



Product Documentation

---

# ER/Studio® Portal

User Guide

Version 1.5.1

Published February 2010

---

**CORPORATE HEADQUARTERS**  
100 CALIFORNIA STREET  
12TH FLOOR  
SAN FRANCISCO, CALIFORNIA  
94111 USA

**EMEA HEADQUARTERS**  
YORK HOUSE  
18 YORK ROAD  
MAIDENHEAD, BERKSHIRE  
SL6 1SF, UNITED KINGDOM

**ASIA-PACIFIC HEADQUARTERS**  
L7, 313 LA TROBE STREET  
MELBOURNE VIC 3000  
AUSTRALIA

© 2010 Embarcadero Technologies, Inc. Embarcadero, the Embarcadero Technologies logos, and all other Embarcadero Technologies product or service names are trademarks or registered trademarks of Embarcadero Technologies, Inc. All other trademarks are property of their respective owners.

Embarcadero Technologies, Inc. is a leading provider of award-winning tools for application developers and database professionals so they can design systems right, build them faster and run them better, regardless of their platform or programming language. Ninety of the Fortune 100 and an active community of more than three million users worldwide rely on Embarcadero products to increase productivity, reduce costs, simplify change management and compliance and accelerate innovation. The company's flagship tools include: Embarcadero® Change Manager™, CodeGear™ RAD Studio, DBArtisan®, Delphi®, ER/Studio®, JBuilder® and Rapid SQL®. Founded in 1993, Embarcadero is headquartered in San Francisco, with offices located around the world. Embarcadero is online at [www.embarcadero.com](http://www.embarcadero.com).

February 10, 2010

# Contents

- Welcome to ER/Studio Portal . . . . . 5
  - Product Benefits . . . . . 6
  - About this Document . . . . . 8
  - Additional Product Information . . . . . 9
- ER/Studio Portal Overview . . . . . 10
  - Architectural Overview . . . . . 10
  - Security Overview . . . . . 12
- Using ER/Studio Portal . . . . . 14
  - Starting ER/Studio Portal . . . . . 14
  - Setting Email, Search Filter, and Search Results Preferences . . . . . 14
  - Using the Dashboards . . . . . 15
    - Home . . . . . 16
    - Explore . . . . . 16
      - Saving Your Reports . . . . . 19
      - ER/Studio Data Architect Reports . . . . . 19
      - ER/Studio Business Architect Reports . . . . . 27
  - Reports . . . . . 55
    - Generating a Shared Report . . . . . 56
    - Viewing the Status of Reports Running in the Background . . . . . 58
    - Creating a Custom Report . . . . . 59
    - Favorite Reports . . . . . 65
    - Documenting and Organizing Reports Using Comments and Labels . . . . . 68
  - Activity . . . . . 70
    - Login Activity . . . . . 71
    - Updated Objects . . . . . 72
    - Connection Activity . . . . . 75
- Searching the Reporting Database . . . . . 77
  - Using the Simple Search . . . . . 78
  - Using the Advanced Search . . . . . 79
  - Viewing, Ordering, and Filtering Search Results . . . . . 80
    - Customizing Search Filters using RepoRpt.xml . . . . . 83
    - Customizing the Search Results Report . . . . . 84
    - Drill-down to Search Results Details . . . . . 84

## CONTENTS

Favorite Searches .....	90
Administrator's Guide .....	91
Admin .....	91
Data Synchronization Overview .....	91
Administrative Tasks .....	95
Using the Tomcat Configuration Application .....	98
Using the ER/Studio® Portal Configuration Manager .....	98
Scheduling the Synchronization Process .....	99
Executing the Synchronization Process .....	103
Viewing Synchronization Logs .....	104
Stopping the Synchronization Process .....	105
Moderating Comments .....	106
Administering Schedules .....	106
Administering Subscriptions .....	107
Subscription Content Actions .....	108
Creating Subscriptions .....	108
Managing User Interactions .....	113
Administering Licenses .....	114
Managing Licenses .....	116
Administering Permissions .....	118
Cleaning the Content Repository .....	120
Glossary .....	121
Index .....	123

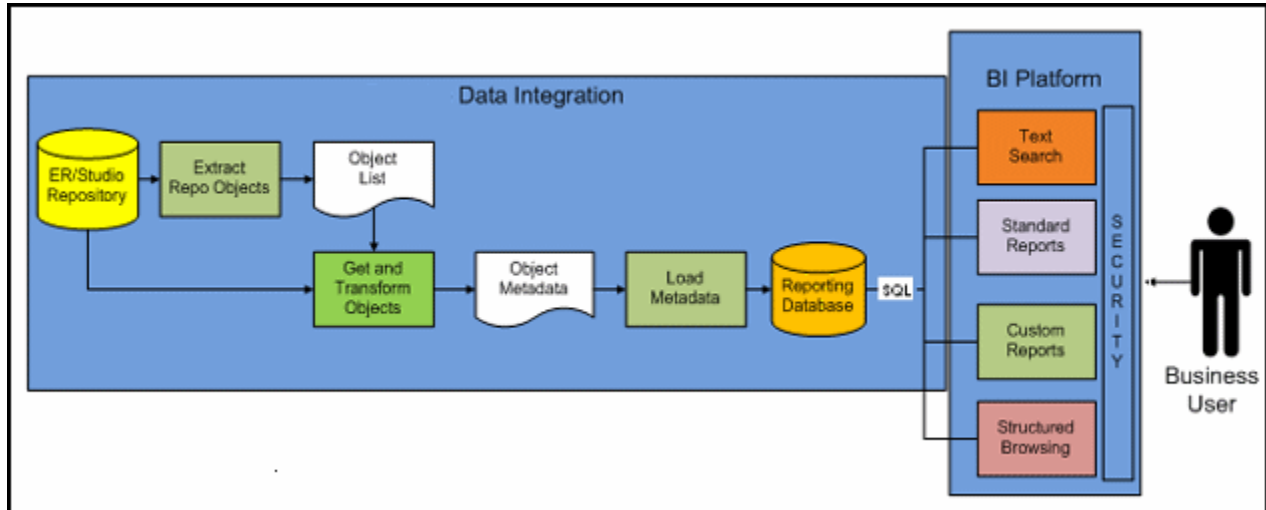
# WELCOME TO ER/STUDIO PORTAL

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

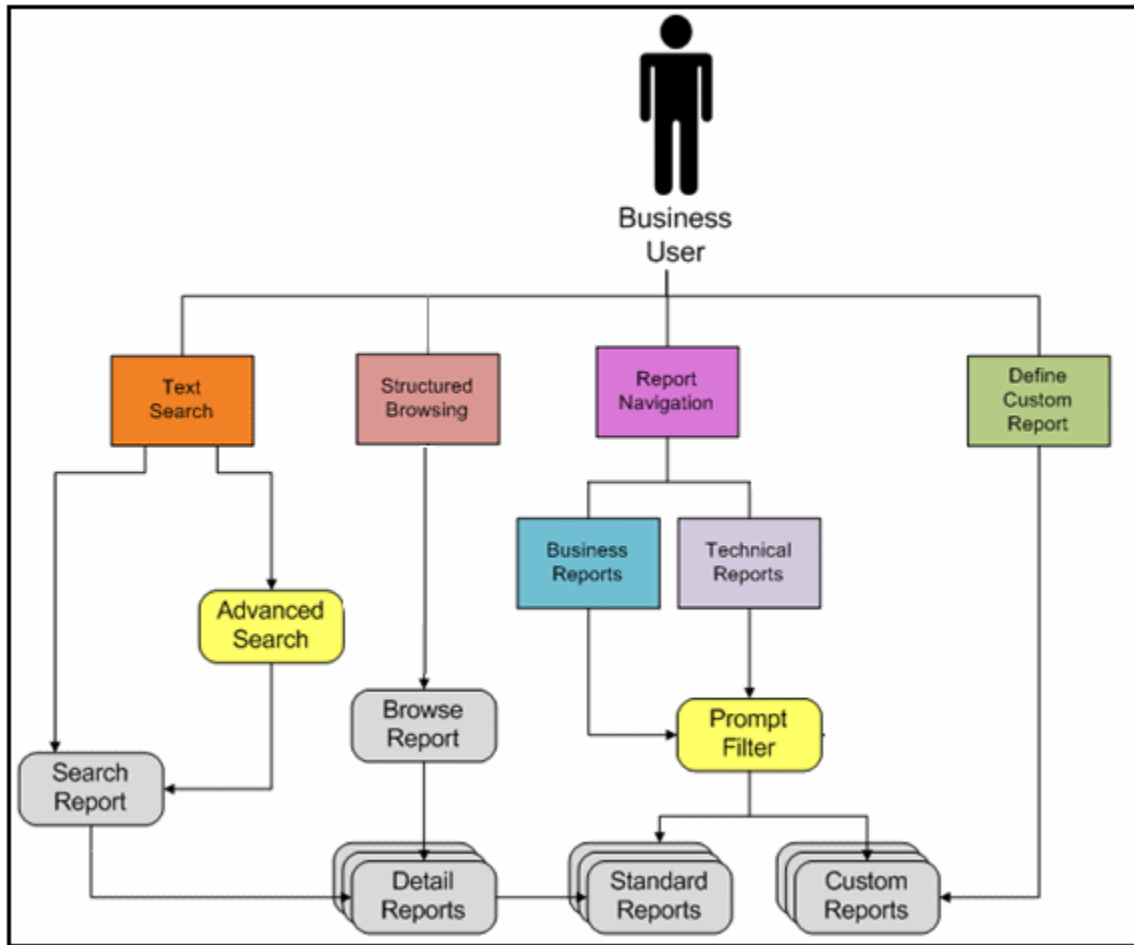
In addition, application development teams can use the portal to see what types of data already exist in the company. This eliminates replicating new data or deviating from the standard format data types needed to be implemented in existing applications.

ER/Studio 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 ways 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

ER/Studio Portal gives access to metadata information stored in ER/Studio Data Architect and ER/Studio Business Architect 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.

ER/Studio 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. ER/Studio 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 key features:

Feature	Description
Home Page	Interact with ER/Studio 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 <a href="#">Using the Dashboards</a> .
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 <a href="#">Searching the Reporting Database</a> .
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 <a href="#">Using the Advanced Search</a> .
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 <a href="#">Explore</a> .

Feature	Description
Reports	<p>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:</p> <ul style="list-style-type: none"> <li>• Business Reports: Attribute Definitions, Business Rules, and Entity Definitions</li> <li>• Technical Reports: Column Data Lineage; Domain Bindings; Entity, Model, Submodel and Diagram Report; Entity Attachments; Reference Values; and Security Classifications.</li> </ul> <p>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 <a href="#">Reports</a></p>
Customized Reports	<p>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.</p> <p>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 <a href="#">Creating a Custom Report</a>.</p>
Export, Print, and Email	Export, print, and email all standard and custom reports.
Labels, Comments, and Watches	Document your reports and communicate your ideas with other Portal users by using labels and comments. Then you can set a watch on the comments made on a report and receive an email whenever another user has added a comment to the watched report. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> .
Usage Reporting	See who is currently logged in to ER/Studio Portal, as well as a historical chart of Website usage. For more information, see <a href="#">Activity</a> .

## ABOUT THIS DOCUMENT

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

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



## ADDITIONAL PRODUCT INFORMATION

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](http://www.embarcadero.com/support), or click any of the links below, to find:

- [Documentation](#)
- [Online Demos](#)
- [Technical Papers](#)
- [Discussion Forums](#)
- [Knowledge Base](#)

# ER/STUDIO PORTAL OVERVIEW

Architecture and Security, two key components of ER/Studio® 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 ER/Studio® Portal. A separate reporting database, created by the database Admin, is synchronized with the ER/Studio Repository. The synchronization is scheduled by the ER/Studio® 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:

ER/Studio Business Architect Object	ER/Studio Data Architect Model Object	ER/Studio Data Architect Dictionary Object	ER/Studio Data Architect Data Lineage Object
Assignment	Attribute	Attachment Text List	Comment
Attributes	Comment	Attachment Type	Data Flow
Comment	Diagram	Bound Attachment	Data Lineage Column
Incoming/Outgoing Condition	Entity	Bound Domain	Data Lineage Component
Description	Entity Display	Bound Default	Data Lineage Component Display
Entity	Project	Bound Rule	Data Lineage Display
Event	Relationship	Bound Reference Value	Data Lineage Rule
Gateway	Relationship Display	Bound Security Property	Data Lineage Source
Group	Submodel	Bound User Datatype	Data Lineage Table
Interaction	View	Comment	Data Lineage View
Link	View Column	Domain Dictionary	Data Movement Column Link
Message Flow	View Display	Default	Data Movement Model Link
Model		Dictionary	Data Movement Rule Link
Notes		Reference Value	Data Stream
Project		Reference Value Pair	Transformation Display
Property		Rule	Transformation Field
Process		Security Property	Transformation Object
Relationship		Security Text List	
Sequence Flow		Security Type	
Subject Area		User Datatype	
Task			
Trigger			
Usage (CRUD)			
Verb/InverseVerb Phrase			
Workspace			

### Business Intelligence (BI) Platform

The Pentaho Open Source Business Intelligence Platform (version 1.7 GA) is the heart of ER/Studio® 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 ER/Studio® Portal reporting.

Pentaho's reporting capabilities are combined with the Repository Reporting database to build the ER/Studio® 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 Data Architect (ER/Studio DA) or ER/Studio Business Architect (ER/Studio BA) user. The licensing for the Portal is separate from that of ER/Studio DA and ER/Studio BA.

---

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 ER/Studio® Portal are users, groups, and permissions. Users and groups are not defined within ER/Studio® Portal itself, but within the ER/Studio Repository. Permissions are granted based on a role.

---

**NOTE:** Permissions in ER/Studio® 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 ER/Studio® Portal.

Role	Definition
User	Users assigned to this role can execute Shared Custom Reports as well as Business and Technical Reports.

Role	Definition
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 ER/Studio® 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 ER/STUDIO 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 ER/Studio Portal](#)
- [Setting Email, Search Filter, and Search Results Preferences](#)
- [Using the Dashboards](#)
- [Searching the Reporting Database](#)

## STARTING ER/STUDIO PORTAL

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 ER/Studio 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 ER/Studio Portal installer. Select the *Remember me* option on the login dialog and ER/Studio will auto complete the User Name and Password for you when you choose to log in.

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 ER/Studio Portal server may need to be restarted. In this case, please contact the ER/Studio Portal Administrator.

---

## SETTING EMAIL, SEARCH FILTER, AND SEARCH RESULTS PREFERENCES

If you want to watch an object for new comments, you need to specify an email address to which the system will send an email to inform you of any new comments. Also, in preferences you can specify the default number of filters that can be active for a search.

- 1 Next to **Welcome** at the top of the any Portal page, click your user name and then select **Preferences**.
- 2 On the Portal Preferences Page, click **Edit**.

- 3 To specify where email notifications for watches you set up should be sent, enter your email address in the **Notifications** area.






To specify the default number of filters, enter the number of filters in the **Search** area. You can click the colored circle to the right of the filter to turn on and off the filter limitation and display more or fewer filters as desired.

To specify the default number of results per page return for a search, enter the number of results in the **General** area.

- 4 Click **Apply Changes**.

## USING THE DASHBOARDS

Your interaction with ER/Studio 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
<a href="#">Home</a>		Gives you access to four frequently used functions in ER/Studio Portal. It also gives quick access to Favorite Searches and Favorite Reports. This is the default page that appears when you first start ER/Studio Portal.
<a href="#">Explore</a>		Provides both a tree interface for structured browsing and detailed reports for selected diagrams, models, and submodels.
<a href="#">Reports</a>		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.
<a href="#">Activity</a>		Displays three information panels displaying login activity, connection activity, and object history. Reports based on this information can be generated and viewed.
<a href="#">Admin</a>		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.

## Other Dashboard Options

Preferences, Labels, Comments, Watches	Click your user name on the upper-right corner of the Web page to gain access to preferences where you specify your email address and filter preferences, and label, comment and watch pages where you can control these items and their usage. For more information, see <a href="#">Setting Email, Search Filter, and Search Results Preferences</a> and <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> .
Logout	Appears on the upper-right corner of the Web page. Click to logout.
Help	Appears on the upper-right corner of the Web page. Click to display online Help.
Search	The simple and advanced search features also appear on the toolbar. For more information, see <a href="#">Using the Simple Search</a> and <a href="#">Using the Advanced Search</a> .

