

design

Sybase® PowerDesigner® 9.5

The all-in-one modeling tool for business-driven applications





Our Vision

An Enterprise Modeling and Design solution that empowers users to model software that meets business needs, that dynamically drives development from the business definitions, and improves communication, collaboration and creation of business systems across multiple disciplines, technologies and architectures.

Introducing PowerDesigner 9.5, the only tool that, through combined business modeling, all UML diagrams, traditional data modeling and an enterprise-class repository, will increase business agility, flatten the cost curve associated with change, improve IT efficiency and increase project success.

What is PowerDesigner 9.5?

PowerDesigner 9.5 is the latest installment of our leading, truly integrated enterprise application analysis and design environment with full-featured business, data, and object modeling capabilities.

Features include:

Business Process Modeling: PowerDesigner empowers non-IT users to design and model business processes in real business terms, using a simple, easy-to-use, and highly graphical, non-technical model. Custom symbols and swimlane diagrams improve expressiveness when documenting the business. Support for generation and reverse-engineering of ebXML code is included.

Data Modeling: PowerDesigner designs and generates the database schema through true multi-level (conceptual, logical, physical and data warehouse) relational database modeling—based on proven methods. Wizards and tools improve productivity for tasks like database denormalization.

Object Modeling: PowerDesigner completes analysis and design using standard UML techniques with all 9 UML diagrams. PowerDesigner generates and reverse engineers code and deployment files for popular target environments such as Java™ J2EE (JSP, Servlet and EJB), .NET (C#, VB.NET, and more), Web Services (UDDI and WSDL), XML, C++, PowerBuilder®, Visual Basic® 6.

Integrated Modeling: Business, Data and Object models can be linked and synchronized in multiple ways. The “Link and Synch” techniques and design time Object/Relational mapping in PowerDesigner 9.5 allow iterative transformations between models for rapid response to change and the power to manage the dependencies between code, XML structures, database persistence and the business requirements.

Enterprise Repository: The enterprise-class repository allows easy viewing and sharing of models and other information,

for all members of the team. Version control, logging, role-based security, searching and reporting capabilities provide unmatched scalability and model management.

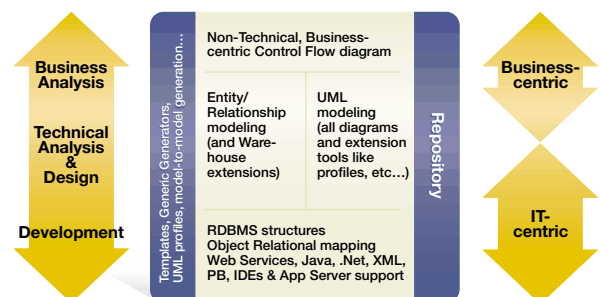
Unmatched Openness

PowerDesigner is built around a flexible, expandable architecture, allowing for support for virtually any RDBMS or generate virtually any object language. The extended generator allows users to add custom capabilities for generation and reverse engineering, importing and exporting, or specialized support for virtually any architecture or environment.

Version 9.5 brings openness to another level: powerful support for UML profiles. The UML Profile provides UML standard customization techniques with the use of custom symbols, based on stereotypes. Support for UML profiles have been re-applied to all models, giving data modeling and business modeling the same advantages – expressive graphics to enhance complete system analysis and design.

Beyond target database and target development languages, PowerDesigner 9.5 provides generic generation capabilities, extended attributes and VBScripting for all models and all objects. Model to model generation allows for multiple layers of abstraction, synchronized with every iteration of change. Coupled with the new Free Model and custom symbols for all diagrams, PowerDesigner 9.5 can be adapted to your enterprises methodology and best practices.

Summary of Features – PowerDesigner 9.5 Architecture




empower

collaboration

Who Should Use PowerDesigner?

PowerDesigner addresses the needs of both business-centric, non-IT personnel, as well as IT-centric developers and managers, by providing capabilities that are aligned to the needs of each specific user.

