



ER/Studio® 8.0.3 Installation Guide

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About this Guide

This guide contains information to help you install, upgrade, and uninstall the following ER/Studio products and add-on products:

- [ER/Studio](#): Provides a complete environment for you to analyze, design, create, and maintain database applications.
NOTE: When you upgrade ER/Studio Enterprise, upgrade ER/Studio Repository to the corresponding release and vice versa.
- [ER/Studio Repository](#): The server-side Repository provides for improved teamwork and enterprise collaboration. ER/Studio Repository is included in the Enterprise edition of ER/Studio.
NOTE: ER/Studio Enterprise also includes EA/Studio, a business process and conceptual modeling tool. EA/Studio installation details are described in the *EA/Studio Installation Guide*.
- [ER/Studio Enterprise Portal](#): This browser-based solution allows you to share, browse, and report on the metadata contained in ER/Studio Repository for improved data and metadata management practices.
- [Metawizard](#): Integrate metadata across modeling tools, business intelligence, ETL platforms and industry-standard exchange formats (XMI, XML and XSD). This tool enables ER/Studio to integrate with more than seventy other applications by sharing metadata through an import-export capability.
- [Universal Data Models](#): Standard and Industry-specific data model templates for ER/Studio that reduce the development time of database-related projects by an average of 60 percent, as well as improve the quality of existing and new data models.
- [ER/Studio Viewer](#): View, navigate, and print ER/Studio models in a view-only environment. ER/Studio Viewer features the same sophisticated and advanced viewing, navigation, and printing functionality that ER/Studio provides.

ER/Studio

ER/Studio provides a complete environment for you to analyze, design, create, and maintain database applications. This section is comprised of the following topics:

- [ER/Studio Installation Checklist](#)
- [Licensing ER/Studio](#)
- [Upgrading ER/Studio](#)
- [Uninstalling ER/Studio](#)

ER/Studio Installation Checklist

Use the following checklist to ensure you correctly install and configure ER/Studio.

Done	N/A	Requirements
		Download ER/Studio You can download a 14-day trial version of ER/Studio, which you can license later, from www.embarcadero.com/downloads/download.html
		Review ER/Studio ReadMe For the most current installation and usage information, see the ReadMe at www.embarcadero.com/resources/release_notes/ER/Studio.html .
		Ensure System Compatibility For system requirements, see System Requirements .
		Install ER/Studio For installation details, see Installing ER/Studio .
		License ER/Studio For ER/Studio licensing details, see Licensing ER/Studio .
		Run and Test ER/Studio For step-by-step instructions on using ER/Studio, see the <i>ER/Studio Evaluation Guide</i> at www.embarcadero.com/products/ER/Studio/erdocs.html .

System Requirements

Review the requirements before you install ER/Studio. Adhering to these requirements optimizes ER/Studio performance.

ER/Studio Requirements		
Hardware	Processor	Pentium III, 600 MHz or higher
	RAM	1 GB
	Disk Space	340 MB
		175 MB in the System TEMP directory for temporary file storage during installation.
Operating System	Any of the following: <ul style="list-style-type: none"> • Windows Vista • Windows XP Professional • Windows 2003 (32-bit mode) • Windows 2000 Pro Server • Advanced Server with Service Pack 2 	
Software	To use an Open Data Base Connectivity (ODBC) database as a data source, install the ODBC driver on your client computer. To connect to the DBMS using native connectivity, install the native client libraries available from the DBMS vendor.	
Privileges	Local administrator privileges (required for installation only).	

Installing ER/Studio

NOTE: To ensure compatibility, the release dates of the Repository and ER/Studio must be the same.

- 1 Log on to Windows with local administrator privileges.
- 2 Start the **ER/Studio** installation program
- 3 Walk through the installation wizard following the onscreen prompts.

The following provides additional information for some options that are not self-explanatory:

- **Default Notation:** Choose the notation type you want ER/Studio to use by default to display the model.
 - **IDEF1X:** Data modeling technique used by many branches of the United States Federal Government.
 - **IE (Martin/Finkelstein):** Information Engineering (IE) as developed by Martin and later revised by Finkelstein.
 - **IE (Crow's Feet):** Uses IE notation and represents relationships with connecting lines between entities, and symbols at the ends of those lines to represent the cardinality of the relationship. This is the notation used in Oracle texts and in other applications such as Visio. Foreign keys are displayed in entity boxes.
 - **IE (Hide Foreign Keys):** Uses standard IE notation, but foreign keys are not displayed in entity boxes.

NOTE: You can change the notation setting at a later time. To change the notation, click Tools > Options from the ER/Studio Main menu, and then click the Logical or Physical tab where you can choose the notation type.

- **Shared Application Data Location:** By default, ER/Studio installs shared directories and application files such as the DatatypeMapping, Macros, and Sample Models directories in the following locations:

- **Windows XP:** C:\Documents and Settings\All Users\Application Data\Embarcadero\ERStudio_X.X

- **Windows Vista:** C:\ProgramData\Embarcadero\ERStudio_X.X

If you prefer to store these files in another directory, follow the procedure in [Changing the Location of ER/Studio Shared Files](#).

- For step-by-step instructions on how to use ER/Studio, see the *ER/Studio Evaluation Guide* at www.embarcadero.com/products/ER/Studio/erdocs.html.

Changing the Location of ER/Studio Shared Files

NOTE: You must have local administrator privileges to change the location where ER/Studio stores and searches for shared application data.

- 1 Click **Help > About ER/Studio**, and then click **File Path**.
- 2 In the **File Path** dialog, browse to an existing directory where you want to store your shared files.

NOTE: The directory path you choose must be the location where you have created an Embarcadero\ERStudio_X.X directory or where you want ER/Studio to create this directory.

ER/Studio creates the Embarcadero\ERStudio_X.X directory, if it does not already exist.

- 3 In the **File Path** dialog, click **OK**, and then in the **About ERStudio** dialog, click **OK** again.
ER/Studio searches for the datatype mappings in this directory.
- 4 Click **Tools > Options > Directories**, specify where you want to store your macros, and then click **OK**.
- 5 Copy the contents of the DatatypeMapping, Macros, and Sample Models directories to the new location.
- 6 To effect the changes, restart ER/Studio.

