



IBM Rational Software Conference 2009
As Real as It Gets!




Collaborative ALM - Making it Real

Erich Gamma, IBM Distinguished Engineer
Rational Team Concert Lead
IBM Rational Software





© 2009 IBM Corporation [Go to IBM](#)

IBM Rational Software Conference 2009



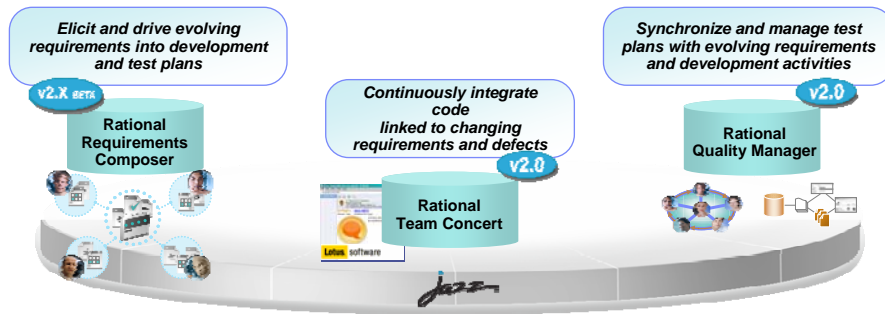
Today's Discussion

- Progress on Rational Strategy
- Inside Collaborative ALM
- Real Demo
- What's new in Rational Team Concert 2.0



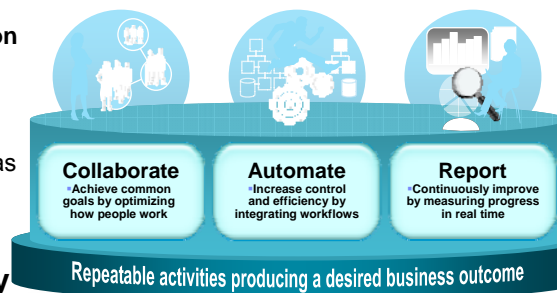
2

Making delivery outcomes real Enabling Collaboration across Silos



Integration Enables Collaboration

- **Data integration** via linked artifacts across repositories using RESTful interfaces
- Leads to increased **collaboration** among team members who link, navigate and track the status of delivery team artifacts
- And enables **automation** such as **real-time reports and queries**

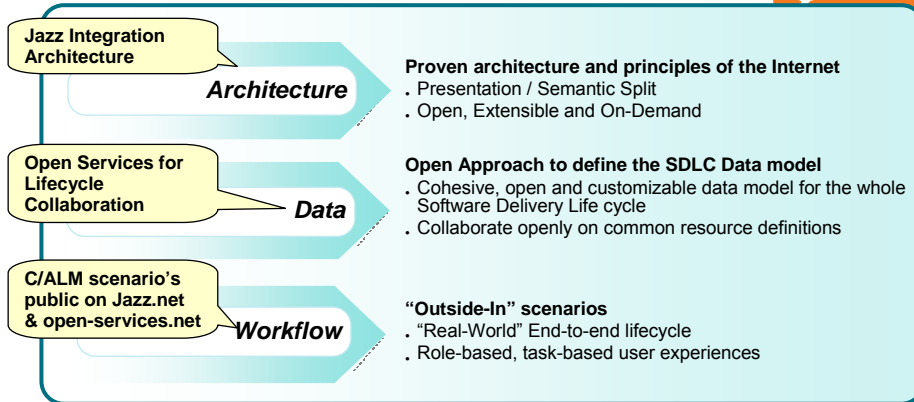


➤ **Increased transparency for everyone**



Inside Collaborative ALM

The evolution of software delivery: Surf the "ALM web"

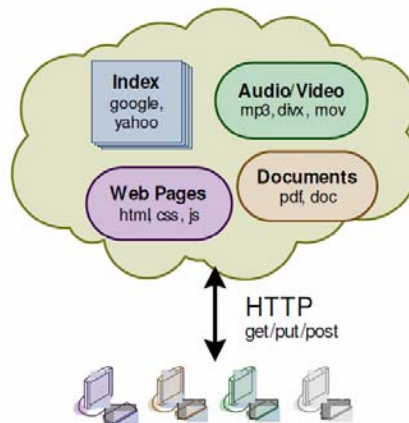


All three of these areas must be addressed



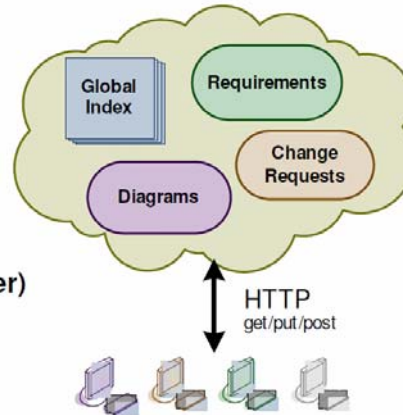
The Internet – an inspiration for an architecture

