

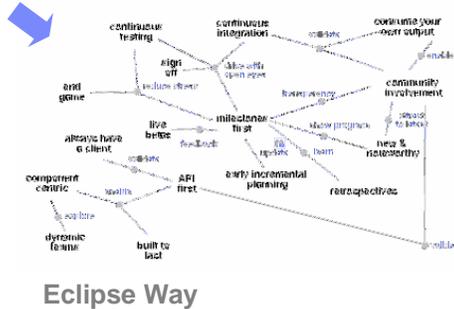
Collaborative Software Development Developing Software like a Band Plays Jazz

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Jazz Technical Lead
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Rational software

Our Journey: XDE -> CDE



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Rational software

The Jazz Project

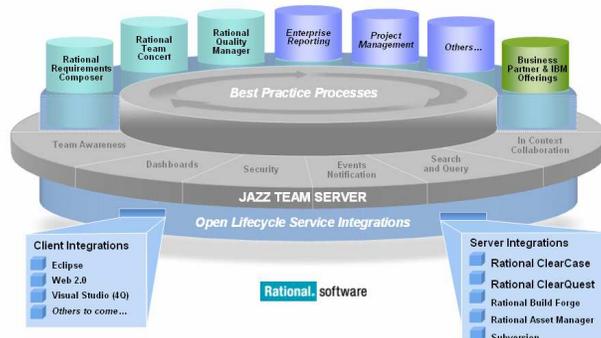
- An effort to create a scalable, extensible team collaboration platform.
- A vision for the future of software delivery – supporting a workforce that is organizationally and globally distributed.
- A community at Jazz.net – the online venue for open commercial development of Jazz-based products.



Rational software

Jazz and Team Concert

- Jazz is a technology platform



- Rational Team Concert is the first Jazz product

Rational software

Collaborative Development Environments

The purpose of a **Collaborative Development Environment** is to create a **frictionless surface** for development **by eliminating or automating many of the daily, non-creative activities** of the **individual and the team** and by providing mechanisms that encourage creative, healthy, and **high-bandwidth modes of communication among a project's stakeholders** – Grady Booch

- **Guiding Principles for Team Concert**
 - **Integration** of work flows and artifacts
 - **Team First** – the tools know about the team
 - **Collaboration** on artifacts/work products following the rules of the team (Process)
 - **Transparency/visibility** into what is happening in project for everybody

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Team Concert

SCM

- Change sets
- Suspending changes
- Workspaces, Streams
- Components, Baselines
- Snapshots
- *ClearCase Connector, SVN Bridge*

Work Items

- Defects, Enhancements
- Task tracking
- Approvals
- Iteration planning
- Workflow customization
- *ClearQuest Connector*

Build

- Continuous integration
- Build engine
- Work Item and Change Set Traceability
- Run Personal Builds
- *Integration with Build Forge*

Project Health

- Reports
- Dashboards (project, team, personal)

- Project, Teams, Users
- Process enactment, customization, role based permissions
- In-context Collaboration, Events, Presence

Rational Team Concert

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Integration

- Tools should be invisible
- Users work and collaborate on tasks
 - Integrated flows
 - Linked artifacts

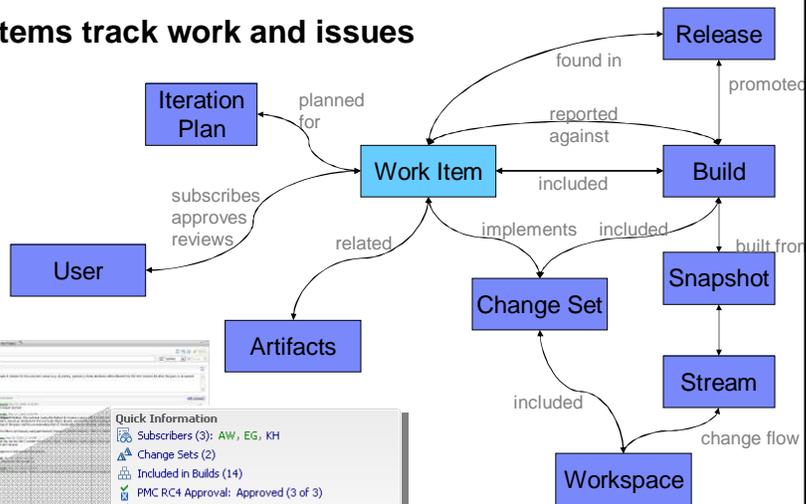
	Work Items	SCM	Build	Reports	Project
joining a team		x	x	x	
what is happening in the team?		x	x	x	x
following the team's process		x	x	x	
starting an ad hoc/dynamic/tiger team		x	x	x	
Fix a bug		x	x	x	
find out if a fix is in the build?		x	x	x	
run a personal build			x	x	
tracking a broken build		x		x	
reconstructing a context for a bug/build failure		x	x	x	
interrupting development due to a high priority bug fix		x	x		
working on multiple releases concurrently			x	x	x
tracking the code review of a fix		x	x		
tracking status				x	x

