

# Sybase® PowerDesigner® 15 for Data Modeling





## PowerDesigner 15 for Data Modeling

Sybase® PowerDesigner® 15 for Data Modeling, is the industry leading data modeling tool that offers a model-driven approach to empower and align Business and IT. PowerDesigner enables enterprises to more easily visualize, analyze and manipulate metadata for effective enterprise information architecture. PowerDesigner uniquely combines several data modeling techniques (traditional conceptual, logical and physical modeling with unique business intelligence and data movement modeling) to bring business analysis together with formal database design solutions. PowerDesigner works with over 60 RDBMS.

### COMMON FEATURES

**Requirements Management:** Detailed requirements analysis linked to all models for traceability. Import and synchronization with Microsoft® Word places the business users directly into the analysis and design lifecycle.

**Document Generation:** Wizard driven list, multi-model RTF and fully hyperlinked HTML document reporting provides any non-modeling user direct, controlled access to metadata. This fosters greater communication among all members of the project team.

**Impact Analysis:** Models are fully integrated using unique Link and Synch technology. Models integrate across all model types for complete enterprise-wide or project-wide impact analysis. Impact analysis streamlines communication and collaboration to dramatically increase the entire organization's responsiveness to change.

**Information Mapping:** Drag-and-drop mapping editor allows for easy, fast and accurate dependency documentation. Simply drag to or from any supported source to target model pair and create comprehensive mapping definitions used in data dictionary definitions, impact analysis and warehouse ETL documentation.

**Open Support:** All major RDBMS platforms are supported together in one tool. With over 60 RDBMS definitions supported, PowerDesigner leads with the most comprehensive and complete support.

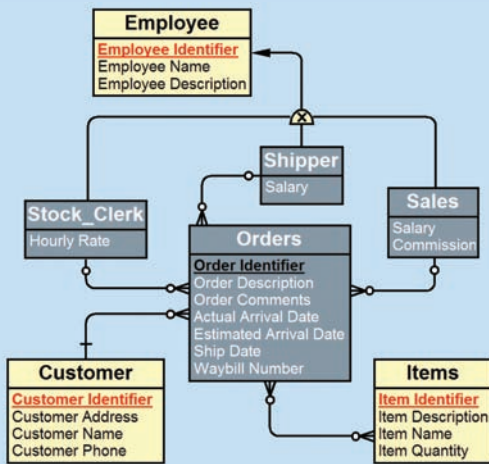
**Customizable:** Optimize productivity by controlling everything from the user interface to the way PowerDesigner manages modeling tasks and generates code.

**Integrated:** Plug into Eclipse, Microsoft Visual Studio® and PowerBuilder for seamless integration to leading development environments and synchronize models and code automatically. Plug-in supports all modeling techniques and requirements management. Requirements integrate with Microsoft Team System.

**Enterprise Repository:** A fully integrated design-time repository, hosted by many choices of relational databases. As a highly scalable centralized metadata management facility, the Enterprise Repository offers capabilities like: Role-based security on models and sub-models, version control, configuration management, version compare and comprehensive search capabilities. New repository notifications ensure all users have the latest metadata available and take appropriate actions based on changes committed to the server.

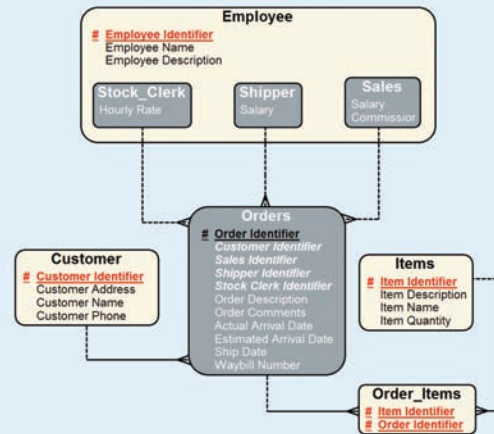
**Metadata Sharing:** PowerDesigner's Repository Web Browser ensures all users have full thin client access to all authorized (by role-based security) metadata including graphics and full element definitions and descriptions.

## MODELING TECHNIQUES



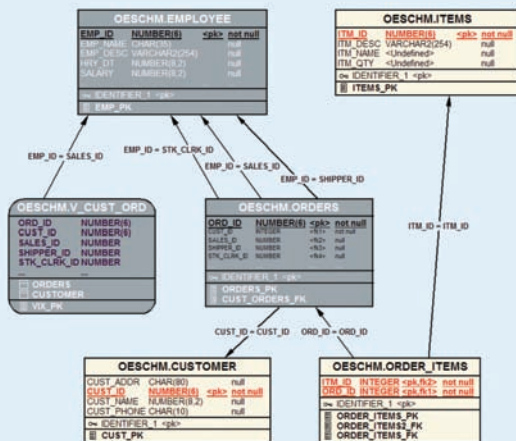
Conceptual Data Model

**Conceptual Data Modeling:** Conceptual data models based on Information Engineering (IE), Barker or IDEF 1/x notation provide a database and technology independent business representation of data concepts and core relationships. Conceptual data models iteratively generate into one or more logical and physical data models based on desired levels of abstraction and approaches to information architecture from a common business view.