- **Amazingly scalable**
- **Integrates information on a massive scale**
- **Infinitely extensible**
- **Collaboration on unprecedented scale**
- **World-wide information visibility**



So what if...

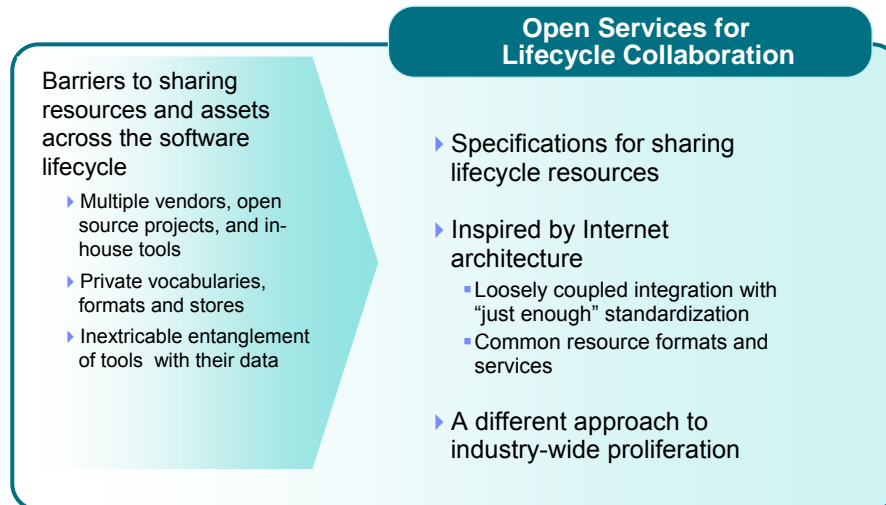
- All data are resources with URLs
- Resources have representations
- Representations specified independently of tools as standards
- Links are embedded URLs
- Multiple Tools access data
- REST (Representational State Transfer)



7

Open Services for Lifecycle Collaboration

An initiative aimed at simplifying tool integration across the software delivery lifecycle

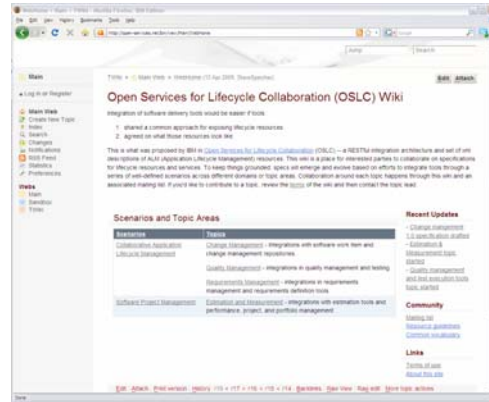


8



Community: open-services.net

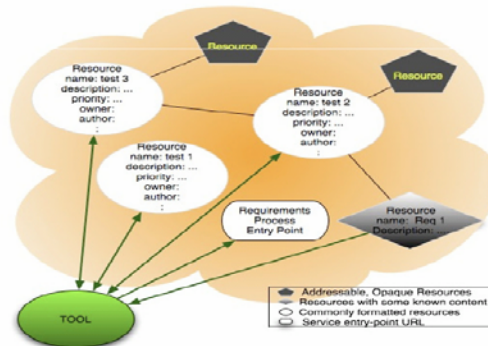
- Introduced at RSDC 2008
- Open community contribution
- Scenario driven...a minimalist approach
- Divided into focus areas
 - Change Management
 - Quality Management
 - Estimation & Measurement,
 - Requirements Management, ...
- Solving integration in the open



