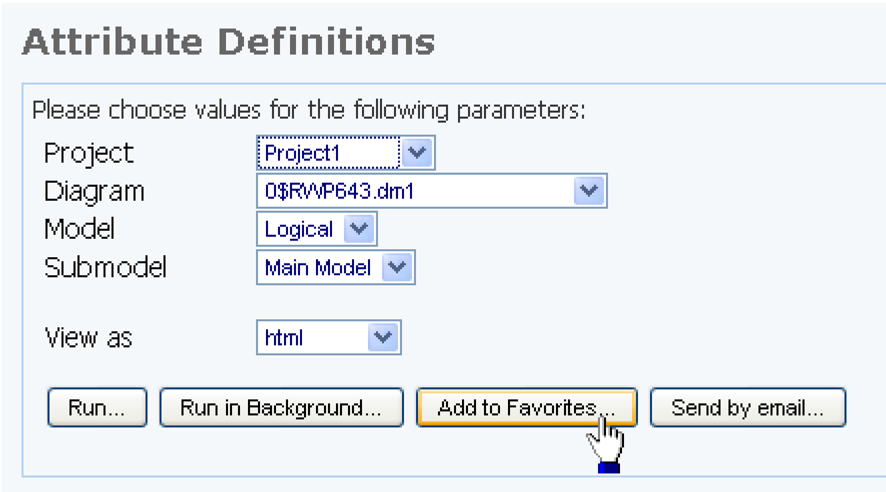
Favorite Reports

You can save the parameters of a standard shared report, by running the report and then adding it to your favorite reports. This can be done for any of the standard reports.

1 From the **Home** page, click **Reports**

2 On the **Reports** dashboard, click **Business Reports** or **Technical Reports**, and then click the icon next to the report you want to run.

3 On the report page, make your parameter selections and then click **Add to Favorites** as follows.



4 Complete the **Add to favorites** dialog; enter a name and description of the report, click **Shared**, and then click **Submit**.

5 Return to the **Home** page where you will see your report listed in the **Favorite Reports** section as follows:

Now, you can run the named report whenever you want. Other users will see shared reports in the Shared Reports area of Favorite Searches.

NOTE: Although other users can see all shared reports, they can only successfully run reports that access objects that their user permissions grant them access to. Attempting to run a shared report that accesses objects to which permission has not been granted will result in an error.

Activity

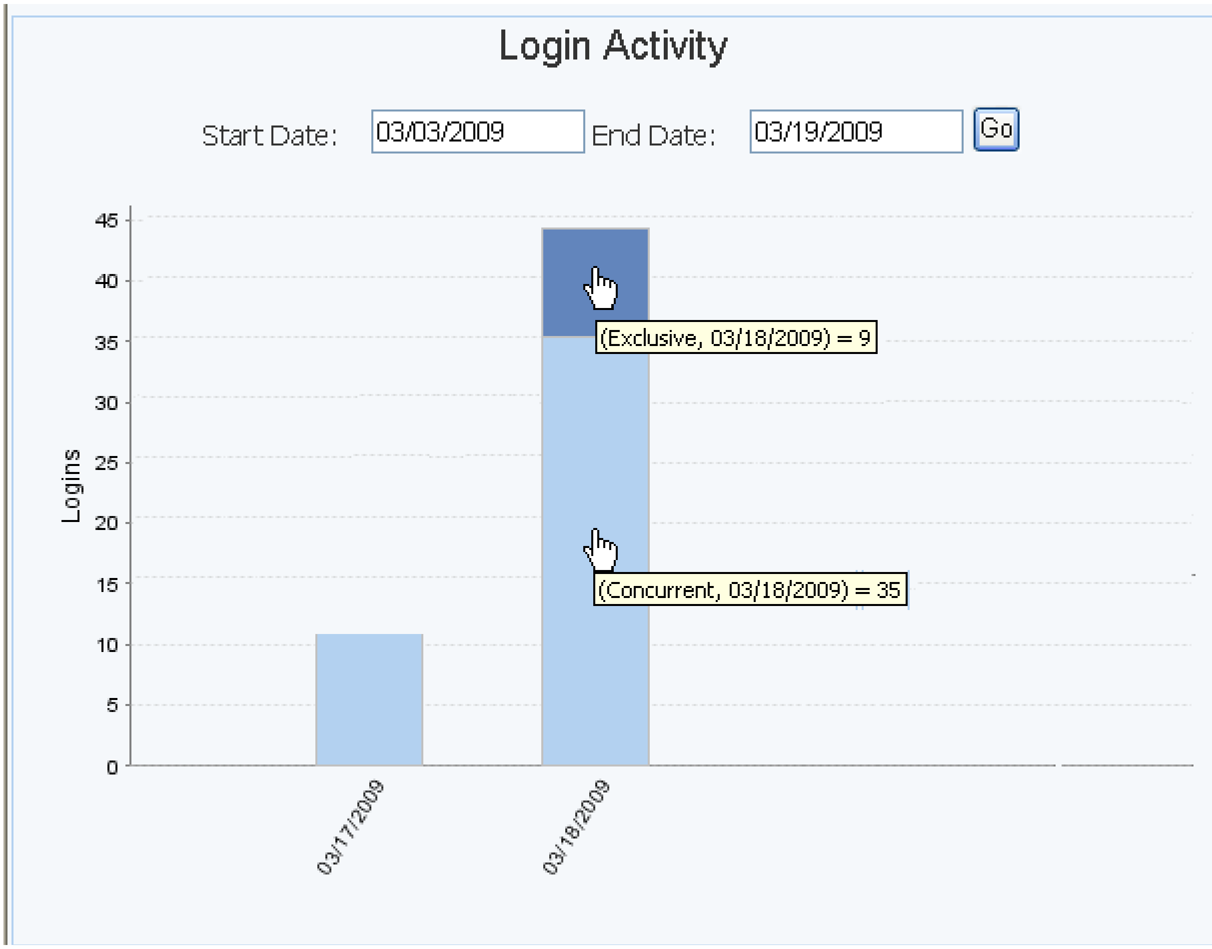
The Activity dashboard provides three information areas allowing you to view and track various activities that have taken place by you and other users. For more information, see

- "Login Activity"
- "Updated Objects"
- "Connection Activity"

NOTE: When specifying the start and end dates for an activity period, keep in mind that the start date is inclusive and the end date is exclusive. Using the same date for both start date and end date will produce no results.

Login Activity

Track and report on all login activity for the Enterprise Portal for a given time period. The Login Activity information panel displays a count of successful users' logins per day for the last 15 days. You can change the time frame by entering the start date and end date criteria and refresh using the browser facility. The results and title of the information panel adjust accordingly. When you hover the pointer over a bar or a part of a bar representing activity for a specific day, the Portal displays information about the bar, such as the number of logins represented and whether the logins were exclusive or concurrent, as shown in the graphic below. When you click a bar representing a particular day, a detailed report of all user logins is displayed in a new window.



NOTE: The graphic above illustrates the text displayed at two different times when the pointer hovered over part of a bar.

Using the Login Activity Feature

1. If the Login Activity panel is not showing on the Dashboard, click **Activity**.
2. Enter the **Start Date** and **End Date** and click **Go**. A chart displaying a bar for each day is displayed.
3. Click the bar for the date you want to view and a report appears showing the User Name, User Description, Login Time, and Connection Type for all users on that date.
4. The report displays by default in HTML format, which you can save and print as usual. You can also view or save your report in either PDF or XLS formats by clicking the appropriate View as link.

View as pdf View as xls

Login Activity Details

Activity Date: 03/18/2009

User Name	User Description	Login Time	Connection Type
Admin	Default Administrator	03:14:29.823	Concurrent
JayneDBArchitect		11:48:34.580	Exclusive
Admin	Default Administrator	11:51:31.310	Concurrent
JayneDBArchitect		11:52:13.940	Exclusive
Admin	Default Administrator	13:03:15.550	Concurrent
Admin	Default Administrator	13:50:33.720	Concurrent
Admin	Default Administrator	13:50:51.153	Concurrent
JayneDBArchitect		13:52:02.107	Exclusive

5 The report is opened on a separate page, so close it to return to the Activity page.

Updated Objects

The Updated Object information panel displays a count of each Object Type in the ER/Studio Repository database updated in the time frame specified. The default is 15 days, with the current day as the end date. You can adjust the time frame and the types of objects displayed. If you click on a particular object type in the graph, such as Attachment, a report listing each object of that type, that was modified during the time frame is displayed. From this list, you can drill down into the appropriate detail report for that object.

View as pdf   View as xls

Updated Object Details

Start Date: 02/10/2009

End Date: 02/26/2009

Object Type: Entity

Event Date	Parent Name	Name	User Name	Operation
2009-02-12 23:39:12.0	Logical	test	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	Address	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	AddressType	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	AWBuildVersion	Admin	Add_Object

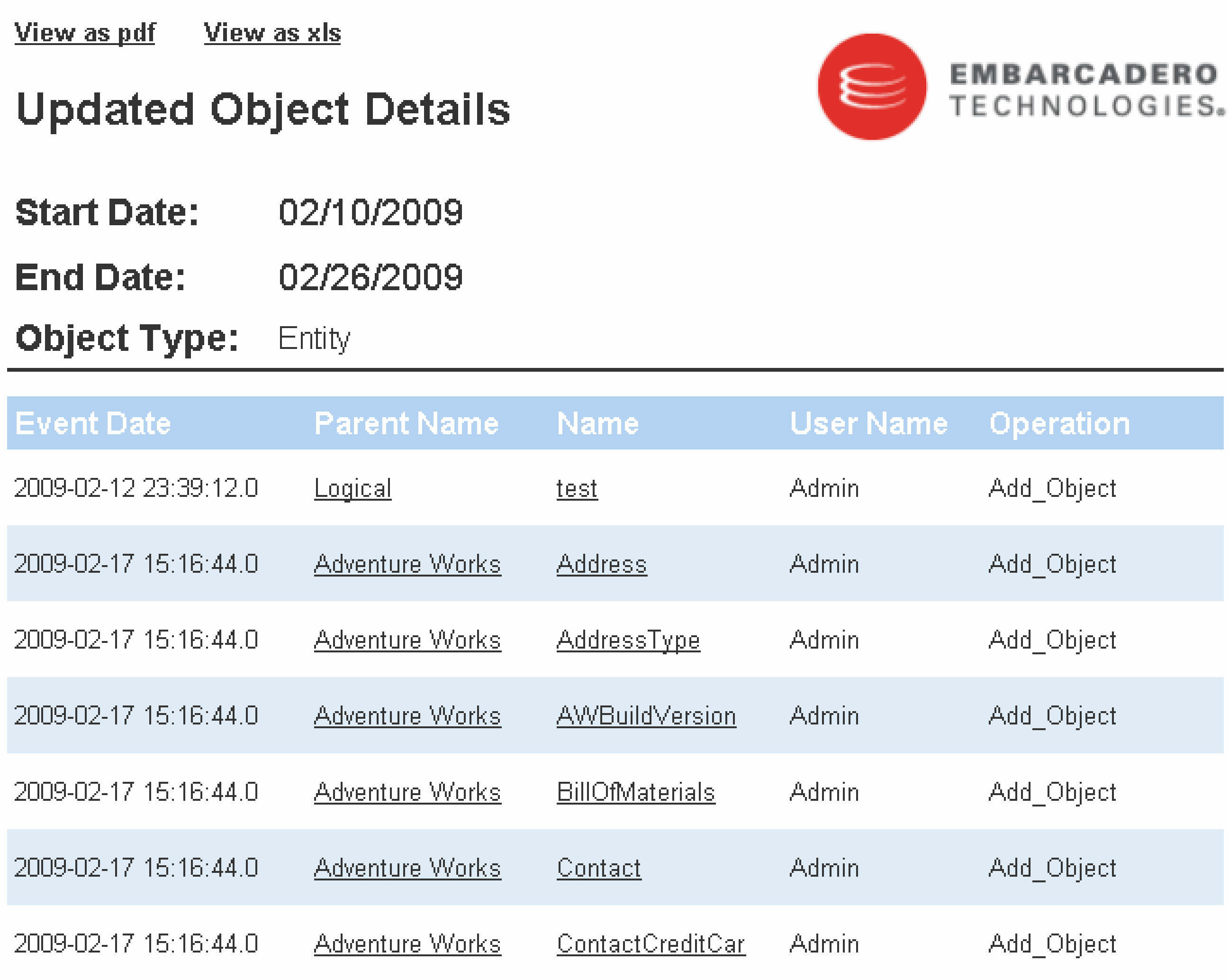
The filters for the updated objects contain the following objects listed in the following order:

- **Model Objects:** Attachment, Attachment Type Attribute, Diagram, Entity, Entity Display, Model, Reference Value, Relationship, Relationship Display, Submodel, View, View Column, and View Display.
- **Dictionary Objects**: Dictionary, Security Property, Security Objects, and User Datatype.
- **Data Lineage Objects**: Data Lineage Source, Data Lineage Table, Data Lineage Column.

