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Data Modeling with ER/Studio Data Architect 18.4

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Relatore: Alessandro La Greca

Impact of data modeling

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better design, visibility, and communication of data assets

For instance, models help us

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- Design databases to meet technical and business requirements
- Understand the impact of changes to applications
- Develop new applications that leverage existing data assets
- Locate and explain data that our company uses to make decisions
- Reuse designs and design patterns
- Train people that aren't familiar with particular databases
- Understand and explain what that data means
- Find, control, and audit who has access to what data
- Create and enforce design standards

In a decentralized system

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the benefits are only available to an individual or small group responsible for the model

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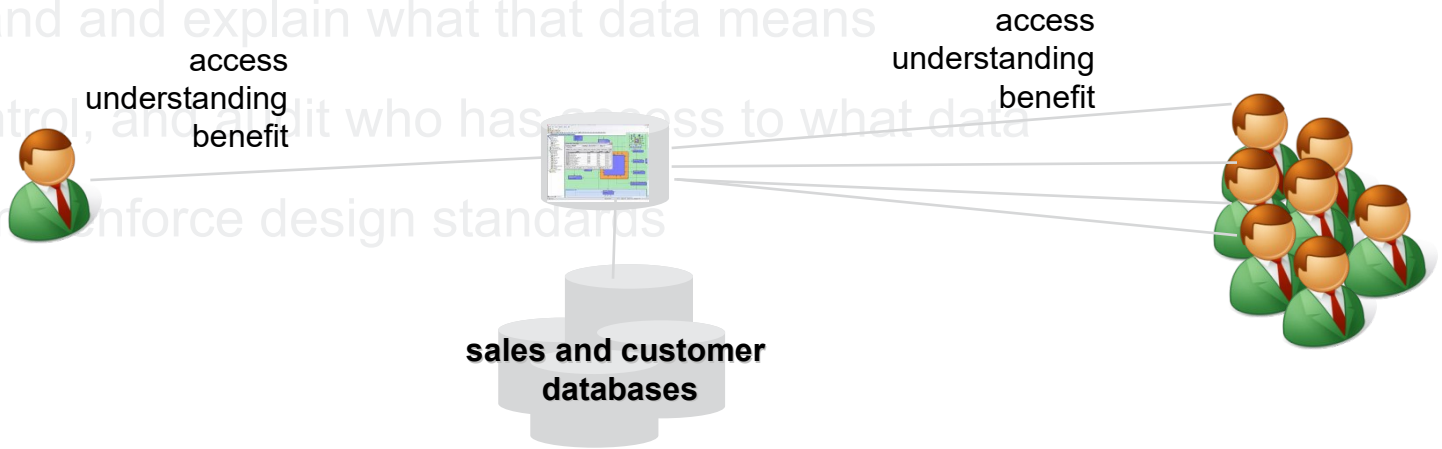
the benefits can extend to every modeler, developer, dba, and business analyst



In a centralized system you also get

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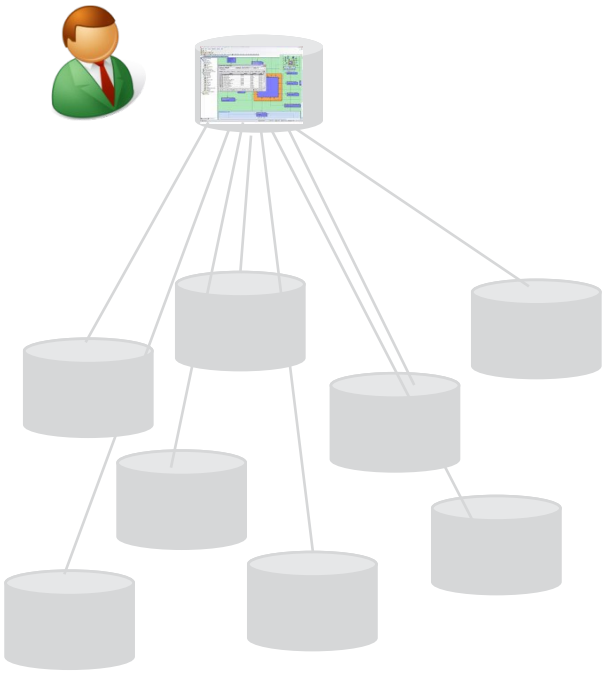
A holistic view of data assets



