What’s New in IBM Rational ClearCase 7.1?

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What's All This Fuss Over a Point Release?
ClearCase 7.1 is a Major Offering

- At a Glance …
  - CCRC advances toward ClearCase Common Client
  - New, modern and scalable CM Server for CCRC and CQ Web
  - Java-based, WAN-friendly API
  - Administrative simplification through ClearCase MultiSite Monitoring
  - Consolidated Install Technology
Why Use ClearCase?

- **ClearCase Has Led Configuration Management for An Entire Era**
  - In Every Evolutionary System, Maturity is the Ultimate Indicator of Success
    - … and the surest indicator of resilience and adaptability

- **ClearCase Has Repeatedly Solved Enterprise-Scale Problems**
  - ClearCase MultiSite is the Most Widely Used GDD Development Solution
  - ClearCase UCM Sets the Standard for Development Process
  - ClearCase Dynamic Views Give Unsurpassed Parallel Development Flexibility

- **ClearCase Success is Built on Innovation; ClearCase Innovation is Built for Customers**
  - Large, Medium and Small, ClearCase Has Won Customers Since Its Introduction

... And ClearCase Continues to Solve Customers’ Problems ...
ClearCase v7.1 Customer Value

Ease of Use
- CCRC
- CM API
- Tivoli Enterprise Portals

Lower TCO
- IBM Install Manager
- CM Server
- MultiSite Global Monitoring

Best in Breed Technologies
- IBM Tivoli Monitoring
- WebSphere
- ClearCase & ClearCase MultiSite
ClearCase 7.1 – CCRC

- Agile Process support
- Usability
  - Customizable GUI Framework
- CQ Integration
  - Navigator, Queries & Forms
- GUI extension point
- CCRC (RCP) Unix
- Macintosh OS support
ClearCase 7.1 - CCRC Agile Process support

- Pending Changes View
  - Supports both base ClearCase and UCM
- Explorer enhancements to show “buried” changes without expansion
- Scoped common operations to take advantage of that knowledge
  - Undo Checkout/Hijack
  - On Views, Projects, Directories, Activities
- Recursive Add To Source Control, Checkout and Hijack, with filtering
- Deliver and Rebase
  - “Default” option for single button operation under optimal conditions
    - Settings for default streams/views, silent checkin, automatic completion
  - “Advanced” option for complete control
- Scheduled updating, notification of changes from integration branch/stream
ClearCase 7.1 - CCRC Usability

- New and Improved Developer Usage
  - Stream, Component, VOB creation
  - Configuring and loading views
  - Complete preference control for common operations
  - Consolidated explorer views
    - including ClearQuest Wan Forms & Queries
  - Revised menu structure – true context menus
  - Support for Eclipse Diff/Merge tools, possibly third party tools
  - Improved comparison support
  - Activity Toolbar

- More than 170 Customer Requests for Enhancement Implemented!!
ClearCase 7.1 - CCRC Performance Enhancement

- **Filtering**
  - Easily and quickly create filters that bring you directly to the objects you want
    - Avoid repetitive navigation deep into the directory structure
  - Named, persistent across sessions
  - Work disconnected with loaded resources
  - Add and remove elements from existing filters as needs change
  - Rules using logical expressions for additional customization
- Import and Export filters for sharing between installations, users
ClearCase 7.1 - CCRC Filtering

Unfiltered

Filtered
ClearCase (& ClearQuest) 7.1 – CM Server

- A high-performing server based deployment model that’s easily managed, administered and upgraded
  - Single technology stack for CQ and CC servers
  - Provide infrastructure for WAN based clients
    - CCRC
    - CQ web
  - Provide WAS based servers
  - Highly scalable – scales horizontally & vertically
  - Backward/Forward compatible with clients/other servers
CM Server 7.1 – Performance & Reliability

- Single User benchmarks - Preliminary Data - Improvement over 7.0.x
  - MakeDevStream, Create View, 30%
  - CreateActivity, GetAct (40%),
  - Other transactions comparable to 7.0.1
ClearCase 7.1 - CM API

- A unified client-side Java API for access to ClearCase and ClearQuest artifacts
- Based on the JSR-147 proposed standard: WVCM
- OS and platform independent
  - ClearCase / ClearQuest APIs
    - Windows, Linux, AIX, Solaris, HP-UX, etc…
- Provides a common Team data model and domain specific services
- Supports the full life cycle of software product development
- Supports customer and partner developer ecosystem
CMAPI / CMLib Architecture

