



Product Documentation

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# ER/Studio Portal

## Quick Start Guide

2nd Edition

Version 1.6.2

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February 10, 2012

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# INTRODUCING ER/STUDIO PORTAL

ER/Studio Portal (Portal) is a Web-based reporting tool used to access and search the ER/Studio Repository for enterprise metadata for improved data and metadata management practices. The Portal is accessed by a browser internally via the corporate intranet or externally via the internet browser for cross-model and repository-wide searching of data definitions and objects. It includes standardized HTML reporting capabilities and structured browsing in the repository to enable sophisticated reporting of the repository metadata.

The Portal enables Data Management Executives, Data Modelers, Data Stewards and Business Users the capability to use, share, and better manage centralized metadata and improve data governance and standards. In addition, application development teams can use the Portal to see what types of data already exist in the company. This eliminates replicating new data or deviating from the standard format data types needed to be implemented in existing applications.

The Portal enables you to communicate all the information you need and lets you view the data model diagrams. You always know where to get the up-to-date information you need.

## Product Benefits

- With the Portal you can browse the entire repository and produce reports of the metadata.
- Developers, Database Administrators, Business Analysts, and Data Analysts can use the customized reporting interface to mine the repository to quickly produce usable and meaningful reports.
- The portal has simple and advanced searching capabilities of the repository to determine the location of objects, as well as their reuse and impact analysis.
- A browsing interface allows you to easily navigate to the models and dictionaries in the repository.

This section is comprised of the following topics:

- [Overview](#)
- [Understanding the Portal Infrastructure](#)
- [Understanding the User Interface](#)
- [New Features of ER/Studio Portal](#)

For more information, see the Embarcadero website at [www.embarcadero.com](http://www.embarcadero.com).

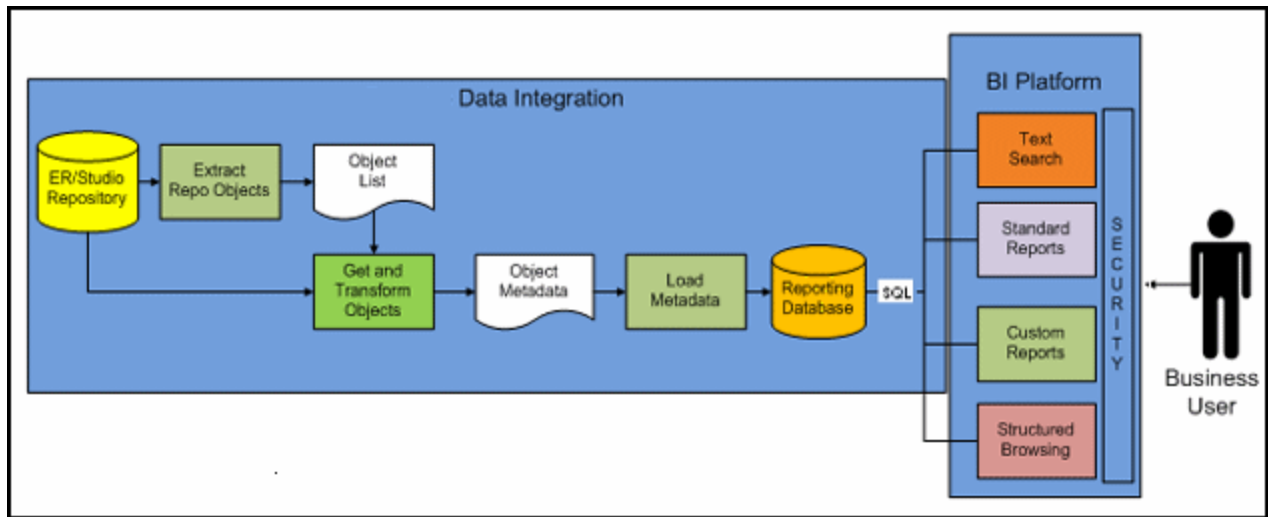
## OVERVIEW

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

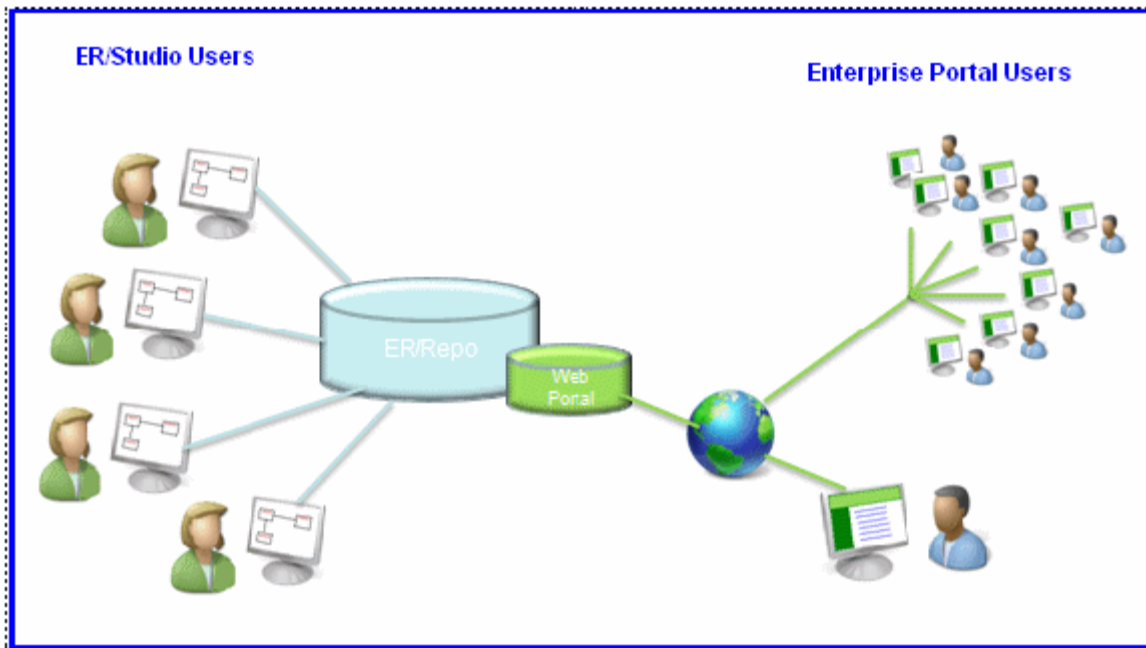
In addition, application development teams can use the portal to see what types of data already exist in the company. This eliminates replicating new data or deviating from the standard format data types needed to be implemented in existing applications.

The Portal enables you to communicate all the information you need and lets you view the data model diagram as well. You will always know where to get the up-to-date information you need.

The progression of data integration and the different ways to access ER/Studio Repository data is in the following illustration.



The following graphic shows a simplified example of the creation, storage, and user access to the ER/Studio Repository.

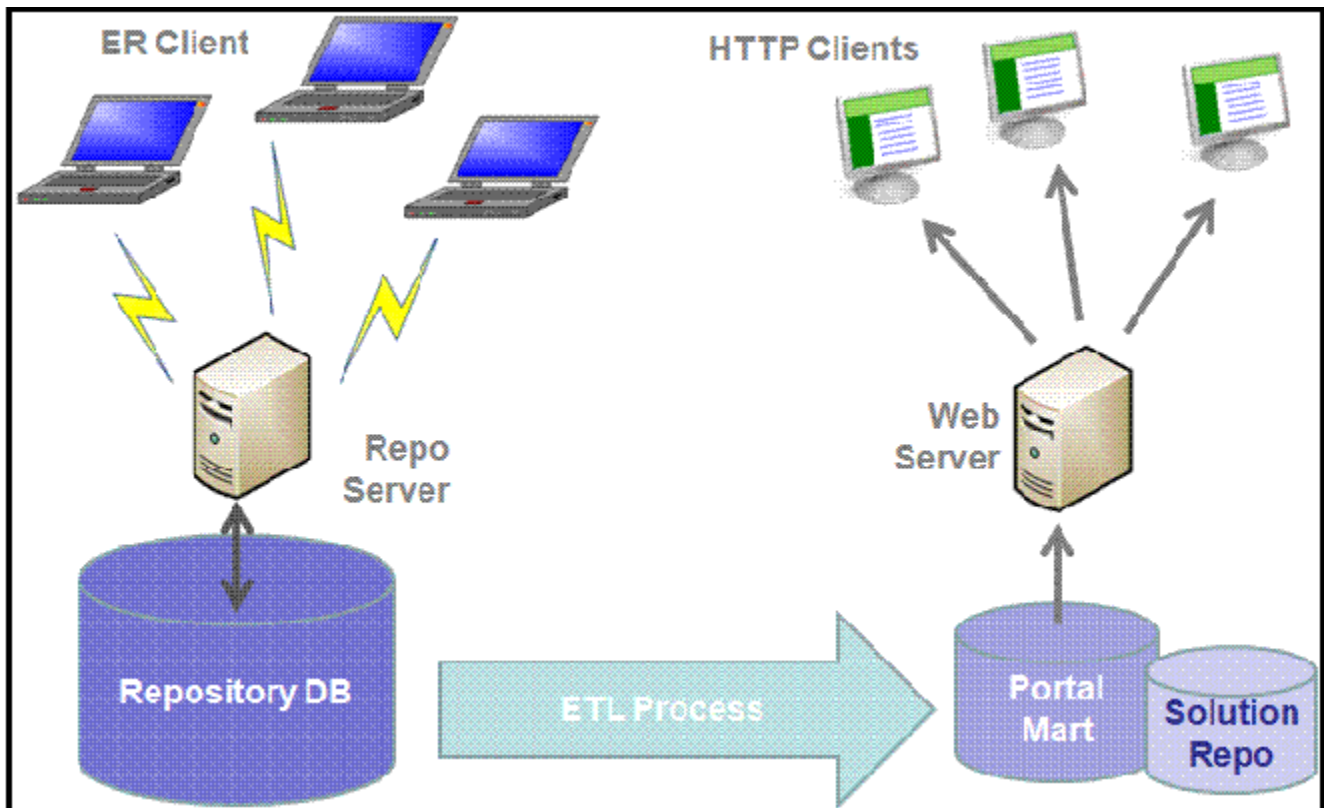


## UNDERSTANDING THE PORTAL INFRASTRUCTURE

The Portal is an add-on for the ER/Studio Enterprise edition which allows easy distribution of the repository metadata to the enterprise. The following lists the process of creating and accessing the metadata:

- The metadata is created and maintained by ER/Studio Clients.
- That metadata is stored in the ER/Studio Repository database.
- Through an extract, transform, and load process (ETL), that metadata is pulled into the reporting database which is synchronized on a scheduled basis with the source metadata.

- The Portal users can then browse, search, and report on the synchronized metadata in the reporting database.



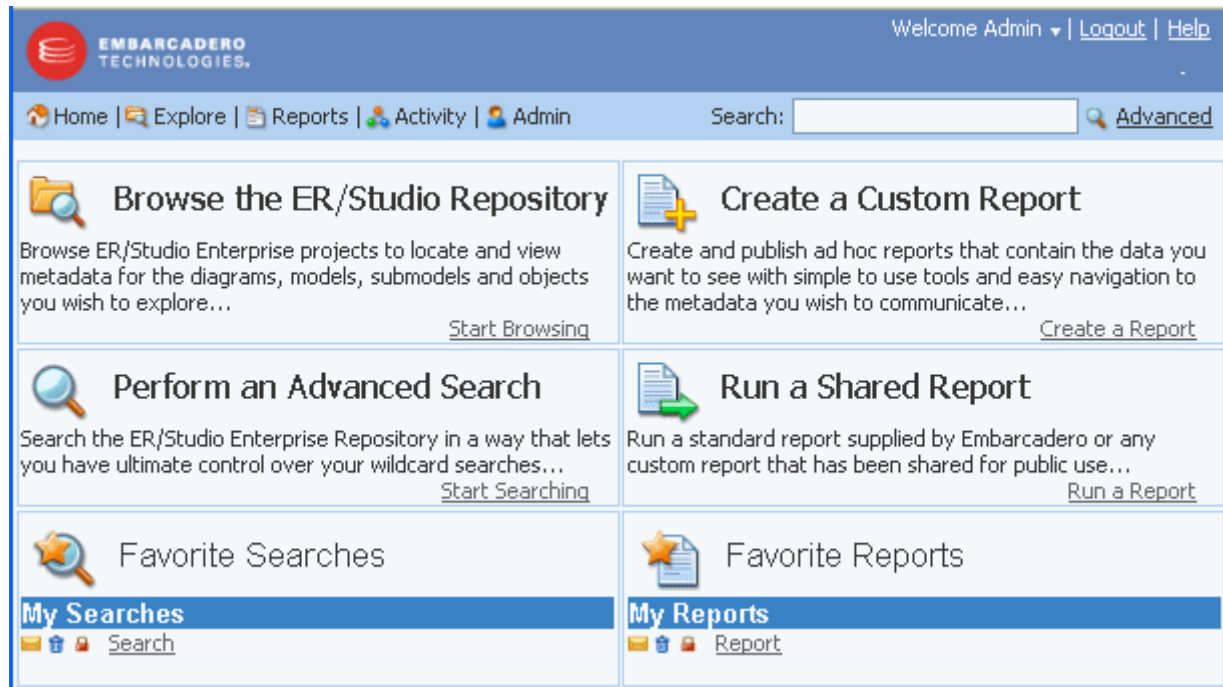
The following are the basic concepts of the Portal:

- **Custom Reports:** This is a wizard which steps you through the creation of a business model report. You can select a business model type, apply a pre-set template, select the items you want included, set constraints, calculations, and sorting filters, and set the formatting.
- **Portal:** The portal is the gateway to the reporting database. It uses HTML browsers through a Web server to deliver HTML pages.
- **Repository:** The database created and maintained by the ER/Studio Enterprise application.
- **Reporting Repository:** This is the repository that is extracted from the ER/Studio repository using the Extract, Transform, and Load process and made available to the Portal user. This repository can be synchronized on a scheduled basis with the ER/Studio Repository.
- **Solution Repository:** This Repository is the location where the reports from previous queries and the metadata they rely on is stored and maintained.
- **Standard Reports:** You can choose the parameters for these reports by selecting the Project, Diagram, Model, Submodel, and Entity you want included. The format of these reports is pre-set and is installed with the Portal. Business Reports include Attribute Definitions, Business Rules, and Entity Definitions. The Technical Reports include Column Data Lineage; Domain Bindings; Entity, Model, Submodel, Diagram; Entity Attachments, Reference Values; and Security Classifications. Reports can be added to the Standard Reports list using the custom reports wizard.



## UNDERSTANDING THE USER INTERFACE

The graphic below illustrates the main elements of the Portal User Interface.



There are five dashboards available:

Dashboard	Description
Home	Interacts with the Portal through the Home Page. You can navigate to the Business and Technical reports, and create custom reports. From here you can also access your favorite and shared searches and reports.
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, a detailed report is displayed for that diagram.
Reports	Several standard reports are available that can be executed. Reports are grouped and organized into folders: Business Reports and Technical Reports.
Activity	See who is currently logged in to the Portal, view objects that have recently been updated, and display a historical chart of connection activity.
Admin	Gives access to administrative functions described in the <i>Administrator's Guide</i> of the online help. This dashboard is only available when a user with administrative privileges logs in.

