

#### IBM Software Group

## IBM Rational's Jazz Vision

Scott Rich, IBM Distinguished Engineer Rational CTO for Northeast Europe 12 + 14 April, 2011















# Agenda

09.00-09.10	Velkommen
09.10-10.00	Jazz visionen, Scott Rich
10.00-11.00	Erfaringer med agil planlægning med RTC, Thomas Byrdal
11.00-11.15	Pause
11.15-11.50	RTC 3.0 nyheder, Jan Ekstrøm
12.00-12.30	Frokost





# Today's Topics

- What is Jazz? Why did we do it?
  - Rational Team Concert a Jazz-based product
- Team Concert Today
  - How we use it ourselves
  - Recent development focus areas:
    - Application Lifecycle Management growing the Jazz family
    - Using Jazz and OSLC to integrate other tools



### Introduction - who am I and what's my perspective on Jazz?

- Scott Rich
- **IBM** Distinguished Engineer
- CTO for Rational in NE Europe
- srich@ch.ibm.com
- One of the leaders of the Jazz Project
  - Building tools for Agile
  - Leading a worldwide Agile team





# Five Years Ago: Our Pain Points...

- joining a team
- get my environment configured to be productive
- what is happening in my team
- collecting progress status
- following the team's process
- ad hoc collaboration/sharing of changes
- starting an ad hoc team
- is the fix in the build?
- run a personal build
- tracking a broken build
- why is this change in the build?
- reconstructing a context for a bug/build failure
- interrupting development due to a high priority bug fix
- working on multiple releases concurrently
- tracking the code review of a fix
- referencing team artifacts in discussions
- how healthy is a component?
- collecting project data/metrics?
- keeping plans up to date

Build

**Project** 

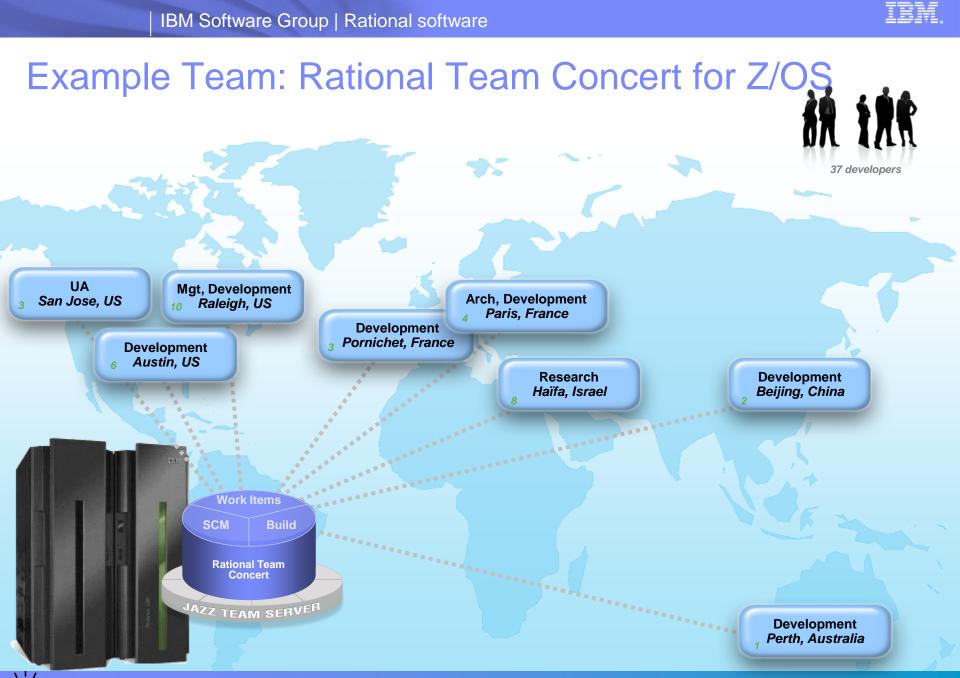
awareness

awareness

Team

awareness

Boring and painful



# Envisioning a platform that can transform software delivery



Jazz is a project and platform for *transforming* how people work together to deliver greater value and performance from their software investments.

#### Jazz is...

- A scalable, extensible team collaboration platform
- A community at Jazz.net where you can see Jazz-based products being built
- Our vision of the future of systems and software delivery, supporting globally distributed teams
- An integration architecture enabling mashups and non-Jazz based products to participate
- An evolution of our portfolio which will evolve to leverage Jazz technology over time

### Jazz: A platform for complete Application Lifecycle Management

**Rational Team** Rational **Rational Quality** Concert Requirements Manager Collaborative Composer Rational Insight Collaborative **Application Business Expert** Executive **Business Driven** Lifecycle Reporting and Collaboration Quality Management Intelligence Management Fnsure Accelerate Deliver Manage Security & Change & Improve Manage **Enduring** Architecture Evolving **Project** Compliance Delivery Quality 3rd-Party **Future** Requirements Success **IBM** Jazz **Capabilities** Capabilities **Best Practices** Administration: Users. Collaboration projects, process **Data Warehousing** Storage Discovery Querv Rational Rational **JAZZ SERVICES** ClearQuest **ClearCase** APPLICATION SERVER **Server Integrations Client Integrations** Powered by **Existing Rational offerings Eclipse Business partner offerings Visual Studio** Open source offerings More dynamic integration leveraging Microsoft Sharepoint Others to come... "Open Services for Lifecycle Collaboration" **Lotus Quickr** 

