

Integrate requirements and quality management with IBM Rational DOORS and IBM Rational Quality Manager

Highlights

- Gets analysts, developers and QA on the same page by allowing access to relevant information in the preferred working environment
- Allows collaboration in context and helps reduce the cost of rework with full life-cycle traceability
- Accelerates delivery time by identifying quality issues early and prioritizing development work
- Responds faster to changing priorities with efficient impact analysis
- Helps enable confident decision making by measuring quality based on customer requirements, improving predictability in business outcomes
- Informs test teams of changes to requirements automatically and within their own environment
- Facilitates delivery of compliance documents with less effort by generating customized reports

Design, test and release the product your customers require

Are you unable to determine whether your product's features and functionality are actually those specified by your stakeholders? Is your test team working to meet the same requirements as your developers? Are your tests validating conformance to customer requirements, or are they just checking to be sure that your product doesn't fail?

Rather than test how well a deliverable meets its requirements, testers often simply test against what they think the system should do. If it doesn't break, it's assumed that the deliverable is ready for release. This assumption can encourage a team to deliver a product that may work but that doesn't meet the requirements—resulting in customer dissatisfaction and costly rework.

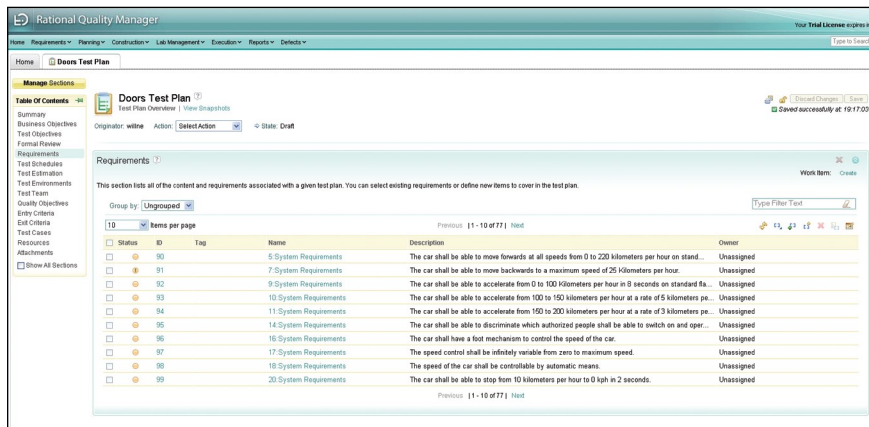


Figure 1: You can view requirements from Rational DOORS within a test plan in Rational Quality Manager.

The integration between IBM Rational® DOORS® and IBM Rational Quality Manager software can help you reduce the risk and avoidable costs of delivering inadequate quality by accurately capturing requirements, enhancing team collaboration and facilitating full test coverage. It measures the quality of the product by its adherence to the requirements rather than the percentage of tests passed.

Identify quality issues early to reduce time to deployment and cost

Using this integration, you can utilize Rational Quality Manager to access requirements managed by Rational DOORS. In turn, when your test teams need to better understand the details of a specific requirement, they can follow the traceability link through Rational Quality Manager and view the requirements data in Rational DOORS.

Through the Rational Quality Manager integration, you can create tests to run against requirements just as soon as the requirements are written. You can also run tests early in the process and trace the results back to requirements.

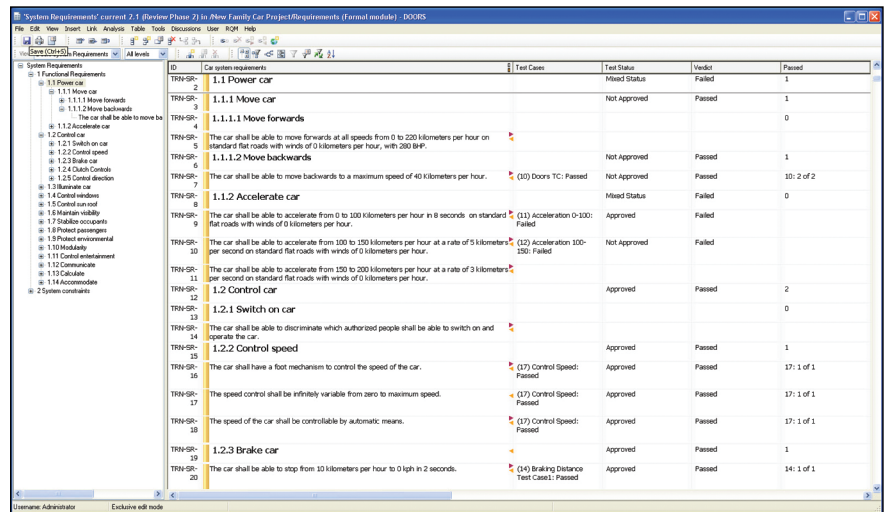


Figure 2: You can view test status against requirements within Rational DOORS.

And you can measure quality against actual requirements quality, rather than against how many tests have passed or failed or how many requirements have been successfully tested.