Licensing ER/Studio

ER/Studio requires one or more licenses in order to run. A baseline license provides basic feature support for the product. In addition, incremental licenses may be required to support specific DBMS platforms, product add-ons or other functions.

ER/Studio supports three types of licenses:

- **Trial licenses:** A license for a 14-day, full-featured trial version of the product. The trial license must be registered before you can use the product. For more information, see [Registering a Trial or Workstation License at Application Startup](#).
- **Workstation licenses:** A license or set of licenses that is tied to a particular workstation. The product can only be used on that workstation. For more information, see [Registering a Workstation License after Application Startup](#).

- **Networked licenses:** Networked licenses are administered and distributed by a central License Server (Embarcadero License Center or Acreso FLEXnet Publisher). There are two types of networked licenses:
 - **Concurrent licensing:** Users on different machines take turns using licenses from a shared pool.
 - **Networked Named User licensing:** Licenses are pre-assigned to specific users that are setup on the license server's user list. Those users are guaranteed to have licenses available any time.

For more information, see [Registering a Networked License](#).

If you have problems registering, see [Registering by Phone](#).

Registering a Trial or Workstation License at Application Startup

Shortly after downloading a trial version of an Embarcadero product, you should receive an e-mail from Embarcadero with a serial number, which must be registered as follows. These instructions also apply if you have purchased a product and received a serial number prior to running the application for the first time, or if the trial period has expired.

- 1 Start the application.

The Embarcadero License Registration dialog appears.

- 2 Copy the serial number from the e-mail, and then paste it into the **Serial Number** field.
- 3 Enter your Embarcadero Developer Network (EDN) account credentials in the **Login or Email** and **Password** fields.

If you have not previously created an EDN account, or have forgotten your password, click **I need to create ... or I've lost my password**.

- 4 Click **Register**.

The activation file should be downloaded and installed automatically. If this does not happen, click the Trouble Connecting? Try Web Registration link and follow the prompts. If you still have problems, see [Registering by Phone](#).

Registering a Workstation License after Application Startup

The following instructions assume that you have received a workstation license by e-mail and that you currently have a valid trial license. If you did not install a trial version or if the trial period has expired, follow the instructions in [Registering a Trial or Workstation License at Application Startup](#) instead.

- 1 Click **Help > Launch License Manager**.
- 2 In the License Manager dialog, select the version of ER/Studio the license applies to: **Standard**, **Developer**, or **Enterprise**.
- 3 Click **Serial > Add**.
- 4 Copy the serial number from the e-mail, paste it into the **Add Serial Number** dialog, and then click **OK**.
- 5 Expand **Unregistered Serial Numbers**, right-click the serial number just added, and then click **Register**.

A registration dialog appears.

NOTE: The Registration Code box shows a machine-specific identifier required with other registration methods.

- 6 Ensure that **Register using Online Registration** is selected.
- 7 Provide Developer Network credentials in the **Login name or Email** and **Password** fields.

8 Click **Register**.

The activation file should download and install automatically. If this does not happen, click the [Trouble Connecting? Try Web Registration link](#) and follow the prompts. If you still have problems, see [Registering by Phone](#).

Registering by Phone

If you have problems with either of the above procedures, you can register licenses by phone. You must provide the following information:

- Developer Network credentials
- The registration code displayed in the Embarcadero License Registration dialog that appears when you start an unlicensed application
- The product base license serial number
- The license serial numbers for any additional features you have purchased.

For North America, Latin America, and Asia Pacific: call (415) 834-3131 option 2, and then follow the prompts. The hours are Monday through Friday, 6:00 A.M. to 6:00 P.M. Pacific time.

For Europe, Africa, and the Middle East: Call +44 (0)1628-684 494. The hours are Monday to Friday, 9 A.M. to 5:30 P.M. U.K. time.

Shortly after phoning in, you will receive an e-mail containing an activation file. Then do the following:

- 1 Save the activation file to the desktop or to a scratch directory such as `c:\temp`.
- 2 From within the application, click **Help > Launch License Manager**.
- 3 Click **License > Import**.
- 4 Navigate to the directory where you saved the activation file, and then double-click the activation file.
- 5 Click the **Import** button to import the activation file, and then click **Finish**.

Registering a Networked License

If your organization uses networked licensing, an administrator, department head, or someone providing a similar function, will provide you with activation files: `license.dat` and `license.txt`. In the ER/Studio About dialog, ensure that the File Path field contains the correct location of these files.

Once you receive the files, save them to the license subdirectory of the main installation directory (typically `C:\Program Files\Embarcadero\<product><version>\license\`), then restart the application.

No additional steps are necessary.

Upgrading ER/Studio

Use the following checklist to ensure ER/Studio is correctly upgraded.

Upgrade Checklist		
Done	N/A	Requirements
		Download ER/Studio Upgrade To download the most current release, go to www.embarcadero.com/upgrade/upgrade.html
		Review ER/Studio ReadMe For the most current installation and usage information, see the ReadMe at www.embarcadero.com/resources/release_notes/ER/Studio.html .
		Prepare to Upgrade For what to do before you upgrade to the latest version, see Preparing to Upgrade .
		Upgrade ER/Studio For ER/Studio upgrade details, see Upgrading ER/Studio .
		Upgrade ER/Studio Diagrams For ER/Studio diagram upgrade details, see Upgrading Diagrams .

Important Notes

- If you are upgrading to Repository 5.0, you must also upgrade your version of ER/Studio to 8.x or later. Previous versions of ER/Studio are not compatible with Repository 5.0.
- You can install ER/Studio 8.x and an earlier ER/Studio version on the same workstation.
- If you have an ER/Studio Enterprise installation, which includes ER/Studio Repository, you must also upgrade the Repository to coincide with the build date of ER/Studio.
- Any *.dm1 files from the previous version you open will be upgraded to 8.x format when you open them for the first time. You can then choose to save the file in the new format using the same or a different name. Previous versions of ER/Studio cannot read version 8.x files.
- Upgrading diagrams can be time consuming and memory intensive. The number and size of ER/Studio diagrams managed in the upgraded Repository will dictate how long the upgrade process takes.
- Reference Models supported in previous versions are not supported in ER/Studio 7.x and later releases.