Open Services for Lifecycle Collaboration Putting the approach into practice

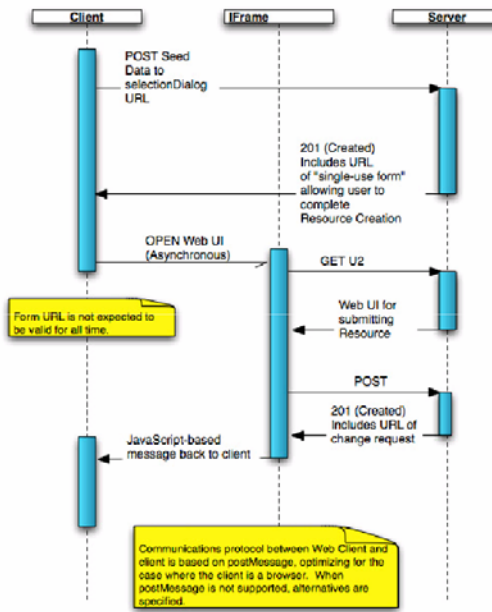


- Step 1: Internet URLs for resources
- Step 2: Shared resource formats
- Step 3: Shared resource services

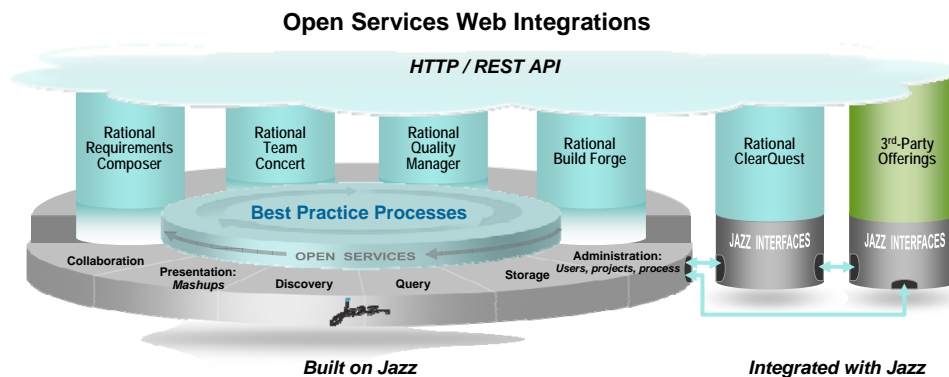




UI Delegation for Resource Creation and Selection

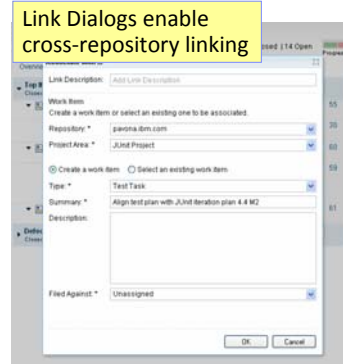
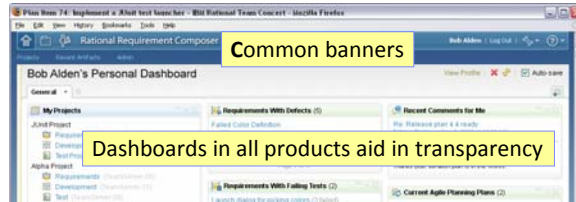


Jazz: Open, extensible, web-centric, integration architecture

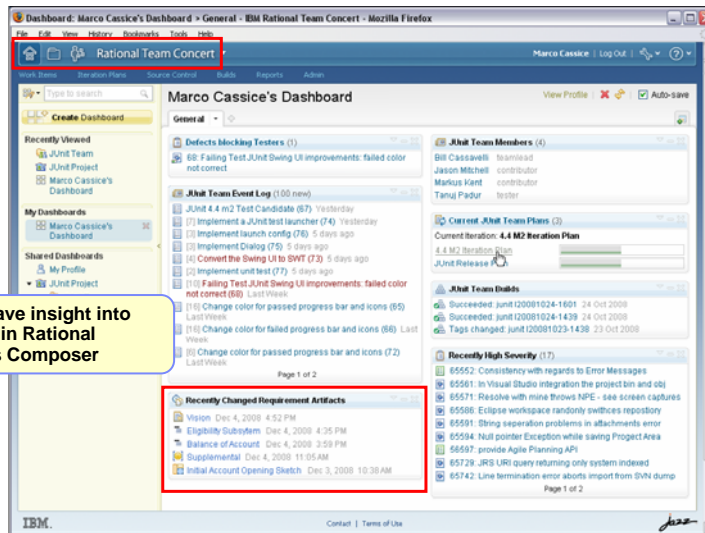




Common UI elements aid in ease-of-use



C/ALM Mash-up Dashboard – RTC example



C/ALM Cross Product Query Viewlets

Bob Alden's Personal Dashboard

Requirements With Defects (5)

