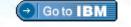




Jazz and Rational Team Concert

Eric Long, Technology Evangelist IBM Rational Technology Events Singapore 20 August 2008







Agenda

- All that Jazz
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - Software Configuration Management
 - Build Management
 - Change and Traceability





The Jazz project

People working together to deliver great software

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



A major investment by IBM to create a scalable, extensible team collaboration platform.

IBM's vision for the future of software delivery -- supporting a workforce that is increasingly organizationally and globally distributed, fluid and dynamic.

An evolution of the Rational portfolio, which will evolve to support the Jazz technology platform over time.

A community at Jazz.net – the online venue for open commercial development of select Jazz-based products.

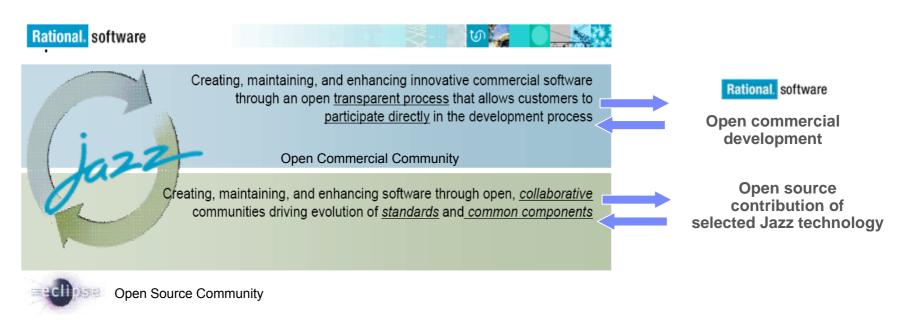






Jazz.net: Delivering greater openness and customer participation in the products they depend on for software delivery

- IBM is opening up the Rational Software Delivery Platform for greater ease of consumption, extensibility and integration to meet the unique usage needs of our customers
- IBM is providing transparent, collaborative customer participation in the development of new Rational technologies through an open commercial community









Create a jazz.net account

Jazz.net registration is now open to everyone! In most cases, we can validate your registration and send you your password right away if you provide us with complete and accurate information.

eck this User ID for availability	*Address line 1: Address line 2:	
	Address line 2:	
rsonal Information:		
irst name:	*City:	
ast name:		
	State/Province (required U.S./Canada):	
-mail:	-None - Y Zip/Postal Code (required U.S./Canada):	
e-type E-mail:		
	*Country/region:	
ompany or Organization name:	United States	~
elect the entry that best describes	If you have a registration code, enter it be	low
u: Select One -		

Why register?

Creating a jazz.net account allows you to take part in the Jazz community. You can download product Betas, and other previews of Jazz technology.

You'll be able to interact directly with the Jazz development team and other members of the Jazz community through forums and mailing lists, and help guide the evolution of the Jazz platform.

Still not sure?

Watch the guided tour of Jazz.net.





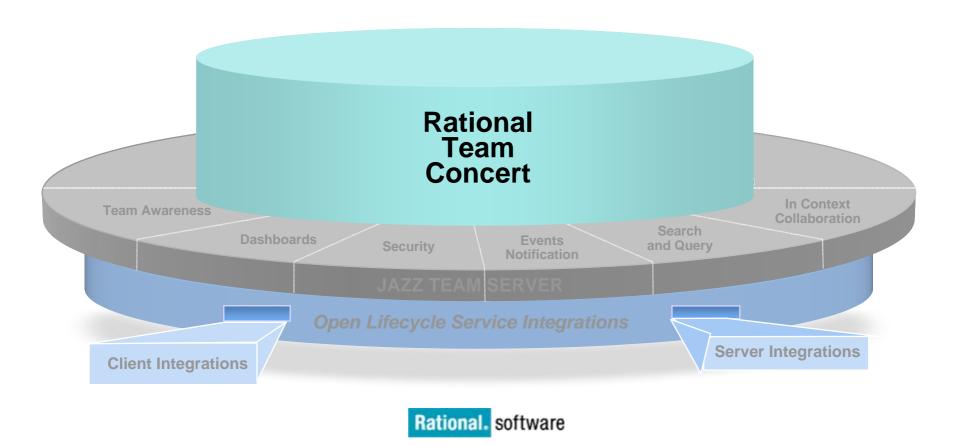
Agenda

- All that Jazz
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - Software Configuration Management
 - Build Management
 - Change and Traceability



Today's focus: Rational Team Concert

The first offering built on the Jazz technology platform







Software innovation through collaboration

Real time, in-context team collaboration

- Make software development more automated, transparent and predictive
- "Think and work in unison"
 - Integrated source control, work item and build management
- Assess real-time project health
 - Capture data automatically and unobtrusively
- Automate best practices
 - Dynamic processes accelerate team workflow
 - Out-of-the-box or custom processes
- Unify software teams
 - Integrate a broad array of tools and clients
 - Extend the value of ClearQuest and ClearCase
 - Visual Studio Client (4Q08)
 - Support for System z and System i servers (2H08)







Translating words to actions

Fewer meetings and status reports Collaboration Reduction in late scrap and rework Collaborate in Context Reduced attrition of skills and greater leveraging top technical / business talent Easier to stay compliant with standards Clarity Right-size Governance Earlier detection and accelerated resolution of defects Improved predictability of projects Project initiation in days not weeks Continuity Day One Productivity Reduction in time to first demonstration. Improved cycle times through automated patterns, services and architectures Viral, but Controlled Development Open and Extensible Community Architecture Expanded Community Selectable integration characteristics



The Rational Team Concert family 2008

Statement of Direction (2009)

Standard

Enterprise Deployments

Enterprise

- Enterprise optimized extensions
- Integrated ClearCase, ClearQuest Build Forge
- Enterprise scale, security, governance & provisioning

Express

Mid-sized and Departmental

- Transparent development
- Out-of-the-box processes
- Commercial middleware
- Up to 50 users per server

Corporate Teams

- Customizable process
- Real-time project health
- LDAP admin
- Enterprise scale and extensibility
- Up to 250 users per server

Express-C

Community and Academia

- In-context collaboration
- Open source middleware
- Up to 10 users per server

EclipseTM, Linux[®], MS Windows[®], UNIX[®] - z/OS[®] (1H 09) & i5/OS (3Q) w/ native asset & work item mgmnt





Rational Team Concert

Iteration Planning

- Integrated iteration planning and execution
- Task estimation linked to key milestones
- Out of the box agile process templates

Customizable web based dashboards

Project Transparency

- Real time metrics and reports
- Project milestone tracking and status

SCM

- Integrated stream management with flow relationships
- Component level baselines
- Server-based sandboxes
- Identifies component in streams and available baselines
- ClearCase connector

Work Items

- Defects, enhancements and conversations
- Query results view and share queries with team or member
- Support for approvals and discussions
- ClearQuest connector
- Query editor interface

Build

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

Jazz Team Server

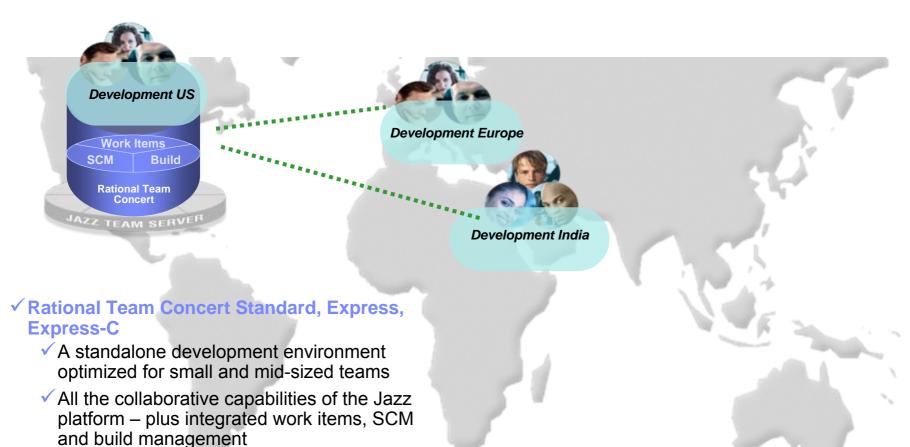
- Single structure for project related artifacts
- World-class team on-boarding / offboarding including team membership, sub-teams and project inheritance
- Role-based operational control for flexible definition of process and capabilities