Preparing to Upgrade

- 1 Ensure you have backed up all your .dm1 files.

NOTE: The steps that follow are for ER/Studio Enterprise installations only, which include the Repository.

- 2 Check in all your diagrams and objects.

NOTE: If you attempt check in a file from a previous-version that has the same name as an existing file, the existing file will become corrupted.

- 3 Rename all local copies of Repository diagrams in the active file directory as follows:

From the ER/Studio Main menu, click **Repository > Options**.

Make note of the name of the **Active File Directory**.

Switch to **Windows Explorer** and rename all the diagrams in the **Active File Directory**.

- 4 Ensure no one is logged into the Repository.
- 5 Backup the current Repository database.
- 6 Remove the previous version of the Repository application.

Click **Control Panel > Add Remove Programs > Repository x.x**, and then click **Remove**.

- 7 Restart the Repository host computer.

Upgrading ER/Studio

Follow the instruction for installing ER/Studio, see [ER/Studio Installation Checklist](#).

Upgrading Diagrams

- If you have an ER/Studio installation that does not include the Repository, see [Upgrading ER/Studio Standard Diagrams](#).
- If you have ER/Studio Enterprise, which includes the Repository, see [Upgrading ER/Studio Enterprise Diagrams](#).

Upgrading ER/Studio Standard Diagrams

This procedure is for ER/Studio Standard installations only, which do not include the Repository.

Once you have installed the new version of ER/Studio, from the new version of ER/Studio, open each of your old * .dm1 files. ER/Studio will convert the files to the new format before opening them. Then save the files with a new name or overwrite the previous version by using the same name.

Upgrading ER/Studio Enterprise Diagrams

This procedure is for ER/Studio Enterprise installations only, which include the Repository.

Update your existing diagrams before you check-out any diagrams or do any work with the new version of ER/Studio.

Upgrading diagrams can be time consuming and memory intensive. The number and size of ER/Studio diagrams managed in the upgraded Repository will dictate how long the upgrade process takes.

- 1 Start **ER/Studio**.
- 2 Update the **Repository Options** to recognize the new Repository as follows:

From the ER/Studio **Main** menu, click **Repository > Repository Options**.

In the **Server Machine** box, type the host name or IP address of the Repository machine, and then click **OK**.

- 3 Log on to the **Repository** using an account with Super User privileges.
- 4 Run the **Diagram Data Version Upgrade** utility as follows:

From the ER/Studio **Main** menu, click **Repository > Administration > Diagram Data Version Upgrade**.

This will update your existing diagrams to the latest version.

Notes

- By default, the Super User role is assigned to the Admin user. The default Admin user name and password are: Admin and Admin.

- The diagram data version upgrade does not upgrade Named Releases. The system prompts you to upgrade named releases the first time you open them after you upgrade ER/Studio.
- After the diagrams are updated, each user must perform a clean get of all Repository diagrams they were working on previously.

Uninstalling ER/Studio

If you no longer need it, uninstall the previous version of ER/Studio and ER/Studio Repository.

NOTE: Be sure to backup any custom SQL files or other work files in the `Program Files\Embarcadero\ERStudio` directory because they will be removed during this process.

Uninstall ER/Studio using the Windows **Add/Remove Programs** application.

Uninstalling the application does not remove shared and user-specific application data, such as macros, sample diagrams, and user diagrams.

ER/Studio Repository

The server-side Repository provides for improved teamwork and enterprise collaboration. ER/Studio Repository is included in the Enterprise edition of ER/Studio. The ER/Studio Repository is comprised of two components:

- **Repository Server:** The link between ER/Studio and the Repository Database. The server is responsible for creating the SQL code necessary to query the database to retrieve data or to insert data into the database. The Repository Server consists of the following components:
 - Repository Communication Server
 - Repository Event and Dispatch Server
 - Repository Database Server
- **Repository Database:** Stores information about the Repository Diagrams and their objects.

This section is comprised of the following topics:

- [Purchasing ER/Studio Repository](#)
- [ER/Studio Repository Installation Checklist](#)
- [Upgrading ER/Studio Repository](#)
- [Uninstalling ER/Studio Repository](#)

Purchasing ER/Studio Repository

NOTE: Trial versions of ER/Studio Enterprise include a 14-day license. You must purchase a license at the end of the trial to continue using the product.

To purchase ER/Studio Enterprise, which includes a license for ER/Studio and the Repository, contact Embarcadero Sales:

Embarcadero Sales Contact Information		
Region	Telephone	E-mail
North America, Latin America, and Asia Pacific	415.834.3131 ext. 3	sales@embarcadero.com
Europe, Africa, and the Middle East	+44 (0) 1628 684400	uk.sales@embarcadero.com

ER/Studio Repository Installation Checklist

Use the following checklist to ensure ER/Studio Repository is correctly installed and configured.

Done	N/A	Requirements
		<p>Download ER/Studio Enterprise, which includes the Repository.</p> <p>You can download a 14-day trial version of ER/Studio Enterprise, which you can license later, from www.embarcadero.com/downloads/download.html.</p>
		<p>Review the ER/Studio ReadMe.</p> <p>For the most current installation and usage information, see the ReadMe at www.embarcadero.com/resources/release_notes/ER/Studio.html.</p>
		<p>Ensure system compatibility.</p> <p>For system requirements, see System Requirements.</p>
		<p>Optimize the repository database.</p> <p>For information on how to optimize Repository performance, see Preparing to Install the Repository.</p>
		<p>Plan for repository growth.</p> <p>For information on how to estimate the required size of the Repository database, see Planning for Repository Database Growth.</p>
		<p>Install ER/Studio Repository</p> <p>For instructions on how to install the Repository, see Installing the Repository.</p>
		<p>Connect to the Repository</p> <p>For instructions on how to connect to the Repository from ER/Studio, see Connecting to the Repository.</p>
		<p>Run and test ER/Studio</p> <p>For instructions on how to use ER/Studio, see the <i>ER/Studio Evaluation Guide</i> at www.embarcadero.com/products/ER/Studio/erdocs.html.</p>

System Requirements

Review the following requirements before you install ER/Studio Repository. Adhering to these requirements optimizes ER/Studio performance.