## NEW FEATURES OF ER/STUDIO PORTAL

This section describes the latest new features of ER/Studio Portal and is comprised of the following topics:

- [New Features of ER/Studio Portal 1.6.2](#)

- [New Features of ER/Studio Portal 1.6](#)
- [New Features of ER/Studio Portal 1.5](#)

## NEW FEATURES OF ER/STUDIO PORTAL 1.6.2

### **Additional Operating System Support**

**Windows 2008 R2:** ER/Studio Portal 1.6.2 now supports the Windows 2008 R2 platform.

## NEW FEATURES OF ER/STUDIO PORTAL 1.6

### **More Secure Communications**

**HTTPS Support:** Passwords can be sent to the Portal server on the login page via Hypertext Transfer Protocol Secure (HTTPS), which is a combination of the Hypertext Transfer Protocol with the Secure Socket Layer (SSL)/Transport Layer Security (TLS) to provide encryption and secure identification of the server. For more information, see “Using the ER/Studio Portal Configuration Manager” in the *ER/Studio Portal User Guide* and online help.

**SSL Support:** Communications between server and client are now more secure via Secure Socket Layer (SSL). For more information, see “Using the ER/Studio Portal Configuration Manager” in the *ER/Studio Portal User Guide* and online help.

## NEW FEATURES OF ER/STUDIO PORTAL 1.5

The following are the top new features incorporated in ER/Studio Portal 1.5:

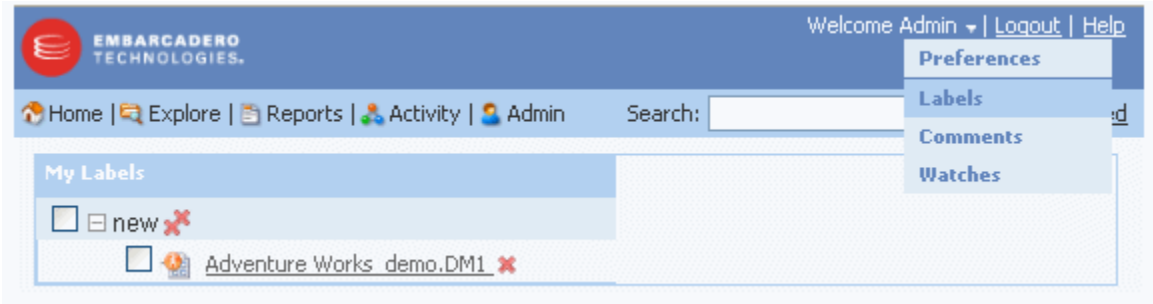
- [Better Performance](#) on page 10
- [Object Labels on Detailed Reports](#) on page 11
- [Commenting on Detailed Reports](#) on page 11
- [Support for Visual Data Lineage](#) on page 12
- [Support for ER/Studio Business Architect](#) on page 12
- [User Interface Improvements](#) on page 13

### **BETTER PERFORMANCE**

The synchronization process between the portal and repository databases has been optimized further to sync diagrams as fast as possible.

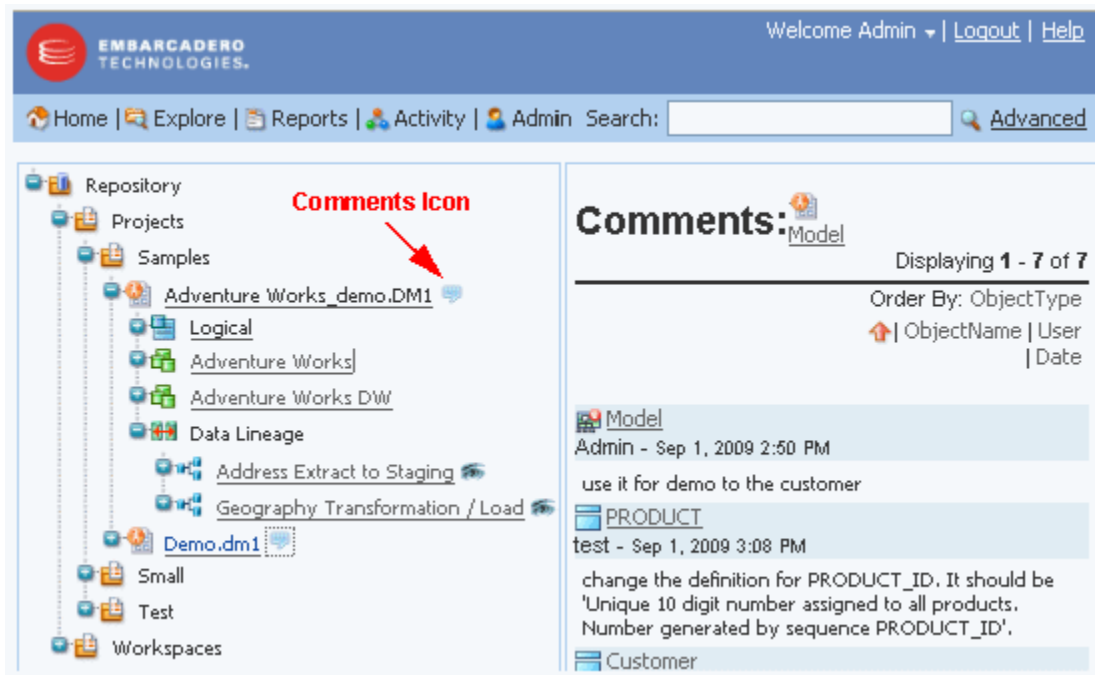
## OBJECT LABELS ON DETAILED REPORTS

You can add a label to any detailed report. Labels are used like bookmarks or file folders. Use them to organize and document reports. For more information, see “Documenting and Organizing Reports Using Comments and Labels” in the *ER/Studio Portal User Guide* and online help.



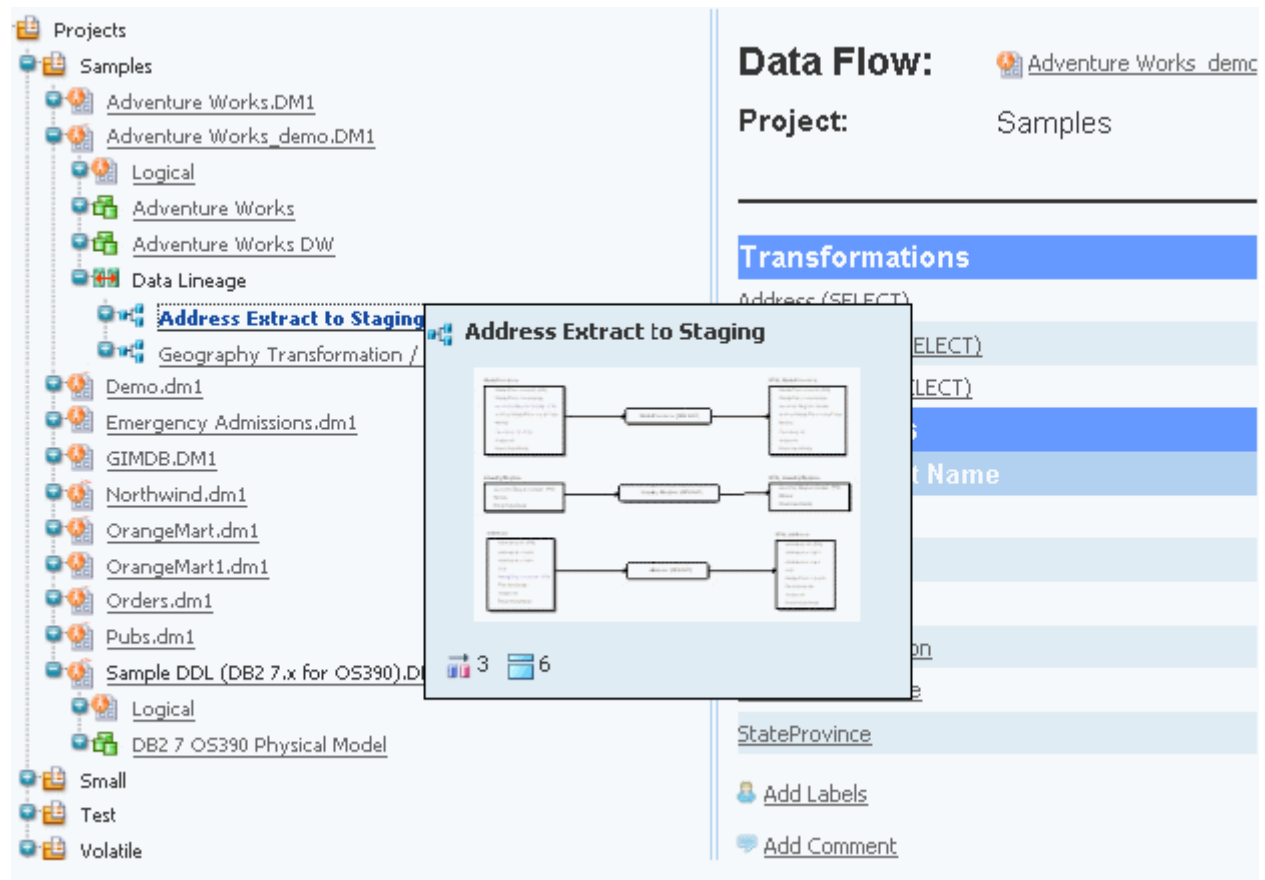
## COMMENTING ON DETAILED REPORTS

You can also add comments to detail reports that you can share with other users. 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 require administrative approval before they display. Approved comments can be seen by any user with the authorization to view the report. Comments are accessible from the Repository Explorer. For more information, see “Documenting and Organizing Reports Using Comments and Labels” in the *ER/Studio Portal User Guide* and online help.



## SUPPORT FOR VISUAL DATA LINEAGE

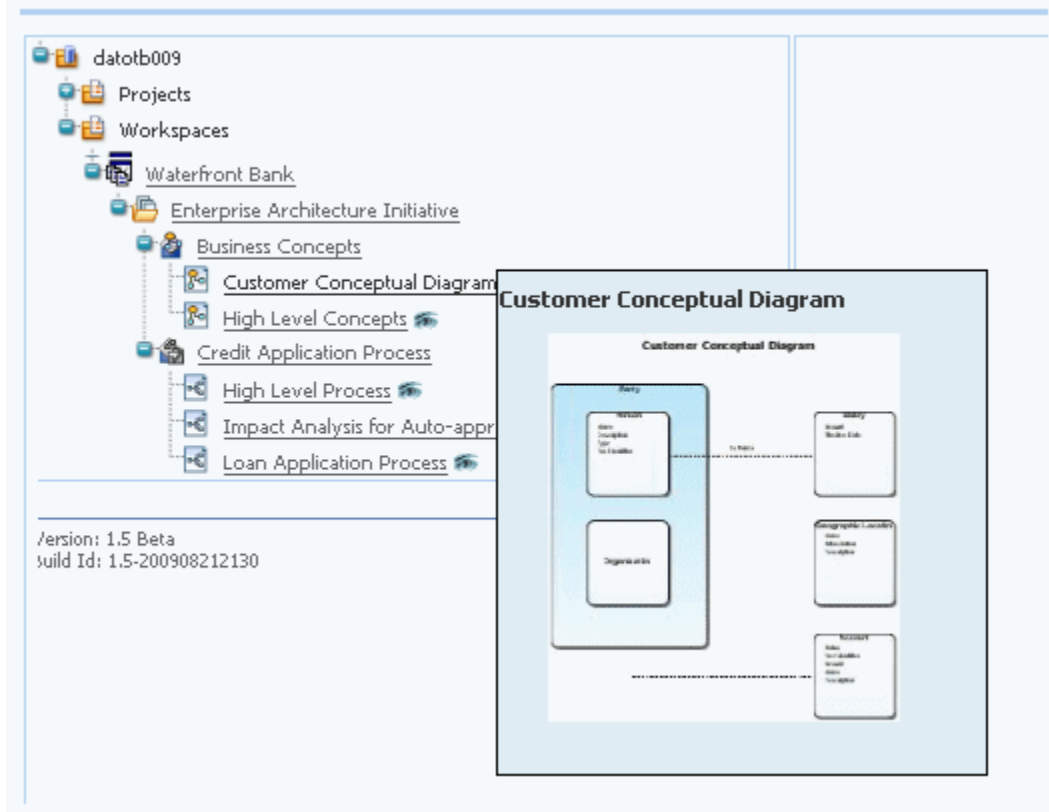
ER/Studio Data Architect Data Lineage diagrams are now fully supported in the Portal. You can browse them through the Repository explorer, they are fully searchable, and you can create custom reports for this diagram type..



## SUPPORT FOR ER/STUDIO BUSINESS ARCHITECT

You can now browse through ER/Studio BA diagrams in the Workspaces nodes of the Repository explorer. Clicking certain objects will display small images of the diagrams. Clicking an ER/Studio BA object presents a detail report for that object.

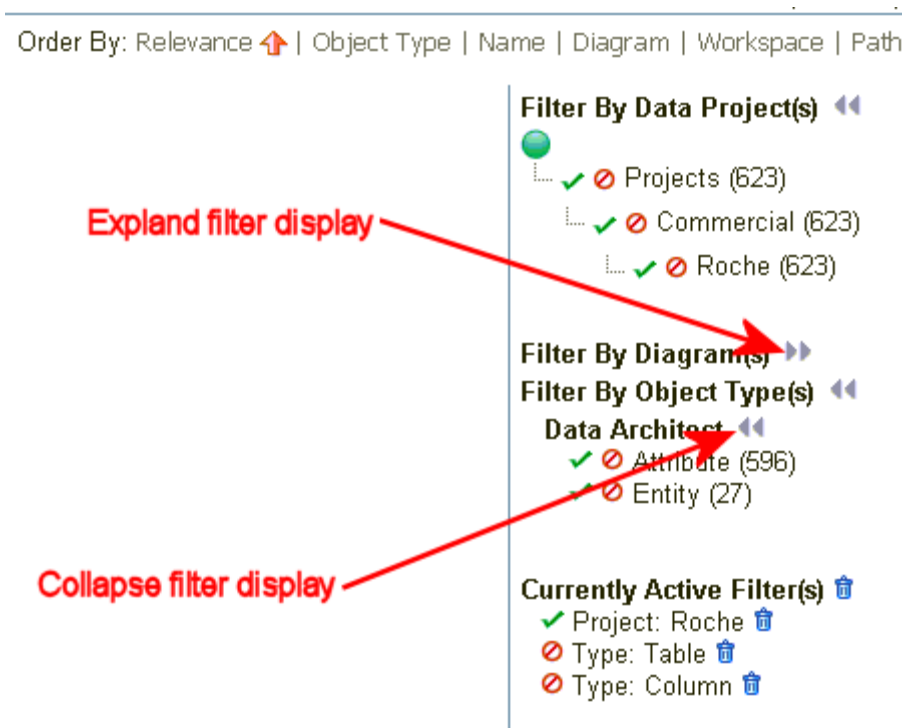
You can now limit your search to only ER/Studio BA or ER/Studio DA objects, or you can choose to search through all Repository objects.