- Reusability of data assets – Don't we already have a database that does this somewhere?
- Design standards – 'Address' has a standard data model that we use, why don't we reuse it?
- Standard data definitions – Why do we have the same data elements defined differently in various databases?
- Centralized Metadata – Where is customer data used across our business?
- Security Classification – Who can tell me every database that has credit card information in it and who has access to it?

In a centralized system you also get

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A collaborative work environment

- Centralized model storage – no more, who was the last person to edit this? Hey Jamie can you email it to me?
- Version control – What version is running in production?
- Check in / check out – allow many modelers to work on the same model at the same time
- Branch and merge – work in a decentralized model when it's helpful, and then sync up

What is ER/Studio

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ER/Studio is a data modeling and enterprise data architecture tool

It helps companies create and manage database designs, and discover, document and reuse data assets.

ER/Studio Business Benefits

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- Improve information quality and consistency
  - Ability to analyze, document, and share “metadata” encourages appropriate reuse
  - Visibility into existing data assets reduces recreation, redundancy
- Fully leverage existing data assets for more responsive IT
  - Increased data reuse, faster delivery of new applications through clear communication
  - Comprehensive metadata documentation for integration and data warehousing
- Clearly communicate across business and IT functions
  - Visual format for clear discussion between data stakeholders
  - Enhanced communication among IT functions with XML, UML, ETL bridges

ER/Studio Technical Benefits

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- Increase productivity with award-winning, multi-level design environment
  - Comprehensive functionality to support database design through to implementation
  - Ability to create and maintain multiple physical models from a single logical model
- Merge and manage complex, enterprise models easily
  - Framework for enforcing, validating, and updating standards to support and augment data consistency
  - Scaleable server-side model management enables team collaboration
- Consume, analyze, and repurpose metadata across the organization
  - Ability to attach critical metadata about your data such as data definitions, source information, data dependencies, etc.
  - Import and export information from a wide variety of sources
- Design and implement high quality databases
  - Built-in support including validating and automatically migrating foreign keys
  - Sophisticated physical modeling capabilities such as capacity planning and security modeling