ER/Studio Repository Requirements			
		Repository Database Server	Repository Server
Hardware	Processor	Pentium 4 or higher	Pentium 4 or higher
	RAM	1 GB	2 GB
	Disk Space	350 MB, with the possibility for expansion	50 MB
Operating System	Any of the following: <ul style="list-style-type: none"> • Windows Vista • Windows XP • Windows 2000 • Windows 2003 (32-bit mode) • Linux • UNIX 		Any of the following: <ul style="list-style-type: none"> • Windows Vista • Windows XP • Windows 2000 • Windows 2003 (32-bit mode)
Software	Transaction Control Protocol (TCP) up and running. Western European character set (UNICODE and UTF8 are not supported)		TCP up and running
	Supported DBMS (see Database Server Requirements)		
Privileges	DBMS privileges to create objects on the server		DBMS privileges to create objects on the server
	Local administrator privileges		Local administrator privileges

NOTE: The hardware requirements are based on an ER/Studio Repository installation with five to 10 users. For more than 10 users, ensure your hardware surpasses the previously stated hardware requirements to accommodate the number of transactions that increase as the number of users increases.

Database Server Requirements

The following table lists the databases the Repository supports. In order for the Repository to communicate with the database, the machine running the Repository must also have the corresponding RDMS client utility installed. The RDMS client utilities must also be installed on the machine running ER/Studio if you want to use ER/Studio to reverse engineer databases originating at any of these platforms.

ER/Studio Repository Database Server Requirements	
Supported Repository DBMS	Corresponding RDBMS Client Utility Software
IBM DB2 LUW 7.x *, 8.x, and 9.x Server	Corresponding version of IBM DB2 UDB Client Utilities (7.x, 8.x or 9.x)
Microsoft SQL Server 2000, 2005, and 2008	Corresponding version of SQL Server Client Access (2000, 2005 or 2008)
Microsoft SQL Server 7.0	Microsoft Data Access Component (MDAC) 2.6 or later
Oracle 8.1.x, 9.0.x, 9.2.0.x, 10g, and 11g	Corresponding version of Oracle Client Utilities (8.1.7.4, 9.0, 9.2.0, 10g, or 11g)
Sybase ASE 12.x or 15.x	Sybase 11.9 or later Client Utilities

Important Notes

- If you install the ER/Studio Repository Server and the ER/Studio Repository database on the same machine, consider surpassing the hardware requirements described previously.
- You must use ER/Studio 8.x or later with ER/Studio 5.x.
- If you are upgrading ER/Studio Repository to version 5.0 and are also using ER/Studio Enterprise Portal, upgrade ER/Studio Portal to version 1.0.2.
- The RDBMS Client Utility software must be installed before installing the Repository server.
- If you are using Microsoft SQL Server and use case-sensitive nomenclature, you may get connection error messages from the Repository. To avoid this, create an empty database with a non-case-sensitive character set (such as Latin_General_CI_AS), then initialize the database with the Repository Database Maintenance utility.
- For an IBM DB2 UDB 7.x server, the machine where your DB2 instance resides must have the C++ compiler for the Stored Procedures to work correctly.
- For all versions of an IBM DB2 UDB server, to ensure optimal Repository performance, you must have a user temporary tablespace and the database must be tuned so it does not run out of memory or log space. For more information, see [Preparing to Install the Repository](#).

Planning for Repository Database Growth

Regardless of the platform, allocate at least 300 MB of space to the database and implement auto extend so that the database can accommodate increases in the size and number of models. Also, allocate 50 MB of space to the database logfile.

The table below describes the initial size of some sample Repository databases before any diagrams are added, and the approximate database sizing for sample small, medium, and large diagrams.

RDBMS	Initial Size (MB)	Small Diagram (MB)	Medium Diagram (MB)	Large Diagram (MB)
Oracle 8	6	0.5	14	64
Microsoft SQL Server 7	7.8	0.7	14.7	40.9
Sybase ASE 12	3.9	0.8	28.9	89.1
IBM DB2 UDB	3.2	0.8	14.6	50

The table below describes the characteristics of small, medium, and large sample diagrams:

Sample Diagrams	Entities	Attributes	Views	Relationships	DM1 File Size (KB)
Small	22	125	2	20	184
Medium	302	2516	32	606	2153
Large	722	10629	0	1542	6967

To ensure the Repository is installed correctly, see the following:

- [Preparing to Install the Repository.](#)
- [Installing the Repository.](#)

NOTE: If you are installing Repository 5.x, install ER/Studio 8.x or later. Previous versions of ER/Studio are not compatible with Repository 5.x.

Preparing to Install the Repository

For Microsoft SQL Server

If you are using Microsoft SQL Server and case-sensitive nomenclature, you may get connection error messages from ER/Studio Repository. To remedy this, create an empty database with a non-case-sensitive character set (such as Latin1_General_CI_AS), then initialize the database with the Repository utility. Also, ensure you are using Mixed Authentication for server security.

For IBM DB2 for LUW

If ER/Studio Repository will be stored on IBM DB2 for LUW, perform the following procedures to ensure optimal Repository performance:

- [Creating an IBM DB2 for LUW User Temporary Tablespace.](#)
- [Tuning the IBM DB2 for LUW Database.](#)

Creating an IBM DB2 for LUW User Temporary Tablespace

The DB2 UDB database must have a user temporary tablespace with at least a 4 KB page size to create the temporary tables.

TIP: Use a system-managed user temporary tablespace because when managed by the system the user temporary tablespace can grow automatically.

TIP: You can use DBArtisan to create a system managed user temporary tablespace.