#### Rational Team Concert: An Overview

#### **Agile Planning**

- Integrated release/iteration planning
- Effort estimation & progress tracking taskboards
- Out of the box agile process templates

#### **Project Transparency**

- Customizable web based dashboards
- Real time metrics and reports
- Project milestone tracking and status

#### SCM

- Integrated stream management
- Component level baselines
- Server-based sandboxes
- Identifies component in streams and available baselines
- SVN, Git, CC bridge, connector

#### **Work Items**

- Defects, enhancements and conversations
- View and share query results
- Support for approvals and discussions
- Query editor interface
- ClearQuest bridge, connector

#### Build

- Work item and change set traceability
- Build definitions for team and private builds
- Local or remote build servers
- Supports Ant and command line tools
- Integration with Build Forge

#### **Jazz Team Server**

- Single structure for project related artifacts
- World-class team on-boarding / offboarding including team membership, sub-teams and project inheritance
- Role-based operational control for flexible definition of process and capabilities

- Team advisor for defining / refining "rules" and enabling continuous improvement
- Process enactment and enforcement
- In-context collaboration enables team members to communicate in context of their work



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Yamato

### Agility @ scale at IBM

Pittsburg Poughkeepsie Princeton Somers Southbury NY, NY

Andover
Bedford, MA
Bedford, NH
Lexington
Westborough
Westford
Cambridge

Cork Dublin Galway London/Staines Milton Keynes Hursley Warwick York

Stockholm

Canada Tory 10.0

,Mo

- Over 150 Rational development projects (~2800 users) using Rational Team Concert
  - Plus an additional 700+ projects around IBM
     -- hosting 8500+ users!
- Boarding time for new projects less than one day
- Applicable to agile/iterative and waterfall projects

Rational Development

- Rational Customer Support
- WebSphere Development
- Lotus Development
- Tivoli Development
- IBM Research Division
- IBM Global Business Services
- IBM Systems and Technology Group

