



**Rational** software

## IBM Rational ClearCase, Version 7.1

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### Highlights

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- ***Helps increase productivity with an enriched remote client, parallel development support, automated workspace management, asset reuse and activity-based change management***
- ***Enables you to deliver high-quality code with fewer bugs through security-rich version management and reliable builds***
- ***Balances individual and team needs through private workspaces and public integration areas***
- ***Supports development flexibility with integrated IDE access, integrations with open source and third-party tools, cross-platform support, remote access and disconnected usage***
- ***Scales to accommodate smaller workgroups as well as large, 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, and they need to reduce the number of time-consuming, error-prone manual tasks in their delivery methods. IBM Rational® ClearCase®, Version 7.1 software can help businesses achieve IT efficiency through collaboration, automation and flexible implementation to decrease business costs, mitigate risk and improve time to market of high-quality solutions.

This comprehensive software configuration management offering delivers a strengthened, centralized deployment model that makes it even easier for global teams to coordinate efforts. As development teams continue to face greater pressure to deliver higher-quality software faster than ever, Rational ClearCase can help simplify the software delivery process and boost productivity.

### **Unify distributed teams to increase productivity**

Rational ClearCase provides a remote client and cross-platform support to help dispersed teams work more effectively. Strong performance and connectivity mean that Rational ClearCase can support the needs of even the largest enterprise environments.

### **Improving the user experience**

Rational ClearCase, Version 7.1 features an enriched remote client that integrates with the development change management capabilities from IBM Rational ClearQuest® software. The primary client for remote developers, the Rational ClearCase remote client gives developers a lightweight yet feature-rich interface to create workspaces and modify files. It also allows them to view their tasks and perform the change management functions that are critical to their jobs.

Providing a single user interface for developers, the remote client has powerful filtering and advanced user preferences to improve productivity, while also helping to unify teams for better coordination and collaboration. And agile process support has been added to improve usability and streamline repetitive functions.

#### **Connecting users across platforms**

Rational ClearCase supports heterogeneous environments and cross-platform development, enabling distributed team members to collaborate over different platforms. You can develop in virtually any development environment, including IBM System z®, Microsoft® Windows®, Linux® and UNIX® environments. On the server side, your organization can choose from a variety of supported platforms to store software assets while you and your teammates continue to work in your preferred integrated development environments (IDEs).

#### **Leverage your investment in the mainframe**

Rational ClearCase allows teams to more easily manage distributed and mainframe environments with a single solution. Strong performance and connectivity enable Rational ClearCase to support the needs of even the largest-scale enterprise environments. And for the developers, enhanced integrations with multiple IDEs provide the flexibility that users have come to expect.

#### **Access from anywhere at any time**

Rational ClearCase allows for easy access from various environments and locations. Desktop, remote and Web clients enable developers to access security-rich versioned objects from practically anywhere in the world.

Rational ClearCase provides integrations with leading IDEs, including the IBM Rational Application Developer for WebSphere® Software environment, the open source Eclipse framework and Microsoft Visual Studio, so development teams can work within their environment of choice.

#### **Scaling to fit your needs**

Rational ClearCase software provides strong performance and connectivity that can help a small workgroup at a single location, a highly distributed team spanning multiple geographies or a large-scale enterprise with numerous teams and locations. In other words, Rational ClearCase provides the flexibility you need to scale as your company grows, so you won't have to roll out a new set of tools as your needs change.

#### **Automate software delivery to reduce costs and decrease time to market**

By automating time-consuming, error-prone, manual development activities, Rational ClearCase, Version 7.1 can help free up developers and administrators for tasks that add more value to the business.

#### **Providing sophisticated version control**

With Rational ClearCase, you can be confident that you're working on the right versions of the right artifacts. Rational ClearCase manages and controls source code, libraries, documentation, binaries, Web artifacts and virtually any project artifact that can be represented as digital content. It also controls versioning for directories, subdirectories and all file system objects. Developers can see the version, branch and file they are working on simply by viewing the Rational ClearCase version tree. In addition, Rational ClearCase offers access to advanced functions that allow you to delete previous versions, create and delete branches, list version histories, and compare and merge versions.