## HOME

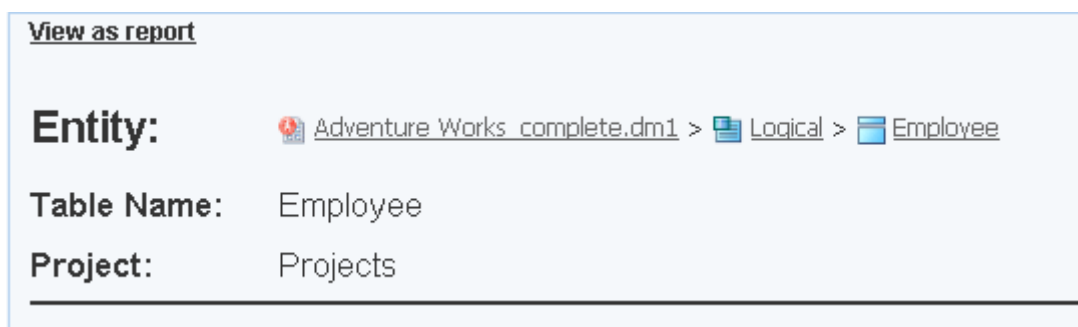
The Home dashboard gives you quick access to the major features available in ER/Studio Portal:

Feature	Description
<a href="#">Explore</a>	You can explore diagrams, models, submodels, and objects of existing ER/Studio Data Architect projects and ER/Studio Business Architect workspaces.
<a href="#">Advanced Search</a>	Search the ER/Studio 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.
<a href="#">Favorite Searches</a>	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.
<a href="#">Custom Reports</a>	Create and publish custom reports using a quick and easy wizard.
<a href="#">Shared Reports</a>	Displays the Solution Browser where you can run existing Business and Technical reports. Saved custom reports can also be run.
<a href="#">Favorite Reports</a>	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 Browse the ER/Studio Repository or by clicking the Explore dashboard icon. The Explore dashboard provides a hierarchical-based navigation of the repository projects and workspaces. This hierarchy displays the project name or workspace name, diagram, model, and submodel of the report repository. As you click the links in the hierarchy, reports open. From the reports you can then drill down into detailed reports. The portal keeps track of your drill-down navigation details and displays this information in the report name as shown in the following.





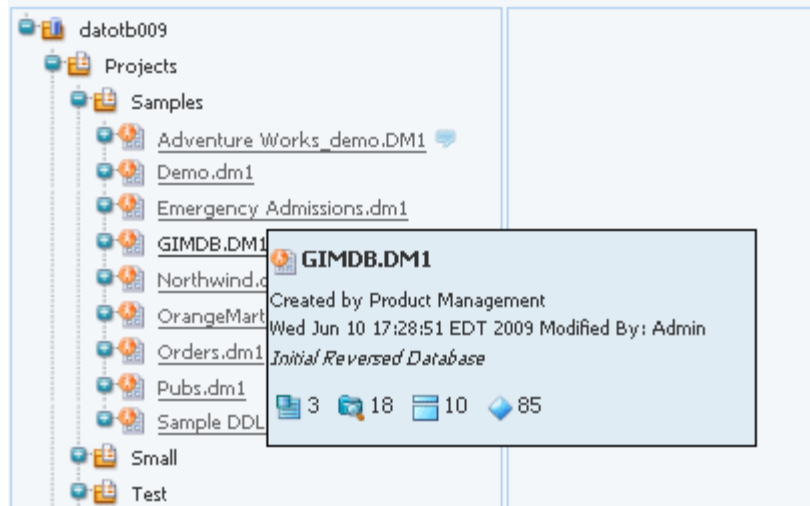
From the navigation details displayed you can see that to arrive at the Employee entity, you first clicked the Adventure Works diagram then the Logical Model and finally the Employee entity.

You can also save reports in various file formats and view images of models and submodels. For more information, see [Saving Your Reports](#).

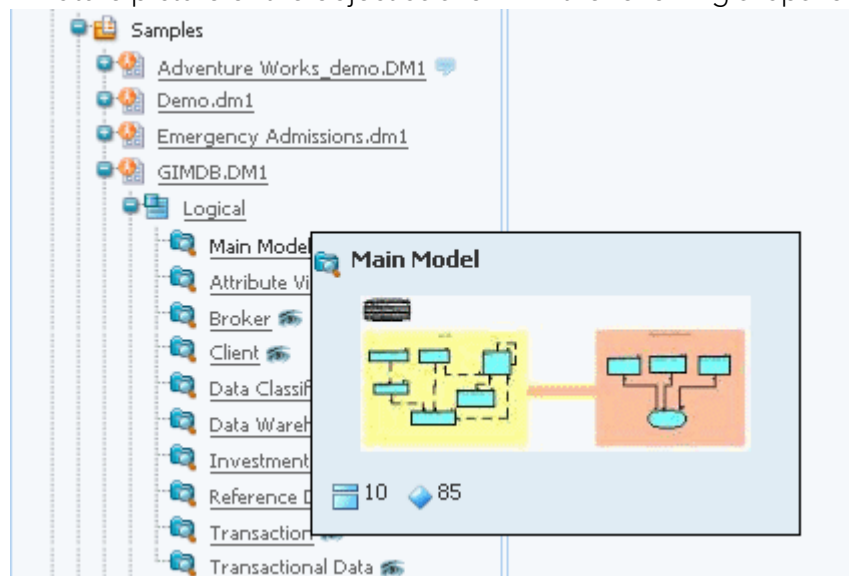
- 1 Click **Browse the ER/Studio Repository**.
- 2 Click **Explore** and a hierarchy of the Projects and Workspaces in the Report Repository open.
- 3 You can explore and create reports for ER/Studio DA diagrams, models, submodels, and data lineage data flows, and transformations; and ER/Studio BA workspaces, business projects, business models, and business diagrams. In addition, you can also view an image of ER/Studio DA model, submodel or data flow, and ER/Studio BA diagrams. In ER/Studio DA images, you can then click an object in the image to view a report of the selected object.

- Expand the hierarchy to view the models and submodels within a project or workspace.

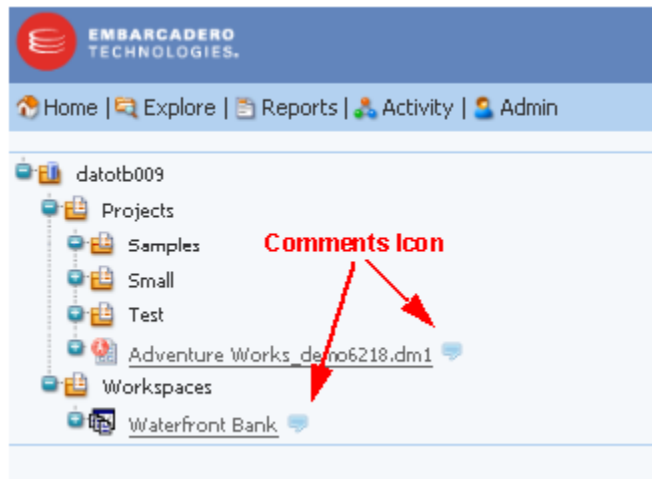
As you hover over the diagram name, diagram details are displayed. At the bottom of the diagram details example below, from left to right, the details indicate that in the selected diagram, there are three models, 18 submodels, and in the main logical model there are 10 entities, and 85 attributes.



Hovering over the name of an object with an eye icon, such as a model or a submodel, displays a miniature picture of the object as shown in the following snapshot.



- To see a list of all comments for an ER/Studio DA diagram, click the Comments icon to the right of the diagram name in the Repository Explorer. Comments can also be added and viewed at the workspace level for ER/Studio Business Architect.



This section contains the following topics:

- [Saving Your Reports](#)
- [ER/Studio Data Architect Reports](#)
- [ER/Studio Business Architect Reports](#)

## SAVING YOUR REPORTS

Detail reports by default display in HTML format; however, at the top of each detail report there are options enabling you to save the report in two other file formats.

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

## ER/STUDIO DATA ARCHITECT REPORTS

This section contains the following topics:

- [Viewing ER/Studio DA Diagrams, Models and Submodels](#)
- [Viewing ER/Studio DA Data Flow Reports](#)

- [Viewing ER/Studio DA Model Reports](#)
- [Viewing ER/Studio DA Submodel Reports](#)
- [Viewing ER/Studio DA Transformation Reports](#)

## VIEWING ER/STUDIO DA DIAGRAMS, MODELS AND SUBMODELS

Hovering your mouse over some objects in the Repository hierarchy displays details about the object, or a small image of the object. Clicking the eye icon to the right of an object displays a larger diagram of the object.

- 1 Click **Explore** to view the Repository hierarchy.
- 2 Expand the **Projects** hierarchy.
- 3 *To view details such as the number of models, submodels, entities, and attributes, hover your mouse over the model or submodel name.*

*To view a small representation of the model or submodel, hover your mouse over the model or submodel name.*

*To view a larger representation of the model or submodel, click the view icon (eye) to the right of the model or submodel name. A visual representation of the model or submodel 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.

- 5 Click an entity or table in the diagram to view the Entity report for the selected entity or table.

### Notes

- From the Entity or View report you can navigate to other reports by clicking the diagram, model, or view name at the top of the report.
- You can watch comments made on this report by clicking the closed envelope icon in the top-right corner of the report. An open envelope indicates that you are already watching the report. For more information, see [Working with Comments](#).
- You can add labels or comments to the report. For more information, see [Documenting and Organizing Reports Using Comments and Labels](#).

## VIEWING ER/STUDIO DA DATA FLOW REPORTS

The Data Flow report shows the transformations and the name and type of the component source objects of the data flow.

The Data Flow report is available through the Repository hierarchy.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Projects** hierarchy.
- 3 Expand the diagram and data lineage nodes and then click the data flow name to view the basic data flow report.

**TIP:** You can view an image of the data flow by clicking the image icon (eye) to the right of the data flow name.

- 4 Click **View As Report** and the associated report appears displaying the following Options and information:

Field/Option	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> .  <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Data Flow	Displays the name of the data flow and provides a link to the diagram object above the data flow in the diagram hierarchy.
Project	Name of the Repository project containing the data flow.
Transformations	Displays the name of the transformation used on the components. A transformation definition is composed of the inputs and outputs, data movement rules, and the parent and child objects of the inputs and outputs. Click the transformation name to view the transformation detail report.
Components:	<b>Source Object Name:</b> Displays the name of the object that is transformed in the data flow. <b>Source Object Type:</b> Displays the type of object that is transformed in the data flow.
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO DA DIAGRAM REPORTS

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

- 1 Click **Explore** to view the Repository hierarchy.
- 2 Expand the Projects 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
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
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	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.
Data Model	<b>Logical Model:</b> 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. <b>Physical Model:</b> 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.
Data Lineage	<b>Data Movement Rules:</b> Provides details on the rules associated with an (Export Transform and Load (ETL) operation, that transforms data from one format to another. <b>Data Flows:</b> Provides the name of the data flow. The data flow encompasses the inputs, outputs, and transformation. <b>Data Movement Sources and Targets:</b> Provides the names of the inputs and outputs of the data transformation.
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

---

**NOTE:** 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.

---

- 4 Click a [Logical](#) or [Physical](#) model, to drill down to detailed submodel, entity, relationship information, and to view reports.

You can attach labels or comments to detailed reports by clicking Add Labels or Add Comments. For more information, see [Documenting and Organizing Reports Using Comments and Labels](#).

### VIEWING ER/STUDIO DA MODEL REPORTS

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

The Model report is available through the Repository hierarchy.

- 1 Click **Explore** to view the Repository hierarchy.
- 2 Expand the **Projects** hierarchy and click the model name to view the basic model report.

**TIP:** You can view an image of the model by clicking the image icon (eye) to the right of the model name.

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

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
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 and provides a link to the diagram above the model in the diagram hierarchy.
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.

Field	Description
Related Reports	Related reports displaying additional information. The available reports are: <b>Attribute Definitions:</b> Displays the detail report displaying model attributes. <b>Entity Definitions:</b> Displays the detail report of entity definitions for the model. <b>Business Rules:</b> Displays the detail report of business rules for the model. <b>Attachments:</b> Displays the Entity Attachments detail report for the model. <b>Security Information:</b> Displays the detail report of security classifications of objects for the model.
Submodels	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.
Entities	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.
Relationships	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.
Views	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.
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

### VIEWING ER/STUDIO DA 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 **Projects** hierarchy and click the submodel name to view the basic submodel report.

**TIP:** You can view an image of the submodel by clicking the image icon (eye) to the right of the submodel name.



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

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
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 and provides links to the model and diagram above the submodel in the diagram hierarchy.
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.
Related Reports	Related reports displaying additional information. The available reports are: <b>Attribute Definitions:</b> Displays the detail report displaying the attributes and their definitions for the model. <b>Entity Definitions:</b> Displays the detail report of entity definitions for the submodel <b>Business Rules:</b> Displays the detail report of business rules for the submodel. <b>Attachments:</b> Displays the Entity Attachments detail report for the submodel. <b>Security Information:</b> Displays the detail report of security classifications of objects for the model.
Definition	Displays the submodel definition. When creating a submodel, the definition can be used to describe its purpose. displays the Name and Definition of each associated entity.
Entities	Displays the names and definitions of the entities in the submodel. 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.
Relationships	Displays the details of relationships in the submodel 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.
Views	Displays the name and owner of the views in the submodel.
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO DA TRANSFORMATION REPORTS

The Transformation report shows the inputs, outputs, data movement rules, and parent and child objects of the transformation associated with the data flow.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Projects** hierarchy and then drill down and click the transformation name to view the basic transformation report.
- 3 Click **View As Report** and the associated report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Transformation	Displays the name of the transformation and provides links to diagram objects above the transformation in the diagram hierarchy.
Project	Name of the Repository project containing the transformation.
Business Definition	Displays the business definition as defined in the transformation editor.
Code Definition	Displays the code definition as defined in the transformation editor.
Related Reports	Related reports displaying additional information. The available reports are: <b>Attachments:</b> Displays the Entity Attachments detail report for the transformation.
Inputs	Displays the names of the inputs to the transformation and provides links to the input objects.
Outputs	Displays the names of the outputs to the transformation and provides links to the output objects.
Data Movement Rules	Displays the names of the data movement rules used to transform the input data and create the output data.
Parent Objects	Displays the names of the parent objects for the transformation inputs and provides links to detail reports of the parent objects.
Child Objects	Displays the names of the child objects for the transformation outputs and provides links to detail reports of the child objects.
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## ER/STUDIO BUSINESS ARCHITECT REPORTS

This section contains the following topics:

- [Viewing ER/Studio BA Diagrams](#)
- [Viewing ER/Studio BA Annotation Reports](#)
- [Viewing ER/Studio BA Assignment Reports](#)
- [Viewing ER/Studio BA Business Entity Reports](#)
- [Viewing ER/Studio BA Business Event Reports](#)
- [Viewing ER/Studio BA Gateway Reports](#)
- [Viewing ER/Studio BA Group Reports](#)
- [Viewing ER/Studio BA Business Link Reports](#)
- [Viewing ER/Studio BA Message Flow Reports](#)
- [Viewing ER/Studio BA Business Model Reports](#)
- [Viewing ER/Studio BA Business Process Reports](#)
- [Viewing ER/Studio BA Process Property Reports](#)
- [Viewing ER/Studio BA Business Project Reports](#)
- [Viewing ER/Studio BA Relationship Reports](#)
- [Viewing ER/Studio BA Sequence Flow Reports](#)
- [Viewing ER/Studio BA Subject Area Reports](#)
- [Viewing ER/Studio BA Business Task Reports](#)
- [Viewing ER/Studio Business Trigger Reports](#)
- [Viewing ER/Studio BA Usage Reports](#)
- [Viewing ER/Studio BA Workspace Reports](#)

### VIEWING ER/STUDIO BA DIAGRAMS

- 1 Click **Explore** to view the Repository hierarchy.
- 2 Expand the *Workspaces* node and the *Projects* node if necessary.
- 3 To view a very small image of the model or submodel, hover your mouse over the diagram name.
- 4 To view an larger representation of the model or submodel, click the view icon (eye) to the right of the diagram name.

A visual representation of the model or submodel appears..

- 5 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 ER/STUDIO BA ANNOTATION REPORTS

The Annotation Report shows the description and notes that describe the annotation; names the annotation category, and describes the source and target objects of the annotation along with its usage.

The Annotation report can be accessed through the Business Model for process-type models or from the Process Diagram report.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspaces* hierarchy.
- 3 Expand the *Workspace*, *Project*, and *Model* nodes, and then click the name of the *Business Model* to view the basic *Business Model* report.
- 4 In the *Process* section of the *Business Model* report, click the name of a *Process* to view the basic *Business Process* report.
- 5 In the *Annotation* area, click the name of an annotation to view the basic *Annotation* report.
- 6 Click **View As Report** and the *Annotation* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Annotation	Displays the name of the selected annotation and provides links to reports for workspace objects above the annotation in the report hierarchy.
Description	The description of the annotation as defined in the properties of the annotation in ER/Studio BA.
Notes	The notes of the annotation as defined in the properties of the annotation in ER/Studio BA.
Link Source Object	Describes the source object that instantiated links to this annotation and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link Target Object	Describes the target object of the links instantiated in the annotation and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the annotation and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .

Field	Description
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

### VIEWING ER/STUDIO BA ASSIGNMENT REPORTS

The Assignment Report shows the description and notes that describe the assignment, and describes the source and target links of the assignment along with the assignment usage.

The Assignment report can be accessed through the Business Event, Business Process, Business Task, and Gateway reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspaces* hierarchy.
- 3 Expand the *Workspace*, *Project*, and *Model* nodes, and then click the name of the *Business Model* to view the basic *Business Model* report.
- 4 In the *Process* section of the *Business Model* report, click the name of a *Process* to view the basic *Business Process* report.
- 5 In the *Assignment* section of the basic *Business Process* report, click an assignment name to view the basic *Assignment* report.
- 6 Click **View As Report** and the *Assignment* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Assignment	Displays the name of the selected assignment and provides links to reports for workspace objects above the assignment in the report hierarchy. Also displays the assign time and originator of the assignment.
Description	The description of the assignment as defined in the properties of the assignment in ER/Studio BA.
Notes	The notes of the business assignment as defined in the properties of the assignment in ER/Studio BA.
Assign To Property	Displays the name and type of properties associated with the assignment. Provides links to Property reports for the business assignments. For more information, see <a href="#">Viewing ER/Studio BA Process Property Reports</a> .

Field	Description
Link's Source	Describes the source object that instantiated links to this assignment and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the assignment and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the assignment and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA DIAGRAM REPORTS

There are two types of Diagram Reports:

- **Business Diagram Report:** This is the report that displays for a conceptual diagram. It shows the description and notes that describe the diagram; names the subject area, entity and group displays; and describes the links and usages defined in the diagram. For more information, see [Business Diagram Report](#).
- **Process Diagram Report:** This is the report that displays for a process diagram. It shows the description and notes that describe the diagram; names the process, task, and event displays; and describes the links and usages defined in the diagram. For more information, see [Process Diagram Report](#).

The Diagram reports can be accessed through the Workspace hierarchy and through the Business Model reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace*, *Project*, and *Model* nodes to the *Diagram* level and then click the name of the business diagram to view the basic *Business Diagram* report.
- 4 Click **View As Report** and the Business Diagram report appears displaying the following information:

The information displayed depends on whether the Business Diagram is a Process or Conceptual type.

## Business Diagram Report

Field	Description
Envelope	<p><i>If closed</i>, click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a>.</p> <p><i>If open</i>, click to stop watching the report. You will no longer receive email messages when comments are added to the report.</p>
Business Diagram	Displays the name of the selected business diagram and provides links to reports for workspace objects above the diagram in the report hierarchy.
Description	The description of the diagram as defined in the properties of the diagram in ER/Studio BA.
Notes	The notes of the diagram as defined in the properties of the diagram in ER/Studio BA.
Subject Area Display(s)	Names of the subject areas contained in the selected diagram and links to Subject Area reports for those subject areas. For more information, see <a href="#">Viewing ER/Studio BA Subject Area Reports</a> .
Entity Display(s)	Names of the entities contained in the diagram and links to Entity reports for those entities. For more information, see <a href="#">Viewing ER/Studio BA Business Entity Reports</a> .
Group Display(s)	Names the groups contained in the diagram. For more information, see <a href="#">Viewing ER/Studio BA Group Reports</a>
Link's Source	Describes the source object that instantiated links to this business diagram and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the business diagram and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a>
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the project and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## Process Diagram Report

Field	Description
Envelope	<p><i>If closed</i>, click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a>.</p> <p><i>If open</i>, click to stop watching the report. You will no longer receive email messages when comments are added to the report.</p>
Process Diagram	Displays the name of the selected process diagram, creation and modification dates, and provides links to reports for workspace objects above the process diagram in the report hierarchy.
Description	The description of the process diagram as defined in the properties of the link in ER/Studio BA.
Notes	The notes of the process diagram as defined in the properties of the link in ER/Studio BA.
Process Display	Displays the name and type of the processes associated with the process diagram and provides links to Business Process diagram reports for the processes. For more information, see <a href="#">Viewing ER/Studio BA Business Process Reports</a> .
Task Display	Displays the name and type of tasks associated with the process diagram and provides links to Business Task reports for those objects. For more information, see <a href="#">Viewing ER/Studio BA Business Task Reports</a> .
Event Display	Displays the name, type, and trigger type of events associated with the process diagram and provides links to Business Event reports for those objects. For more information, see <a href="#">Viewing ER/Studio BA Business Event Reports</a>
Link's Source	Describes the source object that instantiated links to this process diagram and provides links to Business Link reports and reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the process diagram and provides links to Business Link reports and reports for the target objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the business diagram, provides links to Usage Reports for the relationships, and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. Labels are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA BUSINESS ENTITY REPORTS

The Business Entity report shows the description and notes that describe the entity, names the child entities and attributes, and describes the links, and usages defined in the entity.



This report can be accessed through the Business Diagram for business models and Business Model report for conceptual models.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace, Project, and Model* nodes to the *Diagram* level and then click the name of the business diagram to view the basic *Business Diagram* report.
- 4 In the *Entity* section of the *Business Diagram* report, click the name of an entity to view the basic *Business Entity* report.
- 5 Click **View As Report** and the Business Entity report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Business Project	Displays the name of the selected project and provides links to reports for workspace objects above the entity in the workspace hierarchy.
Description	The description of the entity as defined in the properties of the entity in ER/Studio BA.
Notes	The notes of the entity as defined in the properties of the project in ER/Studio BA.
Child Entities	Names child entities of the entity.
Attributes	Describes attributes of the entity.
Link's Source	Describes the source object that instantiated links to the entity and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the entity and provides links to Business Link reports and Business Project Reports for these links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the entity and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA BUSINESS EVENT REPORTS

The Business Event Report shows the description and notes that describe the event; and describes the trigger, assignment and sequent flows, and the source and target objects of event links.

The Business Event report can be accessed through the Process Diagram and Business Process report.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspaces* hierarchy.
- 3 Expand the *Workspace, Project, and Business Model* nodes.
- 4 Click the name of the *Process Diagram* to view the basic *Process Diagram* report.
- 5 In the *Event Display* area of the basic *Process Diagram* report, click the name of an event to view the basic *Business Event* report.
- 6 Click **View As Report** and the *Business Event* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Business Event	Displays the name of the selected business event and provides links to reports for workspace objects above the event in the report hierarchy.
Description	The description of the business event as defined in the properties of the business event in ER/Studio BA.
Notes	The notes of the business event as defined in the properties of the business event in ER/Studio BA.
Trigger	Displays the name and type of triggers associated with the business event. Provides links to Trigger reports for the gateways. For more information, see <a href="#">Viewing ER/Studio Business Trigger Reports</a> .
Assignment	Displays the name and type of assignments associated with the business event. Provides links to Assignment reports for the events. For more information, see <a href="#">Viewing ER/Studio BA Assignment Reports</a> .
Incoming/Outgoing Sequence Flow	Incoming and outgoing sequence flow of the event. For more information, see <a href="#">Viewing ER/Studio BA Sequence Flow Reports</a> .
Link Source Object	Describes the source object that instantiated links to this event and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link Target Object	Describes the target object of the links instantiated in the event and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .

Field	Description
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the event and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

### VIEWING ER/STUDIO BA GATEWAY REPORTS

The Business Gateway report shows the description and notes that describe the gateway; states the outgoing condition, category, incoming condition, and assignment of the gateway, describes the sequence and message flows of the gateway, and describes the gateway link's target and source objects, and usage.

The Gateway report can be accessed through the Business Process report for process-type models and also through the Business Model report.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspace*, *Project*, and *Model* nodes, and then click the name of the *Business Model* to view the basic *Business Model* report.
- 3 In the *Process* section of the *Business Model* report, click the name of a *Process* to view the basic *Business Process* report.
- 4 In the *Gateway* section of the *Business Process* report, click the name of the gateway to view the basic *Gateway* report.
- 5 Click **View As Report** and the *Gateway* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Gateway	Displays the name of the selected gateway and provides links to reports for workspace objects above the gateway in the report hierarchy. Also displays the gateway type.
Description	The description of the gateway as defined in the properties of the gateway in ER/Studio BA.
Notes	The notes of the gateway as defined in the properties of the gateway in ER/Studio BA.

Field	Description
Outgoing Condition	Describes the outgoing condition.
Categories	Describes the gateflow category.
Incoming Condition	Describes the incoming condition.
Assignment	Displays the name and type of assignments associated with the gateway. Provides links to Assignment reports for the gateway. For more information, see <a href="#">Viewing ER/Studio BA Assignment Reports</a> .
Incoming/Outgoing Sequence Flow	Incoming and outgoing sequence flow of the gateway. Provides links to Sequence Flow reports for the gateways. For more information, see <a href="#">Viewing ER/Studio BA Sequence Flow Reports</a> .
Outgoing Message Flow	The name of the outgoing message flow and its target object. Links to reports for the message flow and the target object. For more information, see <a href="#">Viewing ER/Studio BA Message Flow Reports</a> .
Link's Source	Describes the source object that instantiated links to the gateway and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the gateway and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the gateway and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA GROUP REPORTS

The Group Report shows the description and notes that describe the group, and describes the links, and usages defined in the group.

The Group report can be accessed through the Business Diagram report for business models and Business Model report for process models.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the workspace hierarchy and then click the name of a business model project to view the basic *Business Model* report.
- 4 In the *Group* area of the *Business Model* report, click the name of a group to view the basic *Group* report.

5 Click **View As Report** and the Group report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Business Project	Displays the name of the selected project and provides links to reports for workspace objects above the project in the workspace hierarchy.
Description	The description of the project as defined in the properties of the project in ER/Studio BA.
Notes	The notes of the project as defined in the properties of the project in ER/Studio BA.
Link's Source	Describes the source object that instantiated links to this group and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the group and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the project and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a>
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA BUSINESS LINK REPORTS

The Business Links Report shows the description and notes that describe the link; names the verb and inverse verb phrases, and describes the source and target objects of the link.

The Business Link report can be accessed through the Annotation, Assignment, Business Diagram, Business Event, Gateway, Group, Message Flow, Business Mode, Business Project, Property, Business Task, Business Trigger, and Sequence Flow reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace* hierarchy and then click the name of a *Project* to view the basic *Business Project* report.

- 4 In the links area of the *Business Project* report, click the name of a link in the *Link's Source* or *Link's Target* section to view the basic *Business Link* report.
- 5 Click **View As Report** and the Business Link report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Business Link	Displays the name of the selected link and provides links to reports for workspace objects above the link in the report hierarchy.
Description	The description of the link as defined in the properties of the link in ER/Studio BA.
Notes	The notes of the link as defined in the properties of the link in ER/Studio BA.
Verb Phrase	The verb phrase of the link as defined in the properties of the link in ER/Studio BA.
Inverse Verb Phrase	The inverse verb phrase of the link as defined in the properties of the link in ER/Studio BA.
Link Source Object	Describes the source object that instantiated links to this link and provides links to Business Link reports and Business Project Reports for these links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link Target Object	Describes the target object of the links instantiated in the link and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA MESSAGE FLOW REPORTS

The Message Flow report shows the description and notes that describe the message flow, describes the source and target objects of the message flow links, and provides usage information.

The Message Flow report can be accessed through the Gateway report.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspace*, *Project*, and *Model* nodes, and then click the name of the *Business Model* to view the basic *Business Model* report.

- 3 In the *Process* section of the *Business Model* report, click the name of a *Process* to view the basic *Business Process* report.
- 4 In the *Gateway* section of the *Business Process* report, click the name of the gateway to view the basic *Gateway* report.
- 5 In the *Outgoing Message Flow* section of the basic *Gateway* report, click the name of the message flow to view the basic *Message Flow* report.
- 6 Click **View As Report** and the *Message Flow* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Gateway	Displays the name of the selected gateway and provides links to reports for workspace objects above the message flow in the report hierarchy. Also displays the source and target objects of the message flow.
Description	The description of the message flow as defined in the properties of the gateway in ER/Studio BA.
Notes	The notes of the message flow as defined in the properties of the message flow in ER/Studio BA.
Link's Source	Describes the source object that instantiated links to this message flow and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the message flow and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the message flow and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA BUSINESS MODEL REPORTS

There are two kinds of Business Model Reports:

- **Conceptual:** The Business Model Report for a Conceptual model shows the description and notes that describe the model, describes the child or submodels, names the diagrams and describes the diagrams, subject areas, entities, relationships, interactions, links, usages and groups defined in the model. For more information, see [Business Model Report for a Conceptual Model.](#)
- **Process:** The Business Model Report for a Process model shows the description and notes that describe the model, describes the child or submodels, describes the process diagrams, processes, sub processes, links, usages and groups defined in the model. For more information, see [Business Model Report for a Process Model.](#)

The Business Model report can be accessed through the Workspace hierarchy and through the Workspace and Business Project reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Click the name of the workspace to expand the workspace hierarchy.
- 3 Expands the **Workspaces** node, and if necessary the **Projects** node, and then click the name of the model to view the basic Business Model report.
- 4 Click **View As Report** and the Business Project report appears displaying the following information:

The information displayed depends on whether the Business Model is a Process or Conceptual type.



## Business Model Report for a Conceptual Model.

Field	Description
Envelope	<p>If closed, click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a>.</p> <p>If open, click to stop watching the report. You will no longer receive email messages when comments are added to the report.</p>
Business Model	Displays the name of the selected business model and provides links to reports for workspace objects above the model in the report hierarchy.
Description	The description of the model as defined in the properties of the model in ER/Studio BA.
Notes	The notes of the model as defined in the properties of the model in ER/Studio BA.
Child Model	Describes the child models or submodels contained in the selected model and links to Business Model reports for those child models. For more information, see <a href="#">Viewing ER/Studio BA Business Model Reports</a> .
Diagram	Describes the process diagrams contained in the model and links to Process Diagram reports for those diagrams. For more information, see <a href="#">Viewing ER/Studio BA Diagram Reports</a> .
Subject Area	Describes the subject areas contained in the model and provides links to Subject Area reports for those subject areas. For more information, see <a href="#">Viewing ER/Studio BA Subject Area Reports</a> .
Entity	Names the entities contained in the model and provides links to Business Entity reports for those entities. For more information, see <a href="#">Viewing ER/Studio BA Business Entity Reports</a> .
Relationship	Describes the relationships contained in the model and provides links to the Relationship, Subject Area, and Entity Reports associated with the relationship. For more information, see <a href="#">Viewing ER/Studio BA Relationship Reports</a> .
Interaction	Describes the interactions contained in the model and provides links to the Relationship, Subject Area, and Entity Reports associated with the interaction. For more information, see <a href="#">Viewing ER/Studio BA Relationship Reports</a> , <a href="#">Viewing ER/Studio BA Subject Area Reports</a> and <a href="#">Viewing ER/Studio BA Business Entity Reports</a> .
Link's Source	Describes the link source object that instantiated links to this model and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the model and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the model and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Group	Names any groups defined in the model and provides links to Group Reports for these groups. For more information, see <a href="#">Viewing ER/Studio BA Group Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .

Field	Description
Add Comments	<p>Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a>.</p>

## Business Model Report for a Process Model

Field	Description
Envelope	<p><i>If closed</i>, click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a>.</p> <p><i>If open</i>, click to stop watching the report. You will no longer receive email messages when comments are added to the report.</p>
Business Model	Displays the name of the selected business model and provides links to reports for workspace objects above the model in the report hierarchy.
Description	The description of the model as defined in the properties of the model in ER/Studio BA.
Notes	The notes of the model as defined in the properties of the model in ER/Studio BA.
Child Model	Describes the child models or submodels contained in the selected model and links to Business Model reports for those child models. For more information, see <a href="#">Viewing ER/Studio BA Business Model Reports</a> .
Diagram	Describes the diagrams contained in the model and links to Business Diagram reports for those diagrams. For more information, see <a href="#">Viewing ER/Studio BA Diagram Reports</a> .
Process Diagram	Describes the process diagrams contained in the model and links to Process Diagram reports for those diagrams. For more information, see <a href="#">Process Diagram Report</a> .
Process	Describes the processes in contained in the model and links to Business Process reports. For more information, see <a href="#">Viewing ER/Studio BA Business Process Reports</a> .
Sub Process	Describes the sub processes of the contained in the model and provides links to Business Process reports for these links. For more information, see <a href="#">Viewing ER/Studio BA Business Process Reports</a> .
Link's Source	Describes the source object that instantiated links to this model and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the model and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the model and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA BUSINESS PROCESS REPORTS

The Business Process Report shows the description and notes that describe the business process; and provides details for the sub processes, tasks, events, gateways, properties, and assignments of the business process.