San Fic.
SVL/San Jose
Almaden
Agoura Hills
El Segundo
Costa Mesa
Las Vegas

Boulder Denver Lenexa,KA Tucson Pheonix Austin Dallas Sao Paulo

Perth Gold Coast Sydney Canberra

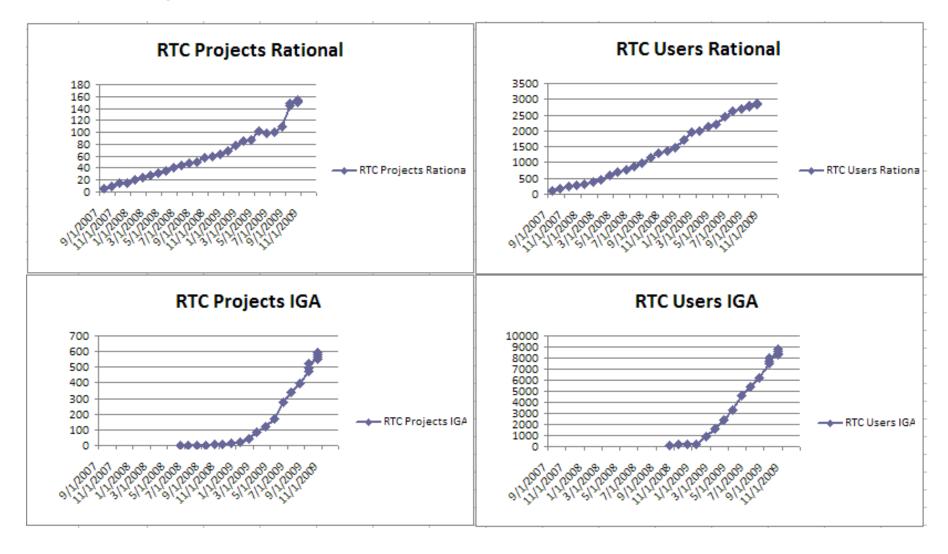


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El Salto

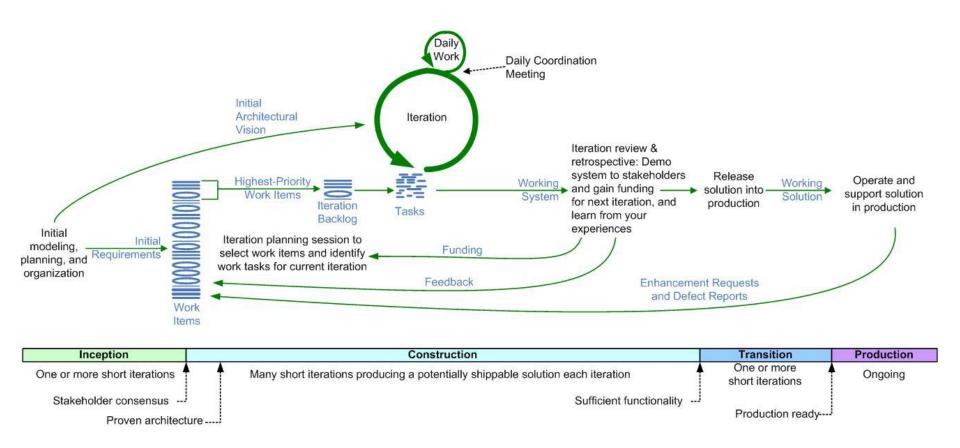


### RTC Project & User Metrics





### The disciplined agile lifecycle: An extension of Scrum

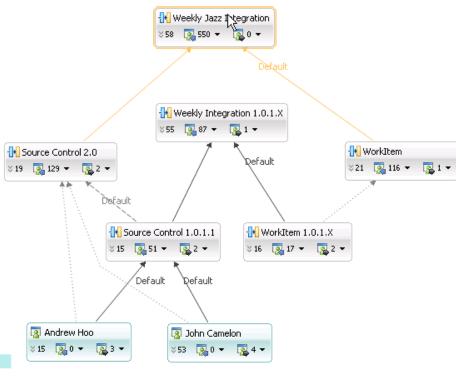




### Scaling up: Teams of Teams

#### Process Streams Members follows Work Categories Build is responsible produces Dashboard Release/ Iteration Plan Components Jazz **Development** Process Process Streams Members Streams Members follows follows delivers delivers Build Work Categories -Build is responsible produces is responsible produces defines Dashboard Release/ Release/ Components Components

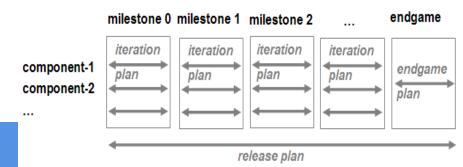
#### Changes



#### **Process**

Repository

#### **Plans**



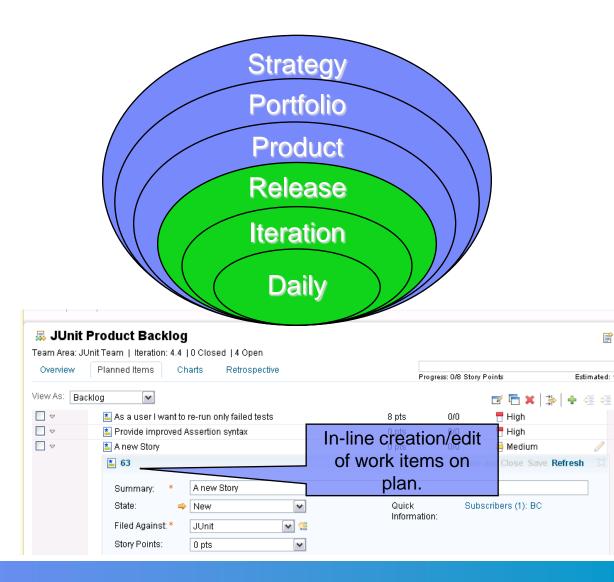




### Planning with the Agile "Planning Onion"

- The Planning Onion (Mike Cohn Agile Estimating and Planning)
  - Daily (my work view)
  - Iteration
  - Release
    - View by iteration
    - View by team

 All this is available in Eclipse or the Web

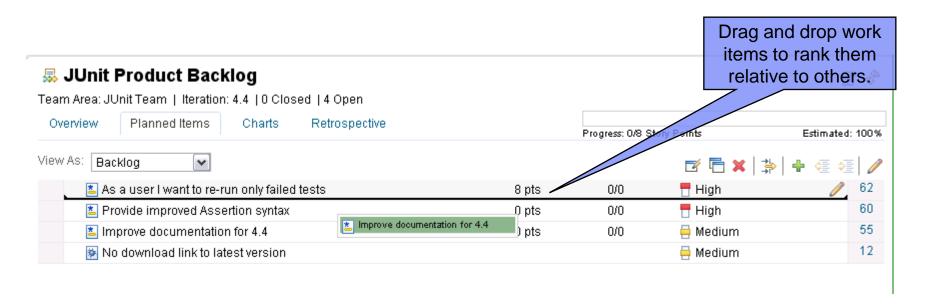


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# Backlog Plan Mode Easily rank work items to define priority

- 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





Taskboards track Work in Progress See the work currently in Accelerate stand-up meetings, increased t progress Markus Kent Closed Items: 4 | Open Items: 7 Progress: 0.25 Estimated: 71% In Progress ⇒ To Do. Done Improve 30 🎵 [Docs] Cookbook 🗐 javadoc updates for documentation for @lgnore in 4.3 TestRunner section incorrect Provide improved 59 🗐 Based on the Assertion syntax assertThat syntax we should provide assumptions and theories support 7 44 🥦 shows green bar 📂 assertArrayEquals while assert false misses differences 17 Should not call 👸 assert Array Equals misses differences 27 😼 testCount hard-coded derived's afters if to 1 for childless super's before failed Description 📂 @After method not 14 Tests on protected called after my test methods fail. timeout in 4.3.1 assertThat fails with 10 Class tests (documentation problem) Drag and drop work items to change their