## USER INTERFACE IMPROVEMENTS

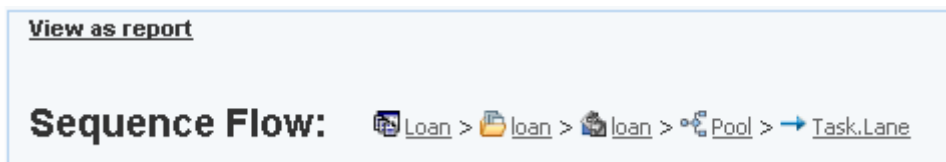
The following illustrate the improvements made to the user interface for this release.

**Show/Hide Filters:** You can now hide or display the default number of filters by clicking the arrow next to the name of the filter type.

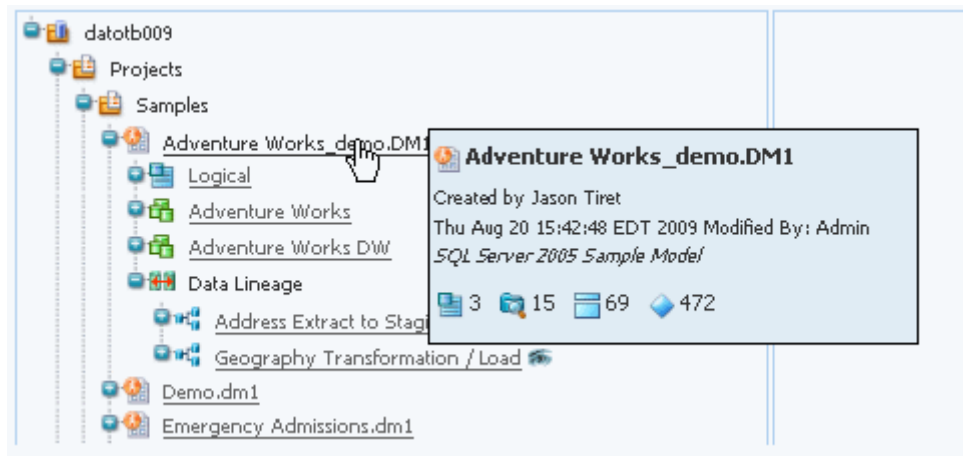


**Interactive images in Repository Explorer:** For ER/Studio DA models and submodels, you can select View Image to view the model as it would appear in the ER/Studio DA Window. Once the image appears, you can then click on an object to view a detail report on that object. For example, clicking on an entity brings up the Entity detail report.

**Navigational Trail for Drill-Down Reports:** Return easily to previous reports by clicking items in the navigational trail.



**Diagram Thumbnails Included in the Explore Dashboard:** Hover your mouse over a diagram to view a snapshot of the diagram contents.



**Remember Me Option for Future Logins:** Click **Remember me** and the next time you login when you enter the first few letters of your user name, the system will auto-complete your name and the password field also.

The screenshot shows the login form for ER/Studio Portal. At the top is the 'EMBARCADERO TECHNOLOGIES' logo. The form is titled 'Login' and contains the following fields and controls:

- User:** A text input field.
- Password:** A text input field.
- Remember me**
- Login** button
- Reset** button





# INSTALLING ER/STUDIO PORTAL

This section helps you install ER/Studio Portal and is comprised of the following topics:

- [Before You Install ER/Studio Portal](#) on page 17
- [Installing ER/Studio Portal](#) on page 18
- [Licensing ER/Studio Portal](#) on page 28

## BEFORE YOU INSTALL ER/STUDIO PORTAL

This section covers the installation requirements for the Embarcadero's ER/Studio Portal. Before installing ER/Studio Portal ensure your system meets the application minimum technical requirements of the application.

## TECHNICAL REQUIREMENTS

ER/Studio Portal is a 32-bit application that runs in a Microsoft Windows environment. Before installing ER/Studio Portal, verify that your environment meets the hardware and operating system requirements.

### HARDWARE REQUIREMENTS

The minimum recommended hardware requirements:

Hardware	Minimum Requirement
CPU	Pentium Class 4-CPU or higher
RAM	3 GB minimum
Disk Space	Hard Drive space - 300 MB minimum for installation
DVD Reader	Required to install from Distribution media, not necessary when downloading installation executables from <a href="http://www.embarcadero.com">www.embarcadero.com</a> .

### SUPPORTED DATABASE PLATFORMS

The Reporting Repository is the database the portal uses to store the information it gathers from the ER/Studio Repository. The Solution Repository is the location where the reports from previous queries and the metadata they rely on is stored and maintained.

The supported database platforms for the Reporting and Solution databases are listed below:

- Oracle 9i, 10g, and 11g

- IBM DB2 UDB 8.x and 9.x Server: Before installing the portal on the DB2 platform, you must first create the reporting and solution databases. Allocate at least 16k for the size of the page, user tablespace, and system temp tablespace.
- Microsoft SQL Server 2000 (SP4) and 2005

**NOTE:** Ensure that the SQL Server Configuration Properties is set to allow SQL Server authentication. The Portal only supports SQL Server Authentication.

## OPERATING SYSTEM REQUIREMENTS

ER/Studio Portal requires the following operating system environment:

- Microsoft Windows 2003 Server (32-bit only)
- Microsoft Windows 2008 Server (32-bit and 64-bit modes)
- Microsoft Windows 2008 R2 Server

**NOTE:** We recommend that the reporting and solution databases be put on a separate machine from the one running the ER/Studio Repository database. The ideal setup would be if the portal application server is put on the same machine as the ER/Studio Repository server, as long as it has enough RAM.

- An available TCP/IP port. The default is 80. However, if it is already in use by another application, choose an unused port between 0 and 65535. For more details, see "[Installation Wizard - Host and Port for ER/Studio Portal Tomcat Server](#)" on page 21.
- Tomcat listens on port 8005 for the shutdown command. If this port is already in use, you can specify a different port using the ER/Studio Portal Configuration Manager..
- Tomcat also uses ports 80 and 443 for http/https communications when SSL has been enabled.

**NOTE:** FOR TESTING PURPOSE ONLY: The Portal will run on Windows XP and Windows 7 but this is not recommended for an operational system. If installing on Windows 7 you need to run the installer in Windows XP or Windows Vista compatibility mode.

### Client System Requirements

- Mozilla Firefox 2.0 (or later), Microsoft Internet Explorer 6.0 (or later), Netscape 7.2 (or later), and Safari 1.0.

## INSTALLING ER/STUDIO PORTAL

The ER/Studio Portal wizard-based installer guides you quickly through the installation process. This section describes installation prerequisites and the Installation Wizard. It also provides some information about basic decisions you must make during installation.

You must have administrative privileges to run the install. To complete the installation, you need to complete each panel of the Installation Wizard.

The Installation Wizard is a multi-panel wizard whose primary function is to install ER/Studio Portal, along with other third-party software that it is dependent upon, such as Pentaho BI Platform and Apache Tomcat.

**NOTE:** Apache Tomcat version 5.5.26 is embedded in the ER/Studio Portal installation.

In this installation you are setting up access to the ER/Studio Repository and the Reporting and Solution Repositories.

**NOTE:** In order to install, you need to create an empty database for the Reporting and Solution Repositories. You can use the same database for both Repositories.

### Installation Wizard - Welcome

To start the installation process:

- 1 Download the zip file from the web page to your local hard drive.
- 2 Unzip the installation file.

**NOTE:** The ER/Studio Repository server and the database servers to be used for the reporting and solution repositories must be running before installing ER/Studio Portal.

- 3 Double-click **setupwin32.exe** and the **InstallShield Wizard** dialog is displayed.
- 4 Click **Next** to view the **Software License and Support Agreement** panel.

**NOTE:** There may be a slight delay between when you double-click the file and when the InstallShield wizard opens.

The Welcome panel of the Installation Wizard offers introductory information.

**NOTE:** Do not install the Portal on a system where ER/Studio Data Architect or ER/Studio Business Architect, or a previous version of the Portal is installed. If the Portal installer detects an installation of any of these applications, you must exit the wizard and uninstall these applications before proceeding.

## Installation Wizard - Software License and Support Agreement

The Software License and Support Agreement panel of the Installation Wizard displays the Embarcadero Technologies license agreement. You must accept the agreement to proceed with the installation.

- 1 Click **I accept the terms of the license agreement** option and then click **Next** to open the **Directory Name** panel.

## Installation Wizard - Directory

- 1 Choose the destination directory where you want to install ER/Studio Portal.

**NOTE:** If the selected directory contains other files, an error dialog appears. The installation cannot continue unless the destination directory is empty. Click **OK** to close the dialog and ensure that the selected directory is empty.

- 2 Optional. If you want users to be able to send results of searches and reports to an email address, click **Enable sending of Email**. You can also enable email through the configuration manager, which is described in the "Administrator's Guide" section of the online help. Additional fields appear on this page of the installer where you must specify the following:

### Enable sending of Email

- **Host:** The value in the Host field must be the host name of the email server; such as `MSMAIL01`; the fully qualified network name, such as `MSMAIL01.embarcadero.com`; or the IP address of the email server, such as `10.10.23.281`.
- **Port:** The port number the email server host is listening on. The default is 25.
- **From Address:** The email address you want to use as the originator of emails sent from the Portal application. You may want to set up a special email address on your email server for just this purpose.

You will also have the option to use Authenticated SMTP (Simple Mail Transfer Protocol). If you select this option, more fields appear for you to specify the particulars of the SMTP sever.

### Use Authenticated SMTP

- **User Name:** The network user name to be verified by the SMTP server for all outgoing email messages.
  - **Password:** The password for the above.
- 3 Click **Next** to advance to the **Host and Port** panel.

## Installation Wizard - Host and Port for ER/Studio Portal Tomcat Server

On this page you must specify the following:

- **Host Name:** The value in the Host field must be the host name of the server that will run the Portal application; such as `DEWKBROW01`; or the fully qualified network name, such as `DEWKBROW01.embarcadero.com`; or the IP address of the system you are installing on, such as `10.10.23.281`.
- **port:** The default port number is 80. If another application such as another browser-based application is already using port 80 on this system, enter an unused port number between 0 and 65535. For example, 0 and 139 are used for the NetBios Session Service in Windows. The ports in use depend on the platform and the services installed on the system. A commonly-used alternative is 8, although using a high number such as 10000 will probably reduce the chance of a conflict.
- **Shutdown Port:** This is the port the Portal listens to for the shutdown command. The default is 8006 but you can change it here if there's a conflict. The shutdown port number can also be changed using the ER/Studio Portal Configuration Manager after the Portal is installed. For more information, see the *ER/Studio Portal User Guide*.

For systems using Windows versions higher than Windows XP, such as Windows Vista, Windows 7, and Windows 2008, the following must also be specified to enable the Portal to synchronize with the ER/Studio Repository.

**Windows User:** Enter the name of a Windows user the Portal can use to interact with the Windows Desktop. The name should be in the format of `domain\username`. If the user is the local, non-domain account then enter the machine name instead of the domain name using the format of `machine_name\username`.

**User Password:** Enter the password for the user account.

OPTIONAL. To enable users to log in to the Portal using their domain names and passwords and the Lightweight Directory Access Protocol (LDAP), select Enable LDAP Authentication. Additional fields will appear on the dialog where you must specify the following:

### Enable LDAP Authentication

- **LDAP URL:** The URL of the server running LDAP, such as  
 For an unsecured port: `ldap://10.40.40.94:389`  
 For a secure port: `ldaps://10.40.40.94:636`
- **Manager DN:** The domain name for the administrative user that is used in order to authenticate users. This is the account that the portal will use to connect to the LDAP server to validate the user's credentials, for example, `CN=User1,OU=Users,OU=ERSTUDIO,DC=Torlabdomain,DC=com`.
- **Manager Password:** In order to search for users, uses this password.
- **Search Base DN:** Name of the root node in LDAP from which to search for users, such as `OU=Users,OU=ERSTUDIO,DC=Torlabdomain,DC=com`.

- **Search Attribute:** The attribute in LDAP holding the user's login name, such as `sAMAccountName` (for ActiveDirectory).
- **Test User/Password:** A sample user/password to attempt to authenticate against LDAP server, such as `user/password`. The installer uses this information to validate the given LDAP information.

4 Click **Next** to advance to the **Repository Information** panel.

If the specified port is invalid or in use by another application, you will receive an error message and need to change the Port setting to an unused port number before proceeding.

### Install Wizard - Repository

Specify the target ER/Studio Repository that is the information source for the Reporting Repository. The Reporting Repository is the database ER/Studio Portal uses to store the information it gathers from the ER/Studio Repository.

**NOTE:** Gather the following ER/Studio Repository information before proceeding.

Field	Description
Repository Server	
Version	Select the corresponding version of the ER/Studio Repository, 4.0, 4.5, 5.0 , 5.5 or 6.0.
Repo Server Name	Specify the name of the machine where the ER/Studio Repository is installed.
Super User Login	Specify the user name for a user with the Super User role in the ER/Studio Repository.
Password	Specify the password for a user with the Super User role in the ER/Studio Repository.
Repository Database	
DBMS Server Type	Select the server type: <ul style="list-style-type: none"> <li>• Oracle</li> <li>• IBM DB2 Universal Database</li> <li>• Microsoft SQL Server</li> </ul>
DBMS Host/Port	Specify the host name of the machine that contains the ER/Studio repository database. This information is supplied by the DB Administrator.  <i>For SQL Server only, if the ER/Studio Repository runs on a SQL Server database that is a named instance, specify the host name in the format of <code>HostName\NamedInstanceName</code>, such as <code>DEWKBOW01.embarcadero.com\RepositoryServer</code>.</i>
DataBase Name	Enter the name of the ER/Studio Repository database.
Enable Encryption	This option is available for the Microsoft SQL Server only. Select to enable Secure Sockets Layer (SSL) communication protocol which encrypts messages between the Portal user and the ER/Studio Repository. When SSL is enabled the Portal uses ports 80 and 443 for secure communications.
User Name	Enter the user name for the ER/Studio Repository database.
Password	Enter the password for the ER/Studio Repository database.  <b>Note:</b> The password fields are preserved when navigating back and forth during the installation process.

- 1 After you have entered the required information, click **Connect** to test the JDBC connection.  
The installation cannot continue until this connection has been established and the ER/Studio Repository login and password have been validated. After all tests are passed and the connection is established, the Next button becomes available.
- 2 Click **Next** to advance to the Reporting Repository page.

## Install Wizard - Reporting Repository

On this page specify the details for the Reporting Repository.

**NOTE:** There may be naming conflicts between the ER/Studio Repository and the Reporting Repository. If both repositories are installed on the same database server, different schema owners should be used.

