

## IBM Rational Rose XDE Modeler

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### Highlights

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- **Model-driven development with UML support**
- **Multiple model support for Model-Driven Architecture (MDA)**
- **Runs either stand-alone or integrated with IBM WebSphere or Microsoft Visual Studio .NET**
- **Create platform-independent architectures that can be implemented on Java and .NET platforms**
- **User definable patterns to create, customize, and leverage architectural design patterns**
- **Cross-model references and versioning down to the class and diagram level allow structuring to fit any project**
- **Maintain traceability between analysis, design, and implementation models**
- **Free-form modeling**
- **Web publishing and reporting**

Rational® Rose® XDE™ Modeler enables architects and designers to practice model-driven development with the Unified Modeling Language (UML). Such users can produce platform independent models of software architecture, business needs, reusable assets, and management-level communication. Industry standard UML support and a powerful pattern engine allow users to create a semantically rich application architecture that meets business needs and is readily understood by the development team.

#### Model with the industry leader

The Unified Modeling Language (UML) has become the industry's standard notation for software architecture and design. Rational led the development of the UML so that software professionals could model their analysis and design activities in a uniform, consistent manner. With the UML, you and your team have a common way to communicate and document your software.

To make the UML more practical to work with, we created the industry-leading and award-winning Rational Rose XDE family of visual modeling and development tools. IDC and Gartner both recognize Rational Software as the industry's leader for Analysis, Modeling, and Design (AMD) tools.

The Rational Rose XDE family provides all of the essential elements of UML modeling in one robust product. Applicable to analysts, architects, designers, and implementers, Rational Rose XDE gives you and your team common tools for creating and maintaining UML models of your software project. Rational Rose XDE Developer supports forward and reverse engineering of code and both automatic and on-demand modes for round-trip engineering that allow you to control if, when, and how your models are synchronized with your code. Rational unifies your team with common modeling technology, so that you can build better software faster.

Everyone has good ideas. Having a common modeling language and an easy-to-use tool can document and refine those ideas into artifacts that can be communicated and shared with the whole development team.

### **Enable communication to and from stakeholders**

Rational Rose XDE Modeler allows users to create models and diagrams at any level of abstraction, from free-form diagrams for management consumption to detailed design models for translation into code. Users can visually model system usage scenarios, application architecture, and subsystem design that can be shared or developed collaboratively with other development team members using Rational Rose XDE Developer.

Publish models and generate model reports directly to web pages with Rational Rose XDE Modeler. Interactively explore published models that contain diagrams as well as details of individual model elements. Rational Rose XDE Modeler contains four report templates (i.e. Summary, Summary with Diagrams, Use Case Report, and Class Report). Reports are in HTML and allow users to share views of models with all stakeholders, whether or not they have Rational Rose XDE Modeler installed.

### **Realize software architecture with models and patterns**

Architects and designers can use Rational Rose XDE Modeler's multimodel support to apply the Model Driven Architecture (MDA) paradigm. Developers can use architectural models and patterns as the basis for implementation, thereby accelerating the development of applications to conform to their architecture. Further, features such as free-form modeling, web publishing and reporting allow users to share Architecture and designs with all stakeholders, whether or not the stakeholders use Rational XDE.

Rational Rose XDE Modeler includes advanced patterns features that allow the architect to control designs and implementations through automated transformations of analysis models. This automation also allows you and your architecture to be more effective because it is consistent and repeatable.

Architects start off by using a model template to provide structure for their project. They can take industry-standard patterns, or harvest some of their own, quickly and easily. Rational Rose XDE Modeler's built-in patterns engine allows you to create patterns from existing models and shape the pattern so it

can be applied anywhere. Automating patterns enables architects to jump start development, fully utilize their creative capabilities, avoid repetitive, tedious tasks, and design their own patterns.