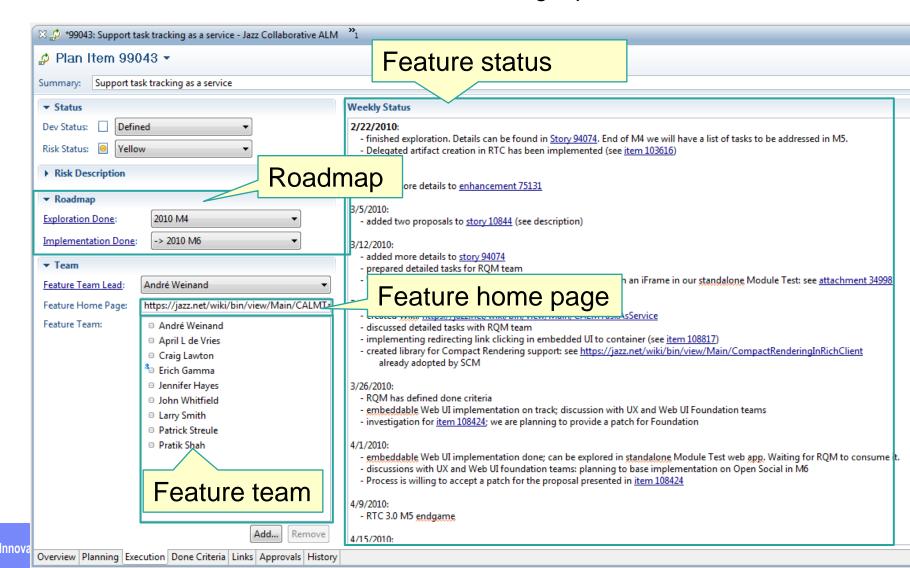
state.





### Planning/Execution: Feature Teams

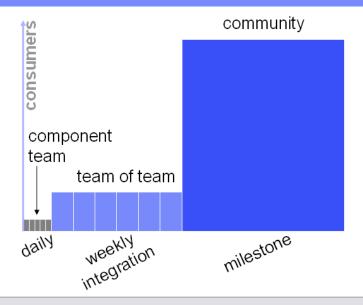
A feature team is a cross functional team owning a plan item

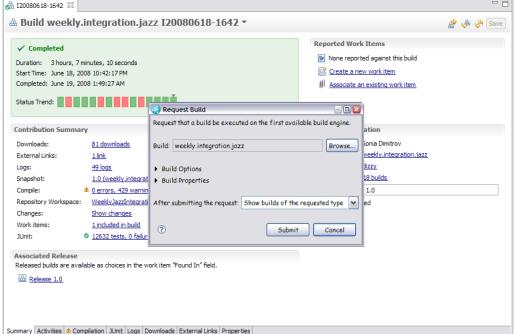




## Building

- Team of Team
  - Scheduled weekly integration build
    - Stabilized until green
  - Continuous integration stream
    - Share changes, rarely green
- Each Team
  - Continuous builds
  - Always green
- A Developer
  - Personal builds