Tools

Tasks

Integration: Tracing Artifacts

- Work items track work and issues

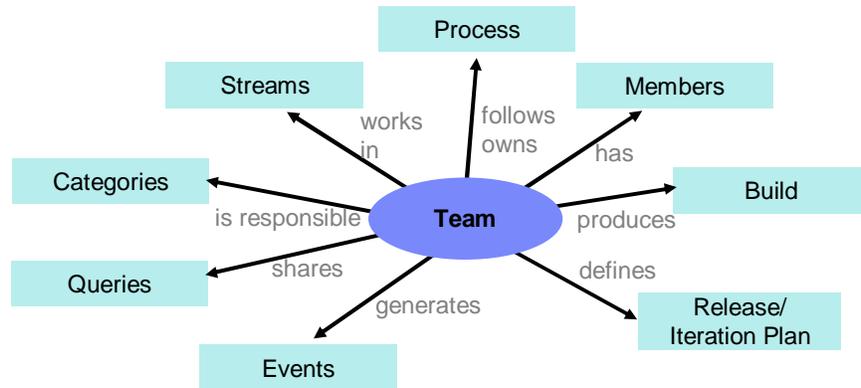


Quick Information

- Subscribers (3): AW, EG, KH
- Change Sets (2)
- Included in Builds (14)
- PMC RC4 Approval: Approved (3 of 3)
- RC4 Approval: Approved (1 of 1)
- RC4_Review: Approved (2 of 2)
- 0.6rc4_Verification: Approved (1 of 1)

Team First

- Tools know the Team
- Each team is different

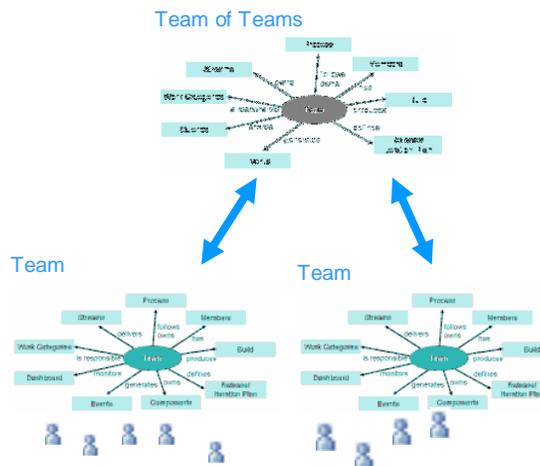


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Team First: Scoped Collaboration

- Multiple level of information visibility
- Isolation levels:
 - individual user
 - team
 - teams of teams
- Distributed teams

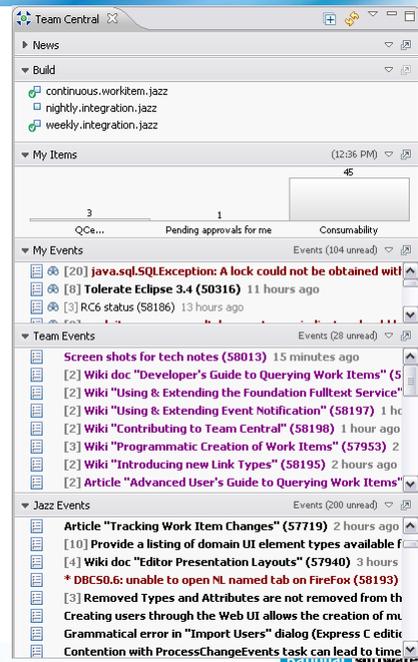


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Notifications

- RSS feeds enable everybody to be informed of changes
- Feeds for the:
 - individual user
 - team
 - team of teams



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Rules/Process

- All collaborations have underlying context specific rules and patterns
- Each project follows a process
- Each team is unique and thus can work differently ⇒ Team's own their process
- Team members play roles defined by the process

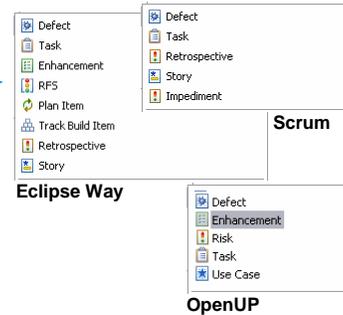


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Process

- **Process manifested through:**
 - artifact types and their states
 - role-specific preconditions and follow-up actions on operations manipulating artifacts
 - artifact change events
 - role-specific and permissions



Eclipse Way

OpenUP

Actions	Everyone (default)	Product Owner	ScrumMaster	Team Member
Dashboards				
Save Personal Dashboard (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Save Project Dashboard (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item Connectors				
Delete Synchronization Rule Info (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Save Synchronization Rule Info (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Process				
Save Project Area (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Work Items				
Save Attachment (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Save Category (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Save Release (server)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Transparency/Visibility: Dashboards