ER/Studio: Key Features

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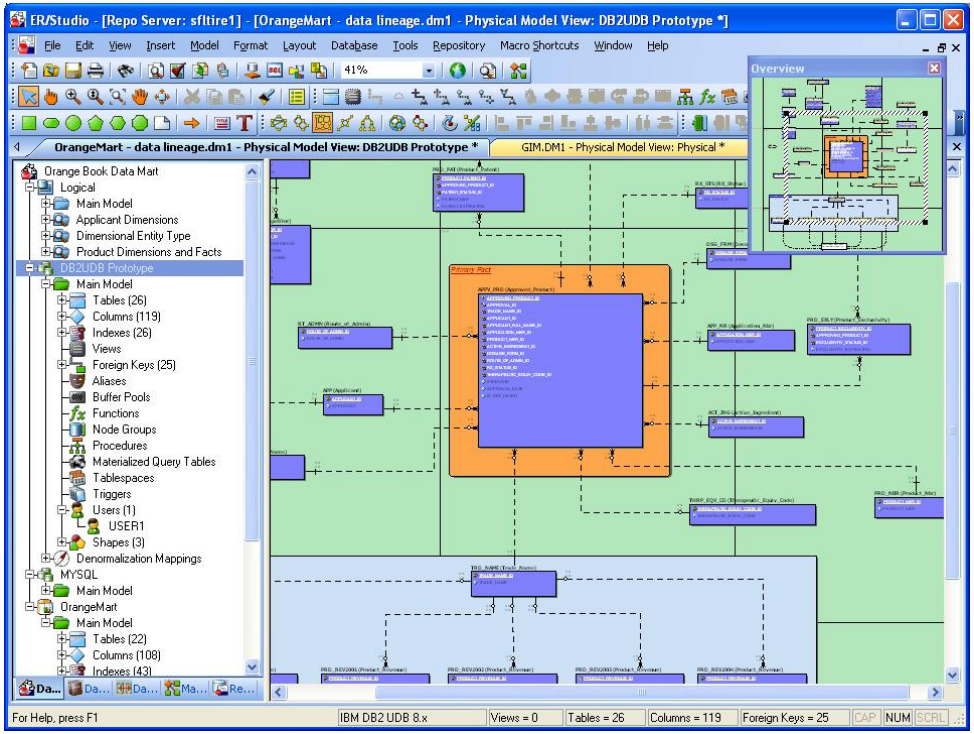
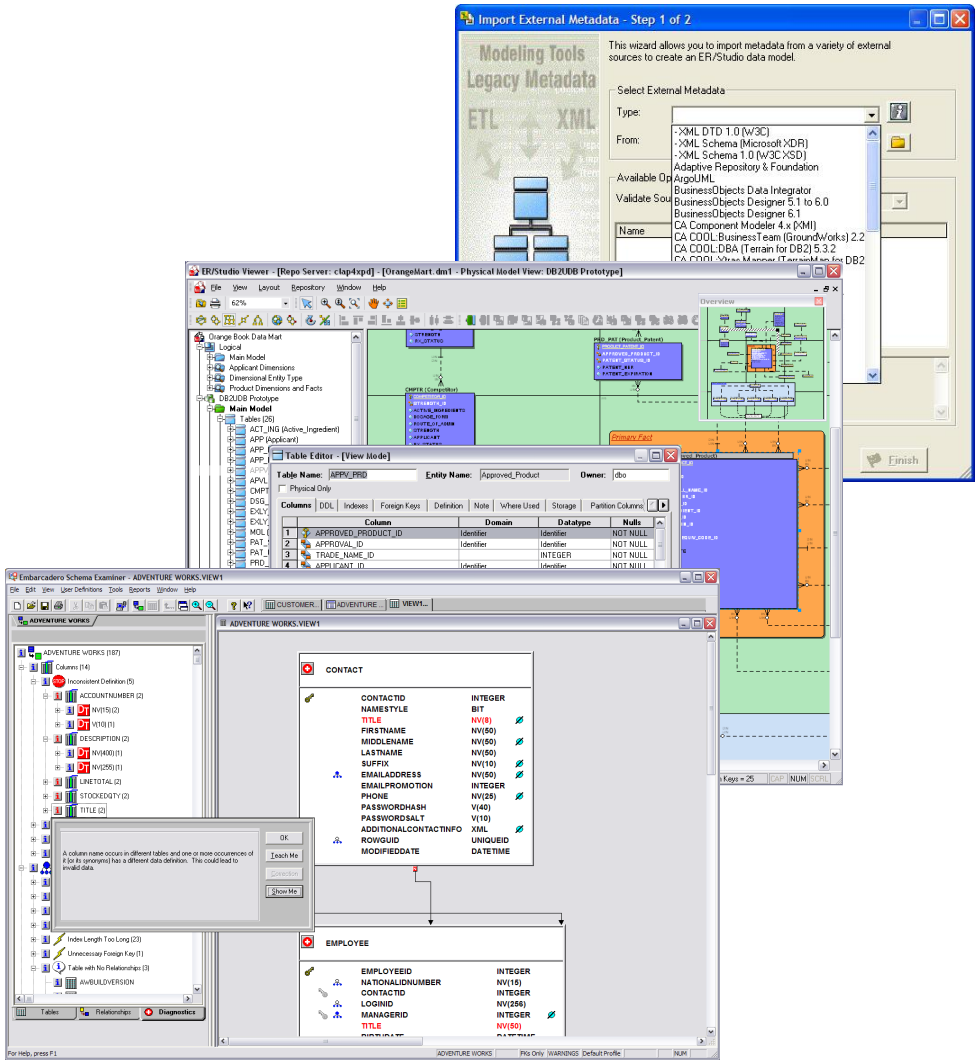
- **Model-Driven Design Environment**
  - Powerful and easy-to-use user interface
  - Logical and physical design support
  - Comprehensive XML Schema generation from either the logical or physical models
  - Automation and scripting support
- **Complete Database Lifecycle Support**
  - Forward- and reverse- engineering
  - Automated database code generation
- **Enterprise Model Management**
  - Integration of models and metadata
  - Extensive collaboration support including sub model management, repository, “where used”
- **Enterprise Communication Capabilities**
  - Web publishing, RTF, MS Office integration
  - Integrate model metadata with other platforms such as BI, ETL, and other modeling tools.
- **Data Warehouse and Integration Support**
  - Data lineage documentation
  - Dimensional modeling
- **Quality Database Designs**
  - **Model completion validation**
  - **Automatic foreign key migration**
  - **Capacity planning**