Using the Updated Objects Feature

1. If the Object Details panel is not showing on the Dashboard, click **Activity**.
2. In the Updated Objects information panel, enter the Start and End Dates you want included in the report.
3. Select the business model object types you want included (model, dictionary, and/or data lineage) and then click **Go**.

   A chart displaying a bar for each updated object appears.
4. Click the bar for the object you want to view and an Updated Object Details page appears.
5. A report appears showing the Event Date, Parent Name, Name, User Name, and Operation for the selected object. The following sample report shows all the Entity details for the selected time frame.



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Updated Object Details

Start Date: 02/10/2009

End Date: 02/26/2009

Object Type: Entity

Event Date	Parent Name	Name	User Name	Operation
2009-02-12 23:39:12.0	Logical	test	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	Address	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	AddressType	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	AWBuildVersion	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	BillOfMaterials	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	Contact	Admin	Add_Object
2009-02-17 15:16:44.0	Adventure Works	ContactCreditCar	Admin	Add_Object

NOTE: If there are a large number of objects in the selected type, it may take some time to generate a report.

6 Click an object name in the report and an additional report appears showing the detail for that object. The following example shows the report for the object name, “Contact”.

View as pdf   View as xls

Entity: Contact

Table Name:	Contact
Project:	Project2_1_1
Diagram File:	Adventure Works.DM1
Model:	Adventure Works

Related Reports: Attribute Definitions   Attachments   Security Information

Definition

Names of each employee, customer contact, and vendor contact.

Notes

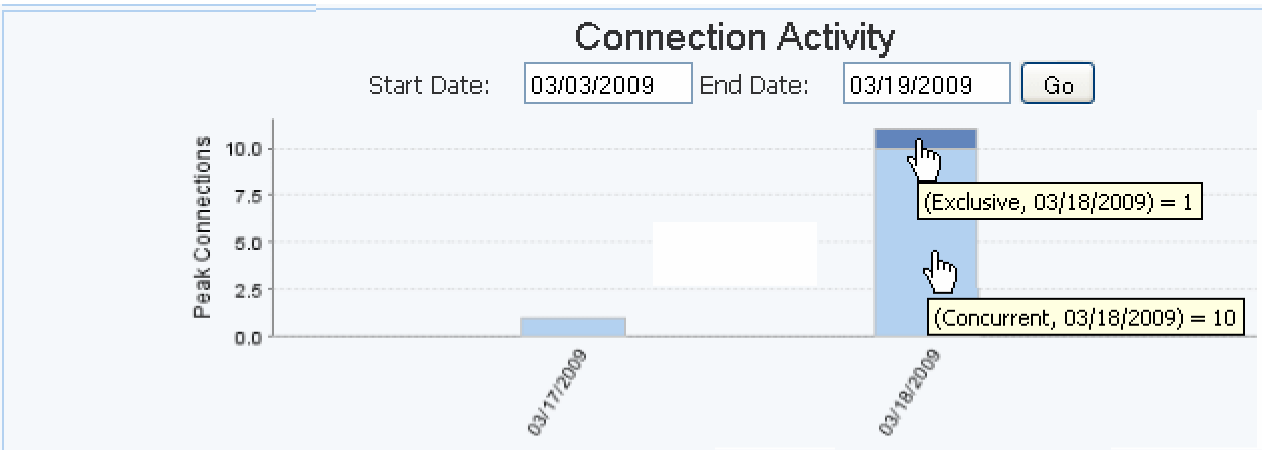
Attributes

Name	Definition	Data Type	Domain
MiddleName	Middle name or middle initial of the person.	nvarchar	
ModifiedDate	Date and time the record was last updated.	datetime	
NameStyle	0 = The data in FirstName and LastName are stored in western style (first name, last name) order. 1 = Eastern style (last name, first name) order.	bit	
PasswordHash	Password for the e-mail account.	varchar	
PasswordSalt	Random value concatenated with the password string before the password is hashed.	varchar	

7 The report displays by default in HTML format, which you can save and print as usual. You can also view or save your report in either PDF or XLS formats by clicking the appropriate View as link.

Connection Activity

You can track and report on all connection activity for the Enterprise Portal for a given time period. The Connection Activity information panel displays a chart of that activity for the last 15 days. You can change the time frame by entering the start date and end date criteria and refresh using the browser facility. The results and title of the information panel adjust accordingly. When you hover the pointer over a bar or a part of a bar representing activity for a specific day, the Portal displays information about the bar, such as the number of connections represented and whether the logins were exclusive or concurrent, as shown in the graphic below. When you click on the bar representing a particular day, a detailed report of all connections is displayed in a new window or tab.

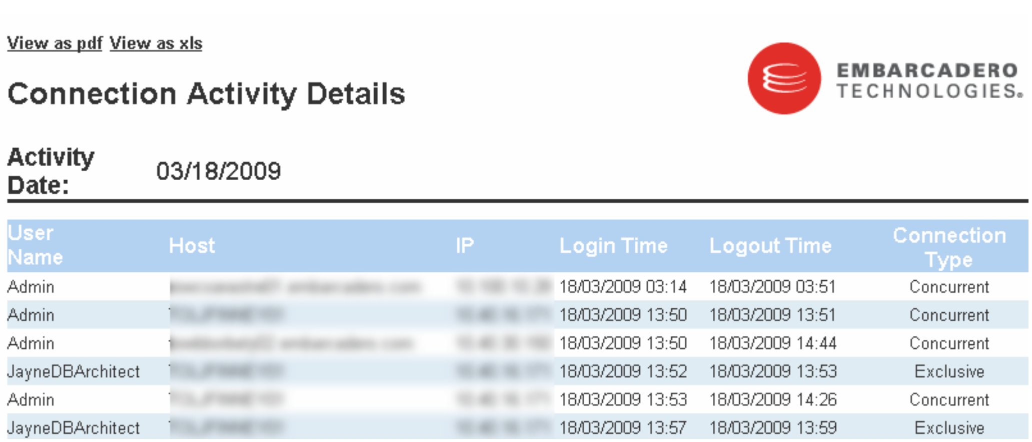


NOTE: The graphic above illustrates the text displayed at two different times when the pointer hovered over part of a bar.

Using the Connection Activity

1. If the Connection Activity panel is not showing on the Dashboard, click **Activity**.
2. Enter the Start and End Dates you want included in the report, and click **Go**. A chart displaying a bar for each day is displayed.
3. Click the bar for the date you want to view and a report appears showing the User Name, Host, IP, Login Time, Logout Time, and Connection Type for the selected day. The following sample report shows all the details for the selected dates.

NOTE: If there are a large number of connections, it may take some time to generate a report.



View as pdf View as xls

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Connection Activity Details

Activity Date: 03/18/2009

User Name	Host	IP	Login Time	Logout Time	Connection Type
Admin	[illegible]	[illegible]	18/03/2009 03:14	18/03/2009 03:51	Concurrent
Admin	[illegible]	[illegible]	18/03/2009 13:50	18/03/2009 13:51	Concurrent
Admin	[illegible]	[illegible]	18/03/2009 13:50	18/03/2009 14:44	Concurrent
JayneDBArchitect	[illegible]	[illegible]	18/03/2009 13:52	18/03/2009 13:53	Exclusive
Admin	[illegible]	[illegible]	18/03/2009 13:53	18/03/2009 14:26	Concurrent
JayneDBArchitect	[illegible]	[illegible]	18/03/2009 13:57	18/03/2009 13:59	Exclusive

4 The report displays by default in HTML format, which you can save and print as usual. You can also view or save your report in either PDF or XLS formats by clicking the appropriate View as link.

Searching the Reporting Database

Use the Search feature to search for text strings within the Reporting database across diagrams, object properties, and object types. The search text you enter is treated as one string by the search engine and is matched accordingly. The Search features has both a simple and an advanced search ability.

- Using the Advanced search, you can save the parameters of the search. Access saved searches from the Favorite Searches area of the Home page.
- Internet Explorer users can also generate a new search engine using the Keyword Search by following directions provided by Microsoft with Internet Explorer 7.
- Searches can be executed immediately with results returned to the browser.
- Both simple and advanced searches are executed against the search index where all searchable text properties are stored as property values. The Admin can place entries into an XML configuration file that will remove object properties from the search index.

Creating Special Search Strings (Using the Query Parser)

To make your searches more precise and to get more useful results, numerous operators are supported in the search string, including the following.

Operator	Search criteria	Example
AND (&&)	Contains ALL the search terms entered	apples AND oranges AND bananas apples && oranges && bananas
OR (||)	Contains at least one of the words entered	cats OR dogs cats || dogs
“ “	Contains the exact phrase entered	“exactly this”
	Does NOT contain some of the words entered	apples NOT oranges NOT bananas
+	Must contain a term and may contain another	+apples oranges
-	Must contain a term and must not contain another	+apples -oranges
?	Matches with a single character replaced	c? (matches cat but not coat
*	Matches zero or more characters	do* (matches do, dog, dogs, dogsled)
~	Terms are spelled similarly	land~ (matches land, sand, band)
“ “~	Terms are found in close proximity to each other	“diagram update”~10 (matches objects where diagram and update appear within 10 words of each other)

The Portal uses Apache Lucene Query Parser to enable these search string operators. There are some special characters that when used within the syntax must be escaped. The following are special characters:

+ - && || ! ( ) { } [ ] ^ " ~ * ? : \

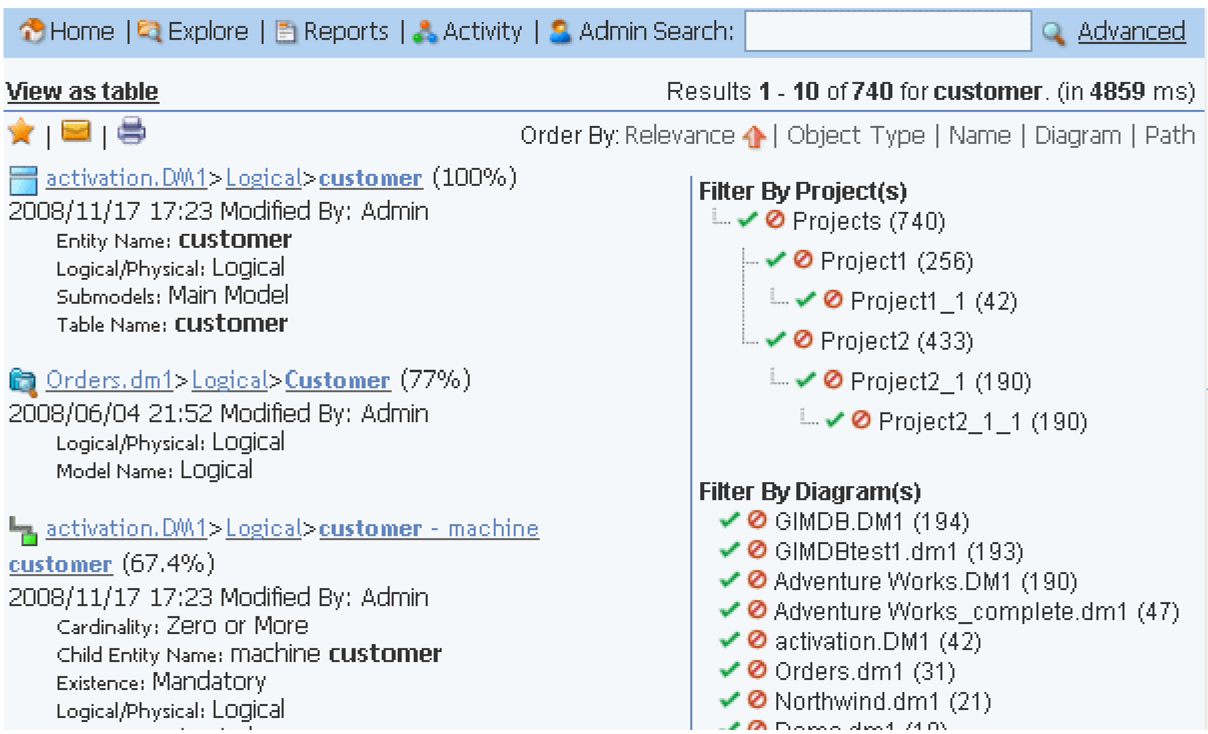
To escape these characters, enter a backslash (\) before the special character.