- Failed Color Definition
 - Fix background (59)
 - Theme not consistent (54)
- Launch dialog for picking colors

Requirements With Failing Tests (2)

- Launch dialog for picking colors (2 failed)
- Test launch bigger
- Test dialog rendering of expanded palette
- Test display with 256 color limitation
- Failed Color Definition (1 failed)

C/ALM queries leverage links to provide answers to meaning questions

IBM

15

What you will see

- Collaboration across disciplines analysts, developers and testers
 - Link to or create (and link to) artifacts across repositories without leaving their own UI
- **Dashboards** that automate transparency across product boundaries
- **Practices** at work:
 - Common Vision, Test Management, Concurrent Testing, Whole Team, Agile Core
- Behind the scenes **Jazz Foundation** and **Open Services for Lifecycle Collaboration**

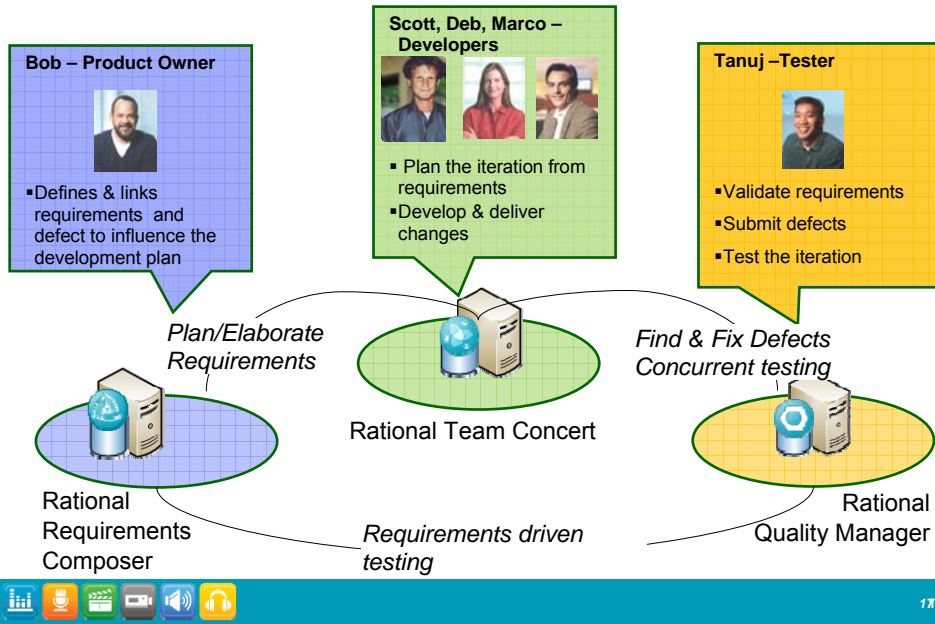
Open Enterprise-ready Collaborative ALM

IBM

166



Demo A team collaborates across repositories



Jazz Integration Architecture

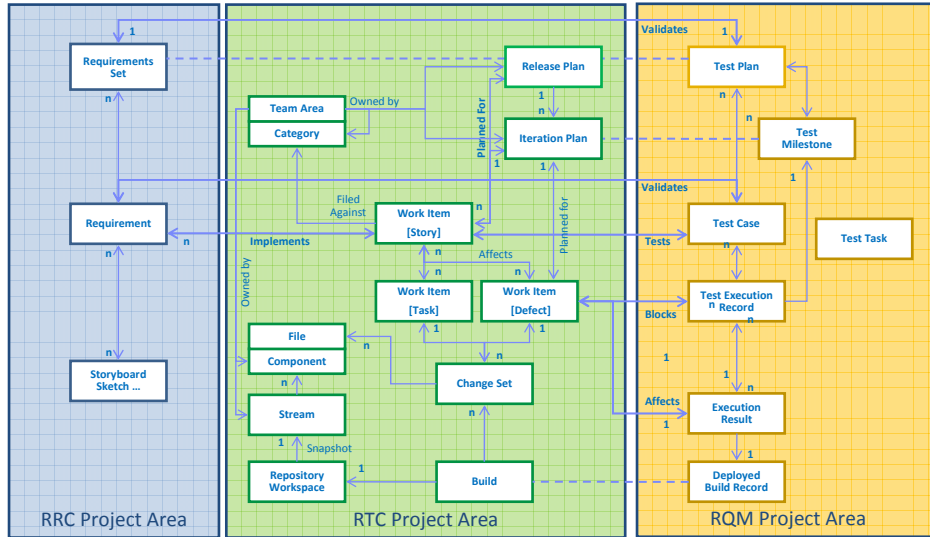


Open Enterprise-ready Collaborative ALM

At the bottom of the banner is a navigation bar with icons for home, search, and other functions, and the number 188.



The Web we Wove

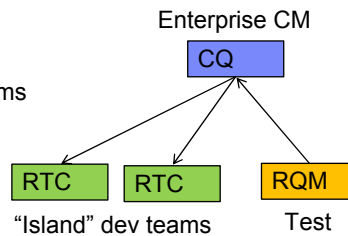


See <https://www.ibm.com/ibm/visual/IBM/CAL/IL/mt/Types> for details 19



It's not just for Jazz... integrate ClearQuest

- For Team Concert and Quality Manager Users who also work with ClearQuest
- Quality Manager supports multiple defect providers
 - RQM (out of box)
 - Team Concert
 - ClearQuest - Testers can submit defects to ClearQuest
 - [Demo](#)
- Team Concert 2.0 includes a ClearQuest bridge
 - Link CQ records with Team Concert work-items
 - [Demo](#)