Create a user temporary tablespace using the tool of your choice or you can use the following SQL:

NOTE: Before you run this script, modify the path for the container.

```
CREATE USER TEMPORARY TABLESPACE REPOTEMP
  PAGESIZE 4096
  MANAGED BY SYSTEM
  USING('D:\DB2\NODE0000\SQL00002\SQLT0004.0')
// here you specify the physical location of the table space
  EXTENTSIZE 32
  PREFETCHSIZE 16
  BUFFERPOOL IBMDEFAULTBP
  OVERHEAD 24.10
  TRANSFERRATE 0.90
;
```

Tuning the IBM DB2 for LUW Database

This procedure tunes the DB2 database so that it does not run out of memory and log space.

- 1 Increase the application heap size and application control heap size to 2048x4KB.

TIP: To increase the application heap size, right-click the database in the DB2 Control Center, and then click Configure. Then, switch to Performance and modify the values for Application Heap Size (applheapsz) and Application Control Heap Size (appctlheapsz).

- 2 Increase the log file space to 10,000x4 KB (or 40 MB).
- 3 Change the number of primary and secondary log files from 3 and 2, to 10 and 10. This provides for a total of 400 MB of primary log space, which should be sufficient for medium to large diagrams.

TIP: To increase primary and secondary log file sizes, use the Logs tab of the Database Configuration page in the IBM Control Center.

Installing the Repository

NOTE: You need an account on the DBMS server Database with administrator privileges to create a new Repository database.

- 1 Log on to Windows with local administrator privileges.
- 2 Start the **Repository 5.x** installation program.
- 3 Walk through the installation wizard.

The options are straightforward, but make sure you choose the following option:

- **Create new Repository database**

Notes

The installation adds tables, indexes, views, and stored procedures. The installer is for the most part self-explanatory. Follow the instructions onscreen. The following are notes for those parts that require additional explanation:

- **Database name:** To install a Repository server on a DBMS server that already has a Repository server installed on it, enter a unique database name for the new server. Any changes to the database name are also applied to the data and log file names.
- **Automatic Growth for Microsoft SQL Server 7.0 or later:** To allow for automatic growth of the database file, click Allow Growth, and then enter a Growth Rate. Express the growth rate as either a percentage of the current database size or the number of MB to add to the database when the database is becoming full. Select the maximum size of the file as either Unlimited or click Size, and then enter the maximum file size in MB.
- Use the **New Oracle User** dialog to create a new user and provide temporary tablespace information for the user. The dialog is self-explanatory, except for the following user identification options:
 - **Password:** If selected, indicates that Oracle should identify the user with the password provided.
 - **Externally:** If selected, indicates that Oracle should verify the database user name against an existing operating system user name.
 - **Globally:** If selected, indicates that Oracle will permit access to the user by obtaining user name and password information from the security domain central authority. This option is only available for Oracle 8.
- **Error Log Viewer:** The Error Log View appears if there is a problem creating your Repository database. If you get an error, review the Repository Database requirements to make sure you meet them. For further assistance with creating your Repository Database, contact Embarcadero Technologies Technical Support.

Connecting to the Repository

NOTE: This section applies if you have purchased or are evaluating ER/Studio Enterprise, which includes the Repository, or ER/Studio Viewer.

- 1 Start **ER/Studio** or **ER/Studio Viewer**.
- 2 From the **Main** menu, click **Repository > Repository Options**.
- 3 In the **Server Machine** field, type the host name or IP address of the Repository server machine, and then click **OK**.
- 4 Log on to the Repository as follows:

Click **Repository > Log In**, enter your user name and password, and then click **OK**.

You are now ready to use ER/Studio with the Repository. For details on using ER/Studio Repository, see the *ER/Studio Evaluation Guide* at www.embarcadero.com/products/ER/Studio/erdocs.html.

Upgrading ER/Studio Repository

Use the following checklist to ensure ER/Studio is correctly upgraded.

Upgrade Checklist		
Done	N/A	Requirements
		Download ER/Studio Enterprise Upgrade. To download the most current release, go to www.embarcadero.com/upgrade/upgrade.html

Upgrade Checklist		
Done	N/A	Requirements
		Review the ER/Studio ReadMe. For the most current installation and usage information, see the ReadMe at www.embarcadero.com/resources/release_notes/ER/Studio.html .
		Prepare to upgrade. For what to do before you upgrade to the latest version, see Preparing to Upgrade .
		Upgrade ER/Studio Repository. For ER/Studio Enterprise installations, which include the Repository. For ER/Studio Repository upgrade details, see Upgrading the Repository .

Important Notes

- If you are upgrading to Repository 5.x, upgrade your version of ER/Studio to 8.x or later. Previous versions of ER/Studio are not compatible with Repository 5.x. Ensure the build date of the Repository coincides with the build date of ER/Studio.
- You can install ER/Studio 8.x and an earlier ER/Studio version on the same workstation.
- Any *.dm1 files you use from the previous version will be copied and converted to 8.x format when you open them for the first time. You can then save the diagram with a different name or use the same name to write over the old file. Previous versions of ER/Studio will not read 8.x and higher files.
- Upgrading diagrams can be time consuming and memory intensive. The number and size of ER/Studio diagrams managed in the upgraded Repository dictates how long the upgrade process takes.
- Reference Models, supported in previous versions, are not supported in ER/Studio 7.x and later versions.

Preparing to Upgrade the Repository

- 1 Ensure you have backed up all your .dm1 files.
- 2 Check in all your diagrams and objects.

NOTE: If you try to check in a file from the previous version with the same name as a current file, the current file will become corrupted.
- 3 Rename all local copies of Repository diagrams in the active file directory as follows:

Click **Repository > Options**.
Make note of the **Active File Directory**.
Switch to the **Windows Explorer** and rename all the diagrams in the **Active File Directory**.
- 4 Ensure no one is logged into the Repository.
- 5 Backup the current Repository database.
- 6 Remove the previous version of the Repository application.

Click **Control Panel > Add Remove Programs > Repository x.x**, and then click **Remove**.
- 7 Restart the Repository host computer.

Upgrading the Repository

NOTE: This procedure is for ER/Studio Enterprise installations only, which include the Repository. When you upgrade ER/Studio you must also upgrade the Repository to correspond with the same build date as ER/Studio.

- 1 Log on to Windows with local administrator privileges.
- 2 If you have not done so already, uninstall the previous version of ER/Studio Repository.