For more details on the Lucene Query Parser, see http://lucene.apache.org/java/2_4_0/queryparsersyntax.html.

Using the Simple Search

The simple search will search all text properties of all object types and all diagrams for a partial match on the search string you supply. The only parameter you can supply is the text to search for a match. The simple search is displayed in the banner and is accessible from all navigation (non-content) pages, as illustrated in the following screenshot:

The following example displays some of the search results for the text string “customer”



Using the Advanced Search

In the Advanced Search you have more control of the search than with the Simple Search.

1 Click **Advanced**, located to the right of the Search text box.

2 Specify your search criteria in the following areas and then click **Search**.

TIP: To access the advanced search page, you can also click Perform an Advanced Search or Start Searching on the Home page.

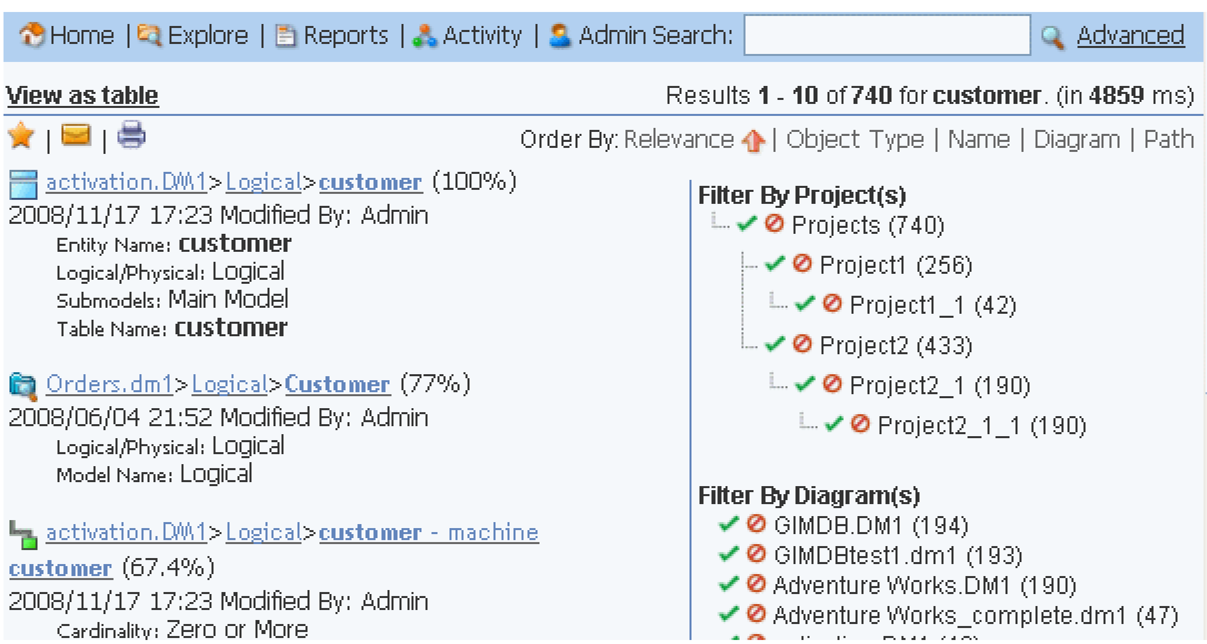
The following provides additional information on the fields and options of the Advanced Search.

- **Search Text**: Specify that the property value starts with, contains, ends with, or is an exact match to the text. You can also search for text that sounds like the search string by selecting *Include matches for similar-sounding words*.
- **Modification**: Filter the results by either the modification date or the name of the last person to modify the object, or by both date and name.
- **Object Type**: Set filters to include all or only specific object types. You can select multiple individual items in the list by holding down the Ctrl key and clicking the items you want included.
- **Property**: Return results only with properties matching or excluding the specified values. Click the check mark (mandatory) to return only results matching the specified value. If the check mark is not clicked, the search string is considered to be optional, and not required for a match. Clicking the crossed-out circle excludes the specified value from the search results.
- **Sort order**: Set how you want the search results sorted.
- **Results per page**: Set the number of result entries to display per page.

The results of the advanced search are displayed by default in HTML format. You can also view the results in table formats.

Search Results

The format of the search results is the same for simple searches as it is for advanced. When you execute a simple or advanced search, by default all results are rendered as one page in the browser.



Notice the following in the search results shown above:

- **View as table**: Click to view the results as a table. The default as shown is to display the results in HTML format. You can configure the column order and hide columns if you choose when viewing the results in table format. For more information, see Customizing Search Results.
- **Star icon**: Click to save the current search criteria into the list of your favorite searches. Settings include the search string, Order By settings, and filter. For more information, see....

- **Envelope icon**: Email the results by clicking the **envelope** icon.
- **Printer icon**: Print the results by clicking the **printer** icon.
- **Order By**: Change how the results are ordered. but you can change the order of the results by clicking **Object Type**, **Name**, **Diagram**, or **Path** and the results will be listed in alphabetical order accordingly. The default is to order the results by relevance.
- **Filter By ...:** Filter the results to show only the search results meeting specific criteria by clicking the icons in the **Filter By Project(s)**, **Filter By Diagram(s)** or **Filter By Object Type(s)** areas. Clicking the check mark next to the filter will only include matches that satisfy the filter, whereas clicking the circle with the line through it will exclude all matches that satisfy the filter. If you choose a filter, another area appears showing **Currently Active Filter(s)**.

  NOTE: You can configure search filters via RepoRpt.xml, which is found in the Portal installation folder. This enables you to exclude certain object types and properties from the search index. For more information, see "Customizing Search Filters using RepoRpt.xml" .

- **HTML links (blue, underlined text)**: Click on the linked information and the related report appears. For example, when you click "property - customer property", as shown above, in the most relevant search result details, the detail report for the customer property appears.

If you select View as table, you will see a table with each row representing a match to your search text. You can drill down to the details of each diagram from the search results report.

For more information, see "Drill-down to Detail" .

The following fields are displayed for each matching row:

- **Object Name**: Name of the object whose property matches the search text.
- **Object Type**: Name of the object type that matches the search text.
- **Relevance**: The probability that this result matches the search criteria.
- **Modification Date**: When the object was last modified.
- **User Name**: The name of the user who last modified the object
- **Path**: The path to the object in the format: diagram name > model name > object type node.
- **Property Type**: Name of the object property that matches the search text
- **Property Value**: The full text of the property that contains a match for the search text

A sample search result in table format is shown below for the text "customer."

View as html — Results **1** - **10** of **689** for **customer**. (in **31** ms)

Object Name	Object Type	Relevance	Modification Date	User Name	Path	Property Type	Property Value
customer	Entity	100%	2008/11/17 17:23	Admin	activation.DM1>Logical>**customer**	Entity Name Logical/Physical Submodels Table Name	**customer** Logical Main Model **customer**
machine customer	Entity	83.3%	2008/11/17 17:23	Admin	activation.DM1>Logical>machine **customer**	Entity Name Logical/Physical Submodels Table Name	machine **customer** Logical Main Model machine **customer**

Customizing Search Filters using RepoRpt.xml

Using RepoRprt.xml, which is included in the Portal installation directory, you can add filters for object types and properties which result in their exclusion from the search index. Once configured, search terms will not be matched against these objects and properties. An object or property which has been filtered via RepoRpt.xml will not appear in the search results nor in the filters shown to the right of the search results. Wildcards are not supported for search filters in RepoRpt.xml.

There are two ways to exclude information from the search index:

- Exclude an object and all its properties by specifying an object type. For example, to exclude all Table object types, uncomment the following line in RepoRpt.xml:

  ```
  <Object OBJECT_TYPE="Table" SEARCH="FALSE"/>
  ```

- Exclude a specific property from an object. For example, to exclude the Datatype property for Table objects, uncomment the following line in RepoRpt.xml:

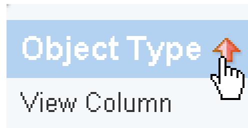
  ```
  <Object OBJECT_TYPE="Column" PROPERTY_TYPE="DataType" SEARCH="FALSE"/>
  ```

All the various objects types and object type/property combinations have been included in RepoRpt.xml. All you have to do is uncomment the appropriate line in the file to create a search filter.

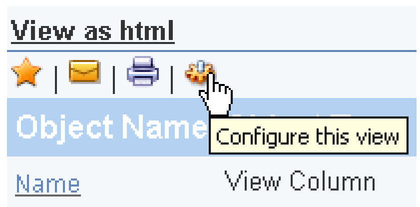
NOTE: After changing RepoRpt.xml to effect the changes you must update the search index via the Admin dashboard. For more information, see “Administrative Tasks” .

Customizing the Search Results Report

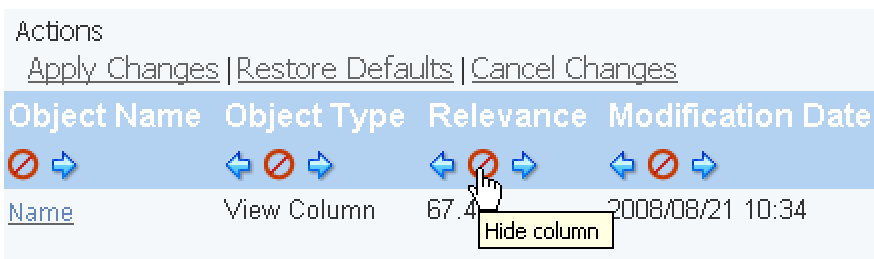
1. Once you have the results of a search operation, at the top of the search results click **View as table**.
2. *To order the results by column*, click a column name.
   The results are reordered and an arrow appears after the column name indicating the order, ascending or descending. Click the column name again to change the order.



To hide a column, click the configuration icon.

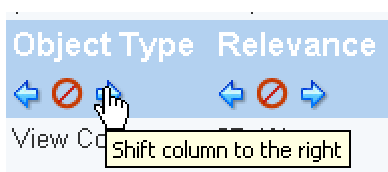


and then click the red circle below the name of the column you want to hide and then click **Apply Changes**.

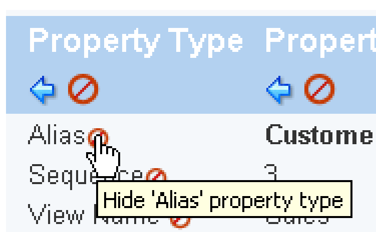


From the configuration page you can also reorder columns, shifting them to the left or right, and hide properties.

