WHERE TEAMS ARE R-HEROES

Change and Release Management for Effective Software Delivery

Eric Long, WW Technology Evangelist
IBM Rational Technology Events

Rational. software

Go to IBM

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Agenda

- Today’s Software Development Landscape
- All that Jazz
- Rational Team Concert
  - Overview
  - Getting Started with a new Team
  - Software Configuration Management
- Managing Builds and Deployment
- Change Management
- Wrap-up and Next Steps

Demos

- Throughout the event, you will see in-depth demonstrations of the products in action

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Today’s reality: An intense focus on business outcomes

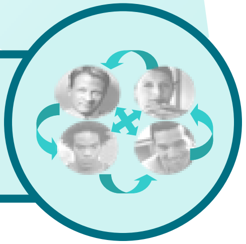
Align *IT* investments with rapidly evolving business priorities

Manage value and mitigate risks by improving project management

Control costs & improve global operational efficiencies

Ensure security and compliance in a changing global environment

Integrate value in organizationally diverse environments



Creates pressure on software delivery and solution sourcing

“2/3 of our projects span multiple business units and locations”

“People knew it was a train wreck; no one could see what to do”

“The business is always changing what they want and we are the last to know”

We run on the Web… we run fast so new code makes us really nervous”

“As-is won’t do, we need new business models and capture the best talent”

- Increasing reliance on out sourced partnerships & software reuse
- Interest in replicating the proven models of open, community-governed software delivery models
- Popularity of Agile development
- Investments in SOA and Web 2.0 to enable new business models

Impact of growing modularity

- More granular service functionality used across business applications
- Larger number of projects and assets including custom, outsourced and packaged

Impact of accelerating change

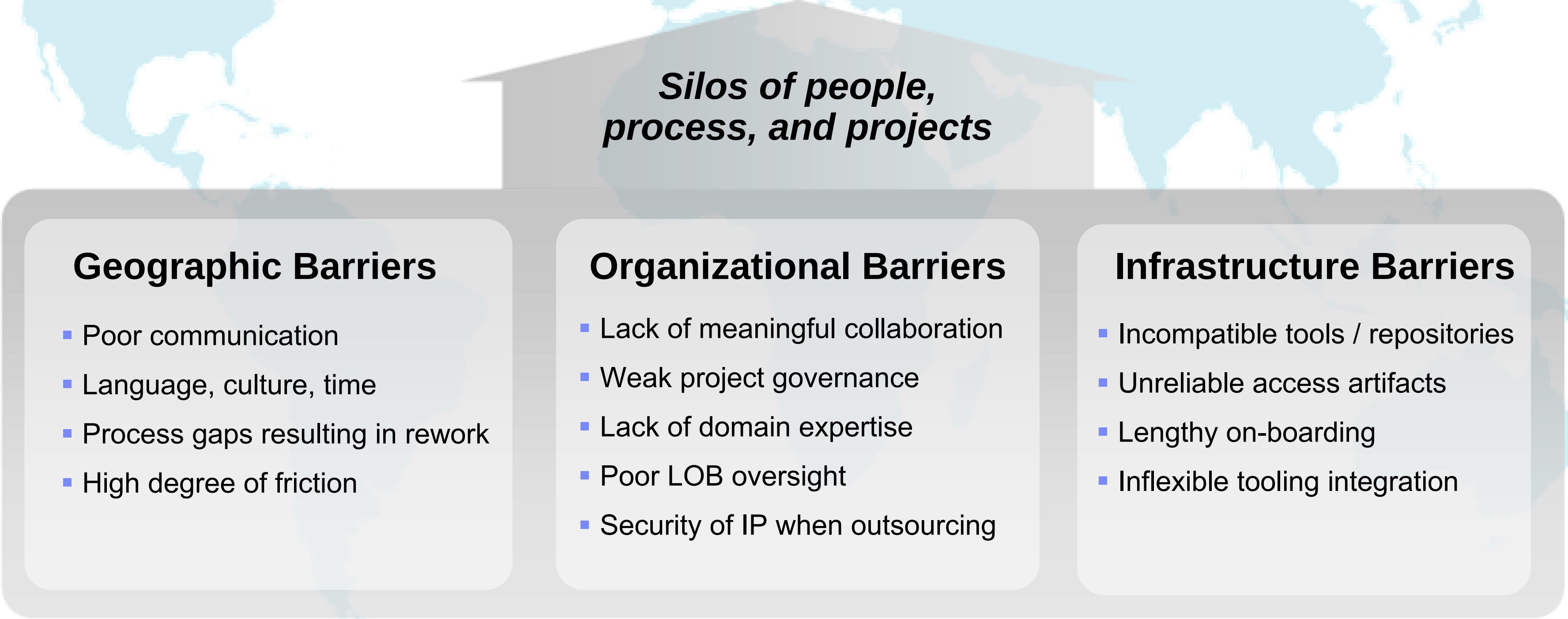
- Asset are impacted by frequent updates and changing interdependencies
- Effective cross-organizational visibility and synchronization becomes an imperative!

The defining challenges in effective software delivery

Only 37% of stakeholders are satisfied with the speed of internal application development[1]..

Only 42% are satisfied with the quality[1].

50% of outsourced projects are expected to underperform[2].



Silos of people, process, and projects

Geographic Barriers

- Poor communication
- Language, culture, time
- Process gaps resulting in rework
- High degree of friction

Organizational Barriers

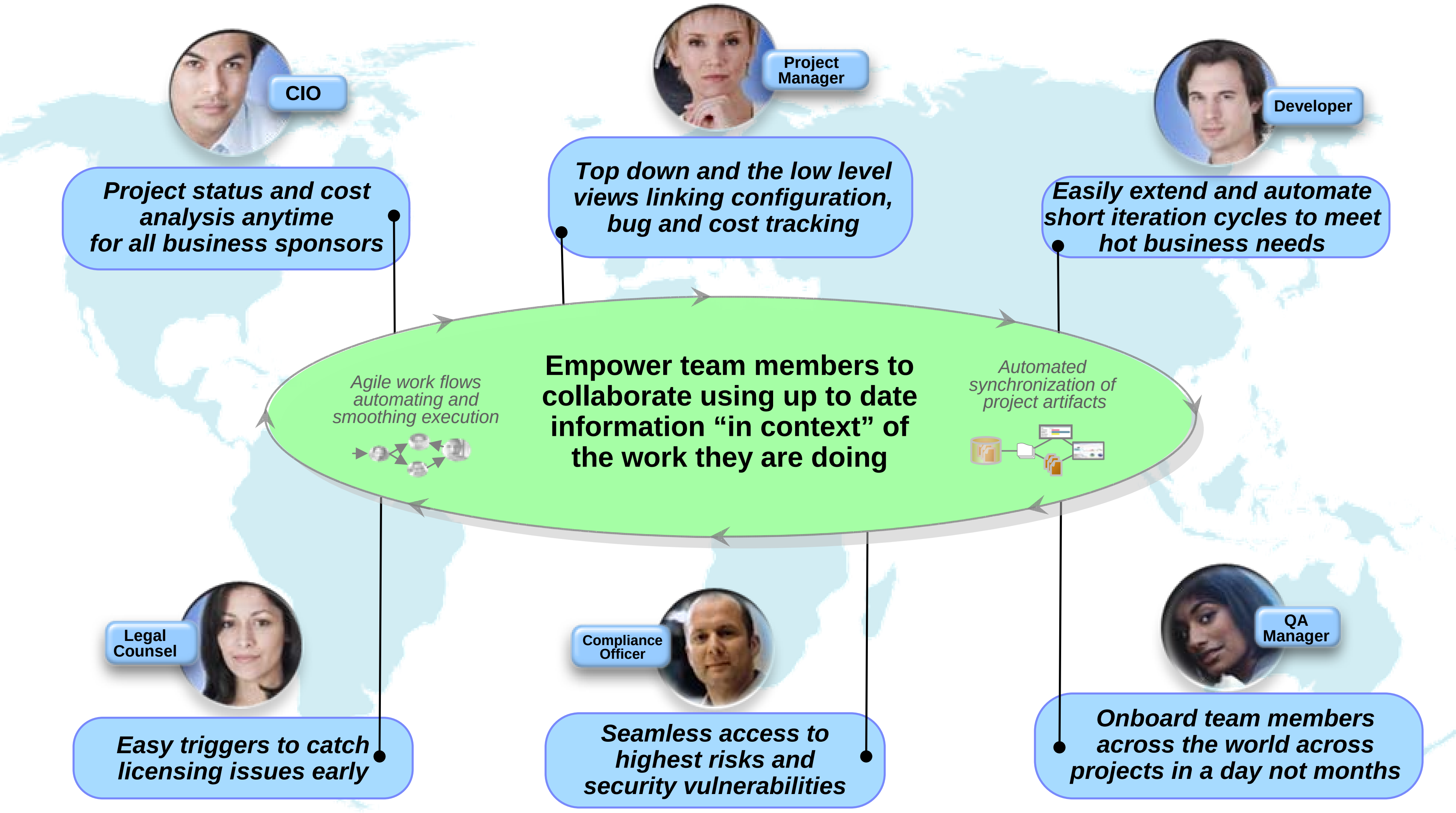
- Lack of meaningful collaboration
- Weak project governance
- Lack of domain expertise
- Poor LOB oversight
- Security of IP when outsourcing

