



Rational software

IBM Rational Quality Manager

Highlights

- ***Tracks quality-driven software delivery through a comprehensive and customizable test plan***
- ***Enables collaboration with distributed teams through a Web 2.0 interface***
- ***Tailors content and presents information via customizable dashboards***
- ***Offers manual test authoring with rich text and inline images for precise test definition***
- ***Helps users achieve optimized environment coverage through test execution schedules***
- ***Provides test lab management capabilities to help users track, schedule and execute tests on physical and virtual lab assets***

People, not organizations, build great software. To achieve quality-driven software delivery, teams need to collaborate, use automation to accelerate project delivery, share information, and collect metrics to better govern projects. Quality-driven software delivery expands the definition of quality beyond the boundaries of traditional testing to include the key aspects of software delivery from requirements definition and management to defect management.

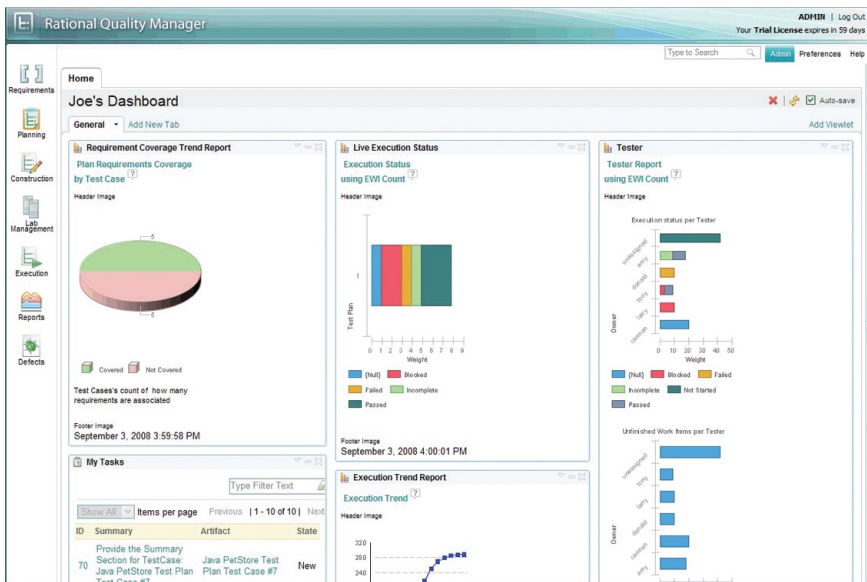
To put quality in action, software delivery processes need to help teams:

- *Collaborate. Project information and status updates must be shared so that team members can synchronize teamwork throughout the lifecycle.*
- *Automate. Labor-intensive activities must be reduced to speed time to delivery.*
- *Govern. Project metrics must be understood moment by moment to enable accurate, reliable and timely release decisions.*

A collaborative, role-based, business-driven environment for test planning and execution, workflow control, tracking, and metrics reporting, IBM Rational® Quality Manager software is designed to quantify how project decisions and deliverables affect and align with business objectives and outcomes. Available in Standard and Express editions, IBM Rational Quality Manager is designed to synergize a software team's efforts, helping to reduce defects and accelerate product delivery schedules.

Collaborate

People don't build great software alone; they do it in teams. Getting individuals to collaborate as a team is critical to enabling quality-driven software delivery.



IBM Rational Quality Manager users can customize the layout and content of their dashboard to provide tailored information for individual decision making.

The test plan

A test plan should be more than just a document created at the beginning of a software project and then stored on a shelf. It should be a quality contract that provides documentation on project objectives and on the steps required to achieve those objectives.

With IBM Rational Quality Manager, a test plan is a dynamic, living document that evolves with the project; it's a quality contract that clearly describes project goals and entry and exit criteria, while also tracking prioritized items for validation. Static data, such as business objectives, and dynamic data, such as requirements and test cases, are captured in the plan. Each section

of a Rational Quality Manager test plan can have individual owners, establishing clear responsibilities distributed across the entire software quality team. This enables software professionals to know what is expected of them and what they can expect from the team.

Distributed access for teams of any size

Modern software teams are rarely colocated; in fact, they're distributed across different buildings, different cities or even different countries. Enabling these teams to communicate seamlessly and efficiently can pose a significant challenge.

