



Product Documentation

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# **ER/Studio® Portal**

Evaluation Guide

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# Introduction

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.

# Getting Started

## Download and Start Portal

The exercises used in the Evaluation Guide are based on the repository from a hosted trial. Please refer to Step 3.b below on how to access this repository. If you want to try the Portal in your own environment, you will have to request a download link from [Sales@embarcadero.com](mailto:Sales@embarcadero.com). You can also contact [support@embarcadero.com](mailto:support@embarcadero.com) for more information.

Take the following steps to access the Portal:

- 1 Go to <http://www.embarcadero.com/downloads/downloaderstudioent.jsp>.
- 2 Complete the registration page.
- 3 You have two options after completing the page:
  - *Request the portal download:*  
This sends an email with your contact information to [Sales@embarcadero.com](mailto:Sales@embarcadero.com). Your sales representative will contact you and send the relevant information (URL and password to the hidden page).
  - *Request the URL and Login information for the hosted trial:*  
You are sent an email with the URL, user name, and password to the portal. It also includes various logins to look at different aspects of the portal.  
Enter the URL in the Browser to display the Portal login page and then enter your User name and Password.

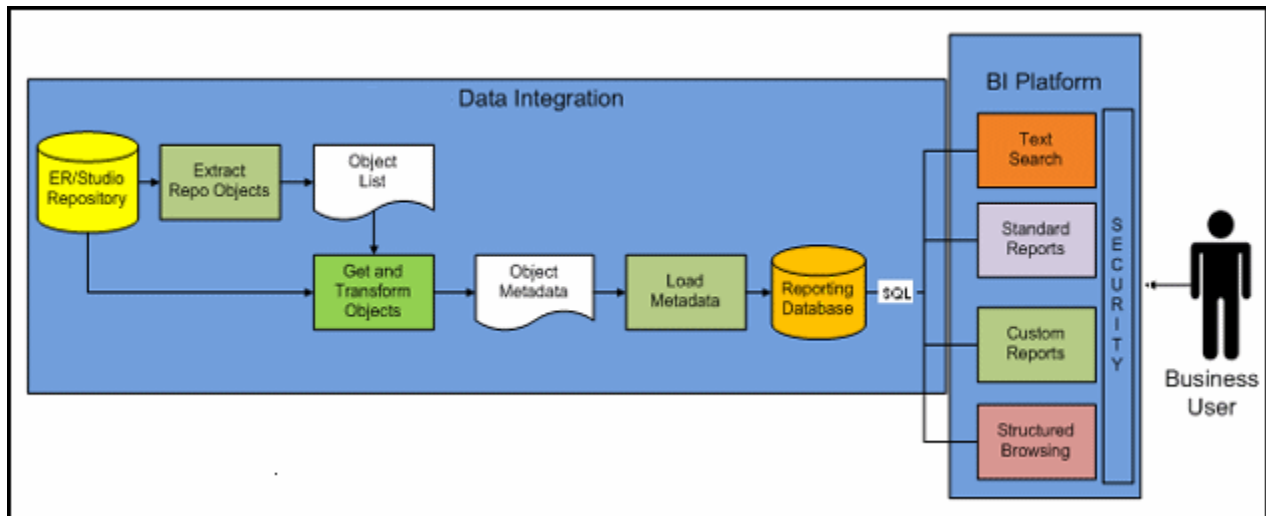
## Overview

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.

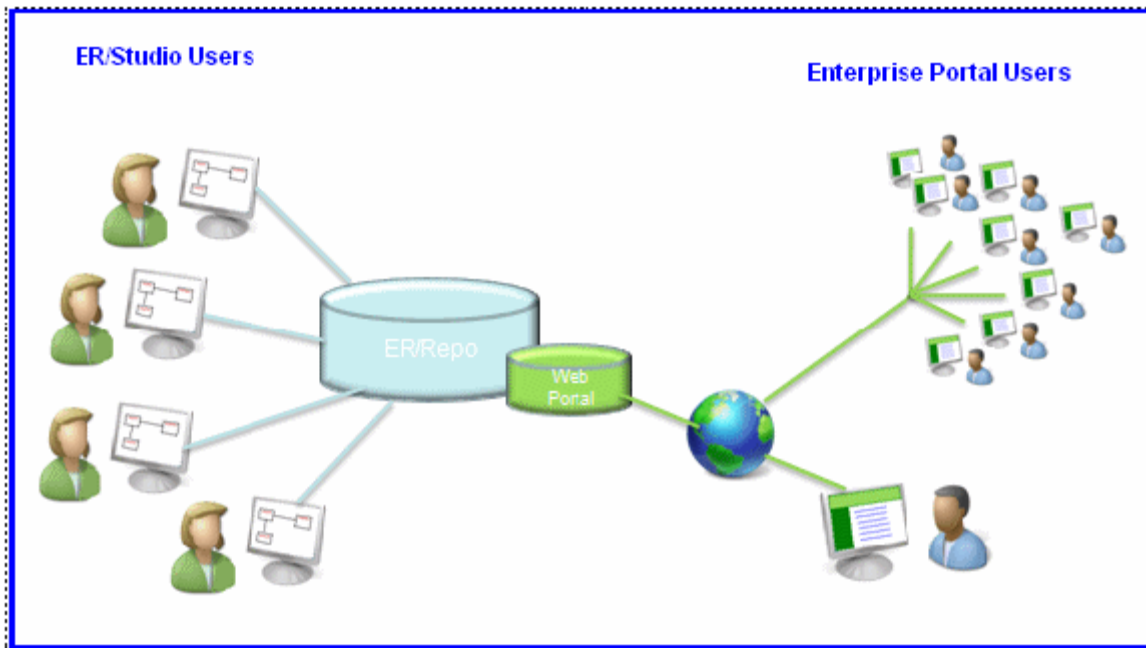
In addition, application development teams can use the portal to see what types of data already exist in the company. This eliminates replicating new data or deviating from the standard format data types needed to be implemented in existing applications.