Infrastructure Barriers

- Incompatible tools / repositories
- Unreliable access artifacts
- Lengthy on-boarding
- Inflexible tooling integration

Source: [1]Forrester, [2]Gartner

Customer Speak: What they would like to see possible



CIO

Project status and cost analysis anytime for all business sponsors

Project Manager

Top down and the low level views linking configuration, bug and cost tracking

Developer

Easily extend and automate short iteration cycles to meet hot business needs

Agile work flows automating and smoothing execution

Empower team members to collaborate using up to date information "in context" of the work they are doing

Automated synchronization of project artifacts

Legal Counsel

Easy triggers to catch licensing issues early

Compliance Officer

Seamless access to highest risks and security vulnerabilities

QA Manager

Onboard team members across the world across projects in a day not months

Envisioning a platform that can transform software delivery

A open technology initiative to *transform how people work together* to deliver greater value and performance from their software investments

- Robust, extensible and scaleable
- Globally distributed, fluid and dynamic
- Community-based and open at Jazz.net

Collaborate in Context

- Enable team transparency of “who, what, when, why”
- Build team cohesion and presence
- Automate hand-offs so nothing falls through the cracks

Right-size Governance

- Automate team workflow improving productivity
- Automate data collection eliminating administrative overhead
- Real time reporting and alerts reduces project risk

Day One Productivity

- Dynamic provisioning of projects and teams
- Real-time iteration planning and workload balancing
- Unify teams with tools choice

Real-time integration of people, process and projects across the lifecycle

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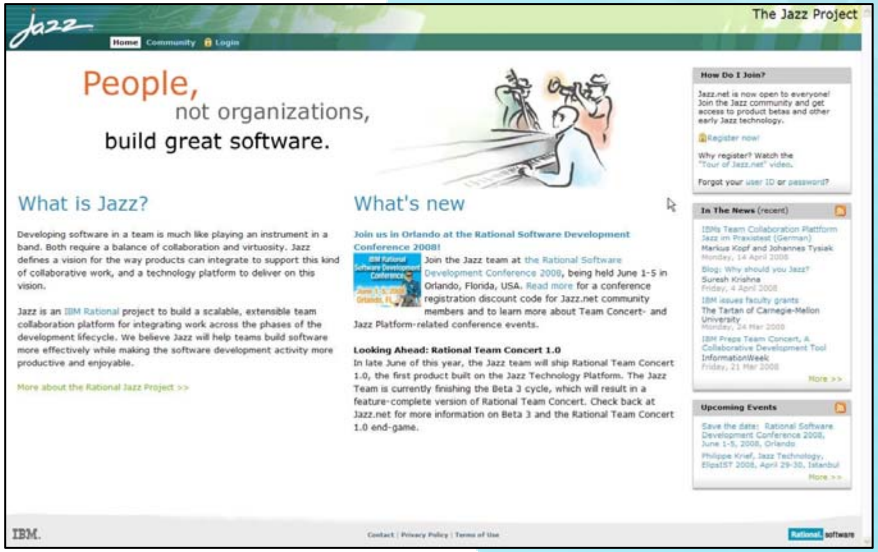
The Jazz project

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.



People,
not organizations,
build great software.

What is Jazz?

Developing software in a team is much like playing an instrument in a band. Both require a balance of collaboration and virtuosity. Jazz defines a vision for the way products can integrate to support this kind of collaborative work, and a technology platform to deliver on this vision.

Jazz is an IBM Rational project to build a scalable, extensible team collaboration platform for integrating work across the phases of the development lifecycle. We believe Jazz will help teams build software more effectively while making the software development activity more productive and enjoyable.

More about the Rational Jazz Project >>

What's new

Join us in Orlando at the Rational Software Development Conference 2008!

Join the Jazz team at the Rational Software Development Conference 2008, being held June 1-5 in Orlando, Florida, USA. Read more for a conference registration discount code for Jazz.net community members and to learn more about Team Concert- and Jazz Platform-related conference events.

Looking Ahead: Rational Team Concert 1.0

In late June of this year, the Jazz team will ship Rational Team Concert 1.0, the first product built on the Jazz Technology Platform. The Jazz Team is currently finishing the Beta 3 cycle, which will result in a feature-complete version of Rational Team Concert. Check back at Jazz.net for more information on Beta 3 and the Rational Team Concert 1.0 end-game.

How Do I Join?

Jazz.net is now open to everyone! Join the Jazz community and get access to product betas and other early Jazz technology.

Register now!

Why register? Watch the "Tour of Jazz.net" video.

Forgot your user ID or password?

In The News (recent)

IBMs Team Collaboration Plattform Jazz im Praxistest (German)
Markus Kopf and Johannes Tysiak
Monday, 14 April 2008

Blog: Why should you Jazz?
Suresh Krishna
Friday, 4 April 2008

IBM issues faculty grants
The Tartan of Carnegie-Mellon University
Monday, 24 Mar 2008

IBM Preps Team Concert, A Collaborative Development Tool
InformationWeek
Friday, 21 Mar 2008

More >>

Upcoming Events

Save the date: Rational Software Development Conference 2008, June 1-5, 2008, Orlando

Philippe Krief, Jazz Technology, EclipsIST 2008, April 29-30, Istanbul

More >>

How Jazz is different

Dynamic integration of

People

Desktop/database integration → **Global integration**

Function first → **Team first**

Pre-determined tool function → **Dynamically extensible**

Process

Rigid rules→ **Creative collaboration**

Manual tasks→ **Process aware and transparent**

Proprietary infrastructure → **Internet standards**

Projects

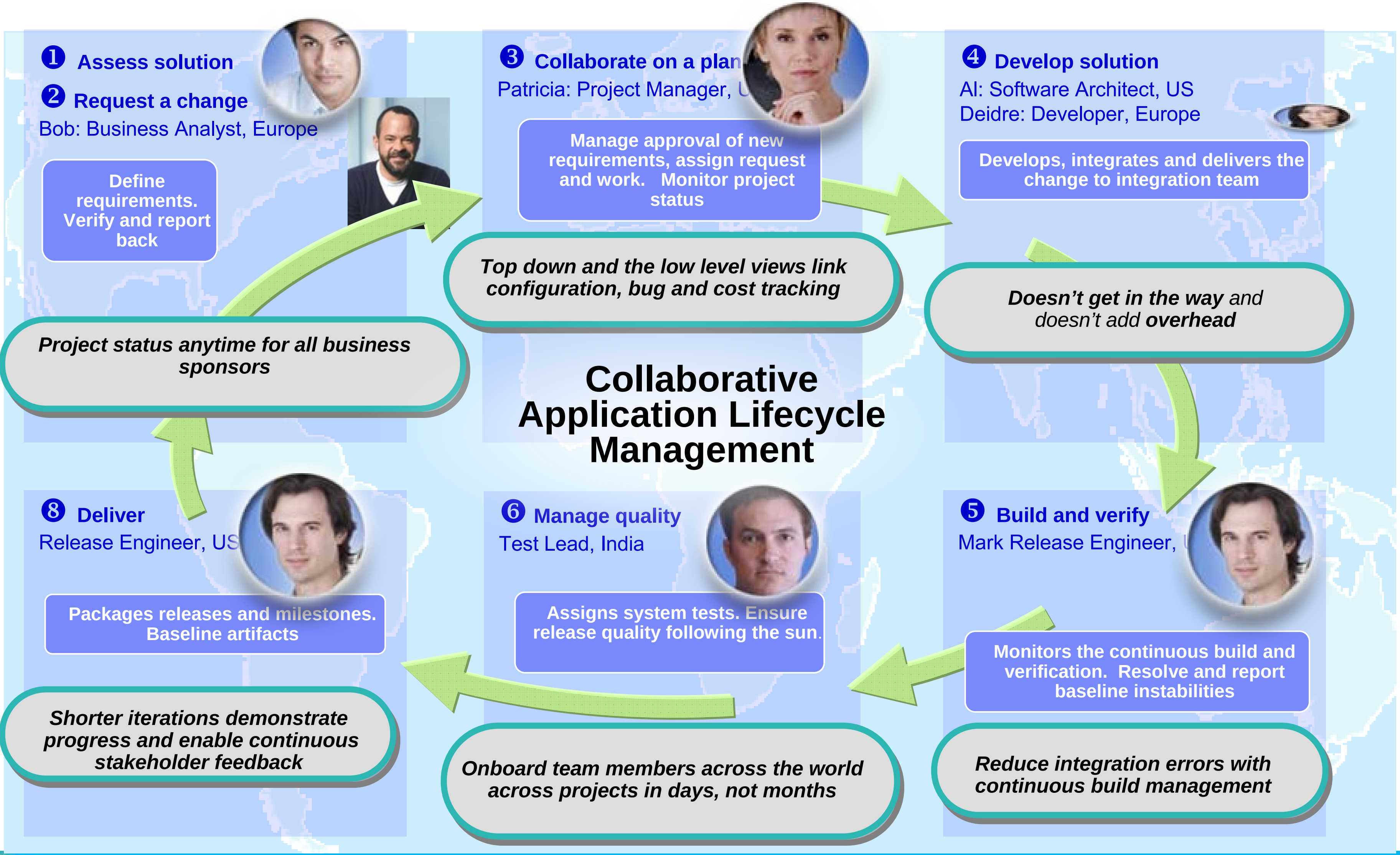
Lengthy project onboarding → **Day one productivity**