1 Enter the information as indicated below.

Field	Description
DBMS Server Type	Select the server type: <ul style="list-style-type: none"> <li>• Oracle</li> <li>• IBM DB2 Universal Database</li> <li>• Microsoft SQL Server</li> </ul> <b>Note:</b> The DBMS server type must match that of the ER/Studio Repository.
DBMS Service Host: Port	Enter the host name and port number of the DBMS Service. The DB Administrator can provide you with this information.  <i>For SQL Server only, if the Reporting Repository will run on a SQL Server database that is a named instance, specify the host name in the format of <code>HostName\NamedInstanceName</code>, such as <code>DEWKBOW01.embarcadero.com\ReportingRepository</code>.</i>
The information requested depends on the server type selected: <b>Database Name</b> (if MSSQL is selected) <b>SID</b> (if Oracles is selected) <b>DBName</b> (if IBM DB2 is selected)	This information is supplied by the DB Administrator. <ul style="list-style-type: none"> <li>• <i>For IBM DB2 Server only</i>, an additional field appears where you must enter Tablespace information. With DB2, the tablespace must exist in the database and must be usable by this user with the input database name.</li> <li>• <i>For Oracle Server only</i>, an additional field appears asking for Tablespace information. With Oracle, the tablespace must exist in the database and it can be used by the input admin user.</li> </ul>
Enable Encryption	This option is available for the Microsoft SQL Server only. Select to enable Secure Sockets Layer (SSL) communication protocol which encrypts messages between the Portal user and the Reporting Repository.
Database Admin User	This information is supplied by the DB Administrator. The Admin User must have the privilege to create reporting database tables, etc.
Database Admin Password	This information is supplied by the DB Administrator.
Same as Admin (This is only available for the MSSQL database.)	If the <b>Same as Admin</b> is not checked (default setting), you need to enter a User Name and Password for read/write access to the reporting database and click <b>Next</b> .  If the <b>Same as Admin</b> is checked the User Name/Password fields disappear and the Admin Name and Password are used as User Name and Password.
User Name (This is only available for the MSSQL database.)	Enter the User Name necessary to access ER/Studio Portal's Reporting Repository.
Password (This is only available for the MSSQL database.)	Enter the Password necessary to access ER/Studio Portal's Reporting Repository.



- 2 Select one of the three options for connecting to the Reporting repository and click **Connect**.

Option	Description
Initialize an existing, empty database	<p>This assumes that the Reporting Repository database exists and it is empty with no tables. The "Admin" user must have the privilege to create Reporting Repository schema. The Installer will run the SQL to create the Reporting Repository.</p> <p><b>Note:</b> The Reporting Repository must be created by the Database Administrator.</p> <p>The portal installer is now ready to insert the Reporting Repository tables. For an Oracle DB, the SID must exist for the installer to insert the tables with the given user as the Owner.</p>
Connect to an existing Repository database	<p>If you choose this option, the Reporting Repository must exist and all Reporting Repository tables must be ready to be accessed by ER/Studio Portal.</p> <p><b>Note:</b> If you are upgrading your Portal installation, select this option to retain your connection to the ER/Studio Repository. If you choose this option, after installing you must update the search index via the Admin dashboard.</p>
Reinitialize current Repository database	<p>The Reporting Repository database exists. The install will drop all reporting tables and create a new reporting schema. The "Admin" must have the privilege to drop the tables and create the Reporting Repository schema.</p> <p><b>Caution:</b> This is a destructive action.</p>

After the connection is established the Next button becomes available.

- 3 Click **Next** to advance to the Solution Repository page.

## Installation Wizard - Solution Repository

You must specify the details for the runtime database called the Solution Repository. This is the location where the access control list, report settings, and other runtime information is stored and maintained. Requests made to the platform to have actions executed rely on the action being defined in the Solution Repository.

- 1 Enter the information as indicated below.

Field	Description
DBMS Server Type	Select the server type: <ul style="list-style-type: none"> <li>• Oracle</li> <li>• IBM DB2 Universal Database</li> <li>• Microsoft SQL Server</li> </ul> <b>Note:</b> The DBMS server type must match that of the ER/Studio Repository.
DBMS Service Host: Port	Enter the host name and port number of the DBMS Service. The DB Administrator can provide you with this information.  <i>For SQL Server only, if the Solution Repository will run on a SQL Server database that is a named instance, specify the host name in the format of HostName\NamedInstanceName, such as DEWKBOW01.embarcadero.com\SolutionRepository.</i>
Information requested here depends on the server type selected: <b>Database Name</b> (if MSSQL is selected) <b>SID</b> (if Oracles is selected) <b>DBName</b> (if IBM DB2 is selected)	This information is supplied by the DB Administrator. <ul style="list-style-type: none"> <li>• <i>For IBM DB2 Server</i>, an additional field appears where you must enter Tablespace information. With DB2, the tablespace must exist in the database and must be usable by this user with the input database name.</li> <li>• If you select the Server Type Oracle an additional field appears asking for Tablespace information. With Oracle, the tablespace must exist in the database and must be usable by the input admin user.</li> </ul>
Enable Encryption	This option is available for the Microsoft SQL Server only. Select to enable Secure Sockets Layer (SSL) communication protocol which encrypts messages between the Portal user and the Solution Repository.
Database Admin User	This information is supplied by the DB Administrator. The Admin User must have the privilege to create solution database tables, etc.
Database Admin Password	This information is supplied by the DB Administrator.
Same as Admin (This is only available for the MSSQL database.)	If <i>Same as Admin</i> is not selected (default setting), you need to enter a User Name and Password for read/write access to the solution database and click Next.  If <i>Same as Admin</i> is selected, the User Name/Password fields disappear and the Admin Name and Password are used as User Name and Password.
User Name (This is only available for the MSSQL database.)	Enter the User Name necessary to access the ER/Studio Portal Solution repository.
Password (This is only available for the MSSQL database.)	Enter the Password necessary to access the ER/Studio Portal Solution repository.

2 Select one of the three options for connecting to the repository and click **Connect**.

Option	Description
Initialize an existing, empty database	<p>The Solution Repository exists and is empty. The "Admin" user must have the privilege to create Solution Repository schema. The Installer will run the SQL to create the Solution Repository.</p> <p><b>Note:</b> The Solution Repository must be created by the Database Administrator.</p> <p>The portal installer is ready to insert the Solution Repository tables. For an Oracle DB, the SID must exist for the installer to insert the tables with the given user as the Owner.</p>
Connect to an existing Repository database	<p>The Solution Repository exists and all Solution Repository tables are ready to be accessed by ER/Studio Portal.</p> <p><b>Note:</b> If you are upgrading your Portal installation, select this option to retain your connection to the ER/Studio Repository. Permissions will be preserved but some of the solution repository information such as logs, will become obsolete. If you choose this option, after the installation you must update the solution repository via the Admin dashboard. If inherited roles were used, you must synchronize the repository.</p>
Reinitialize current Repository database	<p>The Solution Repository database exists. The install will drop all solution tables and create a new solution schema. The "Admin" must have the privilege to drop the tables and create the Solution Repository schema.</p> <p><b>Caution:</b> This is a destructive action.</p>

Once the connection is established the Next button becomes available.

3 Click **Next** to advance to the Summary Information page.

### Installation Wizard - Summary Information

The Summary Information page summarizes the install information.

- 1 Review all the summary information. Click **Back** if you want to make any changes; otherwise, click **Install** to start the install process. A panel appears showing the progress of the installation.
- 2 When the Installation Wizard finishes, the final page appears.

You may see a message indicating that start up of the Apache Tomcat (ER/Studio Portal) service is in progress. However this occurs only if the service is still in the process of starting when the installation is complete.

### 3 Click Finish.

**NOTE:** Do not close the Tomcat.exe window. Doing so will shutdown the Portal. You can use the Configuration Manager to prevent Tomcat from interacting with the desktop so next time you start up the Portal, the Tomcat service window will not appear. For more information, see "Using the ER/Studio Portal Configuration Manager" in the *ER/Studio Portal User Guide* and online help.

**NOTE:** If any errors occur during the installation, an Error page opens, which directs you to the log file located in the directory where you were installing the application - for example: C:\Program Files\Embarcadero\ERStudioPortalX.X\log.txt.

## Changing Configuration Parameters

The Configuration Manager allows you to change parameters defined during installation. These parameters include those related to the Portal, ER/Studio Repository, LDAP, email, Solution, and Reporting servers. Using the Configuration Manager, you can reconfigure the Portal without needing to reinstall the application. For more information, see "Using the ER/Studio Portal Configuration Manager" in the *ER/Studio Portal User Guide* and online help.

## Starting ER/Studio Portal

Once the installation is complete, open a supported Web browser (see "[Client System Requirements](#)" on page 18) and browse to `http://<host>:<port>/ersportal/`, where <yourhost> and <your port> are the values you specified in the [Installation Wizard - Host and Port for ER/Studio Portal Tomcat Server](#) fields above. 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. If you have chosen to enable LDAP (Lightweight Directory Access Protocol) 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.

## LICENSING ER/STUDIO PORTAL

After installing ER/Studio Portal, you must set up the licensing. ER/Studio Portal has a standard concurrent license that allows one administrator connection. You do not need to purchase licenses for ER/Studio Enterprise users. Their ER/Studio Enterprise license includes Portal use. The Portal uses three connection types:

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

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

Add-on licenses are 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 licenses 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

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

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

Current User Sessions: 1 concurrent and 0 exclusive

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

- 1 Displays the license Add-on Status that indicates how many user sessions are allowed. There are two user session license types available:
  - **Concurrent user sessions:** Number of connections available to use concurrently. Concurrent licenses do not restrict the number of Portal connections made by the same user.
  - **Exclusive user sessions:** Number of exclusive user sessions licensed. Exclusive user licenses restrict the user to one Portal connection and can be assigned to ER/Studio Enterprise users.
- 2 Lists all registered and activated license add-ons.
- 3 There are three Actions links:
  - **Refresh:** Updates the licensing module by rereading the license file from the disk.
  - **Register Add-on License:** Opens the registration page and populates the registration code with a unique number that identifies the machine on which the portal is installed and is generated by the licensing module.
  - **Manage Exclusive Connections:** Opens the Exclusive Connection Administration page where the administrator can allocate exclusive licenses to ER/Studio Enterprise users, up to the maximum number shown in the License Add-on Status.

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

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

## REGISTERING LICENSES

- 1 Log in to the application as an Administrator.
- 2 On the Dashboard, click **Admin** to open the Admin Services page, then click **Licenses**.
- 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 must 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 must 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, your 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 opens. 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 choose to have the activation file e-mailed to you, 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, before starting the product:

- 10 Close the **Product Registration Page**.
- 11 Click **Refresh** on the **License Administration** page and the add-on license information is updated.

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

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

Actions

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

Current User Sessions: 1 concurrent and 0 exclusive

#	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](#)

## REQUESTING AN EVALUATION LICENSE

The product is shipped with a base license that allows one administrator connection with no expiration date. An evaluation license is effective for 14 days with unlimited connections. At expiration, those connections are no longer included when calculating the number of available connections. The evaluation license add-on status displays how many days are left in the evaluation period.

To request an Evaluation license, contact [Key@embarcadero.com](mailto:Key@embarcadero.com).

## RECOMMENDED NEXT STEPS

Once ER/Studio Portal is licensed, the next step is to synchronize the reporting repository. When synchronizing with a large repository, use the filtering mechanism to enable you to access diagrams you are most interested in reporting on immediately. The synchronization process can be quite lengthy depending on the size of the ER/Studio Repository. For more information, see "Administrator's Reference" in the *ER/Studio Portal User Guide* and online help.



Once the initial synchronization is complete, you can then schedule a daily synchronization using the default schedule via the *Schedule Synchronization Process* action on the Synchronization Admin page or set up a custom schedule using the Subscription Admin page. For more information please refer to “*Executing the Synchronization Process and Scheduling the Synchronization Process*” in the *ER/Studio Portal User Guide* and the online help.

**NOTE:** The initial synchronization takes much longer than subsequent synchronizations.

You may also want to set up user permissions where levels of access can be set for groups or individuals. For more information please refer to “*Administering Permissions*” in the *ER/Studio Portal User Guide* and the online help.

## UNINSTALLING ER/STUDIO PORTAL

After you install ER/Studio Portal, you can remove the application by using the uninstall option in the InstallShield Wizard.

- 1 Select **Start > Programs > ERStudioPortalX.X > Uninstall Portal** to start the InstallShield wizard.
- 2 Click **Next** to advance to the Summary Panel.
- 3 Review the information in the Summary Information panel and click Uninstall.
- 4 Once the uninstall is completed click Finish to close the InstallShield wizard.
- 5 For a complete uninstall, a system reboot may be required. You will be given the choice to reboot immediately or at a later time. Make your selection and click **Finish**.

The ER/Studio Portal uninstaller does not uninstall the database. It is the Database Administrator’s responsibility to delete the repository solutions and databases if you decide to permanently delete ER/Studio Portal.

### Backing Up License Registration, Diagram Images, and Created Reports

When you uninstall, the uninstaller backs up user-created reports and diagram images. When you reinstall, if you choose to “Connect to existing repository database” on the Reporting Repository wizard page the user-created reports and diagram images are available again.

Also, if the current portal has the license registration, you do not have to re-register for the next installation.

**CAUTION:** This restoration function only works for the files backed up immediately prior to reinstallation.



# TUTORIALS

The tutorials are intended to get you started using ER/Studio Portal. This section consists of the following topics:

- [Connecting to ER/Studio Portal](#) on page 33
- [Tracking User Activity](#) on page 33
- [Using the Structured Browsing Function](#) on page 37
- [Using the Search Function](#) on page 52
- [Creating a Custom Report](#) on page 61
- [Using the Standard Reports](#) on page 69

## CONNECTING TO ER/STUDIO PORTAL

Open a supported Web browser and browse to `http://<host>:<port>/ersportal/`, where <yourhost> and <your port> are the values you specified during installation. For more information, see "[Installation Wizard - Host and Port for ER/Studio Portal Tomcat Server](#)" on page 21.

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. If you have chosen to enable LDAP (Lightweight Directory Access Protocol) 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.

## TRACKING USER ACTIVITY

The Portal gives you the ability to quickly generate and view reports of various activities by you and other users. You can track login activity by date; what objects have been updated by object, date, and business model; and view the connection activity by date.

### Login Activity

- 1 Click **Activity** to view the three information panels: Login Activity, Updated Objects, and Connection Activity.
- 2 The **Login Activity** information page displays the login activity by all users for a given time period. Enter the start and end dates of 08/01/2008 and 08/15/2008 and then click **Go**.

- 3 In the newly generated chart, click one of the bars to view all the logins for that date

[View as pdf](#) [View as xls](#)

## Login Activity Details



Activity Date: 06/16/2009

User Name	User Description	Login Time	Connection Type
Admin	Default Administrator	02:01:05.013	Concurrent
Admin	Default Administrator	02:01:52.120	Concurrent
Admin	Default Administrator	02:32:12.847	Concurrent
Admin	Default Administrator	02:34:40.880	Concurrent
Admin	Default Administrator	02:35:09.387	Concurrent
Admin	Default Administrator	02:36:06.467	Concurrent
Admin	Default Administrator	02:38:59.117	Concurrent
Admin	Default Administrator	02:47:35.700	Concurrent
Admin	Default Administrator	02:55:35.070	Concurrent

- 4 You can view or save this report in PDF and XLS formats. You can also print the report by using the standard browser print function.
- 5 Return to the Activity dashboard by closing this Web page.

## Updated Objects

The Updated Objects information panel displays a count of each object type in the reporting database updated in the time frame specified. You can adjust the time frame and the types of objects displayed.

Click on a particular object type in the graph, for example Attribute, and a report listing each object of that type modified during the time frame is displayed. From this list, you can drill down into the appropriate detail report for that object.

- 1 In the **Updated Objects** information panel, change the start date to 7/15/2009.
- 2 All three business views, Model, Dictionary, and Data Lineage, are selected by default. Leave the default selections and then click **Go**.

- In the newly generated bar chart, click **Attribute** to details of attributes that have been updated.

The results show the Event Date, Parent Name, Name, User Name, and Operation.