To reorder the columns, click the arrow below the column name to shift a column right or left and then click **Apply Changes**



To hide all properties of a specific type, click the red circle next to the property type name. After doing so, all properties of this type are hidden for every row of the results of this search.



NOTE: Any customizations you make to the search results are retained and used until you click Restore Defaults to revert to the original result presentation.

Drill-down to Detail

In the search results report you can drill down to the detail report for each object type, or display the results in another format. Detail reports are available only for those objects listed below.

NOTE: Object types not listed have a standard report with all of the text properties for that object.

- "Diagram Detail"
- "Logical Model Detail"
- "Physical Model Detail"
- "Logical Submodel Detail"
- "Physical Submodel Detail"
- "Entity Detail"
- "Table Detail"
- "Logical View Detail"
- "Physical View Detail"

Each detail report consists of links to related reports and one or more sections of detail for repeating attributes. You cannot directly execute a detail report. You must locate an object first via search or browse.

Diagram Detail

This report contains the logical and physical models of the diagram. The listing of models are sorted alphabetically by model name.

- The report consists of a header section with properties of the logical data model, related reports, a definition section describing the diagram, and sections for the logical physical models.
- The diagram author, version, company, copyright, definition, logical model properties, and related reports are displayed at the top of the report.
- You can access this report from the search results and browse feature.
- From this report, you can navigate to the Attachments report.
- The data for this report is selected for only one diagram at a time.

You open this report from the Search Results report. Click the link of the diagram you want to open from the Diagram File column.

Logical Model Detail

This report contains the entities and relationships of the logical model and the logical submodel properties. The listings of entities, relationships, and submodels are sorted alphabetically by Name.

- The report consists of a header section with properties of the logical model, related reports, and two sections for the model's entities and relationships.
- You can navigate to the Entity Attachments, Security Information, Entity Definitions, Attribute Definitions, and Business Rules reports.
- The data for this report are selected for only one logical model at a time.
- This report is accessible from the search results and the Diagram report.

You open this report from the Diagram detail report. Click the link of the model you want to open from the Logical Model column. The full logical model report appears and displays name and definitions of submodels, entities, relationships, and views.

Physical Model Detail

This report contains the tables, foreign keys, and views of the physical model. The listing of tables, foreign keys, and views are sorted alphabetically by Name.

- The report has a header section with properties of the physical model, related reports, and three sections for the model's tables, foreign keys and views.
- The physical models name, notation, style, platform, and related reports are displayed at the top of the report.
- This report is accessible from the search results and the Diagram report.
- This report allows you to navigate to the Entity Attachments and Security Information reports.
- The data for this report is selected for only one physical model at a time.

You open this report from the Diagram detail report. Click the link of the model you want to open from the Physical Models column.

Logical Submodel Detail

This report allows you to navigate to the following related reports: Attribute Definitions, Entity Definitions, Business Rules, Attachments, and Security Information. The logical submodel contains three sections: entities, relationships, and views.

- This report consists of a header section with properties of the logical submodel, related reports, and sections for the submodels definition, entities, relationships, and views.
- The logical submodel name and related reports are displayed at the top of the report.
- This report is accessible from the search results and the Logical Model report.
- The data for this report is selected for only one logical submodel at a time.

You open this report from the Logical Model report. Drill down through **Search Results > Diagram > Logical Model** and click the link of the desired submodel in the Submodels column.

Physical Submodel Detail

This report allows you to navigate to the following related reports: Attribute Definitions, Business Rules, Entity Definitions, Attachments, and Security Information. The physical submodel report contains three sections: entities, relationships, and views.The listing of tables, foreign keys and views are sorted alphabetically by Name.

- This report consists of a header section with properties of the physical submodel, related reports, and three sections for model entities, relationships, and views. The physical submodel name and related reports will be displayed at the top of the report.
- This report is accessible from the search results and the Physical Model report.
- The data for this report is selected for only one physical submodel at a time.

You access this report from the Physical Model report. Drill down through **Search Results > Diagram > Physical Models** and click the link of the desired submodel in the Submodels column.

Entity Detail

This report allows you to navigate to the Entity Attachments, Security Information, and Attribute Definitions reports. The report body contains the attributes of the entity.

- This report consists of a header section with properties of the entity, related reports, and one section for the entity's attributes. The entity definition, notes, and related reports are displayed at the top of the report.
- This report is accessible from the search results, the logical model, and the logical submodel report.
- The data for this report is selected for only one entity at a time.
- The listing of attributes are sorted in ascending order by sequence.

You open this report from either the Physical or Logical Model reports. Drill down through **Search Results > Diagram > Physical Models (or Logical Models)** and click the link of the desired entity in the Entities column.

Table Detail

This report allows you to navigate to the Entity Attachments and Security Information reports. The report body contains the columns of the table. The listing of columns can be sorted in ascending or descending order.

- This report consists of a header section with properties of the table, related reports, and one section for the table's columns.
- The table definition, notes, and related reports are displayed at the top of the report.
- This report is accessible from the search results, the physical model, or from physical submodel reports.
- The data for this report is selected for only one table at a time.

Logical View Detail

This report allows you to navigate to the Entity Attachments and Security Information reports. The report body contains the columns of the logical view. The listing of view columns are sorted in descending order by sequence number.

- This report consists of a header section with properties of the logical view, related reports, and one section for view columns.
- The logical view owner, platform, view definition, notes, and related reports are displayed at the top of the report.
- This report is accessible from the search results and the physical model report.
- The data for this report is selected for only one logical view at a time.

  You open this report from either the Physical or Logical Model reports. Drill down through **Search Results > Diagram > Physical Models** and click the link of the desired view in the Views column.

Physical View Detail

This report allows you to navigate to the Entity Attachments and Security Information reports. The report body contains the columns of the physical view.

- This report consists of a header section with properties of the physical view, related reports, and one section for the view's columns.
- The physical view owner, platform, view definition, notes, and related reports are displayed at the top of the report.
- This report is accessible from the search results and the Physical Model report.
- The data for this report are selected for only one physical view at a time.

You open this report from either the Physical or Logical Model reports. Drill down through **Search Results > Diagram > Physical Models (or Logical Models)** and click the link of the desired view in the Views column.

Favorite Searches

Favorite searches consist of:

- **My Searches**: Searches you create for private or public use.
- **Shared Searches**: Searches other Portal users have made public.

After completing and running an advanced search, you have an opportunity to name and save the search for later use. You can either keep it private or share it with others when you name it. If you save a search, it appears in the My Searches area of Favorite Searches on the Home page. From the Home page you can share and unshare a search. You can also choose to delete the search or email the search results.

To create a favorite search, click **Perform an Advanced Search**, enter the search criteria, and then run the search. Once the search results appear, you can click the star icon to add the search to the list of searches displayed on the Home page in the My Searches area.

To share/unshare a favorite search, click the lock icon next to the name of the search in the **My Searches** area. The shared search appears with an open lock icon next to its name. Clicking the open lock will make the search private. Shared searches appear in My Searches for the creator and in Shared Searches for all other users.

Administrator’s Guide

Administrators can manage licenses, permissions, data synchronization, schedules, and refresh the Business Intelligence (BI) Server settings on the Admin page.

Admin

The Administrative tasks are accessible from the Home dashboard by clicking Admin. For more information, see “Administrative Tasks” .

Data Synchronization Overview

The data shared between the ER/Studio Repository database and the ER/Studio Enterprise Portal Reporting database can be synchronized on demand or scheduled with the Pentaho BI platform scheduler and can be run continuously or periodically at the system administrator’s discretion. As diagram objects are added, deleted, or updated in the ER/Studio Repository, the most recent version of the diagram must be synchronized with the reporting portal.

> **NOTE:** Upgrading ER/Studio and the Repository software may require the file format of existing diagrams to be updated which is accomplished in an automated fashion when the diagrams are opened. If the ER/Studio application update requires file format conversion, you must synchronize Reporting Database with the Repository.

Synchronization Steps

The process of synchronization is broken down into five separate steps:

1 Decide which diagrams should be synchronized. The synchronization decision is made based on the synchronization action specified on the Synchronization Admin page and the filters and exceptions in the XML configuration file, RepoRpt.xml on the BI Server.

- **Synchronization Action** specified on the Synchronization Admin page for selected diagrams and projects can be any one of the following:
  - **Ignore**: Changes in the Repository are ignored and the Portal Reporting repository is not updated.
  - **Update**: Changes in the Repository are propagated to the Portal Reporting repository.
  - **Delete**: The diagram or project is deleted from the Portal Reporting repository.

- **Filters and exceptions in the RepoRpt.xml configuration file**

NOTE: This method should only be used in extreme cases, such as if a diagram is damaged and should never appear in the reporting repository.

You can filter the content that flows from the ER/Studio Repository to the Reporting Data Base by diagram via the XML configuration file, *RepoRpt.xml* on the BI Server. You can exclude diagrams from processing by placing an entry into *RepoRpt.xml*. You can use wildcard characters such as * and ? when specifying diagram names and can also specify exceptions to the filters. Diagrams that are excluded from the synchronization process are not written to the reporting database and will not appear on the Synchronization Admin page. No further processing is performed on those diagrams, with the exception of removing their data from the reporting database. For example,

To process only diagram names ending with 1, use `<Diagram FILE_NAME="*1.dm1" FILTER="TRUE" /`

To process only diagram names such as CorDM2_v6B.dm1, D2.dm1, D1.dm1, and CorDM_v6B.dm1, use `<Diagram FILE_NAME="???dm*.dm1" FILTER="TRUE" />`.

You can also create an exception, which uses a filter value of false, such as FILTER="FALSE". Exceptions take precedence over other filters. Using regular filters and exceptions in combination makes it easier, for example, to filter all diagrams whose names start with the letter 'D' except for the diagram named 'Diagram123. For this case, the entries in RepoRpt.xml would be:

```
<Diagram FILE_NAME="Diagram123.dm1" FILTER="FALSE" />
```

```
<Diagram FILE_NAME="D*.dm1" FILTER="TRUE" />
```

2 Detect Changes

The system can detect changes when the synchronization process is running and when it is not running.

- **Synchronization Not Running**: The Synchronization Admin page shows the updated diagrams with “Version in ER/Studio Repository” number in bold. If the version was deleted, the number will be red.
- **Synchronization Running**: The diagrams that are selected for synchronization are marked with a status of “Queued” displayed next to them on the Synchronization Admin page.

3 Extract Latest Diagram Information

- A separate Java Virtual Machine (JVM) invocation is used for the synchronization process. When a diagram change is detected, another JVM instance is spawned for each diagram. This allows diagrams to be processed one at a time so that access to a given diagram becomes available within the portal as soon as possible.
- Diagrams with changes since the synchronization are selected.
- For each diagram in the XML file, the diagram is retrieved from the ER/Studio Repository to a local DM1 file by using the *RepoGetDiagram* function.
- An XML file is created for each diagram containing the latest data for all in-scope objects in the diagram.
- For each submodel in the diagram, a .JPG image file is created and stored on the application server.
- The image is not stored in the database and is retrievable via the model and submodel detail reports.

The extraction of data from the ER/Studio Repository relies on invoking ERSTUDIO.EXE, or its equivalent, to access the ER/Studio object API. During the data extraction, object metadata is output in XML format by using Microsoft’s XML v6 parser.