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.

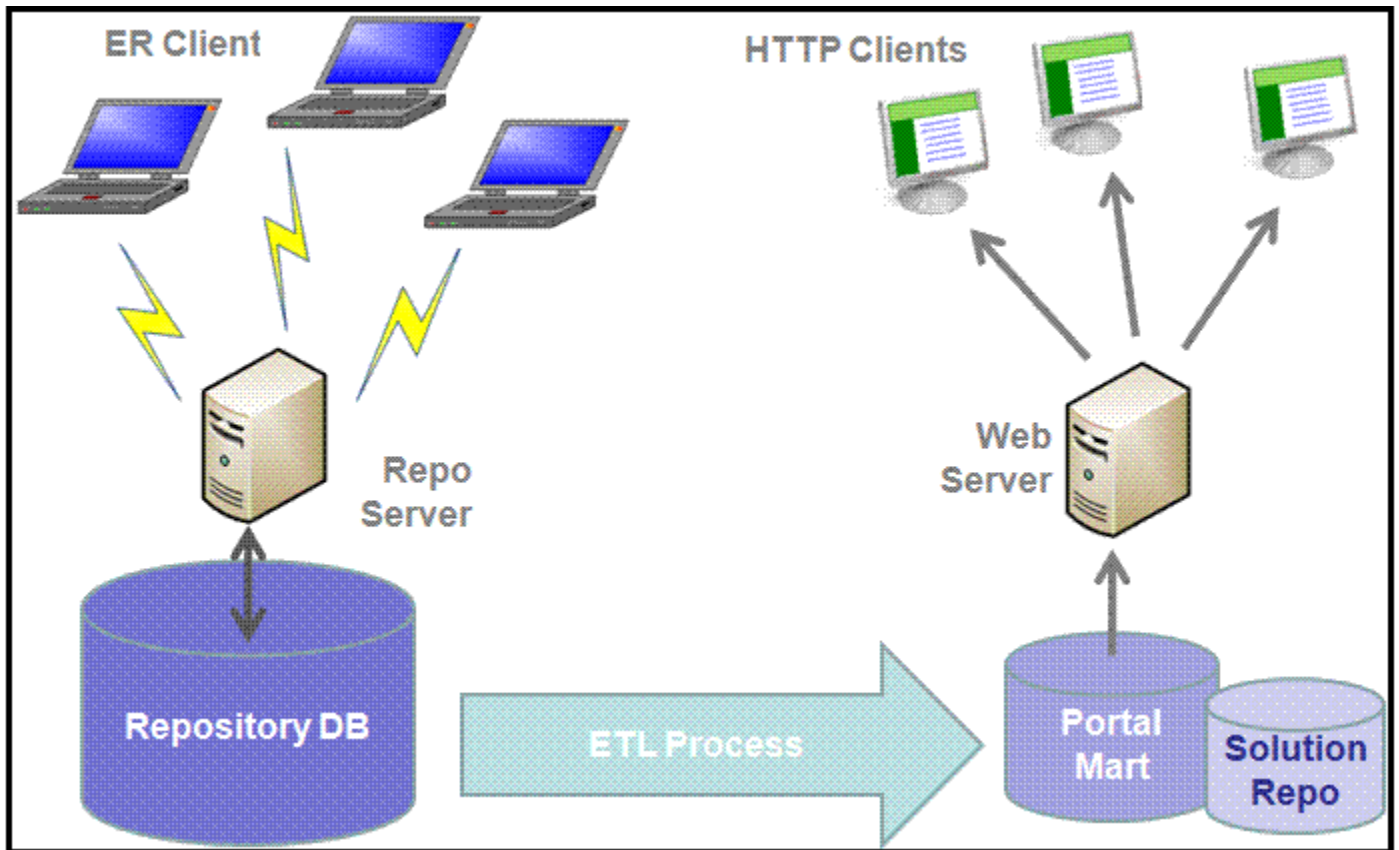


## Understanding the Portal Infrastructure

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.