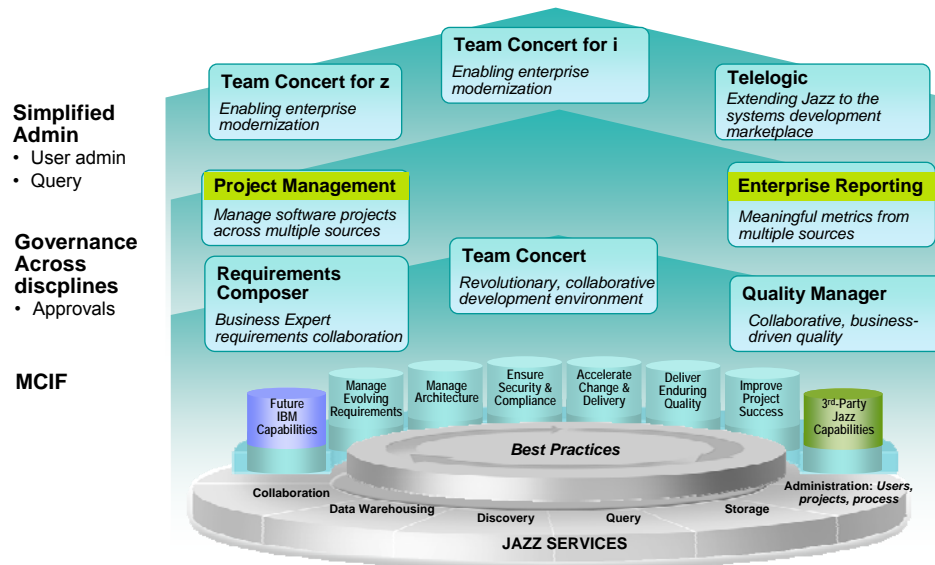
220



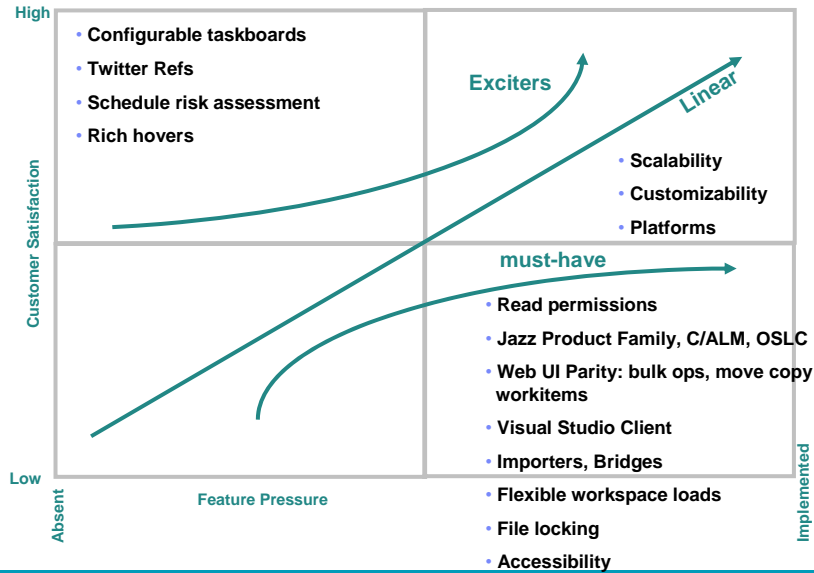
The screenshot shows the IBM Rational Quality Manager interface. A callout points to the top navigation bar, stating "Single URL (OSLC) calls CQ". Another callout points to the "Create Defect" form, stating "ClearQuest (delegated UI)". The form includes fields for ID, Project, Severity, Priority, Owner, and Description. A "No items found" message is visible in the left sidebar.



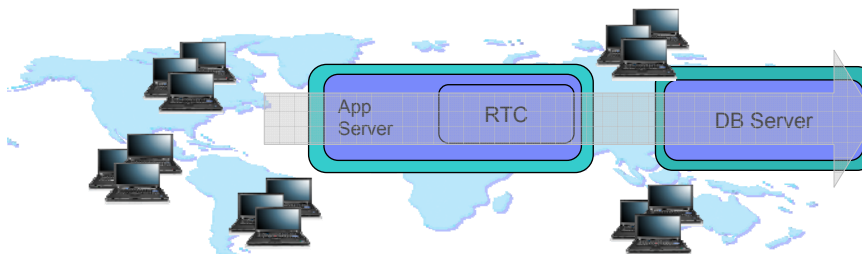
Some 2009/2010 Focus Areas – C/ALM 2



Team Concert 2.0 Feature Priorities - "Kano View" *



Scalability – *unrestricted users*



- Scales to your server hardware
 - Thousands of users
 - Millions of files and work items
 - Unlimited file size
 - Hundreds of builds
- New 64-bit server support
- New hardware platform support
 - IBM System p





Enterprise Scalability & Security

- Vertical scaling > 1500 users on a server
- Performance measurements done using simulated loads
 - Calibrated using jazz.net data
- Several good performance bugs/bloopers identified and fixed
- See blog entries on jazz.net
 - “How many users will RTC 2.0 server support”
 - “Enterprise performance and scalability testing”

Config	Tier	Middle-ware	CPU	Mem	Disk System	OS
Two Server 750 Developers	App Server	WAS 6.013	IBM xSeries 336, Intel Xeon, HT EM64T	4GB	SAS 15RPM	Windows Server 2003
	DB	DB2 9.1 FP4	IBM xSeries 3550, Intel Xeon 5160 Dual Core 2 Processor	4GB	SAS 15RPM	Windows Server 2003
