What’s New with IBM® Rational® Quality Manager 4.0?

Smarter software for a smarter planet

Enabling Product and Service Innovation | Rational
Quality Management for the Development Lifecycle
IBM Rational Quality Manager v4.0

- Enable collaborative quality-driven software and systems delivery
- Help teams quantify how project decisions align with business objectives and outcomes
- Improve understanding of priorities across the whole team and focus testing efforts through risk based assessment
- Assess your readiness for delivery in real-time with customizable dashboards and reports
- Accelerate test execution via integrated manual testing and integration with test automation tools

IBM Rational Quality Manager v4.0 highlights
- New role-based reporting and live views showing traceability to requirements and test execution progress
- Improved test planning through support of hierarchical timelines and test prioritization
- New manual test authoring experience leveraging Rational Functional Tester recording
- Process enactment and customization flexibility
- Improved enterprise deployment support
Rational Quality Manager: Central Hub for Quality Management

- Test Planning
- Test Construction
- Test Execution
- Team Collaboration
- Reporting & Dashboard

Rational Requirements Composer
Rational DOORS
Rational RequisitePro

Defect Management
Rational Team Concert
Rational ClearQuest

Requirements Management

Functional Testing
Rational Functional Tester
Worksoft Certify

Performance Testing
Rational Performance Tester

Integration Testing and Test Virtualization

Test Data
Optim

Security and Compliance

AppScan
Rational Quality Manager: A Closer Look

Test Planning
- Comprehensive test plan
- Shared objectives
- Scope, Timeline, Resources
- Risk assessment

Test Construction
- Requirement driven testing
- Test environments coverage
- Manual test authoring
- Test lab management

Test Execution
- Manual test execution
- Use test automation tools
- Record test results
- Submit & track defects

Team Collaboration
- Process enactment and enforcement
- Review and approval
- Task management
- Rapid team member on-boarding

Reporting & Dashboard
- Status and progress tracking
- Customizable live dashboard
- Real-time metrics and reports
- Compliance and quality audit
Rational Quality Manager: What’s New

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Comprehensive Test Plan

*Unify the team through real-time collaboration and clear objectives*

- Test prioritization helpers
- Traceability and execution progress views
- Test iterations across test plans thanks to project area timeline
Prioritization helpers

*Tackle the top priority tests first, find critical defects early*

- New planning fields for test artifacts to help prioritize, schedule and manage testing activities:
  - Test Suite/Case: priority, estimate
  - Test Suite/Case Execution Record: priority, estimate, time spent
- New generated TERs inherit estimate and priority from associate test case/suite
Test planning: new views, actions and dashboard widgets

- Test Suite/Case Execution Record section in test plans
- New dashboard widgets for testers and team leaders with roll up
- Row level TER action menu to allow changing of TER owner, priority, running TER
- Export data in the table views to CSV format
Traceability views

**Identify gaps and analyze impact with lifecycle traceability**

- Traceability views for test plans, test cases/scripts, test suite/case execution records and test suite/case results showing links:
  - From test plans to requirement collections and development plans
  - From test cases to requirements and development work items
  - From test scripts to requirements
  - From test suite/case execution records (TERs) and results views show links to defects

- Menu action directly available to add links
Execution progress views

- Execution progress view for test plans
- Test plan execution status dashboard widget
- Test suite/case execution status summary viewlet in the test plan header
- Each status bar has rich hover and drill down to the TCER list, or TSER list options
- View setup can be saved as a personal or shared query for re-use

*Track and optimize test execution in real-time*
Hierarchical test iterations across test plans

- Test iteration schedule use to plan test effort and track progress
- Timeline: activity within a project area with its own schedules, deliverables, teams and processes
- Iteration: Represents a hierarchy of sequential phases or intervals within a timeline
- Enable re-use of test iterations across test plans
- Advanced option to use multiple timelines via team areas

Flexible planning across test plans and iterations
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Requirement driven-testing

- Rich text test requirements can be defined in the RM application
- Test artifacts can be linked to requirements in:
  - IBM Rational Requirements Composer
  - IBM Rational DOORS
  - IBM Rational RequisitePro
Requirement reconciliation wizard

- Show requirements not covered by test cases in the current test plan
- Can create automatically new test case for those requirements
- Can add existing test cases linked to those requirements to the current test plan
- Show modified and removed requirements
- Can update the links and mark test cases as suspect

Ensure full coverage even if requirements keep changing
Integration between RQM 4.0 and DOORS 9.4 (DWA 1.5)

- Live links between test artifacts to requirement instead of a synchronization mechanism
  - Test plans to DOORS views
  - Test cases to DOORS requirements
- Links can be created using the reconcile wizard or one-by-one from DOORS or from RQM
- Direct visibility on DOORS requirements from RQM via rich hover
- Use OSLC RM specification v2
- Migration utility available
  - Remove links from tests to RQM proxy reqs.
  - Create OSLC links automatically

Real-time lifecycle traceability to DOORS requirements
Integration with RequisitePro

- RequisitePro views and packages by server and project grouped by server and project
- Project Administration enhancements

*Tackle the top priority tests first, find critical defects early*
Requirements to test steps traceability

*Fine grained traceability to meet regulatory requirements*

- Each test step of a manual test script can be linked to one or several requirements
- Can be restricted to requirements already associated with the related test cases
- Links are shown during test execution and in test case result details
- Works with Rational Requirements Composer and DOORS 9.4
Manual test script recording with IBM Rational Functional Tester

- Requires IBM Rational Functional Tester (RFT) 8.2.2
- Records user interactions with application under test using RFT
- Recording is captured as a RQM manual test script in English natural language with screenshots, independant from RFT
- Resulting manual test scripts are executed manually using RQM only
- Support Web and Java applications running on Windows
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Ownership – Team Area

Assigning ownership is the first step towards collaboration

- Test artifacts can be assigned to
  - An individual owner
  - A team area
- Team area ability to control process and permissions at a finer grain of grouping within a project area
- Each team can have its own timeline
Test artifacts workflow customization

- Each artifact type comes with a predefined set of state transitions, which can be customized.
- Each artifact supports a set of pre-defined state groups, which can be used to write process enforcement against.
- Each state will then map to each state group.
- Transition between states can be customized too.
- Can assign process advisers on each state that act as pre-conditions or follow-up actions using Rational Team Concert client.