The following ER/Studio object types are saved into the XML file for synchronization:

Model Objects	Dictionary Objects	Data Lineage Objects
Project	Dictionary	Data Lineage Source
Diagram	Attachment Type	Data Lineage Table
Submodel	Attachment Text List	Data Movement Column
Entity	Bound Attachment	Data Linage Column
Entity Display	Domain	
Relationship	Bound Domains	
Relationship Display	Reference Value	
Attribute	Bound Reference Values	
View	Reference Value Pair	
View Column	Security Type	
View Display	Security Property	
	Security Text List	
	Bound Security Property	
	Defaults	
	Bound Defaults	
	Rules	
	Bound Rule	
	User Datatypes	
	Bound User Datatypes	

4 Synchronize Security Objects

Changes made to permissions in the ER/Studio Repository, such as the addition of new users and roles, or modifications to existing users and roles, are not reflected in the Portal until a synchronization of the Reporting and the Repository databases is performed. You can refresh the user list from the ER/Studio Repository from the Exclusive Connection Administration page.

5 Synchronize Reporting Repository

Each diagram is represented by an XML file on the server, including items in the search index. Each XML file is processed in the following manner:

- Remove all current data, if any, in the Reporting database for that diagram. This includes purging the submodel image files on the server and the properties from the search index.
- Populate the appropriate table(s) for each object.
- Populate the search index as appropriate for each text field that is searchable. By default, all text properties are searchable. You can exclude object Property Types from being processed by placing an entry into the XML configuration file on the server.
- Archive the diagram XML files to a backup folder.

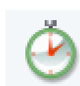
Administrative Tasks

Administrators can manage schedules and refresh the Business Intelligence (BI) Server settings on the Administration page. The Administration functions are available by clicking Admin on the Home Dashboard.

1 Click **Admin** on the Home dashboard and the Administration dashboard appears.

NOTE: This dashboard is available only if you are signed on as an Administrator.

2 The following describes the features and how they are used:

Action	Icon	Description
Admin Services		
Licenses		Manages the ER/Studio Enterprise Portal licenses. For more information, see "Administering Licenses" .
Permissions		Maintains Access Control Lists (ACL) for group permissions to content. Content permissions are: subscribe, execute, or write. For more information, see "Administering Permissions" .
Synchronization (ETL)		This page allows you to manage the ER/Studio Repository synchronization. You can schedule or execute the synchronization, and also see and refresh the synchronization status. For more information, see "Scheduling the Synchronization Process" , "Executing the Synchronization Process" , and "Data Synchronization Overview" .
Schedules		Checks the status of the scheduler and gets a list of the current jobs that are scheduled. From this page the Administrator can check the status of the scheduler, suspend the scheduler, resume from suspend, or see a list of the schedule jobs. For more information, see "Administering Schedules" .
Subscriptions		Manages subscriptions, subscription schedules, and scheduled jobs. For more information, see "Administering Subscriptions" .
Repository Management		
Update Solution Repository		Reads all of the solution files and updates the RDBMS repository. This can be used to add new content to your repository or refresh the repository from the file system.
Restore Solution Repository		Reloads all repository files from the file system and restores all Access Control Lists (ACL) to the defaults stored in `Pentaho.xml`. This can be used to reset your repository to the default state.
Update Search Index		Rebuilds the search index based on the data in the Reporting repository. The search index should be updated under the following conditions: • You have upgraded the Portal and chosen to connect to existing repository. • You have reconfigured the Reporting repository using the Configuration Manager and parameters such as host, port, database name, or database user are changed. • You have updated the search filters in RepoRpt.xml.

Action	Icon	Description
Clean Content Repository		Removes files from the content repository that are more than 180 days old. The content repository consists of temporary files, such as runtime and history information maintained by the Pentaho platform. For more information, see "Cleaning the Content Repository" .
Schedule Cleaning of Content Repository		Schedules the Clean Content Repository action to run daily.

3 Click **More** in the Admin Services section and the Publisher Administration table appears.

Publisher	Description	Actions
Refresh System Settings	Refresh all of the system settings from the documents on the file system.	Publish
Execute Global Actions	Execute all of the global system actions defined in pentaho.xml.	Publish
Refresh Reporting Metadata	Metadata used for ad hoc reporting.	Publish

4 When you click **Publish** for any of these actions, the action takes place immediately and a message appears telling you that the chosen action has been completed.

In addition to the administrative functions available on the Admin page, the Administrator can also stop, start, and restart the Enterprise Portal using the Tomcat configuration application. The Administrator can also change configuration options, such as the email address configured during installation, without reinstalling the Portal. For more information on these tasks, see "Using the Tomcat Configuration Application" and "Using the ER/Studio Enterprise Portal Configuration Manager" .

Using the Tomcat Configuration Application

Use the Tomcat configuration utility to start, stop and restart the application server and to change Tomcat configuration parameters such as the amount of memory assigned to Tomcat for the application server.

1 From Windows, click **Start** > **Programs** > **ERStudio Enterprise Portal X.X** > **Configure Apache Tomcat (ERStudio Enterprise Portal)**.

2 Complete the changes on the Properties sheet that appears and then click **OK**.

The configuration parameters on the Properties sheet that appears are straight forward, but the following provides some additional information on the available options:

General tab

- **Startup** type: Click the list to change how the Portal starts up.
- **Service Status**: Use the options available to start or stop the Portal.

Logging tab

- **Level**: Click the list to change the logging level. By default, only error messages are logged.
- **Java** tab
- **Initial memory pool**, **Maximum memory pool**, and **Thread stack size**: Change the amount of memory the Portal can use.

Using the ER/Studio Enterprise Portal Configuration Manager

Use the Portal Configuration Manager to change settings chosen during the installation process.

1. Ensure the Portal is not running.

   Click **Start** > **Programs** > **ERStudio Enterprise Portal X.X** > **Configure Apache Tomcat (ERStudio Enterprise Portal)** and then in the **Service Status** area of the **General** tab, click **Stop**. If Start is the only option, the service is already stopped.

2. From Windows, click **Start > Programs > ERStudio Enterprise Portal X.X > ERStudio Enterprise Portal Configuration Manager**.

3. Complete the changes on the configuration manager that appears and then click **OK**.

4. For information on the configuration options, see the *Install Guide*, where each option is explained in detail.

   Now you can restart the Portal. For more information, see Starting the “Enterprise Portal Application” in the *Install Guide*.

   NOTE: Depending on the nature of the changes made, such as changing the location of the reporting repository, you may need to perform other administrative actions from the Admin dashboard, such as running the synchronization process, updating the solution repository and updating the search index.

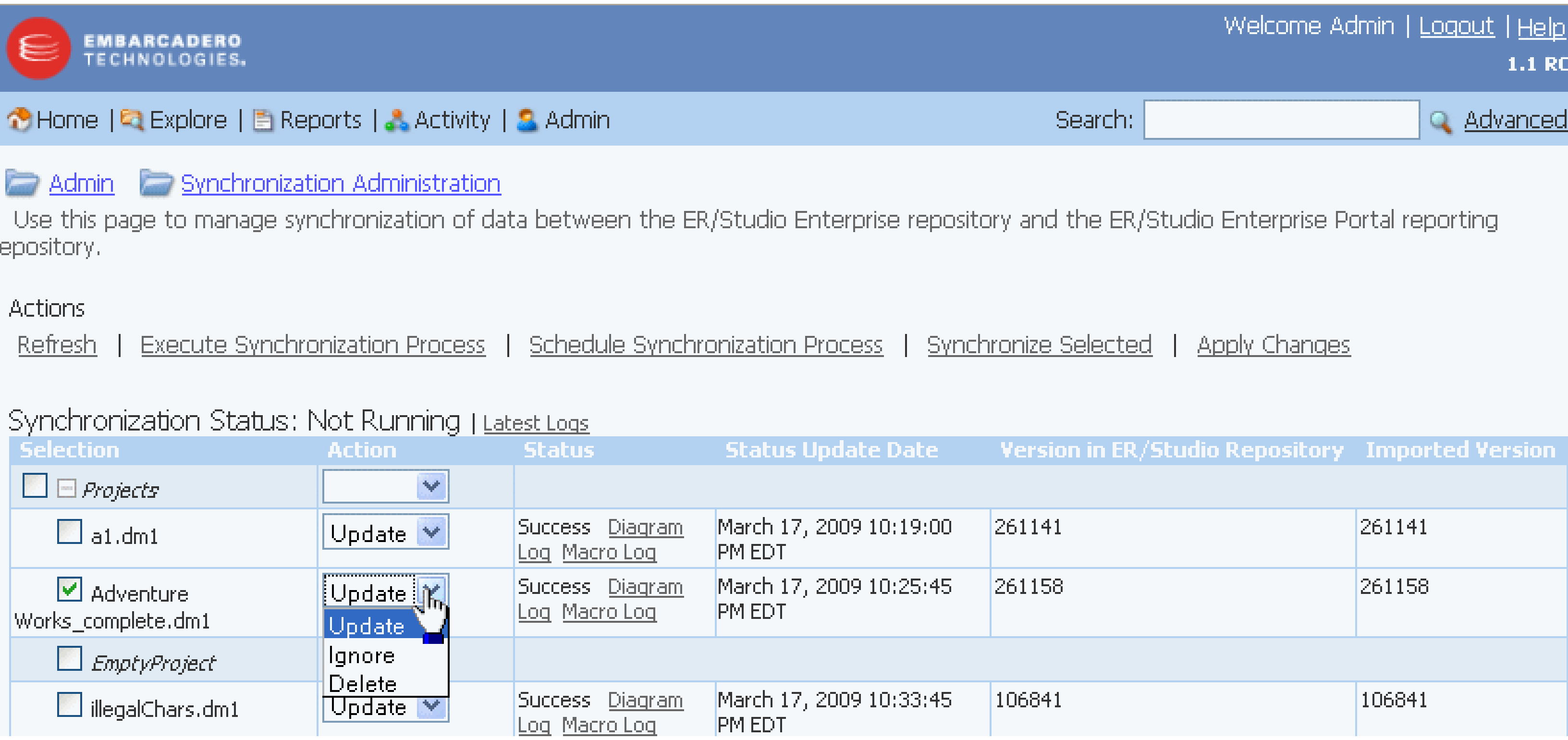
Scheduling the Synchronization Process

Synchronizing the ER/Studio Enterprise Reporting database with the ER/Studio Enterprise Repository is necessary to obtain the latest model and configuration information. For example, when a user is assigned to a role in the ER/Studio, the user’s new permissions will not be available to that user when he logs in to the Portal, until a synchronization is performed. Similarly, a new user added to the Portal will not have access to Repository models he has permissions to access until the Repository is synchronized with the Portal. You can schedule a complete repository update or update individual projects or diagrams as required. You can also choose control how and when the synchronization occurs, immediately in the background, at some specific time in the future or immediately in the foreground.

When you select the Schedule Synchronization Process option, a job is created with a built-in schedule of running the synchronization process daily at midnight.

1. Click **Admin** to open the Admin Services page.

2. Click **Synchronization (ETL)** and the Synchronization Administration page appears listing the available actions and the synchronization status of existing processes.



The Synchronization Admin page also displays the status of the most recent execution of the synchronization process. Each item listed is a diagram in the ER/Studio Repository that may or may not be (depending on filters) synchronized with the Reporting repository. The list of items is sorted in descending order of status update date, that is, the items whose status have changed most recently appear at the top. Possible statuses for selected Projects and diagrams include the following:

- **Not Synchronized**: This is the initial status of new repository objects until the state changes to another status. An object can also have this staus if it was queued for synchronization but the synchronization was stopped.
- **Queued**: The selected object is scheduled to be synchronized during the current ETL synchronization.
- **Deleted**: The selected object has been deleted from the reporting database but it is still in the Repository database.
- **Processing**: Synchronization of the object is in progress.
- **Success**: Synchronization of the object has completed without error.
- **Error**: Synchronization of the object has finished with an error.

3 Select objects to synchronize.

To synchronize all repository projects and diagrams, click the highest level checkbox.

To synchronize individual projects or diagrams, click the checkbox next to the object.

4 Select the action to perform for selected repository diagrams or projects:

- **Update** is the default action and when chosen updates the Portal repository with information from the ER/Studio Repository.
- **Ignore** when chosen will not change the Portal repository information for the specified object, regardless of whether changes were made in the ER/Studio Repository for the object or not.
- **Delete** when chosen will delete the object from the Portal repository. This has no effect on ER/Studio Repository content.