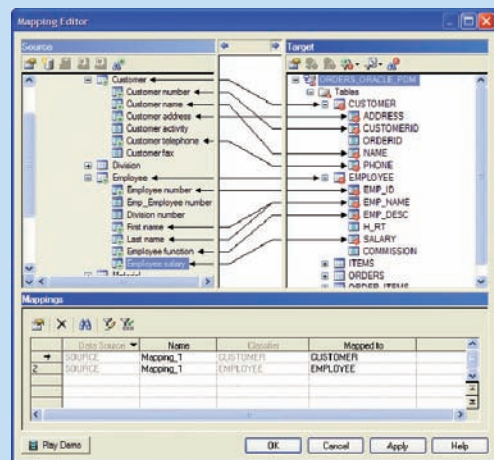
Logical Data Model

**Logical Data Modeling:** Logical data models based on Information engineering (IE), Barker or IDEF 1/x notation provide database independent relational structures for use by developers and designers for optimization and understanding. Logical data models can be developed independently or generated from conceptual data models. Logical data models can generate to one or more physical data models.



Physical Data Model

**Physical Data Modeling:** Physical data models based on Information Engineering (IE) or IDEF 1/x notation document, generate and reverse-engineer structures for over 60 RDBMS (including the latest Oracle®, IBM®, Microsoft, Sybase, NCR Teradata®, MySQL® and many more). Support includes all database artifacts and new techniques such as Java, XML and Web Services in the database, security modeling, advanced techniques for views and more.



Data Mapping Editor

**Data Warehouse Modeling:** Multidimensional Diagrams document the OLAP environment by representing cubes, facts, dimensions, dimensional hierarchies and queries independent of the physical table structures used to store the warehouse or data mart information. Together with the data mapping editor or more sophisticated data movement modeling the complete business intelligence architecture from source definition, transformation, warehouse, mart and reporting environment can be completely documented. This provides for clear impact analysis and design time change management of any aspect of the BI environment.

## POWERDESIGNER BENEFITS

### The safe choice

PowerDesigner's market proven commitment to innovations in Data, UML and Business Modeling make it the safe choice for all modeling requirements. PowerDesigner is a standard in many organizations worldwide.

### Graphical ease of use

PowerDesigner's highly customizable user interface makes common tasks easy while empowering advanced users rapid access to all features.

### Align business and IT

PowerDesigner facilitates Business and IT alignment through team collaboration techniques, Link and Synch technology between all Requirements, Business, UML and Data models.

### Improve individual productivity

PowerDesigner's model-driven approach features a series of customizable code and DDL generators, reverse-engineering and of code synchronization capabilities that significantly reduce manual code creation, maintenance and re-engineering efforts.

### Improve team productivity

PowerDesigner provides all modelers the ideal team-sharing environment with the only complete and secure metadata repository for all modeling types.

### Document existing systems

PowerDesigner fosters greater enterprise collaboration through flexible, wizard driven list based or multi-model RTF and fully hyperlinked HTML document based reporting.

### Open support

PowerDesigner benefits heterogeneous systems understanding by supporting all leading development, XML, database and process language standards within a single tool and framework.

### Highly customizable

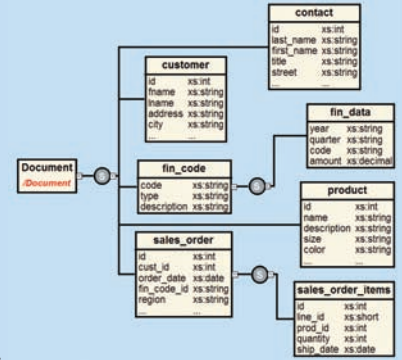
PowerDesigner can be easily "programmed" to enforce corporate or regulatory standards and practices through embedded VB Scripting, a fully scriptable COM interface, customizable metamodel and fully documented API.

### Reduce the impact of change

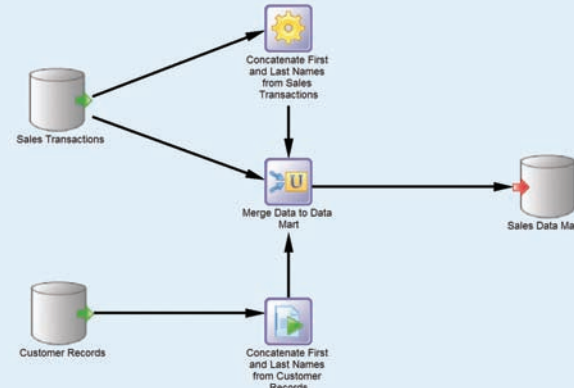
PowerDesigner significantly reduces the cost and time when implementing any change through a fast and accurate bi-directional multi-model impact analysis view integrating all requirements, analysis, detailed database and application models.

**XML Modeling:** XML specific modeling techniques to document generate and reverse engineer XML Schema and XML DTD structures.

The XML models are mapped to data models to document XML/Relational mappings as well as for definitions of XML in the database or RDBMS engines that support this concept.



XML Modeling



**Data Movement Modeling:** A PowerDesigner exclusive, the Information Liquidity Model (ILM), documents all aspects of information movement. Source data stores, target data stores, multiple transformations, publication and subscription serve to document any ETL, EII or replication process.

Data Movement Modeling

**Enterprise Information Architecture:** PowerDesigner's unique Link and Synchronize technology allows users to document all dependencies from Requirements to UML, Data and Business Process. All dependencies are tracked automatically through inter-model generation and synchronization techniques. All external deliverables are 100% synchronized to their respective models. Measure the complete impact of a change made anywhere in the development lifecycle and streamline the management of that change across the enterprise.