Tailor integrated process to fit your needs

<table>
<thead>
<tr>
<th>Transitions</th>
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</thead>
<tbody>
<tr>
<td>From</td>
</tr>
<tr>
<td>Draft</td>
</tr>
<tr>
<td>Under Review</td>
</tr>
<tr>
<td>Approved</td>
</tr>
<tr>
<td>Retired</td>
</tr>
</tbody>
</table>
Review and approval process

Achieve higher quality through online in-context feedback

- Available for test plans, test suites, test cases, test scripts, test suite/case results
- Multiple reviews and/or approvals
- Discussion for each review/approval and general discussion
- Reason why each person approved or rejected
- Test artifact state transition can be linked to approval using process advisors
E-Signature

- Actions: Lock / unlock, review & approval
- Test artifacts: test plan, test suite/case, test script, test execution record, execution results
- Ability to sign multiple artifacts at once
- History shows who signed, when, for what action and comments
- Configured using Rational Team Concert client

Comply with regulatory requirements
Process template

- Ability to extract a process template from an existing QM project area
- A QM process template includes:
  - Roles and permissions
  - Test artifacts workflow customization
  - Test artifacts templates
  - QM project properties and preferences such as custom attributes, categories or quality objectives
- Process template can be reused to quickly create new QM project area

Reuse best practices and quickly setup new projects
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Selenium JUnit test execution adapter

- Selenium primarily automates web applications for testing purposes
- Support for executing JUnit tests that call the Selenium 2 APIs to drive web browsers
- Gather the JUnit results and present them in a test case result

Support developer testing of Web UI

![Selenium test screenshot](image-url)
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Dashboard for Project and Teams

- One common project dashboard and team dashboards
- Project dashboard is opened in the first tab of the RQM console
- Team dashboards appear in the “Project Dashboard” action bar menu
- Personal Dashboards are now CLM wide and appear in the home menu

Take informed decision with real-time dashboards
New Dashboard Widgets

- **Test Team Viewlet**
  - Rolls up Execution Record information by owner.

- **Test Execution Record Queries Viewlet**
  - Summary info and quick navigation to TERs.
Reporting solutions

- Reporting solutions of Rational Quality Manager
  - Built-in reports based on Birt technology
  - Custom reports (Rational Reporting for Development Intelligence, RRDI)
  - Interfaces for document generation (IBM Rational Publishing Engine)
- Reporting in Collaborative Lifecycle Management using RRDI
- Reporting for the Enterprise with IBM Rational Insight

Define metrics, set goals, track progress and improve over time
Report management

- Common user interface for report management across CLM applications
- Reporting management workflow and UI/menus/buttons aligned
- Management editor for Report Resources (formerly known as Report Templates)
- Personal reports page for organizing key reports with key parameter values

<table>
<thead>
<tr>
<th>Report</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Execution Reports</td>
<td>Reports used to Validate the 2nd Sprint Iteration</td>
</tr>
<tr>
<td>Sprint 2</td>
<td></td>
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<tr>
<td>Execution Status by Machine using Weight</td>
<td>Execution Status by Machine using Weight</td>
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<tr>
<td>Execution Status by Owner using Weight</td>
<td>Execution Status by Owner using Weight</td>
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<td>Execution Status by Weight</td>
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<td>Execution Trend</td>
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<tr>
<td>TER Listing</td>
<td>TER Listing</td>
</tr>
<tr>
<td>TER Status Counts</td>
<td>TER Status Counts</td>
</tr>
</tbody>
</table>

Personalized reports easily accessible for all
Report design

**Make proactive changes with meaningful actionable reports**

- Most chart type reports contain tables below the chart showing the details of the data in the chart making it easier to determine exact values and print the report.
- All reports display parameter values in a collapsible section.
- About box: documenting the report and what information to look for in the report.
Other reporting enhancements

- New Test Suite reports
- New reportable data such as categories or custom attributes
- Support for document style reports
  - Ability to upload custom document style report template and run those reports
  - IBM Rational Publishing Engine (RPE) is required to author these document reports
IBM Rational solution for Collaborative Lifecycle Management

Rational Requirements Composer 4.0, Rational Team Concert 4.0, and Rational Quality Manager 4.0
Rational Software Architect 8.5 with Design Manager available in an open beta

- High Availability of CLM applications
  - Via clustering on WAS Network Deployment
- Support public URL server rename
  - Pilot to Production
  - Production to Staging
- Rolling upgrade capability (n-1) for CLM
  - Support previous RTC client version
  - Can upgrade one CLM application at a time
- Cross-repository process inheritance
  - Share RTC process template across JTS
Next Steps
Where to go now...

The following links will lead you to your next step…

…look for more product information and tool demonstrations

- IBM Rational Quality Manager on jazz.net
  https://jazz.net/projects/rational-quality-manager/

- IBM Rational Quality Manager Forum
  https://jazz.net/forums/viewforum.php?f=7

- IBM Rational Quality Manager Download
  https://jazz.net/downloads/rational-quality-manager/
THANK YOU

www.ibm.com/software/rational
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