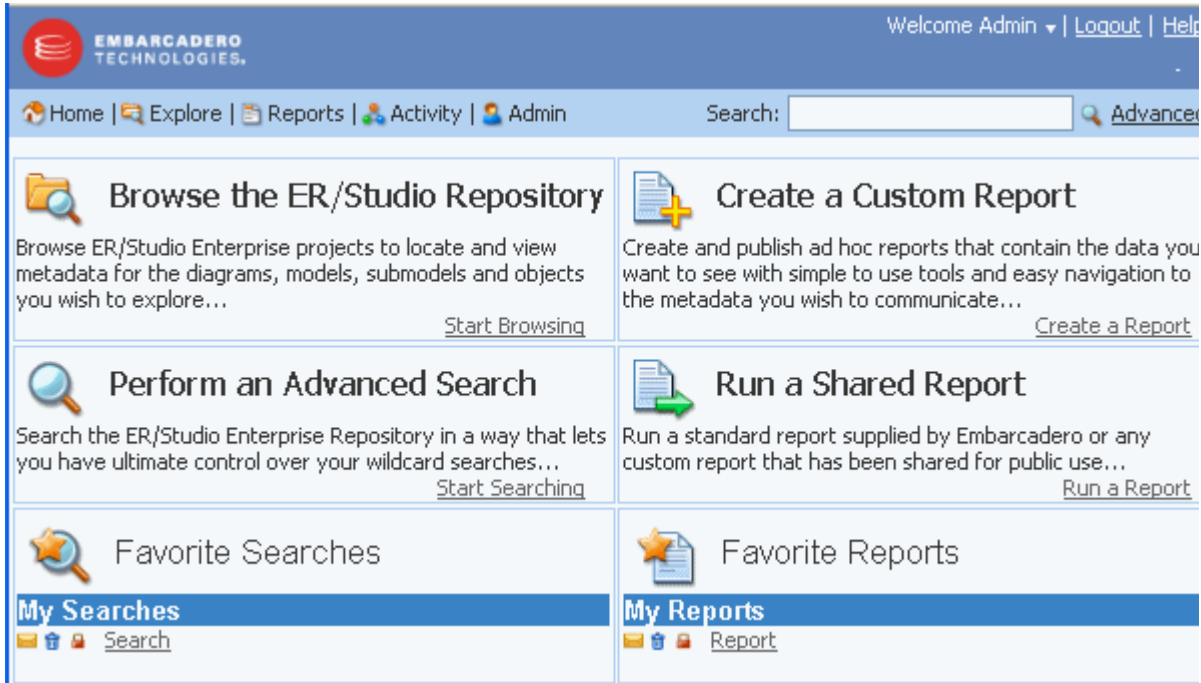


The following are the basic concepts of the Portal:

- **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.

## 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**.
- 3 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

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

- 4 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 the text 'EMBARCADERO TECHNOLOGIES.' on the left, and 'Welcome Admin | Logout | Help' on the right. Below the navigation bar, there are links for 'Home', 'Explore', 'Reports', 'Activity', and 'Admin'. A search bar is present with the text 'Search:' and a magnifying glass icon, followed by the word 'Advanced'. Below the search bar, there are two links: 'View as pdf' and 'View as xls'. The main content area displays the following information:

**Entity:** AllAccess\_schema.dm1 > Logical > Document

**Table Name:** Document

**Project:** Test

---

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

**Definition**

**Notes**

**Attributes**

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 page, there are two links: '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

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

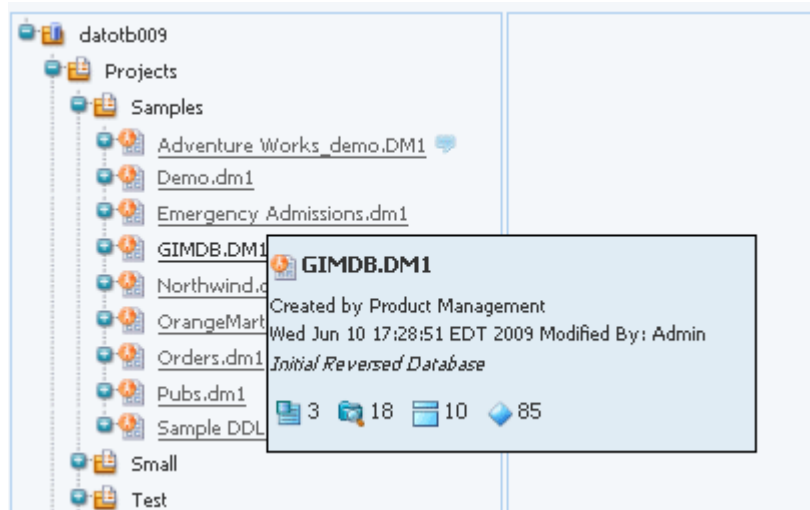
## Using the Structured Browsing Function

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

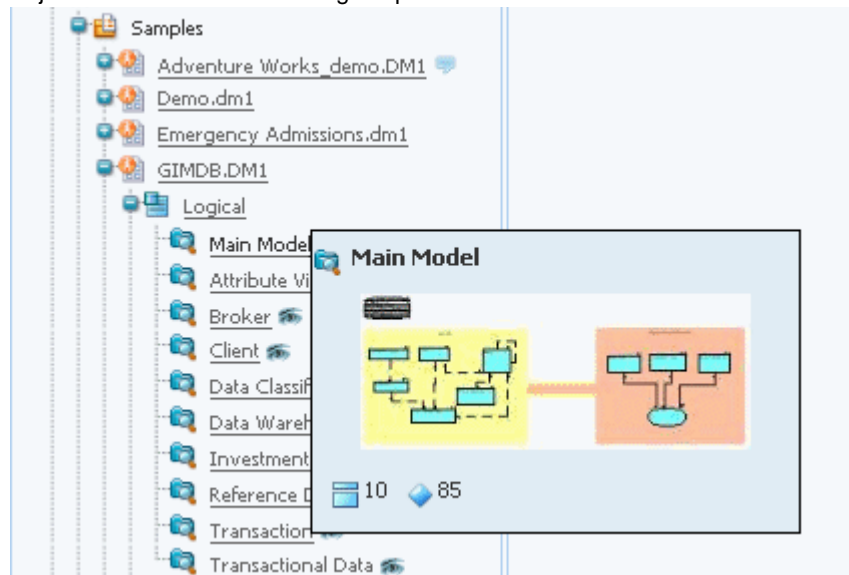
From the diagrams you can either explore the models contained in the diagram or drill down into the diagram report. From that point, you can continue to browse the contents of the diagram by navigating the detailed report links.

