Rational® software

IBM Rational ClearQuest, Version 7.1

Highlights

■ *Enhances project visibility and control with realtime, consolidated reporting and process enforcement*

■ *Supports faster software delivery with integrated, automated end-to-end processes*

■ *Helps improve software quality through enterprise quality management*

■ *Streamlines team communication and coordination with automated workflows*

■ *Addresses security concerns with access control, electronic signatures, repeatable processes, audit trails and lifecycle traceability*

■ *Scales from small workgroups to geographically distributed enterprises*

Most software and systems development organizations have several things in common: They rely on teamwork that can span cities, countries or continents; they need to reduce the number of time-consuming, error-prone manual tasks in their delivery methods; and they need to simplify compliance and reporting.

IBM Rational® ClearQuest® change management software is designed to help you manage the software lifecycle more effectively. It gives you access to the information you need to make better decisions. It helps you more effectively manage tasks and schedules, and respond rapidly to customer needs. Rational ClearQuest automated workflows can help you control and enforce development processes—from requirements definition through production—and help improve team communication, productivity and quality.

Improving visibility and control

Disparate systems and processes can create serious coordination problems, making it tough for teams to collaborate on what should be inherently connected processes. Rational ClearQuest software allows you to customize and enforce consistent development processes and achieve an integrated, consolidated view across the project.

Automating processes

Designed to help you create repeatable, enforceable, predictable processes, Rational ClearQuest provides out-of-the-box workflows that can be easily customized and quickly implemented to help jumpstart projects. States and actions can be defined, fields can be added and lists can be modified. Mandatory fields help ensure that the right data is collected. And e-mail notifications help improve response time and keep team members informed of changes or updates.

Enhancing software quality

By automating interactions among disparate project functions and groups, Rational ClearQuest software helps eliminate software errors that occur due to manual processes and handoffs, miscommunication, and inconsistent information. Built-in defect and change tracking capabilities, together with enterprise quality management functionality, are designed to unify development and testing efforts and prevent skipped steps or incomplete activities. Streamlined processes can lead to faster and more frequent test cycles, allowing you to detect errors earlier in the software delivery cycle, when it's less expensive to fix them.

Increasing team collaboration

Rational ClearQuest software helps improve team communication and coordination by integrating such typically siloed processes as analysis, development, testing and deployment. In addition to improving productivity, automated workflows and e-mail notification help ensure that appropriate team members are immediately alerted when action is required. They also receive comprehensive information about any change or update that can impact their activities. With everyone on the team working from the same information, issues surface quickly, and those affected by the issues are able to collaborate on corrective action in realtime.

Enabling security-rich development

Security features such as user authentication, user authorization, electronic signatures and audit trails are critical to help ensure compliance with internal and external requirements.

User authentication can be performed through the Rational ClearQuest directory of users or through industry-standard directory servers using Lightweight Directory Access Protocol (LDAP). Support for Secure Sockets Layer (SSL) encryption enables security-rich communication between the Rational ClearQuest software and the LDAP directory.

User authorization is performed through the Rational ClearQuest user database. The 7.1 release replaces the existing encrypted passwords on the file system with passwords encrypted using a Federal Information Processing Standard (FIPS) 14-2 approved algorithm. But this new capability does not change any of the user passwords in the database. You can also extend access control for key security checkpoints through scripting. Together, these capabilities help ensure that changes are made only by authorized individuals.

Rational ClearQuest software logs who changed what, when and why. Changes to activities are tracked in the history of the activity. In addition, electronic signatures verify the identities of individuals performing specific

actions. By documenting all transactions across the software lifecycle, you can trace the origin and detail of all activities, and verify authorizations and sign-offs.

Easing administration with ALM

Rational ClearQuest provides an out-of-the-box application lifecycle management (ALM) schema that includes both schema and packages. The process model focuses on work completed in the context of a project where requests are planned as tasks and performed as activities. In addition to balancing workloads across phases and iterations of a project, the ALM solution allows each project team to customize its configuration to fit its unique needs.