Two Server 750 Developers	App Server	WAS 6.013	IBM xSeries 336, Intel Xeon, HT EM64T	4GB	SAS 15RPM	Windows Server 2003
	DB	Oracle 10g	IBM xSeries 3550, Intel Xeon 5160 Dual Core 2 Processor	4GB	SAS 15RPM	Windows Server 2003
Single Server 1500 Developers	App Server and DB	Tomcat 5 / DB2 9.5	IBM System x3650 M2, Intel Xeon 5500 64-bit 2 CPU 4 Cores (16 threads) 2.4GHz	12GB	NetApp 3050C Fiber Connection	RHEL5.3



2.0 Performance Work

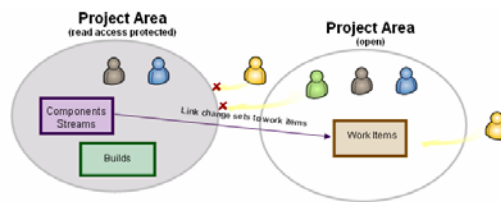
The screenshot displays the Rational Team Concert (RTC) 2.0 Performance Work dashboard. It features a navigation bar at the top with options like 'General', '2.0 Endgame Fixes', '2.0 Plan', and '2.0 Perf and Scalability'. The main content area is divided into several sections:

- 2.0 Performance Fixed (11):** A list of resolved performance issues, such as '76105: Team -> Lock dialog takes quite a while to come up...' and '79620: Assess performance of building Work Items with many links, many custom attributes, many comments'.
- Performance and PNC:** A bar chart comparing the performance of 'Build', 'PNC', and 'Service Control' across different metrics.
- 2.0 Performance (10) Filed Against:** A list of performance issues currently being tracked, including '77821: As a potential customer I want to know the impact my daily work when working on a server hosting 1000 active developers'.
- 2.0 Performance Test Results (20):** A list of performance test results, such as '78008: SVT_SPT: Determine number of users supported by IBM X series 4GB RAM Hardware'.



