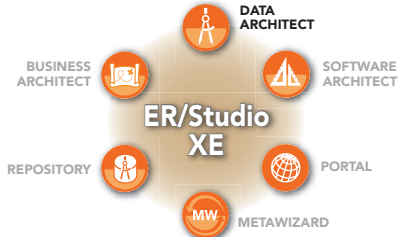


# ER/Studio® Data Architect

Enterprise data modeling

**embarcadero®**



Embarcadero® ER/Studio® Data Architect is a industry-leading data modeling tool that helps companies discover, document, and re-use data assets. With round-trip database support, data architects have the power to easily reverse-engineer, analyze, and optimize existing databases. Productivity gains and enforcement of organizational standards can be achieved with ER/Studio's strong collaboration capabilities.

- Document and enhance existing databases
- Improve data consistency
- Effectively communicate models across the enterprise
- Trace data origins and whereabouts to enhance data integration and accuracy
- Model more than your data

## DOCUMENT AND ENHANCE EXISTING DATABASES

ER/Studio provides an easy-to-use visual interface to document, understand, and publish information about existing databases so that they can be better harnessed to support business objectives. Powerful reverse engineering of industry-leading database systems allow a data modeler to compare and consolidate common data structures without creating unnecessary duplication. Using industry standard notations, data modelers can create an information hub by importing, analyzing, and repurposing metadata from data sources such as business intelligence applications, ETL environments, XML documents, and other modeling solutions.

## IMPROVE DATA CONSISTENCY

Knowledge workers can spend significant amounts of time looking through data sources, researching what information means, and find that it is not being used appropriately. ER/Studio helps data architects define and reuse common data elements and modeling components across projects to establish standards in their modeling practices. By enforcing standards, and being able to analyze and document data elements, corporations can better understand and utilize their data and reduce redundancy.

## EFFECTIVELY COMMUNICATE MODELS ACROSS THE ENTERPRISE

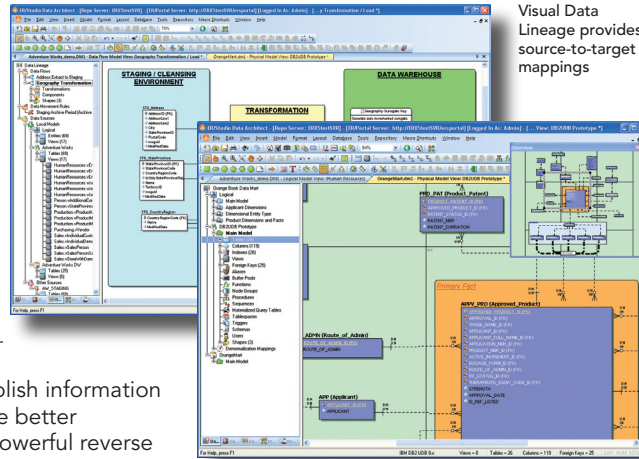
ER/Studio brings clarity to models and to complex business rule enforcement. The multilevel design layers allow for the accurate visualization of data, which promotes communication between business and technical users. Streamlined navigational aids, diagram layout utilities, and powerful report publishing functions simplify the communication of designs within and beyond the data modeling group. ER/Studio makes it easier to understand and communicate the current state of data throughout the enterprise, maintain corporate standards, and encourage appropriate data usage. Bringing all metadata into a central repository helps the transfer of knowledge among stakeholders, and allows users to easily see relationships and business rules that relate to their data.

## TRACE DATA ORIGINS AND WHEREABOUTS TO ENHANCE DATA INTEGRATION AND ACCURACY

With a clear understanding of where data originated and where it is used, organizations can be assured that they know what their data actually means and how it can best be utilized. The ER/Studio visual data lineage functionality provides data professionals with the ability to document how data flows through the organization. Attachments also allow organizations to append specific information to their models, thus enhancing documentation.

## MODEL MORE THAN YOUR DATA

Modeling isn't just for data and databases. Modeling provides a picture of relationships that can be easily understood, used for impact analysis, and helps make your organization more efficient. With ER/Studio you can use modeling to produce XML schemas to ensure the benefits of modeling are applied to applications and projects such as Service Oriented Architecture (SOA).



Visual Data Lineage provides source-to-target mappings

An easy-to-use user interface to document, design, and communicate data assets

## Design & Modeling Products

### ER/Studio XE

Complete modeling and architecture solution combining data, process and UML modeling into a powerful multi-level design environment

### ER/Studio Data Architect

Data modeling tool for analyzing, designing, creating, and maintaining database applications

### ER/Studio® Portal

Centralize self-service web portal for searching and reporting metadata contained in the ER/Studio Repository

### ER/Studio® Repository

Server-side model management system for collaborative team modeling

### ER/Studio® Business Architect

Business modeling tool for connecting process and data

### ER/Studio® Software Architect

Object-oriented modeling tool to visually analyze, design and implement complex application and data structures

### ER/Studio® MetaWizard

Integrate metadata across modeling tools, business intelligence, ETL platforms and industry-standard exchange formats (XMI, XML and XSD)

### ER/Studio® Viewer

View, navigate and print ER/Studio models in a view-only environment

### ER/Studio® Universal Data Models

Industry data model templates for ER/Studio that reduce development time and facilitate standardization

### Embarcadero® Schema Examiner

Automate error-checking and corrections for database schema to quickly and easily improve data quality and system performance