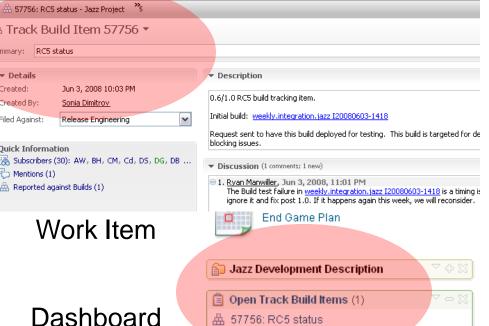




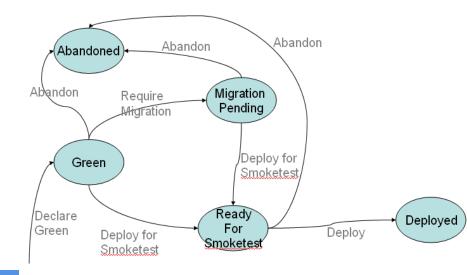


### **Build Tracking Work Item**



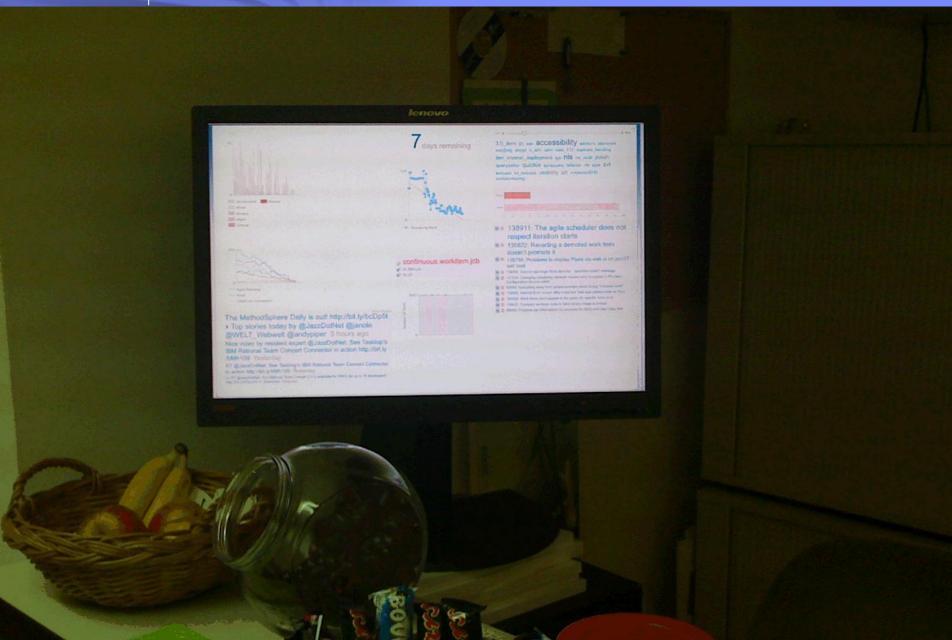


#### **Build Result**





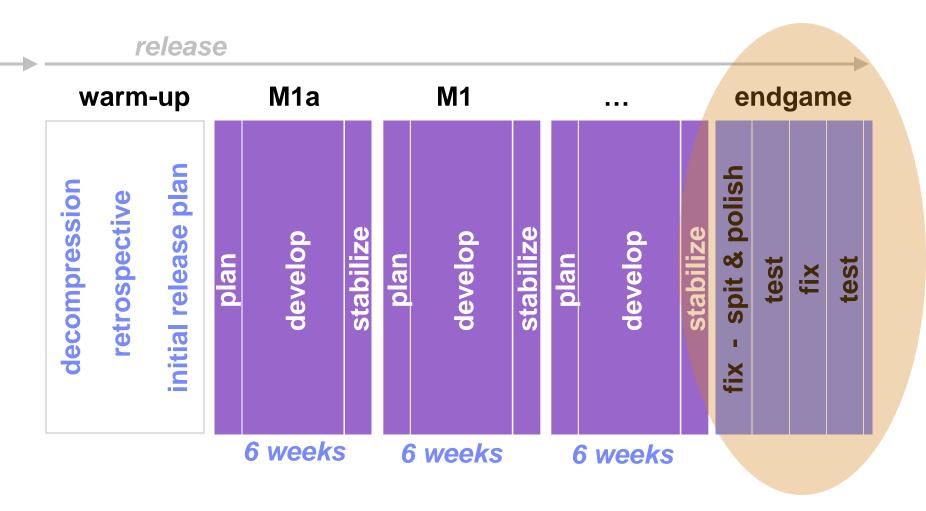






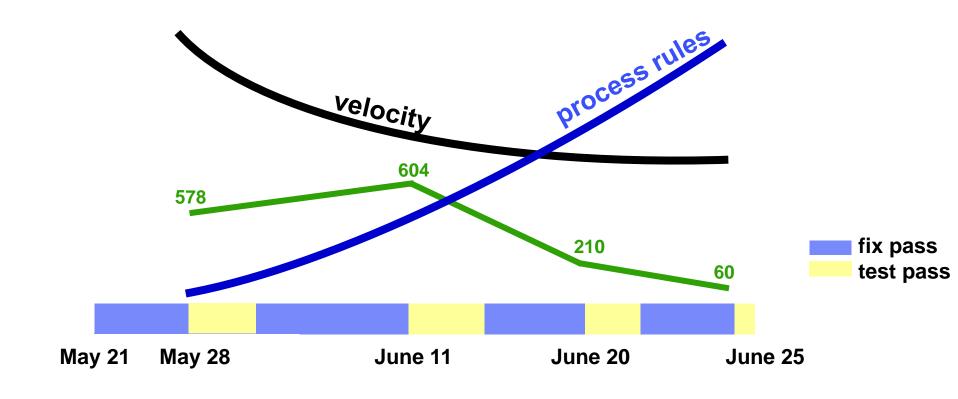


# **Endgame Focused and Disciplined**





## **Endgame Convergence**





### Raising the Bar: Approvals

#### **Operation Behavior**

Operations	Everyone (default)	PMC	compon	contributor	parttime	projecta	connect	dashboa	integrati	integ
Save Team Area (server)										
- Reports										
- Deploy Report (server)										
- Deploy Report Template (server)										
- Display Report (server)										
Manage Report Folder (server)										
Source Control										
Deliver (client)	<u>(A</u>									
Deliver (server)										
- Work Items										
Save Work Item (server)										

The deliver operation is performed when changes or baselines are delivered from a workspace to a stream.

Review: 2 contributor

Preconditions and follow-up actions are configured for this operation Final (ignore customization of this operation in child team areas) Preconditions (7 available): Name: Approved Changes IBM Copyright Add... Description: No Compile Errors Require Work Item All changes you release in RC4 need two separate approvals and one review. The first approval needs to list your component lead as ap Remove Approved Changes approval needs to list two members of the PMC as approvers. The Review needs to list two team members as reviewers, Up Down Required approvals: Approval: 1 componentlead Follow-up actions (0 available): Approval: 2 PMC