ER/Studio: Related Products

- **ER/Studio MetaWizard**
  - Import and export models and metadata from a wide variety of UML and Data modeling applications, BI platforms, and industry standard exchange formats
- **ER/Studio Viewer**
  - Advanced viewing, navigation and printing features to support non-modeler team members
- **Schema Examiner**
  - Automates the process of error-checking database schema, provides recommendations and design theory, and produces implementation scripts



ER/Studio Editions

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	ER/Studio viewer	ER/Studio Standard	ER/Studio Enterprise
View & navigate ER/Studio Models	X	X	X
Forward engineer databases		X	X
Reverse engineering databases		X	X
Alter code generation		X	X
Compare and merge models		X	X
Data lineage		X	X
'where used' analysis		X	X
Extensible VB API		X	X
XSD generation		X	X
HTML Publishing		X	X
Centralized model storage			X
Version control			X
Control security access to models			X
Cross model data dictionary			X

Why Choose ER/Studio

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- True separation of logical and physical models
  - Multiple physical models with traceability to original logical model
- Ease of use
  - Highly intuitive user interface to ensure immediate productivity gains
- Diagram layout engines and navigation
  - Easy-to-use, effective diagram layout features
  - Extensive navigation features including pan, zoom and relationship navigation
- Flexible architecture:
  - VBA capability for customizing applications
  - Incorporation and reuse of existing functions

What's New in ER/Studio 18.4

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- new Datatype Mappings File Merge Tool
  - Allows You to merge into latest ER/Studio version all user-defined logical and physical datatypes and their mappings from previous versions and resolve any duplication
- Enhanced Logical Datatypes support
  - Array, Rangeint4, Rangeint8, Rangenumber, Rangetimestamp, ecc.
- DBMS support enhancements and additions
  - Full Snowflake database support
  - Full Amazon Redshift
  - Expanded support for Postgres 10.x, 11.x, 12.x
  - And more…

What Customers Are Saying

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"Accurate, timely, and relevant data is at the heart of the marketing services we provide our customers. By standardizing on ER/Studio for enterprise model management, we are assured of the consistency we need."

Mark Peterson, Senior Database Analyst
Valassis, Marketing Services Provider for Consumer Packaged Goods

"With ER/Studio, we can reverse engineer more complex systems to create database schema models and data dictionaries required to better understand their exact structure and the database table relationships. We are also using the new capacity planning features to help us plan for growth and effectively manage storage requirements."