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





Leveraging Rational Team Concert independently

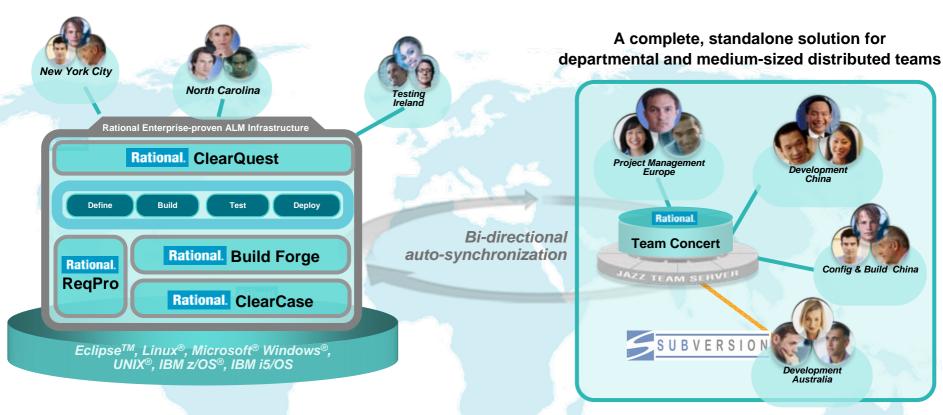


- ✓ Dashboards and real-time reports
- √ Team and Process-aware





Unify distributed teams in mid-sized or enterprise settings

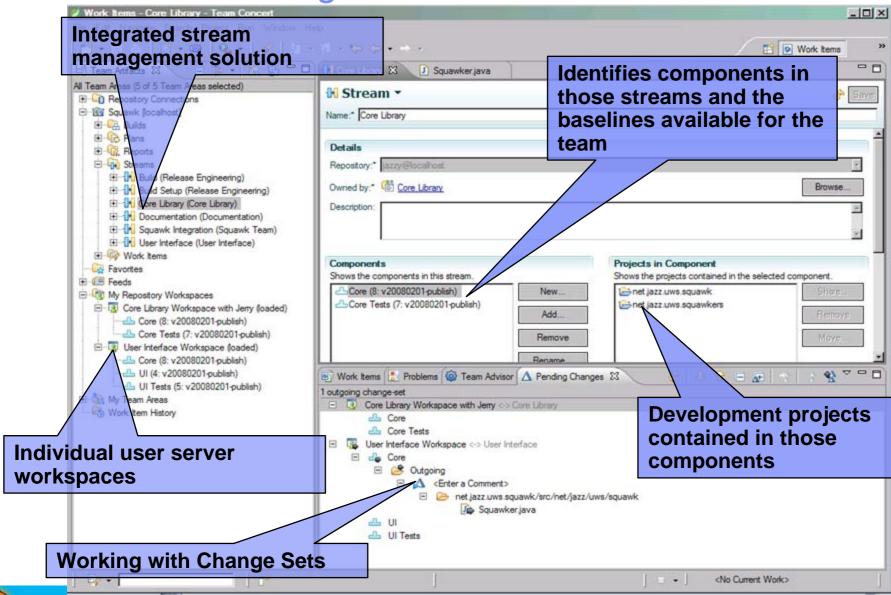


- Supports departmental "satellite" or "agile" projects optionally integrated with existing enterprise-proven Rational ALM infrastructure offerings
- Enhances existing ALM offerings with new collaborative & process capabilities