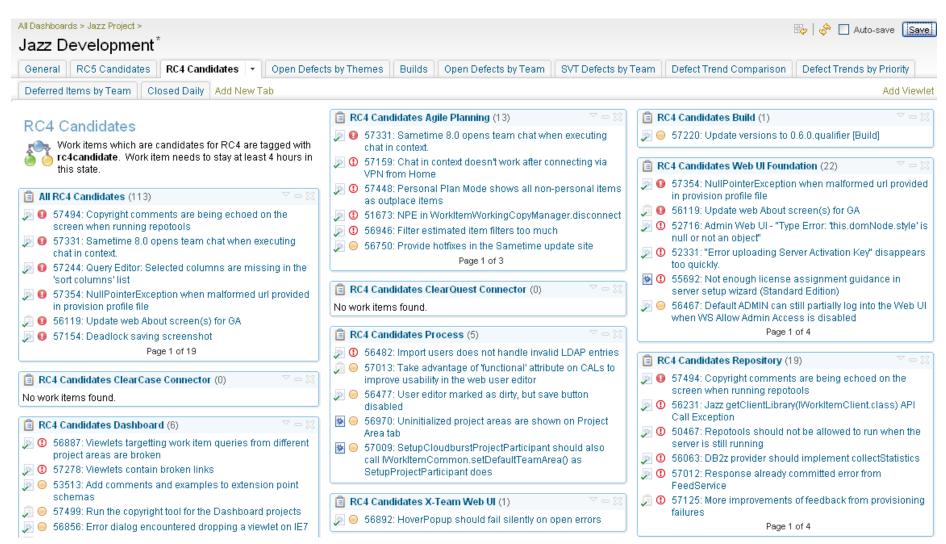


Add...

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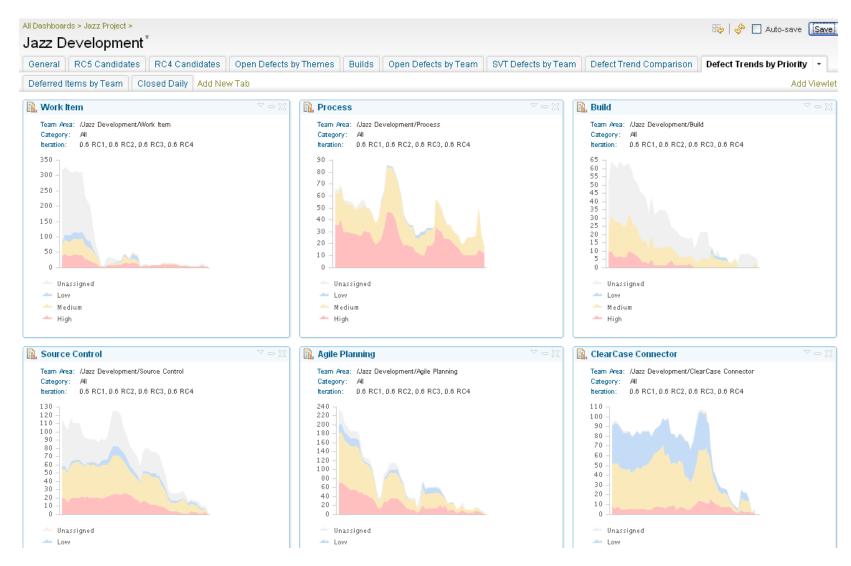
## **Endgame Tracking**



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# **Endgame Tracking**





### ALM, CLM and Jazz

The Rational Collaborative Lifecycle Management solution provides turnkey ALM for project teams of any size or configuration. Built on the latest Jazz technology, the solution helps organizations transform software delivery so it is more collaborative, transparent and productive.

- ✓ Real-time planning
- ✓ End-to-end traceability
- Continuous process improvement
- ✓ Development intelligence
- Active collaboration



and business expectations



### Plan Collaboration improves value & time to delivery

Implemented By (1)

- ✓ Creating a shared vision delivers what the stakeholders want
- Ensuring coverage improves quality for the release and each sprint
- ✓ Whole team buy-in improves team trust, efficiency and focus

Type

Iteration: Release 1.0 (9/6/10 - 10/17/10)



Product owners clarify the business needs in a collection



49: Release 1 Planning -

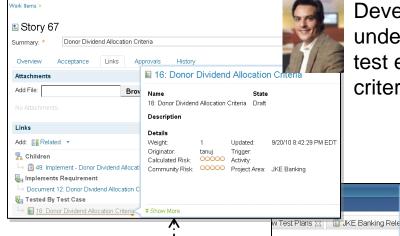
organization for the

Donors Depos Show More

Donor Divid

### Plan Item collaboration improves quality

- ✓ Story points include test effort
- Everyone knows what's being developed when and by whom.
- ✓ A Story is 'done' when associated tests have passed