Hindsight analysis→ **Continuous steering**

Status guesstimates → **Real-time insight**

...across the software lifecycle

Dynamic processes streamline team communication and collaboration



❶ **Assess solution**

❷ **Request a change**

Bob: Business Analyst, Europe

Define requirements. Verify and report back

Project status anytime for all business sponsors

❸ **Collaborate on a plan**

Patricia: Project Manager, U

Manage approval of new requirements, assign request and work. Monitor project status

Top down and the low level views link configuration, bug and cost tracking

❹ **Develop solution**

Al: Software Architect, US

Deidre: Developer, Europe

Develops, integrates and delivers the change to integration team

Doesn't get in the way** and doesn't add **overhead

Collaborative Application Lifecycle Management

❺ **Build and verify**

Mark Release Engineer, U

Monitors the continuous build and verification. Resolve and report baseline instabilities

Reduce integration errors with continuous build management

❻ **Manage quality**

Test Lead, India

Assigns system tests. Ensure release quality following the sun.

Onboard team members across the world across projects in days, not months

❽ **Deliver**

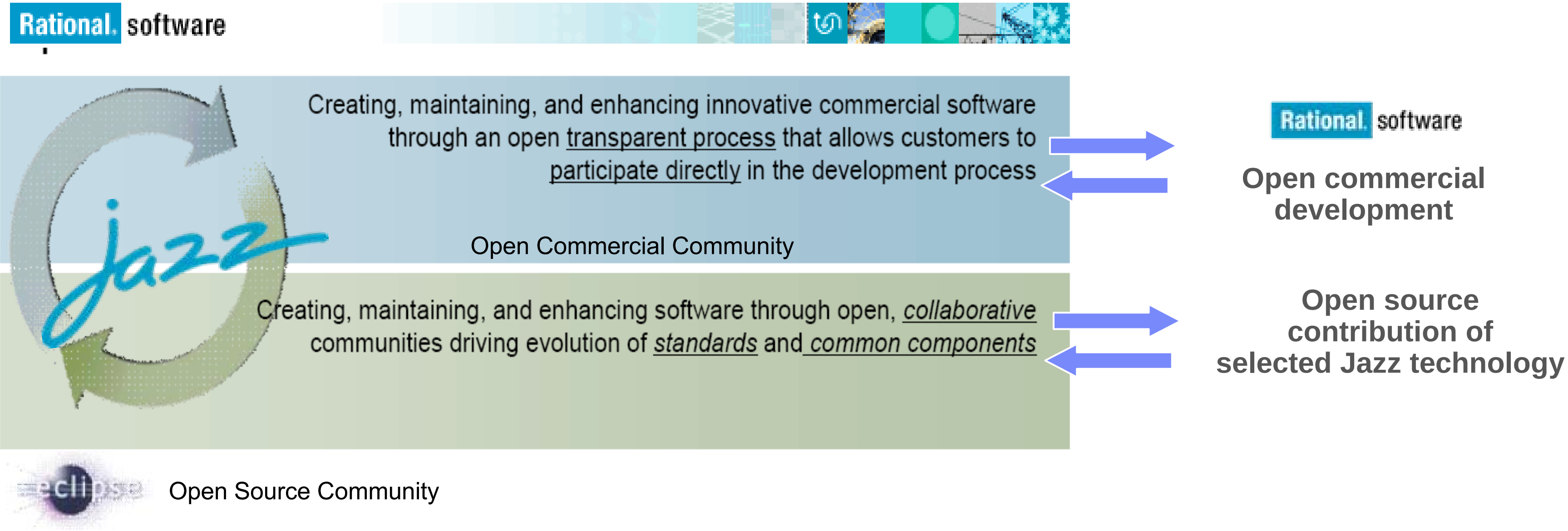
Release Engineer, US

Packages releases and milestones. Baseline artifacts

Shorter iterations demonstrate progress and enable continuous stakeholder feedback

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



Creating, maintaining, and enhancing innovative commercial software through an open transparent process that allows customers to participate directly in the development process