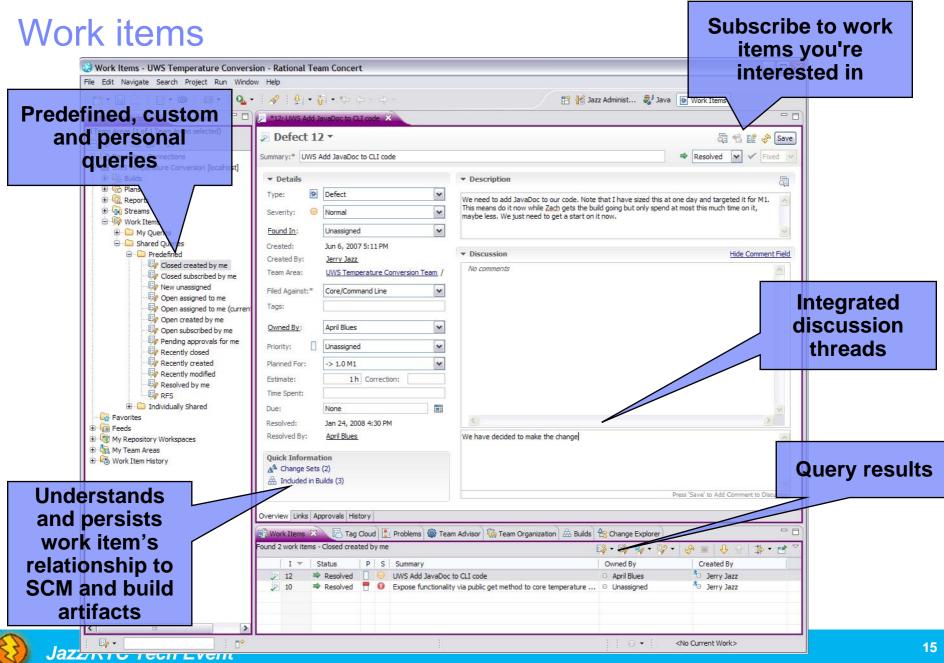




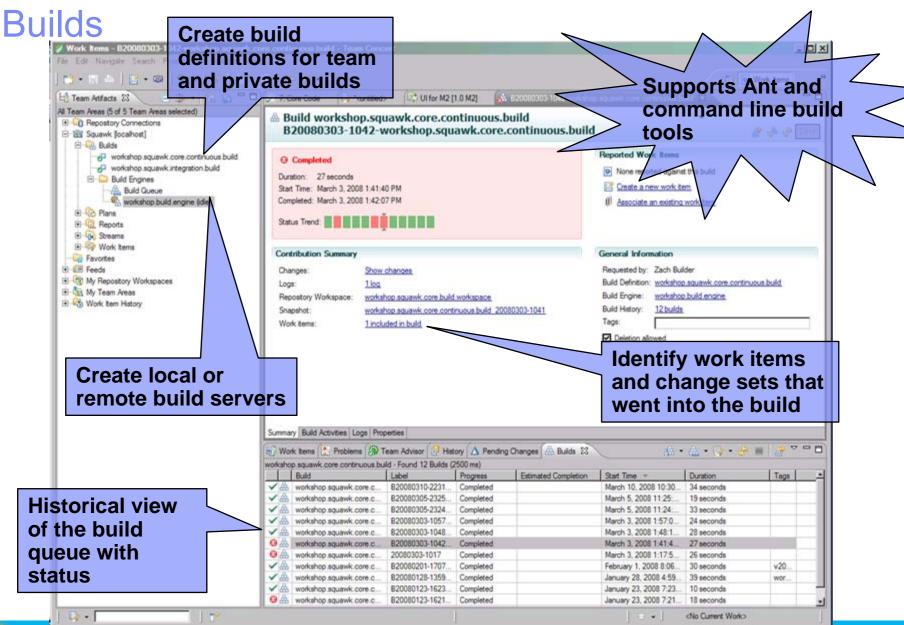
Source code management









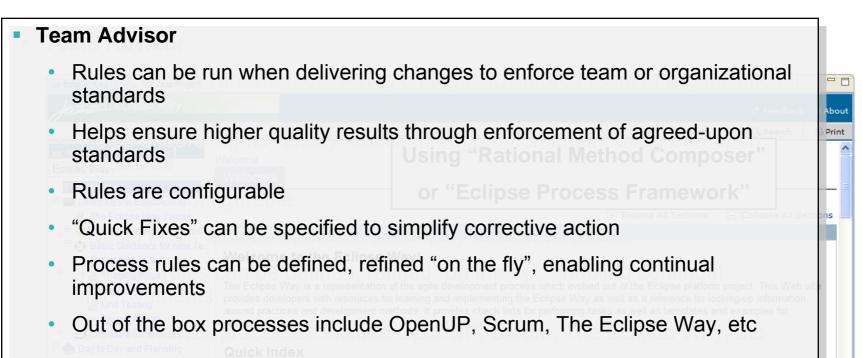


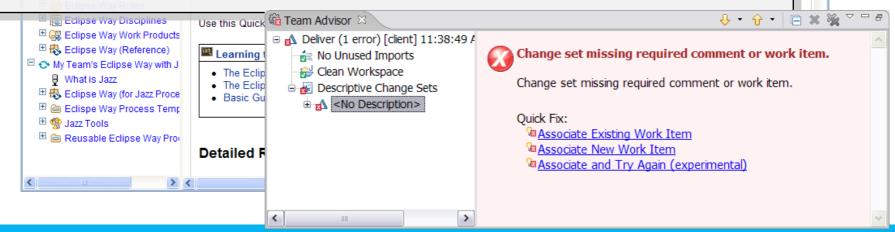


16



Enables process awareness and guidance



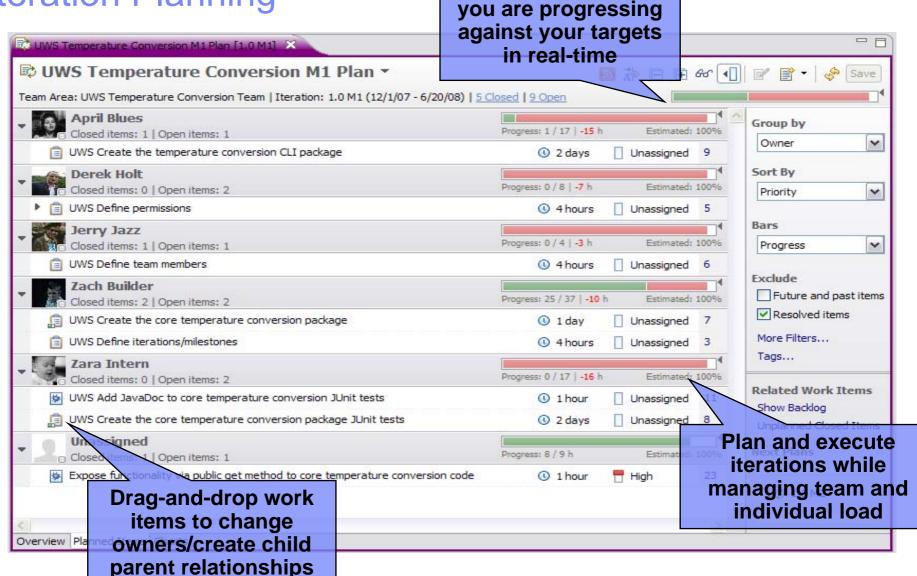




17



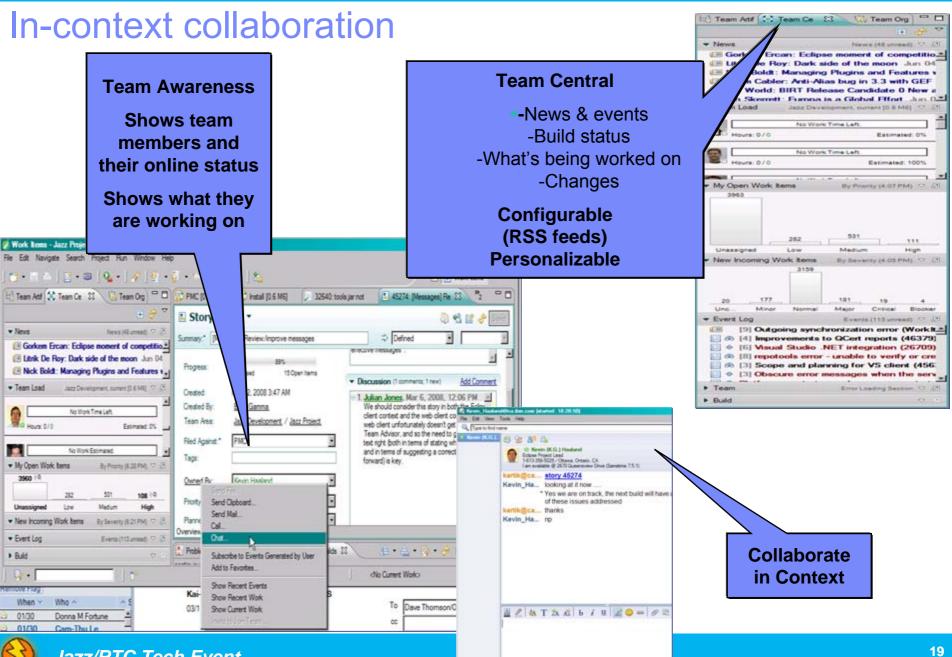
Iteration Planning



Understand how well



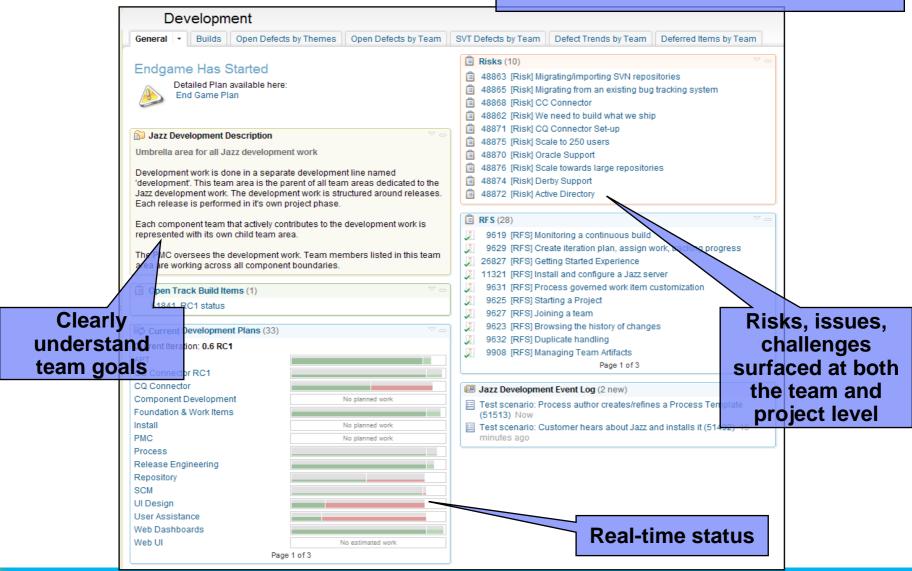






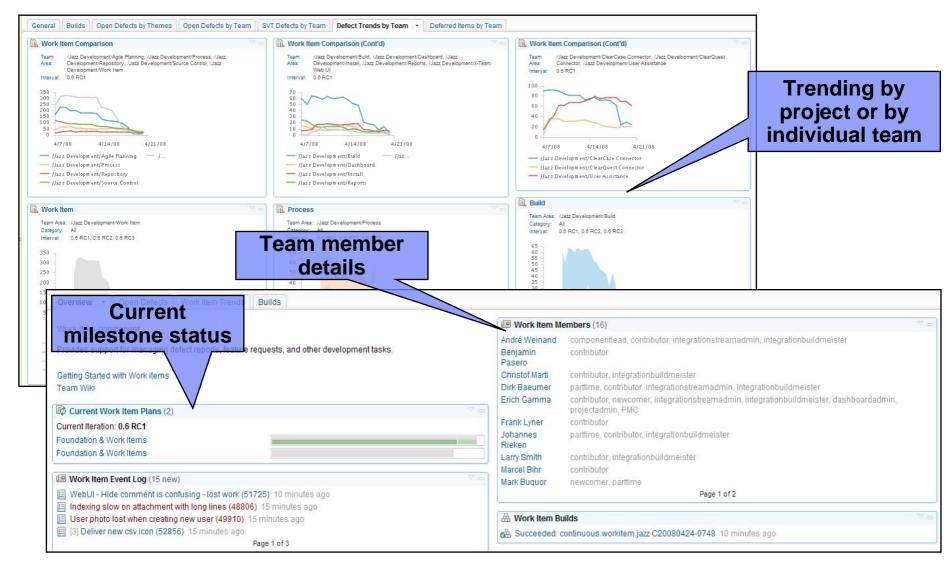
Dashboards

Transparency, collaboration and control via customizable dashboards





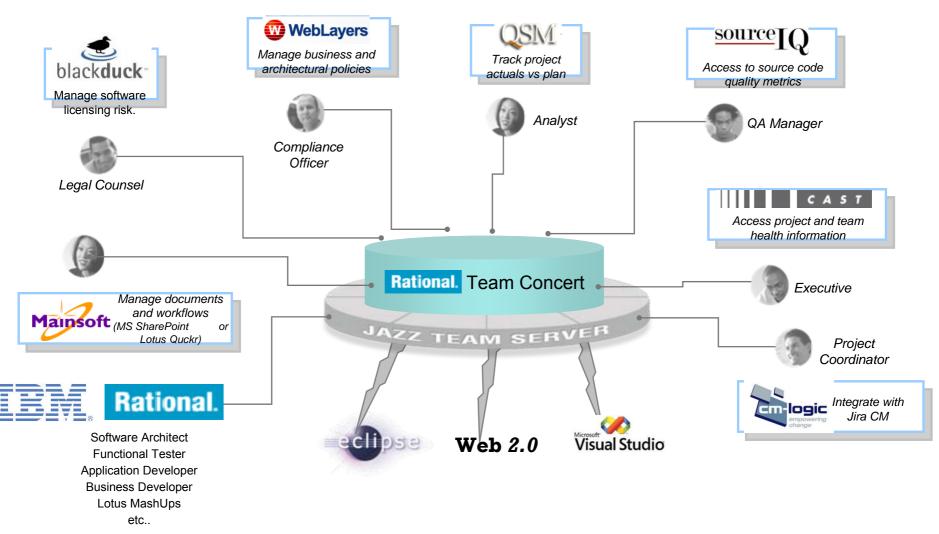
Dashboards and reporting







Extend team collaboration to a broad range of software professionals







DEMO

Introduction to Rational Team Concert





Agenda

- All that Jazz
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - Software Configuration Management
 - Build Management
 - Change and Traceability





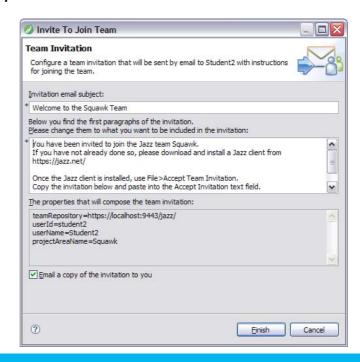
Joining a Team

- For most environments, joining a project can be complicated
- Team Concert makes this as easy as possible
- Adding a new team member to a project generates a Team Invitation email

Contents of the email can be used to set up the new team member's access to the project

resources in Team Concert







Communication

- Users of Team Concert can use a variety of tools to communicate with team members
 - E-mail
 - Instant Messaging/Chat
 - RSS feeds
 - Web UI
 - Team Concert client
- Team members can use all the typical communication mechanisms to keep working together as a team, regardless of where they are physically located. This collaboration allows for a single view of project data
 - Integrated Instant Messaging/Chat for immediate feedback
 - RSS feeds to notify you of significant events on the project in real time
 - ▶ The Web UI used for anyone on the team, or who has an interest in the project





DEMO

- Joining a new project