- 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

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**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**

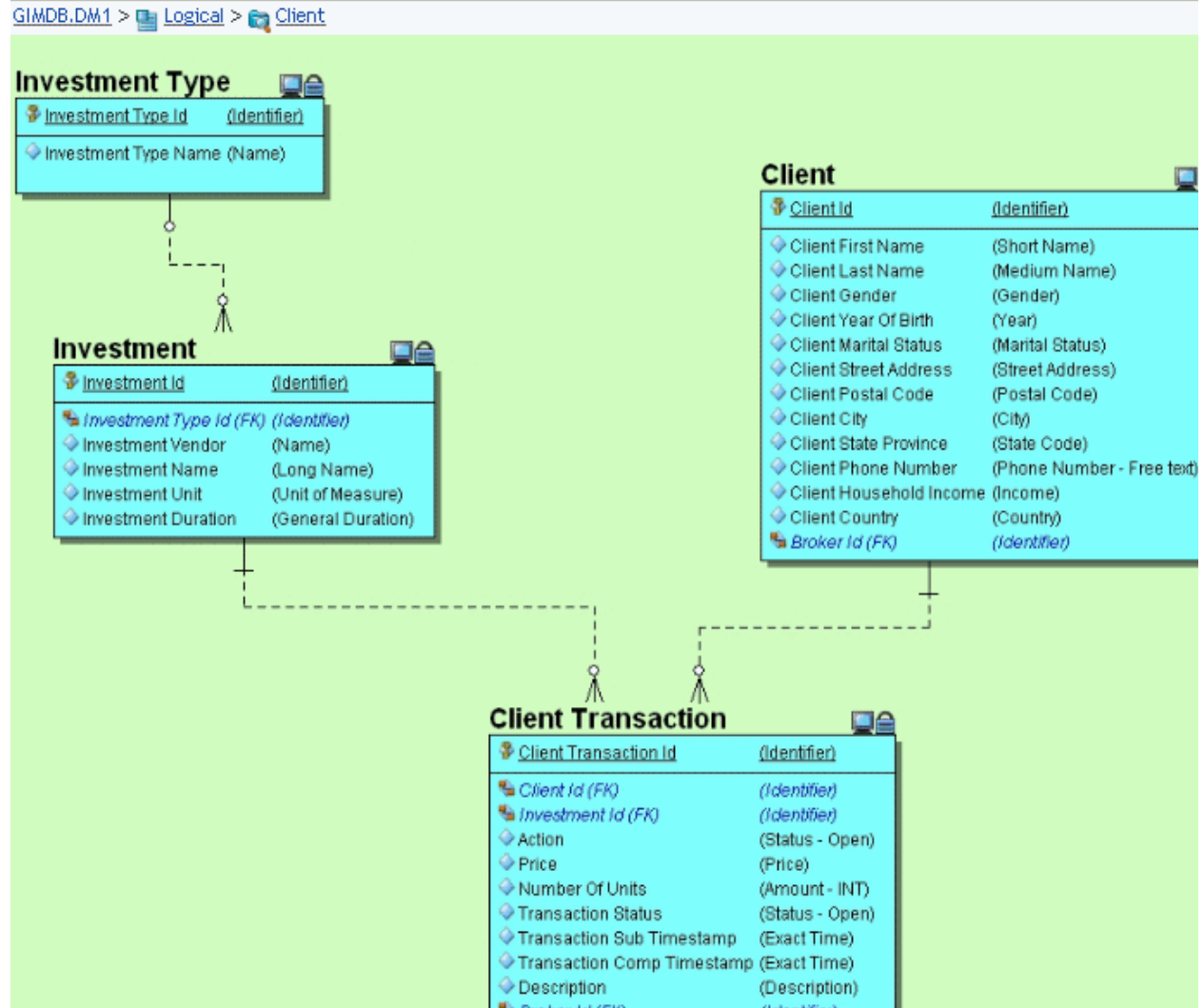
**Entities**

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

**Relationships**

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

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



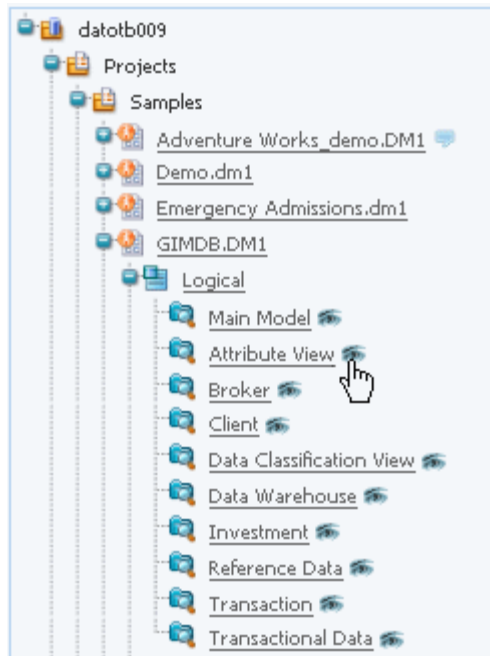
From any image in the Portal, you can view detail reports by clicking an object in the image, such as an entity, relationship, or view.

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

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



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






The submodel diagram appears.

- 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.