CMAPI Client

Java Calls

Common Services and Infrastructure

CMAPI

CMLib

ClearCase Object Model

Web Svcs / HTTP

ClearQuest Object Model

Web Svcs

Native

CM Server

Native CQ

ClearCase VOB

ClearQuest DB

CCRC

Java Interfaces

Java Implementation Classes

Subproviders

RPCs
ClearCase - From Workgroup to Enterprise

- Only IBM Rational ClearCase can support distributed servers so that every software asset is available to every development project.
- Only Rational ClearCase and Rational ClearQuest have single company deployments that manage hundreds of terabytes of data across many tens of replicated sites.

- **Team Concert**
  - ClearQuest
  - Build Forge

- **Dynamic Views**
  - Mainframe connectors, Advanced build mgmt.

- **Web access - WAN access for smaller remote teams, Snapshot views**

- **UCM Process**

- **Single Server**
  - Individual Workgroups

- **Distributed Servers**
  - Medium-Large Teams

- **Replicated Servers**
  - Large Remote Teams

- **ClearCase MultiSite**
  - ClearQuest MultiSite
  - Build Forge

  - Enterprise & External Distributed Teams
Does This Look Like Your World?
ClearCase 7.1 - Global Monitoring

Provides administrator view of CC & CCMS deployment from anywhere in the world!!

- Monitors
  - VOB & View Servers
- Monitor for Events
  - Customizable Event settings
    - User specified Thresholds and Severity
  - Expert Advice on Events
- OS Agent:
  - Memory usage, Disk Space, CPU
- ClearCase Agent:
  - Shipping Bay Threshold Issues
  - Multisite Import/Export Failures
  - ALBD Process Failures
- Historical collection of data
  - Reporting Templates (BIRT)
- Replaces Monitoring capabilities of
  - CCMS Admin console and CC Admin Console
ClearCase 7.1 - Global Monitoring Architecture

Site 1
- ClearCase Servers w/ GM Agents
- Clients
- Warehouse Proxy
- Web Server
- Other App. Servers

Site 2
- Other App. Servers
- Remote Tivoli Enterprise Monitoring Server

Site 3 - n
- Other App. Servers

Monitoring Site
- HUB Tivoli Enterprise Monitoring Server
- Tivoli Enterprise Monitoring Console
- Tivoli Portal Server
- Tivoli Portal Client
- Data Warehouse DB

LAN(s) w/ Firewall(s)
- Monitoring Data
- CC / CQ data
ClearCase & ClearQuest 7.1
IEHS Based Help

- Deploying ClearCase and ClearQuest docs as Infocenters
  - Hosted at ibm.com
    - ClearCase: [http://publib.boulder.ibm.com/infocenter/cchelp/v7r0m0/index.jsp](http://publib.boulder.ibm.com/infocenter/cchelp/v7r0m0/index.jsp)
    - ClearQuest: [http://publib.boulder.ibm.com/infocenter/cqhelp/v7r0m0/index.jsp](http://publib.boulder.ibm.com/infocenter/cqhelp/v7r0m0/index.jsp)
  - Initially deployed Q406
  - Updates planned for each release (7.x.x, 7.x, 8.0, ...)
  - Feedback links on each page provide readers with a fast path back to the authors
    - Feedback reviewed daily
    - Errors corrected in next release (or sooner, if serious enough)
    - RFEs factored into UA planning

- Building a new Help system
  - Ships as part of the product
  - Available in 7.1
  - Includes Infocenter content and applet help
A stand-alone version of the Eclipse Help System

- Designed to provide “Infocenter” services from a centralized server
- Designed to be used by non-Eclipse applications as a help system
- Corporate sponsorship, with a dedicated development team
- Brings the benefits of Eclipse Help to all applications
  - Powerful search tools
  - Sophisticated navigation and filtering
  - On-demand content update (push or pull)
  - Content customizable by end users
  - Greatly simplifies translation process and localized content deployment
  - Modular packaging supports component-based offerings
  - UA updates no longer tied to product releases
ClearCase and ClearQuest 7.1 - Install

- Moving to IBM Installation Manager technology
  - Brings many improvements in usability and consumability
  - Streamlined Patches, Updates and Rollback
  - Clean Upgrades and Silent Install
  - Built-in License Management