 - Connect to project
 - Network with new team





Agenda

- All that Jazz
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - **▶** Software Configuration Management
 - Build Management
 - Change and Traceability



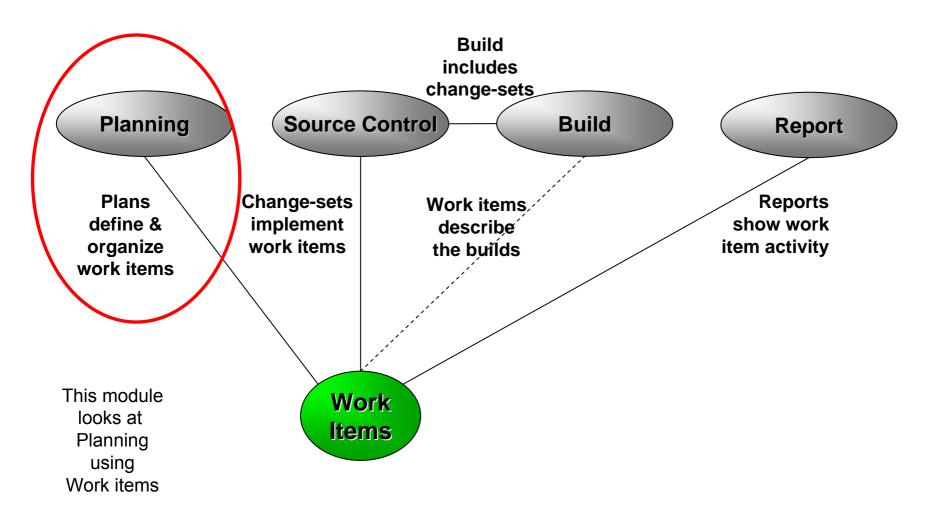


Units of work

- Rational Team Concert allows you to divide your work into work items
- The set of work item types is open-ended
- Standard types: Task, Enhancement, Defect
- The set is defined by each team
- The work item life cycle is configurable
- All work items are stored in the repository
- The way that Rational Team Concert uses Work items means that all your work can be planned, tracked and stored under configuration management. Allowing for both the top down view and the low level view of data and project status.



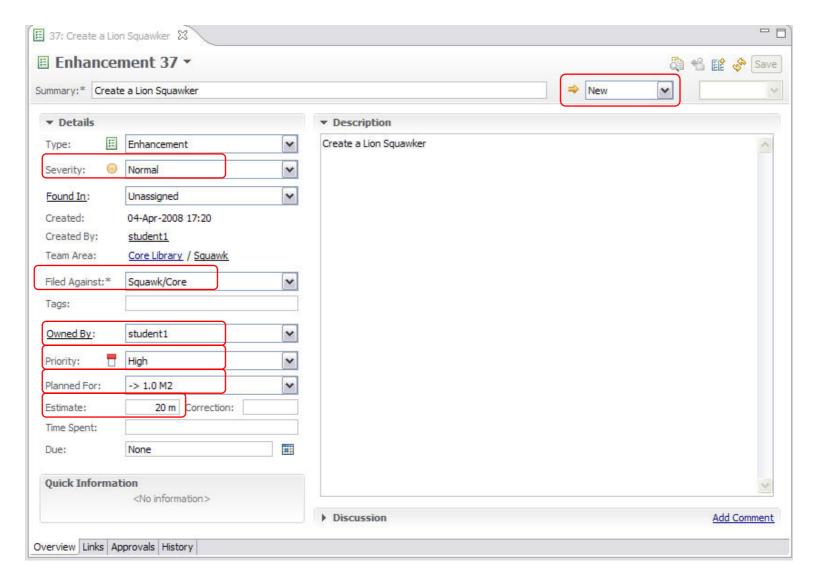
Work Items are central to Rational Team Concert







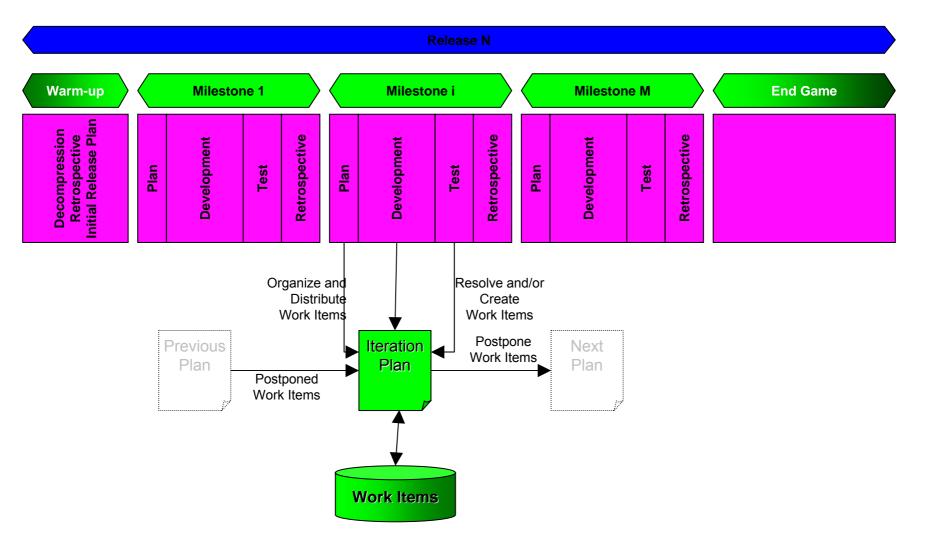
Work Item details







Iteration planning in Rational Team Concert







The Iteration Plan

- A collection of work items...
 - Assigned to a given milestone
 - For a given team
- Plans are live
 - Changing work items changes the plan
 - Changing the plan directly changes the work items
 - Create new work items from the plan
- Plan structure is dynamic
 - Easily be grouped by owner, category, duration, priority, etc.
- Plans are visible
 - Available to everybody on the team
 - Observable by interested outsiders



Work Item Queries

- Provides real-time project health information and transparency of status through automated data gathering.
- Rational Team Concert provides a query mechanism to find work items in a Project Area allowing for more project transparency.
 - ▶ The query scope for work items is the project area.
- The user interface includes
 - an editor for building structured work item queries
 - an end-user configurable work item view to browse the query results.