### **Ensure architectural integrity over time**

Using Rational Rose XDE Modeler, architects gain visibility into the impact of change on designs. Not only can they see the changes and evolution of designs, but also the impact of pending changes. In addition, architects can also quickly comprehend, on a scope that would be difficult without Rational Rose XDE Modeler, the "global" impact of proposed architectural enhancements, future versions and/or revisions.

### **Create robust system architectures**

Resilient architectures provide flexibility during change. A resilient architecture enables clear division of work amongst team members, thereby reducing ambiguity and improving overall communication. It also minimizes complications when new requirements are added in the project/product lifecycle or team members move on to other projects, thus providing smoother integration, less confusion, and better organization. A component-based architecture enables users to build scalable, reusable code and connect disparate components to help control the ripple effect of software changes.

Rational Rose XDE Modeler allows software processes to evolve in a controlled, managed, and identifiable manner. Whether these evolutions involve change in language, platform, or need to adapt to future technologies, Rational Rose XDE Modeler facilitates management of development challenges. Further, Rational's Development Accelerator Initiative offers software teams the ability to reuse previously existing frameworks and patterns to reduce time-to-market and obtain strategic advantage needed to stay ahead of the competition.

<b>IBM Rational Rose XDE specifications</b>	
<b>Product Name</b>	<b>Includes</b>
IBM Rational Rose XDE Modeler	Rational Rose Modeler, Rational XDE Modeler
IBM Rational Rose Data Modeler	Rational Rose Professional Data Modeler
IBM Rational Rose XDE Developer for Visual Studio	Rational Rose Professional C++, Rational Rose Professional Visual Basic, Rational XDE Developer - .NET Edition
IBM Rational Rose XDE Developer for the Java Platform	Rational Rose Professional J, Rational XDE Developer - Java Platform Edition
IBM Rational Rose XDE Developer Plus	Rational Rose Enterprise, Rational XDE Developer Plus - .NET and Java Platform editions (Includes Rational PurifyPlus and Visual Trace)

<b>Product Name</b>	<b>IDE Included</b>	<b>IDE Integration</b>	<b>Languages</b>	<b>Business Modeling</b>	<b>Software Architecture &amp; Design</b>	<b>Coding / Construction</b>	<b>Data Modeling</b>	<b>Runtime Analysis and Visual Trace</b>
<b>IBM Rational Rose XDE Modeler</b>	Eclipse	IBM WSSAD* IBM WSSAD IE** MS VS .NET***	N/A	✓	✓			
<b>IBM Rational Rose Data Modeler</b>	N/A	N/A	N/A	✓	✓		✓	
<b>IBM Rational Rose XDE Developer for Visual Studio</b>	N/A	MS VS .NET*** MS VS****	C#, VB .NET, VB, MSVC++, ANSI C++, Managed C++	✓	✓	✓	✓	
<b>IBM Rational Rose XDE Developer for the Java Platform</b>	WebSphere Workbench	IBM WSSAD*, IBM WSSAD IE**	Java	✓	✓	✓	✓	
<b>IBM Rational Rose XDE Developer Plus</b>	WebSphere Workbench	IBM WSSAD* IBM WSSAD IE** MS VS .NET*** MS VS****	Java, C#, VB, VB.NET, MSVC++, ANSI C++, Managed C++	✓	✓	✓	✓	✓

\* IBM WebSphere Studio Application Developer  
 \*\* IBM WebSphere Studio Application Developer Integration Edition  
 \*\*\* Microsoft Visual Studio .NET  
 \*\*\*\* Microsoft Visual Studio

