

# CA ERwin Data Modeler r7.3

CA ERWIN® DATA MODELER (CA ERWIN DM) IS AN INDUSTRY-LEADING DATA MODELING SOLUTION THAT ENABLES YOU TO CREATE AND MAINTAIN DATABASES, DATA WAREHOUSES (DWS) AND ENTERPRISE DATA MODELS — HELPING YOU BETTER MODERATE DATA COMPLEXITIES, EFFECTIVELY MANAGE DATABASE TECHNOLOGIES AND PROPERLY ALIGN YOUR INFORMATION INFRASTRUCTURE WITH THE BUSINESS IT SUPPORTS.

## Overview

Maintaining a competitive stance in today's information-driven economy requires quick, well-planned decisions that are bolstered by accurate data. To this end, organizations must develop high-performance business applications that transform data into a strategic asset. And to do so, they need to leverage a solid database foundation that enables agility while controlling the total cost of ownership (TCO) over the lifecycle of all data assets.

## Benefits

CA ERwin DM provides the data models that help improve the quality of business information, as well as the efficiency with which it is delivered. In this way, CA ERwin DM aligns business rules and requirements with technical database implementation, ensuring that your business needs are met and your data is designed and structured in an efficient manner. Moreover, CA ERwin DM assists in the creation of standards that improve quality and consistency, while reducing costs.

## The CA Advantage

CA ERwin DM combines years of data modeling and development experience into a best-of-breed product with a flexible, open architecture that allows you to integrate the information from your data model with a variety of tools and applications — making your data model the center of your information architecture. And as a core component of CA's ERwin Modeling family, CA ERwin DM becomes a key piece of the CA Database Management (CA DBM) solution, which enhances and simplifies information management.

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## CA ERwin DM Enables Critical Data Management Processes

CA ERwin DM allows you to visualize your organization's complex data structures, create a comprehensive inventory of information assets and establish enterprise-wide data management standards. To this end, CA ERwin DM helps you design, generate and manage your organization's transactional systems, data marts and DWs — as well as the business rules and definitions supporting them. Whether for a business intelligence (BI) application, a master data management (MDM) project or an enterprise-wide modeling initiative, CA ERwin provides tools and functionality to support the architectural foundation of your information management needs.

Through an easy-to-use graphical interface that simplifies database design and automates many time-consuming tasks, CA ERwin DM accelerates the creation of high-quality, high-performance transactional databases and DWs. What's more, this cost-efficient product assists data modelers in visualizing requirements, promotes effective communication between data management teams and stakeholders and enables database developers to address design issues and concerns prior to any significant resource investments. What's more, CA ERwin DM highlights the impact of modifying information assets and allows you to quickly review and implement changes — helping your organization respond faster to evolving business needs.

### Key Features of CA ERwin DM

CA ERwin DM includes a host of features that work in concert to deliver a robust, comprehensive data modeling tool that can easily support database, DW and enterprise data model creation and maintenance.

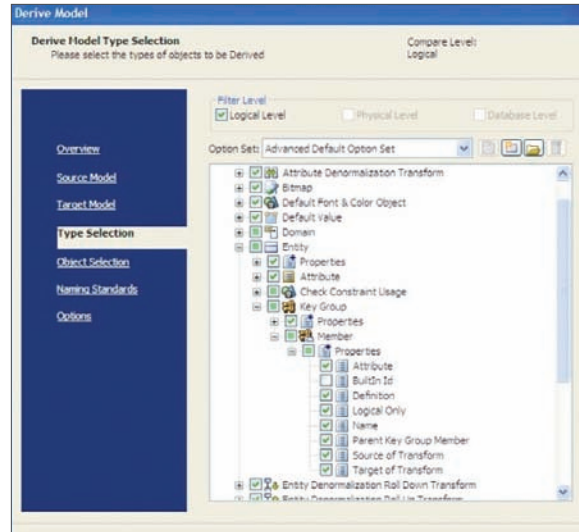
#### DESIGN LAYER ARCHITECTURE

CA ERwin DM aligns data models with business requirements at the logical level and with the database design at the physical level through support for separate logical and physical models and the traditional, combined logical-physical model. In addition, CA ERwin DM maintains a record of relationships and design decisions, allowing you to quickly resolve the impact of changes from one design layer to the next.