## Select Features

## Highly Productive Model-driven Design Environment

Advanced Graphics and Layout	Automatically creates highly readable, highly navigable diagrams
Multilevel Design Capabilities	Allows many physical designs from a core logical architecture
Automated and Custom Transformation	Streamlines the derivation of a physical design from a logical one and checks for normalization and compliance with the target database platform. Custom data type mapping and naming standards templates further streamlines this process
Denormalization Mapping	Allows physical database designers to optimize a physical design while maintaining ties to the logical artifacts
Extensible Automation Interface	Automates tedious, routine tasks such as coloring tables, enforcing and applying naming standards, globally updating storage parameters and integrating with other desktop applications such as Microsoft® Excel®, Word, or Access
Undo/Redo	Reverses the most recent sequence of operations in chronological order
Bi-Directional Object Commenting	Add workflow comments to model objects for documentation needs or for communicating ideas when collaborating on models. Comments are shared and accessed in both the Portal and the ER/Studio client
Multiple Presentation Formats	Publishes models and reports in a variety of formats including HTML, RTF, XML Schema, PNG, JPEG, DTD Output, and ER/Studio Viewer
Business Intelligence Portal	Online BI portal allowing organizations to query, analyze, browse, report and share information contained in the ER/Studio Repository. ER/Studio Portal is available in ER/Studio Enterprise

## Complete Database Lifecycle Support

Forward-engineering	Generates source code for some database designs
Reverse-engineering	Constructs a graphical model from an existing database or schema
Database Modification	Allows design changes made to the data model to be applied directly to a database by formulating intelligent alteration code

## Enterprise Model Management

Advanced Compare and Merge	Enables advanced, bi-directional comparisons and merges of model and database structures such as logical-to-physical, physical-to-physical, physical-to-database, etc.
Submodel Management	Allows creation of multileveled submodels, merging of submodel properties across existing models, and synchronization submodel hierarchies across disparate models
Metadata Integration	Imports and exports metadata from a variety of sources including BI platforms, UML and data modeling solutions, XML schemas, and CWM (common warehouse metamodel) to create a metadata hub
Data Dictionary Standardization, Enforcement and Reuse	Helps define and enforce standard data elements, naming standards, reference values and many other objects across any project. Facilitates impact analysis and support of standards across multiple models with domain inheritance, reusable objects, and automatic updates.
“Where Used” Analysis with User-defined Mapping	Displays the mappings between logical entities and attributes and their implementation across physical designs. Allows data architects to customize the mapping of logical and physical artifacts for informational purposes.
XML Schema Generation	Ensure XML projects such as those using Service Oriented Architecture (SOA) are based on the same standards and metadata as your data models by modeling them in ER/Studio and generating XSD from either the physical or logical model.
Repository for Team-centric Collaborative Modeling	Provides organizations using ER/Studio with a scalable, server-side, model management system that includes model and object version management, security management, and the ability to branch and merge models. ER/Studio Repository is available in the Enterprise edition.

## Data Warehouse and Integration Support

Visual Data Lineage	Visually documents source/target mapping and sourcing rules for data movement across systems
Dimensional Modeling	Leverages complex star and snowflake schema designs and supports the importation of its rich dimensional metadata from a variety of BI and data warehouse platforms

## Quality Database Design

Model Completion Validation	Automates model reviews and enforces standards with more than 50 checks to validate logical and physical models for missing object definitions, unused domains, identical unique indexes, and circular relationships
Automatic Migration of Foreign Keys	Maintains foreign keys to ensure referential integrity in designs
Capacity Planning	Manages row count and growth rates for tables and can calculate future storage requirements and forecasts future needs

## Security Design and Assessment

Data Classification	Categorizes and labels data and objects according the level of security and privacy that should be applied to that information
Permission Management	Enables users, roles, and permissions modeling at the logical and physical level

## DBMS Support

- Hitachi® HiRDB
- IBM® DB2®: 5.x, 6.x, 7.x, 8.x, 9.x for LUW; 5.x, 6.x, 7.x, 8.x, 9.x for z/OS®; and iSeries V4R5 and V5R2
- Informix® OnLine and SE
- Informix 9.x dynamic server
- InterBase® 4, 2007, 2009
- Microsoft® Access 2.0, 95, 97, 2000
- Microsoft SQL Server 7, 2000, 2005, 2008
- Microsoft Visual FoxPro® 3, 4, 5
- Netezza 4.6, 5.0
- MySQL® 3.x, 4.x, 5.x
- NCR® Teradata® V2R4, V2R5, V2R6, 12.0
- Oracle® 7.3.x, 8.x, 9i, 10g, 11g
- PostgreSQL 8.x
- Sybase® Adaptive Server® Enterprise (ASE) 11.9.2, 12.x, 12.5, 15.0
- Sybase Adaptive Server Anywhere (ASA) 5, 6, 7, 8, 9, 10
- Sybase IQ 12.5
- Sybase Watcom SQL

## System Requirements

## Client System Requirements:

- 100 MB of hard disk storage
- 1 GB of RAM minimum, 2 GB of RAM recommended
- Pentium III, 600 MHz or higher
- 1024x768 display resolution recommended
- Windows 2000 Pro Server, Windows XP Professional, Windows 2003 (32-bit mode), Windows Vista, Windows Server 2008, Windows 7 (32-bit and 64-bit)
- Native Connections: Oracle, DB2 UDB (LUW, iSeries, and z/OS), SQL Server, and Sybase client libraries required
- ODBC Connections: For databases ER/Studio supports via ODBC, a valid ODBC driver is required

Download a Free Trial at [www.embarcadero.com](http://www.embarcadero.com)

Corporate Headquarters | Embarcadero Technologies | 100 California Street, 12th Floor | San Francisco, CA 94111 | [www.embarcadero.com](http://www.embarcadero.com) | [sales@embarcadero.com](mailto:sales@embarcadero.com)