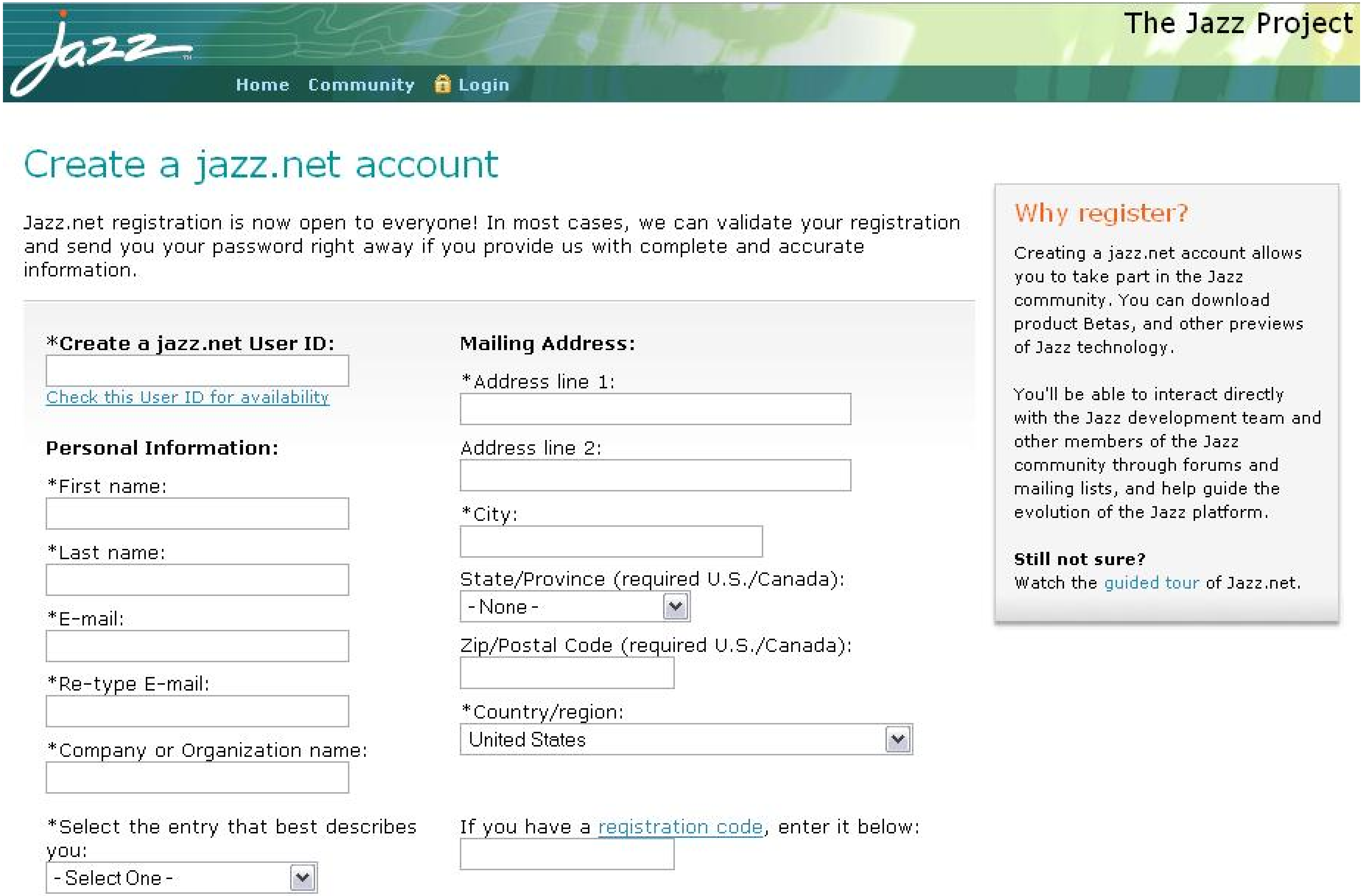
Open Commercial Community

Creating, maintaining, and enhancing software through open, *collaborative* communities driving evolution of *standards* and *common components*

Open Source Community

Open commercial development

Open source contribution of selected Jazz technology



The Jazz Project

Home Community Login

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.

***Create a jazz.net User ID:**

Check this User ID for availability

Personal Information:

*First name:

*Last name:

*E-mail:

*Re-type E-mail:

*Company or Organization name:

*Select the entry that best describes you: - Select One -

Mailing Address:

*Address line 1:

Address line 2:

*City:

State/Province (required U.S./Canada): - None -

Zip/Postal Code (required U.S./Canada):

*Country/region: United States

If you have a registration code, enter it below:

Why register?

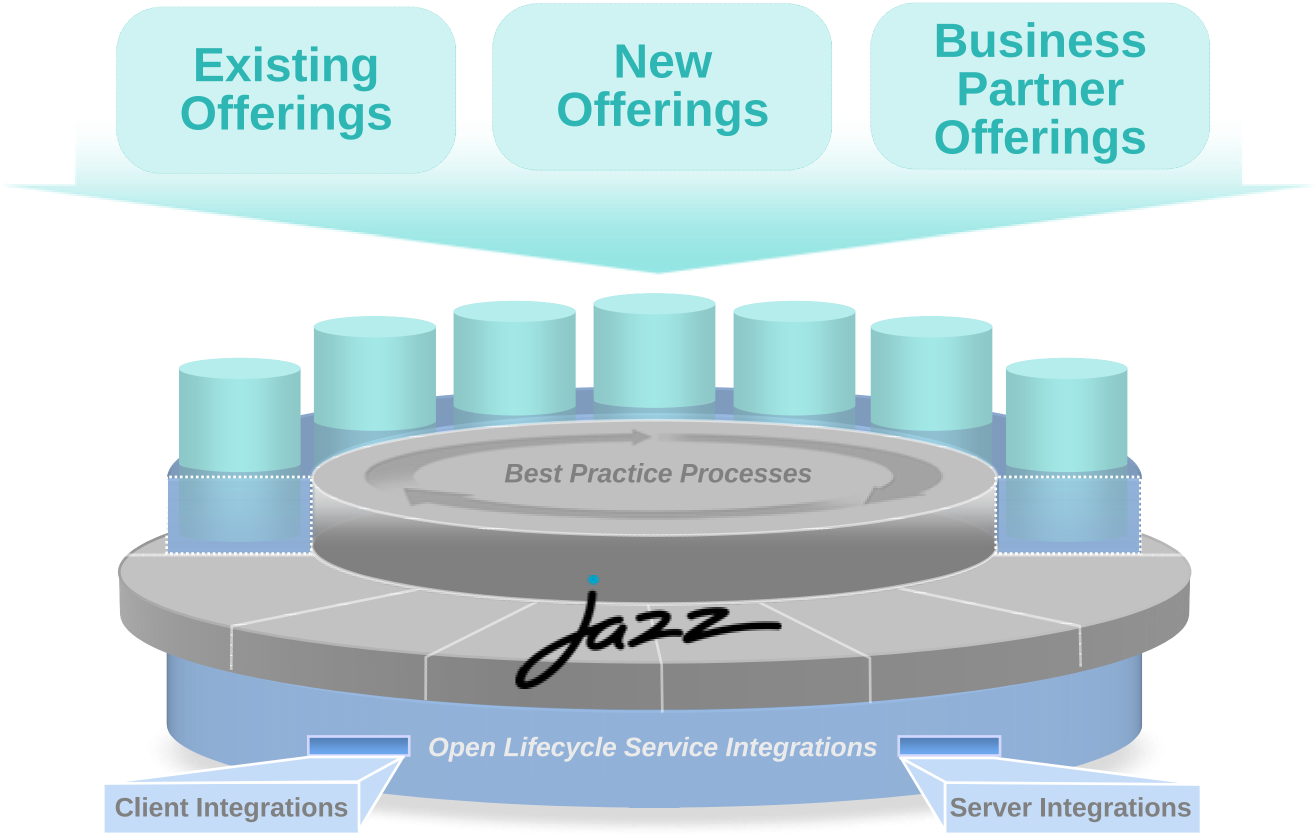
Creating a jazz.net account allows you to take part in the Jazz community. You can download product Betas, and other previews of Jazz technology.

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.