## FIGURE A

With CA ERwin DM, you can create separate logical and physical data models, as well as new models based on existing structures.

## DESIGN LAYER ARCHITECTURE



## STANDARDS DEFINITION

CA ERwin DM supports the definition and maintenance of standards through its domain dictionary, naming standards editor and data type standards editor. The domain dictionary contains reusable model attributes that help ensure consistent naming and definition conventions across your organization. The naming standards editor enables you to create a glossary of valid words, abbreviations and rules for use within the model. And the data type standards editor helps you define the standards for mapping both user-defined and default data types to specific database management system data types.

## LARGE MODEL MANAGEMENT

With its subject areas and stored displays functionality, CA ERwin DM simplifies the process of managing the vast number of data model objects common in large enterprises. Subject areas divide the model into smaller, more manageable subsets, providing a focused view for individual modelers. Stored displays offer multiple graphical views of the model or its subject areas, facilitating information exchange between and among specialized user groups.

## COMPLETE COMPARE

This powerful feature automates the bidirectional synchronization of models, scripts and databases. It compares items, displays their differences and allows you to select which differences are moved and in which direction. In addition, should model changes be moved to a database, CA ERwin DM can automatically generate a database ALTER script.

## DATABASE DESIGN GENERATION

Optimized referential integrity-trigger templates and a rich cross-database macro language provide triggers and stored procedures you can tailor to your business needs. In addition, customizable templates facilitate the generation of a model's complete physical design and definitions — as appropriate for the target database.

## DATA WAREHOUSE AND DATA MART DESIGN

CA ERwin DM supports data warehousing-specific modeling techniques — including star schema and snowflake dimensional modeling — optimizing the DW and data mart to your organization's specific performance and analysis needs. It also captures and documents a rich set of information about the warehouse, including data sources, transformation logic and data management rules.

## TRANSFORM TECHNOLOGY

Physical database designs rarely match the original logical data design because business considerations and performance requirements often dictate the need to de-normalize tables. To help, CA ERwin DM's transform technology facilitates the implementation of these changes while maintaining the integrity of the original design.

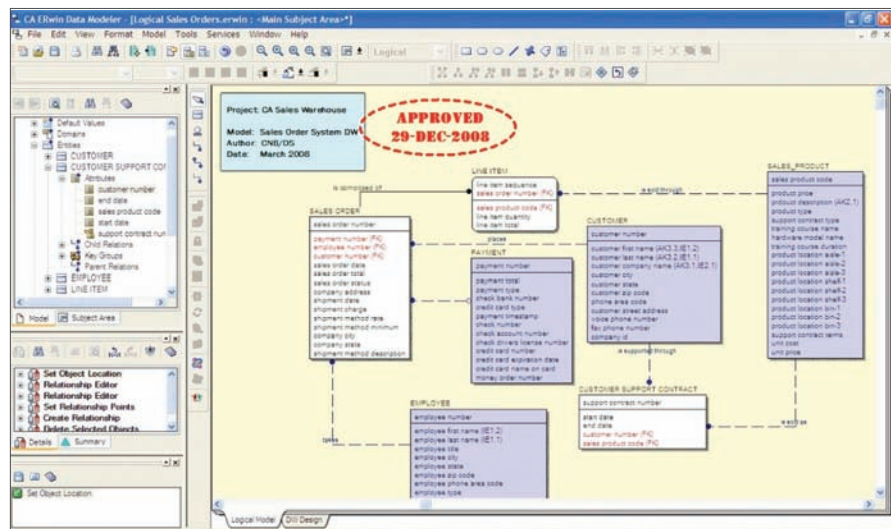
## REPORTING AND PUBLICATION

To promote better communication and collaboration, CA ERwin DM provides flexible, customizable reporting and printing capabilities that generate in a variety of formats, including hypertext markup language (HTML), portable document format (PDF), rich text format (RTF) and text files (.TXT). In addition, integration with Business Objects Crystal Reports provides greater reporting flexibility by allowing you to use the open database connectivity (ODBC) option to develop customized reports.

FIGURE B

Drawing objects improve model readability and aid in communicating business rules and constructs across the enterprise.

DATA MODEL AND DATABASE DESIGN VISUALIZATION



## CUSTOMIZATION

CA ERwin DM provides forward-engineering templates that help you tailor the generation of the data definition language (DDL) to your business needs.