Click **Control Panel > Add Remove Programs > Repository x.x**, and then click **Remove**. Restart the Repository host computer.

- 3 Start the **Repository** installation program and follow the prompts.

The installation program starts the following services:

- Embarcadero Repository Communication Server
- Embarcadero Repository Database Server
- Embarcadero Repository Event and Dispatch Server

- 4 On the **Run Database Wizard?** page, click **Yes**.
- 5 When the wizard locates your existing database, select **Update previous Version Database to current version**.

NOTE: If you are upgrading from a Repository version prior to 4.0, you can delete the `C:\Program Files\Embarcadero\Repository\Data` directory. This directory is not used with Repository versions 4.0 and later.

Uninstalling ER/Studio Repository

From the Windows **Add or Remove Programs Control Panel**, select **Embarcadero Repository X.X**, click **Remove**, and then follow the prompts to remove all ER/Studio Repository components.

NOTE: This does not remove the Repository database. The database administrator must remove the Repository database.

ER/Studio Enterprise Portal

This browser-based solution allows you to share, browse, and report on the metadata contained in ER/Studio Repository for improved data and metadata management practices.

Installing the ER/Studio Enterprise Portal

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

Technical Requirements

The Enterprise Portal is a 32-bit application that runs in a Microsoft Windows environment. Before installing the Enterprise 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

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 and 10g
- IBM DB2 UDB 8.x and 9.x Server

NOTE: 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 and 2005

Operating System Requirements

The Enterprise Portal supports the following operating system requirements:

- Microsoft Windows 2003 Server (32-bit only)

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, use an unused port between 0 and 65535. For more details, see the [Installation Wizard - Host and Port for the Enterprise Portal Tomcat Server](#) topic.

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 the Enterprise Portal

The Enterprise Portal wizard-based installer guides you quickly through the installation process. This section describes installation prerequisites and the Installation Wizard. It also covers some 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 the Enterprise Portal, along with other third-party software that it is dependent upon, such as Pentaho BI Platform and Apache Tomcat.

In this installation you are setting up access to the ER/Studio Repository and the Reporting and Solution 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 Enterprise Repository server and the database servers to be used for the reporting and solution repositories must be running before installing the Enterprise Portal.

- 3 Double-click **setupwin32.exe** and the InstallShield Wizard dialog is displayed.
- 4 Click **Next** to open 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: You cannot install the portal on a system where you have installed ER/Studio or where you have previously installed the portal. If the portal installer detects an installation of ER/Studio Enterprise Portal or ER/Studio, 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 Panel.

Installation Wizard - Directory

Choose the destination directory where you want to install the Enterprise 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 the Enterprise Portal Tomcat Server

On this page you must specify the following:

- **Host:** The value in the Host field must be the host name of the server that will run the Portal application; such as `DEWKROW01`; or the fully qualified network name, such as `DEWKROW01.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.

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 `ldap://10.40.40.94:389`.

- **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=ER STUDIO,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=ER STUDIO,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 the Enterprise 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 or 5.0.
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"> • Oracle • IBM DB2 Universal Database • Microsoft SQL Server
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.
User Name	Enter the user name for the ER/Studio Repository database.
Password	Enter the password for the ER/Studio Repository database. Note: 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"> • Oracle • IBM DB2 Universal Database • Microsoft SQL Server Note: The DBMS server type must match that of the ER/Studio Enterprise 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>HostNameNamedInstanceName</code>, such as <code>DEWKBOW01.embarcadero.com\ReportingRepository</code>.</i>
The information requested depends on the server type selected: Database Name (if MSSQL is selected) SID (if Oracles is selected) DBName (if IBM DB2 is selected)	This information is supplied by the DB Administrator. <ul style="list-style-type: none"> • <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. • <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.
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 Same as Admin is not checked (default setting), you need to enter a User Name and Password for read/write access to the reporting database and click Next . If the Same as Admin 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 the Enterprise Portal's Reporting Repository.
Password (This is only available for the MSSQL database.)	Enter the Password necessary to access the Enterprise 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>Note: If the server type is MSSQL, the database is created by the installer. If the server type is Oracle or DB2, the Reporting Repository is the Database Administrator’s responsibility.</p> <p>The portal installer is now ready to insert the Reporting Repository tables. 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 the Enterprise Portal.</p> <p>Note: If you are upgrading your Enterprise 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>Caution: 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"> • Oracle • IBM DB2 Universal Database • Microsoft SQL Server <p>Note: The DBMS server type must match that of the ER/Studio Enterprise Repository.</p>
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</i> , if the Solution Repository will run on a SQL Server database that is a named instance, specify the host name in the format of <i>HostName\NamedInstanceName</i> , such as <i>DEWKBOW01.embarcadero.com\SolutionRepository</i> .
Information requested here depends on the server type selected: Database Name (if MSSQL is selected) SID (if Oracles is selected) DBName (if IBM DB2 is selected)	This information is supplied by the DB Administrator. <ul style="list-style-type: none"> • <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. • 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.
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 Enterprise Portal Solution repository.
Password (This is only available for the MSSQL database.)	Enter the Password necessary to access the Enterprise 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>Note: If the server type is MSSQL, the database is created by the installer. If the server type is Oracle or DB2, the Solution Repository is the Database Administrator’s responsibility.</p> <p>The portal installer is ready to insert the Solution Repository tables. With 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 the Enterprise Portal.</p> <p>Note: If you are upgrading your Enterprise 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>Caution: 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 Enterprise 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: 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\ERStudioEnterprisePortalX.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 the *User Guide*.

Starting the Enterprise Portal Application

Once the installation is complete, open a supported Web browser (see [Client System Requirements](#)) 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 the Enterprise 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 Enterprise 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.

Upgrading ER/Studio Enterprise Portal

When a new version of ER/Studio Enterprise Portal becomes available, you should upgrade to take advantage of the latest features and fixes. Also, when the ER/Studio Repository software is upgraded, you must upgrade the Portal. The Repository and Portal software releases are synchronized to ensure Portal users can take advantage of any Repository updates.