Adam Phillip Churvis, President
Productivity Enhancement, Inc

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Product Demonstration

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Q&A

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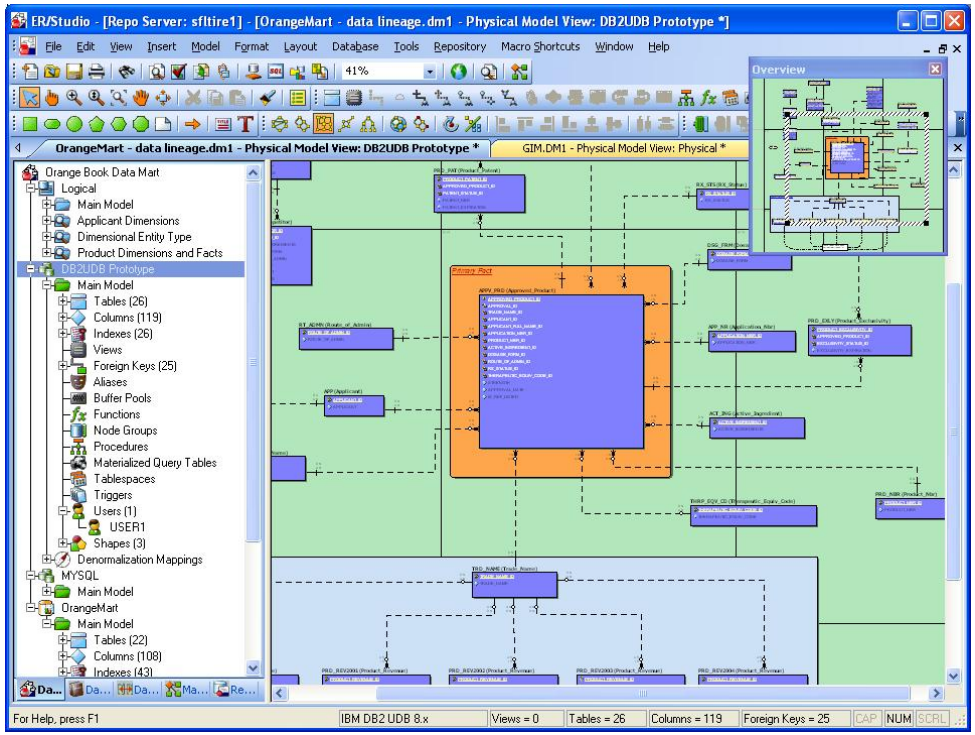

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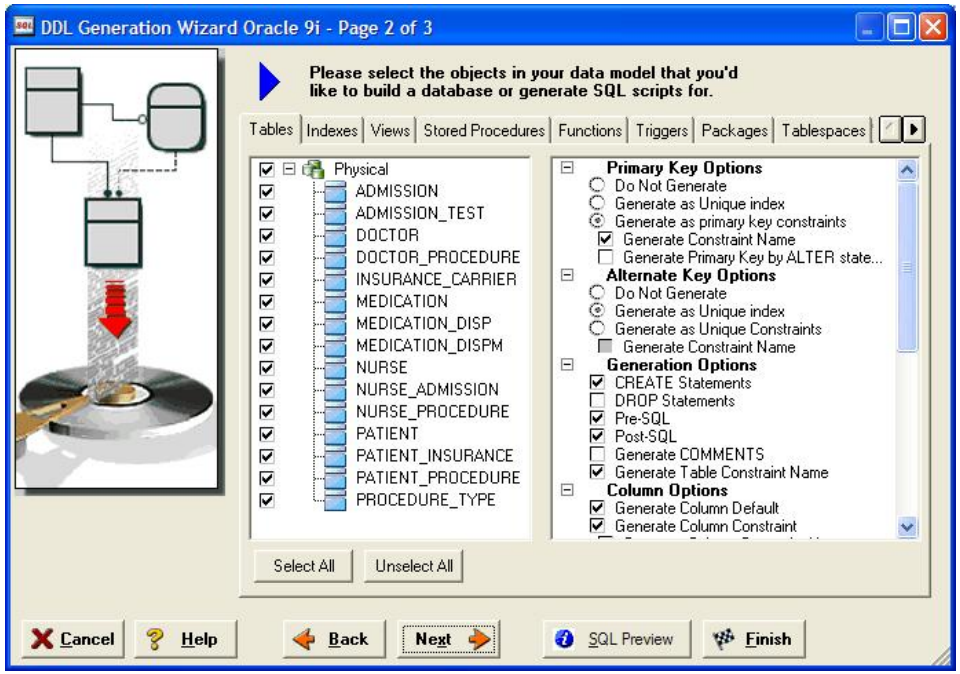

