

Rational_® software

About Rational



Rational software from IBM

helps organizations create business value by improving their software development capability. The Rational software development platform integrates software engineering best practices, tools, and services. With it, organizations thrive in an on demand world by being more responsive, resilient, and focused. Rational's standards-based, cross-platform solution helps software development teams create and extend business applications, embedded systems and software products. Ninety-eight of the Fortune 100 rely on Rational tools to build better software, faster.

IDC has recognized Rational as the revenue leader in multiple application development and deployment markets.

The on demand era

Today's customers want more. They want higher quality, delivered at lower cost. They want faster turnaround, more personalized service, and greater customization. And they want it now.

To meet these needs, organizations are evolving their business to become more:

- Responsive to dynamic changes in demand, supply and pricing
- Adaptive to **variable** cost structures, with scalable business processes
- **Focused** on core competencies that create competitive advantage
- **Resilient** to threats with consistent availability and security.

Welcome to the On Demand era. This new wave of enterprise transformation requires tighter integration of applications and businesses processes, more collaborative relationships with customers and business partners—and an enhanced emphasis on software development.

Rational: The software development platform for an on demand world

Software development competency is essential to building and evolving the software ecosystems that power an on demand world: applications that create strategic advantage, adapt quickly to changing business needs, and provide high levels of reliability and scalability.

The Rational platform fundamentally improves the way organizations build software. It encourages teams to:

- Adopt iterative development practices that reduce project risk.
- Focus on architecture, to develop more resilient systems that adapt more quickly to changing business needs.
- Effectively manage change and protect critical strategic assets.

The result: a more proficient software development team, and a more responsive, resilient, and focused business.



Process made practical

The implementation of a nimble yet targeted development process is crucial to software development success. That's why IBM Rational developed Rational Unified Process® (RUP®), an industry-wide platform for process guidance. Rational Unified Process combines a core set of industry-proven best practices with optional process Plug-Ins to support projects of any size or scope. All types of projects–including small, Web-based and mission-critical can realize more predictable results by implementing Rational Unified Process.

Unified tools for the project team

IBM Rational tools provide full lifecycle support for individual contributors and the extended development team. Individually, Rational tools are leaders in their respective market categories. Combined, they offer unprecedented automation and ease of use. Rational tools span Windows, UNIX, Linux, and mainframe platforms and support a host of languages, IDEs, and operating environments, including: Java, Eclipse, C/C++/C#, Visual Basic .NET, Microsoft .NET, COM/+, CORBA, more than 100 cross-development environments for real-time and embedded system developers, and evolving Internet/Web services standards.

Services for accelerated implementation

IBM Rational works closely with customers to accelerate their success. Our services encompass worldwide consulting, deployment packages, technical support, and a wealth of knowledge and training resources. Rational Developer Network[™] delivers online content, training, discussion groups and artifacts tailored to the IBM Rational community. With more than 20 years of experience, IBM Rational has a proven track record of successful services delivery.

Rational Strategic Initiatives

Rational products embody four strategic initiatives advancing the state-of-the-art of software development:

• Best Practices – enables software practitioners, projects, and organizations with lifecycle process guidance that is comprehensive, actionable, and relevant. This initiative is embodied by the Rational Unified Process.

- Model-Driven Development (MDD) – automates the integration, generation, modernization, and reuse of artifacts throughout the software lifecycle. The model-driven development initiative is supported by Rational Design and Construction tools and Requirements and Analysis tools.
- Quality by Design (QBD) improves software fitness by helping organizations prevent, detect, diagnose, and remove defects throughout the software lifecycle. It is supported by Rational Automated Testing and Design & Construction products.
- Enterprise Change Management (ECM) – improves the management of software development teams and the artifacts they produce from requirements capture to deployment. The ECM initiative is supported by Rational Software Configuration Management and Lifecycle Management products.

Rational products

IBM Rational products support every discipline on the software team, including requirements & analysis, design & construction, automated testing, software configuration management, and lifecycle management.

Requirements & Analysis

- IBM Rational RequisitePro[®] team-based requirements management
- IBM Rational Rose Data Modeler database design and modeling
- IBM Rational Rose XDE Modeler UML-based software architectural modeling

Design & Construction

- IBM Rational Rapid Developer architected rapid application development and deployment of n-tier J2EE and Web applications
- IBM Rational Rose Technical Developer - model-driven development of complex Java, C/C++ and pervasive/embedded software
- IBM Rational Rose XDE Developer model-driven development and runtime analysis integrated into Eclipse, WebSphere Studio, and Microsoft Visual Studio development environments

Automated Testing

- IBM Rational Functional Tester for Java and Web – advanced functional testing of Java and Web applications
- **IBM Rational Performance Tester** scalable system performance testing of HTTP/S protocol applications
 - IBM* Rational Robot* regression and functional testing of .NET and heterogeneous applications
- IBM* Rational* PurifyPlus runtime analysis tools for developers, including runtime error detection, application performance profiling, and code coverage analysis
- IBM[®] Rational[®] Test RealTime component testing and run-time analysis for pervasive/embedded and other cross-platform applications

Traditional Language

 IBM[®] Rational[®] Ada Developer family – Team-based development for mission-critical and embedded Ada applications

Software Configuration Management

 IBM* Rational* ClearCase* Change Management family – comprehensive software configuration management, including software asset management and change and defect tracking

Lifecycle Management

- IBM* Rational* Team Unifying Platform – core infrastructure including lifecycle process guidance, requirements management, version control, defect and change tracking, test management, and project measurement and reporting
- IBM* Rational* Suite* family a complete lifecycle solution for crossfunctional team development
- IBM[®] Rational Unified Process[®] flexible lifecycle process guidance (best practices)
- IBM* Rational* SoDA* project documentation generation



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