DEMO

- Planning your work
 - Create a new Enhancement
 - Create a new Iteration





Real time collaboration

- The modules before showed how the project team plans the work for an iteration.
 - But how does the project keep track of all the planned work items?
 - ▶ How do I see who may help me with my actual problem?
 - ▶ How do I get the most recent status of the project?

What if your tool knows the actual status of your team's work?

Rational Team Concert stores all artifacts for the development project in one repository and provides powerful query capabilities to retrieve and display data.





Real time collaboration

- Query and Reporting capabilities are available in the Eclipse Client and the Web UI.
 - Define queries on Work Items to find your work and the work of others.
 - See who is online and ready to collaborate with you.
 - See the event log for build or work item events that are interesting to you and follow RSS feeds for News.
 - ▶ Generate, display and export reports on the status and health of the project.
- Rational Team Concert displays the information in automatically refreshed views that are configurable, so that you are up to date with the information you need in real time.



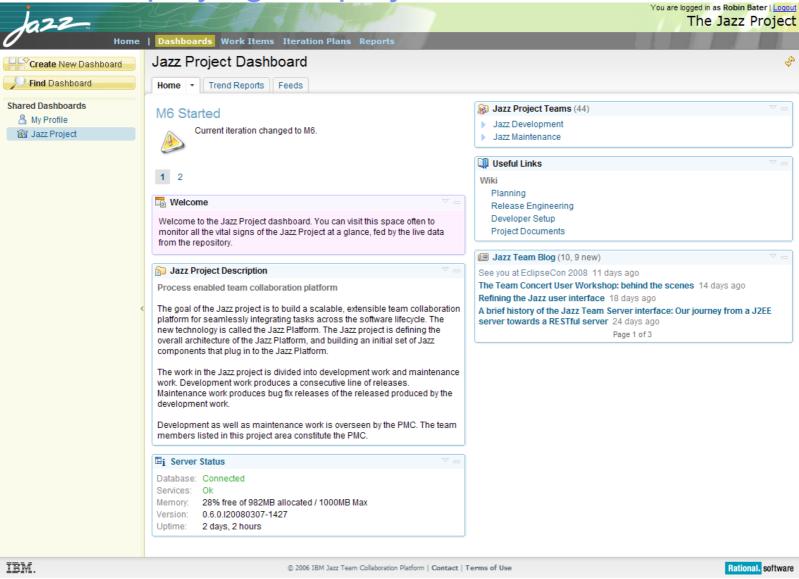


- Rational Team Concert uses the BIRT* reporting engine
- A huge variety of report formats are designed and available to display an actual overview of your projects:
 - Reports for the health of your builds
 - Reports for viewing the team load and the distribution of work items
 - Reports for your code
 - Etc.
- Reports can be arranged in the Web UI to Dashboards
- Reports can be exported to: .pdf, .xls, .doc, .ppt Formats

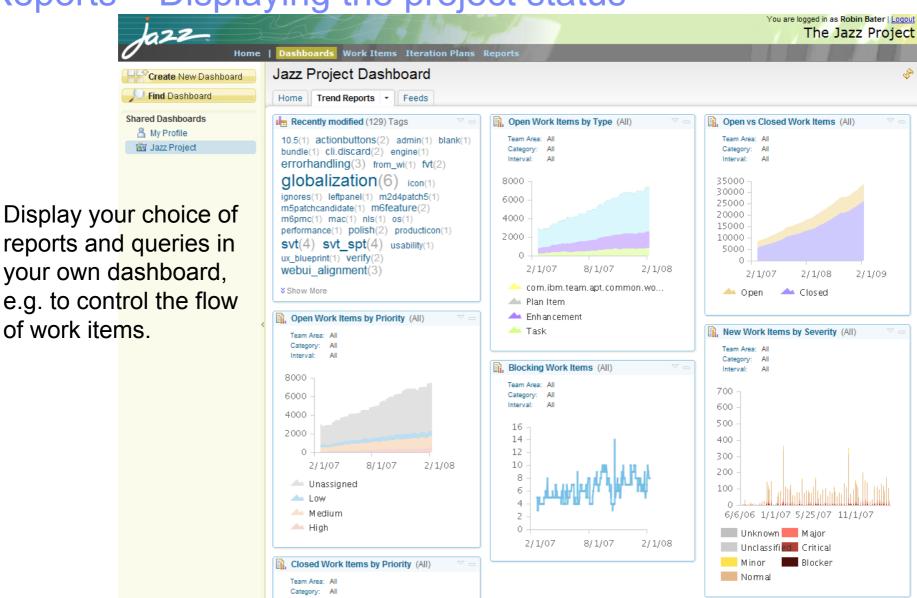
*BIRT is an open source Eclipse-based reporting system that integrates with your Java/J2EE application to produce compelling reports.





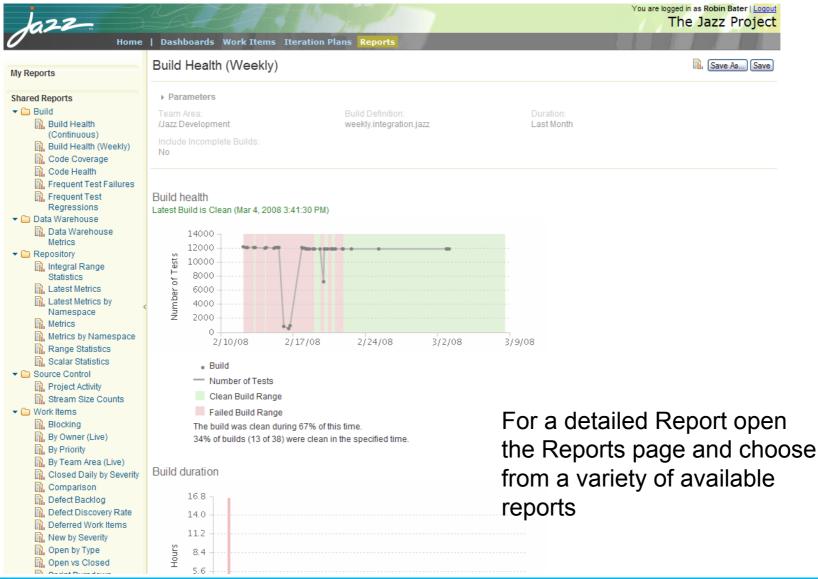
















Agenda

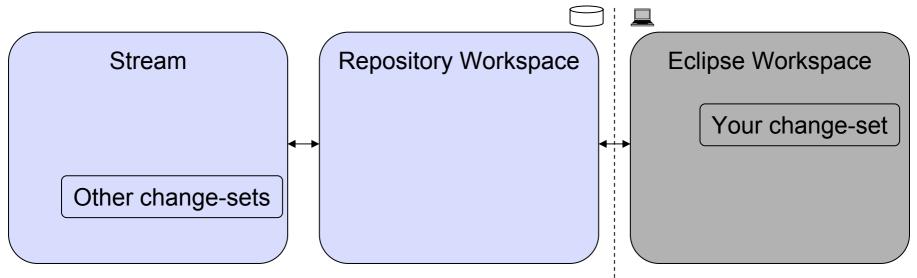
- All that Jazz
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - Source Configuration Management
 - Build Management
 - Change and Traceability





Basic Jazz SCM Anatomy



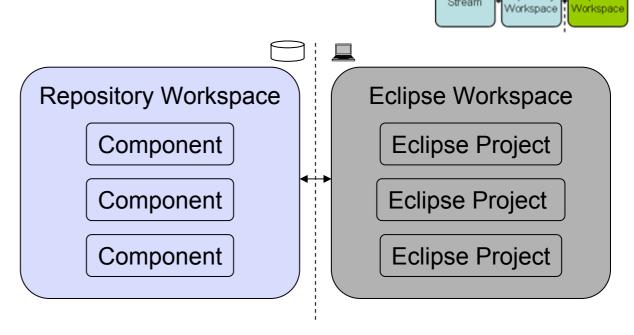


- Streams are for sharing
- Repository workspaces are your personal space
- Eclipse workspaces are where you work
- Change-sets flow back and forth
- Subsequent modules will cover each of these





Components...