- Improving our client integration interface tests
  - Version 7.0 allows Suite point products to be installed independently
    - But still need to run at same version
  - 7.1 Focus on testing Integration APIs to support mixed client versions
ClearCase 7.1 - Side by Side Server UNIX installs

- Save server downtime during upgrades!!!
  - Process
    - Pre-condition
      - ClearCase vX installed and vob/view server running
    - Steps
      - Install new image v 7.1 in new directory
      - Shut down VOB/View servers
      - Reconfigure machine process with new software
      - Start up View/VOB servers
      - Delete old image
  - Rollback process?
    - Yes, Reverse the process
ClearCase & ClearQuest 7.1 Release Reports

- **Customer Value**
  - Customers Can Leverage Our Testing
  - Reduced Cost of Ownership
  - Increased Time to Value

- **ClearCase:**
  - Tech Note Available when Released

- **ClearQuest**
  - Tech Note Available when Released

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**Rational ClearCase v7.0.1 Release Report**

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ClearCase & ClearQuest 7.1 Performance Reports

- Customer Value
  - Leverage our Testing
    - Reduced Cost of Ownership
    - Increased Time to Value

Resources for IBM Rational ClearCase and ClearQuest

- Whitepapers, tech notes and technical articles

A collection of performance resources for Rational ClearCase and ClearQuest.

Whitepapers, tech notes and technical articles

2007
- IBM Rational ClearCase Core 7.0.1 Single User Performance Report (RedHat Linux)
- IBM Rational ClearCase Core 7.0.1 Single User Performance Report (Windows)
- IBM Rational ClearCase Remote Client 7.0.1 Performance Report (Windows)
- IBM Rational ClearCase Remote Client 7.0.1 Performance Report (Solaris)
- IBM Rational ClearCase Remote Client 7.0.1 Performance Report (RedHat Linux)
- IBM Rational ClearCase 7.0.1 UCM Component Scalability Performance Report
- IBM Rational ClearQuest Web: Comparing Browser-to-Server Single-User Network Traffic between 2003.06.16 and 7.0.1
- IBM Rational ClearQuest 7.x Web Windows Performance Comparisons with 2003.06.15 (SR5) and 2003.06.16 (SR6) using SQL Server 2000
- IBM Rational ClearQuest Web 7.0.1 Memory Profiles of Multi-Request Manager Configurations

2006
- IBM Rational ClearCase 7.0.0.0 MultiSite replica synchronization performance reports
- IBM Rational ClearCase Core 7.0.0.0 single user performance reports
- IBM Rational ClearCase Remote Client (CCRC) 7.0.0.0 performance reports
- IBM Rational ClearQuest 7.0.0.0 MultiSite replica synchronization performance report (Windows)
Performance Whitepapers

- Take our Guidance
  - Modulate your own testing using our experience
    - Decrease your time to deployment
    - Increase your time to value
Performance Benchmarking Kit (PBK)

- Designed To Help Customers Baseline Their Environment
- Consists Of:
  - Instructions (.Doc)
  - RPT Project (.Zip File)
  - Sample Spreadsheet For Reporting Results (.xls)
- Available For Download*
- Customer-distributable Performance Test Scripts
- Customers Can Objectively Evaluate Performance In Their Environment

ClearCase 7.1 - Supported Platforms

- Customer Value
  - Timely
  - Accurate
  - Up-to-date
  - Accessible on the Web

- ClearCase 7.1 Supported Platforms
  - Tech Note 21239315

www.ibm.com/support/docview.wss?uid=swg21239315
ClearCase ↔ RTC Bridges and Connectors

**Bridge**
Integration with the ClearCase repository leveraging the Collaborative development capabilities of RTC (Workitems, Workspaces, Realtime Collaboration, UCM)

**Connectors**
- ClearQuest
- Bi-directional Synchronization
- Rational Team Concert v1.0

ClearCase repository
Rational Team Concert v1.0
ClearCase (Base and UCM)
IBM Rational ClearCase
Review New features in v7.1

- ClearCase CCRC
  - Agile support
  - Usability
  - CQ wan Forms & Queries
- Lower GDD infrastructure TCO
  - CM Server (combined CC/CQ Server architecture)
  - CM API
- Global Monitoring – CC MultiSite
- Eclipse Help System
- IBM Install Manager
THANK YOU

Learn more at:

- IBM Rational software
- IBM Rational Software Delivery Platform
- Process and portfolio management
- Change and release management
- Quality management
- Architecture management
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