The Business Process report can be accessed through the Repository hierarchy, through the Business Model, report for process-type models, and also through the Process Diagram report.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace*, *Project*, and *Process Model* nodes and then in the *Process Display* area of the basic *Process Diagram* report that appears, click the name of the business process to view the basic *Business Process* report.

**TIP:** You can also access the Business report through the Process area of the Business Model report.

- 4 Click **View As Report** and the *Business Process* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Business Process	Displays the name of the selected business process and provides links to reports for workspace objects above the business process in the report hierarchy. Includes information of the process type, pool, suppress join failure, enable instance compensation, and status of the business process.
Description	The description of the business process as defined in the properties of the link in ER/Studio BA.
Notes	The notes of the business process as defined in the properties of the link in ER/Studio BA.
Sub Process	Displays the name and type of sub processes associated with the business process. Provides links to Business Process reports for the sub processes. For more information, see <a href="#">Viewing ER/Studio BA Business Process Reports</a>
Task	Displays the name and type of tasks associated with the business process. Provides links to Business Task reports for the tasks. For more information, see <a href="#">Viewing ER/Studio BA Business Task Reports</a> .
Event	Displays the name, type, and trigger type of events associated with the business process. Provides links to Business Event reports for the events. For more information, see <a href="#">Viewing ER/Studio BA Business Event Reports</a> .
Gateway	Displays the name and type of gateways associated with the business process. Provides links to Gateway reports for the gateways. For more information, see <a href="#">Viewing ER/Studio BA Gateway Reports</a> .
Property	Displays the name and type of properties associated with the business process. Provides links to Property reports for the business process. For more information, see <a href="#">Viewing ER/Studio BA Process Property Reports</a> .

Field	Description
Assignment	Displays the name and type of assignments associated with the business process. Provides links to Assignment reports for the gateways. For more information, see <a href="#">Viewing ER/Studio BA Assignment Reports</a> .
Annotation	Displays the name and type of annotations associated with the business process. Provides links to Annotation reports for the gateways. For more information, see <a href="#">Viewing ER/Studio BA Annotation Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

### VIEWING ER/STUDIO BA BUSINESS PROJECT REPORTS

The Business Project Report shows the description and notes that describe the project, names the sub projects, and describes the models, links, and usages defined in the project.

The Business Project report is available through the Workspace hierarchy and through the Workspace and higher-level Business Project reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace* node and then click the name of the *Project* to view the basic *Business Project* report.
- 4 Click **View As Report** and the Business Project report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Business Project	Displays the name of the selected project and provides links to report for workspace object above the project in the report hierarchy.
Description	The description of the project as defined in the properties of the project in ER/Studio BA.
Notes	The notes of the project as defined in the properties of the project in ER/Studio BA.
Project	Names of the projects or sub projects contained in the selected project and links to Business Project reports for those projects.

Field	Description
Model	Names of the models contained in the project and links to model reports for those models. For more information, see <a href="#">Viewing ER/Studio BA Business Model Reports</a> .
Link's Source	Describes the source object that instantiated links to this project and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the project and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the project and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

### VIEWING ER/STUDIO BA PROCESS PROPERTY REPORTS

The Business Property Report shows the description and notes that describe the property and describes the source and target objects of link's, and usages.

The Business Property report can be accessed through the Business Process and Business Task reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace*, *Project*, and *Model* nodes, and then click the name of the *Business Model* to view the basic *Business Model* report.
- 4 In the *Process* section of the *Business Model* report, click the name of a *Process* to view the basic *Business Process* report.
- 5 In the basic *Business Process* report, click the name of a *Property* to view the basic *Process Property* report.

- 6 Click **View As Report** and the Process Property report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Process Property	Displays the name of the selected process property and provides links to reports for workspace objects above the process property in the report hierarchy.
Description	The description of the process property as defined in the properties of the business task in ER/Studio BA.
Notes	The notes of the process property as defined in the properties of the business process in ER/Studio BA.
Link's Source	Describes the source object that instantiated links to this process property and provides links to Business Link reports and Business Project Reports for these links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the process property and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the process property and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA RELATIONSHIP REPORTS

The Relationship Report shows the Describes and notes that describe the relationship, names the verb and inverse verb phrases, and describes the source and target object, links, and usages defined in the relationship.

The Relationship report can be accessed through the Business Model report for conceptual-type models.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the workspace hierarchy and then click the name of the project to view the basic Business Project report.

4 Click **View As Report** and the Business Project report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Relationship	Displays the name of the selected relationship and provides links to reports for workspace objects above the project in the workspace hierarchy. Also provides the type and optionality of the relationship.
Description	The description of the relationship as defined in the properties of the relationship in ER/Studio BA.
Notes	The notes of the relationship as defined in the properties of the relationship in ER/Studio BA.
Verb Phrase	The verb phrase of the relationship as defined in the properties of the relationship in ER/Studio BA.
Inverse Verb Phrase	The inverse verb phrase of the relationship as defined in the properties of the relationship in ER/Studio BA.
Link's Source	Describes the source object that instantiated links to this relationship and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the relationship and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the project and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a>
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA SEQUENCE FLOW REPORTS

The Sequence Flow Report shows the description and notes that describe the sequence flow, and describes the links and usages defined in the sequence flow.

The Sequence Flow report can be accessed through Business Event report.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspaces* hierarchy.



- 3 Expand the *Workspace, Project, and Business Model* nodes.
- 4 Click the name of the *Process Diagram* to view the basic *Process Diagram* report.
- 5 In the *Event Display* area of the basic *Process Diagram* report, click the name of an event to view the basic *Business Event* report.
- 6 In the *Incoming Sequence Flow* section of the *Business Event* report, click the name of a flow to view the basic *Sequence Flow* report.
- 7 Click **View As Report** and the *Sequence Flow* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Sequence flow	Displays the name of the selected sequence flow and provides links to reports for workspace objects above the sequence flow in the report hierarchy. Also displays the names of and links to the source and target object, along with the type, condition type, and quantity of sequence flows.
Description	The description of the sequence flow as defined in the properties of the sequence flow in ER/Studio BA.
Notes	The notes of the sequence flow as defined in the properties of the sequence flow in ER/Studio BA.
Link's Source	Describes the source object that instantiated links to this sequence flow and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the sequence flow and provides links to Business Link reports and Business Project Reports for these links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the sequence flow and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a>
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA SUBJECT AREA REPORTS

The Subject Area Report shows the description and notes that describe the subject area and describes the child subject areas, links, and usages defined in the subject area.

The Subject Area report can be accessed through the Business Model report for conceptual models.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace* and *Project* nodes and then click the name of a conceptual model to view the basic *Business Model* report.
- 4 In the *Subject Area* section of the Business Model report, click the name of a subject area to view the basic *Subject Area* report.
- 5 Click **View As Report** and the Subject Area report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Subject Area	Displays the name of the subject area and provides links to reports for workspace objects above the subject area in the workspace hierarchy.
Description	The description of the subject area as defined in the properties of the project in ER/Studio BA.
Notes	The notes of the subject area as defined in the properties of the project in ER/Studio BA.
Mapping	Provides the name and type of the mapping targets and links to reports for those target objects, such as Business Entity reports is the target is an entity.
Model	Names of the models contained in the project and links to model reports for those models. For more information, see <a href="#">Viewing ER/Studio BA Business Model Reports</a> .
Link's Source	Describes the source object that instantiated links to this subject area and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the subject area and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the project and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a>
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .

Field	Description
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

### VIEWING ER/STUDIO BA BUSINESS TASK REPORTS

The Business Task Report shows the description and notes that describe the task; and describes the property, assignment, outgoing sequence flow, link's source, link's target and usage of the task.

The Business Task report can be accessed through the Process Diagram and Business Process reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Expand the *Workspace, Project, and Business Model* nodes, and then click the *Process* to view the basic *Process Diagram* report.
- 4 In the *Task Display* area of the basic *Process Diagram* report, click the task name to view the basic *Business Task* report.
- 5 Click **View As Report** and the *Business Task* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Business Task	Displays the name of the selected business task and provides links to reports for workspace objects above the task in the report hierarchy. Also shows the type and implement for the business task.
Description	The description of the business task as defined in the properties of the business task in ER/Studio BA. Includes information on the task type and implementation.
Notes	The notes of the task as defined in the properties of the task in ER/Studio BA.
Property	Displays the name and type of properties associated with the business task. Provides links to Property reports for the tasks. For more information, see <a href="#">Viewing ER/Studio BA Process Property Reports</a> .
Assignment	Displays the name and type of assignments associated with the task. Provides links to Assignment reports for the tasks. For more information, see <a href="#">Viewing ER/Studio BA Assignment Reports</a> .

Field	Description
Link Source Object	Describes the source object that instantiated links to the task and provides links to the Business Link reports and the reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link Target Object	Describes the target object of the links instantiated in the task and provides links to Business Link reports and reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the task and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

### VIEWING ER/STUDIO BUSINESS TRIGGER REPORTS

The Business Trigger Report shows the type, description, and notes of the trigger and describes the source and target objects of the link, and the usage.

The Business Trigger report can be accessed through the Business Event report.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspace*, *Project*, and *Model* nodes, and then click the name of the *Business Model* to view the basic *Business Model* report.
- 3 In the *Process* section of the *Business Model* report, click the name of a *Process* to view the basic *Business Process* report.
- 4 In the *Event* section of the *Business Process* report, click the name of the business event.
- 5 In the *Trigger* section of the *Business Event* report, click the name of the trigger to view the basic *Business Trigger* report.
- 6 Click **View As Report** and the *Business Trigger* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.

Field	Description
Business Trigger	Displays the name and type of the selected trigger and provides links to reports for workspace objects above the trigger in the report hierarchy.
Description	The description of the trigger as defined in the properties of the business task in ER/Studio BA.
Notes	The notes of the trigger as defined in the properties of the business process in ER/Studio BA.
Link's Source	Describes the source object that instantiated links to the trigger and provides links to Business Link reports and to reports for the source objects of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Link's Target	Describes the target object of the links instantiated in the trigger and provides links to Business Link reports and to reports for the target object of the links. For more information, see <a href="#">Viewing ER/Studio BA Business Link Reports</a> .
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the trigger and provides links to Usage Reports for the relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA USAGE REPORTS

The Usage Report shows the description and notes that describe the usage, and provides the names of and links to source and target objects.

The Usage Report can be accessed through Business Project, Business Model, Business Diagram, Business Task, Business Event, Business Trigger, Gateway, Message Flow, Assignment, Annotation, Property, and Sequence Flow reports.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the *Workspace* hierarchy and then click the name of the Project to view the basic *Business Project* report.
- 3 In the *Usage* section of the *Business Project* report, click the name of a usage to view the basic *Usage* report.

4 Click **View As Report** and the *Usage* report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Usage	Displays the name of the selected usage and provides links to reports for workspace objects above the usage in the report hierarchy. Also displays the usage type.
Description	The description of the usage as defined in the properties of the usage in ER/Studio BA.
Notes	The notes of the usage as defined in the properties of the usage in ER/Studio BA.
Source Object	Describes the source object of this usage and provides links to reports for these objects.
Target Object	Describes the target object of this usage and provides links to reports for these objects.
Usage (CRUD)	Describe the usage (create, read, update, delete) relationships defined in the project and provides links to Usage Reports for this relationships and links to Group Reports for the receivers. For more information, see <a href="#">Viewing ER/Studio BA Usage Reports</a>
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## VIEWING ER/STUDIO BA WORKSPACE REPORTS

The Workspace report shows the description and notes that describe the workspace, names the projects, and describes the models contained in the workspace.

The Workspace report is available through the Repository hierarchy.

- 1 Click **Explore** to view the report hierarchy.
- 2 Expand the **Workspaces** hierarchy.
- 3 Click the name of the workspace to view the basic workspace report.

- 4 Click **View As Report** and the Workspace report appears displaying the following information:

Field	Description
Envelope	<i>If closed</i> , click to watch the report and receive an email when a comment has been added to the report, and approved if necessary. For more information, see <a href="#">Documenting and Organizing Reports Using Comments and Labels</a> . <i>If open</i> , click to stop watching the report. You will no longer receive email messages when comments are added to the report.
Workspace	Displays the name of the selected workspace.
Description	The description of the workspace as defined in the properties of the workspace from within ER/Studio BA.
Notes	The notes of the workspace as defined in the properties of the workspace from within ER/Studio BA.
Project	Names of the projects contained in the workspace and links to Project reports for those projects. For more information, see <a href="#">Viewing ER/Studio BA Business Project Reports</a> .
Model	Names of the models contained in the workspace and links to model reports for those models. For more information, see <a href="#">Viewing ER/Studio BA Business Model Reports</a> .
Add Labels	Click to add a label to the report. Labels are used like bookmarks or file folders. They are a way to organize and document reports for your own use. For more information, see <a href="#">Working with Labels</a> .
Add Comments	Click to add a comment to the report. Commenting on reports enables you to communicate your ideas to other users about the report. Depending on how the administrator has configured the Portal, any comments added may have to have administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. For more information, see <a href="#">Working with Comments</a> .

## REPORTS

The Reports command displays the Solution Browser. The two sections of the Solution Browser 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.

This topic also covers [Favorite Reports](#) and [Documenting and Organizing Reports Using Comments and Labels](#).

## 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

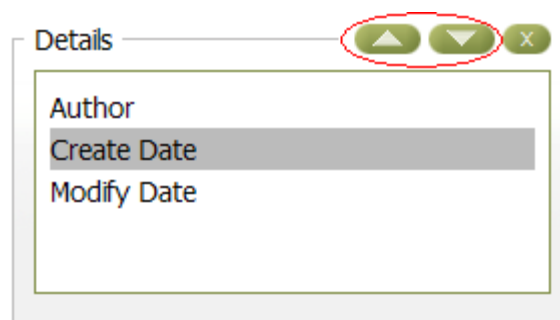
- 1 Click **Next** to advance to Step Two. The Available Items for the Business Model you selected are listed. You can then use the available items to add data to your report.
- 2 To add an item to one of the Groups, Details, or Filters lists, begin by clicking on any of the available items shown. If 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*.

<b>Role Name: ABBR</b>		
<b>Datatype: CHAR</b>		
<b>Author</b>	<b>Create Date</b>	<b>Modify Date</b>
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

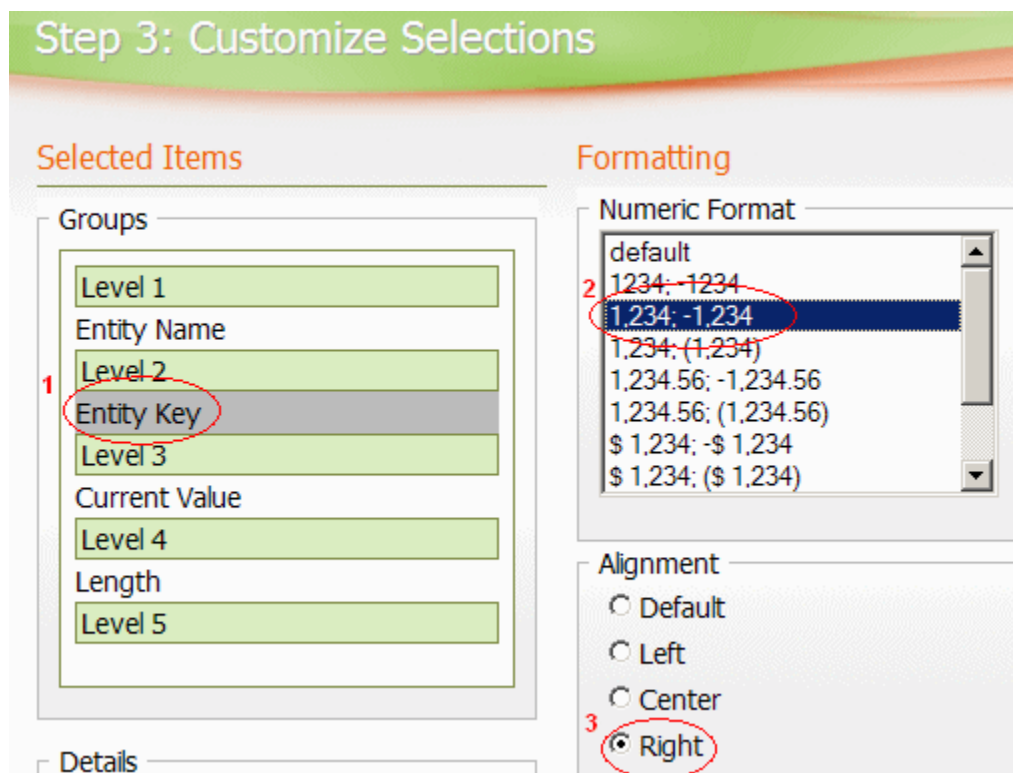
In Step Three you can set constraints, formatting, calculations, and column sorting options. You can also customize the appearance of your selections. Your selected items are shown on the left side of the page.