- **Knowing what is going on without having to ask**
- **At a glance view on team artifacts**
- **Three dashboard types:**
 - project
 - team
 - individual user

Viewlets

- ▶ Development
- ▶ Feeds
- ▼ Live Reports
 - Tag Cloud
 - Work Item Statistics
- ▶ Monitoring
- ▼ Personal
 - About Me
- ▶ Project/Team
- ▶ Tools
- ▼ Trend Reports
 - Builds
 - Work Items
 - Blocking Work Items
 - Burndown
 - Closed Work Items Daily

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A Personal Dashboard

Home Project Areas **Dashboards** Work Items Iteration Plans Reports Admin

Type to search

Erich Gamma's Dashboard

Work Items - PMC Team Add New Tab

Bookmarks
Weekly Status

Jazz Project Event Log (32 new)

- NPE in WorkitemWorkingCopyManager.connectLocal (55014) 10 minutes ago
- * NPE in SCM Service StateMap while importing (55016) 10 minutes ago
- Missing comment id when starting chat from workitem editor (54332) 20 minutes ago
- Send Mail in context does not work (54367) 20 minutes ago

Page 1 of 5

Recently High Severity (57)

- 54458: Add page is a sub menu with no action
- 54516: Process WebUI editors don't give any significant visual guidance
- 54025: Update migration guide for M6a and for Beta3
- 54102: Dragging Jazz artifacts to Sametime 8.0.1 chat window does not work anymore
- 54138: Import of existing CQ data using synch tool is still an issue
- 54162: Confirm Content Accept dialog is modal but not in the foreground
- 54186: Clicking inside query selection dialog resets scroll position
- 54217: CQ Connector outgoing synch error.
- 54239: Install RTC CQ Connectors using the latest Install Doc
- 54242: Team Advisor window doesn't redisplay and no message shows in the Project Area dialog indicating a "Missing required license" issue has occurred when closing down the RTC client in Linux.

Page 1 of 6

Unknown Inbox (1)

- 54914: Download of Jazz components crashes Koqueler browser

Open assigned to me (6)

- 48865: [Risk] Migrating from an existing bug tracking system
- 38334: PC view got added to the "wrong" place
- 15026: New wizards for workspace and stream just open editor
- 43083: lifecycle coverage gaps in Team Concert
- 44294: Community Site - publish what went into a build (especially
- 53856: Scrum: leverage support to define the initial category name

Pending approvals for me (2)

- 54208: Beta 3 Install and Licensing test pass
- 54403: License bong attempting to suspend change-set says open createPersonalWorkspace

My Queries

- Non IBM Filed (277)
- All Plan Items (121)
- PMC New (148)
- PMC Plan Items (39)
- Consumability (46)
- Getting Started (143)
- Recently High Severity (57)
- Plan Items (121)
- RFS (28)

15 **Rational software**

A Team Dashboard

Rational Team Concert Your Trial License expires in 111 days | Erich Gamma | Log Out

Home Project Areas **Dashboards** Work Items Iteration Plans Reports Admin Help

Source Control

Work Item Dashboard

Overview **Open Defects** Work Item Trends Builds Add New Tab

Open Defects (1850) Owned By

Owned By	Count
Unassigned	827
Christof Marti	264
Benjamin Pasero	219
Patrick Streule	203
André Weinsand	149
Marcel Bihl	94
Larry Smith	80
Steven Tang	10
Frank Lyner (archived)	9
Other	3

Open Defects (1850) Severity

Bar chart showing severity distribution: Major, Normal, Minor, Unclassified.

Open Defects (1850) Priority

Bar chart showing priority distribution: High, Medium, Low, Unassigned.

Open Defects (1850) Category

Pie chart showing category distribution: Work Item s/Ec..., Work Item s, Work Item s/W..., Work Item s/Ec..., Foundatio..., Work Item s/CL..., Other.

Open Defects (1850) Tags

accessibility arch bidi bugzillaimporter cancellation de errorhandling feed fulltext globalization jvm linux mwbot performance polish queryeditor rxoptional readme serverlog svt teamcentral timeline tooltips upstream usability ux webplanning webui_alignment workitemeditor workitemexplorer

2 Show More

Team of Teams Dashboard

Rational Team Concert | **Jazz Project** | **Jazz Development**

General | Builds | Open Defects by Themes | Open Defects by Team | SVT Defects by Team | Defect Trend Comparison | Defect Trends by Priority | Deferred Items by Team | Closed Daily

Endgame Has Started
Detailed Plan available here: End Game Plan

Jazz Development Description

Open Track Build Items (2)

- 55647: Beta3 status
- 55766: RC2 status

Beta3 Candidates (11)