[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

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

9 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

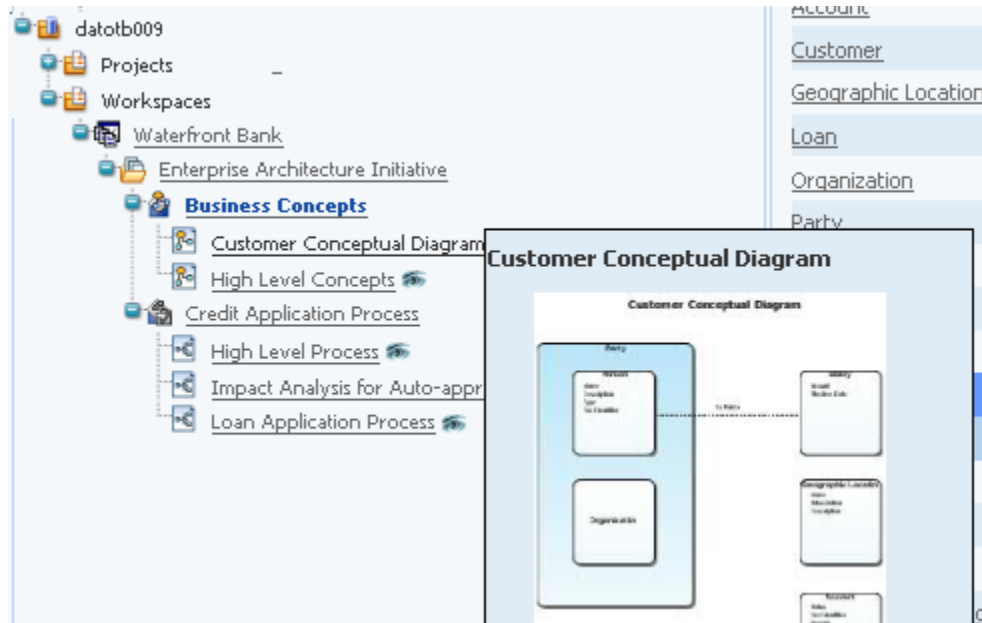
- Each Department must Relate to Zero or More EmployeeDepartmentHistory
- Each Employee must Relate to Zero or More EmployeePayHistory
- Each Employee must Relate to Zero or More EmployeeDepartmentHistory
- Each Employee must Relate to Zero or More EmployeeAddress
- Each Employee may Relate to Zero or 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.

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

**View as report** ✉

**Business Diagram:** [Waterfront Bank](#) > [Enterprise Architecture Initiative](#) > [Business Concepts](#) > [Customer Conceptual Diagram](#)

---

**Description**

There are no data to display based on current selection(s).

**Notes**

There are no data to display based on current selection(s).

**Subject Area Display(s)**

**Name**

There are no data to display based on current selection(s).

**Entity Display(s)**

**Name**

[Account](#)

[Geographic Location](#)

[Organization](#)

[Party](#)

[Person](#)

[Salary](#)

- 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 ✕

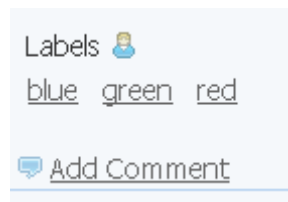
Enter a new label to add to this object (up to 128 characters):

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.

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



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"/> <a href="#">Main Model</a> ✕
<input type="checkbox"/> <input type="checkbox"/> green ✕	<input type="checkbox"/> <a href="#">Main Model</a> ✕
<input type="checkbox"/> <input type="checkbox"/> red ✕	<input type="checkbox"/> <a href="#">Main Model</a> ✕
<input type="checkbox"/> <input type="checkbox"/> test ✕	<input type="checkbox"/> <a href="#">a .dm1</a> ✕
	<input type="checkbox"/> <a href="#">Categories</a> ✕
	<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.



- 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 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 details for "activation.DM1" are shown, including "Notation: IE-Crows Feet", "Style: Relational", and "Project: Project1\_1". Below the details, there are links for "Related Reports" such as "Attribute Definitions", "Business Rules", "Entity Definitions", "Attachments", and "Security Information". A section titled "Submodels" contains a table with columns "Name" and "Definition", listing "Main Model" with a "View Image" link. Another section titled "Entities" contains a table with columns "Name" and "Definition", listing "activation key", "activation key group", and "activation key product".

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.

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

This close-up screenshot shows the top of a report page. It features the text "View as table | Hide details" in a blue header. Below the header, there are three icons: a yellow star, an envelope, and a printer. A mouse cursor is pointing at the star icon. Below the icons, there is a text box containing the breadcrumb "n1 > Logical > Customer" and the text "Add to favorites...". Below this, the report details are visible: "2009/06/10 17:37 Modified By: Admin" and "Entity Name: Customer".

- 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**

- 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.

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.

- 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.

The screenshot shows the Advanced Search interface with the following elements:

- Search Text:** An empty text input field.
- Include matches for similar-sounding words:** An unchecked checkbox.
- Filters:**
  - Scope in:** Radio buttons for All (selected), Data, and Business.
  - Modification:** A dropdown menu set to "anytime" and a "By" input field.
  - Object Type:** A collapsed menu.
  - Property:** A collapsed menu.
- Sorting:** A dropdown menu set to "Relevance" with up/down arrows.
- Pagination:** A dropdown menu set to "10 results per page".
- Search:** A button at the bottom left.

- 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.

- 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 a search interface with the following sections:

- 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 for "Modified" is open, showing a list of time-based filters: "anytime", "in the past 24 hours", "in the past week" (highlighted), "in the past month", and "in the past year". A "By" text box is next to it.
- 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.
- Sorting:** A dropdown menu set to "Relevance" with icons for ascending, descending, and random sorting.
- Pagination:** A dropdown menu set to "10 results per page".
- Search:** A "Search" button at the bottom.

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.