- 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.

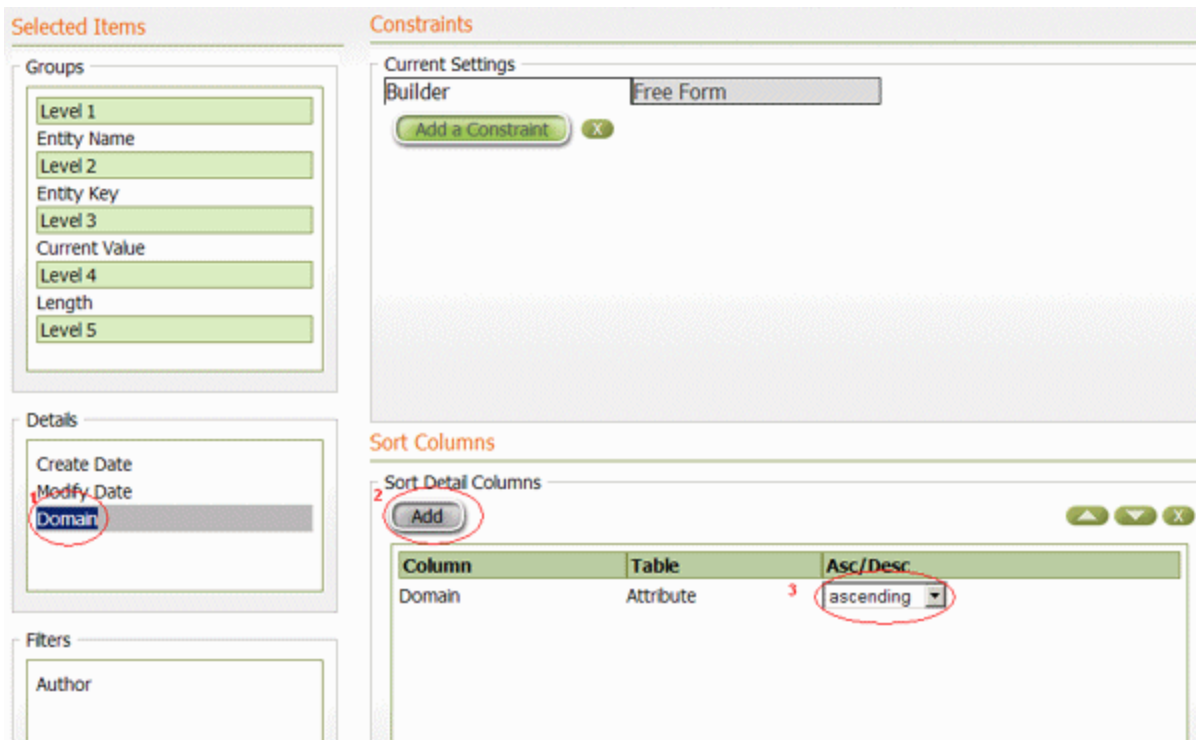


- 3 In the Groups section you can customize how you want each level to appear in the report. Click on a level, for example Level 1, and General options for customizing these levels appears.

- 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:

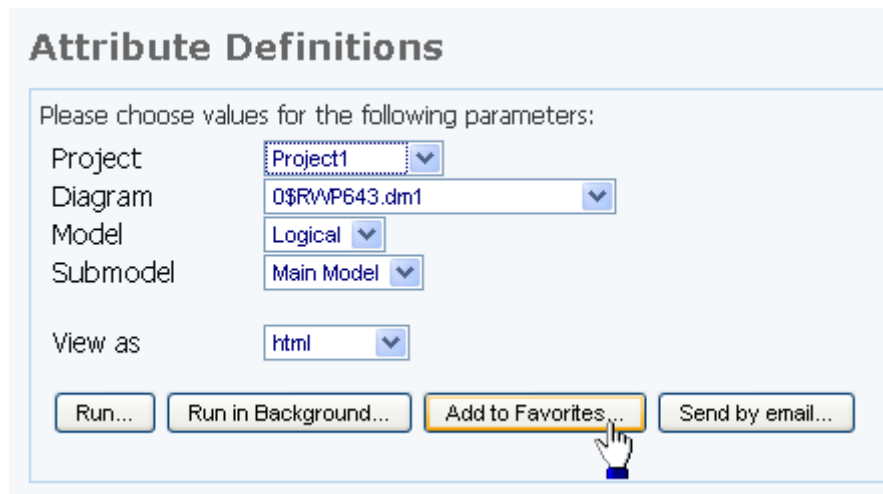
- myReport.xreportspec
- myReport.xml
- myReport.xaction.

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. Custom reports are automatically shared to all users, unless the administrator has changed the permissions of the report. You can find and run custom reports using the Run a Shared Report function. For information on restricting access to your custom reports, see [Administering Permissions](#).

## 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:

**EMBARCADERO TECHNOLOGIES.** Welcome Admin | [Logout](#) | [Help](#)

Home | Explore | Reports | Activity | Admin Search:  [Advanced](#)

**Browse the ER/Studio Repository**  
Browse ER/Studio Enterprise projects to locate and view metadata for the diagrams, models, submodels and objects you wish to explore...  
[Start Browsing](#)

**Create a Custom Report**  
Create and publish ad hoc reports that contain the data you want to see with simple to use tools and easy navigation to the metadata you wish to communicate...  
[Create a Report](#)

**Perform an Advanced Search**  
Search the ER/Studio Enterprise Repository in a way that lets you have ultimate control over your wildcard searches...  
[Start Searching](#)

**Run a Shared Report**  
Run a standard report supplied by Embarcadero or any custom report that has been shared for public use...  
[Run a Report](#)

**Favorite Searches**

**Favorite Reports**

**My Reports**

[Project1 Attribute Definitions](#)

Now, you can run the named report whenever you want. Other users will see standard shared reports in the Shared Reports area of Favorite Searches. Custom reports are automatically shared to all users, unless the administrator has changed the permissions of the report. You can find and run custom reports using the Run a Shared Report function. For information on restricting access to your custom reports, see [Administering Permissions](#).

---

**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.

---

## DOCUMENTING AND ORGANIZING REPORTS USING COMMENTS AND LABELS

At the bottom of detailed reports, such as the Entity detail report, there are options to Add Labels and Add Comments. You can use labels to organize your reports or to otherwise mark them in another way. Comments you add can describe the purpose of the report and highlight certain features you want to draw attention to. You may want to use comments to provide feedback to the author of the model. You can also watch a report, which when activated sends an email to you whenever comments are added to the report by other users. Labels are not monitored, so you can add anything you like in a label. However, depending on how the Administrator configured the Interaction Settings, your comments may be monitored by an administrator who will decide whether to allow your comment or not. The Administrator can approve and delete user comments. For information on administering comments, see [Moderating Comments](#).

### Working with Labels

*To add a new Label, at the bottom of the detail report, click **Add Labels**. Enter the label text in the box provided and then click **Add**. You can add another label if you like. When you are finished adding labels, click **Done**.*

*To add an existing label, at the bottom of the detail report, click the check mark next to the label you want to add to the selected report.*

*To remove a label, at the bottom of the detail report, in the **Current labels** area click **X** next to the label you want to remove from the report. You can also remove a label from a report from the **My Labels** page. In the Labels area at the bottom of the detail report, click the label name to view the **My Labels** page. Then click **X** next to the report name to remove the label from that report. Click the checkbox to the left of the label name to remove the label from all reports.*

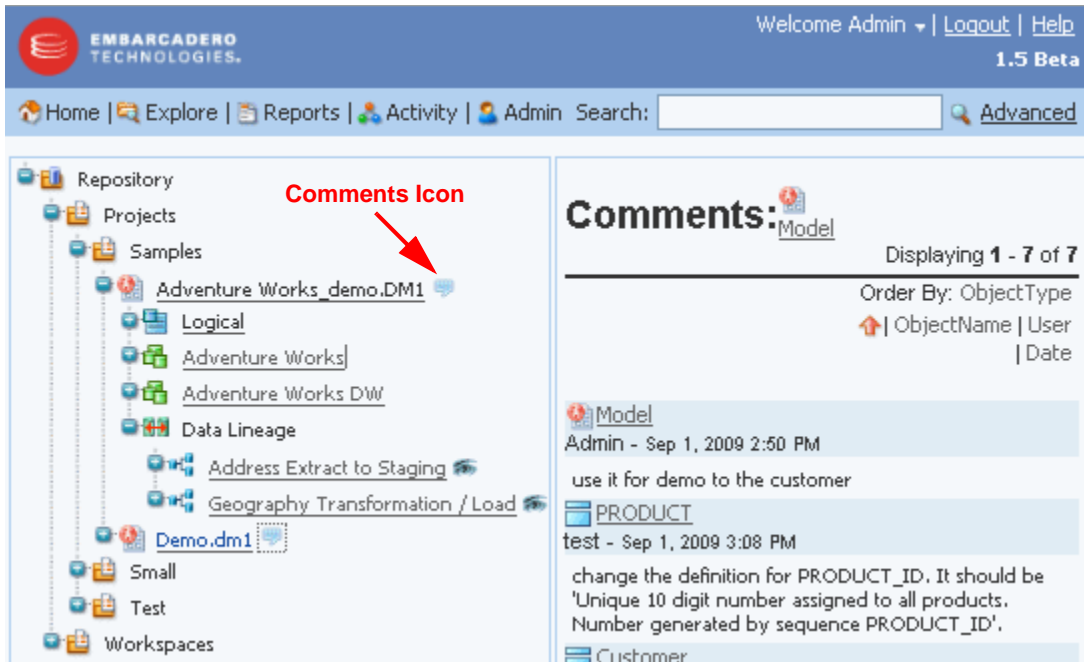
*To view where a label is used, in the Labels area at the bottom of the detail report, click the label name. The **My Labels** page appears where you can see all the labels you have created and which reports you have added them to. Click the report name to view where the label is used.*

*To view your labels, click your user name at the top of the Browser, just to the left of the Logout and Help links. Then from the list of options that appears, click **Labels**. The **My Labels** page appears where you can see each label and the names of the reports the labels have been attached to. From the **My Labels** page, you can also:*

- *Delete a label from all reports by selecting the checkbox next to the label name and then clicking **X**.*
- *Delete a label from a specific report by clicking the checkbox next to the report name and then clicking **X**.*
- *View the report the label is attached to by clicking the link on the report name.*

## Working with Comments

To view a list of all comments for a diagram, click the Comments icon to the right of the diagram name in the Repository Explorer. You can reorder the comments by clicking one of the order options in the Order By area.



To specify the email address where comments watch notifications should be sent, click your user name next to the **Logout** and **Help** links near the top of the browser page. From the list of options that appears, select **Preferences**. On the Portal preferences page that appears, click **Edit**. In the space provided enter your email address and then click **Apply Changes**.

To add a new comment, at the bottom of a detail report, click **Add Comment**. Enter the comment in the **Add Comment** area and then click **Add**. The comment can be seen by any user viewing this report, once the moderator has accepted the comment. If the administrator hasn't set the **Interaction Settings** to require administrative approval for comments, then you can simply click the check mark next to the comment name to enable other users to view the comment.

To view the comments in a report, at the bottom of a detail report, click the plus sign (+) to the left of **Comments** to expand the comments and view all accepted comments.

To delete a comment, at the bottom of a detail report, click the plus sign (+) to the left of **Comments** to expand the comments, and then click **X** next to the comment you want to remove.

To watch the comments made by other users on a report, click the watch icon (closed envelope) at the top right-hand corner of the report and an email will be sent to you whenever a comment is added to the watched report by another user. The watch icon changes to an open envelope to indicate that you are watching this report. You will need to specify the email address where the comment update message should be sent to. This you specify in your Preferences, by clicking your user name

To stop watching the comments made by other users on a report, click the watch icon (open envelope) at the top right-hand corner of the report. The watch icon changes to a closed envelope to indicate that you are not watching this report.

To view all your comments, click your user name at the top of the Browser, just to the left of the Logout and Help links. Then, from the list of options that appears, click **Comments**. The **My Comments** page appears where you can see each comment and the names of the reports the comments have been attached to. From the **My Comments** page you can also:

- Delete a comment from all reports by selecting the checkbox next to My Comments and then clicking the trash can.
- Delete a comment from a specific report by clicking the checkbox next to the report name and then clicking the trash can.
- View the report the comment is attached to by clicking the link on the report name.

For information on approving comments, see [Moderating Comments](#).

---

**NOTE:** Comments made in the Portal are synchronized with the Repository when the diagram is synchronized and at the same time, any comments added to be Repository by ER/Studio DA or ER/Studio BA user are also synchronized with the Portal. This enables ER/Studio Portal to fully share comments with ER/Studio DA and ER/Studio BA users.

---

## 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](#)

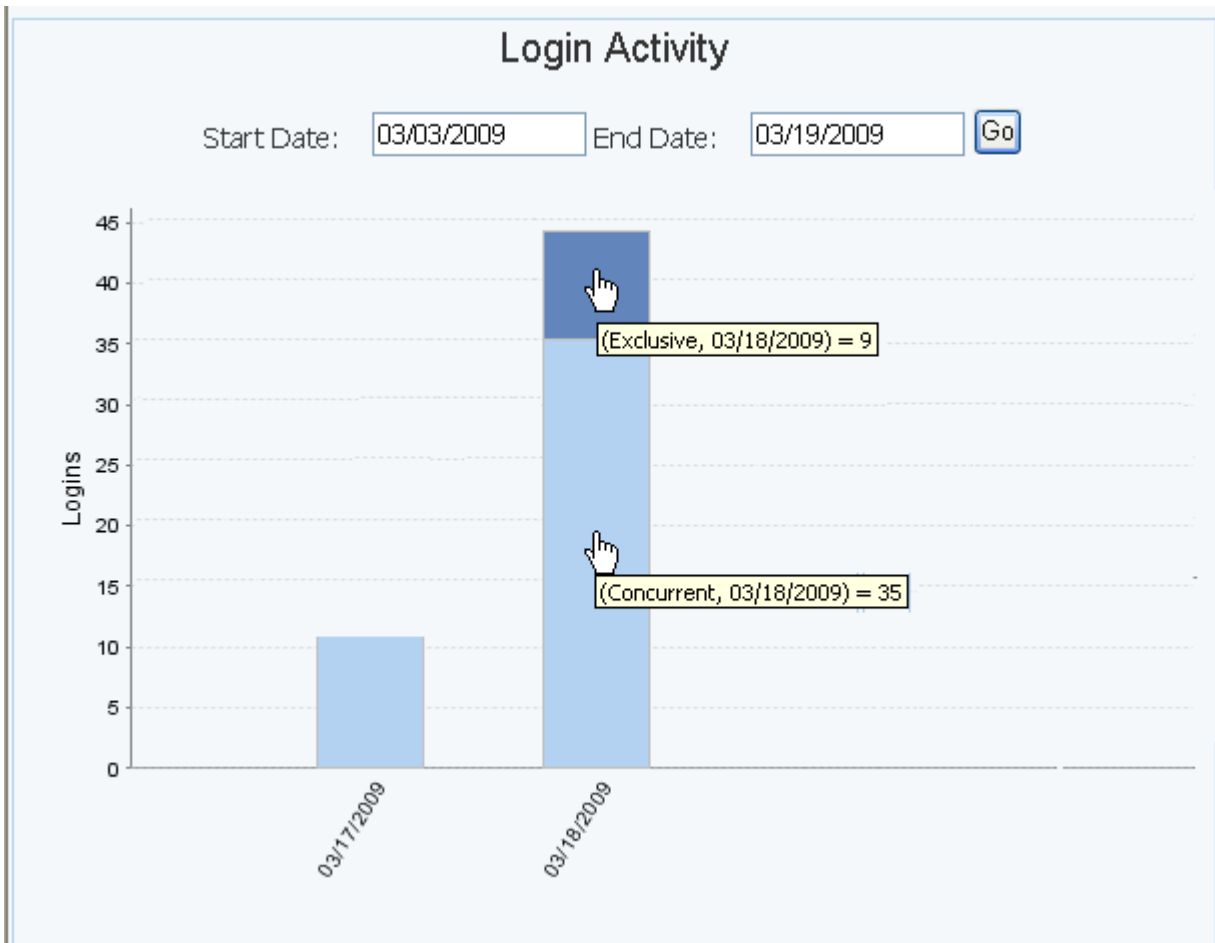
---

**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 ER/Studio 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:** 05/17/2009

**End Date:** 06/02/2009

**Object Type:** Entity

Event Date	Parent Name	Name	User Name	Operation
2009-05-19 13:59:42.0	<u>Logical</u>	<u>table1</u>	Admin	Check_In
2009-05-19 14:00:41.0	<u>Logical</u>	<u>table1</u>	Admin	Check_In
2009-05-20 15:50:16.0	<u>Test</u>	<u>Entity1</u>	Admin	Check_In
2009-05-20 15:50:16.0	<u>Test</u>	<u>Entity3</u>	Admin	Check_In

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 that have changed for the selected time frame.