- 55271: APT data not removed in beta2 to beta3 migration
- 55431: Test Failure (20080509-1203): com.ibm.team.apl.internal.ide.ui.tests.editor.outliner.PlainTextMoveUITest.testNewUIPage
- 55452: Built-in process templates use links/summary
- 55561: Using subscriber dialog makes backspace key inoperable
- 55631: Work item editor UI unresponsive due to synchronization issues in WorkItemEditorModulePart
- 55652: OCME from too many ChangeEvents in memory
- 55663: Deadlocks with multiple license assignments and queues
- 55682: Feature containing work item documentation missing from install
- 55698: Cannot create root in empty folder of existing ClearCase component
- 55748: Test Failure (20080513-2020): WorkItemManagerTests.testTwoSyncRequestsCreatingTheSameCategory

Risks (11)

- 48869: [Risk] CC Connector
- 48862: [Risk] We need to build what we ship
- 48863: [Risk] Migrating/importing SVN repositories
- 53578: [Risk] Data corruption
- 48871: [Risk] CO Connector Set-up
- 48875: [Risk] Scale to 250 users
- 48876: [Risk] Oracle Support
- 48878: [Risk] Scale towards large repositories
- 48874: [Risk] Dirty Support
- 48872: [Risk] Active Directory
- 48865: [Risk] Migrating from an existing bug tracking system

Open License Defects (7)

- 53765: License policies should depend on the correct server version
- 55203: The Upload Server and CAL Activation Key links in the Jazz Web UI don't stand out
- 51902: Document license APIs
- 55444: Comments on licensing messages
- 55004: Poor feedback on license validation if server is down
- 55603: Missing warning in projectteam area editors for express edition when role based permissions are not available
- 55673: Require that users have a license to do the 'com.ibm.team.rtc.login' operation when logging in from the UI

Cross Team Expectations (0)
No work items found.

Cross Team Adoptions (0)
No work items found.

PMC 1.0 Wishes (3)

- 54598: Missing warning about changes to teamserver properties and tomcat/conf files when upgrading server versions.
- 55508: Missing warning in projectteam area editors for express edition when role based permissions are not available
- 55521: User Selector dialog: inconsistent state shown to the user

RFS (20)

Team of Teams Dashboard

Rational Team Concert | **Jazz Project** | **Jazz Development**

General | RC5 Candidates | RC4 Candidates | Open Defects by Themes | Builds | Open Defects by Team | SVT Defects by Team | Defect Trend Comparison | Defect Trends by Priority

Deferred Items by Team | Closed Daily | Add New Tab | Add Viewset

Work Item
Team Area: /Jazz Development/Work Item
Category: All
Iteration: 0.6 RC1, 0.6 RC2, 0.6 RC3, 0.6 RC4

Process
Team Area: /Jazz Development/Process
Category: All
Iteration: 0.6 RC1, 0.6 RC2, 0.6 RC3, 0.6 RC4

Build
Team Area: /Jazz Development/Build
Category: All
Iteration: 0.6 RC1, 0.6 RC2, 0.6 RC3, 0.6 RC4

Source Control
Team Area: /Jazz Development/Source Control
Category: All
Iteration: 0.6 RC1, 0.6 RC2, 0.6 RC3, 0.6 RC4

Agile Planning
Team Area: /Jazz Development/Agile Planning
Category: All
Iteration: 0.6 RC1, 0.6 RC2, 0.6 RC3, 0.6 RC4

ClearCase Connector
Team Area: /Jazz Development/ClearCase Connector
Category: All
Iteration: 0.6 RC1, 0.6 RC2, 0.6 RC3, 0.6 RC4

Video Demo: Joining a Team

The screenshot displays the Rational software interface. The main window is titled 'First Steps' and contains sections for 'Learn about Rational Team Concert', 'What you need', 'What is Jazz?', 'Overview of the platform', and 'Jazz collaboration'. Overlaid on this is the 'Team Concert' window, which shows a 'Team Area' with a 'Members' list and a 'Process Roles' table. The 'Members' list includes names like 'Arvid Wernand', 'Michael Pappas', 'Chander Mehta', 'Dink Bozeman', 'Nish Chandra', 'Frank Lerner', and 'Administrators'. The 'Process Roles' table lists roles such as 'componential, contributor', 'contributor', 'participate, contributor', 'reviewer, parttime', and 'contributor'. The 'Rational software' logo is visible in the bottom right corner.

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Support for Scalable Agile Development

- **Eclipse/RAD supports agile practices for a team member**
 - Refactoring
 - Unit testing, test coverage
- **Team Concert provides agility for a team**
 - Teams
 - Process templates
 - Iteration planning
 - Continuous integration
 - Agile SCM practices
 - Visibility/transparency

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools
 Working software over comprehensive documentation
 Customer collaboration over contract negotiation
 Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