An evolution of value for new and existing customers

The next generation of the IBM Rational Software Delivery Platform



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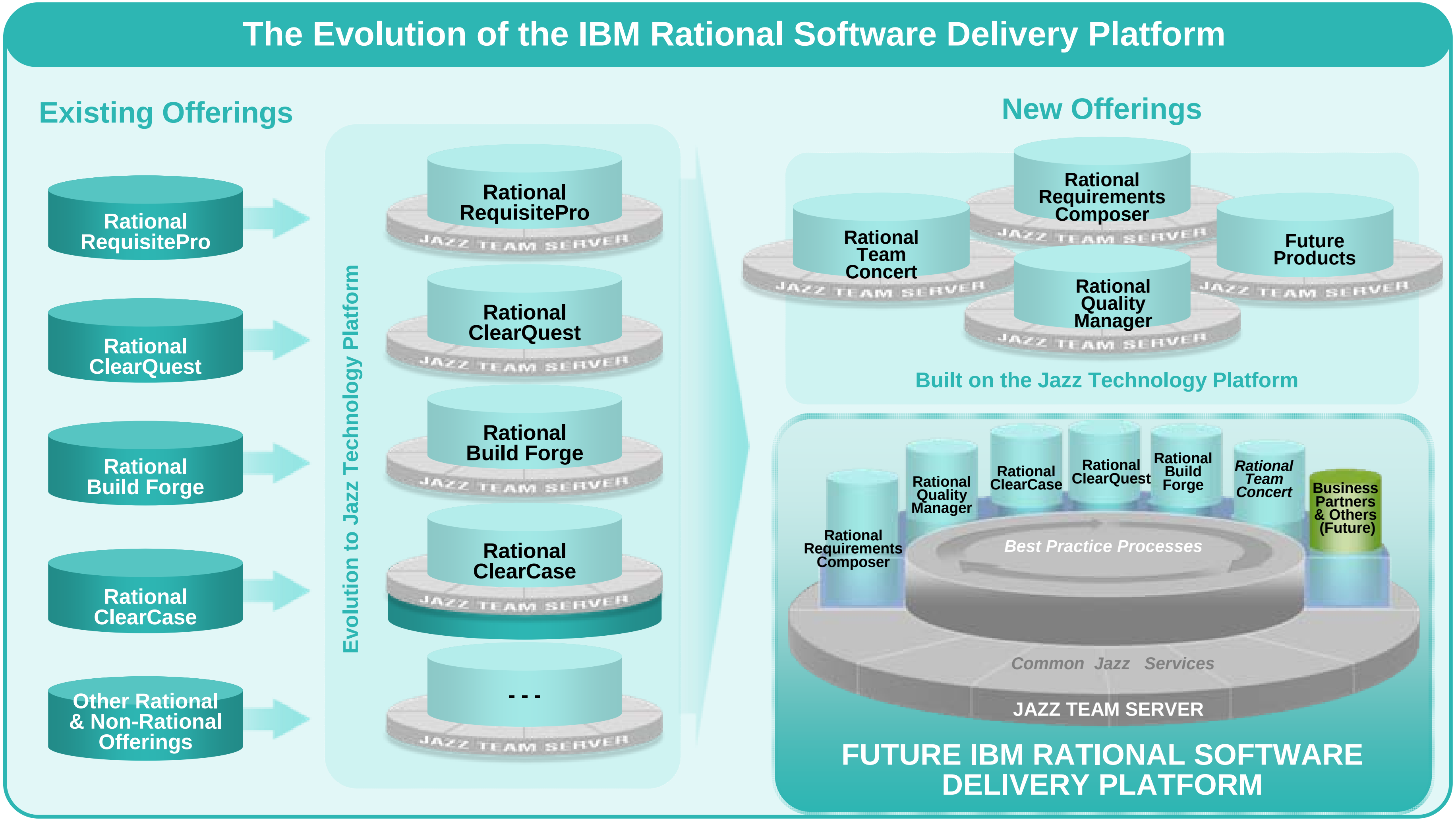
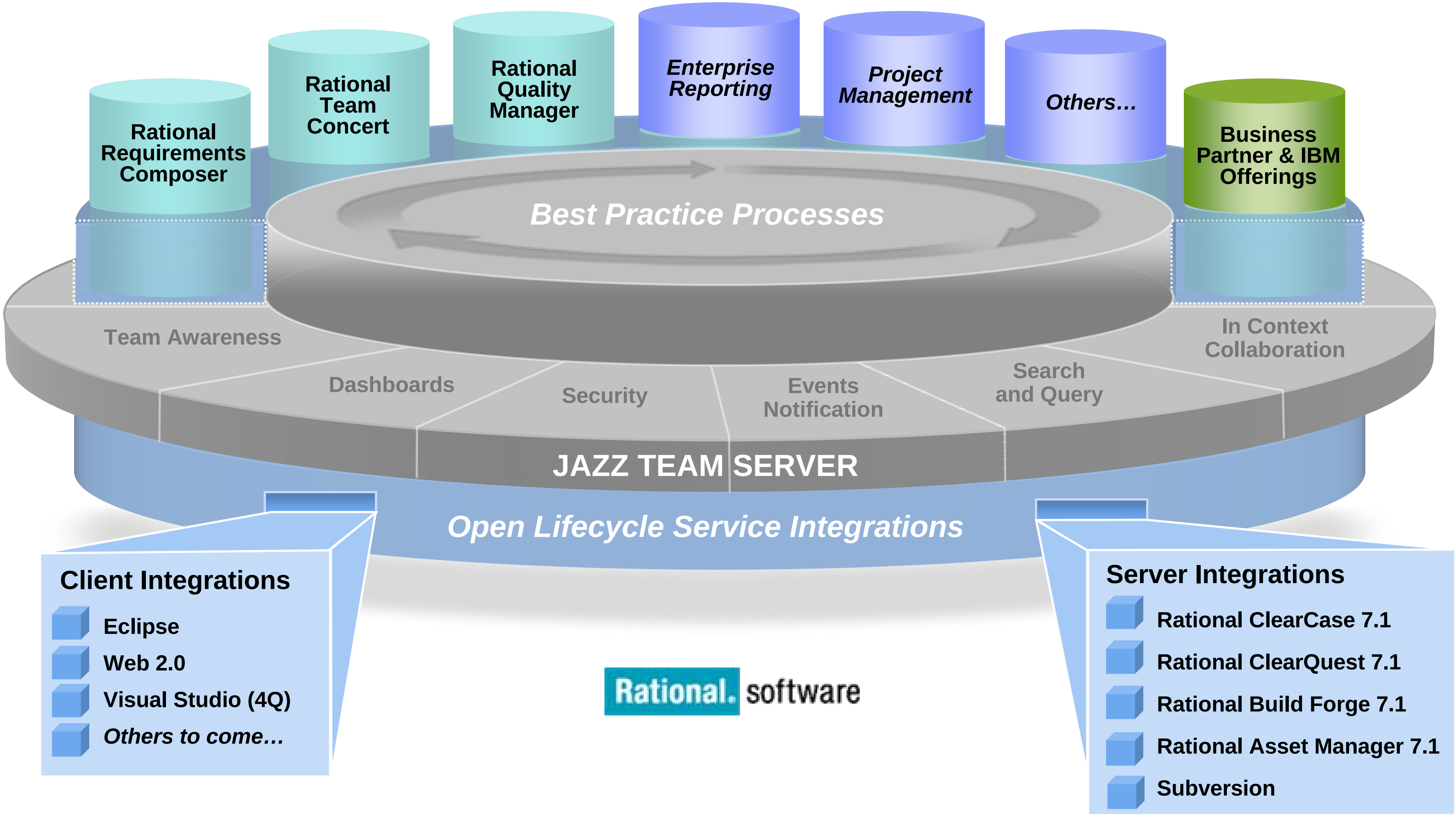
An evolution for new and existing customers



Jazz Architecture



Client Integrations

- Eclipse
- Web 2.0
- Visual Studio (4Q)
- *Others to come…*

Server Integrations

- Rational ClearCase 7.1
- Rational ClearQuest 7.1
- Rational Build Forge 7.1
- Rational Asset Manager 7.1
- Subversion

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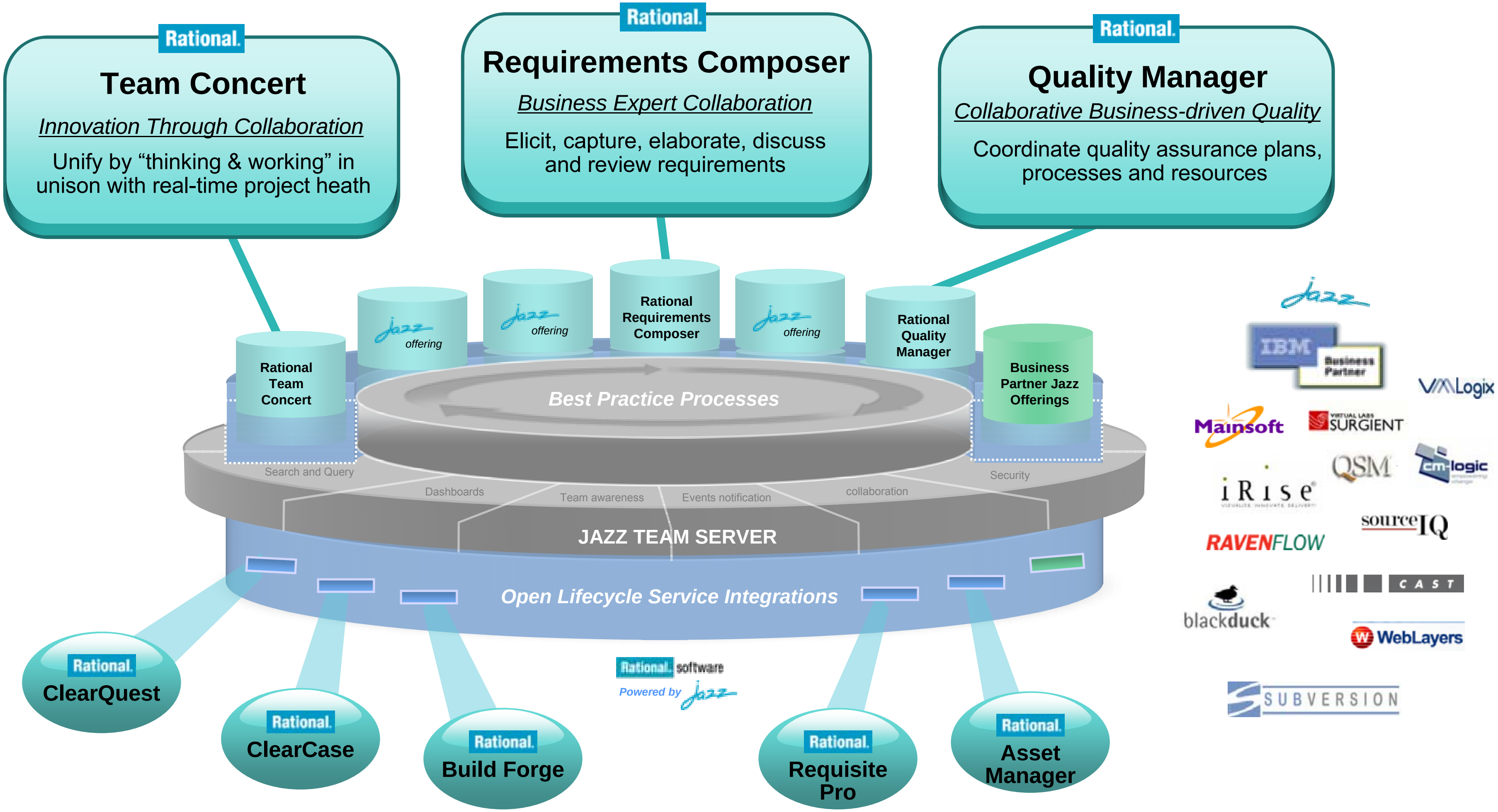
Introducing the first wave of new *Jazz* offerings