[View as pdf](#) [View as xls](#)

## Updated Object Details



**Start Date:** 06/01/2009

**End Date:** 06/17/2009

**Object Type:** Attribute

Event Date	Parent Name	Name	User Name	Operation
2009-06-10 17:25:30.0	<a href="#">Address</a>	<a href="#">AddressID</a>	Admin	Add_Object
2009-06-10 17:25:30.0	<a href="#">Address</a>	<a href="#">AddressID</a>	Admin	Add_Object
2009-06-10 17:25:30.0	<a href="#">Address</a>	<a href="#">AddressLine1</a>	Admin	Add_Object
2009-06-10 17:25:30.0	<a href="#">Address</a>	<a href="#">AddressLine1</a>	Admin	Add_Object

From this report you can drill down to view the details for the Parent Name.

- Click the Parent Name, **Attachment** to view this report.

The screenshot shows the Embarcadero Technologies portal interface. At the top, there is a navigation bar with the logo and user information: "Welcome Admin | Logout | Help". Below this is a secondary navigation bar with links for "Home", "Explore", "Reports", "Activity", and "Admin", along with a search box and an "Advanced" search option. The main content area displays report options: "View as pdf" and "View as xls". The report title is "Entity: AllAccess\_schema.dm1 > Logical > Document". Below the title, the "Table Name" is "Document" and the "Project" is "Test". A horizontal line separates this from the "Related Reports" section, which includes links for "Attribute Definitions", "Attachments", and "Security Information". The "Definition" and "Notes" sections are currently empty. The "Attributes" section contains a table with the following data:

Name	Definition	Data Type	Domain	Key Type	Allow Nulls
Description		VARCHAR	Description	Non-Inherited Non-Key	NULL
Document Id		INTEGER	ID	Non-Inherited Key	NOT NULL
Name		VARCHAR	Name	Non-Inherited Non-Key	NOT NULL
Url		VARCHAR	Location	Non-Inherited Non-Key	NOT NULL
Version Id		INTEGER	ID	Inherited Non-Key	NOT NULL

At the bottom of the report, there are two buttons: "Add Labels" and "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.

- 5 We are going to save this report as an Excel spreadsheet, so click **View as xls**.
- 6 Click **Open** in the File download dialog and the spreadsheet appears.
- 7 Give the file a new name in the **Save As** dialog, save it, and then close the spreadsheet.
- 8 In the Portal, return to the Activity dashboard by closing the report Web page.

## Connection Activity

The Connection Activity information panel tracks all connection activity for the portal for a given time period.

- 1 For purposes of the exercise, change the start and end dates to 02/13/2008 and 02/28/2008 and then click **Go**.
- 2 In the newly generated chart, click the bar dated **02/28/2008** to view the detailed report. This report shows the user name, host, IP, Login Time, and Logout Time.

[View as pdf](#) [View as xls](#)

## Connection Activity Details



**Activity Date:** 06/16/2009

User Name	Host	IP	Login Time	Logout Time	Connection Type
Admin	rowcsavastre01.em	10.100.10.94	16/06/2009 02:01	16/06/2009 02:31	Concurrent
Admin	rowcsavastre01.em	10.100.10.94	16/06/2009 02:01	16/06/2009 02:36	Concurrent
Admin	rowcsavastre01.em	10.100.10.94	16/06/2009 02:32	16/06/2009 02:34	Concurrent
Admin	rowcsavastre01.em	10.100.10.94	16/06/2009 02:34	16/06/2009 03:04	Concurrent
Admin	rowcsavastre01.em	10.100.10.94	16/06/2009 02:35	16/06/2009 02:35	Concurrent
Admin	rowcsavastre01.em	10.100.10.94	16/06/2009 02:36	16/06/2009 03:07	Concurrent
Admin	rowcsavastre01.em	10.100.10.94	16/06/2009 02:38	16/06/2009 02:43	Concurrent

- 3 Return to the Activity dashboard by closing the report Web pages.

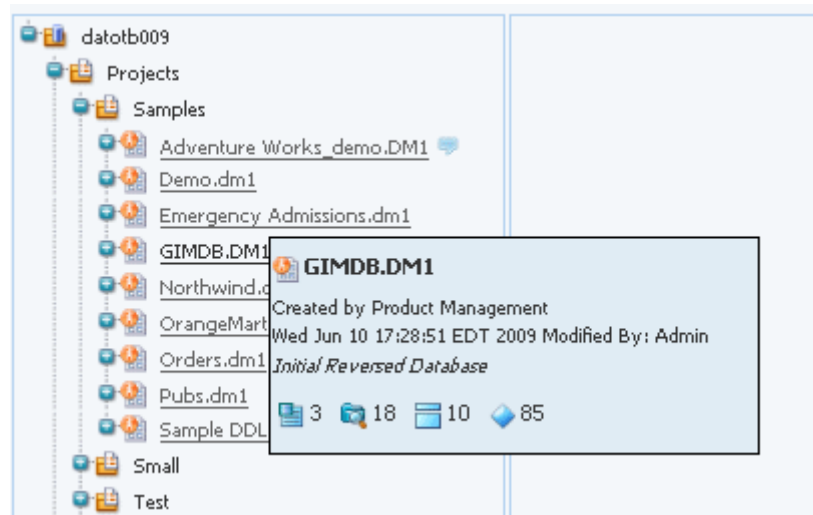
## USING THE STRUCTURED BROWSING FUNCTION

Structured Browsing allows you to navigate or “browse” the repository diagrams for detailed information on diagrams, models, and submodels.

From the diagrams you can either explore the models contained in the diagram or drill down into the diagram report. From that point, you can continue to browse the contents of the diagram by navigating the detailed report links.

- 1 On the dashboard click **Explore**.  
This Web page displays a hierarchy of all workspaces, projects, diagrams, models, and submodels.
- 2 Expand the hierarchy to view the models and submodels within GIMB.DM1.

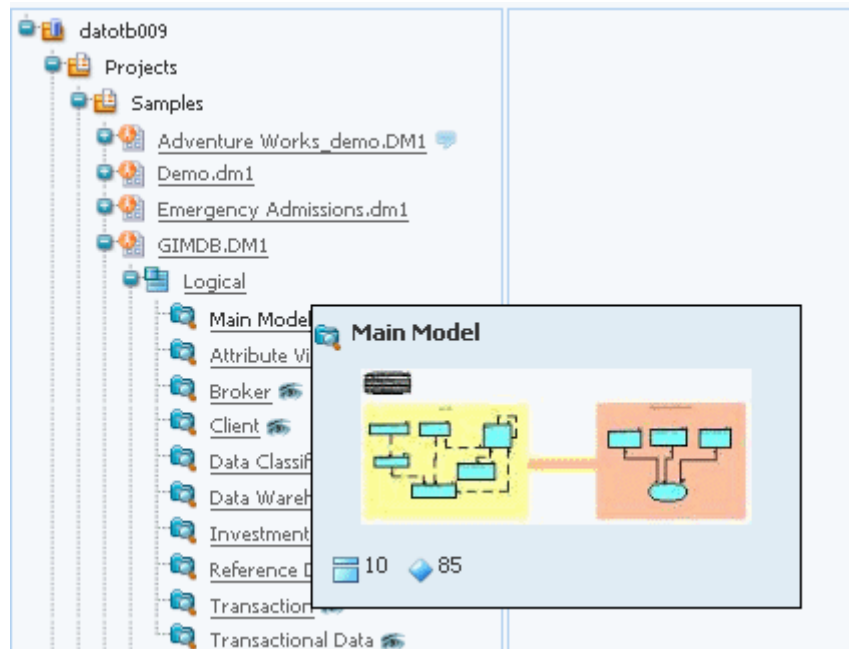
As you hover over the diagram name, diagram details are displayed. At the bottom of the diagram details example below, from left to right, the details indicate that in the selected diagram, there are three models, 18 submodels, and in the main logical model there are 10 entities, and 85 attributes.



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.



- 3 Click **GIMDB.dm1** to display the diagram report.
- 4 At the top of the report, click **View as report** to display the HTML report.

- In the Data Model section of the HTML report, click **Logical** and a Model HTML report opens. All the associated submodels, entities, relationships, and views for the logical model are listed in the Model Report.

**View as report** 📄

**Model:**  GIMDB.DM1 >  Logical

**Notation:** IE-Crows Feet

**Style:** Relational

**Project:** Samples

---

**Submodels**

Name	Definition	
<a href="#">Attribute View</a>		<a href="#">View Image</a>
<a href="#">Broker</a>		<a href="#">View Image</a>
<a href="#">Client</a>		<a href="#">View Image</a>
<a href="#">Data Classification View</a>		<a href="#">View Image</a>
<a href="#">Data Warehouse</a>		<a href="#">View Image</a>
<a href="#">Investment</a>		<a href="#">View Image</a>
<a href="#">Main Model</a>		<a href="#">View Image</a>
<a href="#">Reference Data</a>		<a href="#">View Image</a>
<a href="#">Transaction</a>		<a href="#">View Image</a>
<a href="#">Transactional Data</a>		<a href="#">View Image</a>

**Entities**




Name	Definition
<a href="#">Broker</a>	Broker contains all the investment advisors/brokers that work at the company.

## Viewing Diagram Images

You can view the diagram images associated with the submodels in this report.

- 1 In the **Model** report, click **View as report**.
- 2 In the **Submodels** section of the Diagram report that appears at the end of the previous exercise, click **Client** to view a report of the Client submodel in the Logical model of GIMDB.DM1.

[View as pdf](#)   [View as xls](#)

**Submodel:**    GIMDB.DM1 >  Logical >  Client

[View Image](#)

**Notation:**   IE-Crows Feet

**Style:**   Relational

**Project:**   Samples

---

**Related Reports:**   [Attribute Definitions](#)   [Entity Definitions](#)   [Business Rules](#)   [Attachments](#)   [Security](#)

**Definition**

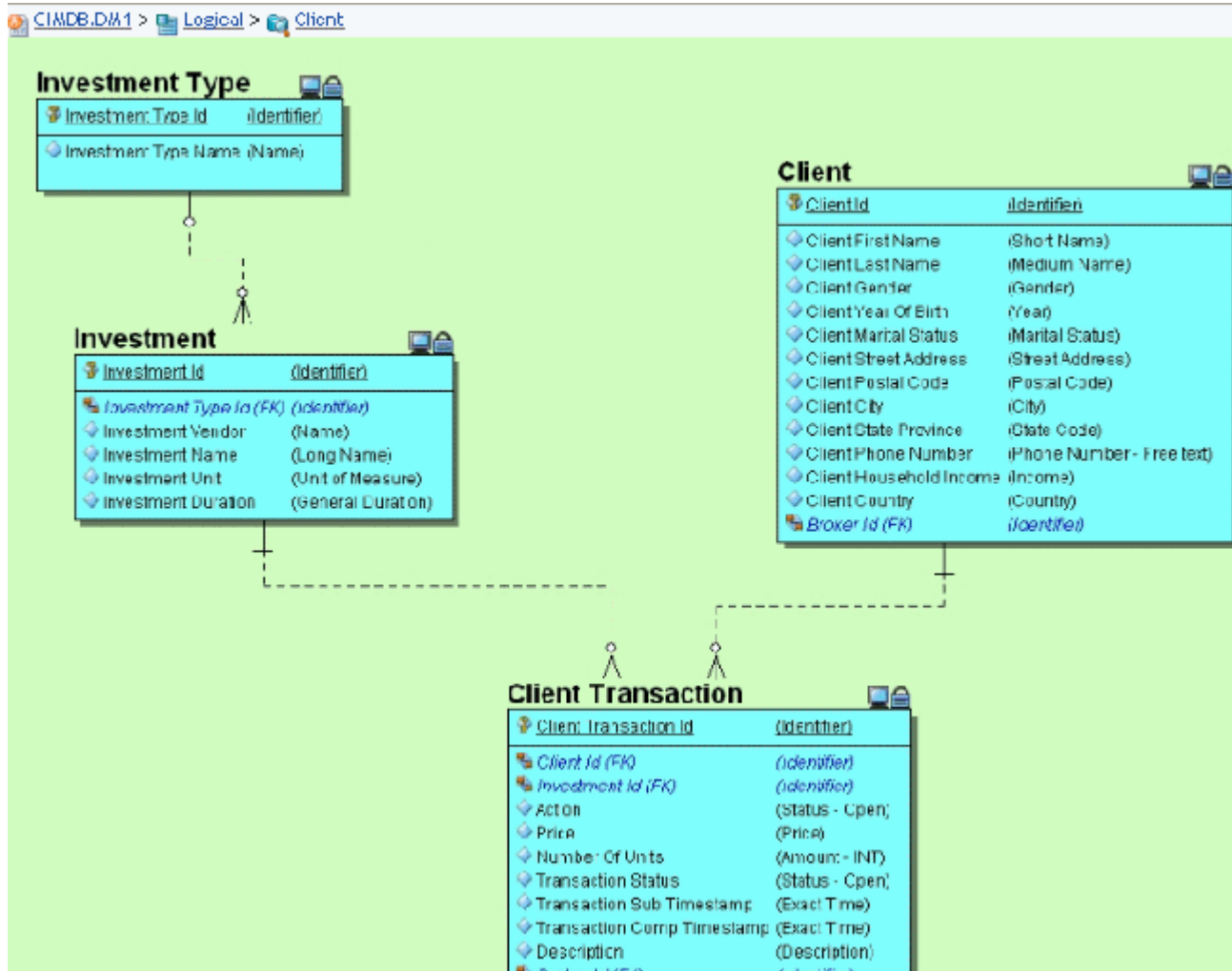
**Entities**

Name	Definition
<a href="#">Client</a>	Client contains all the customers who have investments being managed by the company.
<a href="#">Client Transaction</a>	Client transaction contains information regarding every buy or sell transaction that a customer makes through the company.
<a href="#">Investment</a>	Investment contains all the different investments currently offered to customers through the company.
<a href="#">Investment Type</a>	Investment type contains all the different types/categories of investments offered to customers through the company.

**Relationships**

Parent Entity	Child Entity	Type	Existence	Cardinality	Verb
<a href="#">Investment Type</a>	<a href="#">Investment</a>		Optional	Zero or More	

- 3 In the Submodel report that opens, click **View Image** and the submodel image appears

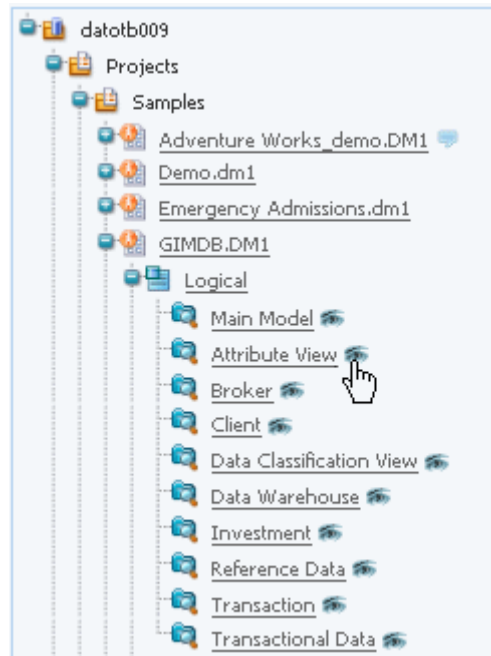


From any image in the Portal, you can view detail reports by clicking an object in the image, such as an entity, relationship, or view.