	Business Oriented	IT (Technical) Oriented	
Managers	<ul style="list-style-type: none"> • CxO • Business Analysts 	<ul style="list-style-type: none"> • IT Director • IT Manager • Senior Analysts • Systems Designers • Systems Integrators 	
Technical Staff	Interactive Lifecycle Support 	Database <ul style="list-style-type: none"> • Designers • Administrators • Developers 	Application <ul style="list-style-type: none"> • Designers • Administrators • Developers

This matrix represents typical users of PowerDesigner by job title

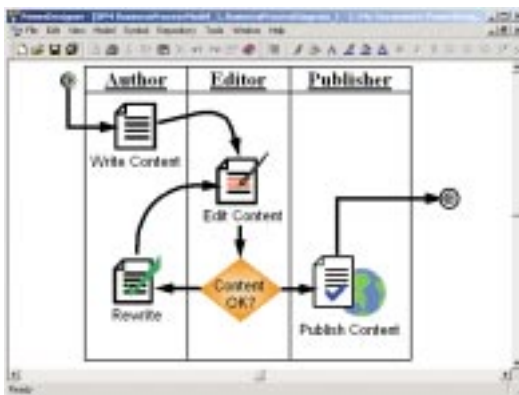
PowerDesigner 9.5 is For You if You're...

- A CxO or Business Analyst
- An IT director or manager, a senior analyst, systems designer or integrator
- An application designer, administrator or developer
- A database designer, administrator or developer

If you're a CxO or business analyst

PowerDesigner enables you to model business-driven applications using simple, intuitive, non-IT techniques. PowerDesigner is the easy-to-use and learn way to model and design business processes and maximize collaboration with your IT department.

As a business-centric user of PowerDesigner, you will use the Business Process Model to document your processes in business terms. Enriched by custom symbols and swimlane diagrams for easier readability and greater expressiveness in process analysis, optimization and communication with IT. Your IT professionals will create code and develop databases reflecting the business more accurately. This approach closes the communication gap between system users and IT, improving a system's impact on the business.



Business Process Model

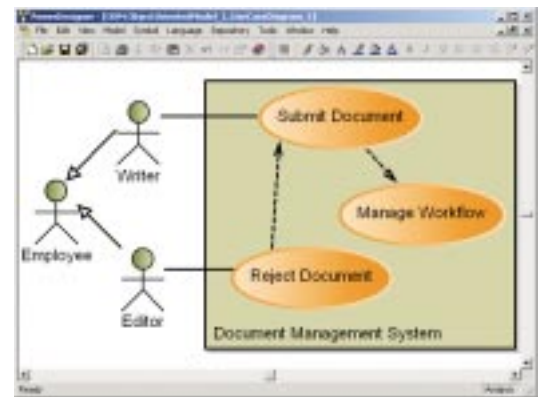
If you're an IT director or manager, senior analyst, systems designer or integrator

PowerDesigner streamlines collaboration, accelerates the learning curve, and reduces time and the cost of software development. PowerDesigner is a single, easy-to-use, standards-based environment to capture business needs and requirements to effectively model software.

Utilizing a Business Process Model to communicate with the business... With PowerDesigner's support for UML, you can define the technical analysis and detailed design. Integrated robust database analysis and design keeps the business systems development in context with data. New or existing structures can be mapped back to the object model using PowerDesigner's design time Object/Relational mapping, an industry first.

Comprehensive "Link and Synch" technology ensures changes made in any view, business, object or data models, can be easily communicated to the other views without disrupting the detailed ongoing work in any model. This allows for greater communication between members of the technical team, IT and the business. Streamlining provides rapid response to change and leads to IT agility and success.

The Enterprise Repository allows all of your models to be stored in a centralized server, with role-based security. Consolidating your models into the repository gives your teams the ability to communicate, collaborate and create powerful, business-oriented IT solutions. They will be able to discover reusable work with the Find feature. Version control and branch management allow you to track the evolution of the project over time, and manage multiple development paths at once. The repository also manages all documents in your environment, including Microsoft Word, Excel, Project, and more.