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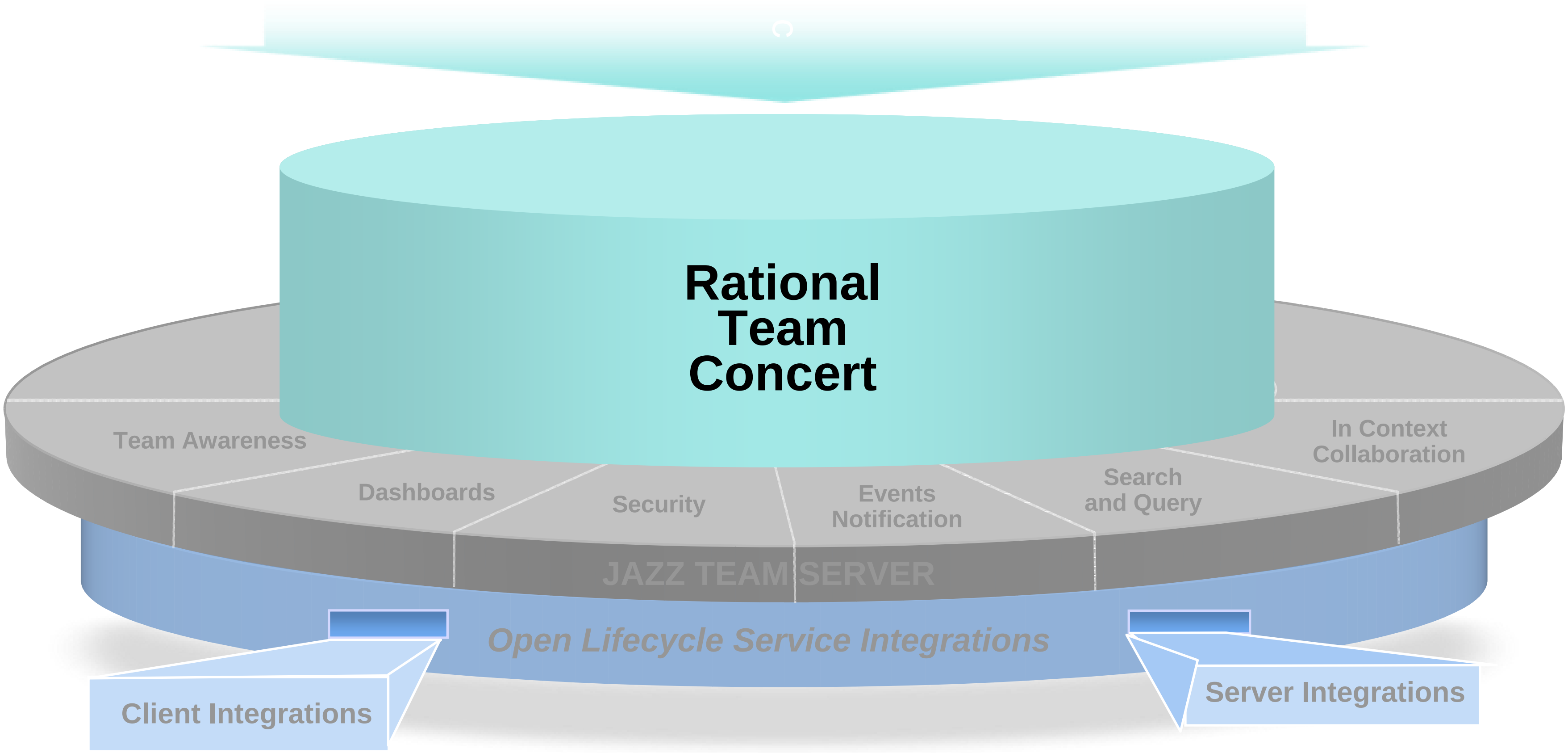
Today's focus: Rational Team Concert

The first offering built on the Jazz technology platform



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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)

Open and extensible on

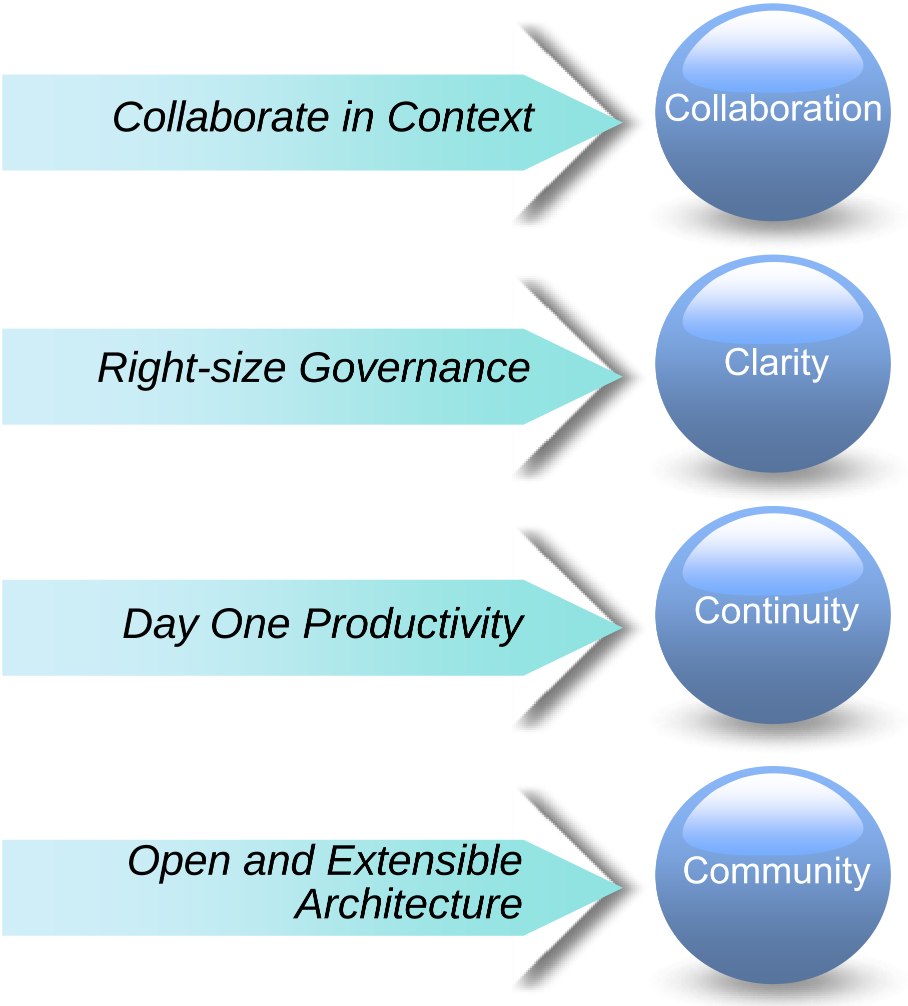
Jazz

✓ Collaborate in context
✓ Right-size governance
✓ Day one productivity

IBM Rational Team Concert

transparent *integrated presence*
wikis OPEN real-time reporting
chat automated hand-offs Web 2.0
custom dashboards automated data gathering
EXTENSIBILITY *Eclipse plug-ins* services
architecture ***FREEDOM TO CREATE***

Translating words to actions



Collaborate in Context

Collaboration

- Fewer meetings and status reports
- Reduction in late scrap and rework
- Reduced attrition of skills and greater leveraging top technical / business talent

Right-size Governance

Clarity

- Easier to stay compliant with standards
- Earlier detection and accelerated resolution of defects
- Improved predictability of projects