IBM Rational Quality Manager is built on a Java™ and Web 2.0 technology–based architecture, so team collaboration doesn't have to be any more complicated than opening a browser. No heavy installation or proprietary limiting Microsoft® ActiveX technologies are required.

And for teams of five users or fewer, IBM Rational Quality Manager Express Edition software offers all the functionality of IBM Rational Quality Manager Standard Edition software, including basic lab management capabilities.*

Constantly updated status

To effectively work together, team members must understand what is expected of them, and what they can expect from others.

IBM Rational Quality Manager offers two views on the individual user's dashboard: A work-item list that shows a tester what work has been assigned to him or her, and a team event log that updates automatically as activities occur/progress. Together these views help ensure that everyone is on the same page.

Automate

Working together, teams can leverage automation to accelerate quality-driven software delivery.

Manual test authoring

Manual testing is a large component of quality assurance. Documenting tests, ensuring consistent execution and capturing test results are all time-consuming but necessary efforts.

IBM Rational Quality Manager acknowledges the importance of manual testing and has integrated rich manual test authoring directly into the product.

Testers are provided with a rich text editor that can capture textual test steps alongside embedded images. Using this editor, testers can record the test steps that must be executed in order to validate a given function of their application.

To enable test reuse, IBM Rational Quality Manager uses keywords, which allow testers to share common steps between tests. These can be manual steps or automated test scripts that are powered, for example, by IBM Rational Functional Tester software. Creating hybrid manual tests with automated keywords is often a very simple way for manually focused test teams to leverage the power of test automation, without making a full commitment to a test automation framework.

Test coverage optimization

Many applications are built to support multiple environments. Such environments can be composed of different operating systems, different browsers or different hardware configurations. For testers, this poses a significant challenge, as the time required to complete testing increases exponentially with the number of supported configurations.

IBM Rational Quality Manager includes technology that is designed to automatically identify and select the minimum number of tests required for a given level of environment coverage. This enables testers to ensure that they optimize configuration coverage within their time or resource constraints.

Test lab management

Given the enormous number of configuration possibilities, testers often spread test execution across a lab of physical and virtual machines. However, ensuring the availability of these machines and scheduling tests on them can be an organizational nightmare.

IBM Rational Quality Manager supports distributed execution across physical and virtual lab machines. To enable this, the software includes test lab management functionality that allows testers to register their physical and virtual assets as well as schedule execution according to asset configurations. This helps remove administrative burdens and helps ensure optimal utilization of test lab resources.

Govern

The trajectory of teams—working together and benefiting from the power of automation—is measured by team project statistics, and this information is used as the basis for release decisions.

Customized dashboards and reports

The challenge of project governance is providing the right level of reporting granularity for each individual on the team. The needs of project managers greatly differ from those of testers, but both must be met if a project is going to stay on track.

IBM Rational Quality Manager provides contextual information tailored to the individual. Each user can customize the layout and content on his or her Rational Quality Manager dashboard, and, because the dashboard is continually updated, each user can view the most current information that pertains to his or her work.

A wide variety of formal and customizable reports are also available, and reports can capture information at varying levels of granularity to help ensure that all team members have access to the information they need.



Lifecycle traceability

Ensuring that an application meets its business objectives requires more than running a few tests. It requires software delivery teams to track requirements, associate those requirements to test cases, and report on any defects found during test execution.

IBM Rational Quality Manager is designed to enable full lifecycle versioning and traceability from requirements and tests to defects and remediation.

Users can create requirements directly in IBM Rational Quality Manager, or requirements can be tracked through a dynamic link to requirements management tools such as IBM Rational RequisitePro® software. Test cases can then be linked to requirements, providing project managers with a way to track requirements coverage. Should any issues be found during test execution, defects can be entered and tracked to help ensure proper feature development.

Quality-driven software delivery

IBM Rational Quality Manager is designed to help teams collaborate by allowing them to seamlessly share information, to use automation to accelerate project schedules, and to collect metrics for project governance and release decisions. By using IBM Rational Quality Manager to implement quality-driven software delivery, teams can help ensure that their applications meet intended business objectives.

For more information

To learn more about IBM Rational Quality Manager software, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/rational

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Produced in the United States of America
September 2008
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* IBM Rational Quality Manager Standard Edition software is required for users wishing to achieve enterprise lab management with integration to IBM Rational Test Lab Manager software.