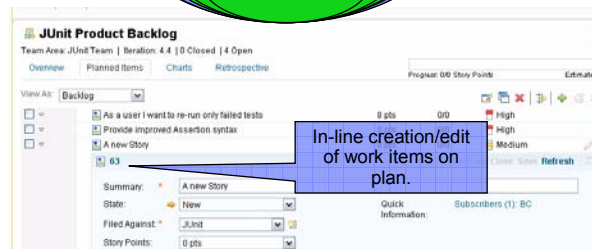
Enterprise Scalability and Security: Restricted Access Control

- Project level read permissions
 - Public, private projects
- Support for hybrid setups
 - Private source, public work items



Coverage of all agile levels of the “Planning Onion”

- The Planning Onion *(Mike Cohn Agile Estimating and Planning)*
 - Daily (my work view)
 - Iteration
 - Release (new in 2.0)
 - Release 2.0 adds release planning
 - View by iteration
 - View by team
- All this is available in the Web





Backlog Plan Mode

Easily rank work items to define priority

- Ideal for managing SCRUM backlog
- Ranking is reflected in all planning views, e.g. iteration plans and release plans
- Supports separating size from effort estimation

JUnit Product Backlog
Team Area: JUnit Team | Iteration: 4.4 | 0 Closed | 4 Open

Overview | **Planned Items** | Charts | Retrospective

Progress: 0/8 Story Points Estimated: 100%

View As: Backlog

Task	Points	Progress	Priority	Estimate
As a user I want to re-run only failed tests	8 pts	0/0	High	62
Provide improved Assertion syntax	0 pts	0/0	High	60
Improve documentation for 4.4	5 pts	0/0	Medium	55
No download link to latest version			Medium	12

Drag and drop work items to rank them relative to others.



Taskboards track Work in Progress

Accelerate stand-up meetings, increased transparency

Markus Kent
Closed Items: 4 | Open Items: 7

Progress: 0/20 Story Points Estimated: 71%

To Do	In Progress	Done
<ul style="list-style-type: none"> Improve documentation for 4.4 (55) Provide improved Assertion syntax (60) 	<ul style="list-style-type: none"> javadoc updates for @ignore in 4.3 (30) Based on the assertThat syntax we should provide assumptions and theories support (59) assertArrayEquals misses differences (7) testCount hard-coded to 1 for childless Description (27) Tests on protected methods fail (14) assertThat fails with Class tests (documentation problem) (10) 	<ul style="list-style-type: none"> [Docs] Cookbook TestRunner section incorrect (23) shows green bar while assert false (41) Should not call derived's afters if super's before failed (17) @After method not called after my test timeout in 4.3.1 (16)

See the work currently in progress

Drag and drop work items to change their state.





Plan Risk Assessment for a team

Helps teams identify tasks with high risk items early

More detailed developer estimation.. low, nominal, high

Automatically calculates probability of task fitting into the schedule

Color codes high risk tasks for quick identification and action

31



Improved Work Burndown Reports

Dashboard: RTC Development

Rational Team Concert

RTC Development

M3D1 Burndown

Agile Planning

Source Control

CC Connector

Build

Reports

CC Connector



Importers, Bridges, Connectors

- Work items
 - CQ importer
 - CSV importer
- Source control
 - CC importer
- Bridges
 - CQ Bridge:
 - ClearQuest Records – Work Item
 - CC Bridge
 - Activity – Work Items
- Connectors
 - CQ Connector setup wizard

References to ClearCase Activities will also show up on the Links tab of their associated work items

Opening a ClearCase Activity link from a work item editor will show the activity properties in the Properties view, just as if the properties were requested from CCRC directly.