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

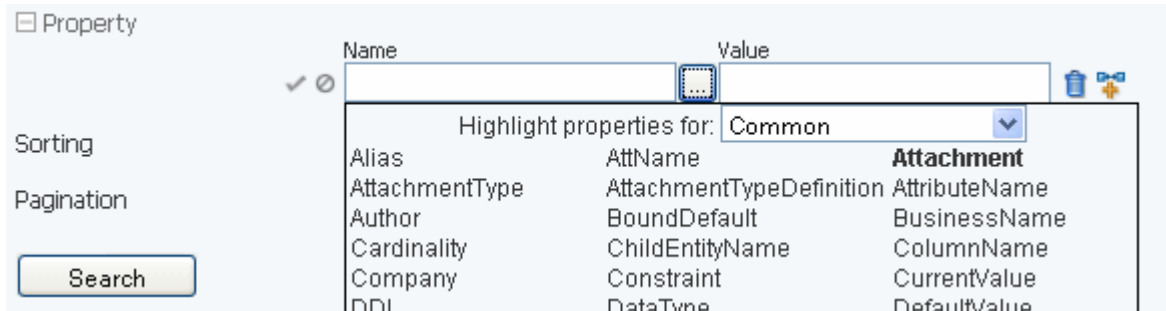
Notice that in the **Object Type** area, you can select the elements you want included in the search. You can also select multiple individual items in the list by holding down the Ctrl key and clicking the items you want included.

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

The screenshot shows the "Object Type" filter area with the following details:

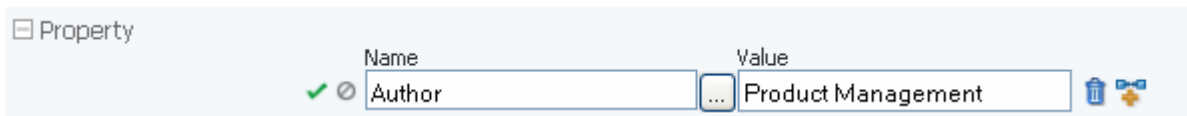
- A checkbox labeled "All" is checked.
- Below it, the text "OR select specific object type(s) below:" is displayed.
- A scrollable list of object types is shown, including: Attachment, Attachment Binding, Attribute, Column, Data Lineage Column, Data Lineage Source, Data Lineage Table, Data Movement Column, Diagram, Dictionary, Dictionary Default, Dictionary Rule, Domain, Entity, and Model.

- 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.

- 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.
- From the list of properties, click **Author**.  
Author appears in the Name area.
- 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.
- 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.


- 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

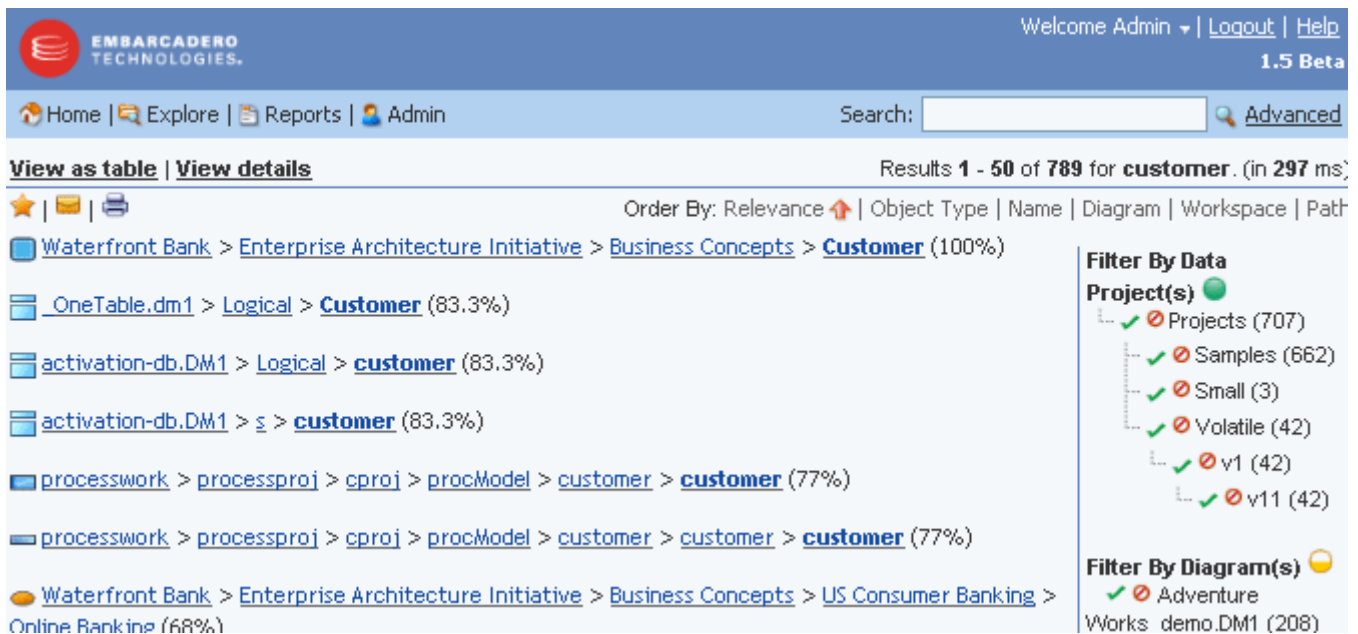
13 Notice the icons above the search results:

- 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.

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



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

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

[View as table](#) | [View details](#) Results 1 - 50 of 789 for **customer**. (in 297 ms)

★ | ✉ | 🖨 Order By: Relevance ↑ | Object Type | Name | Diagram | Workspace | Path

[Waterfront Bank > Enterprise Architecture Initiative > Business Concepts > Customer](#) (100%)

[\\_OneTable.dm1 > Logical > Customer](#) (83.3%)

[activation-db.DM1 > Logical > customer](#) (83.3%)

[activation-db.DM1 > s > customer](#) (83.3%)

[processwork > processproj > cproj > procModel > customer > customer](#) (77%)

[processwork > processproj > cproj > procModel > customer > customer > customer](#) (77%)

[Waterfront Bank > Enterprise Architecture Initiative > Business Concepts > US Consumer Banking > Online Bank in](#) (68%)