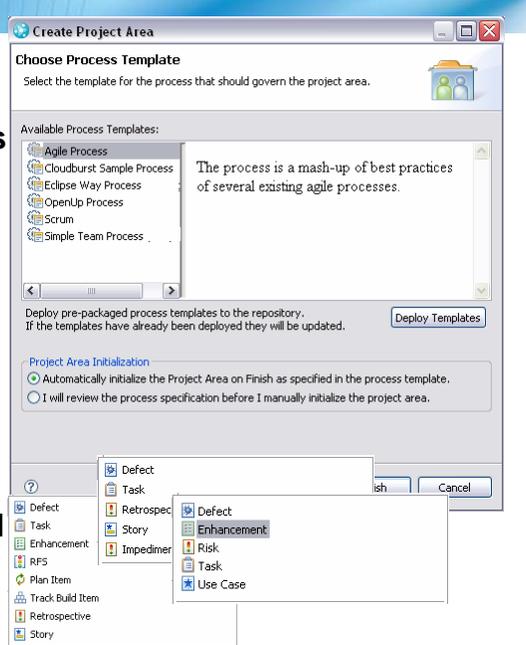
Kent Beck	James Grenning	Robert C. Martin
Mike Beedle	Jim Highsmith	Steve Mellor
Arie van Bennekum	Andrew Hunt	Ken Schwaber
Alistair Cockburn	Ron Jeffries	Jeff Sutherland
Ward Cunningham	Jon Kern	Dave Thomas
Martin Fowler	Brian Marick	

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Process Templates

- Different agile templates available:
 - Agile
 - Scrum
 - OpenUP
 - Eclipse Way
- Agile process specific work item types
- Process can be tweaked at any time

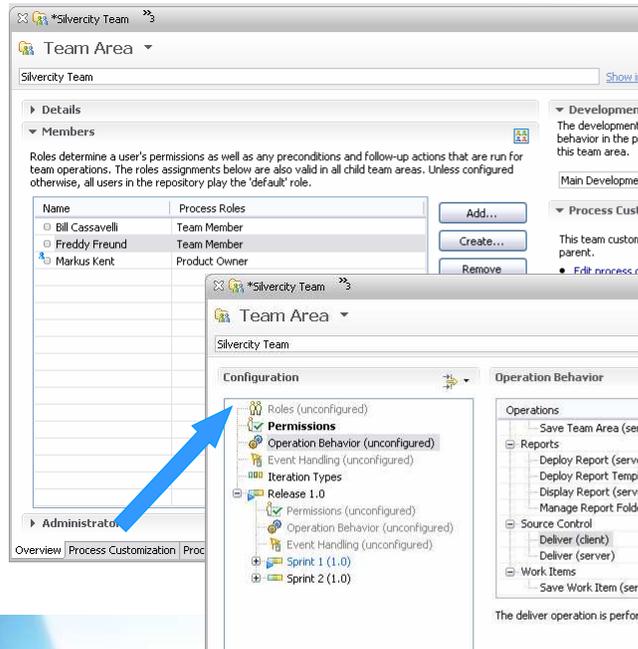


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Teams

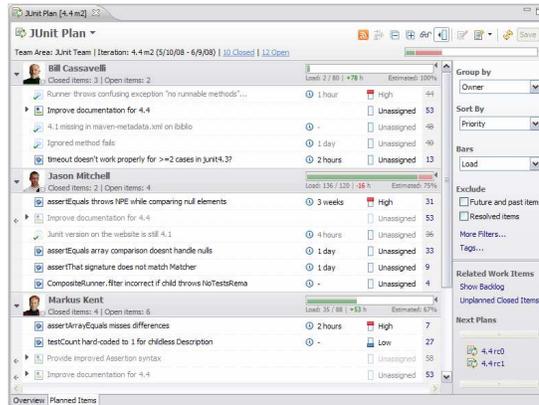
- Easy to set-up easy to get started
 - Dynamic teams, Fluid teams
- Team owns its process



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Iteration Planning

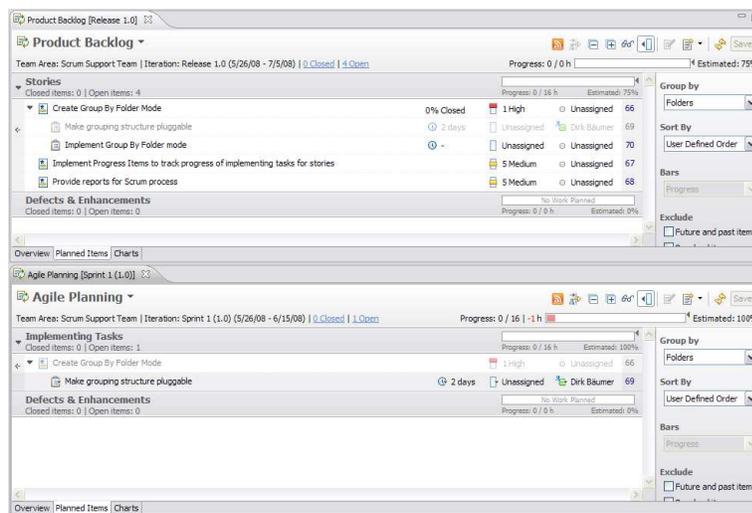
- Planning integrated with bug/defect tracking
 - Process template defines process specific work item types
- Work break down (Stories, Tasks)
- Work load of team members



