Make your vision reality

IBM

Rational software

IBM Rational Rose

The IBM Rational® Rose® product family lets you design software solutions using the Unified Modeling Language (UML). Architects, analysts, software and database designers, and real-time/embedded systems developers can all use the Rational Rose family of products to produce visual models of software architectures, databases, application requirements and reusable assets, as well as to formulate management-level communications. By using the industry-standard UML, users are able to create semantically rich application architectures that help the extended team—including stakeholders—develop a clear understanding of the project. A common tool and language for modeling helps to simplify the work environment and speed the development of quality software applications.

Model with the market leader
The UML is the industry's standard notation for software architecture and design. IBM Rational led the development of the UML code so that software professionals could model their analysis and design activities in a uniform, consistent manner. To make the UML more practical to work with, Rational created the leading and award-winning Rational Rose family of visual modeling and development tools.

Take advantage of full UML modeling
Everyone has good ideas. Having a common modeling language and an easy-to-use tool can document and refine those ideas in artifacts that can be communicated, shared and reused. To stakeholders and development teams alike, the Rational Rose products help explain in detail what the system does at the appropriate level of abstraction.

ON DEMAND BUSINESS™

The right product for your activity

Product name	Modeling languages	Business modeling	Software architecture and design	Coding and construction	Data modeling	Run-time analysis and visual trace	Complete generation of application code	Embedded platform support
IBM Rational Rose Modeler software	N/A	■	■					
IBM Rational Rose Data Modeler software	N/A	■	■		■			
IBM Rational Rose Developer for Java™ software	Java, CORBA	■	■	■				
IBM Rational Rose Developer for Visual Studio software	ANSI C++, C++, CORBA, Microsoft® Visual Basic (MSVB), Microsoft Visual C++ (MSVC++)	■	■	■	■ Rose C++			
IBM Rational Rose Enterprise software	Ada, ANSI C++, C++, CORBA, Java, MSVB, MSVC++	■	■	■	■			
IBM Rational Rose Technical Developer software	ANSI C++, C, C++, CORBA, Java, MSVB, MSVC++	■	■	■	■	■	■	■
IBM Rational Rose Developer for Linux®/ UNIX® software	Ada, ANSI C++, C++, CORBA, Java	■	■	■				

Rational Rose products enable the creation of the following types of UML-based diagrams: activity diagrams, class, component, deployment, sequence, state chart, use case, collaboration, physical storage and deployment, and physical data and tables.

Start by creating one or more of these diagrams. Add others as needs change, and take advantage of trace capabilities to help ensure that current requirements are reflected in the current design. Rational Rose software includes a feature that helps to control these large models modularly by deconstructing them into smaller, more manageable components.

IBM Rational Rose Enterprise software: full modeling support for application development

IBM Rational Rose Enterprise software provides modeling support for application development and works with a number of implementation technologies. All Rational Rose products include full UML support; however, they vary in terms of the implementation technologies they support. Rational Rose Enterprise software is your choice for a modeling environment that supports a flexible range of implementation technologies, including Ada, ANSI C++; C++; CORBA; Java™/Java 2, Enterprise Edition (J2EE); Microsoft® Visual Basic and Microsoft Visual C++ languages.

Pattern support

Patterns are a mechanism for harvesting solutions to recurring visual modeling and other software problems. Rational Rose Enterprise software and many other Rational design products enable patterns-based modeling with support for patterns that are based on *Design Patterns: Elements of Reusable Object-Oriented Software* for Analysis, ANSI C++, Rose J and Visual C++ languages. This support helps to speed the development process and maximize the advanced modeling skills on the team.

Implementation technology support

In addition to providing a round-trip engineering environment that keeps models and code in sync, Rational Rose Enterprise software leverages the class diagram from the software architecture to generate code in Ada, ANSI C++, C++, CORBA, Java, Microsoft Visual Basic 6 or Microsoft Visual C++ languages. You can control various aspects of code generation and model-to-code synchronization, thus providing more flexibility and manageability across your specific development process. Open the generated code and further enhance it in your favorite integrated development environment (IDE). There are a number of IDEs for which Rational Rose software provides specific integration capabilities.