5 To save the actions selected, click **Apply Changes**; otherwise, your choices will be in effect only for this synchronization session.

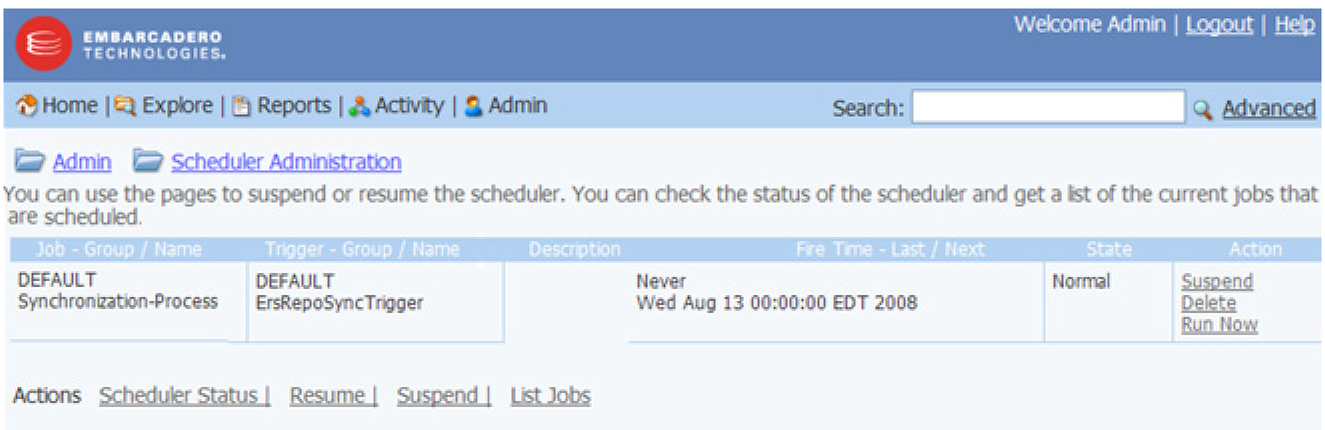
6 Choose how and when the synchronization should occur:

- *To execute the synchronization immediately in the background*, click **Execute Synchronization Process**.
- *To schedule the synchronization for sometime in the future*, click **Schedule Synchronization**.
- *To synchronize select objects immediately*, click **Synchronize Selected**.

Click **Schedule Synchronization Process** and message page appears telling you "Job scheduled, check Scheduler Administrator to verify status."

7 Close the message and click **Admin** to display the Pentaho Administration page once again.

8 Click **Schedules** to view the scheduled jobs and their status.



You have three different options available for each scheduled job: suspend it, delete it from the schedule, or run it immediately.

The following actions are also available for all scheduled jobs:

- **Schedule Status**: Displays a page indicating the status, running or suspended, for all jobs.
- **Resume**: Resets any suspended jobs to the status of 'Resumed'.
- **Suspend**: Pauses the running of the job until it is resumed by the Administrator.
- **List Jobs**: Displays the table of all scheduled jobs.

NOTE: You can view the latest log entries detailing the synchronization commands run and their status, by clicking Latest Logs next to the Synchronization Status area of the Synchronization Admin page. When the databases are synchronized, a new log is created in a separate folder whose name is the timestamp of the log creation and the previous log is archived in a zip file.

Executing the Synchronization Process

Click this command to immediately execute the following steps for populating your reporting database.

- Extracts data from source databases
- Transports the data
- Transforms the data
- Loads the data into a data warehouse

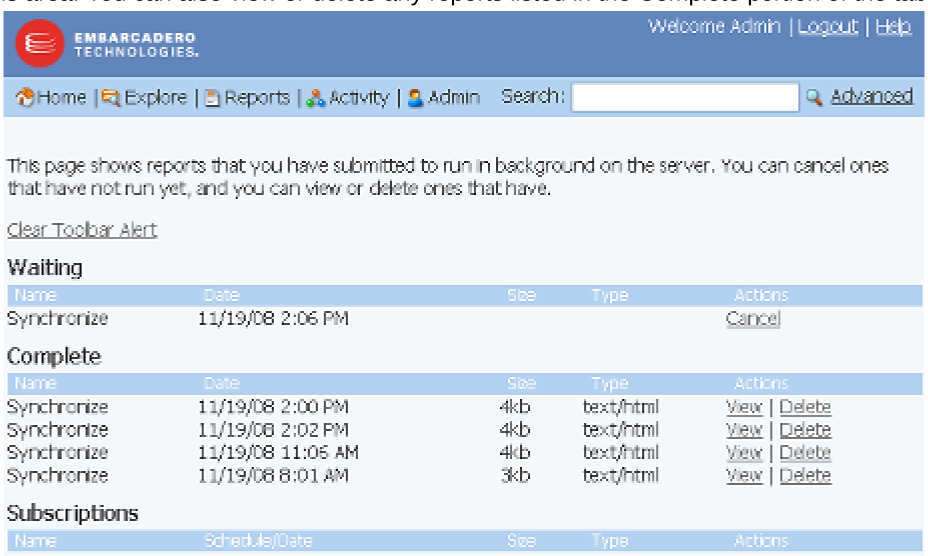
1 Click **Admin** to open the Admin Services page.

2 Click **Synchronization (ETL)** and the Synchronization Administration page appears listing the available actions and the synchronization status of existing processes.

3 Click **Execute Synchronization Process** and a message displays informing you that a "job is scheduled for background execution, "View All Scheduled Content".

4 Click **View All Scheduled Content** and a table showing displays all the reports you have submitted to run in the background.

Any report listed in the Subscriptions or the Waiting portions of the table can be canceled by clicking Cancel in the Actions area. You can also view or delete any reports listed in the Complete portion of the table.

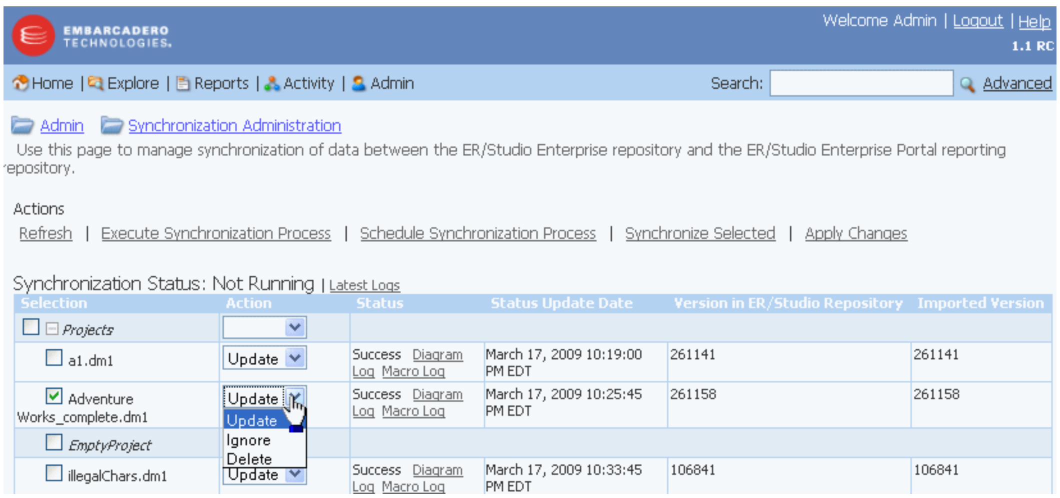


Viewing Synchronization Logs

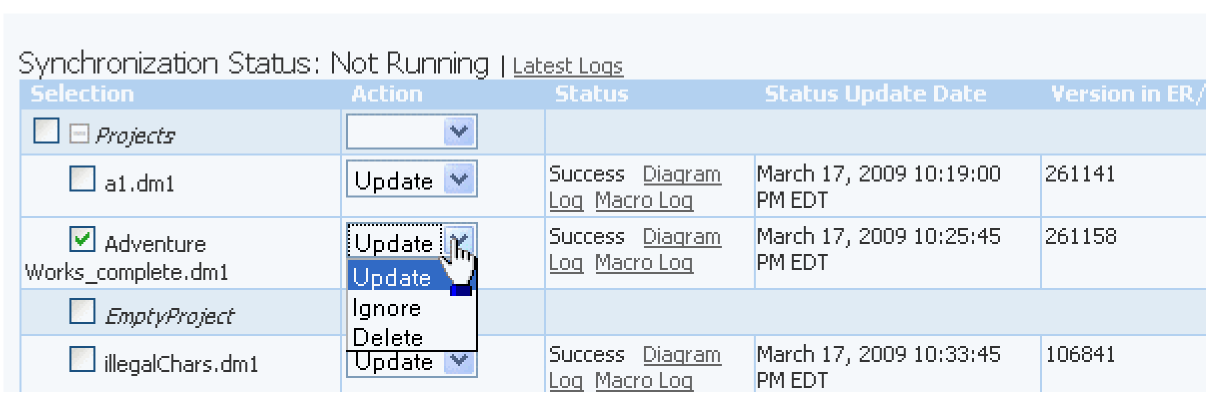
Depending on the size of the ER/Studio Repository, this action may take many hours to execute. You can view the status of the synchronization on the **My Reports** page.

You can view the logs of the synchronization process via the Synchronization Administration page. There are two types of logs:

- **The latest overall synchronization logs.** You can view these logs regardless of whether the synchronization process is running or is stopped. If a synchronization is in progress, then the logs are the live logs from the current process. These logs contain only the pre- and post-diagram synchronization information and minimal information about the synchronized diagrams.



- **Detailed individual logs for synchronizations**. The following describes the logs available.
  - **Error**: This log is available only when the object synchronization fails. This is the error messages indicating why the synchronization failed.
  - **Diagram Log**: The diagram synchronization log.
  - **Macro Log**: The logs produced during export of the diagram from the ER/Studio Repository.



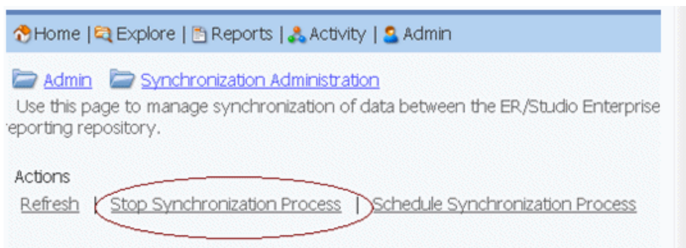
Notes

- Logs are located in `<installdir>\etlvar\log\`.

- Each synchronization process has its own directory called log_<*timestamp*>, such as <*installdir*>\etlvar\log\log_20081119210946.
- The previous synchronization logs are zipped up in order to save disk space and the respective log directory is deleted. For example, during the next synchronization <*installdir*>\etlvar\log\log_20081119210946 becomes <*installdir*>\etlvar\log\log_20081119210946.zip
- Because previous synchronization logs are zipped, you can only see the logs for the diagrams in error if the synchronization of the diagram failed in the latest synchronization. Logs from synchronization executions other than the most recent are only accessible from the portal server file system.

Stopping the Synchronization Process

Stopping the synchronization process via the 'Stop Synchronization Process' option on the Synchronization Administration page is the only clean way of stopping the ETL. This option interfaces with the Windows task manager to gracefully kill the two Java processes related to the synchronization.



Once the synchronization process is running (having been started either via the *Execute Synchronization Process* option or as a scheduled synchronization), it can be stopped from the Synchronization Administration page by clicking *Stop Synchronization Process*. Invoking this option changes the synchronization status to Stopping and the synchronization process is stopped as soon as processing of the current diagram is complete. This may take a while, depending on the size of the diagram currently being processed. Once stopped, the synchronization status will then be displayed as Not Running.

Administering Schedules

You can use the page to suspend or resume the scheduler. You can also check the status of the scheduler and get a list of the current jobs that are scheduled.