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Iteration Planning applied for Scrum

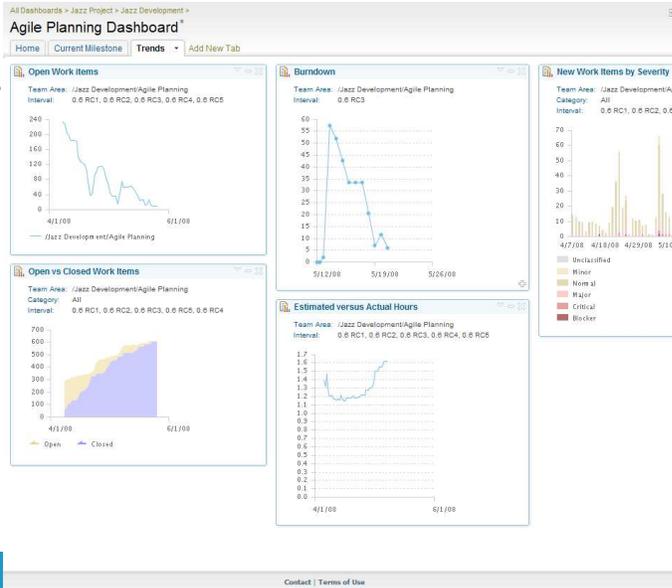


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Visibility: Reports/Dashboards

- Burndown charts
- Configurable dashboards
- Visibility for everyone



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Continuous Integration

- Build results integrated into eclipse
- Build awareness
- Linkage between
 - Work item fixed in build
 - Build corresponding to a
 - Build and release
 - change-sets in build
- Personal builds

Request Build

Request that a build be executed on the first available build engine.

Build:

Build Options

Personal Build

Check this option to make this a personal build. The build will run using a workspace you specify, and will not impact the build definition status. Personal build alerts will only be received by you, not other members of your team.

Repository workspace:

Component load rules:

Build finished with errors
junit 20080523-0749

Work Items - C20080121-1004 - Team Coaxant

Build continuous.workitem.jazz.C20080121-1004

Completed
Duration: 1 hour, 26 minutes, 51 seconds
Start Time: Mon, 21 Jun 2008 16:04:10
Completed: Mon, 21 Jun 2008 17:21:05
Status Trend: [Progress bar]

Contributions Summary

Downloads: [Subscribed](#)
External Link: [Link](#)
Log: [Log](#)
Repository Workspace: [JUnitContinuousBuild](#)
Compiler: [Eclipse JDT](#)
Stagepath: [continuous.workitem.jazz.C20080121-1004](#)
JUnit: [JUnit](#)
Work Item: [JUnitContinuousBuild](#)
Coverage: [None](#)
Changes: [JUnitContinuousBuild](#)

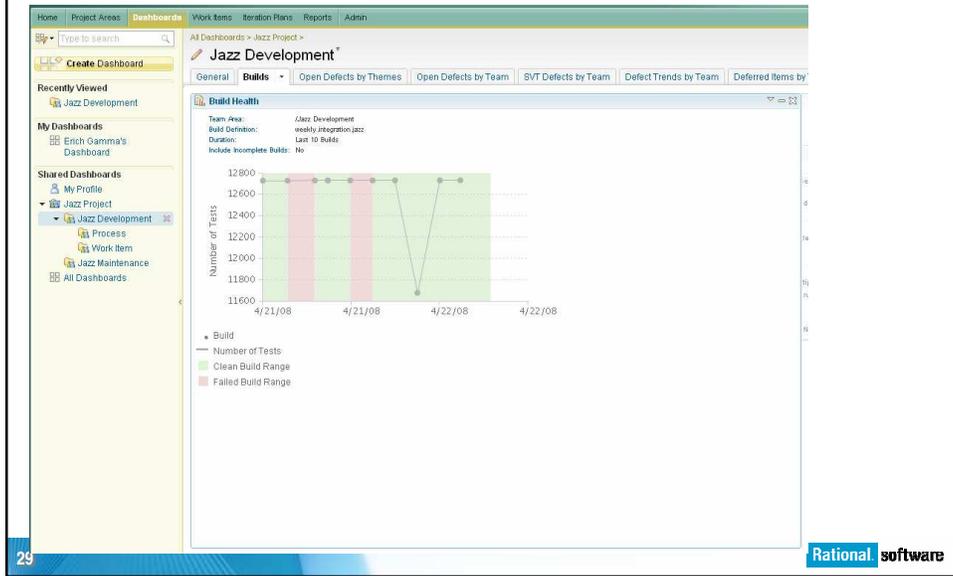
JUnit Tests

Name
JUnit.samples.AllTests
JUnit.samples.VectorTest
testCapacity
testClone
testContains
testElementAt
testRemoveAll
testRemoveElement
JUnit.samples.money.MoneyTest

Details
Class name: [JUnit.samples.AllTests](#)
Method:

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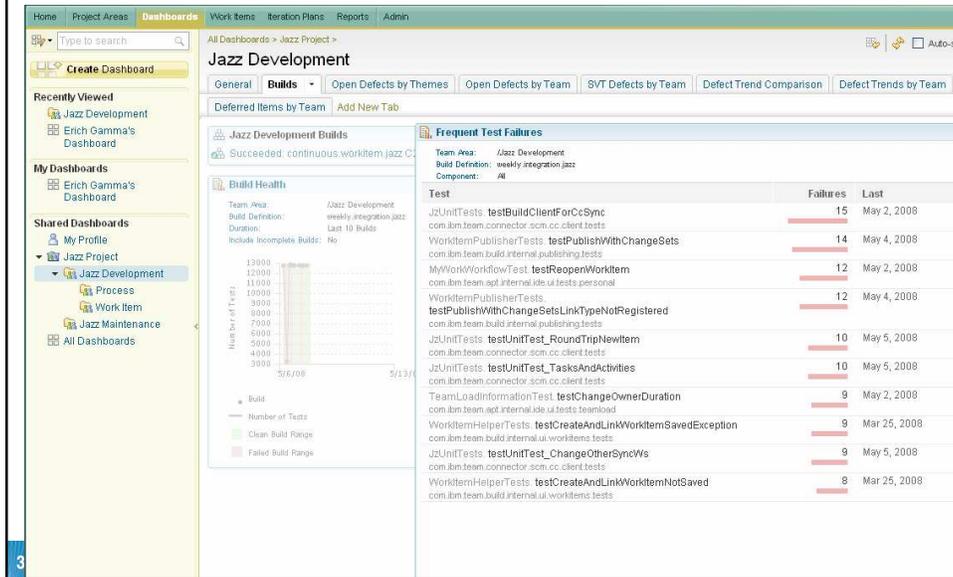
Build and Test Health



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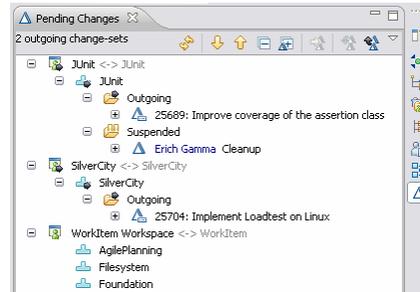
Test Health



3

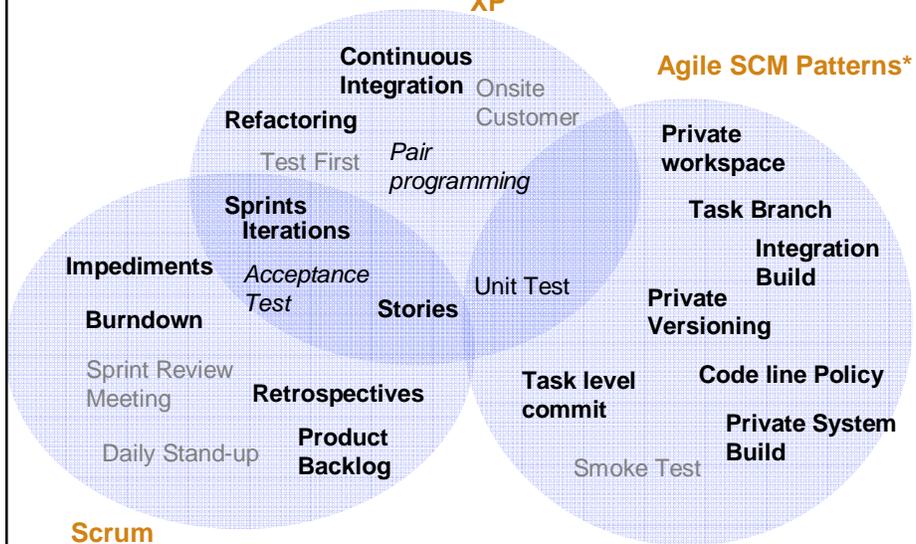
Agile SCM Best Practices*

- Jazz SCM supports agile best practices
- Easy collaboration on change sets
 - Attach to work item
- Refactoring tracking ⇒ enables aggressive/agile refactoring
- Private versions
- Delivery rules
- Suspending changes
- And more...



* Software Configuration Management, Patterns: Effective Teamwork, Practical Integration
By Steve Berczuk with Brad Appleton Published by Addison-Wesley

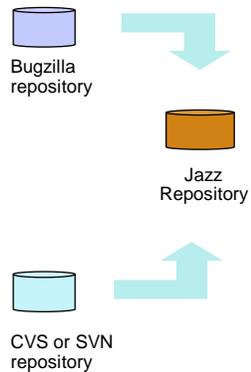
Summary: Agile Practice Coverage



Integrations with Others

Import

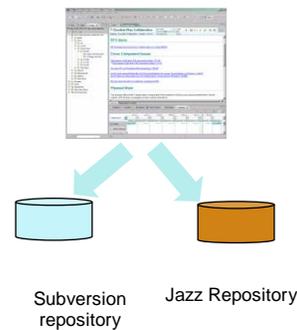
One way data migration



Bridge

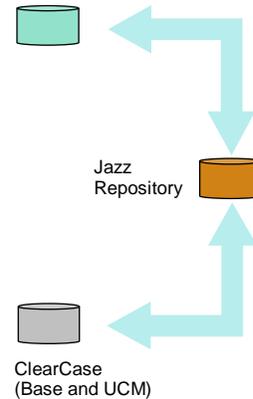
SVN Bridge links work items with change sets.