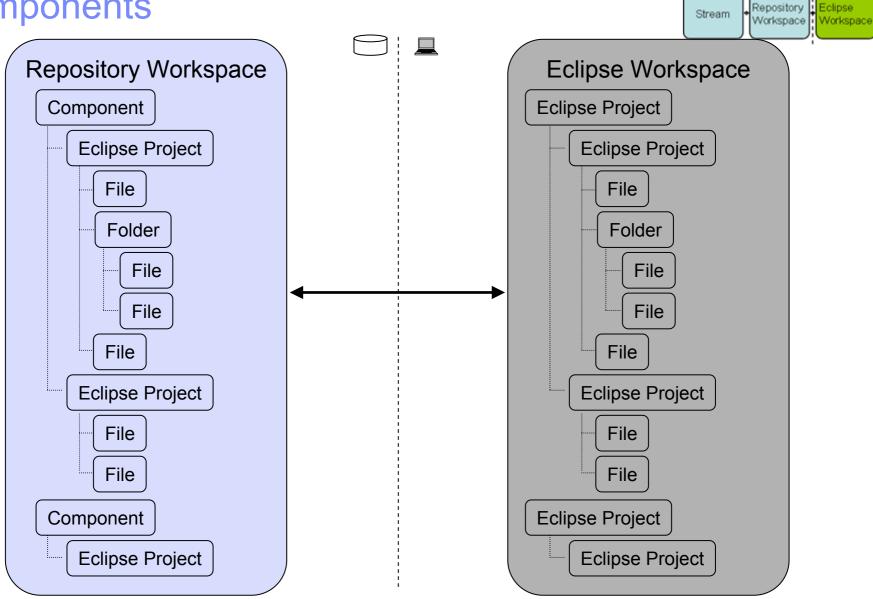


- Repository Workspaces
 - Contain components
 - Jazz understands the structure of your project
 - Components map to Eclipse Projects in an Eclipse Workspace
 - Jazz will create these Eclipse Projects for you





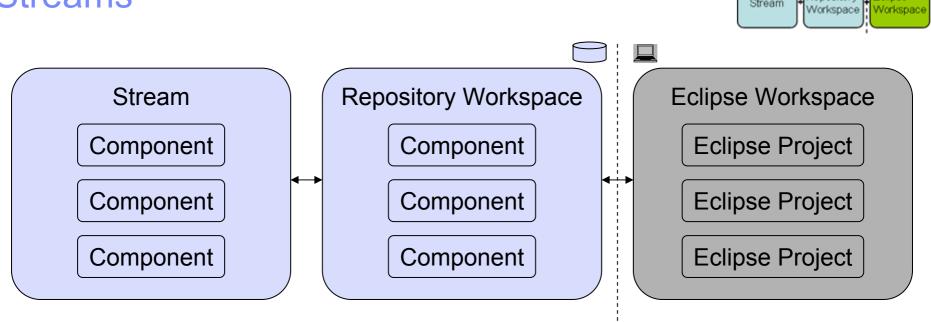
Components







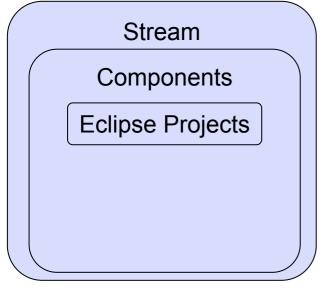
Streams



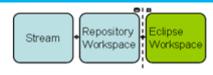
- Eclipse Workspace
 - Where a developer actively adds and changes source
- Repository Workspace
 - ▶ A developer's private space in the repository
- Stream
 - ▶ A place to share source with your team



Change-sets









- Components Track Changes
 - Collection of files and folders is built up from the steady build up of change-sets
 - Each change-set builds on what came before
- Change History
 - ▶ A time-ordered sequence of change-sets
 - Describes how the component's content was built from nothing



48

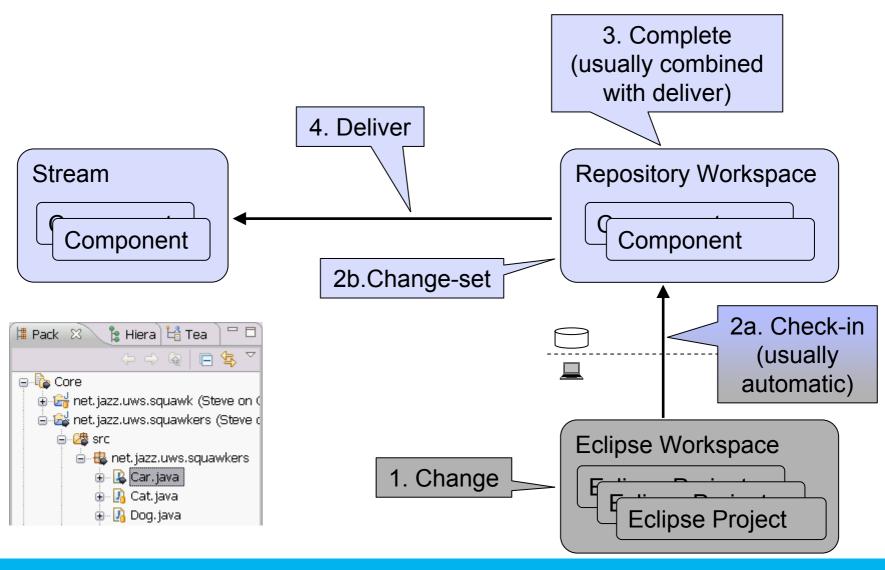
Change-set Details

- Composed from a collection of changes to one or more files and folders
 - Manage dependencies in an integrated and transparent fashion
 - ▶ Change-set orientation is another example of Jazz understanding your project
 - ▶ A change-set that affects multiple resources is committed as a single atomic unit
- Indicates the reason for the changes
 - Traceable artifacts
 - Collaborative in nature via a comment, and/or
 - By referencing the relevant work item
- Can be shared with another team member in real time to increase productivity
 - Via a stream, or
 - From your repository workspace via a work item



Typical Journey For A Change-set

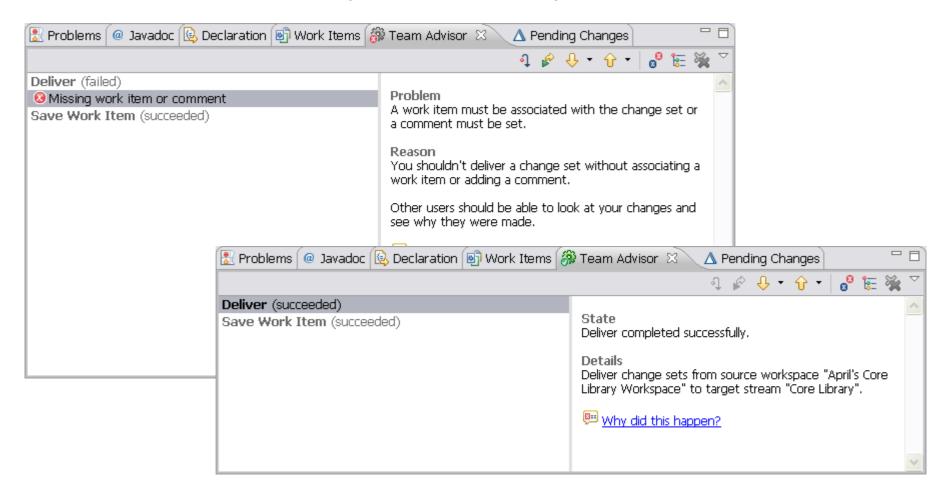






Change-set Delivery is Process Enabled

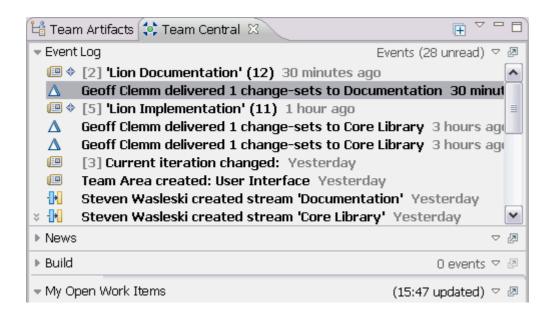
 The deliver operation is process-enabled, allowing the team's process to check and enforce delivery rules automatically