1. Click **Admin** to open the Admin Services page.
2. Click **Scheduler Admin**. The Web page appears and the table displays the following information:

Column Name	Description
Job - Group/Name	This is the name of the newly created job.
Trigger - Group/Name	This is the name of the newly defined trigger.
Description	Displays the description of the subscription that was entered at the time the subscription was set up.
Fire Time - Last/Next	Displays the last time the subscription was run and the next time it is scheduled to run.
State	Displays the job process state, either Normal or Paused.

Column Name	Description
Action	You have three choices: **Suspend**: Immediately suspends the scheduled run. When you select this option, it is replaced by the Resume command. **Delete**: Deletes the scheduled subscription from the table. **Run Now**: Runs the scheduled item immediately

There are four different actions shown at the bottom of the scheduled jobs table:

Action	Description
Scheduler Status	Shows the current state of the scheduler: running, suspended, or stopped.
Resume	If the scheduler has been stopped, restarts all scheduled jobs.
Suspend	Suspends all jobs until they are manually restarted.
List Jobs	Displays a table with all scheduled jobs.

Administering Subscriptions

This page displays the following information:

Information	Description
Scheduler Status	Displays either Normal or Paused.
Actions	Six different actions are available: Suspend, Add Schedule, Set Content, Import Schedules and Content, Refresh, and Show Subscriptions.
Warning	This tells you if you have any subscriptions that are not scheduled to run.
Scheduled Subscriptions	Lists all scheduled subscriptions. You can choose to suspend or run the subscription immediately. You can also edit a subscription.
Subscriptions without scheduled jobs	Displays all subscriptions that are not scheduled to execute. You can choose to schedule them individually or select the **Schedule All** command to synchronize the schedules with the subscriptions
Subscription Content	This table displays all action sequences. You can choose to edit or delete each subscription. When you click **Edit** a screen appears where you can modify, delete or add new action sequences. If you have modified an existing subscription, or added a new one you can set the schedules for this content.

You have six different actions you can perform:

Action	Description
Suspend	All scheduled jobs are paused until manually restarted.
Add Schedule	Use this page to add a new schedule. The following information is required: • Group • Name • Title • Description • Cron Expression
Set Content	You can select subscription content from all available action sequences. All sequences you select can be subscribed. When all desired sequences are selected, click **Set Content**.
Import Schedules and Content	You can create subscription schedules and content in XML using a template. When you have created this file you can then upload it. Note: Schedules can be added and modified via the import but cannot be deleted.
Refresh	Updates the Subscription Content list to show any additions or changes.
Show Subscriptions	Displays the User, Title, Action Sequence, and Schedule of any active subscriptions. You have the option to delete subscriptions here.

For more information, see "Setting Up a Subscription" and "Administering Licenses" .

Setting Up a Subscription

1. Click **Admin** to open the Admin Services page.
2. Click **Subscription Admin** to open the Subscription Administration page.
3. Click **Add Schedule** to add a schedule and a page appears requesting information for the item to be scheduled:
    - Group:
    - Name:
    - Title:
    - Description:
    - Cron Expression

NOTE: All fields are required.

4 Enter the requested information and click **Add**. A brief confirmation page appears and then you are returned to the page where you entered the information.

For example, to set up a schedule to run daily at midnight, enter 'Daily' for the Group, 'daily-midnight' for the Name, 'Daily at Midnight' for the Title, 'Runs daily at midnight' for the Description, and '0 0 0 * * ?' for the Cron Expression.

5 Click **Subscription Administration** to return to the Subscription Administration page and click **Set Content.**

6 Expand the action sequence you want to subscribe to. For example, if you wanted to run a synchronization action, expand **etl : actions** and select the **Synchronize.xaction** option.

7 Click **Set Content** and a page appears telling you that the request has been completed successfully.

NOTE: The page automatically closes and you are returned to the Select Subscription Content page.

8 Once again, click **Subscription Administration**. Click the edit link in the Action column. You can modify or delete this schedule. You can also add a new schedule. Click the **Set Content for this schedule** link, select the option for the action sequence you selected earlier (for example dashboards/etl/Synchronize.xaction) and click **Submit**. A page appears telling you that the request has been completed successfully.

9 Open `http://<HOST_NAME>:<PORT>/ersportal/ViewAction?&solution=etl&path=actions&action=Syncronize.xaction&subscribepage=yes`. The Synchronize Web page appears.

10 In the **Schedule This Report** section, click **Show Scheduling Options**, and enter a name for the scheduled report.

11 Next, select the name of the schedule you just added from the **Schedule For** drop-down list and click **Save**. You will get a subscription saved/created message page.

12 Close this message page and click **Reports->My Reports** to open the My Reports page.

13 To view the scheduled Subscription click **Admin -> Subscription Admin** and all scheduled subscriptions are listed in a table format. You can suspend or run immediately the scheduled subscriptions. You can also edit them.

14 Click **Show Subscription** to view all the subscriptions you have set up. A table appears showing the user name, title of the subscription report, the action sequence to be used, the report to be run, and the action you can take. The only action available is to delete the subscription.

Administering Licenses

As Administrator you can view the status of all user sessions.

The Enterprise Portal has a standard concurrent license that allows one administrator connection. You do not need to purchase licenses for ER/Studio Enterprise users. Their ER/Studio Enterprise license includes Portal use. The Portal uses three connection types:

- **Base Administrator Connection**: This is the grace connection that comes standard with the Portal.
- **Concurrent User Connection**: The total number of connections at one time is restricted to the number purchased. There is no restriction on a login name being used more than once simultaneously to instantiate multiple user sessions.

- **Exclusive User Connection**: The total number of connections at one time is restricted to the number of ER/Studio Enterprise licenses, including node locked and floating licenses. Exclusive user connections are assigned to an ER/Studio Enterprise user and the user cannot have more than one user session running at any one time.

  NOTE: The way sessions are managed is browser specific and depending on the browser in use, you may not be able to log in using the same name for two different sessions or using two different logins. Some browsers treat windows and tabs of the application as one instance and will not allow you to run two sessions simultaneously. However, you can open multiple instances of Internet Explorer and log in multiple time using the same concurrent user connection, or create several different sessions using a mix of concurrent and exclusive connections.

Add-on licenses can be either exclusive or concurrent licenses and have a serial number that must be registered for validation. You can also purchase additional add-ons with 5, 10, 20, or 50 connections.

You can also set up an Evaluation License.

Understanding the User Login Authorization Process

When an administrator or non-administrator attempts to log in to the Portal, the system determines whether or not to authorize the user, and the type of license to use, according to the following rules:

For Administrators:

1. If the user has been assigned an exclusive connection, the exclusive connection is used. If the exclusive connection is already in use, login fails.
2. If the user has not been assigned to an exclusive connection, and a concurrent connection is available, the concurrent connection is used. If a concurrent connection is unavailable, the grace connection is used. If the grace connection is already in use, login fails.

For Non-Administrators:

1. If the user has been assigned an exclusive connection, the exclusive connection is used. If the exclusive connection is already in use, login fails.
2. If the user has not been assigned an exclusive connection, and a concurrent connection is available, the concurrent connection is used. If no concurrent connections are available, login fails.

Additional License Information

Inactive users are automatically timed out 30 minutes after the last user interaction. This is so licenses/connections are freed up even if a user forgets to close the browser or logout.

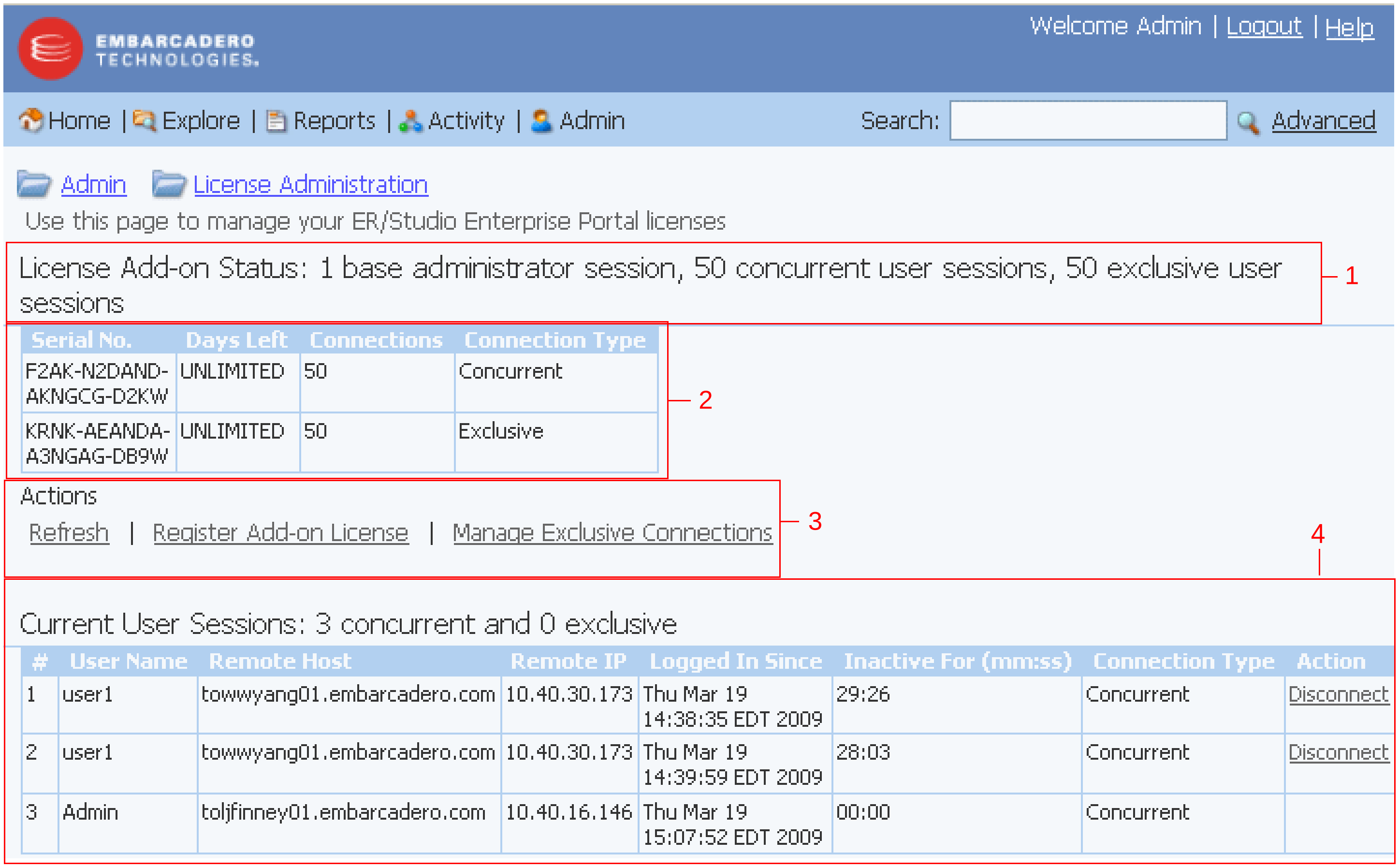
The Administrator can view the current sessions logged into the portal on the License Admin interface.

The License Admin interface displays the amount of time the users have been inactive.

The user activity is archived so that the Admin can see activity over time and determine if more licences need to be purchased. The Activity Dashboard shows information on both Login and Connection activity that can help you determine whether new licenses need to be purchased.

Managing Licenses

The elements of the License Administration page are explained below:



1 Displays the license Add-on Status that indicates how many user sessions are allowed. There are two user session license types available:

- **Concurrent user sessions**: Number of connections available to use concurrently. Concurrent licenses do not restrict the number of Portal connections made by the same user.
- **Exclusive user sessions**: Number of exclusive user sessions licensed. Exclusive user licenses restrict the user to one Portal connection and can be assigned to ER/Studio Enterprise users.