Day One Productivity

Continuity

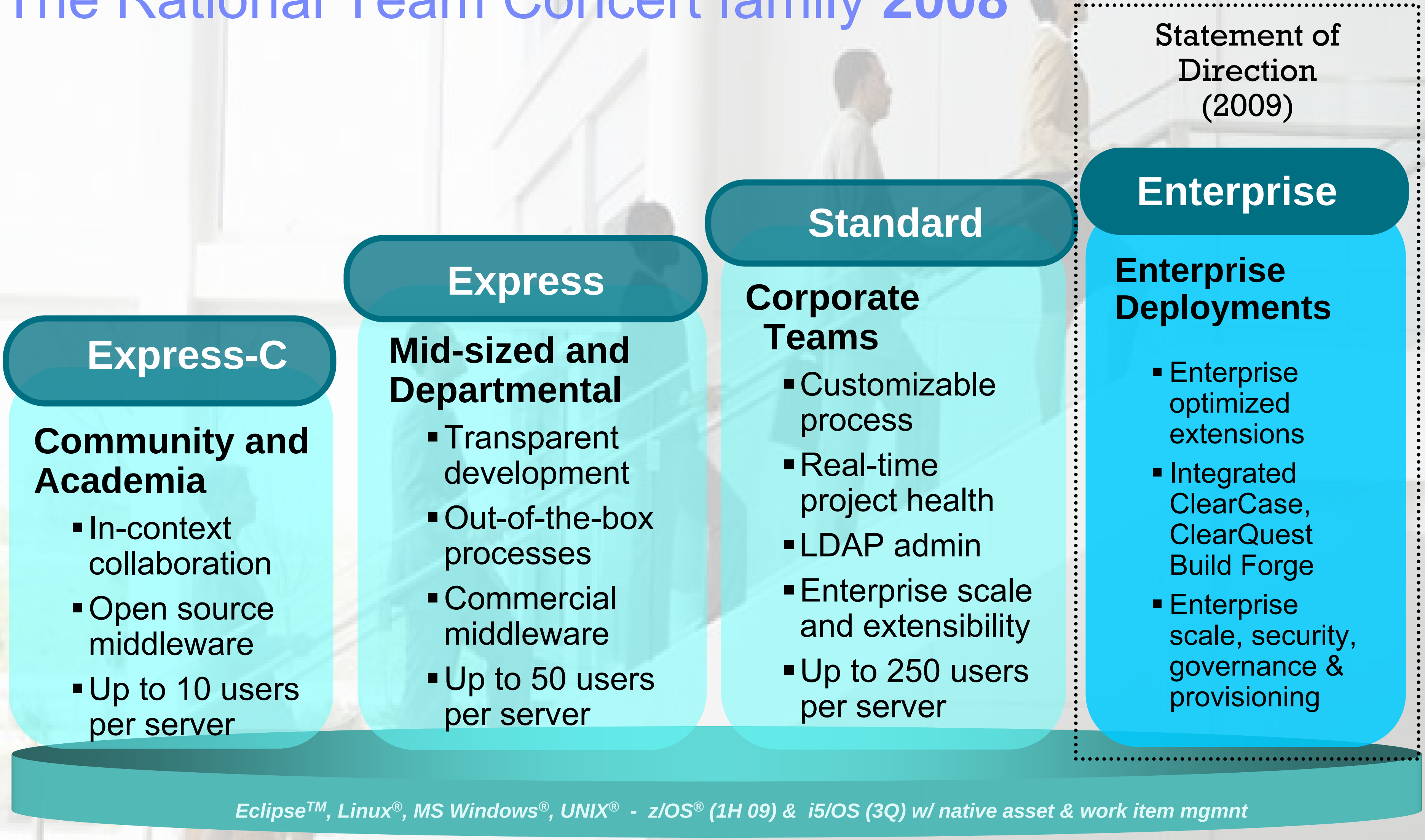
- Project initiation in days not weeks
- Reduction in time to first demonstration
- Improved cycle times through automated patterns, services and architectures

Open and Extensible Architecture

Community

- Viral, but Controlled Development
- Expanded Community
- Selectable integration characteristics

The Rational Team Concert family **2008**



Statement of Direction (2009)

Express-C

Community and Academia

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

Express

Mid-sized and Departmental

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

Standard

Corporate Teams

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

Enterprise

Enterprise Deployments

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

Eclipse™, 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

Project Transparency

- Customizable web based dashboards
- 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

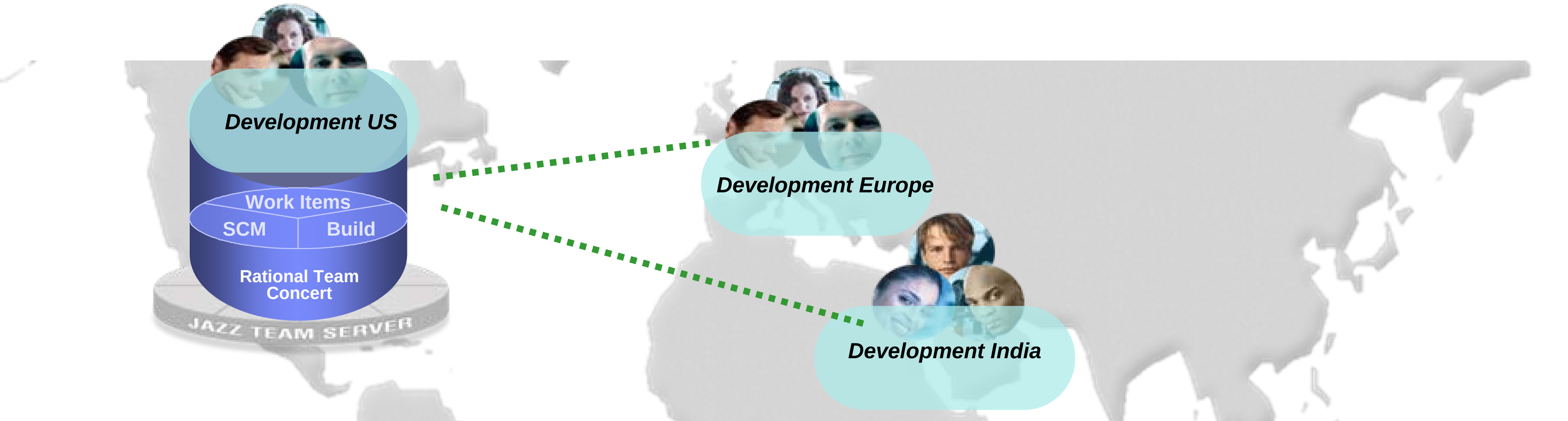
Build

- 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

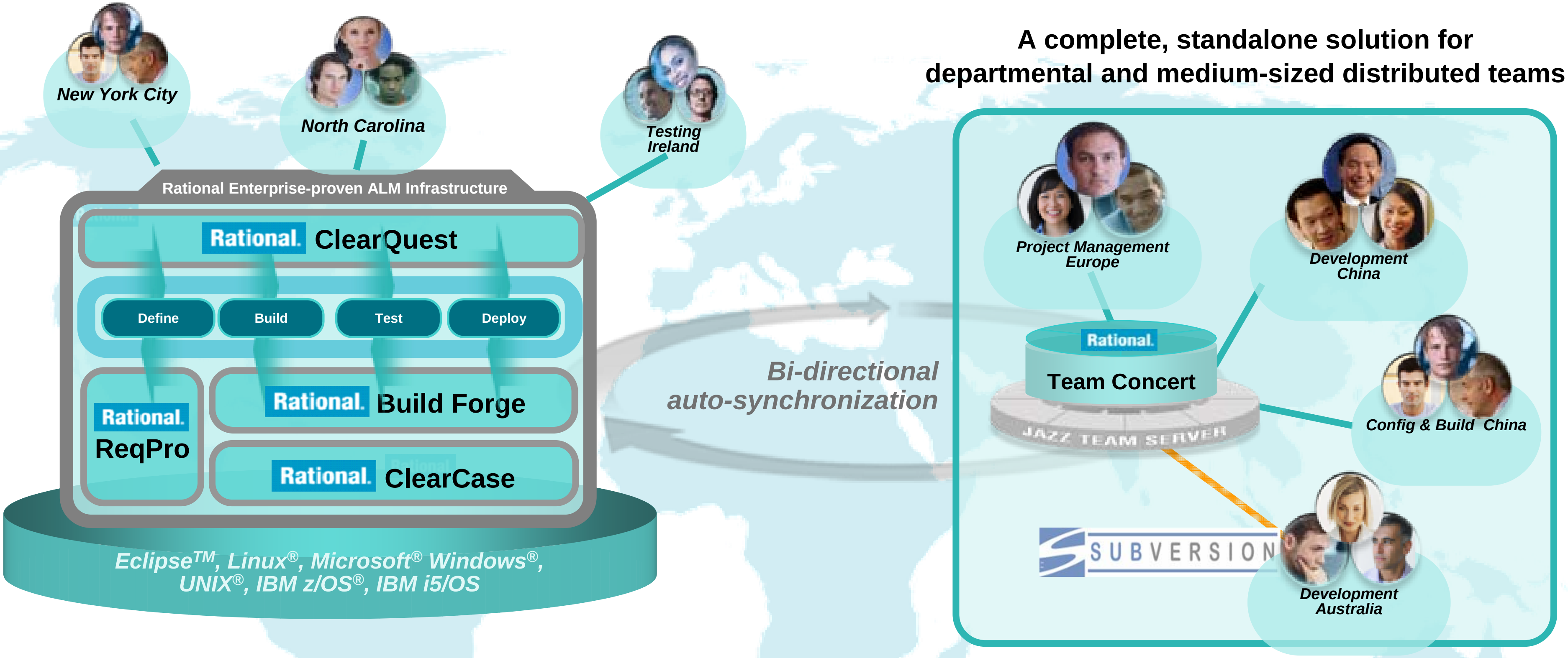
- Single structure for project related artifacts
- World-class team on-boarding / offboarding including team membership, sub-teams and project inheritance
- Role-based operational control for flexible definition of process and capabilities
- Team advisor for defining / refining “rules” and enabling continuous improvement
- Process enactment and enforcement
- In-context collaboration shows team members and status of their work