UML use case diagram

If you're an application designer, administrator or developer

As an application developer, you can use PowerDesigner's UML diagrams to document the physical structures of the code that implements the system. PowerDesigner boosts your productivity through effective application modeling supporting heterogeneous environments. PowerDesigner generates and reverse engineers business logic for leading development languages. PowerDesigner is standards based with support for Java J2EE (JSP, Servlet and EJB), Microsoft .NET (C#, VB.NET, and more), and Web Services (UDDI and WSDL) generation. PowerDesigner's template-based generation frees you from wrestling with specifications, allowing you to concentrate on developing creative solutions.



UML Class Diagram

PowerDesigner's integration with data models speeds-up the implementation of persistence logic through Object/Relational mapping. Mapping at design time ensures that as you code the data access elements of the system, you adjust the objects to best fit the database structures provided, or generate and transform for optimized RDBMS performance. Inconsistencies are no longer discovered at development time, where they are more difficult and costly to fix.

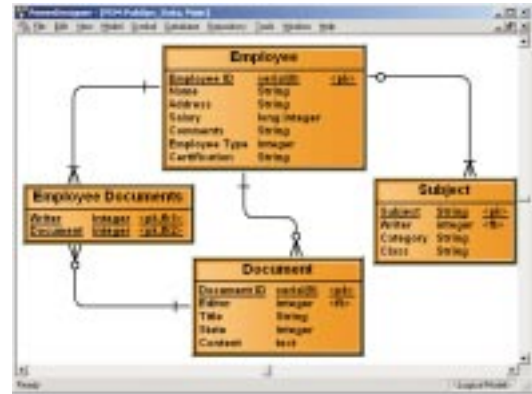
For greater productivity gains, PowerDesigner allows you to complete code, test and debug using your choice of IDE or code editor. Changes made in the external editor are automatically synchronized with the PowerDesigner models ensuring that the model and the code are never out of synch. However, to preserve the value of design, code may still be developed separately and a synchronize feature allows designers to accept or reject development time changes as they are merged back into the model.

If you're a database designer, administrator or developer

PowerDesigner will increase database manageability, facilitate maintenance, and increase your ability to manage change. PowerDesigner provides true conceptual, logical, physical and warehouse models, supporting over 40 RDBMS for database structure generation, modification, documentation and reverse-engineering.

For real, multi-level data analysis and design with PowerDesigner, you start by using the Conceptual Data Model (CDM). The CDM provides a standard Entity/Relationship model in traditional notation so you can

normalize your enterprise data structures for efficient data storage. Then, you can generate one or more logical models, more detailed yet still in a database independent, implementation independent context. Changes made to the CDM can be iteratively propagated to all other data models without undoing any work done in those logical or physical models.



Conceptual Data Model

For Physical database and warehouse design, use the Physical Data Model (PDM). In the PDM, focus on denormalization and optimization for the schema, with a specific RDBMS target in mind. Using PowerDesigner's wizards and tools, common tasks like denormalizations, view creation, index creation are performed with increased accuracy and efficiency. The PDM contains all the physical constructs including triggers, stored procedures, indexes, references and referential integrity, storage parameters, users (including rights, permissions and grants), views and more. The PDM is used to generate and reverse engineer 100% of your database structures, incremental iterative development, and supports a comprehensive database compare/merge/alter technology.



Dimensional Diagram

Warehouse support, including star and snowflake schema, cubes and dimensional modeling, and external source mapping, is provided in the Dimensional Diagram included standard in every PowerDesigner PDM. Warehouse designers may take advantage of OLTP designs linked to the OLAP designs in one tool, giving better documentation of the warehouse environment and faster response to change.

Sybase® PowerDesigner® 9.5 Modular Packaging

PowerDesigner 9.5 is a unique modular software tool that meets your design and development requirements. Select one or all modules, choosing only those with the features you need.

Business Process Architect (BPM)

Business modeling with a non-UML, non-technical approach. This business-centric module gives CxO, business analysts, line of business managers and other non-technical users a graphical medium to describe the core business flow and requirements, facilitating greater understanding between the business operations and IT. New custom symbols and graphic techniques provide greater readability and expressiveness while ebXML support provides a bridge to modern process management and process automation tools.