Upgrading the Portal requires a reinstallation of the Portal application. Follow the installation instructions in the previous section to accomplish this but keep in mind that re-initializing the reporting and solution databases is the cleanest way to do an upgrade because it drops and recreates the repository schema, along with any associated (obsolete) data. Using this option means that data in the reporting or solution repository does not need to be migrated when the schema has changed (as was the case between 1.0 and 1.0.1 and will also be the case between 1.0.2 and 1.1). However, choosing to re-initialize for the solution repository means that any permissions that have been assigned within the portal, such as permission to perform actions and access reports, will be lost. So, if you want to keep these, choose the option to connect to an existing repository. Similarly, if you choose to reinitialize the reporting repository, you will lose all reporting data, which means a complete resynchronization with the ER/Studio Repository will need to be done. If you choose to connect to existing solution and reporting repositories, the solution repository and search index must be updated from the Portal Admin page by running the Update Solution Repository and Update Search Index operations.

Once the Portal application is upgraded, you must resynchronize the Portal with the Repository if you are also upgrading the ER/Studio Repository. ER/Studio upgrades usually require the diagrams to be updated to the latest version. Once the Repository diagrams have been updated, you must synchronize the Portal Repository to ensure that it is up to date. For information on synchronizing the Portal with the Repository, see the “Administrative Tasks” section of the *User Guide*.

Notes

For 1.0.1 to 1.1 Upgrades: If you are upgrading from 1.0.1 to 1.1 and have chosen to connect to an existing reporting repository, some diagrams may be resynchronized during the next Synchronization (ETL) process even if they have not changed in the ER/Studio Repository.

For DB2 Users: If you are upgrading to 1.1 and have chosen to connect to an existing DB2 reporting repository, the database administrator must execute the following commands on the database server before you can synchronize the reporting database or run reports on it:

```
REORG TABLE [REPORT_DB_OWNER]. AUDIT_DIAGRAM;
REORG TABLE [REPORT_DB_OWNER]. ATTRIBUTE;
REORG TABLE [REPORT_DB_OWNER]. DOMAIN;
REORG TABLE [REPORT_DB_OWNER]. SUBMODEL;
```

Licensing ER/Studio Enterprise Portal

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

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

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 licences need to be purchased. The Activity Dashboard shows information on both Login and Connection activity that can help you determine whether new licenses need to be purchased.

Managing Licenses

The elements of the License Administration page are explained below:

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

Home | Explore | Reports | Activity | Admin

Search: [Advanced](#)

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

Use this page to manage your ER/Studio Enterprise Portal licenses

License Add-on Status: 1 base administrator session, 50 concurrent user sessions, 50 exclusive user sessions

Serial No.	Days Left	Connections	Connection Type
F2AK-N2DAND-AKNGCG-D2KW	UNLIMITED	50	Concurrent
KRNK-AEANDA-A3NGAG-DB9W	UNLIMITED	50	Exclusive

Actions

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

Current User Sessions: 3 concurrent and 0 exclusive

#	User Name	Remote Host	Remote IP	Logged In Since	Inactive For (mm:ss)	Connection Type	Action
1	user1	towwyyang01.embarcadero.com	10.40.30.173	Thu Mar 19 14:38:35 EDT 2009	29:26	Concurrent	Disconnect
2	user1	towwyyang01.embarcadero.com	10.40.30.173	Thu Mar 19 14:39:59 EDT 2009	28:03	Concurrent	Disconnect
3	Admin	toljfinney01.embarcadero.com	10.40.16.146	Thu Mar 19 15:07:52 EDT 2009	00:00	Concurrent	

- 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.
- Lists all registered and activated license add-ons.
- There are three Actions links:
 - Refresh:** Updates the licensing module by rereading the license file from the disk.
 - Register Add-on License:** Opens the registration page and populates the registration code with a unique number that identifies the machine on which the portal is installed and is generated by the licensing module.
 - 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 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 **License Admin**.
- 3 Under Actions, click **Register add-on license** and a **Product Registration** page appears.
- 4 Enter the serial number that you received from Key@embarcadero.com and click **Next**.

NOTE: You 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\ERStudioEnterprisePortalX.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\ERStudioEnterprisePortalX.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.



Use this page to manage your ER/Studio Enterprise Portal licenses

License Add-on Status: 1 base administrator session, 50 concurrent user sessions, 50 exclusive user sessions

Serial No.	Days Left	Connections	Connection Type
F2AK-N2DAMD-AKNGCG-D2KW	UNLIMITED	50	Concurrent
KRNK-AEANDA-A3NGAG-DB9W	UNLIMITED	50	Exclusive

Actions

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

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 30 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.

Recommended Next Steps

Once the Enterprise Portal is licensed, the next step is to synchronize the reporting repository. The first time you synchronize the reporting database, it is recommend that you execute it manually via the *Execute Synchronization Process* action on the Synchronization Admin page. 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 Guide” in the *User Guide*.

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 Administrator’s Guide located in 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 Administrator’s Guide located in the online help.

Uninstalling the ER/Studio Enterprise Portal

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

- 1 Select **Start > Programs > ERStudioEnterprisePortalX.X > Uninstall Enterprise 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 Enterprise 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 the Enterprise 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.

Metawizard

Integrate metadata across modeling tools, business intelligence, ETL platforms and industry-standard exchange formats (XMI, XML and XSD). This tool enables ER/Studio to integrate with more than seventy other applications by sharing metadata through an import-export capability. The Metawizard is installed in both the standard and enterprise editions of ER/Studio but is not automatically activated. Once you have licensed the Metawizard, it will be activated.

To purchase ER/Studio Metawizard, contact Embarcadero Sales:

Embarcadero Sales Contact Information		
Region	Telephone	E-mail
North America, Latin America and Asia Pacific	415.834.3131 ext. 3	sales@embarcadero.com
Europe, Africa, and the Middle East	+44 (0) 1628 684400	uk.sales@embarcadero.com

Schema Examiner

Embarcadero Schema Examiner automatically reviews and finds design errors in a database schema. Detailed reporting and graphical documentation then simplify the process of pinpointing and reviewing these problems.