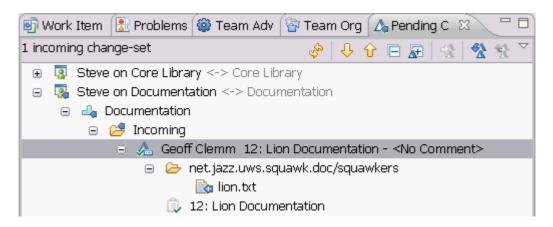




Delivery Notifications







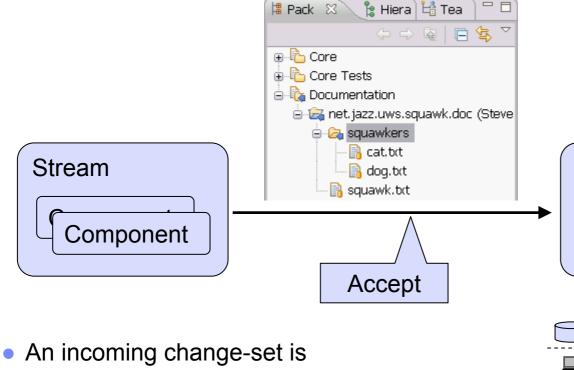




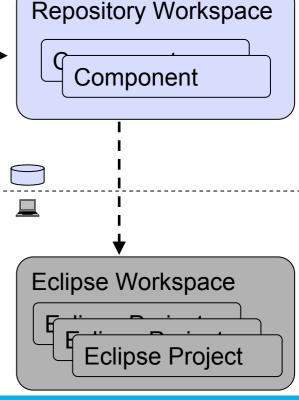
52

Getting Teammates' Delivered Work





- - In the change history of the stream, but
 - Not in the change history of your repository workspace
- Accept adds the change-set to your repository workspace's change history





DEMO

Sharing work across your team





Agenda

- All that Jazz
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - Source Configuration Management
 - Build Management
 - Change and Traceability





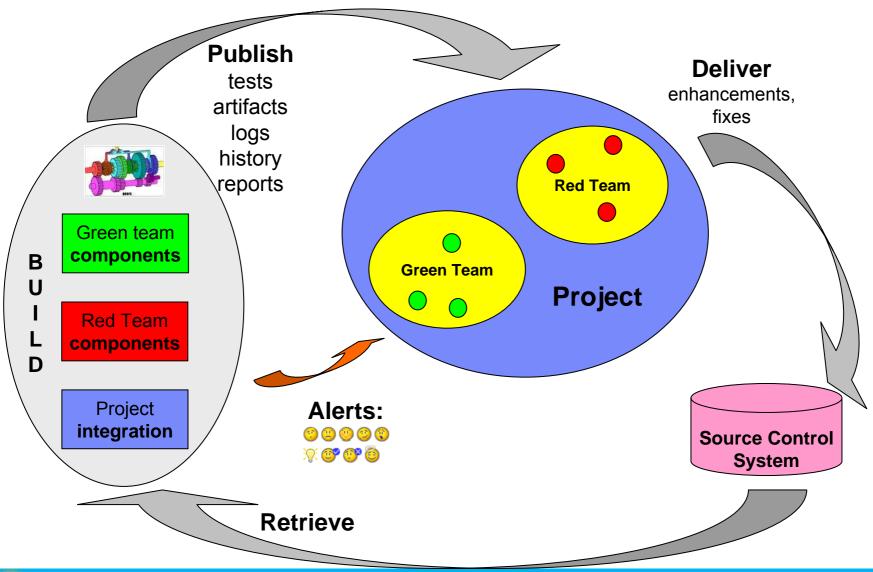
Build Challenges and their impacts

- Silos of information contribute to reducing team productivity
- Inconsistent policies and processes for project stakeholders
- Difficult to facilitate communication, visibility, sharing, and leveraging globally distributed teams without mass chaos
- Limited to no traceability among the artifacts
- Difficulty tracking status of multiple builds

- Delays and missed deadlines for projects and releases
- Unpredictable product/project release cycles
- Costly to support/integrate/troubleshoot multiple systems to avoid mass chaos
- Failed audits, additional work needed for tracking
- No reliable status of project health and no trend analysis



Build in the World of Agile Team Development





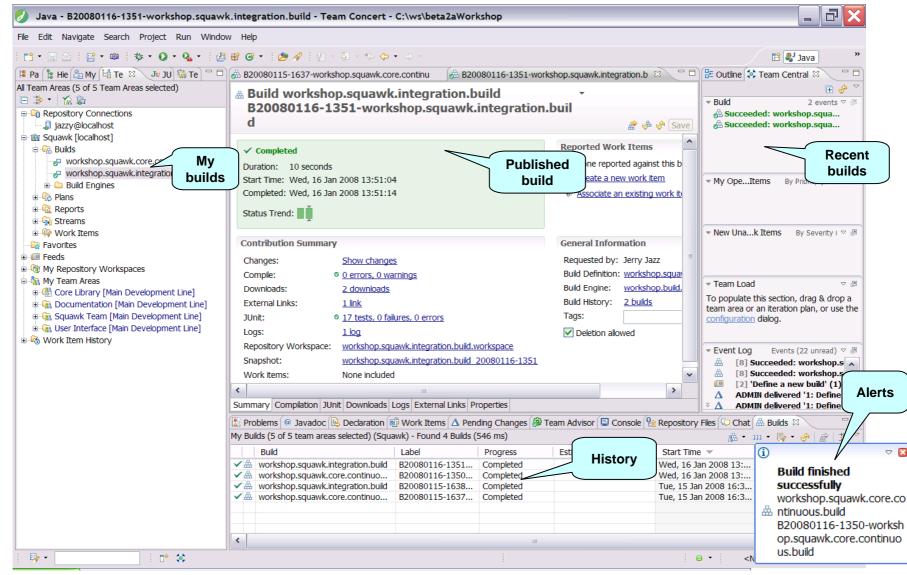


Rational Team Concert Build

- Is an integral part of the project infrastructure
 - Consistent, repeatable process throughout the project
- Brings awareness of build progress and results to developers
 - Easy sharing of information
- Links build results to related Jazz artifacts
 - Integrated experience, traceability and tracking "baked in"
- Allow developers to have a private build area
 - ▶ Build and test code before delivering to the main branch
- Accomodates existing build technologies (Ant, CruiseControl, Build Forge, Maven, ...)
 - Leverages technology that fits your project best



Build is very visible to the user

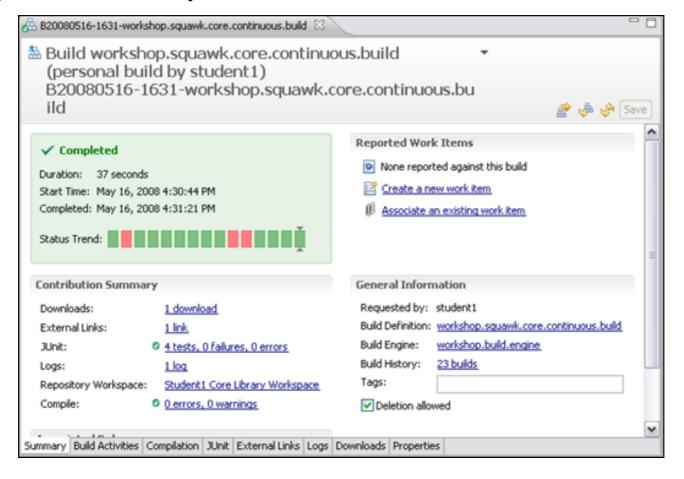






Private builds

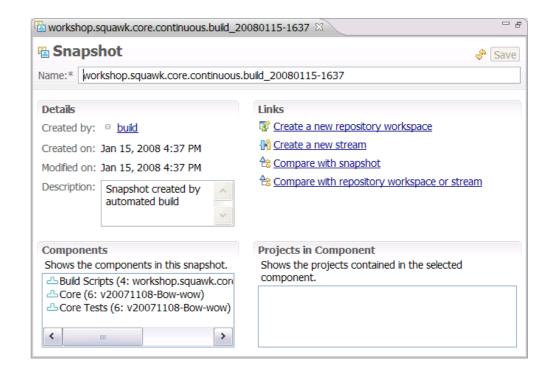
 Private or Personal Builds allow you to build your changes before delivering them to the stream. This can provide you with some assurance that your changes will not disrupt the team when you deliver them.