### OPEN AND INTEGRATED ARCHITECTURE

Through the use of third-party metadata integrations and our robust application program interface (API), the value of CA ERwin DM can be extended across your enterprise.

Specific functionality includes:

- Metadata integration and exchange
- API and add-in manager

**METADATA INTEGRATION AND EXCHANGE** Provides wizard-guided import and export capabilities for an out-of-the-box exchange of model metadata between more than 70 industry-standard modeling, design and metadata management formats, including the Unified Modeling Language (UML), Common Warehouse Metamodel (CWM), Extensible Markup Language (XML), Extract, Transform, Load (ETL), Enterprise Information Integration (EII), BI tools and various metadata repository solutions.

**API AND ADD-IN MANAGER** Allows you to work with additional third-party software applications to perform specific tasks that fall outside the boundaries and offerings included in CA ERwin Modeling family.

### EXTENSIVE PRODUCT FAMILY COMPANION TOOLS

The CA ERwin Modeling family offers a wide range of complementary tools that allow you to leverage the information in your data models in other programs and initiatives, and increase the quality of both your data and your database design. These products include:

- CA ERwin Model Manager (CA ERwin MM)
- CA ERwin Data Profiler (CA ERwin DP)
- CA ERwin Data Model Validator (CA ERwin DMV)
- CA ERwin Process Modeler (CA ERwin PM)
- CA ERwin Saphir<sup>1</sup> Option
- CA ERwin Model Navigator (CA ERwin MN)

**CA ERWIN MM** Enables you to manage multi-user collaboration and model and metadata management.

**CA ERWIN DP** Performs data profiling, cross-system analysis and primary/foreign key discovery with metadata export to CA ERwin DM.

**CA ERWIN DMV** Checks the structural integrity of data models and validates them against the rules of relational theory.

**CA ERWIN PM** Documents key business processes and visualizes the impact and relationship of these processes with data objects modeled in CA ERwin DM.

**CA ERWIN SAPHIR OPTION** Extracts and stores detailed metadata from enterprise resource planning (ERP) applications — including SAP R/3, SAP BW, Oracle PeopleSoft Enterprise, Oracle JD Edwards Enterprise One, Oracle Siebel and Oracle eBusiness Suite — and translates the often-confusing naming conventions common in these systems into more user-friendly values.

**CA ERWIN MN** Provides read-only model access to a variety of business and technical users.

### What's New in CA ERwin DM r7.3

CA ERwin DM r7.3, the latest iteration of CA ERwin DM, includes a host of new features and functionality designed to help you further enhance your data management capabilities. Notable capabilities include:

- Enhanced database currency and support
- Enhanced metadata exchange
- Flexible reporting capability
- SQL query tool
- Customizable forward-engineering templates
- Microsoft Visual Studio Team System Database Edition 2008 (VSTS DB Edition) integration
- Complete compare improvements

#### ENHANCED DATABASE CURRENCY AND SUPPORT

CA ERwin DM now delivers enhanced out-of-the-box relational support for Teradata v2.6 and v12, DB2 z/os v9, Oracle 11.x, as well as new support for SQL Server 2008. In addition, database currency and support encompasses forward engineering (FE), reverse engineering (RE), complete compare (CC) and user interface (UI) improvements.

#### ENHANCED METADATA EXCHANGE

CA ERwin DM r7.3 provides improved bidirectional metadata exchange via support for the following new interfaces:

- Cognos ReportNet QueryStudio
- Oracle Business Intelligence Answers
- Oracle Business Intelligence Enterprise Edition
- Oracle Business Intelligence Server
- Oracle Warehouse Builder
- SAP MDM Hub
- Sypherlink Harvester

#### FLEXIBLE REPORTING CAPABILITY

CA ERwin DM r7.3 offers a new ODBC-based reporting feature, coupled with Crystal Reports 2008, that provides a simple mechanism to produce pre-defined and ad-hoc reports that can filter, format, select, manage and publish specific metadata information — from any model in your environment.

#### SQL QUERY TOOL

The new SQL query tool improves the effectiveness of modeling activities by empowering users to query database and catalog information, quickly browse model metadata and validate reporting syntax — without the need to learn and use a different product for each task. In addition, all queries can be saved, shared and reused between and among modelers, models and program features.