Mylin repository connector (incubator)



Connectors

Two way data synchronization



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New & Noteworthy since Beta 1

- **SCM**
 - Subversion bridge
 - Version graph
 - Command line
- **Web UI**
 - Dashboard
- **Process**
 - Process editors
 - Scrum, Agile process templates
- **Work items**
 - Link queries
 - Mylin Incubator
- **Jazz Team Server**
 - LDAP
 - Permissions
 - Oracle support
 - Server administration
- **Planning**
 - Team load, My work view
- **Build**
 - Personal builds
 - “Found in” links



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www.jazz.net_the Jazz community

www.jazz.net_the Jazz community

The Jazz Project

Home Community Login

People, not organizations, build great software.

What is Jazz?

Simplicity through consistency. Collaboration in context. Agility through transparency... Jazz is about helping people work together to build software more effectively, while making the software development experience more fun!

Jazz is a joint project between IBM Rational and IBM Research to build a scalable, extensible team collaboration platform for seamlessly integrating tasks across the software lifecycle.

Learn more...
You can learn more about Jazz by watching the demo videos of our events.
[More >>](#)

How do I Join?

Access to jazz.net is now open to Rational customers and business partners, and select open source projects. [Learn more.](#)

Register now!

Forgot your name or password?
Not a Rational customer or partner?
Email info@jazz.net for more information!

In The News (top 4)

IBM's Jazz: possibly dancing to an open source tune? - ars technica Sat, 25 Aug 2007

IBM May Open Source Jazz Collaboration Software - PC World Fri, 24 Aug 2007

Podcast: Interview with Erich Gamma - IBM DeveloperWorks Mon, 20 Jun 2007

IBM Touts Jazzy New Development Strategy - ChannelWeb Mon, 18 Jun 2007

[More >>](#)

Upcoming Events (top 3)

CASCON 2007, October 22 - 25, Toronto, Canada
Wed, 29 Aug 2007

OOPSLA 2007, October 21 - 25, Montreal, Canada
Wed, 29 Aug 2007

[More >>](#)

35 **Rational software**

Getting Started

- Go to Jazz.net
 - Browse the forums
 - Read the Blogs
- Explore the JUnit Sample Project
 - Read the sample guide

Getting Started

- Go to Jazz.net
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 - Read the Blogs
- Explore the JUnit Sample Project
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First Steps

Learn about Rational Team Concert

What you need to know to get started
Read this one page "Jazz Platform quick reference" to learn the basic terminology and concepts before you get started.

What is Jazz?
Jazz is a scalable, extensible, team collaboration platform for seamlessly integrating tasks across the software lifecycle.

Overview of the Jazz Platform architecture
Learn about the architecture of the Jazz Platform: the repository, server, and components.

Tutorials

Get started with Rational Team Concert
This tutorial introduces you to some of the major Jazz® technology platform components and features found in Rational® Team Concert.

Explore the Rational Team Concert JUnit example project
This brief guide is a companion to the JUnit sample project. This tutorial provides you with a high level overview so that you can begin adapting on your own.

Sample

Rational Team Concert JUnit example project
Use this wizard to create a sample Rational Team Concert project. The sample includes a team, team members, transition plans, work items, a build, and source code. This is a great way to explore and start learning.

JUnit Project

Details

Summary

Description

Members

Roles determine a user's permissions as well as any reconciliations and follow-up actions that are run for project and team operations. The roles assigned below are also valid in all the project's team areas. Unless configured otherwise, all users in the repository play the 'Default' role.

Process Specifications

JUnit Sample Repository Process: This sample process contains exemplary process definitions used in the JUnit sample repository.

development

- 4.4 [2] (4/08 - unknown)
- git 4.4 int [1] (7/08 - 2/14/08)
- git 4.4 int [2] (1/08 - 9/16/08)
- git Development
- End Gate
- 4.4 int [3] (2/08 - unknown)
- Development
- End Gate
- 4.4 (c)
- Development
- End Gate

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Conclusions

- **Jazz and Team Concert is developed and used by a globally distributed team**
- **RTC scales from small teams up to significant efforts**
- **Experiences**
 - we have become **more continuous**
 - things important to us we make **explicit**
 - increased **awareness**
 - improved **practices**

Effortless access to assets, notifications, reporting, and tracking for everybody from anywhere