Achieve predictability in desired business outcomes through requirements-driven quality.

Highlights

- **The Challenge: Delivering high-quality and innovative software solutions that best address your customers' needs and help reduce their risk and yours**

- **The Solution: Offering visual and textual requirements definition techniques, IBM Rational requirements-driven quality solutions build stakeholder consensus on requirements early and often in the process**

- **Key Benefits: Improving time to value and quality by reducing rework and cost, achieving faster stakeholder consensus, increasing productivity and process automation, instilling continuous process improvement and facilitating enhanced decision support**

Collaborate to mitigate business risk

Thirty percent of software development projects are consumed by poor requirements definition and management.[1] And being late to market by six months or more can cost an organization 33 percent of its five-year return on investment.[2] What if this loss of ROI could be avoided—or even eliminated?

With IBM Rational® requirements-driven quality solutions, teams can gain consensus and validation quickly by collaborating in realtime. Using visual and textual techniques (such as rich text, use cases and storyboards), teams can align requirements with business processes and objectives, focusing first on validating business goals, not on code and design. Resolving requirement and quality issues early in the lifecycle can reduce ambiguity and rework and slash project overrun by an estimated 20 percent.[3] As the requirements change throughout the lifecycle, full traceability enables impact analyses for critical decision support and risk mitigation.

This ability to collaboratively capture the needs of the business, along with visualizing and validating requirements before committing additional project resources, can help your organization avoid the pitfalls that so often lead to project failures.

Automate to accelerate time to market and improve operational efficiency

Are your automation efforts effective? Are you automating the right tasks?

Efficiently automating process workflows can reduce labor-intensive, manual, repetitive tasks to improve cycle time and get your products to market faster. Requirements-driven quality solutions use activity-based workflows to guide projects throughout the entire software lifecycle. Serving as the quality contract for the entire team, an automated workflow helps ensure that key stakeholder reviews, validations, sign-offs and hand-offs do not fall through the cracks. With

a central, shared location for all project artifacts, teams can manage dynamic information and full traceability between requirements and testing artifacts. This allows stakeholders to stay on the same page and keep the focus on validating business goals and objectives—not on runaway requirements.

Measure for ongoing process improvement

Is continuous improvement a part of your development culture? Are you able to identify ineffective and costly processes?

Relying on intuition is risky. To create continuous improvement of your software delivery execution—while enhancing predictability and reducing risk and time to value—decisions need to be based on fact. Rational requirements-driven quality management solutions provide objective decision support based on real data. Offering asset reuse, versioning history and trending within and across projects, these solutions can help you measure process effectiveness and make objective, factual decisions to improve organizational and business outcomes.
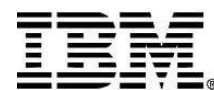
Report and take action with greater insight and confidence

Has ineffective and delayed software delivery resulted in lost revenue or lost new business opportunity? Is the business strategy different than software delivery's results?

Driving new growth and value through software innovation requires that you analyze the impact of changing requirements and respond to them without wreaking havoc on quality, cost and the schedule. IBM Rational requirements-driven quality solutions are designed to tag, filter and perform advanced searches, making finding and retrieving quality artifacts like requirements a breeze. Constant access to filtered, prioritized quality metrics enables confident, informed decision making, and it can help your organization quantify how project decisions and deliverables align with business strategy.

Driving new opportunity and growth is at your fingertips

For over 25 years, IBM has been developing collaborative processes powered by automation to govern software delivery. Our requirements-driven quality solutions provide lightweight process guidance, and our products for collaborating across the software delivery lifecycle can help improve software quality in less time. With IBM requirements-driven quality solutions, you can define concise requirements that align to business goals and objectives, helping to lay the foundation for effective software delivery.

"Verizon is also now able to deliver projects in about two-thirds of the time of their competitors... Applications are passing user acceptance testing at higher rates than on a recent project. Test automation has reduced costs by more than $75,000 on a single project. Customer satisfaction has increased, enabling the company to win a key contract extension." **- Douglas Cook, Senior Quality Assurance Specialist at Verizon Business**

"In test management, Rational has saved me about 20% of my time, and we spend about 60% less time on requirements traceability across the team. We've increased customer satisfaction, because we can deliver access to traceability and progress reports without increasing costs." **- Tracie Stapp, Practice Leader Fujitsu New Zealand**

Our products

- *IBM Rational Requirements Composer* software — helps teams define and manage requirements effectively across the project lifecycle
- *IBM Rational DOORS®* software — provides a requirements management tool for systems and advanced IT applications
- *IBM Rational RequisitePro®* software — offers teams an integrated tool for requirements and use case management
- *IBM Rational Quality Manager* software — provides teams with a collaborative test management environment to track all aspects of the quality assurance effort
- *IBM Rational Test Lab Manager* software — enables quality assurance teams to configure, build, and optimize the utilization of the test lab environment
- *IBM Rational Functional Tester* software — provides an automated functional testing and regression testing tool
- *IBM Rational Performance Tester* software — identifies the presence and cause of system performance bottlenecks
- *IBM Rational Service Tester for SOA Quality* software — provides automated test validation of SOA applications and web services

For more information

To learn more about IBM Rational requirements-driven quality solutions, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/rational/offerings/quality/requirements.html

1 Leffingwell, Dean and Widrig, Don, *Managing Software Requirements: A Use Case Approach*, Addison-Wesley Professional, 2003.

2 Don Waters in association with PriceWaterhouse Coopers LLP, Operations Management (Fast Track MBA), Kogan Page Ltd., 1999.

3 Capon, Noel, Hulbert James M., and Piercy, Nigel F., *Total Integrated Marketing: Breaking the Bounds of the Function*, Kogan Page Ltd, 2005.