[View as pdf](#)   [View as xls](#)



## Updated Object Details

**Start Date:** 05/17/2009

**End Date:** 06/02/2009

**Object Type:** Entity

Event Date	Parent Name	Name	User Name	Operation
2009-05-19 13:59:42.0	<u>Logical</u>	<u>table1</u>	Admin	Check_In
2009-05-19 14:00:41.0	<u>Logical</u>	<u>table1</u>	Admin	Check_In
2009-05-20 15:50:16.0	<u>Test</u>	<u>Entity1</u>	Admin	Check_In
2009-05-20 15:50:16.0	<u>Test</u>	<u>Entity3</u>	Admin	Check_In




---

**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, "Entity1".

[View as pdf](#)   [View as xls](#)

**Entity:**    [test.dm1](#) >  [Test](#) >  [Entity1](#)

**Table Name:**   Entity1

**Project:**   Projects

---


**Related Reports:**   [Attribute Definitions](#)   [Attachments](#)   [Security Information](#)


**Definition**

**Notes**

**Attributes**

Name	Definition	Data Type	Domain	Key Type	Allow Nulls
id		char		Non-Inherited Key	NOT NULL
name		char		Non-Inherited Non-Key	NULL

 [Add Labels](#)

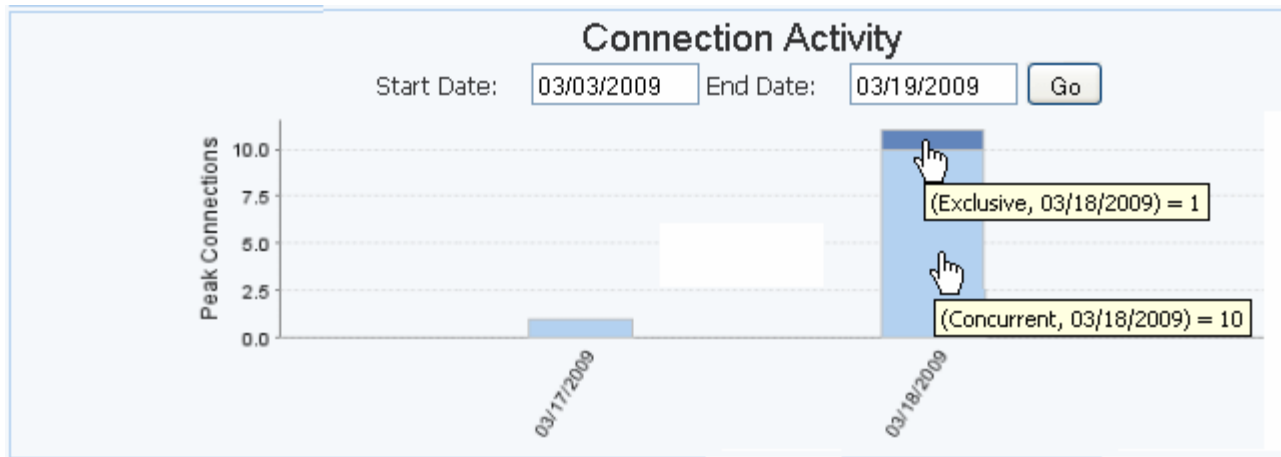
 [Add Comment](#)

Notice that the navigation trail is displayed in the report name, allowing you to go back to a previous detail report if desired.

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 ER/Studio 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](#)

### Connection Activity Details



**Activity Date:** 03/18/2009

User Name	Host	IP	Login Time	Logout Time	Connection Type
Admin	...	...	18/03/2009 03:14	18/03/2009 03:51	Concurrent
Admin	...	...	18/03/2009 13:50	18/03/2009 13:51	Concurrent
Admin	...	...	18/03/2009 13:50	18/03/2009 14:44	Concurrent
JayneDBArchitect	...	...	18/03/2009 13:52	18/03/2009 13:53	Exclusive
Admin	...	...	18/03/2009 13:53	18/03/2009 14:26	Concurrent
JayneDBArchitect	...	...	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](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."

The screenshot shows the ER/Studio Portal interface. At the top, there is a navigation bar with the EMBARCADERO TECHNOLOGIES logo, user information (Welcome Admin), and links for Logout and Help. Below this is a secondary navigation bar with Home, Explore, Reports, Activity, and Admin. A search bar is present with the word 'Advanced' next to it. The main content area displays search results for 'customer', showing 'Results 1 - 10 of 650 for customer. (in 109 ms)'. The results are ordered by Relevance. A detailed view of the 'ENTERPRISE\_CUST\_TP' object is shown, including its definition, attribute name, column name, data type, and other properties. On the right side, there are two filter panels: 'Filter By Data Project(s)' and 'Filter By Diagram(s)'. The 'Filter By Data Project(s)' panel shows filters for Projects (650), Commercial (650), and Roche (650). The 'Filter By Diagram(s)' panel shows a filter for Roche ADW.DM1 (650).

## See Also

[Viewing, Ordering, and Filtering Search Results](#)

[Viewing, Ordering, and Filtering Search Results](#)

## 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*.
- **Scope in:**
  - To search through all objects in the Repository, click **All**.
  - To search through ER/Studio Data Architect objects only, click **Data**.
  - To search through ER/Studio Data Architect objects only, click **Business**.
- **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.
- **Sorting:** Set how you want the search results sorted.
- **Pagination:** Set the number of result entries to display per page. At the bottom of the results page you can click a page number to display a different page of results or click *Next* to go to the Next page.

The results of the advanced search are displayed by default in HTML format. To view the results in table format, click *View as table* at the top left-hand side of the results page.

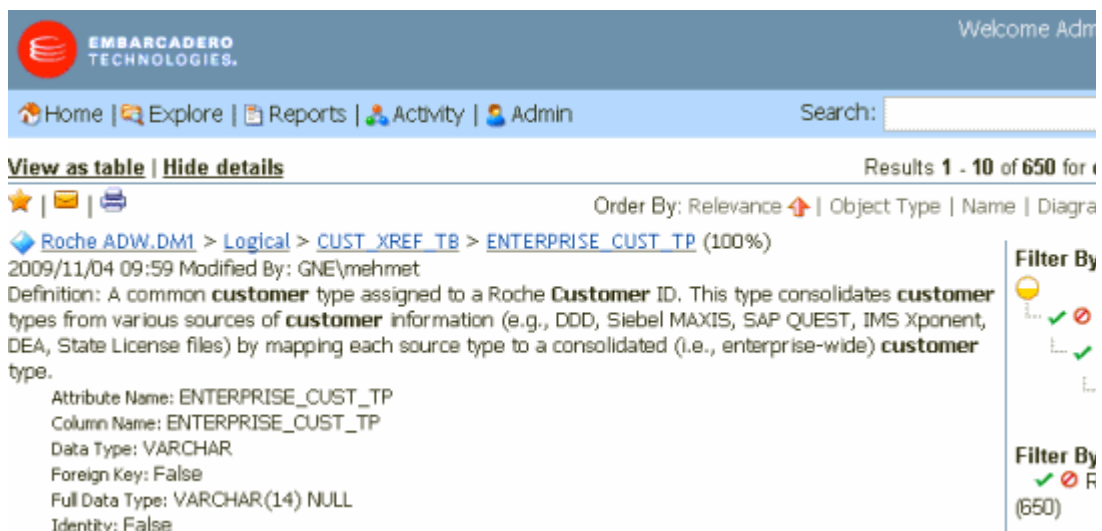
### See Also

[Viewing, Ordering, and Filtering Search Results](#)

[Viewing, Ordering, and Filtering Search Results](#)

## VIEWING, ORDERING, AND FILTERING 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 10 results are rendered as one page in the browser. You can change this in the Pagination area at the bottom of the search results page.



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 if you choose when viewing the results in table format. For more information, see [Customizing the Search Results Report](#).
- **Hide details:** Click to view one line of information for each result. The following shows the results displayed when the details are hidden.



- **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 [Favorite Searches](#).
- **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**, **Workspace** 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 Data Project(s)**, **Filter By Diagram(s)**, **Filter By Workspace(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)**. *Filtering By Workspaces* enables you to include or exclude results pertaining to ER/Studio Business Architect workspaces or models.

By default, up to 15 filters per Filter By... category display. You can change this default in your preferences. For more information, see [Setting Email, Search Filter, and Search Results Preferences](#),

---

**NOTE:** The yellow or blue circle next to the filter category indicates whether or not all possible filters for that filter category are displayed. Click the double arrows left of the circle to view or hide the filters. Click the colored circle to view the default number of filters (yellow) or to view all the filters (green).

---

---

**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 Search Results Details](#).

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.”

Object Name	Object Type	Relevance	Modification Date	User Name	Path	Property Type	Property Value
<a href="#">CUSTOMER</a>	Entity	100%	2009/03/20 16:10	GNE\jpekru	<a href="#">Commercial</a>	Entity Name	<b>CUSTOMER</b>
<a href="#">CUSTOMER</a>					<a href="#">Conceptual.dmt</a> >		<b>CUSTOMER</b>
<a href="#">RATING</a>					<a href="#">Logical</a> >		<b>RATING</b>
					<a href="#">CUSTOMER</a>	Logical/Physical	Logical
					<a href="#">CUSTOMER</a>	Submodels	Main Model, w/o subtypes
					<a href="#">RATING</a>	Table Name	<b>CUSTOMER</b>
							<b>CUSTOMER</b>
							<b>RATING</b>
<a href="#">CUSTOMER</a>	Entity	100%	2009/03/20 16:10	GNE\jpekru	<a href="#">Commercial</a>	Entity Name	<b>CUSTOMER</b>
<a href="#">CLASSIFICATION</a>					<a href="#">Conceptual.dmt</a> >		<b>CLASSIFICATION</b>
<a href="#">CUSTOMER</a>					<a href="#">Logical</a> >		<b>CUSTOMER</b>
					<a href="#">CUSTOMER</a>	Logical/Physical	Logical
					<a href="#">CLASSIFICATION</a>	Submodels	Main Model, w/o subtypes
					<a href="#">CUSTOMER</a>		

## CUSTOMIZING SEARCH FILTERS USING REPORPT.XML

Using RepoRpt.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.

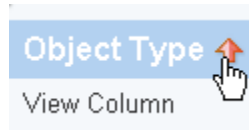
---

**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.



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

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

Object Name	Object Type	Modification Date	Relevance	User Name
<a href="#">Customer</a>	Entity	2009/06/10 17:37	100%	Admin

A tooltip box is visible over the 'Relevance' column header with the text 'Shift column to the right'.

---

**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 SEARCH RESULTS DETAILS

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](#)

- [Data Flow Detail](#)
- [Transformation 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, browse, or explore. When applicable, the name of the report contains links to object reports that are higher in the report hierarchy. To each report you can add labels and comments. For more information, see [Documenting and Organizing Reports Using Comments and Labels](#).

### Diagram Detail

- This report is accessible from Explore, Browse Repository, and search results.
- 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 the explore and browse features.
- From this report, you can navigate to the Attachments report. You can also click links that will display model and data flow reports.
- The data for this report is selected for only one diagram at a time.

### Logical Model Detail

- You can 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.
- 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 three sections for the model's definition, entities, and relationships.

- You can navigate to the Entity Attachments, Security Information, Entity Definitions, Attribute Definitions, and Business Rules reports. You can also click links to access submodel, entity, and view reports.
- The data for this report are selected for only one logical model at a time.
- This report is accessible from the Explorer, Repository Browse, search results, and the Diagram report.

### Physical Model Detail

- You can open this report from the Diagram detail report. Click the link of the model you want to open from the Physical Models column.
- 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 four sections for the model's submodels, tables, relationships, 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, Explore, Repository Browse, and the Diagram report.
- This report allows you to navigate to the Entity Attachments and Security Information reports. You can also click links to access submodel, entity, and view reports.
- The data for this report is selected for only one physical model at a time.

### Logical Submodel Detail

- You can 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.
- This report allows you to navigate to the following related reports: Attribute Definitions, Entity Definitions, Business Rules, Attachments, and Security Information. You can also click links to access entity and view reports.
- 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, Explore, Repository Browse, and the Logical Model report.
- The data for this report is selected for only one logical submodel at a time.

### Physical Submodel Detail

- 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.
- This report allows you to navigate to the following related reports: Attribute Definitions, Business Rules, Entity Definitions, Attachments, and Security Information. You can also click links to access entity and view reports.
- 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 Explore, Repository Browse, search results, and the Physical Model report.
- The data for this report is selected for only one physical submodel at a time.

### Data Flow Detail

- You can access this report from the Diagram report or by clicking the name of the visual data lineage diagram in the Repository explorer. From the Diagram report, you can drill down through *Search Results > Diagram > Data Lineage* and click the link of the desired data flow in the Data Lineage column.
- The Data Flow report contains two sections: Transformations and Components. The listings of transformations and source object names are sorted alphabetically by name.
- From this report you can click links to view transformation and entity detail reports.
- This report consists of a header section with properties of the data flow and two sections for data flow transformations and components. The Data Flow name and related reports are displayed at the top of the report.
- This report is accessible from Explore, Browse Repository, search results, and the Diagram report.
- The data for this report is selected for only one dataflow at a time.

### Transformation Detail

- You can access this report from the Diagram report. Drill down through *Search Results > Diagram > Data Flow* and click the link of the desired transformation in the Transformations column.
- The transformation report contains four sections: inputs, outputs, data movement rules, parent objects, and child objects. The listing of attributes, entities and rules 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 are displayed at the top of the report.
- This report is accessible from Explore, Browse Repository, search results, and the Data Flow report.
- The data for this report is selected for only one transformation at a time.

### Entity Detail

- 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.
- 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 Explore, Browse Repository, search results; and the logical model, logical submodel, and Transformation reports.
- 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.

### 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

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



- 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.

### **Physical View Detail**

- You can 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.
- 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.

## 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 perform actions such as 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® 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

---

**NOTE:** If diagram extraction takes longer than three hours, the system presumes an error has occurred and terminates the extraction.

---

- 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:

ER/Studio Business Architect Object	ER/Studio Data Architect Model Object	ER/Studio Data Architect Dictionary Object	ER/Studio Data Architect Data Lineage Object
Assignment	Attribute	Attachment Text List	Comment
Attributes	Comment	Attachment Type	Data Flow
Comment	Diagram	Bound Attachment	Data Lineage Column
Incoming/Outgoing Condition	Entity	Bound Domain	Data Lineage Component
Description	Entity Display	Bound Default	Data Lineage Component Display
Entity	Project	Bound Rule	Data Lineage Display
Event	Relationship	Bound Reference Value	Data Lineage Rule
Gateway	Relationship Display	Bound Security Property	Data Lineage Source
Group	Submodel	Bound User Datatype	Data Lineage Table
Interaction	View	Comment	Data Lineage View
Link	View Column	Domain Dictionary	Data Movement Column Link
Message Flow	View Display	Default	Data Movement Model Link
Model		Dictionary	Data Movement Rule Link
Notes		Reference Value	Data Stream
Project		Reference Value Pair	Transformation Display
Property		Rule	Transformation Field
Process		Security Property	Transformation Object
Relationship		Security Text List	
Sequence Flow		Security Type	
Subject Area		User Datatype	
Task			
Trigger			
Usage (CRUD)			
Verb/InverseVerb Phrase			
Workspace			

#### 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.

## 6 Synchronize Comments

Comments made in the Portal are synchronized with the Repository when the diagram is synchronized and at the same time, any comments added to be Repository by ER/Studio DA or ER/Studio BA user are also synchronized with the Portal. This enable ER/Studio Portal to fully share comments with ER/Studio DA and ER/Studio BA users.

# 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® Portal licenses. For more information, see <a href="#">Administering Licenses</a> .
Permissions		Maintains Access Control Lists (ACL) for group permissions to content, such as reports. Content permissions are: subscribe, execute, or write. For more information, see <a href="#">Administering Permissions</a> .