**Filter By Data**

**Project(s)** ●

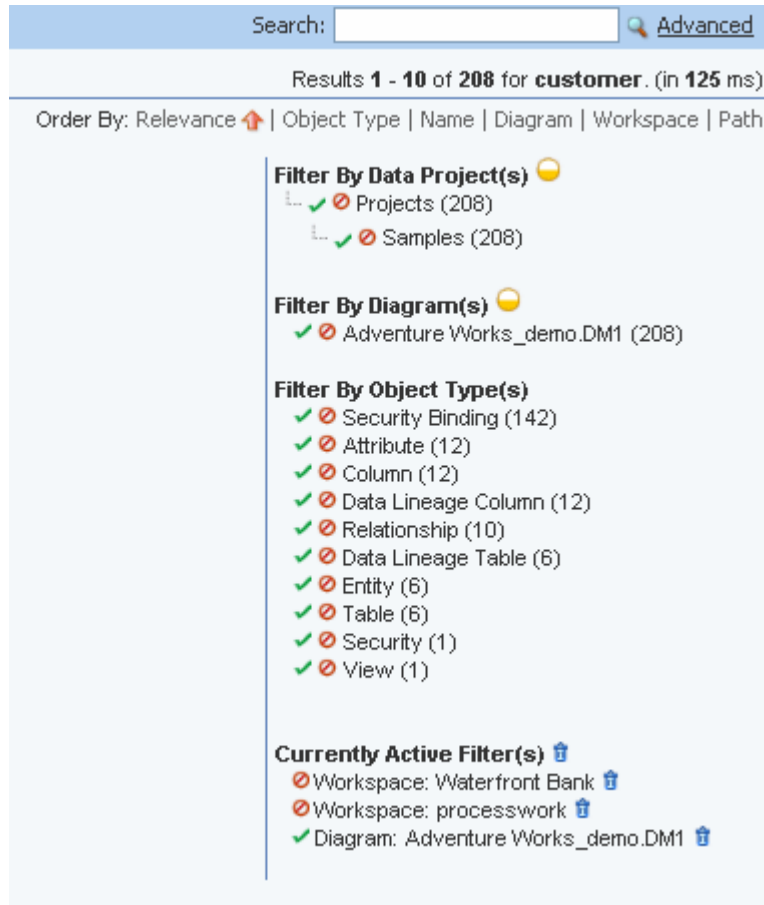
- Projects (707)
- Samples (662)
- Small (3)
- Volatile (42)
- v1 (42)
- v11 (42)

**Filter By Diagram(s)** ●

- Adventure Works demo.DM1 (208)

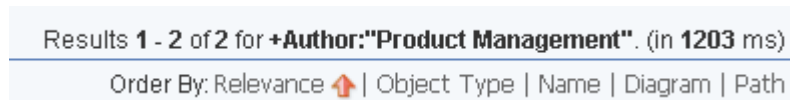
- Click any one of the filters on the right side of the page and you will see a new area appear that indicates which filters are active.

**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.

- 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>

- 20 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

Shift column to the right

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

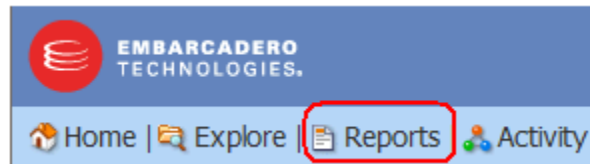
Path	Property Type	Property Value
<a href="#">activation.DW1&gt;Logical&gt;customer</a>	Entity Name	customer
	Logical/Physical Submodels	Logical
	Table Name	customer

Hide 'Entity Name' property type

- 23 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.

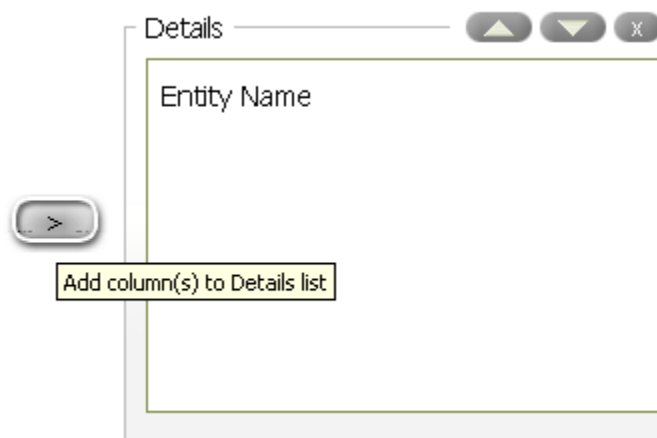
- 1 In the **Business Models** area, click **Model**.  
Next, we will apply a template to the report. As you select the different templates a thumbnail of your selection appears in the next panel.
- 2 Scroll down to view the **Templates** area.
- 3 In the **Templates** area, click **ER/Studio**, and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

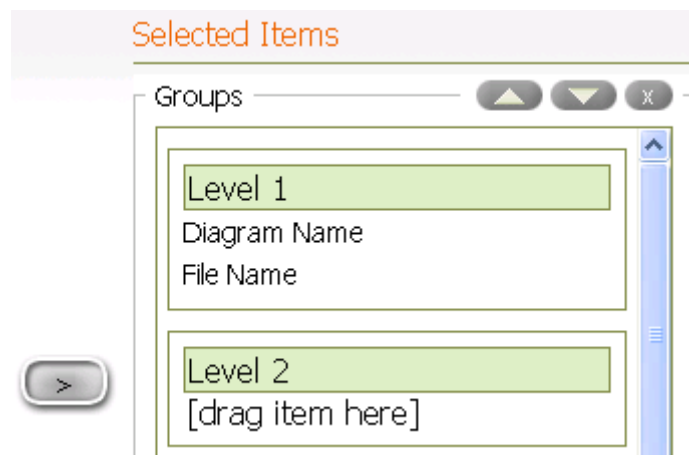
- You can check the results of your choices by clicking **Go** by the **Preview As** selection box. You can preview your report as HTML, PDF, Excel, or CSV. We will leave the default setting of HTML.