2 Lists all registered and activated license add-ons.

3 There are three Actions links:

- **Refresh**: Updates the licensing module by rereading the license file from the disk.
- **Register Add-on License**: Opens the registration page and populates the registration code with a unique number that identifies the machine on which the portal is installed and is generated by the licensing module.
- **Manager Exclusive Connections**: Opens the Exclusive Connection Administration page where the administrator can allocate exclusive licenses to ER/Studio Enterprise users, up to the maximum number shown in the License Add-on Status.

4 Lists the users that are currently using the application. This table also shows the remote host id, remote IP address, the date and time when the user logged in, and how long the user has been inactive. The Connection Type column displays Exclusive or Concurrent depending on the license type the user is using for this connection.

NOTE: If the maximum number of connections is reached, the next login attempt will get the following error message: "Too many open sessions, please contact your administrator or Key@embarcadero.com to purchase more licenses."

The Action column in this section allows to the administrator to log off (disconnect) users. The current user cannot disconnect himself.

Register Add-On License

1. Log in to the application as an Administrator.
2. On the Dashboard, click **Admin** to open the Admin Services page and then click **License Admin.**
3. Under Actions, click **Register add-on license** and a Product Registration Page appears.
4. Enter the serial number that you received from Key@embarcadero.com and click **Next**.

   NOTE: You will have a serial number for each add-on. For example, if you bought 25 licenses you would receive two serial numbers, one for 20 connections and one for five. You have to register each serial number in order to have the 25 connections. You must complete all the licensing steps for each serial number to register each add-on.

5. The Registration Code is a number that identifies the machine and is generated by the licensing module.
6. On the Embarcadero Product Registration Login page, you can login to your existing Developer Network account or create a new account.
   - If you have an existing account enter your Login name or e-mail address, the password, and click **Next**.
   - Click **Create Account** if you need a new user account. Fill in the required information and click **Next**.
7. Review the Product, Serial Number, and Registration Code information on the Product Registration page and then select either to download or e-mail the activation file.
8. If you select **Download**, a File Download dialog appears. Click **Save** and save the file in the appropriate folder WIndows folder: [product install folder]\license (for example `C:\Program Files\ERStudioEnterprisePortalX.X\license`)
9. If you select **e-mail**, you will get an auto-generated message from Embarcadero-licensing. Open the e-mail and save the attached *reg*.txt* file in the appropriate WIndows folder: [product install folder]\license (for example `C:\Program Files\ERStudioEnterprisePortalX.X\license`).
10. Close the Product Registration Page.
11. Click **Refresh** on the License Administration page and the add-on license information is updated.

Administering Permissions

The Roles to be used in Permissions are read directly from the ER/Studio Repository. Changes to permissions, roles, and users in ER/Studio are not updated until the ER/Studio Repository is synchronized with the Portal Reporting repository.

By default, the Super User is given administrative permissions. The users assigned to the Super User role in ER/Studio can then assign permissions to other groups using this interface. It is recommended that you do not restrict access to anything that isn't a top-level element, for example the Activity dashboard.

NOTE: While the Pentaho interface supports Access Control Lists (ACL) entries by user, the Enterprise Portal uses only Roles.

1 Click **Admin** to open the Admin Services page.

2 Click **Permissions** and the associated Web page appears.

3 In the **Solution Repository** area, expand the hierarchical table and select the folder or content you want to set the permission for.

NOTE: ACL entries can be created at each folder or content item level. Lower level entries override the higher level entries.

4 In the **Settings** area you can set the levels of permission for each user. Select **Subscribe**, **Execute**, and/or **Write** options. Click **Update** to set the changes.

5 Click **Add** to add another user and the Add New Permission area appears, which displays all Roles and Users available.

NOTE: Users must be first created and assigned to a role in ER/Studio before they can access the Repository through the portal.

6 Select the desired role and then set the permission level by selecting the Subscription, Execute, and/or Write options in the same panel. Click **Add** and the new Role has been added to the list of roles in the Setting pane.

7 You can also reset the list to the default settings or add a new user at this point.

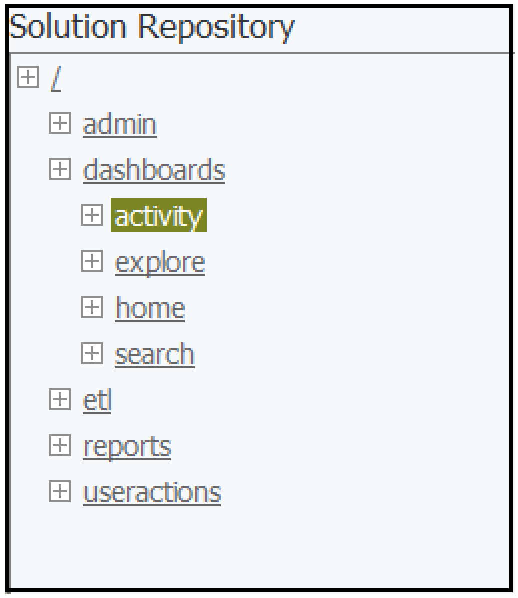
Setting a Permission

A potential use case would be to hide the Activity dashboard from the Authenticated users.

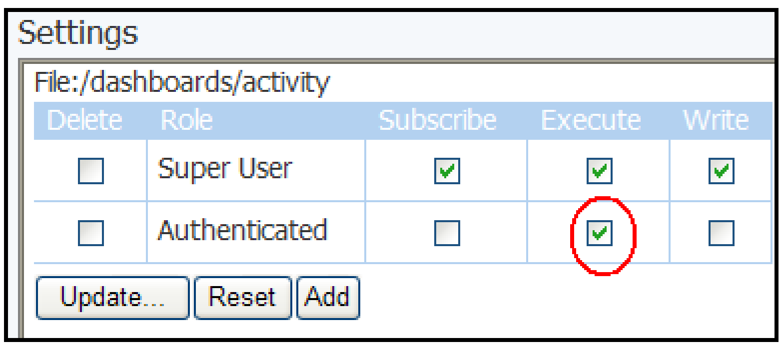
1 Click **Admin** to open the Admin Services page.

2 Click **Permissions** () and the associated Web page appears.

3 In the Solution Repository pane, expand the hierarchical table and select the folder **Activity**.

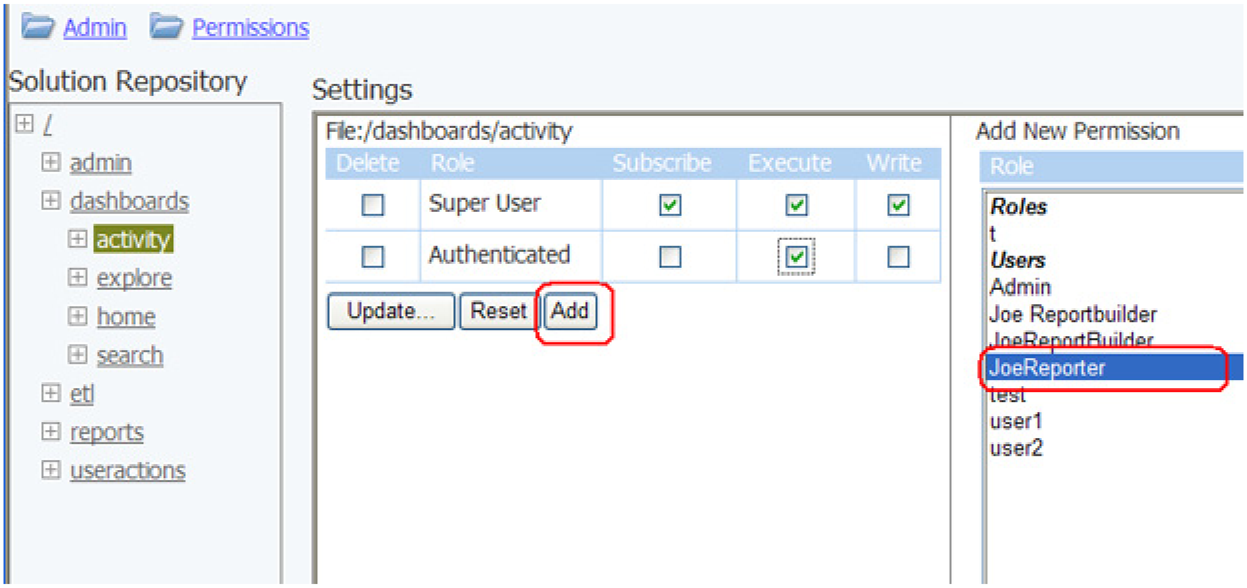


4 In the Settings panel change the levels of permissions for the Authenticated user by deselecting the Execute option (circled in red below).



5 Click **Update** to set the changes.

NOTE: You can also set levels of permission on a user-by-user basis.



See Also

"[Data Synchronization Overview](#)"

"[Scheduling the Synchronization Process](#)"

"[Executing the Synchronization Process](#)"

Cleaning the Content Repository

1 Click **Admin** to open the Admin Services page.

2 Click **Clean Repository** () and the associated Web page appears.

3 A new Web page appears telling you that your "Action Successful! Found and deleted 0 file(s) more than180 days old."

Glossary

Business Reports: There are three reports available: Attribute Definitions, Business Rules, and Entity Definitions.

Diagram: A graphical presentation of a collection of model elements.

Connection Types: The Portal uses three connection types:

- **Base Administrator Connection**: This is the grace connection that comes standard with the Portal.
- **Concurrent User Connection**: The total number of connections at one time is restricted to the number purchased. There is no restriction on a login name being used more than once simultaneously to instantiate multiple user sessions.
- **Exclusive User Connection**: The total number of connections at one time is restricted to the number of ER/Studio Enterprise licenses, including node locked and floating licenses. Exclusive user connections are assigned to an ER/Studio Enterprise user and the user cannot have more than one user session running at any one time.

Extraction, Transformation and Load (ETL): A process in data warehousing that involves extracting data from other sources, transforming it to fit business need, and then loading it into an end target, such as the data warehouse.

Logical Model: A logical entity-relationship model conforms to relational theory and contain only fully-normalized entities. For a logical data model to be normalized, it must include the full population of attributes to be implemented and those attributes must be defined in terms of their domains or logical data types.

A logical data model requires a complete schema of identifiers or candidate keys for unique identification of each occurrence in every entity. Since there are choices of identifiers for many entities, the logical model indicates the current identify selection.

Pentaho Business Intelligence Platform: The Business Intelligence (BI) platform fields all user data requests and sends the results to the browser for presentation.

Permissions: Gives a user the ability to access the Reporting Database. The Roles to be used in Permissions are read directly from the ER/Studio Repository. By default, the Super User is given administrative permissions. The users assigned to the Super User role in ER/Studio can then assign permissions to other groups using this interface.

Physical Model: A complete physical data model includes all the database artifacts required to create relationships between tables and achieve performance goals, such as indexes, constraint definitions, linking tables, partitioned tables, and clusters.

Roles: Default roles are provided in the ER/Studio Enterprise Portal. These roles are granted permissions to access actions. The default roles are Authenticated and Super User.

Repository: A database where data is stored and maintained. For the ER/Studio Enterprise Portal, the database, or repository, is associated with the ER/Studio application.

Security: All users are authenticated before they are able to run queries and reports. Each user must have a user name and password that is stored in the ER/Studio Repository database.

Solution: A set of documents defining the processes and activities required to solve a specific business intelligence problem.

Solution Repository: The Solution Repository is the location where solutions and the metadata they rely on is stored and maintained. Requests made to the platform to have actions executed rely on the action being defined in the Solution Repository.

Scheduler: Administrative function to schedule and monitor synchronization of the ER/Studio Repository with the Reporting Database.

Technical Reports: The Enterprise Portal has six technical reports: Column Data Lineage; Domain Bindings; Entity, Submodel, Model, Diagram Report; Entity Attachments; Reference Values; and Security Classifications.

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