Rational Rose software also features additional support for Java modeling— the *Enumerations, For Each Loop* and *Autoboxing/Unboxing* features of Java 1.5 software can now be forward and reverse engineered, while the *Static Import, Generics* and *Variable Arguments* constructs can now be reverse engineered.

Database design

The Rational Rose sophisticated visual modeling environment also helps to accelerate processes by connecting database designers to the rest of the development team with a common tool and a single language. Specifically for database designers, the Rational Rose software enables the creation of object models, data models and data storage models. It provides the ability to map logical and physical models, allowing you to flexibly transform database designs into the application's logic through support for round-trip engineering between the data model, object model and defined data language (DDL) file/database management system (DBMS).

Using Rational Rose software, database designers can visualize how the application plans to access the database so that problems are identified and resolved before deployment. The leading Rational Rose software supports forward engineering of an entire database at a time, providing a high degree of flexibility in the way database designers work. In addition, the pretty print format of structured query language (SQL) source text is now preserved, even when the source text is changed.

IBM Rational Rose Technical Developer software: comprehensive support for technical systems development

IBM Rational Rose Technical Developer software is expressly created to meet the challenges of complex systems development. It helps enable technical and embedded systems developers to achieve high levels of productivity, with capabilities for developing systems based on the Ada, ANSI C++, C, C++, CORBA, Java, Visual Basic and Visual C++ languages. Rational Rose Technical Developer software supports the most robust model-based development automation constructs, including model execution and fully executable code generation. It unifies the project team through an extensive set of tool integrations—from requirements capture to code generation to system target testing and debugging.

Look to an entire family of solutions

The following products, in addition to the Rational Rose Enterprise and Rational Rose Technical Developer solutions, round out the Rational Rose product family to meet more specific needs.

- *IBM Rational Rose Developer for Java software supports leading modeling for Java and J2EE implementation environments, supporting architects and software developers.*
- *IBM Rational Rose Developer for Visual Studio software supports leading modeling for Microsoft Visual Studio 6 languages, supporting architects and software developers.*
- *IBM Rational Rose Modeler software supports leading modeling for architects who only need to create platform-independent designs.*
- *IBM Rational Rose Data Modeler software supports UML database modeling for database designers.*
- *IBM Rational Rose Developer for Linux®/UNIX® software supports leading modeling for development on the Linux or UNIX platform, supporting architects and software developers.*

Make developing on a team easier

Software development is a team sport. As a member of a software team, you have to deal with documentation, communication, requirements, version control, defect tracking, reporting and overall process management. But you don't want these activities to get in your way. Rational software liberates you from these challenges.

All members of the Rational Rose family integrate with IBM Rational RequisitePro® software so that you can view and manage ever-changing requirements in conjunction with your designs. Rational Rose products provide Web publishing and other reporting features that allow you to communicate your design to people who work within or outside of your project team.

Rational Rose products also integrate with IBM Rational ClearCase® software to help enable version control, and with IBM Rational SoDA® software to help automate the creation and maintenance of project documentation.

No one better equips you with tools and best practices for team development than Rational software. For more information, visit:

ibm.com/rational

Part of a broad family of design and construction tools

The Rational Rose family of products is part of an even broader set of IBM Rational design and construction tools—including IBM Rational Software Architect and IBM Rational Application Developer software—that meets a wide range of needs. Learn more by visiting:

ibm.com/rational/adc

IBM Rational Rose products at a glance

IBM Rational Rose

Operating system
Microsoft Windows® 2000 Professional, service pack 4
Microsoft Windows XP Professional, service pack 1 or 2
Microsoft Windows 2000 and Windows 2003 Server, and Microsoft Advanced Server, service packs 3 and 4

IBM Rational Rose for Linux/UNIX

Operating system
Sun Solaris 2.6 and 8
HP-UX 11.00
Red Hat Linux 7.x, 8.0 and 9.0
SUSE Linux Enterprise Server 3.0 and 9.0