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 id
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.

**Constraints**

Current Settings

Builder: Free Form

Add a Constraint

Attribute Name: contains code

- 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

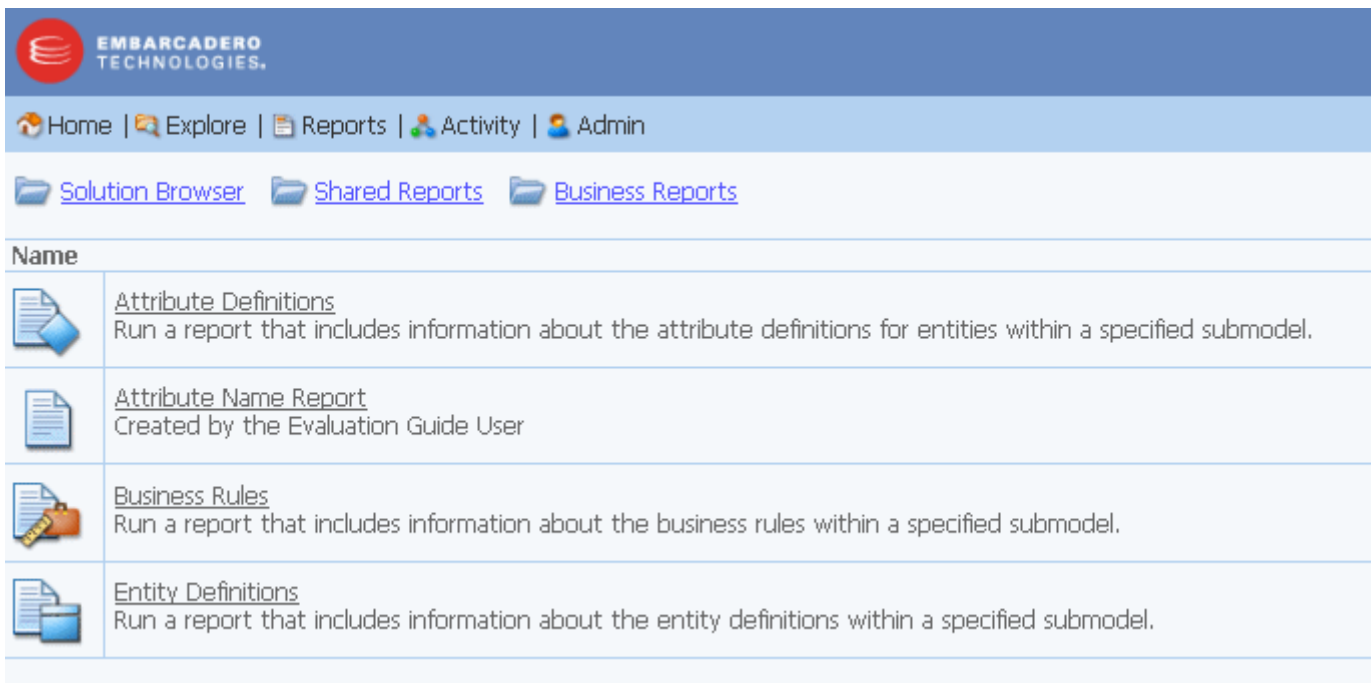
- 8 Close the report preview and click **Next** to advanced to Step Four.

#### 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.



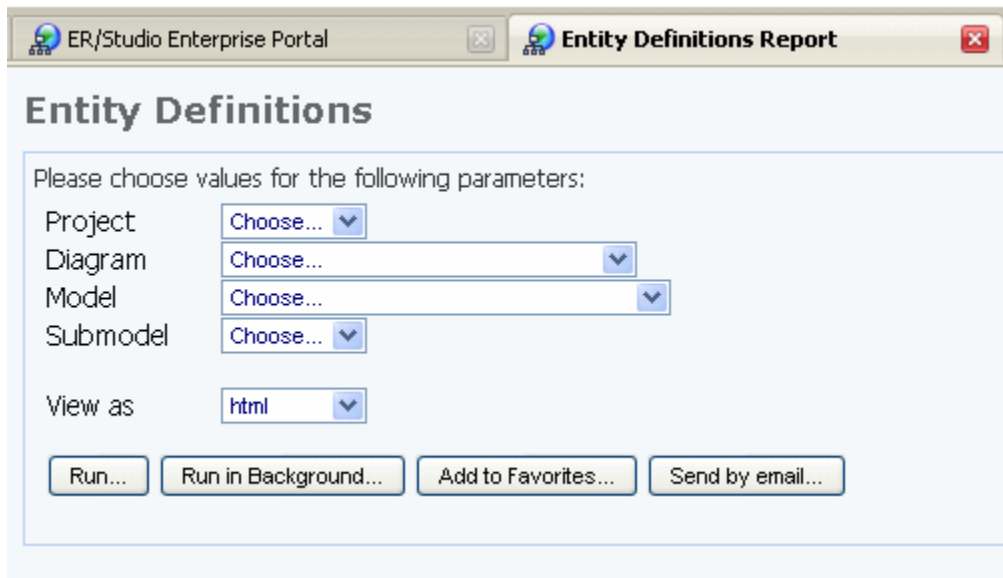
## Using the Standard Reports

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 choose 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.

- 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*.