- 4 Close the image window in the Browser to return to the Explore dashboard.

You can also view the Submodel image from the Explore hierarchy.

- 5 Click the view icon (eye) to the right of the model name






The submodel diagram appears.

- 6 Zoom in to view the details on the diagram.

**TIP:** 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.

7 Click on the Client entity in the diagram to view an Entity detail report. At the top of the

[View as pdf](#)   [View as xls](#)

**Entity:**    GIMDB.DM1 >  Logical >  Client

**Table Name:**   CLIENT

**Project:**   Samples

---

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

**Definition**

Client contains all the customers who have investments being managed by the company.

**Notes**

**Attributes**

Name	Definition	Data Type	Domain	Key Type
Broker Id		NUMERIC	Identifier	Inherited Non-Key
Client City		VARCHAR	City	Non-Inherited Non-Key
Client Country		VARCHAR	Country	Non-Inherited Non-Key
Client First Name		VARCHAR	Short Name	Non-Inherited Non-Key
Client Gender		CHAR	Gender	Non-Inherited Non-Key
Client Household Income		NUMERIC	Income	Non-Inherited Non-Key
Client Id		NUMERIC	Identifier	Non-Inherited Key

Entity Detail Report, in the Entity area, click the Logical node to see a report of the logical model Client belongs to.

8 Close that Web page to return to the Explore page.

## Viewing the Submodel Report

- 1 From the Explore tree, expand the **Adventure Works** diagram name and the **Logical** model, and then click the submodel **Human Resources**.  
A detailed report appears displaying the entities, relationships, and views for the selected submodel.

**View as report**

**Submodel:** Adventure Works.DM1 > Logical > Human Resources

**Notation:** IE-Crows Feet

**Style:** Relational

**Project:** Projects

---

**Definition**

**Entities**

Name	Definition
<u>Department</u>	Lookup table containing the departments within the Adventure Works Cycles company.
<u>Employee</u>	Employee information such as salary, department, and title.
<u>EmployeeAddress</u>	Cross-reference table mapping employees to their address(es).
<u>EmployeeDepartmentHistory</u>	Employee department transfers.
<u>EmployeePayHistory</u>	Employee pay history.
<u>JobCandidate</u>	Résumés submitted to Human Resources by job applicants.
<u>Shift</u>	Work shift lookup table.

**Relationships**

Parent Entity	Child Entity	Type	Existence	Cardinality	Verb	Inverse
---------------	--------------	------	-----------	-------------	------	---------

- 2 To gain access to the related reports, click **View as report**.
- 3 To view related reports for the selected submodel, click **Business Rules** in the **Related Reports** area of the report.

A report showing all the business rules for this submodel is generated and displayed.

[View as pdf](#) [View as xls](#)

## Business Rules



**Project Name:** Projects  
**Diagram Name:** Adventure Works.DM1  
**Diagram File Name:** Adventure Works.DM1  
**Model Name:** Logical  
**Submodel Name:** Human Resources

### Business Rules

Each Department must Relate to Zero or More EmployeeDepartmentHistory  
Each Employee must Relate to Zero or More EmployeePayHistory  
Each Employee must Relate to Zero or More EmployeeDepartmentHistory  
Each Employee must Relate to Zero or More EmployeeAddress  
Each Employee may Relate to Zero or More Employee  
Each Employee may Relate to Zero or More JobCandidate  
Each Shift must Relate to Zero or More EmployeeDepartmentHistory

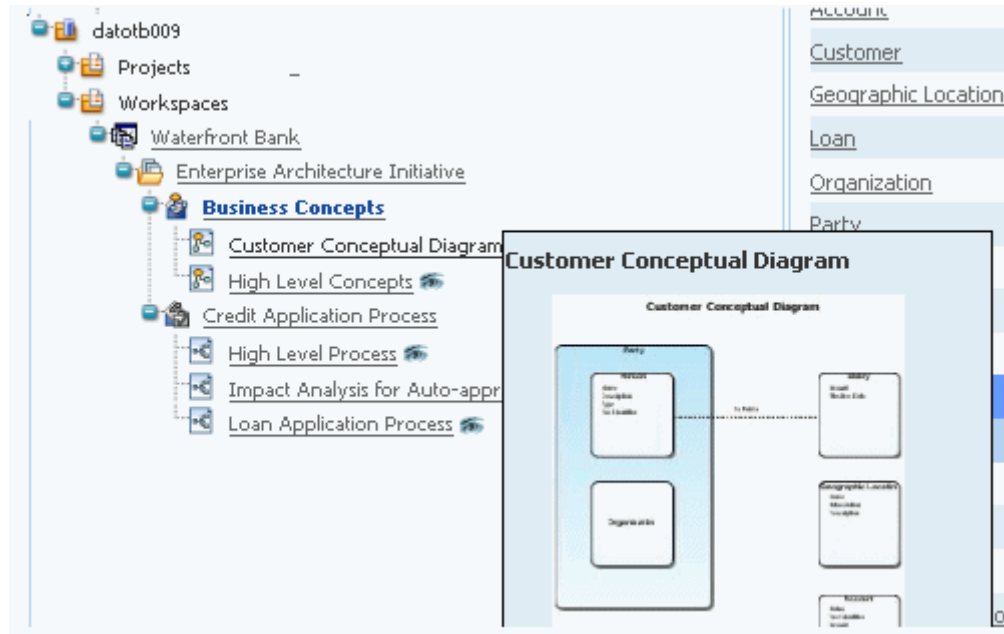
- 4 Close that report to return to the Human Resources Submodel details report.



## Viewing ER/Studio Business Architect Reports

There are many reports available for ER/Studio Business Architect (ER/Studio BA) objects. Let's have a look at a Business Model report.

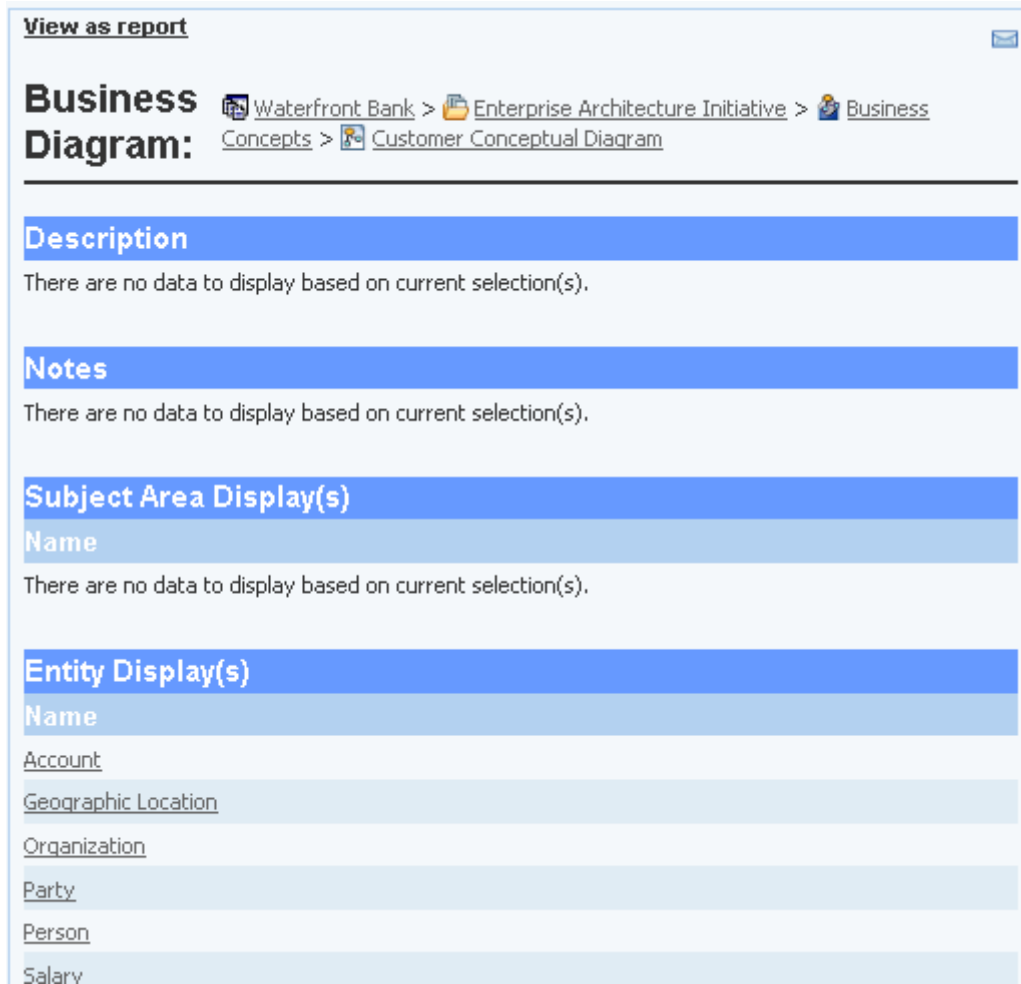
- 1 From the Repository tree, expand the Workspaces node and then expand the nodes to the diagram level as shown in the following example.



In the example above

- **Workspace** name is Waterfront Bank
- **Business Project** name is Enterprise Architecture Initiative
- **Model** names are Business Concepts and Credit Application Process
- **Diagram** names are Customer Conceptual Diagram, High Level Concepts, High Level Process, Impact Analysis for Auto-approve, and Loan Application process.

- 2 Click the name of a conceptual diagram to view the basic Business Diagram report. It will resemble the following:



- 3 Go ahead and explore the reports by clicking the nodes in the Repository tree and the links in the basic reports that display.

## Watching a Report for new comments

If you haven't already done so, you need to set up your email preferences in order to enable a watch.

- 1 At the top of the page, click your logged in user name and select **Preferences**.



- 2 In the **Actions** area of the Portal preferences page, click **Edit** and enter your email address.  
An email will be sent to this address when new comments are added to reports you are watching.
- 3 Click the back button to view the Submodel details.
- 4 Click the watch icon (open envelope) in the top right corner of the details.

## Documenting, Organizing, and Providing Feedback on Reports

- 1 At the bottom of the report, click **Add Comment**.

You can add comments to reports to enable you to communicate your observations about the report with other users.

- 2 Enter a comment into the text area provided and then click **Add**.

If your administrator has configured the Portal to require moderator approval of all comments you may have to wait until your comment is approved before you and other users can see it.



Only the comment creator or the administrator can delete a comment but all users can see it. In the above, only the second comment was created by the logged in user, so he can delete only that comment.

- 3 At the bottom of the report, click **Add Labels**.

You can add the same label to many reports, enabling you to organize them.

- 4 Enter a label name into the text area, click **Add** and then click **Done**.

**Edit Labels**

**Current Labels:** blue ✕ green ✕ red ✕

Enter a new label to add to this object (up to 128 characters):

**Add** **Done**

Previously Added Labels: test ✓

[Add Comment](#)

You can add the same label to any number of reports, so you can organize them as you like. Labels you create are not viewable by any other users.

















- 5 To view where a label is used, in the Labels area at the bottom of the report, click the label name.

Labels

[blue](#) [green](#) [red](#)

[Add Comment](#)

The My Labels page opens where you can see the names of your labels and the reports to which they have been added. From this page you can also delete any labels if you like or click the name of a report to view that report.

My Labels	
<input type="checkbox"/>	<input type="checkbox"/> blue 
<input type="checkbox"/>	<input type="checkbox"/>  <a href="#">Main Model</a> 
<input type="checkbox"/>	<input type="checkbox"/> green 
<input type="checkbox"/>	<input type="checkbox"/>  <a href="#">Main Model</a> 
<input type="checkbox"/>	<input type="checkbox"/> red 
<input type="checkbox"/>	<input type="checkbox"/>  <a href="#">Main Model</a> 
<input type="checkbox"/>	<input type="checkbox"/> test 
<input type="checkbox"/>	<input type="checkbox"/>  <a href="#">a .dm1</a> 
<input type="checkbox"/>	<input type="checkbox"/>  <a href="#">Categories</a> 
<input type="checkbox"/>	<input type="checkbox"/>  <a href="#">Northwind Production (SQL Server 2000)</a> 

## USING THE SEARCH FUNCTION

Next we are going to do a simple search within the reporting database. The search results show the location of your entered text string in a search results table. You can then drill-down through the reports to view more details on the object.

- 1 On the Home dashboard enter `customer` in the **Search** area and then click **Enter**.  
The search will find all instances of your text string in the database. The search string is not case-sensitive and supports standard search syntax such as `*`, `?`, `AND`, and `OR`. For more information, see the online Help.

The following screen shot shows a partial listing of the results.

EMBARCADERO TECHNOLOGIES. Welcome Admin | Logout | b

Home | Explore | Reports | Activity | Admin Search: [ ] Advan

**View as table** | **Hide details** Results 1 - 10 of 650 for customer. (in 109)

Order By: Relevance | Object Type | Name | Diagram | Workspace |

Roche ADW.DM1 > Logical > CUST\_XREF\_TB > ENTERPRISE\_CUST\_TP (100%)  
2009/11/04 09:59 Modified By: GNE\mehmet  
Definition: A common **customer** type assigned to a Roche **Customer** ID. This type consolidates **customer** types from various sources of **customer** information (e.g., DDD, Siebel MAXIS, SAP QUEST, IMS Xponent, DEA, State License files) by mapping each source type to a consolidated (i.e., enterprise-wide) **customer** type.  
Attribute Name: ENTERPRISE\_CUST\_TP  
Column Name: ENTERPRISE\_CUST\_TP  
Data Type: VARCHAR  
Foreign Key: False  
Full Data Type: VARCHAR(14) NULL  
Identity: False  
Key Type: Non-Inherited Non-Key  
Length: 14  
Logical/Physical: Logical  
Nullable: NULL  
Primary Key: False  
Role Name: ENTERPRISE\_CUST\_TP

Roche ADW.DM1 > Logical > SRC\_CUST\_AFFIL\_TB > ROCHE\_CUST\_ID\_2 (94.9%)  
2009/11/04 09:59 Modified By: GNE\mehmet  
Definition: Contains the Roche **Customer** ID of the second **customer** id in an affiliation.  
Attribute Name: ROCHE\_CUST\_ID\_2  
Column Name: ROCHE\_CUST\_ID\_2  
Data Type: NUMERIC

**Filter By Data Project(s)**  
Projects (650)  
Commercial (6)  
Roche (650)

**Filter By Diagram(s)**  
Roche ADW.DM1 (650)

**Filter By Object Type(s)**  
**Data Architect**  
Attribute (596)  
Entity (27)  
Table (27)

**Currently Active Filter(s)**  
Diagram: Roche ADW.DM1  
Type: Column

- 2 In the **Filter By Object Type(s)** area, click **Entity**.

A new area at the bottom of the page displays showing the Currently Active filter.

3 You can continue to drill-down through the results.

For example, click **Logical** next to **activation.DM1** on the results and the report for that model appears.