**Developers** understand user story, test effort and done criteria

67: Donor Dividend Allocation Criteria

Story

JKE/BRM

Business Recovery Matters / JKE Banking

7 Children (1): 49

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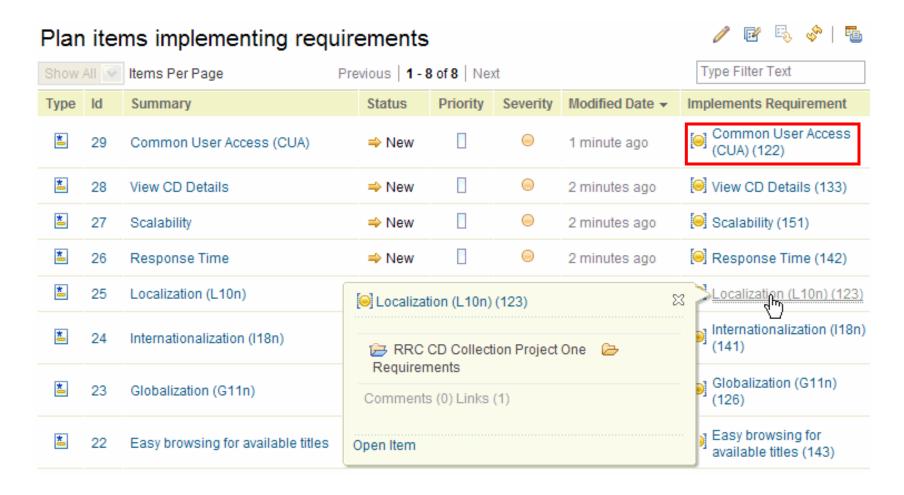


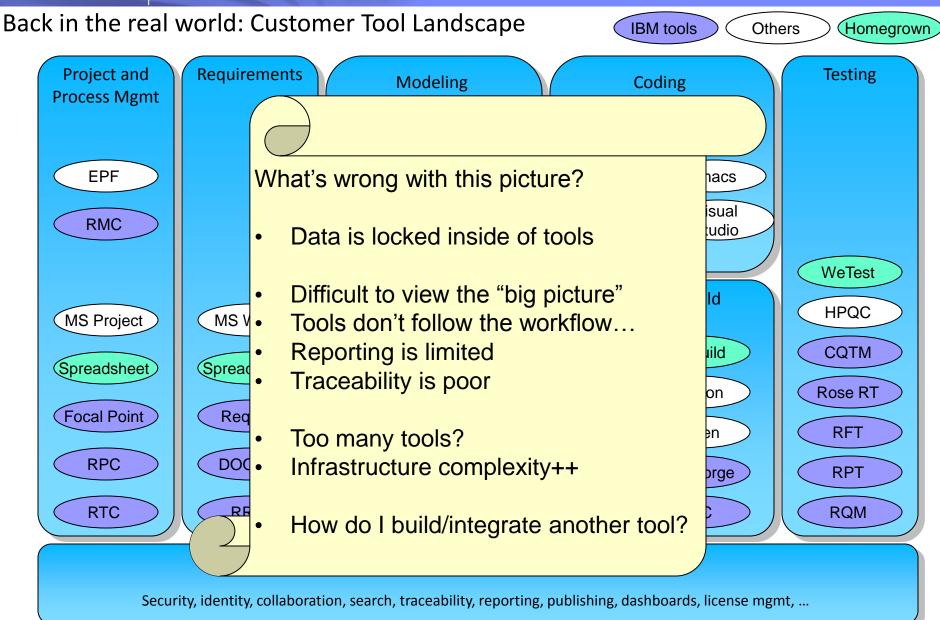
user story

Testers define and execute test cases with a clear definition of the 'done' criteria

### Lifecycle Queries reveal traceability gaps

Show which RTC plan items implement which RRC requirements





### What's new in OSLC?



#### Ten workgroups operating

- 1.0 spec for Change, Quality and Requirements Management complete
- Architecture, Asset, Reporting, SCM, Estimation specs anticipated in 1Q10
- ▶ 2.0 specs for Change, Quality, Requirements, building on a common core OSLC V2 spec

#### Community

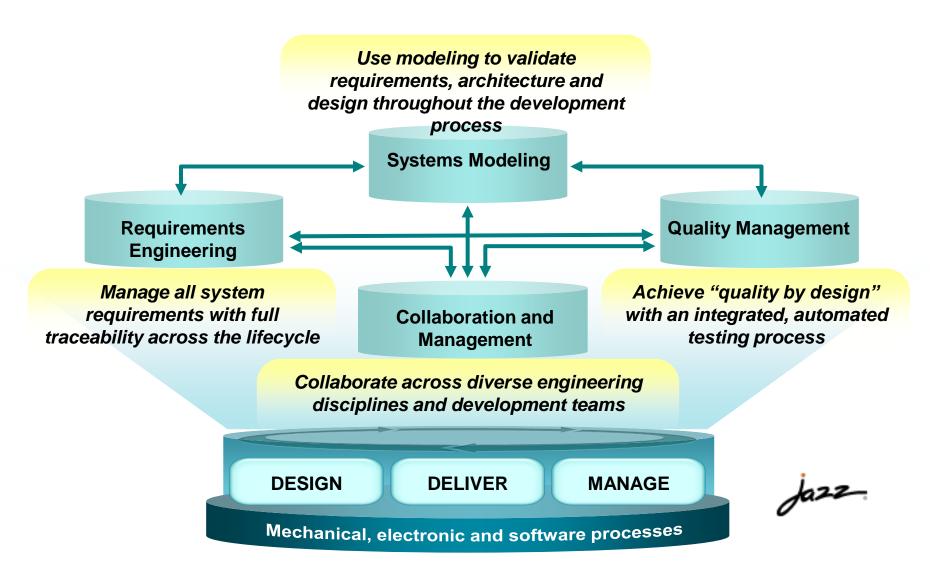
- ▶ 230+ registered community members
- Workgroups have individuals from 25+ different companies
- ▶ Integrators, ISVs, industrial, open source, higher education, consultants
- Mix of IT and Systems participants