<b>Feature Summary for the Rational Rose XDE Product Family</b>					
<b>X=XDE, R=Rose, P=PurifyPlus</b>	<b>Rose XDE Modeler</b>	<b>Rose Data Modeler</b>	<b>Rose XDE Developer for Java</b>	<b>Rose XDE Developer for Visual Studio</b>	<b>Rose XDE Developer Plus</b>
<b>EIT Architect</b>			<b>EIT Developer</b>		
<b>Includes</b>	Rose Modeler XDE Modeler	Rose Prof. Data Modeler	Rose Prof. J XDE Developer for Java	Rose Prof. C++  Rose Prof. VB XDE Developer for VS .NET	Rose Enterprise  XDE Developer Plus - Java XDE Developer Plus -VS.NET PurifyPlus
<b>Supported IDEs</b>					
Standalone (not Eclipse)	R	R	R	R	R
WebSphere Workbench (incl.)	X		X		X
Integrates with WebSphere Studio Application Developer, and Integration Editions thru 5.1.x			X		X
Integrates with Eclipse 2.1.x	X		X		X
MS Visual Studio .NET 7.0, 7.1	X			X	X
Microsoft Visual Studio 6				R	R
<b>Diagrams</b>					
Free-Form	X		X	X	X
Class, Component, Deployment, Sequence, Statechart, Use Case	XR	R	XR	XR	XR
Collaboration	R	R	R	R	R
Physical Storage / Deployment			X	X	X
Physical Data / Tables		R	X	X	XR
<b>Domains - Windows</b>					
UML 1.3	R	R	R	R	R
UML 1.4	X		X	X	X
Data Modeling		R	X	X	XR
C#, VB .NET, Managed C++				X	X
Visual C++ 6.0				XR	XR
ANSI C++					XR
J2SE, J2EE			XR		XR
JSP			XR		XR
Ada, CORBA IDL & MIDL, XML DTD					R
<b>Model-Driven Development</b>					
Reusable Asset Specification	X		X	X	X
Pattern Engine	X		X	X	X
Database Design Patterns			X	X	X
GOF Patterns			XR	XR	XR
Code Template Engine			X	XR	XR
Assisted Modeling			X	X	X
Unlimited Undo	X		X	X	X
<b>Build and Deployment</b>					
J2EE deployment			XR		XR
<b>Runtime Analysis and Testing</b>					
Memory Leak detection					P
Runtime Visual Trace - Sequence Diagrams					X
Rational Quality Architect					R
<b>Team Support</b>					
Multi-Model support	X		X	X	X
Merge Changes	XR	R	XR	XR	XR
Repository / CMT	XR	R	XR	XR	XR
<b>Documentation / Reporting</b>					
SoDA Integration	XR	R	XR	XR	XR
Print Diagrams	XR	R	XR	XR	XR
Web Publishing and Report Generation	XR	R	XR	XR	XR
<b>Process Guidance</b>					
RUP Config for Java & C++			RUP		RUP
RUP Config for .NET				RUP	RUP

## Specifications

### Hardware and Software Requirements

#### Operating System

- Windows NT 4.0 Workstation, Service Pack 6a
- Windows 2000 Professional, Service Pack 2 or Service Pack 3 (Recommend: Service Pack 2)
- Windows 2000 Server and Advanced Server, Service Pack 2
- Windows XP Professional

#### Supported IDEs

- Eclipse Java platform IDE 2.0.x, 2.1.1/2
- IBM Websphere Studio Application Developer 5.0.x, 5.1.1/2
- IBM Websphere Studio Application Developer Integration Edition 5.0.x
- IBM Websphere Studio Enterprise Developer 5.0.x
- Microsoft Visual Studio .NET 2002, 2003

#### Processor

- 450 MHz PII
- Recommend: 700 MHz

#### Available RAM

- Minimum: 256 MB minimum for Rose, or 512 MB for XDE
- Recommend: 512 MB for Rose, or 1 GB or more for XDE

#### Available Disk Space

- 400 MB installation directory per product
- 50 MB workspace
- Recommend: 2-4 GB

#### Configuration Management

- ClearCase 2002.05, 2003.06
- ClearCase LT 2002.05, 2003.06
- Microsoft Visual SourceSafe 6.0c - Supports the SCC interface



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