Builds and Snapshots

- A build can request a snapshot
 - If there are any changes in a component since the last build
 - A new baseline is created with the same name as the snapshot name
 - Convenient for reproducing build problems





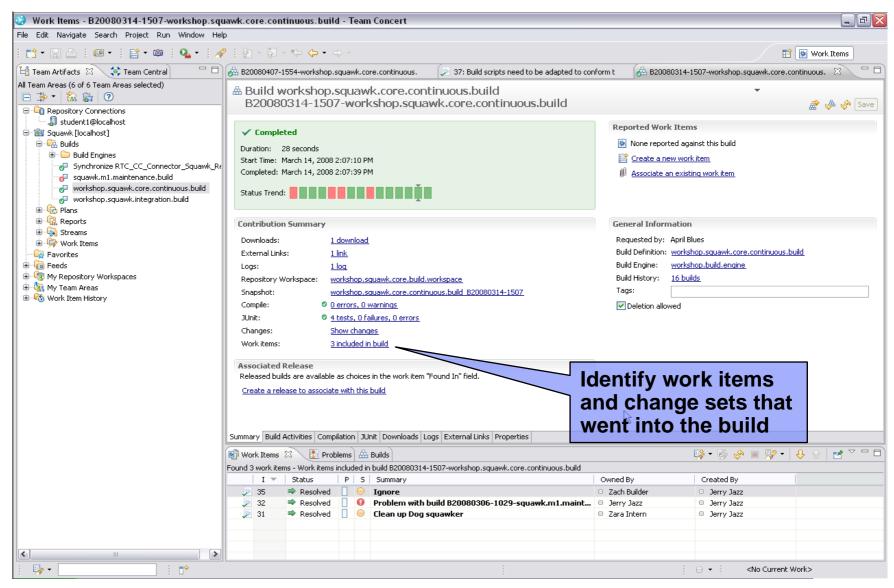
Agenda

- All that Jazz
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - Source Configuration Management
 - Build Management
 - Change and Traceability





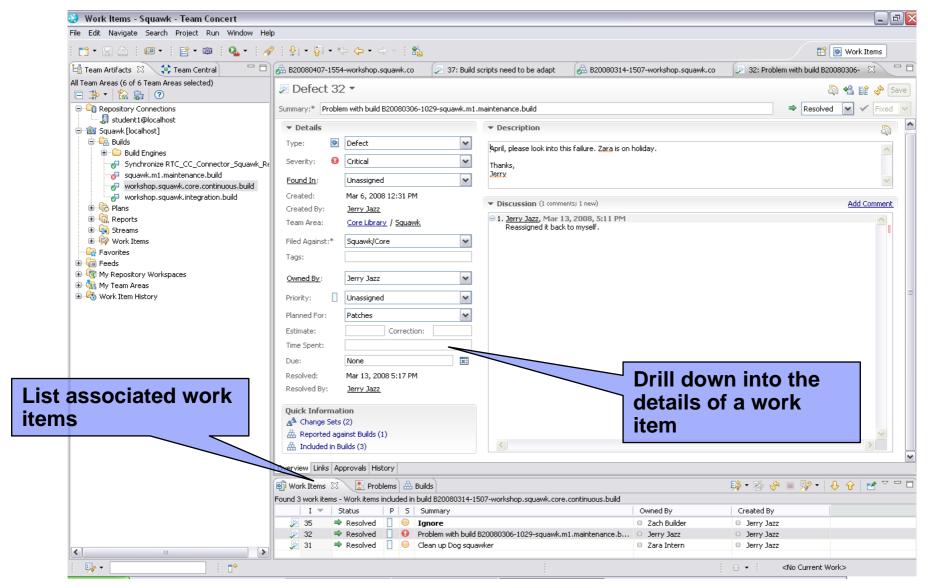
Builds







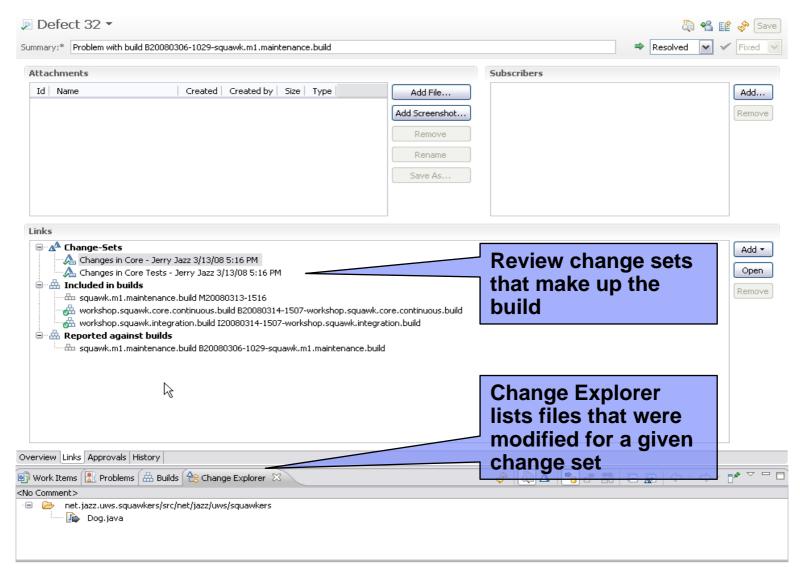
Work Items







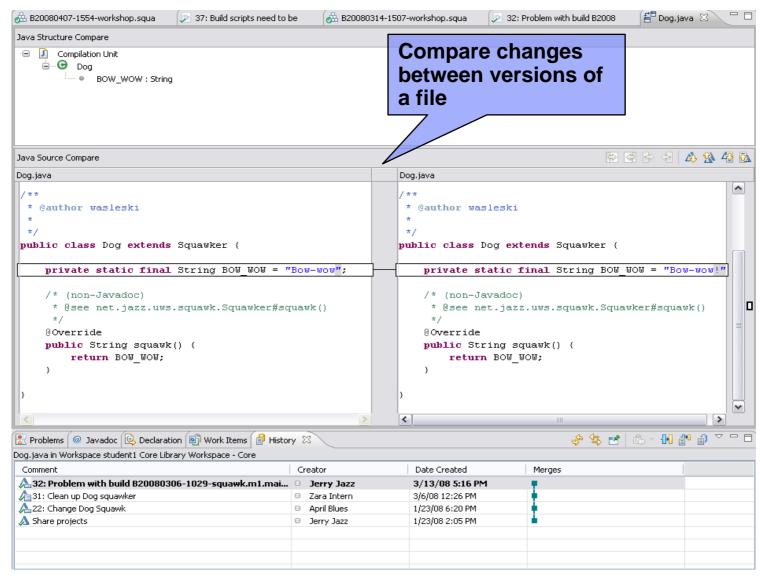
Change Sets







Compare Changes





Visualize Change History

```
₽ Dog.java
            package net.jazz.uws.squawkers;
    import net.jazz.uws.squawk.Squawker;
   — /**
      * @author wasleski
    public class Dog extends Squawker {
        /* (non-Javadoc)
          * @see net.jazz.uws.squawk.Squawker#squawk()
        @Override
        public String squawk() {
                                               Use annotation to
     Author: April Blues
     Date: Jan 23, 2008 6:20 PM
                                               view specific
     Comment: No Comment
     Reasons: 22: Change Dog Squawk
                                               changes
                          Press 'F2' for Foo
```



Wrap-up

- Jazz Overview
- Rational Team Concert
 - Overview
 - Getting Started with a new Team
 - SCM
 - Build Management
 - Change and Traceability
- GET STARTED WITH Jazz TODAY AT
 - Jazz.net