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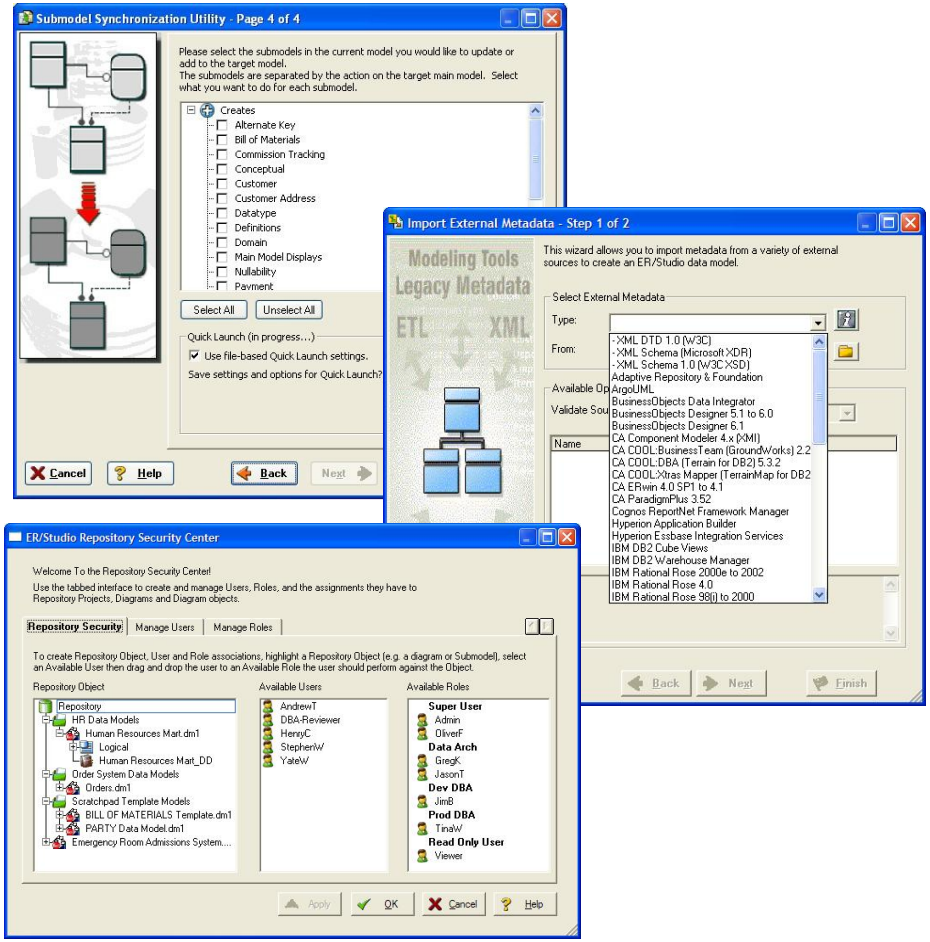