Action	Icon	Description
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 <a href="#">Scheduling the Synchronization Process</a> , <a href="#">Executing the Synchronization Process</a> , and <a href="#">Data Synchronization Overview</a> .
Comments		This pages allows the administrator to act as a moderator to review, approve, and delete the comments other users have attached to diagrams and their objects. For more information, see <a href="#">Moderating Comments</a> .
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 <a href="#">Administering Schedules</a> .
Subscriptions		A subscription binds an administrative function such as cleaning or synchronizing the repository to a schedule. Use the Subscription feature to create and manage subscriptions, subscription schedules, and scheduled jobs.  For more information, see <a href="#">Administering Subscriptions</a> .
Interaction Settings		This pages allows the administrator to manage user interaction settings, where you can allow/disallow users to moderate comments, provide the email address of the moderator, enable/disable sending of email for search results and reports.  For more information, see <a href="#">Managing User Interactions</a> .
<b>Repository Management</b>		
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 <code>Pentaho.xml</code> . 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: <ul style="list-style-type: none"> <li>• You have upgraded the Portal and chosen to connect to an existing Reporting repository.</li> <li>• You have reconfigured the Reporting repository using the Configuration Manager.</li> <li>• You have updated the search filters in <code>RepoRpt.xml</code>.</li> </ul>
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 <a href="#">Cleaning the Content Repository</a> .



Action	Icon	Description
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 ER/Studio® 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® 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 Portal X.X > Configure Apache Tomcat (ERStudio 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® 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 Portal X.X > Configure Apache Tomcat (ERStudio 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 Portal X.X > ERStudio 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 ER/Studio® Portal” 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 Reporting database with the ER/Studio Repository is necessary to obtain the latest ER/Studio Data Architect and ER/Studio Business Architect 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.

Welcome Admin | [Logout](#) | [Help](#)

Home | [Explore](#) | [Reports](#) | [Admin](#) Search:  [Advanced](#)

[Admin](#) | [Synchronization Administration](#)

Use this page to manage synchronization of data between the ER/Studio Repository and the ER/Studio Portal reporting repository.

Actions  
[Refresh](#) | [Execute Synchronization Process](#) | [Schedule Synchronization Process](#) | [Synchronize Selected](#) | [Apply Changes](#)

Synchronization Status: Not Running | [Latest Logs](#)

Selection	Action	Import Images	Status	Status Update Date
<input type="checkbox"/> <a href="#">data0009</a>	<input type="text"/>	<input type="checkbox"/>		
<input type="checkbox"/> <a href="#">Projects</a>	<input type="text"/>	<input type="checkbox"/>		
<input type="checkbox"/> <a href="#">Samples</a>	<input type="text"/>	<input type="checkbox"/>		
<input type="checkbox"/> Adventure Works.DM1	Update <input type="text"/>	<input checked="" type="checkbox"/>	Success	August 19, 2009 11:49:13 AM EDT
<input type="checkbox"/> Adventure Works_demo.DM1	Update <input type="text"/>	<input checked="" type="checkbox"/>	Error	August 20, 2009 11:48:39 AM EDT
<input type="checkbox"/> Demo.dm1	Update <input type="text"/>	<input checked="" type="checkbox"/>	Success	August 19, 2009 12:10:38 PM EDT
<input type="checkbox"/> Emergency Admissions.dm1	Update <input type="text"/>	<input checked="" type="checkbox"/>	Success	August 19, 2009 12:12:25 PM EDT
<input type="checkbox"/> GIMDB.DM1	Update <input type="text"/>	<input checked="" type="checkbox"/>	Success	August 19, 2009 12:14:47 PM EDT
<input type="checkbox"/> <a href="#">Workspaces</a>	<input type="text"/>	<input type="checkbox"/>		
<input type="checkbox"/> link	Update <input type="text"/>	<input checked="" type="checkbox"/>	Success	August 19, 2009 12:44:42 PM EDT
<input type="checkbox"/> Loan	Update <input type="text"/>	<input checked="" type="checkbox"/>	Success	August 19, 2009 12:44:59 PM EDT

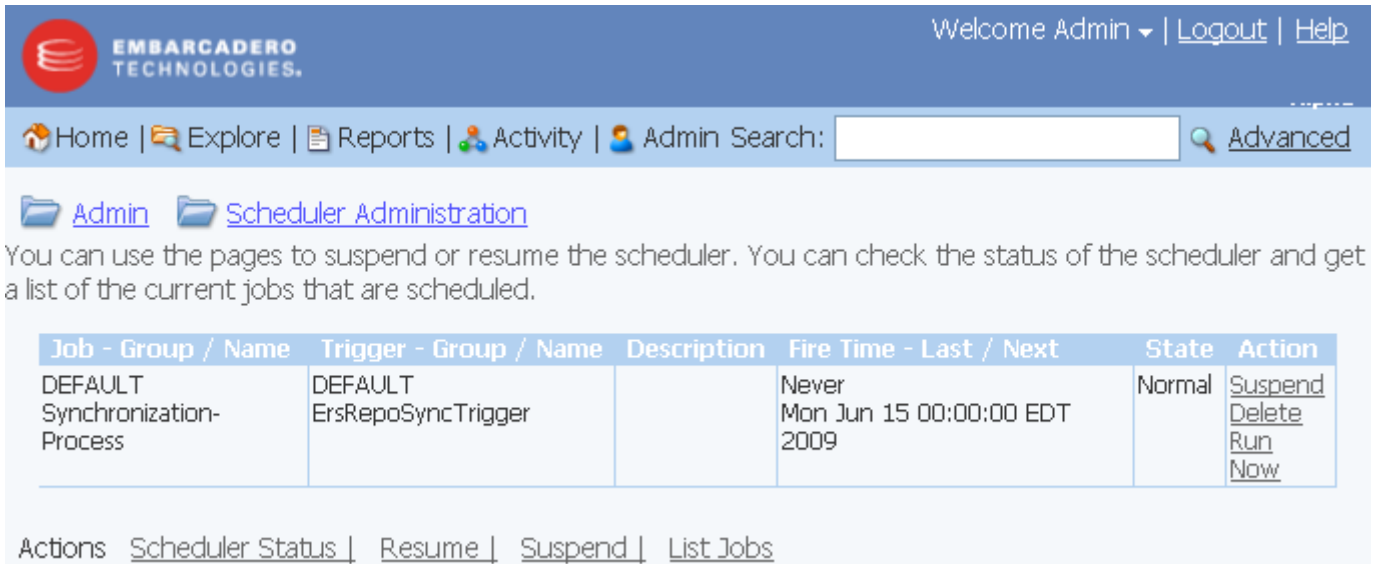
The Synchronization Admin page also displays the status of the most recent execution of the synchronization process. Each item listed is a diagram in the ER/Studio Repository that may or may not be (depending on filters) synchronized with the Reporting repository. The list of items is sorted in descending 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 status 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.

- **Fully Synchronized:** The version in the Portal is the same as the version in the Repository, and the images are also synchronized.
  - **Partially Synchronized:** The version in the Portal is the same as the version in the Repository, but the images are not synchronized.
  - **Deleted:** The selected object has been deleted from the reporting database but it is still in the Repository database.
  - **Queued:** The selected object has been selected for synchronization when the next synchronization process is run.
  - **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 workspaces, projects and diagrams, click the highest level checkbox.*
- To synchronize individual workspaces, 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 Select whether or not you want to synchronize images by selecting or deselecting the **Images** checkbox.
- 6 To save the actions selected, click **Apply Changes**; otherwise, your choices will be in effect only for this synchronization session.
- 7 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."
- 8 Close the message and click **Admin** to display the Pentaho Administration page once again.

- 9 Click **Schedules** to view the scheduled jobs and their statuses.



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

Job - Group / Name	Trigger - Group / Name	Description	Fire Time - Last / Next	State	Action
DEFAULT Synchronization-Process	DEFAULT ErsRepoSyncTrigger		Never Mon Jun 15 00:00:00 EDT 2009	Normal	<a href="#">Suspend</a> <a href="#">Delete</a> <a href="#">Run</a> <a href="#">Now</a>

Actions [Scheduler Status](#) | [Resume](#) | [Suspend](#) | [List Jobs](#)

There are 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.


EMBARCADERO TECHNOLOGIES.
Welcome Admin ▾ | [Logout](#) | [Help](#)

Home | Explore | Reports | Activity | Admin Search:  [Advanced](#)

This page shows reports that you have submitted to run in background on the server. You can cancel ones that have not run yet, and you can view or delete ones that have.

[Clear Toolbar Alert](#)

### Waiting

Name	Date	Size	Type	Actions
Synchronize	6/15/09 10:35 AM			<a href="#">Cancel</a>

### Complete

Name	Date	Size	Type	Actions
Synchronize	6/14/09 7:14 PM	5kb	text/html	<a href="#">View</a>   <a href="#">Delete</a>
Synchronize	6/14/09 4:42 PM	5kb	text/html	<a href="#">View</a>   <a href="#">Delete</a>
Synchronize	6/14/09 4:16 PM	5kb	text/html	<a href="#">View</a>   <a href="#">Delete</a>

### Subscriptions

## 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.

EMBARCADERO TECHNOLOGIES. Welcome Admin | [Logout](#) | [Help](#)

Home | Explore | Reports | Admin Search:  [Advanced](#)

[Admin](#) | [Synchronization Administration](#)

Use this page to manage synchronization of data between the ER/Studio Repository and the ER/Studio Portal reporting repository.

Actions

[Refresh](#) | [Execute Synchronization Process](#) | [Schedule Synchronization Process](#) | [Synchronize Selected](#) | [Apply Changes](#)

Synchronization Status: Not Running | [Latest Logs](#)

Selection	Action	Import Images	Status	Status Update Date
<input type="checkbox"/> <a href="#">data01009</a>	<input type="button" value="Update"/>	<input type="checkbox"/>		
<input type="checkbox"/> <a href="#">Projects</a>	<input type="button" value="Ignore"/>	<input type="checkbox"/>		
<input type="checkbox"/> <a href="#">Samples</a>	<input type="button" value="Delete"/>	<input type="checkbox"/>		
<input type="checkbox"/> Emergency Admissions.dm1	<input type="button" value="Update"/>	<input checked="" type="checkbox"/>	<span style="color: green;">●</span> Success	August 19, 2009 12:12:25 PM EDT
<input type="checkbox"/> GIMDB.DM1	<input type="button" value="Update"/>	<input checked="" type="checkbox"/>	<span style="color: green;">●</span> Success	August 19, 2009 12:14:47 PM EDT
<input type="checkbox"/> Northwind.dm1	<input type="button" value="Update"/>	<input checked="" type="checkbox"/>	<span style="color: green;">●</span> Success	August 19, 2009 12:17:15 PM EDT
<input type="checkbox"/> OrangeMart.dm1	<input type="button" value="Update"/>	<input checked="" type="checkbox"/>	<span style="color: red;">●</span> Error	August 20, 2009 9:49:15 AM EDT
<input type="checkbox"/> OrangeMart1.dm1	<input type="button" value="Update"/>	<input checked="" type="checkbox"/>	<span style="color: red;">●</span> Error	August 20, 2009 9:56:06 AM EDT

- **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.

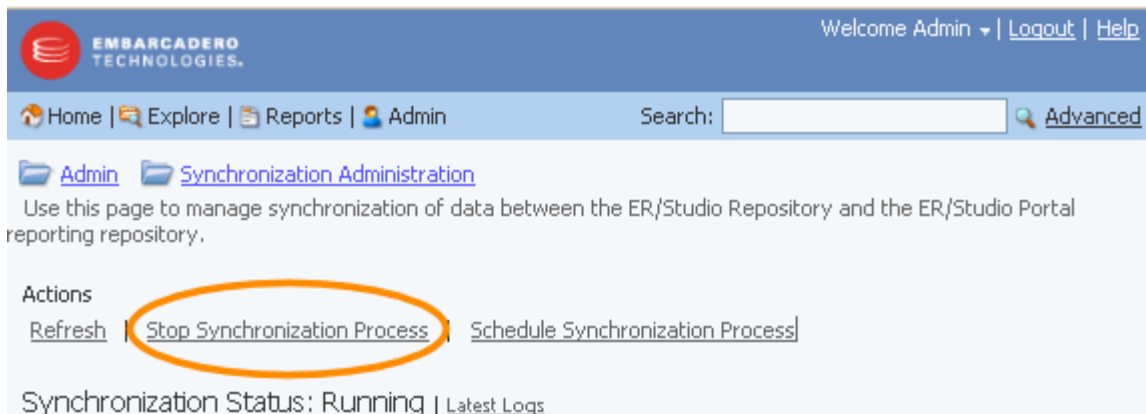


## Notes

- 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.

## MODERATING COMMENTS

You can use this page to review the comments other users have attached to diagrams and see those comments in context. From this page you can accept or reject the comment. Accepting the comment makes it available to other users to view from the Diagram details report. Rejecting a comment deletes it from the system.

---

**NOTE:** Before you can moderate comments, you must enable comment moderation on the Interaction Settings page. For more information, see [Managing User Interactions](#).

---

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

2 Click **Comments**.

The comment moderation page appears.

3 *To view a comment in context*, click the underlined comment name. At the bottom of the report that opens you can choose to accept or delete the comment as required.

*To delete a comment*, select the checkbox next to the comment name and then click the delete symbol (X).

*To accept a comment*, select the checkbox next to the comment name and then click the accept symbol (√).

**TIP:** You can delete or accept all listed comments by selecting the Comments checkbox and then clicking the delete or accept symbol next to Comments.

## 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	<p>You have three choices:</p> <p><b>Suspend:</b> Immediately suspends the scheduled run. When you select this option, it is replaced by the Resume command.</p> <p><b>Delete:</b> Deletes the scheduled subscription from the table.</p> <p><b>Run Now:</b> Runs the scheduled item immediately</p>

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.
<a href="#">Actions</a>	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 <b>Schedule All</b> 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.

## SUBSCRIPTION CONTENT ACTIONS

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: <ul style="list-style-type: none"> <li>• Group</li> <li>• Name</li> <li>• Title</li> <li>• Description</li> <li>• Cron Expression</li> </ul>
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. <b>Note:</b> Schedules can be added and modified via the import function 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 [Creating Subscriptions](#) and [Administering Subscriptions](#).

## CREATING SUBSCRIPTIONS

### Create a schedule

- 1 Click **Admin > Subscriptions > Add Schedule**.
- 2 A page appears requesting information for the item to be scheduled. Complete all fields; all are required.
  - **Group, Name, Title, Description:** These are descriptive fields that you can use to differentiate the various subscriptions you set up.

- **Cron Expression:** This expression determines when the subscription should run. A cron expression is a string of six or seven fields separated by white space. Supply a chronological expression in the format of *Seconds Minutes Hours Day\_of\_month Month Day\_of\_week Year*, such as `0 0 0 ? 1 1`; specifying the year is optional. For more information, see [Specifying a Chronological Expression in a Subscription](#).
- 3 Click **Add**. A confirmation page appears briefly and then you are returned to the page where you entered the scheduling information.

### Select content allowed for the schedule

- 4 Click **Subscription Administration** and then click **Set Content**.
- 5 Expand the action group and then select the action sequence you want to subscribe to. For example, if you wanted to run a synchronization action, expand **etl : actions :** and then select the **Synchronize.xaction** option. For information on actions, see [Subscription Content Actions](#).

---

**NOTE:** You can select subscription content from the admin and etl:actions levels. Choose only one of the following actions to subscribe to per subscription:

```
admin: clean_repository.xaction
etl:actions:Synchronize.xaction
```

---

- 6 At the bottom of the page, click **Set Content** and a page appears briefly indicating that the request completed successfully and then you are returned to the page where you chose the xaction to subscribe to.

### Bind the content to the schedule

- 7 Click **Subscription Administration**.
- 8 In the **Action** column of the **Scheduled Subscriptions** area, click **Edit** next to the scheduled subscription created in step 3.
- 9 Verify that the schedule particulars are as you expected.
 

**TIP:** On this page you can modify the schedule if you want to.
- 10 Click **Set Content for this schedule**, select the action sequences you created earlier and then click **Submit**. A page appears indicating that the request has been completed successfully.
- 11 In the **Action Sequence** area, make note of the full name of the action sequence, for example, `etl/actions/Synchronize.xaction`.

## Subscribe the changes

In order to subscribe the changes you need to follow an http link editing the url in regards to your configuration.

For example, for the sequence action `et1\actions\Synchronize.xaction`, you would enter a URL similar the following:

```
http://PortalServerName:PortNumber/ersportal/ViewAction?&solution=et1&path=actions&action=Synchronize.xaction&subscribepage=yes
```

And, for the sequence action `admin\clean_repository.xaction` you would enter a URL similar the following:

```
http://PortalServerName:PortNumber/ersportal/ViewAction?&solution=admin&path=&action=clean_repository.xaction&subscribepage=yes
```

---

**NOTE:** You do not need to specify the Portal sever port number unless you are using a port other than the default port number, which is 80.

---

- 12 Enter a URL similar to one of the above examples. Press **Enter**.

The Synchronize Web page appears. The name of the sequence action appears at the top of the page.