The screenshot shows the EMBARCADERO TECHNOLOGIES portal interface. At the top, there is a navigation bar with the company logo and name on the left, and user information 'Welcome Admin' with 'Logout' and 'Help' links on the right. Below this is a secondary navigation bar with icons and labels for 'Home', 'Explore', 'Reports', 'Activity', and 'Admin', followed by a search bar and an 'Advanced' search option. The main content area features two buttons: 'View as pdf' and 'View as xls'. Below these are the report details for 'activation.DM1' with a 'Logical' view selected. The details include:
 

- Model:** activation.DM1 > Logical
- Notation:** IE-Crows Feet
- Style:** Relational
- Project:** Project1\_1

 A horizontal line separates this from a 'Related Reports' section with links for 'Attribute Definitions', 'Business Rules', 'Entity Definitions', 'Attachments', and 'Security Information'. Below that is a 'Submodels' section with a table:
 

Name	Definition
Main Model	<a href="#">View Image</a>

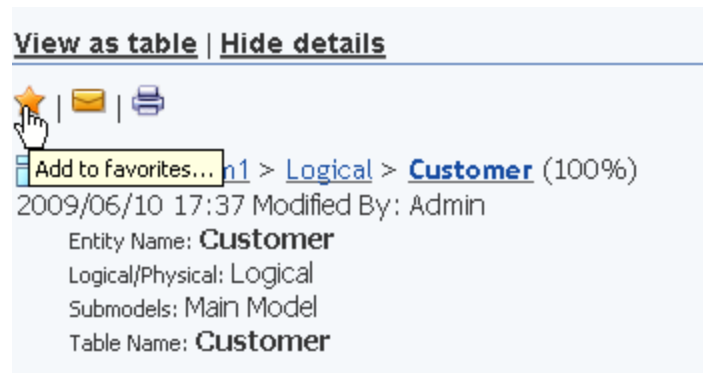
 The next section is 'Entities', also with a table:
 

Name	Definition
<a href="#">activation key</a>	
<a href="#">activation key group</a>	
<a href="#">activation key product</a>	
<a href="#">activation product</a>	
<a href="#">capacity</a>	

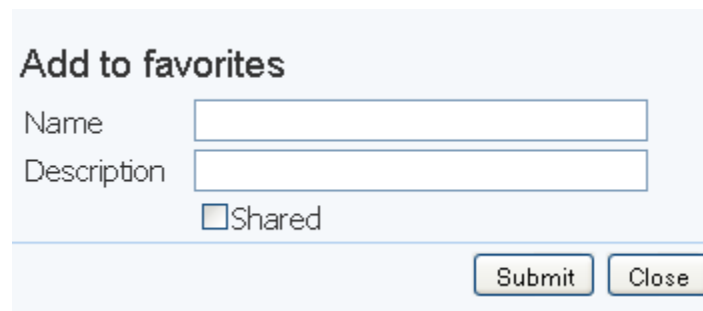
You can view and save these reports.

- 4 Click **View as xls** and the report is downloaded.
- 5 Return to the Explore dashboard by closing the report Web pages.

- To add this search to your list of favorite searches, click the star icon as shown in the following screenshot.



- In the **Add to favorites** dialog, enter a name and description of the search, such as `customer` and `filtered by entity`, and then click **Submit**.



The screenshot shows the 'Add to favorites' dialog box. It has a title bar with the text 'Add to favorites'. Below the title bar, there are two text input fields: 'Name' and 'Description'. Below the 'Description' field, there is a checkbox labeled 'Shared'. At the bottom right of the dialog box, there are two buttons: 'Submit' and 'Close'.



- 8 Click **Close** and then click **Home** to return to the Home dashboard.  
Notice that in the list of Favorite searches the new customer search is listed.

The screenshot shows the ER/Studio Portal Home dashboard. At the top, there is a navigation bar with links for Home, Explore, Reports, Activity, and Admin. Below this, the dashboard is divided into several sections:

- Browse the ER/Studio Repository:** A section with a folder icon and a magnifying glass. It describes browsing ER/Studio Enterprise projects to locate and view metadata for diagrams, models, submodels, and objects. A "Start Browsing" link is provided.
- Create a Custom Report:** A section with a document icon and a plus sign. It describes creating and publishing ad hoc reports with simple tools and easy communication.
- Perform an Advanced Search:** A section with a magnifying glass icon. It describes searching the ER/Studio Enterprise Repository with ultimate control over wildcard searches. A "Start Searching" link is provided.
- Run a Shared Report:** A section with a document icon and a green arrow. It describes running a standard report that has been shared for public use.
- Favorite Searches:** A section with a magnifying glass and a star icon. It displays a list of "My Searches":
  - customer (with envelope, lock, and trash icons)
  - Customer search results (with envelope, lock, and trash icons)
- Favorite Reports:** A section with a document icon and a star icon.

You can email the search results to an associate by clicking the envelope icon, delete the search by clicking the garbage can, and share the search by clicking the lock icon.

- 9 Next to **customer** in the **Favorite Searches** area, click the lock icon to share the search.

Sharing the search makes the search available to other Portal users.

**NOTE:** Although other users can use this search, they will not have access to search results for objects their user permissions do not grant them access to.

## Using the Advanced Search Function

In the advanced search, you have the following capabilities in addition to those of the Simple Search. You can:

- Specify that the property value starts with, contains, ends with, or is an exact match to the text.
- Set filters to include or exclude results based on modification dates and specific object types.
- Set how you want the search results sorted.
- Specify the number of results to display per page.

In the following example, we want to find all references to the text string “customer” in the diagram “Repository Reporting”.

- 1 On any dashboard page, click **Advanced**.

The Advanced Search Web page appears.

- 2 In the **Search Text** area, enter `customer`.

You can also search for objects starting with `c` by entering `c*`, object starting with `c` that have four letters in the name by entering `c????`. The search supports all the usual wildcard syntax combinations except you cannot initiate a search with a leading wildcard.

- 3 In the *Filters* area, click **Data** to search only ER/Studio Data Architect objects.

**TIP:** Clicking **Business** would search through ER/Studio Business Architect objects only.

- 4 In the **Modification** area, click the plus sign (+) and then click the **Modified** list and choose **in the past week** as shown below.

The screenshot shows the search interface with the following elements:

- Search Text:** A text box containing "customer" and a checkbox for "Include matches for similar-sounding words".
- Filters:** A section with "Scope in:" and radio buttons for "All", "Data" (selected), and "Business".
- Modification:** A dropdown menu is open, showing options: "anytime", "in the past 24 hours", "in the past week" (highlighted), "in the past month", and "in the past year".
- Object Type:** A section with a plus sign (+) and a list of object types.
- Property:** A section with a plus sign (+) and a list of properties.
- Name:** A text box with a checkmark and a plus sign (+).
- Value:** A text box with a plus sign (+) and a search icon.
- By:** A text box for entering a user name.
- Sorting:** A dropdown menu set to "Relevance" with a plus sign (+) and a search icon.
- Pagination:** A dropdown menu set to "10 results per page" with a plus sign (+) and a search icon.
- Search:** A button at the bottom left.

This limits the search to objects that were modified in the last week. You can also limit the search to objects changed by a specific user by entering a user name in the By text box, but for this exercise, leave the By box blank.

- 5 In the **Object Type** area, expand the plus (+) sign.

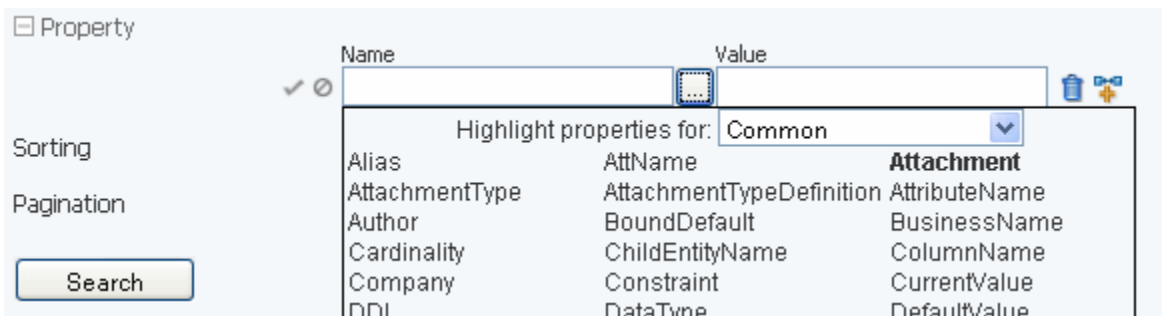
Notice that in the Object Type area, you can select the elements you want included in the search. You can also select multiple individual items in the list by holding down the Ctrl key and clicking the items you want included.

For this exercise leave the default settings as All for object types.

The screenshot shows the "Object Type" filter expanded to show a list of object types. The "All" option is checked. The list of object types includes:

- Attachment
- Attachment Binding
- Attribute
- Column
- Data Lineage Column
- Data Lineage Source
- Data Lineage Table
- Data Movement Column
- Diagram
- Dictionary
- Dictionary Default
- Dictionary Rule
- Domain
- Entity
- Model

- 6 In the **Property** area, click the ellipsis (...).



Clicking the ellipsis (...) displays the properties we can choose for the object type displayed in the Highlight properties for: box.

- 7 From the **Highlight properties for** list, click the object type **Diagram**.  
The listed properties changes to highlight only the properties for the specified object type.

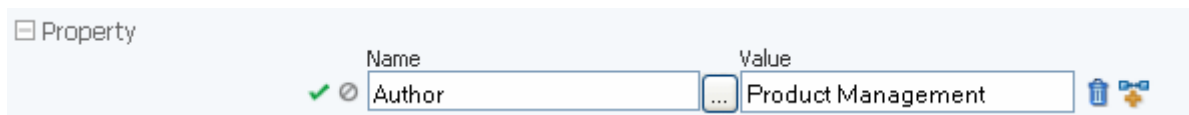
- 8 From the list of properties, click **Author**.

Author appears in the Name area.

- 9 In the **Value** area next to **Author**, enter Product Management.

This will limit the search results to diagrams for which Product Management is listed as the author.

- 10 Click the check mark to indicate that this is an mandatory inclusion search criteria and then click the page icon with the plus sign to add another property search criteria.



**TIP:** You can click the ellipsis again to add another property to the inclusion.

- 11 Leave the default setting of the Sorting as Relevance.

12 Click Search and the Search Results report appears.

**View as table** | **Hide details** Result:

★ | ✉ | 🖨 Order By:

[GIMDB.DM1](#) (100%)  
 2008/08/21 10:32 Modified By: Admin  
 Definition: Initial Reversed Database  
 Author: **Product Management**  
 Company: Embarcadero Technologies  
 Display Name: Global Investment **Management**  
 File Name: GIMDB.DM1

[GIMDBtest1.dm1](#) (100%)  
 2008/07/23 23:18 Modified By: Admin  
 Definition: Initial Reversed Database  
 Author: **Product Management**  
 Company: Embarcadero Technologies  
 Display Name: Global Investment **Management**  
 File Name: GIMDBtest1.dm1

13 Notice the icons above the search results:

- *To add the search to your Favorite Searches*, which displays on the Home page, click the star icon.
  - *To email the search results*, click the envelope.
- NOTE:** Emailing search results must be enabled for this option to work. The Administrator can set this option during install or through Interaction Settings on the Admin page.
- *To print the search results*, click the printer icon.

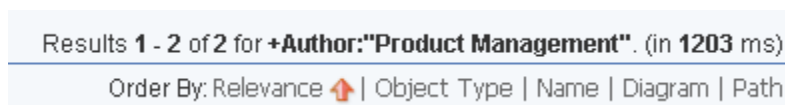
- Click the *yellow circle* next to the filter type name. This will expand the list to encompass the default number of filters of that type, as shown in the following. Note the *yellow circle* changes color to green to indicate that all filters are displayed.



- Click the arrows next to the filter type to show or hide the filters.
- Click any one of the filters on the right side of the page and you will see a new area appear that indicates which filters are active.

**TIP:** Click the green check mark it mandatory that objects of that type are included in the search. Click the red circle to exclude objects of that type from the search.


- Next to the name of currently active filters, click the trash cans to remove the filter and show all the results of the search.
- Above the filters area, notice the ordering choices available.




- Click any of the ordering choices to resort the results.  
You can further customize the search results using the table view.

20 Click **View as table** and the search results are reformatted to resemble the following.

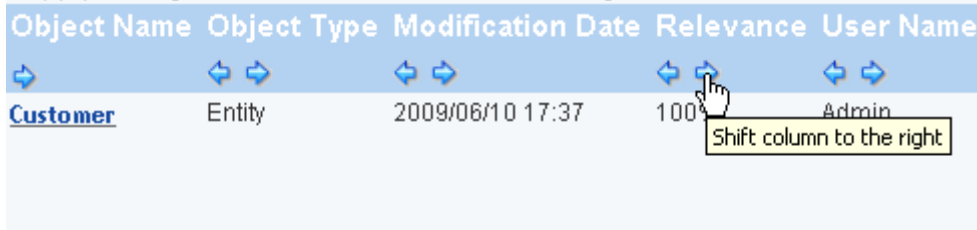
[View as html](#)



Object Name	Object Type	Relevance 	Modification Date	User Name	Path
<a href="#">customer</a>	Entity	100%	2008/11/17 17:23	Admin	<a href="#">activation.DW1</a>
<a href="#">machine customer</a>	Entity	83.3%	2008/11/17 17:23	Admin	<a href="#">activation.DW1</a>





21 Click the configuration (gear) icon and more customization options appear.

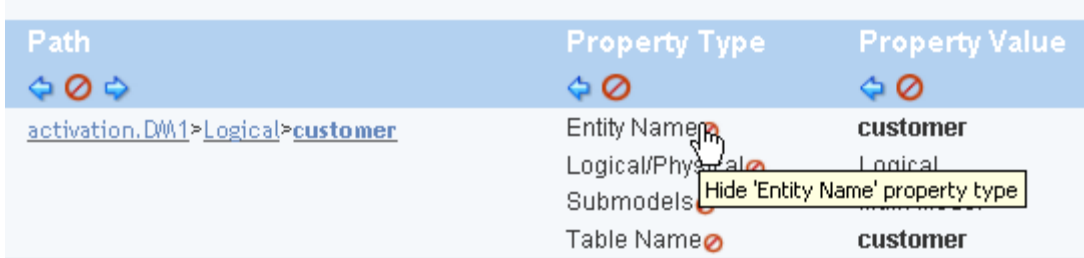
Object Name	Object Type	Modification Date	Relevance	User Name
<a href="#">Customer</a>	Entity	2009/06/10 17:37	100%	Admin



22 Click the right or left arrow to move the column to change the position of the column.

23 You can also choose to hide property types, for example, you can hide all properties of a certain by clicking the red circle as shown below.

Path	Property Type	Property Value
<a href="#">activation.DW1&gt;Logical&gt;customer</a>	Entity Name 	customer
	Logical/Physical 	Logical
	Submodels 	
	Table Name 	customer

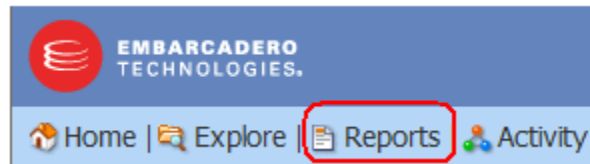


24 Click **Apply Changes** to save the appearance of the search results table for your user login. Next time you view the results of this saved search the column position, visibility, and sorting order will be used to display the results.

## CREATING A CUSTOM REPORT

The AdHoc Reporting function is a five-step wizard that guides you through the creation of a business model report. You can configure all the elements of this report including the model type; template style; items to include; constraints,

calculations, and sorting filters; and the formatting.