- Simplifies the process of testing and validating database schema
- Reverse-engineer existing schema
- Detailed diagnostic reports increase productivity
- Recommends changes and automatically generates scripts to fix problems

Schema Examiner recommends changes to database schema and can automatically generate scripts to fix problems. This efficient and consistent approach to improving database design helps avoid costly data errors and performance problems.

Maximize the quality and efficiency of database designs.

Schema Examiner can examine database designs by directly interfacing with Embarcadero ER/Studio. Schema Examiner can also reverse-engineer the schema of existing databases or read SQL scripts directly. Design changes can be simulated before implementation to reduce risk and allow users to check and validate design alterations as a result of maintenance or new inclusions to the database structure. Schema Examiner will also identify violations of best practices that are adversely affecting performance, with suggested changes scripted for easy implementation.

Comprehensive Diagnostics and Reporting

Schema Examiner provides detailed diagnostic reports that increase productivity by accelerating the review process. The innovative "Show Me" facility isolates specific design issues in database models, eliminating the task of finding the problem in large and complex models. There are over fifty issues that Schema Examiner can identify and isolate, such as missing relationships, disabled triggers, missing indexes, incorrectly defined relationships, or inconsistent definitions.

Installing Schema Examiner

See www.embarcadero.com/products/schema_examiner/index.php for a free trial version of Schema Examiner. Installation details are described in the Install Guide which you can download from www.embarcadero.com/products/schema_examiner/documentation_and_manuals.php.

Universal Data Models

Universal data models are standard and Industry-specific data model templates for ER/Studio that reduce the development time of database-related projects by an average of 60 percent, as well as improve the quality of existing and new data models. The Universal Data Models are .dm1 files that you can copy to a storage device and are accessed the same as any other .dm1 file. They do not need to be installed or uninstalled, just copied and deleted.

ER/Studio Viewer

You can use ER/Studio Viewer to view, navigate, and print ER/Studio models in a view-only environment. ER/Studio Viewer features the same sophisticated and advanced viewing, navigation, and printing functionality that ER/Studio provides.

This section is comprised of the following topics:

- [Installing ER/Studio Viewer](#)
- [Upgrading ER/Studio Viewer](#)
- [Uninstalling ER/Studio Viewer](#)

Installing ER/Studio Viewer

Use the following checklist to ensure ER/Studio Viewer is correctly installed and configured.

Done	N/A	Requirements
		Download ER/Studio Viewer You can download a 14-day trial version of ER/Studio Viewer, which you can license later, from www.embarcadero.com/downloads/download.html
		Review ER/Studio Viewer ReadMe For the most current installation and usage information, see the ReadMe at www.embarcadero.com/resources/release_notes/ER/Studio.html .
		Ensure System Compatibility For system requirements, see System Requirements .
		Install ER/Studio Viewer For installation details, see Installing ER/Studio .
		Run and Test ER/Studio For step-by-step instructions on how to use ER/Studio, see the <i>ER/Studio Evaluation Guide</i> at www.embarcadero.com/products/ER/Studio/erdocs.html .

System Requirements

Review the requirements before you install ER/Studio. Adhering to these requirements optimizes ER/Studio performance.

ER/Studio Requirements	
Hardware	
Processor	Pentium III, 600 MHz or higher
RAM	1 GB
Disk Space	340 MB
	175 MB in the System TEMP directory for temporary file storage during installation

ER/Studio Requirements	
Operating System	Any of the following: <ul style="list-style-type: none"> • Windows 2003 Server • Windows XP • Windows 2000 • Windows 98 • Windows NT
Software	To use an Open Data Base Connectivity (ODBC) database as a data source, install the ODBC driver on your client computer. To connect to the DBMS using native connectivity, install the native client libraries available from the DBMS vendor.
Privileges	Local Administrator Privileges (required for installation only)

Installing ER/Studio Viewer

- 1 Log on to Windows with local administrator privileges.
- 2 Double-click **setup.exe** inside the ER/Studio installation folder.
- 3 Walk through the installation wizard.

The options are straightforward, but make sure you choose the following:

- **Do not select a Repository Server.**

If you have a Repository Server, follow the instructions in [Connecting to the Repository](#).

NOTE: Before the 14-day trial period expires, purchase ER/Studio Viewer. For details, see [Purchasing ER/Studio Viewer](#)

Purchasing ER/Studio Viewer

NOTE: Trial versions of ER/Studio Viewer include a 14-day license. Purchase a license at the end of the trial to continue using the product.

To purchase ER/Studio Viewer, contact Embarcadero Sales:

Embarcadero Sales Contact Information		
Region	Telephone	E-mail
North America, Latin America and Asia Pacific	415.834.3131 ext. 3	sales@embarcadero.com
Europe, Africa, and the Middle East	+44 (0) 1628 684400	uk.sales@embarcadero.com

Upgrading ER/Studio Viewer

Use the following checklist to ensure ER/Studio Viewer is correctly upgraded.

Upgrade Checklist		
Done	N/A	Requirements
		Download ER/Studio Viewer Upgrade To download the most current release, go to www.embarcadero.com/upgrade/upgrade.html
		Review ER/Studio Viewer ReadMe For the most current installation and usage information, see the ReadMe at www.embarcadero.com/resources/release_notes/ER/Studio.html .
		Prepare to Upgrade For what to do before you upgrade to the latest version, see Preparing to Upgrade .
		Upgrade ER/Studio For ER/Studio Viewer upgrade details, see Upgrading ER/Studio .

Upgrading ER/Studio Viewer

- 1 Log on to Windows with local administrator privileges.
- 2 Start the **ER/Studio Viewer Upgrade** installation program.
- 3 Walk through the installation wizard.

The options are straightforward, but make sure you choose the following:

- **Do not select a Repository Server.**

If you have a Repository Server, to configure and connect to the Repository, see [Connecting to the Repository](#).

Uninstalling ER/Studio Viewer

If you no longer need it, uninstall the previous version of ER/Studio Viewer.

From the ER/Studio program group, click **Uninstall ERStudio Viewer**, and then follow the prompts to uninstall all ER/Studio Viewer components.