#### **Developing in parallel**

By providing extensive support for parallel development, Rational ClearCase enables developers to more easily resolve conflicts, reduce confusion and work on the same code base or release. Plus, with parallel development support, you can fund multiple projects simultaneously, and then determine how to release each project depending on when it's complete. Automatic file-branching functionality isolates specific changes or versions, allowing multiple developers on the same and different teams to work independently from the same code base. Development and integration stream models define how and when developers deliver code changes. And proven merging and differencing capabilities accept uncontested changes and highlight conflicting changes for faster resolution.

### Managing personal workspaces

With Rational ClearCase software, you have fine-grained control over your personal workspaces and seamless access to the exact file and directory versions you need for different kinds of development activity. Two types of views, or virtual workspaces, are available. Dynamic views provide instant access to large workspaces—without the cost or hassle of setting up a traditional copy-based workspace—giving you transparent access to versions of elements on the network. Snapshot views deliver a copy-based workspace that allows you to continue working on local copies of files, even when you're not connected to the company network. And it's easy to synchronize changes when you do reconnect. Development teams can mix and match their views based on preferences and project needs.

### Using activity-based change management

Rational ClearCase and Rational ClearQuest change management products work together to allow you to define and manage changes to software assets as activities. Through the unified change management capability, file versions in Rational ClearCase are grouped into logical activities and associated with change requests in Rational ClearQuest. This activity-based approach enables you

to manage your work at the task level, instead of managing individual files. You have a comprehensive view of how development events, including defects and proposed project changes, affect specific files, versions, baselines or releases.

### Managing builds and releases

To automate the entire build and release management process, Rational ClearCase integrates with IBM Rational Build Forge® software. The Rational Build Forge application continuously monitors Rational ClearCase repositories and executes builds either when a change occurs or on a scheduled basis. This automated build capability significantly reduces the time you and your teammates have to spend chasing down compilation and convergence issues. It also reduces errors that can delay downstream testing and deployment activities.

### Gain greater insight to enable continuous process improvements and facilitate governance

Rational ClearCase provides your teams with realtime, centralized access to project assets and status, improving insight and enabling you to identify ways to improve your existing processes.

### Managing versions in a security-rich environment

Rational ClearCase software provides a robust centralized repository where development assets are captured and versioned in a security-rich way. Access control helps ensure that only authorized individuals make changes. User authentication is performed through operating system authentication mechanisms or through industry-standard Lightweight Directory Access Protocol (LDAP), so you always know who is accessing the repository. Support for user-based and group-based permissions limits access to files and directories.

User-based locks are available on Rational ClearCase objects (branches, labels, elements and metadata). Programmatic authorization can occur based on the action being performed.

### Auditing your builds

Rational ClearCase software provides effective build auditing that can assist with your governance efforts. It helps streamline the edit-build-debug cycle and accurately reproduce software versions. Rational ClearCase also provides the ability to generate a detailed software bill of materials, which can be used to automatically determine when built objects can be reused or shared by developers using multiple views. By detecting dependencies, reusing derived objects wherever possible and producing detailed build audit trails, Rational ClearCase software helps ensure the reproducibility of software versions.



### Improving insight through reporting

Rational ClearCase software integrates with Rational ClearQuest software, which now includes enhanced reporting capabilities, including a report designer that gives you the ability to report across multiple record types and data sources. Plus, you can now create summary charts and detailed parent-child drill-down reports. Additionally, an industry-standard search facility provides search engine-like criteria for quick access to information, helping to improve insight into operations and providing further opportunity for process improvements.

### Leverage the IBM Rational Lifecycle Package with Rational ClearCase solution

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

### For more information

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

[ibm.com/software/awdtools/clearcase](http://ibm.com/software/awdtools/clearcase)

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