By maintaining traceability between qualification criteria and test cases, you can discover quality issues early in the test cycle and avoid finding and fixing defects at later stages of development. As a result, you can significantly reduce development costs and speed time to deployment.

Avoid rework and improve efficiency

IBM Rational solutions and practices can help your analysts and testers collaborate early in the lifecycle—when the requirements are developed—to avoid costly requirements failures and project rework. The Rational DOORS and Rational Quality Manager integration enables your analysts to communicate with testing and quality assurance (QA) teams and to focus on developing testable requirements with defined qualification criteria.

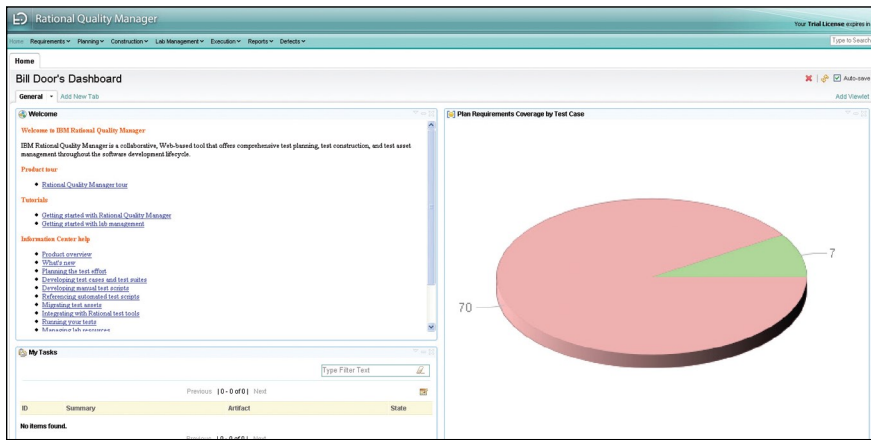


Figure 3: The dashboard in Rational Quality Manager can display metrics such as “requirements coverage by test cases.”

The integration synchronizes Rational Quality Manager data with Rational DOORS. As test plans evolve and test execution begins, you can use Rational DOORS to help ensure that all requirements have been associated with or acknowledged by test cases. A Rational DOORS user can monitor the status of testing displayed alongside the original requirements.

By linking tests to requirements, you can perform an impact analysis of proposed requirements changes and view test data displayed in a single window via Rational DOORS traceability columns. When requirements are changed in Rational DOORS, testers working in Rational Quality Manager can see those changes.

Confidently manage releases

By enabling your analysts, testers and QA teams to communicate and collaborate early in the development lifecycle, you can make informed decisions to ensure that the product meets the necessary quality levels based on your customer and business needs. When you base your quality measurements on the original requirements, you can improve the quality of the deliverable and increase your chances of success.

You can better prioritize development work and focus on the business needs of your stakeholders if you follow your requirements throughout the lifecycle. With the lifecycle versioning and traceability capabilities of Rational DOORS—from requirements to testing

and from testing to results and overall requirements status—you can predict more accurately when a product is ready to release. That means you can reduce the risk of releasing untested features and functions. And you can help ensure that the product meets customer and business requirements.

Create audit trails with less effort

Because you need to meet regulatory compliance and industry standards—such as Sarbanes-Oxley and Basel II—set forth by governing bodies including International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), Food and Drug Administration (FDA) and the Federal Aviation Administration (FAA), you need transparency across your audit procedures. You also need a repeatable process to simplify the management of your line-of-business (LOB) applications and the changes to them. With the Rational DOORS and Rational Quality Manager integration, you have the ability to provide comprehensive audit trails. The integration also helps you avoid manually compiling the necessary data for regulatory agencies.



IBM Rational DOORS and IBM Rational Quality Manager interface features and benefits

Features	Functional benefits	Business benefits
A test plan, as well as a dynamic document that provides links to both requirements and test cases	Starts the test process when requirements are written so that test plans can be documented and requirements errors can be found early in the lifecycle	Avoids costly requirements failures and rework
Access to a common set of requirements for both test engineers and developers	Enables all teams to work toward the same objectives and reduces the chance of miscommunication	Accelerates time to deployment and improves operational efficiency
Traceability from test cases to test plans and then to requirements	Helps ensure that every requirement has been tested and that an efficient requirements-based testing process is used	Helps improve client satisfaction by accurately determining a product's test coverage and readiness for deployment
Comprehensive lifecycle traceability, including test, development and requirements data	Delivers a detailed impact analysis of proposed requirements changes	Saves time and money by prioritizing change activities based on business impact
Test plans, history and baselines	Produces reports documenting compliance with internal quality standards and external regulations	Demonstrates compliance to regulators and auditors, with less effort
Requirements, test data and status in a single view	Measures the progress of testing by showing which requirements are satisfied and which are not	Builds greater confidence in managing releases and more accurately predicts when a product is of sufficient quality to release

For more information

The integration is offered at no charge to existing IBM Rational DOORS and IBM Rational Quality Manager customers. To learn more about the integration, contact your IBM sales representative or IBM Business Partner, or visit:

ibm.com/software/rational

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Software Group
Route 100
Somers, NY, 10589
U.S.A.

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