### CUSTOMIZABLE FORWARD-ENGINEERING TEMPLATES

CA ERwin DM allows you to modify the way your DDL is created through the inclusion of powerful, easy-to-use templates. CA ERwin DM now offers an integrated FE template editor and macro scripting language (TLX) that enables you to create, view and modify the non-compiled database template files used in the development of customized FE and ALTER schema generation scripts. In addition, the FE template editor includes a wide range of options for controlling the schema generation, enabling you to review and print database-specific features of default templates, create updated templates based on organizational standards and develop new templates as needed. What's more, all of the macros currently supported by CA ERwin DM are available in the updated FE template editor.

### MICROSOFT VSTS DB EDITION INTEGRATION

The integration of CA ERwin DM with Microsoft VSTS DB Edition 2008 unites the industry's leading heterogeneous database design solution and a focused SQL Server development and lifecycle management environment. This provides a comprehensive platform from which your organization can manage the development and deployment of critical SQL Server applications. In addition, this integration allows modelers to:

- Visually design, define and generate VSTS DB Edition managed objects
- Reverse engineer existing ERwin DM models into VSTS DB Edition managed objects, including extraction of schema information from databases other than SQL Server 2008
- Forward engineer VSTS DB Edition managed objects into CA ERwin DM for visualization and metadata reporting purposes

### COMPLETE COMPARE IMPROVEMENTS

CA ERwin DM r7.3 further simplifies the complete compare functionality through several improvements that enhance overall usability and ease-of-use, including auto-resolution of user-defined properties (UDP), range and object selection, type resolution, demand loading performance improvements and more.

### Supported Environments

CA ERwin DM r7.3m includes support for the following environments:

- Microsoft Windows XP
- Microsoft Windows Vista
- Microsoft Windows Server 2003

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<sup>1</sup> Saphir is used with the consent of Silwood Technology, Limited.

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## Making Data Models the Center of Your Information Infrastructure

Whether you implement a DW, MDM project, data governance initiative or BI application, CA ERwin DM provides the foundation you need to produce a robust data model and agile information infrastructure — and puts your data model at the center of your information infrastructure. In this way, CA ERwin DM can help you:

- Reduce design defects
- Enable standardization and collaboration
- Minimize development and maintenance risks

### Reduce Design Defects

By documenting business rules and definitions in a logical data model, and aligning these rules with the physical data model used by your database implementation platforms, you can help ensure consistency across the organization and also promote reuse. In doing so, you will be better equipped to drive defects and errors out of your data modeling processes, and develop more robust, effective data models.

### Enable Standardization and Collaboration

With metadata exchange capabilities that span the tools and projects across your business, CA ERwin DM helps ensure that the information standards created in your data model are visible and available by other teams and assets within the organization. As such, CA ERwin DM promotes collaboration and communication throughout your enterprise, enabling greater agility and responsiveness to your changing business needs.

### Minimize Development and Maintenance Risks

By eliminating the chances that defects will interrupt design procedures, and fostering a standardized modeling environment that thrives on collaboration and communication, CA ERwin DM helps you significantly reduce development and maintenance risks — and reduces the costs associated with these activities.

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## The CA Advantage

CA ERwin Data Modeler is part of a focused, best-of-breed modeling and database design solution that provides a comprehensive, enterprise-focused tool set that seamlessly integrates across products to deliver exponential value to users throughout the enterprise.

### The Enterprise IT Management Vision (EITM)

As a key component in the CA Database Management (CA DBM) solution, as well as the CA ERwin Modeling family, CA ERwin Data Modeler delivers the core functionality you need to maximize the performance, reliability and efficiency of your data management processes. By tightly integrating the control and management of operations, storage, security, lifecycle and services management, CA ERwin DM forms an integral piece of CA's EITM vision. This philosophy helps your enterprise unify, simplify and secure IT to better manage risk, costs and service — and ensure that IT and the information infrastructure meets the needs of the business they support.

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## Next Steps

For more information about how CA ERwin DM can enhance your data modeling processes and reduce design defects and risks — while enabling standardization and collaboration — visit [ca.com/contact/rmdm](https://ca.com/contact/rmdm).

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To learn more, and see how CA ERwin Data Modeler can enable your organization to unify and simplify IT management for better business results, visit [ca.com/modeling](https://ca.com/modeling).

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