IBM Rational Rose and IBM Rational Rose for Linux/UNIX

Supported IDEs
Microsoft Visual Studio 6.0, 2003 and 2005 (depending which subset of IBM Rational Rose Developer for Visual Studio software is installed, i.e., IBM Rational Rose Professional Visual Basic supports Visual Studio 6; IBM Rational Rose Professional C++ supports Visual Studio 2003 and 2005)
Processor
Minimum: Intel® Pentium® 3; 450MHz; recommended: 700MHz
Available RAM
Minimum: 256MB; recommended: 512MB
Available disk space
Minimum: 400MB (product image) plus 50MB (workspace); recommended overall: 2GB
Configuration management
IBM Rational ClearCase, Version 7.0
IBM Rational ClearCase LT, Version 7.0
Microsoft Visual SourceSafe 6.0c (supports the SCC interface)
Enterprise Java Beans and Web modeling and deployment platforms
BEA WebLogic 5.1, 6.0, 6.1 and 7.0
IBM WebSphere® 3.5, 4.0 and 5.0
Sun J2EE Reference Implementation 1.2
Borland Application Server 4.5
Borland Enterprise Server 5.x

Feature summary for the IBM Rational Rose product family

	IBM Rational Rose Modeler software	IBM Rational Rose Data Modeler software	IBM Rational Rose Developer for Java software	IBM Rational Rose Developer for Visual Studio software	IBM Rational Rose Enterprise software	IBM Rational Rose Developer for UNIX software	IBM Rational Rose Technical Developer software
IDE integrations							
Borland JBuilder 7.0 through 10.0			X		X	X (Sun Solaris and Linux only)	X*
Sun Forte for Java Community and Enterprise Editions 3.0			X		X	X (Sun Solaris and Linux only)*	X*
Microsoft Visual Studio 6				MSVB6	MSVB6		MSVB6
Microsoft Visual Studio 2003				MSVC++	MSVC++		MSVC++
Microsoft Visual Studio 2005				MSVC++	MSVC++		MSVC++ *
Wind River Tornado							C/C++ **
Green Hills MULTI							C/C++**
Diagrams							
Class, component, deployment, sequence, state chart, use case	X	X	X	X	X	X	X
Collaboration	X	X	X	X	X	X	X
Physical storage and deployment			X	X	X	X	X
Physical data and tables		X		X	X		X*
Domains—Microsoft Windows							
UML 1.x	X	X	X	X	X	X	X
Data modeling		X		X (Rose C++)	X		X*
Visual C++ 6.0				X	X		X
ANSI C++				X (Rose C++)	X	X	X*
Java 2, Standard Edition (J2SE) and J2EE			J2SE 1.4 (with some 1.5 features) Enterprise Java Beans (EJB) 1.2		J2SE 1.4 (with some 1.5 features) EJB 1.2	J2SE 1.4 EJB 1.2	J2SE 1.4 (with some 1.5 features*) EJB 1.2
Java 2, Micro Edition (J2ME)							X

Feature summary for the IBM Rational Rose product family (continued)

	IBM Rational Rose Modeler software	IBM Rational Rose Data Modeler software	IBM Rational Rose Developer for Java software	IBM Rational Rose Developer for Visual Studio software	IBM Rational Rose Enterprise software	IBM Rational Rose Developer for UNIX software	IBM Rational Rose Technical Developer software
Domains—Microsoft Windows (continued)							
Java Server Pages (JSP)			X		X	X	X
Ada, CORBA IDL and MIDL, XML DTD				X (Rose C++; CORBA only)	X	X	X*
Model-driven development							
Patterns	X	X	X	X	X	X	X*
Complete application							X**
Code generation							
UML model execution and debugging							X**
Build and deployment							
J2EE deployment			X		X	X	X*
Run-time analysis and testing							
Run-time visual trace sequence diagrams							X**
Rational QualityArchitect							X**
Team support							
Merge changes	X	X	X	X	X	X	X
Repository and configuration management	X	X	X	X	X	X	X
Documentation and reporting							
SoDA integration	X	X	X	X	X	X	X
Print diagrams	X	X	X	X	X	X	X
Web publishing and report generation	X	X	X	X	X	X	X
Process guidance							
IBM Rational Unified Process® (IBM RUP®) for systems engineering support							X**

 * Feature only available in IBM Rational Rose Enterprise software.

** Feature only available in IBM Rational Rose RealTime software.

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