PhysicalArchitect™ (PDM)

Physical database design and generation including data warehouse modeling. This entry-level module provides the tools necessary to create physical database models (both OLTP and OLAP), generate SQL code, and reverse-engineer existing databases from heterogeneous sources.

DataArchitect™ (PDM, CDM)

Multi-level, iterative database design and database definition language (DDL) generation. This module supports integrated conceptual, logical, physical and warehouse data modeling (with new productivity wizards for common tasks such as denormalization, view creation and more), allowing database analysts, designers, administrators and developers to design and generate databases for more than 40 DBMS server and desktop platforms.

ObjectArchitect (PDM, CDM, OOM)

Object-oriented analysis and design combined with multi-level, iterative database design and database definition language (DDL). Now with all UML diagrams and more (use case, sequence, activity, statechart, collaboration and robustness, component, class, object and deployment diagrams) integrated with data modeling capabilities from DataArchitect, this module empowers both IT professionals and IT managers for maximum efficiency and team collaboration.

Developer (PDM, OOM)

UML modeling with persistence design. The ultimate design tool for the application developer, this module provides UML analysis and design, complete with code generation and reverse engineering capabilities for Java, J2EE, .NET, PowerBuilder, XML, all manner of Web Services, and more ... This module bridges the gap to persistence modeling with database generation and reverse-engineering support, Object/Relational mapping, and synchronized data model generation from UML structures.

Studio (BPM, PDM, CDM, OOM)

Available in both **Personal** and **Enterprise** versions, the Studio module combines business process modeling techniques with powerful UML modeling and traditional data modeling techniques. By combining all of these necessary techniques in one environment, these modules empower both business-centric and IT-centric managers and their development teams to build business-driven systems that support the enterprise.

Viewer™

A complete view of modeling information for all members of your organization, this read-only module provides graphical access to model information throughout your organization. It also includes an enhanced report generator.

Upgrade to the Enterprise Option!

View and share models and other information with all the members of your team by upgrading any PowerDesigner module to the Enterprise version. The Enterprise version of your favorite module provides a central repository for models and other files, which facilitates access control, sharing, collaboration, consolidation, versioning, and model management.

POWERDESIGNER 9.5 HIGHLIGHTS

With business modeling, UML object modeling combined with traditional database analysis and design, and a true enterprise repository, PowerDesigner 9.5 is the all-in-one modeling tool for business-driven applications.

Core features:

- Business Modeling: True business modeling for non-technical users
 - Industry standard traditional data modeling techniques (conceptual, logical, physical and warehouse modeling)
 - UML Object-oriented analysis and design
 - Generate popular languages like Java, PowerBuilder, XML, C++, C#, VB.NET and more
 - Generates DDL for 40+ RDBMS
 - Multiple architectures supported including J2EE (EJB, JSP and Servlet), .NET, Web Services
 - Object/Relational Mapping
 - Reverse engineer databases and synchronize models with running servers
 - Reverse engineer business logic into UML diagrams (Java, PowerBuilder, XML, and more)
 - Support for XML development (DTD, Schema, BizTalk, O/R Mapping to databases). Integration with popular Java IDEs and leading J2EE application servers (EJB 2.0 certification required)
 - A state-of-the-art graphical, customizable user interface with a common shell, object browser, editing and status areas
 - Improved multi-model management including inter-model synchronization, model to database and model to code synchronization, and enhanced repository
- ### Enterprise Repository:
- Enables multiple modelers to work on the same model at the same time
 - Stores, manages and versions PowerDesigner models and all other documents in a single location
 - Find and reuse objects
 - Effectively manage inter-model links
 - Secure environment with logging capabilities

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Minimum System Requirements

- Windows® 95/98, NT 4.0 or 2000
- Pentium® CPU
- 32MB RAM
- SVGA monitor
- CD-ROM drive
- 60MB avail. disk space

Enterprise Version Minimum System Requirements

A supported RDBMS with ODBC connection.
(Supported databases include: Sybase®, Microsoft®,
Informix®, Oracle®, and IBM®.)