CQBridge

Work Items
No Work Items

Work Items
Link to Work Item...
Create Work Item

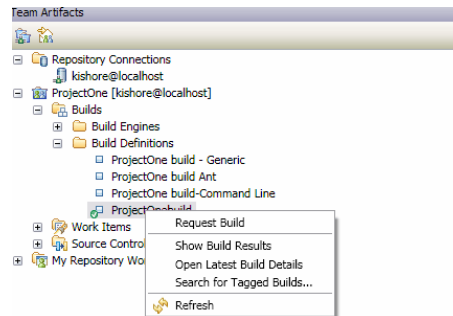
Defect
Task
Enhancement
Risk
Use Case





Enhanced Visual Studio Integration Build Support

- Expose Jazz build to Visual Studio developers
 - ▶ MS-Build support
 - ▶ Build Request
 - ▶ Build History view
 - ▶ Build queue view
 - ▶ Build activity view



Label	Progress	Start Time	Duration	Build	Completion Time
20090422-1842	Completed	4/22/2009 6:42 P	1 minute, 44 secc	ProjectOnebuild	4/22/2009 6:44
20090422-1836	Completed	4/22/2009 6:36 P	1 minute, 44 secc	ProjectOnebuild	4/22/2009 6:38
20090422-1828	Completed	4/22/2009 6:28 P	2 seconds	ProjectOnebuild	4/22/2009 6:28
20090422-1824	Completed	4/22/2009 6:24 P	11 seconds	ProjectOnebuild	4/22/2009 6:24
20090422-0943	Completed	4/22/2009 9:43 A	1 minute, 46 secc	ProjectOnebuild	4/22/2009 9:44
20090422-0940	Completed	4/22/2009 9:40 A	1 minute, 56 secc	ProjectOnebuild	4/22/2009 9:41
20090420-1656	Completed	4/20/2009 4:56 P	1 minute, 53 secc	ProjectOnebuild	4/20/2009 4:58
20090420-1617	Completed	4/20/2009 4:17 P	1 minute, 54 secc	ProjectOnebuild	4/20/2009 4:19



Licensing Changes



	Express-C Small Teams	Express Mid Sized Teams	Standard Corporate Teams	Enterprise Enterprise
Maximum developers/contributors	10 / unrestricted	50 / unrestricted	250 / unrestricted	Unrestricted / 250 / unrestricted
Agile planning - at the daily				
Database and Application Server	Derby, Tomcat	DB2, Tomcat (SQL Server, Oracle, WebSphere)	DB2, Tomcat (SQL Server, Oracle, WebSphere)	DB2, Tomcat (SQL Server, Oracle, WebSphere)
SCM - Stream and component based				
Builds - w/ Continuous Integration				
Work items w/ custom attributes, discussions and approvals	✓	✓	✓	✓
Customizable Process Templates				
Project Milestone Tracking & Status				
LDAP authentication				
Subversion Integration Bridge				
Role-based process permissions				
Customizable Dashboard Mashups	1 per project	1 per project	unlimited project, team, and personal dashboards	unlimited project, team, and personal dashboards
Customizable Dashboards			✓	✓
Customizable work item workflow			✓	✓
Plan risk assessment			✓	✓
CC/CQ Connectors and Bridges			✓	✓
Floating Licenses Available			✓	✓
LDAP import / synchronize			✓	✓
HTTP proxy support			✓	✓
High Availability				✓*

* Entitles installation of a second copy of the server in an idle standby application server failover configuration. Requires WebSphere Application Server and optional high availability database configuration (DB2, Oracle, SQL Server).





Thank You

Learn more at:

- [IBM Rational software](#)
- [Rational launch announcements](#)
- [Rational Software Delivery Platform](#)
- [Accelerate change & delivery](#)
- [Deliver enduring quality](#)
- [Enable enterprise modernization](#)
- [Ensure Web security & compliance](#)
- [Improve project success](#)
- [Manage architecture](#)
- [Manage evolving requirements](#)
- [Small & mid-sized business](#)
- [Targeted solutions](#)
- [Rational trial downloads](#)
- [developerWorks Rational](#)
- [Leading Innovation](#)
- [IBM Rational TV](#)
- [IBM Business Partners](#)
- [IBM Rational Case Studies](#)

© Copyright IBM Corporation 2009. All rights reserved. The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way. IBM, the IBM logo, Rational, the Rational logo, Telelogic, the Telelogic logo, and other IBM products and services are trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.