Supporting realtime reporting and metrics

Rational ClearQuest software gives you insight into your processes with comprehensive support for querying, charting and reporting. Easily created and refined, distribution, trend and aging charts help you visualize complex data and drill into the area of data that you need.

Rational ClearQuest also provides a flexible reporting mechanism so that individual team members can gain quick access to development activities. Data can be pulled from Rational ClearQuest to be used by a wide variety of reporting engines such as SAP BusinessObjects XI including Crystal Reports; Eclipse Business

Intelligence and Reporting Tools (BIRT); and Actuate BIRT products. This reporting model allows development teams to have flexible and enterprise-level access to realtime reporting and metrics.

Additionally, the report server for Rational ClearQuest allows teams to manage and run reports from a Web browser. Access to the Web server is controlled by your Rational ClearQuest login credentials, allowing you to run and manage reports from anywhere, anytime.

Activity-based change management

Rational ClearQuest and IBM Rational ClearCase® software work together to help you define and manage changes to software assets as activities. Through the unified change management capability, file versions in the Rational ClearCase application are grouped into logical activities and associated with change requests in the Rational ClearQuest application. This activity-based approach enables developers to manage their work at the task level, instead of managing individual files. It helps build engineers ascertain that the right files are incorporated into the build. Testers can readily confirm that the right functionality and builds are tested. Quality assurance engineers can quickly see and validate what has changed between builds. And project managers are better able to track project status.

Integrating tool	Function
IBM Rational Portfolio Manager software	Aligns project information with information across the portfolio to help you make more informed business decisions
IBM Rational ProjectConsole™ software	Provides a realtime graphical dashboard to view and analyze overall project trends
Microsoft® Project software	Helps you better manage schedules and resources
IBM Tivoli® Provisioning Manager software	Deploys approved build files directly from source code control, and facilitates deploying the approved build
IBM Rational Build Forge® software	Automates build and release management; creates and updates build records; and tracks and automates the process for building applications
IBM Rational RequisitePro® software	Replicates requirements records; associates records with other development assets such as defect submissions, build records and test cases; and provides analysts with connections to Rational ClearQuest information such as activities, change requests and test data
Test execution tools	Maps test execution scripts authored in various test tools with test cases; initiates test execution; and automatically captures test results for reporting and analysis
Requirements, code, build, development, test and deployment tools	Extends traceability across the entire software delivery lifecycle by linking assets, and associates deployment records with one another and with other Rational ClearQuest records to track which builds were tested and deployed

Integrating with other tools

In addition to working seamlessly with Rational ClearCase software, Rational ClearQuest is designed to integrate with numerous other software development tools.

Offering unparalleled scalability

Rational ClearQuest deployments can support thousands of users working across dozens of sites. A wide range of access capabilities helps ensure that all team members, local and remote, have access to the most up-to-date information virtually anytime, anywhere. Whether your team is a small workgroup at a single location or a highly distributed team spanning multiple locations, Rational ClearQuest software provides the flexibility and scalability to support your organizational needs.

Tracking defects and changes

Rational ClearQuest defect and change tracking capabilities help you manage activities throughout the project lifecycle. By documenting and managing issues to resolution, Rational ClearQuest software provides closed-loop change management that delivers better project control and helps improve software quality.

Using the IBM Rational Lifecycle Package with IBM Rational ClearCase solution

To help your business improve productivity by consistently leveraging best practices, efficiently communicating information across the team, and analyzing and managing the impact of change, IBM has assembled the Rational Lifecycle Package. This bundle includes IBM Rational ClearQuest, IBM Rational Method Composer and IBM Rational RequisitePro software, and it supports enterprises large and small. Alone or part of this bundle, the 7.1 version of Rational ClearQuest offers enhanced functionality to support your business objectives through collaboration, automation and reporting capabilities.

For more information

To learn more about IBM Rational ClearQuest, Version 7.1 software, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/awdtools/clearquest