- 13 In the **Schedule This Report** area, click **Show Scheduling Options**, and enter a name for the scheduled report.
- 14 From the **Schedule For** list, select the name of the schedule you just added, and then click **Save**. You will get a subscription saved/created message page. Close this page.
- 15 Click **Reports > My Reports** to open the My Reports page. Notice that your subscription appears on this page. If the subscription just created has already run, you can view the report from this page.

**TIP:** You can manually run a subscription at any time from the My Reports page.

- 16 To view the scheduled subscription, click **Admin > Subscriptions** and all scheduled subscriptions are listed in a table format. You can suspend or run immediately the scheduled subscriptions. You can also edit them from this page.

## Notes

- To delete a subscription, click *Edit* next to its name in the *Scheduled Subscriptions* area, click *Remove content from subscription* and then click *Delete* in the *Action* column of the Subscription you want to delete.

## SPECIFYING A CHRONOLOGICAL EXPRESSION IN A SUBSCRIPTION

The chronological (cron) expression in the Schedule Editor of the Subscription Administration page is used to create a trigger for the subscription. The cron expression takes the format of *Seconds Minutes Hours Day\_of\_month Month Day\_of\_week Year*. Cron expressions can be as simple as `* * * * ? *` or as complex as `0 0/5 14,18,3-39,52 ? JAN,MAR,SEP MON-FRI 2002-2010`. Use the following rules to create a cron expression.

Field Name	Mandatory?	Allowed Values	Allowed Special Characters
Seconds	YES	0-59	, - * /
Minutes	YES	0-59	, - * /
Hours	YES	0-23	, - * /
Day of month	YES	1-31	, - * ? / L W
Month	YES	1-12 or JAN-DEC	, - * /
Day of week	YES	1-7 or SUN-SAT	, - * ? / L #
Year	NO	empty, 1970-2099	, - * /

### Notes

- You must specify either *Day of month* or *Day of week*, but not both. Insert a question mark (?) as a placeholder for the one not specified.
- If you do not specify the year, the year will be automatically determined by taking into consideration whether the date (month and day) inserted has already passed when compared to the systems current date. If the date has not already passed, the current year is inserted. If the date has already passed, the next year is inserted.
- The names of months and days of the week are not case sensitive. MON is the same as mon.

### Special character usage

The following describes the legal special characters and how they can be used in a cron expression.

- **\*** (all values): Selects all values within a field. For example, \* in the minute field selects "every minute".
- **?** (no specific value): Used to specify something in one of the two fields in which the character is allowed, but not the other. For example, to make the trigger fire on a particular day of the month (say, the 10th), when it does not matter what day of the week that happens to be, put 10 in the day-of-month field, and ? in the day-of-week field.
- **-** (range): Used to specify ranges. For example, 10-12 in the hour field selects the hours 10, 11 and 12.
- **,** (comma): Used to specify additional values. For example, MON, WED, FRI in the day-of-week field means the days Monday, Wednesday, and Friday.

- **/** (forward slash): Used to specify increments. For example, 0/14 in the seconds field means the seconds 0, 14, 28, and 42; and 2/14 in the seconds field means the seconds 2, 16, 30, and 44.
- **L** (last): Used differently in each of the two fields in which it is allowed. In the day-of-month field, **L** selects the last day of the month, which is 31 for January and 29 for February on leap years. When used in the day-of-week field by itself, it means 7 or SAT. But if used in the day-of-week field after another value, **L** selects the last xx day of the month. For example, 6**L** selects the last Friday of the month. When using the **L** special character, do not specify lists, or ranges of values, because this may give confusing results.
- **W** (weekday): Used to specify the weekday (Monday-Friday) nearest to the given day. For example, if you specify 15**W** as the value for the day-of-month field, the nearest weekday to the 15th of the month is selected. So if the 15th is a Saturday, Friday the 14th is selected. If the 15th is a Sunday, Monday the 16th is selected. If the 15th is a Tuesday, Tuesday the 15th is selected. However if you specify 1**W** as the value for day-of-month, and the 1st is a Saturday, Monday the 3rd is selected, as the selection rules do not allow for crossing over the boundary of a month's days to the previous or the subsequent month. The **w** character can only be used to specify a single day, not a range or list of days.

---

**NOTE:** The **L** and **w** characters can also be combined in the day-of-month field to yield **Lw**, which translates to "last weekday of the month".

---

- **#**: Used to specify the nth XXX (or XX) day of the month. For example, the value 6**#FRI** or 6**#3** in the day-of-week field means the third Friday of the month (6 or FRI = Friday, and "#3" = the 3rd one in the month).



## Cron Expression Examples

Cron Expression Example	Creates Trigger that Fires at
0 0 12 * * ?	12 pm (noon) every day
0 15 10 ? * *	10:15 am every day
0 15 10 * * ?	10:15 am every day
0 15 10 * * ? *	10:15 am every day
0 15 10 * * ? 2005	10:15 am every day during the year 2005
0 * 14 * * ?	Every minute starting at 2 pm and ending at 2:59 pm, every day
0 0/5 14 * * ?	Every 5 minutes starting at 2 pm and ending at 2:55 pm, every day
0 0/5 14,18 * * ?	Every 5 minutes starting at 2 pm and ending at 2:55 pm, AND fires every 5 minutes starting at 6 pm and ending at 6:55 pm, every day
0 0-5 14 * * ?	Every minute starting at 2 pm and ending at 2:05 pm, every day
0 10,44 14 ? 3 WED	2:10 pm and at 2:44 pm every Wednesday in the month of March.
0 15 10 ? * MON-FRI	10:15 am every Monday, Tuesday, Wednesday, Thursday and Friday
0 15 10 15 * ?	10:15 am on the 15th day of every month
0 15 10 L * ?	10:15 am on the last day of every month
0 15 10 ? * 6L	10:15 am on the last Friday of every month
0 15 10 ? * 6L	10:15 am on the last Friday of every month
0 15 10 ? * 6L 2002-2005	10:15 am on every last friday of every month during the years 2002, 2003, 2004 and 2005
0 15 10 ? * 6#3	10:15 am on the third Friday of every month
0 0 12 1/5 * ?	12 pm (noon) every 5 days every month, starting on the first day of the month
0 11 11 11 11 ?	Every November 11th at 11:11 am.

## MANAGING USER INTERACTIONS

The Administrator can use the Interaction Settings to control whether a moderator must accept or reject comments, and whether users can email search and report results.

- 1 Click Admin > **Interaction Settings**.
- 2 Complete the Interaction Settings page as required by selecting the options you want to enable and clearing the checkboxes of options you want to disable.
- 3 If you want comment alerts sent to a specific user, enter their email address in the **Comments** area.

**TIP:** Email server information, for sending emails of search results or reports, is configured during Portal installation. These options can be overridden in the Configuration Manager. For more information, see [Using the ER/Studio® Portal Configuration Manager](#).

## ADMINISTERING LICENSES

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

ER/Studio® Portal has a standard concurrent license that allows one administrator connection. You do not need to purchase licenses for ER/Studio users. Their ER/Studio 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 licenses, including node locked and floating licenses. Exclusive user connections are assigned to an ER/Studio 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:

EMBARCADERO TECHNOLOGIES. Welcome Admin | Logout | Help

Home | Explore | Reports | Admin Search:  Advanced

Admin License Administration

Use this page to manage your ER/Studio Portal licenses

License Add-on Status: 1 base administrator session, UNLIMITED concurrent user sessions, 0 exclusive user sessions **1**

Serial No.	Days Left	Connections	Connection Type
ARFF-SUASDD-F5AGBG-A2ZQ	10	UNLIMITED	Concurrent

Actions **3**

[Refresh](#) | [Register Add-on License](#) | [Manage Exclusive Connections](#)

Current User Sessions: 1 concurrent and 0 exclusive **4**

#	User Name	Remote Host	Remote IP	Logged In Since	Inactive For (mm:ss)	Connection Type	Action
1	Admin	10.40.16.136	10.40.16.136	Fri Aug 21 14:21:55 EDT 2009	00:25	Concurrent	

Version:  Build Id:  ER/Studio Portal [Click here for more information](#)

- 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 users.
- Lists all registered and activated license add-ons.
- 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 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](mailto: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](mailto: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\ERStudioPortalX.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\ERStudioPortalX.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.

You can assign Roles to various activities and reports to limit their use.

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, ER/Studio® 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.

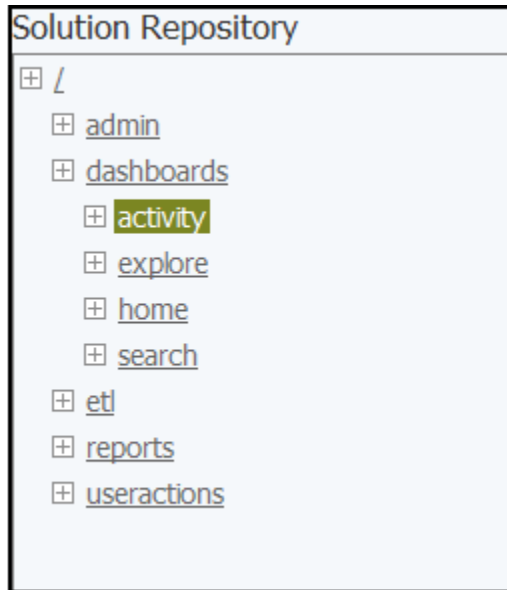
---

- 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.

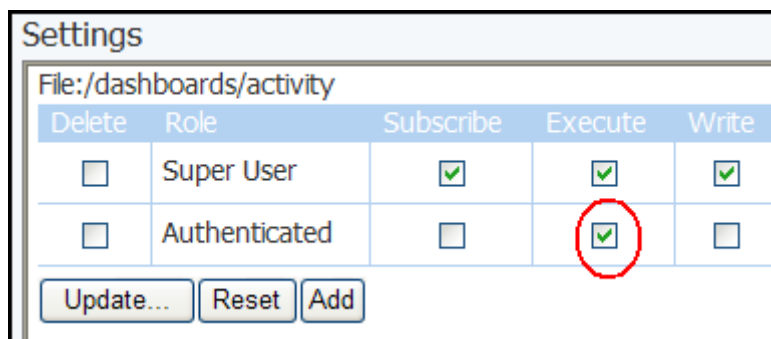
### Setting a Permission

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**.

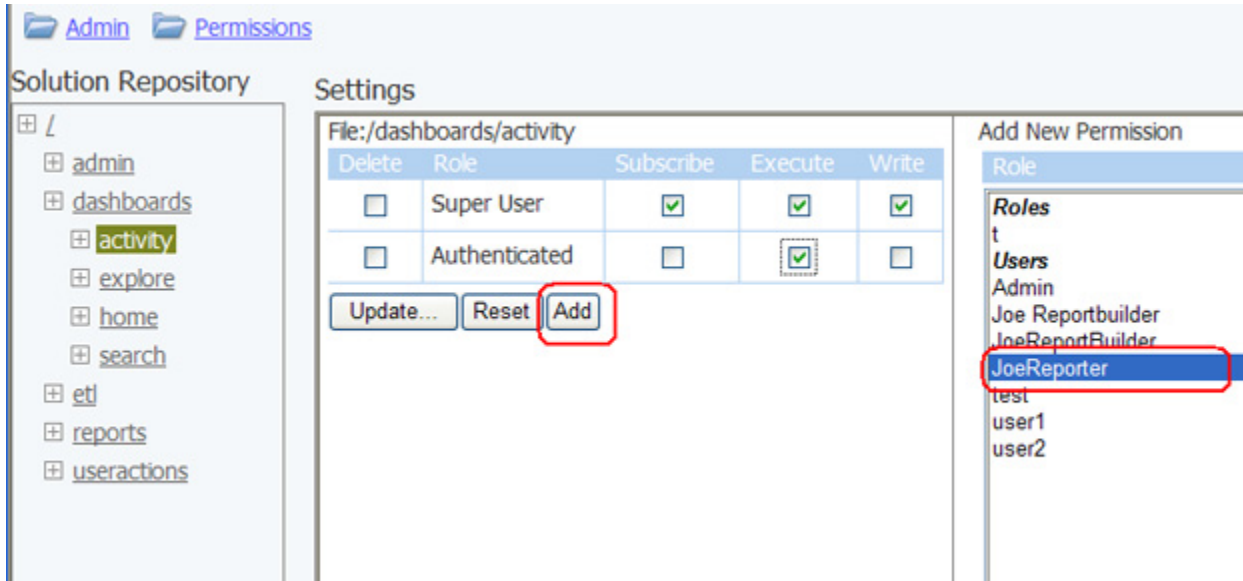


- 4 In the **Settings** panel change the levels of permissions for the **Authenticated** user by deselecting the **Execute** option (circled in red below).



- 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 licenses, including node locked and floating licenses. Exclusive user connections are assigned to an ER/Studio 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® 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 ER/Studio® 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:** ER/Studio® Portal has six technical reports: Column Data Lineage; Domain Bindings; Entity, Submodel, Model, Diagram Report; Entity Attachments; Reference Values; and Security Classifications.

# Index

## A

- Activity 15, 70
- Additional resources 9
- Admin 15
- Administering Schedules 106
- Administrative Tasks 95
- Advanced Search 7
- Attribute Definitions Report 57

## B

- Business Intelligence 11
- Business Reports 8
- Business Rules Report 57

## C

- Clean Content Repository 96
- Column Data Lineage Report 57
- Comments 69, 96
  - Approving 106
  - Creating 68
  - Deleting 68, 70, 106
  - Stop Watching 70
  - Viewing 68, 70, 106
  - Viewing Diagram Comments 69
  - Watching 69

- Configuration Manager 96, 98

- Custom reports
  - sharing 67

- Customized Reports 8

## D

- Dashboards 15

- Database

- ER/Studio Repository 10
  - Objects synchronized 11
  - Reporting 10
  - Synchronizing 10

- Diagram Detail 85

- Diagram Report 58

- Discussion Groups 9

- Documentation 9

- Domain Bindings Report 57

- Domain Detail 90

## E

- Entity Attachments Report 58

- Entity Definitions Report 57

- Entity Detail 88

- Entity Report 58

- ER/Studio Business Architect Reports 19

- ER/Studio Repository 10

- Explore 7, 15–16

- Exports

- Emailing 8

- Extraction Transform Load (ETL) 100

## F

- FAQs 9

- Forums 9

## H

- Home 15, 70

- Home Page 7

## I

- Installation Settings

- Changing 98

- Interaction Settings 96

## J

- Java Naming and Directory Interface 10

- Java Virtual Machine (JVM) 93

## K

- Knowledge Base 9

## L

- Labels 68

- Creating 68

- Deleting 68

- Viewing 68

- Licenses 95

- Lightweight Directory Access Protocol 14

- Logical Model Detail 85

- Logical Submodel Detail 86

- Logical View Detail 88

- Login Activity 71

## M

- Model Report 58

## P

- Pentaho 11

- Pentaho Data Integration Engine 12

- Pentatho Solution Engine 12

- Permissions 95, 118

- Physical Model Detail 86

- Physical Submodel Detail 87

- Physical View Detail 89

- Preferences

- Setting Default Filter Number 14

- Setting Email Address 14

- Specifying email address 69

## R

- Reference Values Report 58

- RepoRpt.xml 83

## INDEX

- Reports 8, 15
  - Business 57
  - Custom 59
  - Emailing 57
  - Exporting 8
  - Favorites 57, 65
  - New 59
  - Printing 8
  - Related 24
  - Running in the background 57
  - Saving 19
  - Shared 56, 67
  - Status 58
  - Technical 57
  - Usage 8
- Restore Solution Repository 96
- S
- Schedule Cleaning of Content Repository 97
- Scheduled Jobs
  - Administration 102
- Schedules 96
- Search 7
  - Advanced 79
  - Results 80
  - Simple 78
- Search Filters 82–83
- Search Index
  - Updating 83, 96
- Search Results Report
  - Customizing Filters 83
  - Examples 80
- Searches
  - Favorites 90
- Security 12
  - Action 13
  - Object 13
- Security Classifications Report 58
- Shared Reports 67
- Solution Browser 15, 55
- Structured Browsing 16
- Submodel Report 58
- Submodels 24
- Subscriptions 96
- Synchronization
  - Actions 101
  - ER/Studio object types 11
  - Exceptions 92
  - Execution 103
  - Filtering 91
  - Filters 92
  - JVM process 93
  - Logs 104
  - Scheduled jobs 102
  - Scheduling 99
- Synchronization (ETL) 96
- Synchronization Actions 91

## INDEX

Synchronize  
    Reporting Repository 95  
    Security Objects 94

## T

Table Detail 88  
Technical Reports 8  
Tomcat Configuration 98

## U

Update Solution Repository 96  
Updated Objects 72