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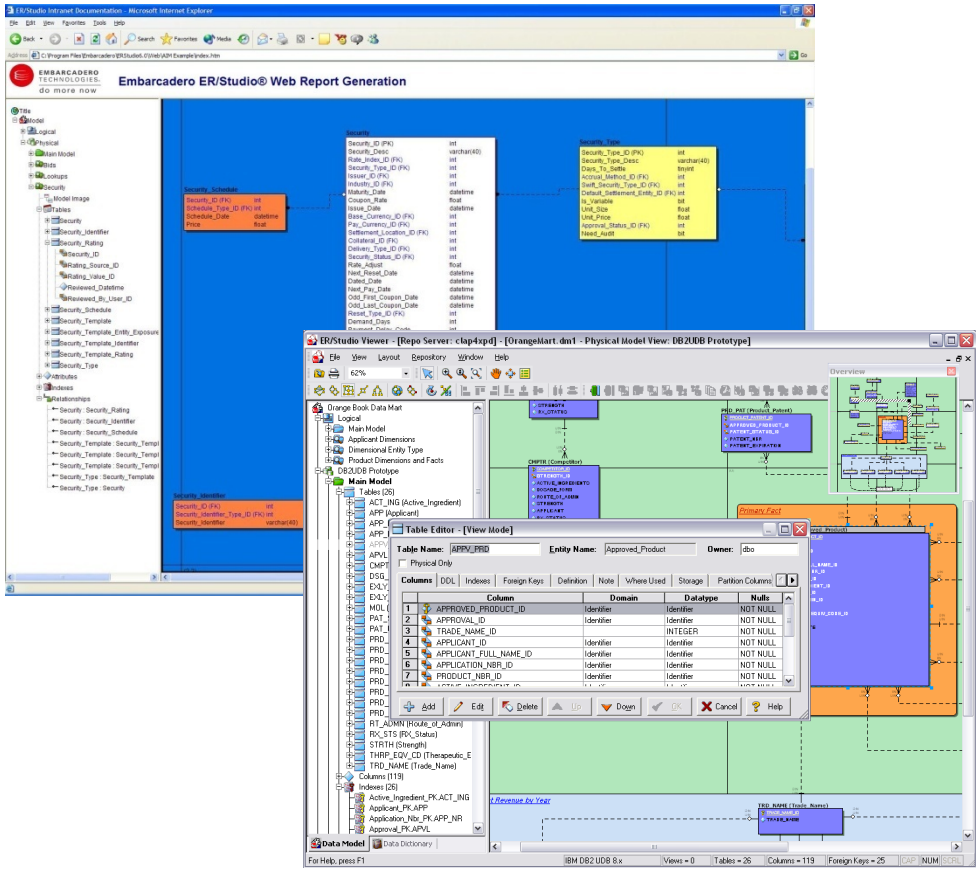

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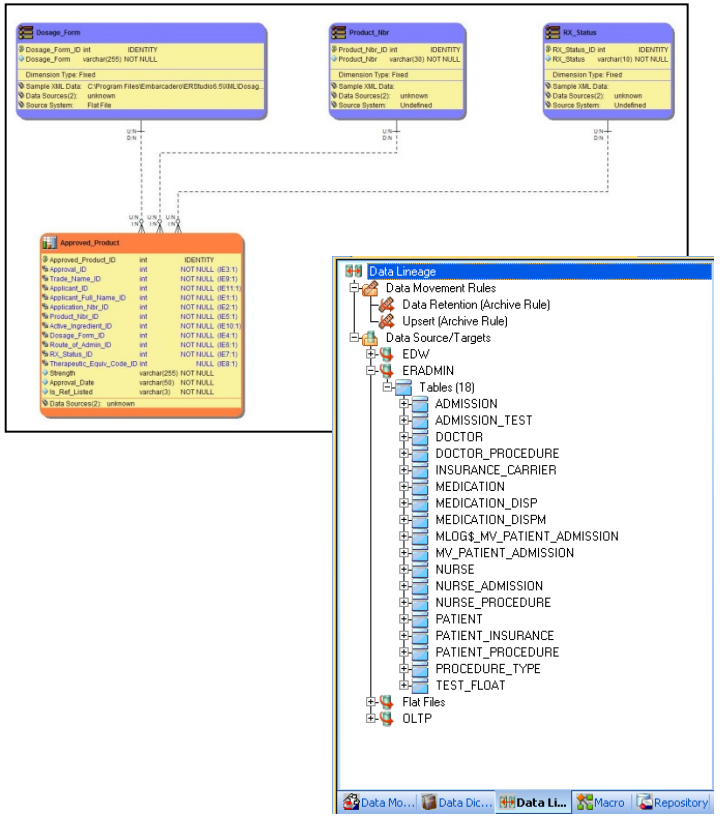

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