- 1 On the Dashboard, click **Reports** to display the **Solution Browser** page.
- 2 In the **User Actions** area, click **New Report** to display the creation wizard.

### Step One

The first step of this creation process is to select a Business Model type. Notice that as you select a model, the associated details and descriptions appear in the panels to the right of the Business Models list.

- 1 In the **Business Models** area, click **Model**.  
Next, we will apply a template to the report. As you select the different templates a thumbnail of your selection appears in the next panel.
- 2 Scroll down to view the **Templates** area.
- 3 In the **Templates** area, click **ER/Studio**, and then click **Next**.

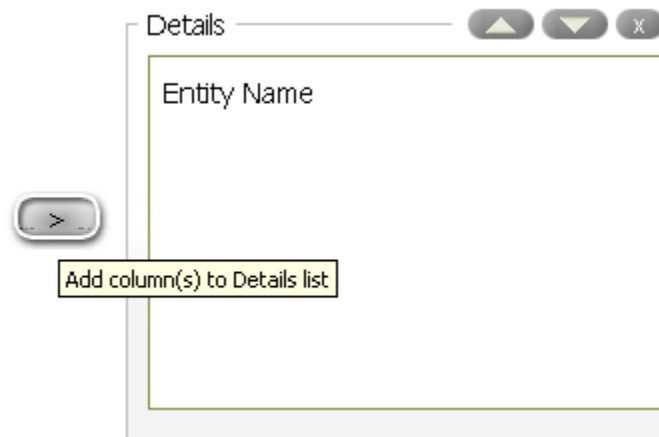


## Step Two

Select the items you want included. The available items for the Business Model you selected are listed. First we will determine what attributes or columns are to be included in the report. For this exercise we want the report to show Entity Name, Attribute Name, Composite Datatype, Primary Key, and Foreign Key.

- 1 In the **Entity** section of the **Available Items** area, click **Entity Name**, and then click the arrow located to the left of the **Details** area.

The selected name appears in this box and the name in the Available Items area is now italicized showing that it has been used.



- 2 Press and hold CTRL while selecting **Attribute Name**, **Composite Data Type**, **Foreign Key**, and **Primary Key** in the **Attribute** area and then click the arrow located to the left of the **Details** area.

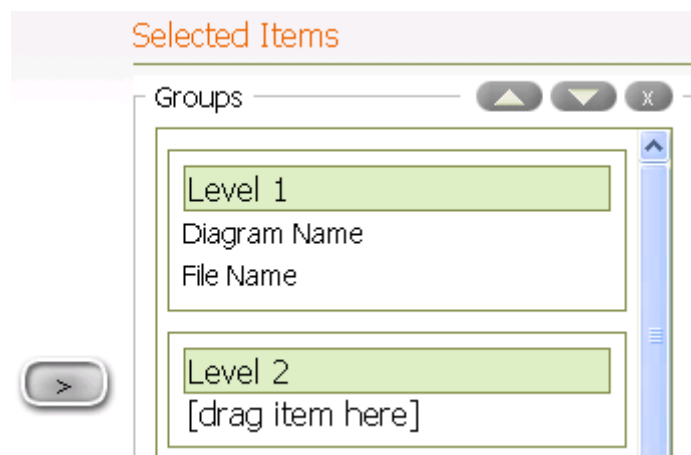
- You can check the results of your choices by clicking Go by the Preview As selection box. You can preview your report as HTML, PDF, Excel, or CSV. We will leave the default setting of HTML.

Your choices result in a report similar to the following.



Entity Name	Primary Key	Foreign Key	Composite Datatype	Attribute Name
activation key	False	False	VARCHAR(32) NOT NULL	act key
activation key	False	True	bigint NOT NULL	activation key group id
activation key	True	False	bigint NOT NULL	activation key id
activation key group	False	False	datetime NOT NULL	creation date
activation key group	False	False	datetime NULL	valid from
activation key group	False	False	DATETIME NULL	valid until
activation key group	False	False	int NOT NULL	key count
activation key group	False	False	int NOT NULL	max reactivations
activation key group	False	False	INTEGER NOT NULL	key count
activation key group	False	False	INTEGER NOT NULL	max reactivations
activation key group	False	False	VARCHAR(256) NOT NULL	description
activation key group	False	True	BIGINT NOT NULL	user account id
activation key group	True	False	bigint NOT NULL	activation key group id
activation key product	False	False	int NOT NULL	available threshold

- Close the Web page to return to Step Two.  
Next we will select the items that you want to group your data by.
- Select **Diagram Name** and **File Name** in the **Diagram** section of **Available Items** and then click the arrow located to the left of the Groups section. The items are placed in Level 1.



- 6 Now select **Model Name** in the **Model** section and drag it to **Level 2** in the **Groups** section.
- 7 Preview your report once again. It should resemble the following example.

**Diagram Name:** activation-db.DM1

**File Name:** activation.DM1

**Model Name:** Logical



Entity Name	Primary Key	Foreign Key	Composite Datatype	Attribute Name
activation key	False	False	VARCHAR(32) NOT NULL	act key
activation key	False	True	BIGINT NOT NULL	activation key group id
activation key group	False	False	DATETIME NULL	valid from
activation key group	False	False	DATETIME NULL	valid until
activation key group	False	False	INTEGER NOT NULL	max reactivations
activation key group	True	False	BIGINT NOT NULL	activation key group id
activation key product	False	False	INTEGER NOT NULL	row version
activation key product	False	True	BIGINT NOT NULL	activation product id
activation key product	True	False	BIGINT NOT NULL	activation key product
activation product	False	False	INTEGER NOT NULL	threshold
activation product	True	False	BIGINT NOT NULL	activation product id
capacity	False	False	INTEGER NOT NULL	capacity type
capacity	False	False	VARCHAR(32) NOT NULL	value

- 8 Click **Next** to advance to Step Three.

### Step Three

You can set constraints, formatting, calculations, and column sorting. You can also customize the appearance of your selections. In this step we are going to set a constraint where only attributes containing the word "code" are listed.

- 1 In the **Details** area, click **Attribute Name** and additional information appears on the page.
- 2 In the **Current Settings** area, click **Add a Constraint**.
- 3 In the list next to **Attribute Name**, click **contains** and enter code in the text box.

- 4 In the **Groups** area, click **Diagram Name**, and then click **Add a Constraint** in the **Constraints** area.
- 5 In the **Constraints** list next to **Diagram Name**, select **contains** and then enter AdventureWorks in the text box.  
Next we want to set a sort on a Detail.
- 6 In the **Details** area, click **Composite Datatype** and then in the **Sort Detail Columns** area, click **Add**.  
The detail **Composite Datatype** is now listed.
- 7 Select **descending** from the **Asc/Desc** list.

### Sort Columns

Sort Detail Columns

Add ▲ ▼ ✕

Column	Table	Asc/Desc
Composite Datatype	Attribute	descending ▼

Notice that now when you preview the report, only Attribute Names in the activation-db model containing the text code are included, and the columns are sorted in descending order.



**Diagram Name:** activation-db.DM1

**File Name:** activation.DM1

**Model Name:** Logical

Entity Name	Primary Key	Foreign Key	Composite Datatype	Attribute Name
trial product	False	False	VARCHAR(64) NULL	promo code
product code	False	False	VARCHAR(64) NOT NULL	code
customer	False	False	VARCHAR(32) NULL	zip code
customer_history	False	False	VARCHAR(32) NULL	zip code
country	False	False	VARCHAR(3) NOT NULL	code3
country	False	False	VARCHAR(3) NOT NULL	code3 numeric
country	False	False	VARCHAR(2) NOT NULL	code2
request log	False	False	INTEGER NULL	response code
activation product	False	True	BIGINT NOT NULL	product code id
product code	True	False	BIGINT NOT NULL	product code id
product code item	False	True	BIGINT NOT NULL	product code id
product code item	True	False	BIGINT NOT NULL	product code item id
product code item capacity	True	True	BIGINT NOT NULL	product code item id
trial product	False	True	BIGINT NOT NULL	product code id

**Model Name:** s

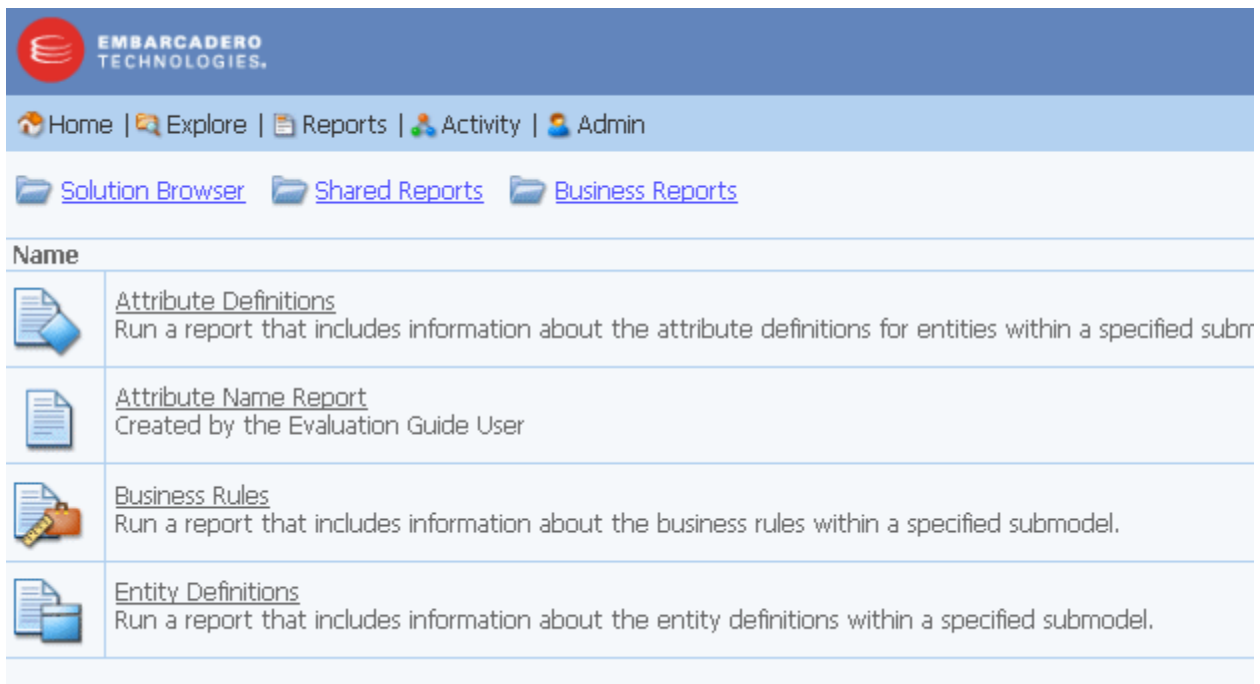
Entity Name	Primary Key	Foreign Key	Composite Datatype	Attribute Name
trial product	False	False	varchar(64) NULL	promo code
product code	False	False	varchar(64) NOT NULL	code
customer	False	False	varchar(32) NULL	zip code
customer_history	False	False	varchar(32) NULL	zip code
country	False	False	varchar(3) NOT NULL	code3
country	False	False	varchar(3) NOT NULL	code3 numeric
country	False	False	varchar(2) NOT NULL	code2

8 Close the report preview and click **Next** to advanced to Step Four.





## Step Four

You can configure the appearance of the report. For this exercise we are going to give our report a title and description, and then save it for future reference.

- 1 Change the Orientation setting to Landscape.
- 2 In the **Report Description** area, enter `Created by the Evaluation Guide User`. This report description appears with the report on the Solution Browser page.
- 3 In the **Header** area, in the text box, enter `Attribute Name Report` and then click **Save**.
- 4 In the **Page** area, enter `For Your Eyes Only`.
- 5 In the **Save As** dialog, enter `Attribute Name Report` and then click **Save**. We are going to save this report in the Shared Reports/Business Reports folder.
- 6 In the **Select a Solution** area double-click **Shared Reports** and then double-click **Business Reports**.
- 7 Leave the **Output Type** as **HTML** and click **Save**. You will get a message stating that your report has been saved.
- 8 Click **Cancel** to close the wizard and return to the Solution Browser.
- 9 Click **Business Reports** to display the list of shared reports where your custom report, **Attribute Name Report** is now listed.



The screenshot shows the EMBARCADERO TECHNOLOGIES Solution Browser interface. The top navigation bar includes links for Home, Explore, Reports, Activity, and Admin. Below this, there are folder icons for Solution Browser, Shared Reports, and Business Reports. The main content area displays a table of reports with the following entries:

Name	Description
 <a href="#">Attribute Definitions</a>	Run a report that includes information about the attribute definitions for entities within a specified submodel.
 <a href="#">Attribute Name Report</a>	Created by the Evaluation Guide User
 <a href="#">Business Rules</a>	Run a report that includes information about the business rules within a specified submodel.
 <a href="#">Entity Definitions</a>	Run a report that includes information about the entity definitions within a specified submodel.

## USING THE STANDARD REPORTS

You are provided with several standard reports that you can execute. Reports can be group and organized into folders. The two types of standard reports are Business Reports and Technical Reports.

- The Business Reports include Attribute Definitions, Business Rules, and Entity Definitions.
- The Technical Reports include: Column Data Lineage; Domain Bindings; Entity, Submodel, Model, Diagram; Entity Attachments; Reference Values; and Security Classifications.

When choosing to run one of the standard reports, you are prompted to supply parameters that filter and format the results of the report. You can chose to format the report output as HTML, PDF, or XLS. You can restrict the report contents by Project, Diagram, Model, Submodel, and Table/Entity. The prompts to filter the reports are dependent on each other. The diagram filter is dependent on the project filter value. The model filter is dependent on the diagram filter, etc.

- 1 Click **Reports** on the dashboard to display the Solution Browser.
- 2 In this exercise we are going to generate an Entity report, so under the **Shared Reports** area click **Business Reports**.  
A Web page appears listing the three available types, as well as the Attribute Name Report we just created.
- 3 Click **Entity Definitions** and a Web page appears where you can determine the parameters for the report.

- 4 Select **Project2** from the **Project** list.  
The remaining three fields are automatically populated with the related information.

Notice the options available for this report. Their usage is straightforward. Clicking **Add to Favorites** will make this report available from the Favorite Reports section of the Home page. From the home page you can also choose to make your report public so other users can use the same report.

- 5 Click **Run** and the Entity Definition report is run. You can save and/or print this report.

[View as pdf](#)

[View as xls](#)

## Entity Definitions

**Project Name:** Project2  
**Diagram Name:** Embarcadero Sales Order Processing  
**Model Name:** Logical  
**Submodel Name:** Alternate Key

Entities	
Name	Definition
<a href="#">Address Component</a>	A portion of an address, such as address line, city, state or zip code.
<a href="#">Address Detail</a>	The values for the Address Components for a given Customer Address.
<a href="#">Address Role</a>	The purpose of a Customer Address, such as Bill To or Ship To.
<a href="#">Address Type</a>	Category of Address, such as U.S., Canadian or foreign street address.

- 6 Return to the Solution Browser Web page by closing the report Web page and then clicking the back arrow.

**Congratulations!** and thank you for taking the time to go through these tutorials. For more information on using ER/Studio Portal, please refer to the *ER/Studio Portal User Guide*.