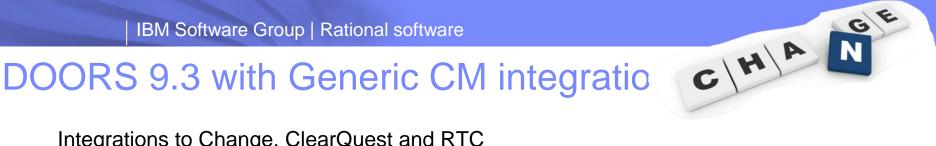


#### Unlocking Tool Data with OSLC IBM tools Others Homegrown Requirements **Project and Testing** Modeling Coding S **Process Mgmt WBM** WeHack Arch. WeUML $\mathsf{O}$ **Eclipse** S Rhapsody **EPF Emacs EMF WID** S Mgmt Visual RSA/RSM SE **RMC** Requirements Studio 0 **RAD** EA/SA Quality Mgmt WeTest Ш stimation Build Change Config. **HPQC** MS Project MS Word Management Management WeFilez WeBugz O WeBuild **CQTM** 0 **Spreadsheet** Spreadsheet S S Mgmt Rose RT Bugzilla Hudson git 0 Focal Point ReqPro S Subversion Maven **RFT** Jira $\stackrel{\mathsf{C}}{\leq}$ CM **RPC DOORS** ClearQuest ClearCase BuildForge **RPT RTC RRC RTC RTC RTC RQM OSLC** Reporting Security, identity, collaboration, search, traceability, reporting, publishing, dashboards, license mgmt, ...



### IBM's vision for systems engineering and software development





Integrations to Change, ClearQuest and RTC

Requirement / Change Request traceability

- Stakeholder requirements submission: Generate draft requirements from enhancements submitted to Change Management system
- **Requirements driven development:** Create implementation requests from requirements and monitor development progress alongside the requirements
- **Requirement defect tracking:** Associate a defect with a requirement to investigate a possible change to the requirement



#### **OSLC-style linking** and rich hovers



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### RSA Current and future integrations

#### Cloud

Smart Business Development and Test

**IBM Cloudburst** 

### Collaborative Design & Development

Jazz (2011)

### Deployment Planning & Automation

Rational BuildForge and RAFW Tivoli Provisioning Manager

#### Configuration Management

Rational ClearCase Rational Team Concert

> Rational Asset Manager

#### **Requirements Tools**

Rational Requisite Pro Rational DOORS (Sodius) Rational Requirements Composer / Manager

#### **ADC IT**

Rational Software Architect

#### Tivoli TADDM / CCMDB

#### **Business to IT**

Rational Systems Architect WebSphere Business Modeler InfoSphere Business Glossary

#### **Application Runtimes**

WebSphere Application Server WebSphere Portal WebSphere Commerce InfoSphere MashupHub

#### Integrate Solution Sub-Architectures

InfoSphere Data Architect

#### 3<sup>rd</sup> Party Integrations

Spring (Skyway)
Model Estimation and Metrics
(Galorath)
DSL component based dev.
(Zeligsoft)



Released

**Planned** 

Concept

### **Gartner Marketscope on Application Lifecycle Management**

IBM Rational Positioned as a Clear Leader in this Expanding Segment

#### Gartner

Research

Publication Date: 11 November 2010

ID Number: G00208572

#### MarketScope for Application Life Cycle Management

Jim Duggan, Thomas E. Murphy

Organizations adopting agile practices, utilizing globally distributed teams, or exploiting complex processes and technologies are most likely to benefit from using ALM tools to plan, manage and report on their development activities. This MarketScope assesses the market offerings and their providers.

"Organizations are under pressure to accelerate the speed of delivery of increasingly complex applications, while improving overall productivity and quality."

"IBM is one of the few vendors with credible offerings in almost all the requirements of ALM"

"Jazz is a solid architectural foundation for further innovation"->" This vision is only partially realized. ....still two to three years away."

"We rate IBM as a **Strong Positive** because of its current market strengths and breadth of portfolio"

		RATING						
- الــــ	Strong Negative	Caution	Promising	Positive	Strong Positive			
Accurev			Х					
Aldon			x					
Atlassian				X				
CollabNet				X				
Digite			x					
HP				Х				
IBM				<b>&gt;</b> (	X			
Kovair			x					
Micro Focus			Х					
Microsoft				X				
MKS				Х				
Parasoft			x					
Polarian Softw are			x					
Rally Softw are				X				
Seapine Softw are			x					
Serena Softw are				X				
SmartBear Softw are			х					
TechExcel			х					
ThoughtWorks			х					
VersionOne				×				

Rational, software

DATTNO

As of 11 November 2010

Source: Gartner (November 2010)



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# jazz.net

#### Creating a higher-fidelity connection to our customers



Suppose we did our development out on the Internet?

Take a tour

of lazz.net

- A transparent software delivery laboratory where you can...
  - ✓ Get answers and insights directly from engineering
  - Communicate with the development team
  - ✓ Track the progress of t builds and milestones
  - ✓ Get the latest product trials and betas
  - √ Join developers and product managers in discussion groups
  - Submit defect and enhancement requests