Leveraging Rational Team Concert independently



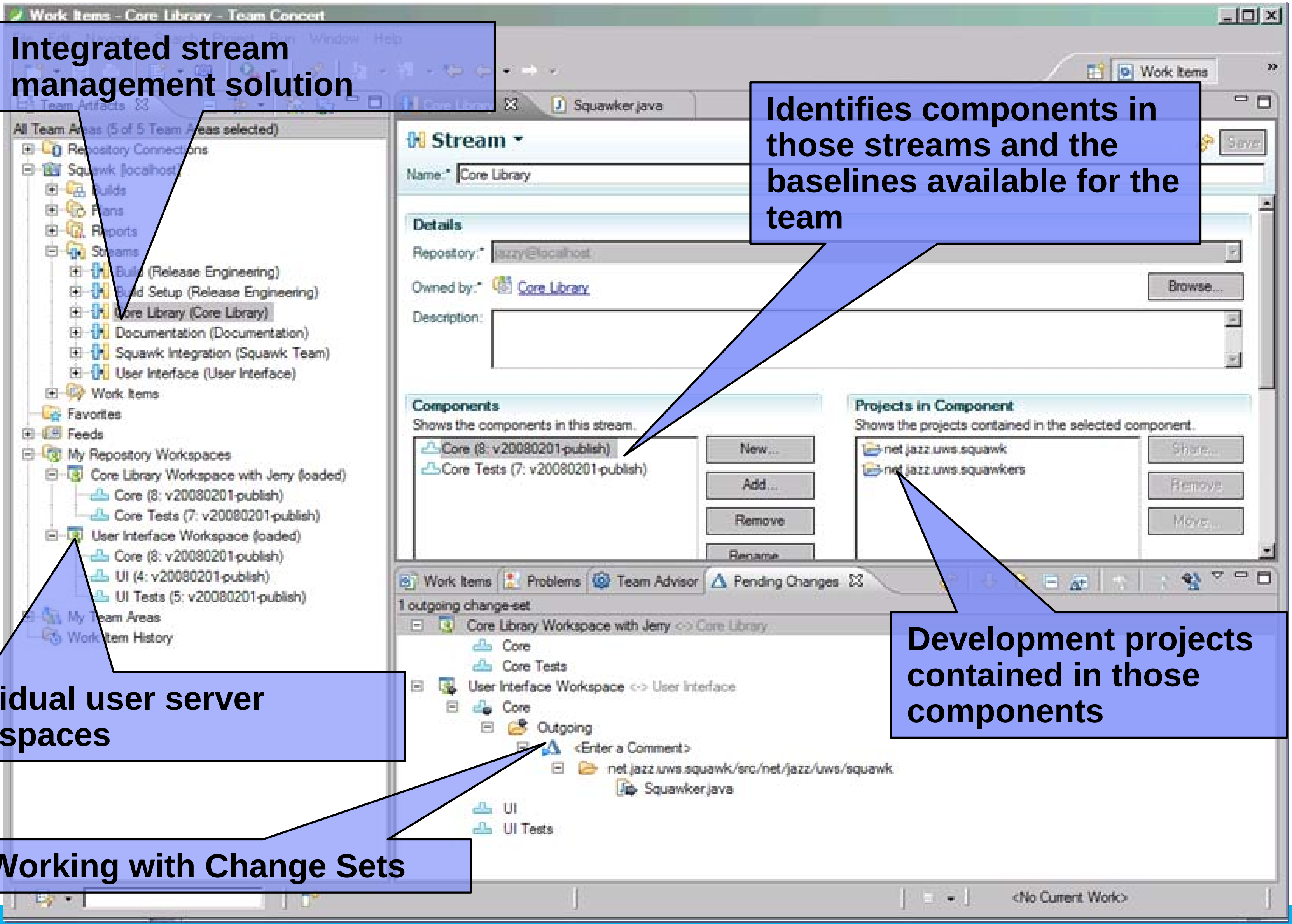
- ✓ **Rational Team Concert Standard, Express, Express-C**
  - ✓ A standalone development environment optimized for small and mid-sized teams
  - ✓ All the collaborative capabilities of the Jazz platform – plus integrated work items, SCM and build management
  - ✓ Dashboards and real-time reports
  - ✓ Team and Process-aware

Unify distributed teams in mid-sized or enterprise settings


New York City
North Carolina
Testing Ireland
Rational Enterprise-proven ALM Infrastructure
Rational ClearQuest
Define
Build
Test
Deploy
Rational ReqPro
Rational Build Forge
Rational ClearCase
EclipseTM, Linux®, Microsoft® Windows®, UNIX®, IBM z/OS®, IBM i5/OS
Bi-directional auto-synchronization
A complete, standalone solution for departmental and medium-sized distributed teams
Project Management Europe
Development China
Rational Team Concert
JAZZ TEAM SERVER
Config & Build China
SUBVERSION
Development Australia

- 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


Work Items - Core Library - Team Concert
Team Artifacts
Core Library
Squawker.java
Work Items
All Team Areas (5 of 5 Team Areas selected)
Repository Connections
Squawk [localhost]
Builds
Plans
Reports
Streams
Build (Release Engineering)
Build Setup (Release Engineering)
Core Library (Core Library)
Documentation (Documentation)
Squawk Integration (Squawk Team)
User Interface (User Interface)
Work Items
Favorites
Feeds
My Repository Workspaces
Core Library Workspace with Jerry (loaded)
Core (8: v20080201-publish)
Core Tests (7: v20080201-publish)
User Interface Workspace (loaded)
Core (8: v20080201-publish)
UI (4: v20080201-publish)
UI Tests (5: v20080201-publish)
My Team Areas
Work Item History
Stream
Save
Details
Browse...
Description:
Components
New...
Add...
Remove
Rename
Projects in Component
Share...
Remove
Move...
Work Items
Problems
Team Advisor
Pending Changes
<No Current Work>

Name:* Core Library

Repository:* jazzy@localhost

Owned by:* Core Library

Components: Shows the components in this stream.

- Core (8: v20080201-publish)
- Core Tests (7: v20080201-publish)

Projects in Component: Shows the projects contained in the selected component.

- net.jazz.uws.squawk
- net.jazz.uws.squawkers

1 outgoing change set

- Core Library Workspace with Jerry <-> Core Library
  - Core
  - Core Tests
- User Interface Workspace <-> User Interface
  - Core
    - Outgoing
      - <Enter a Comment>
        - net.jazz.uws.squawk/src/net/jazz/uws/squawk
          - Squawker.java
  - UI
  - UI Tests

Integrated stream management solution

Identifies components in those streams and the baselines available for the team

Individual user server workspaces

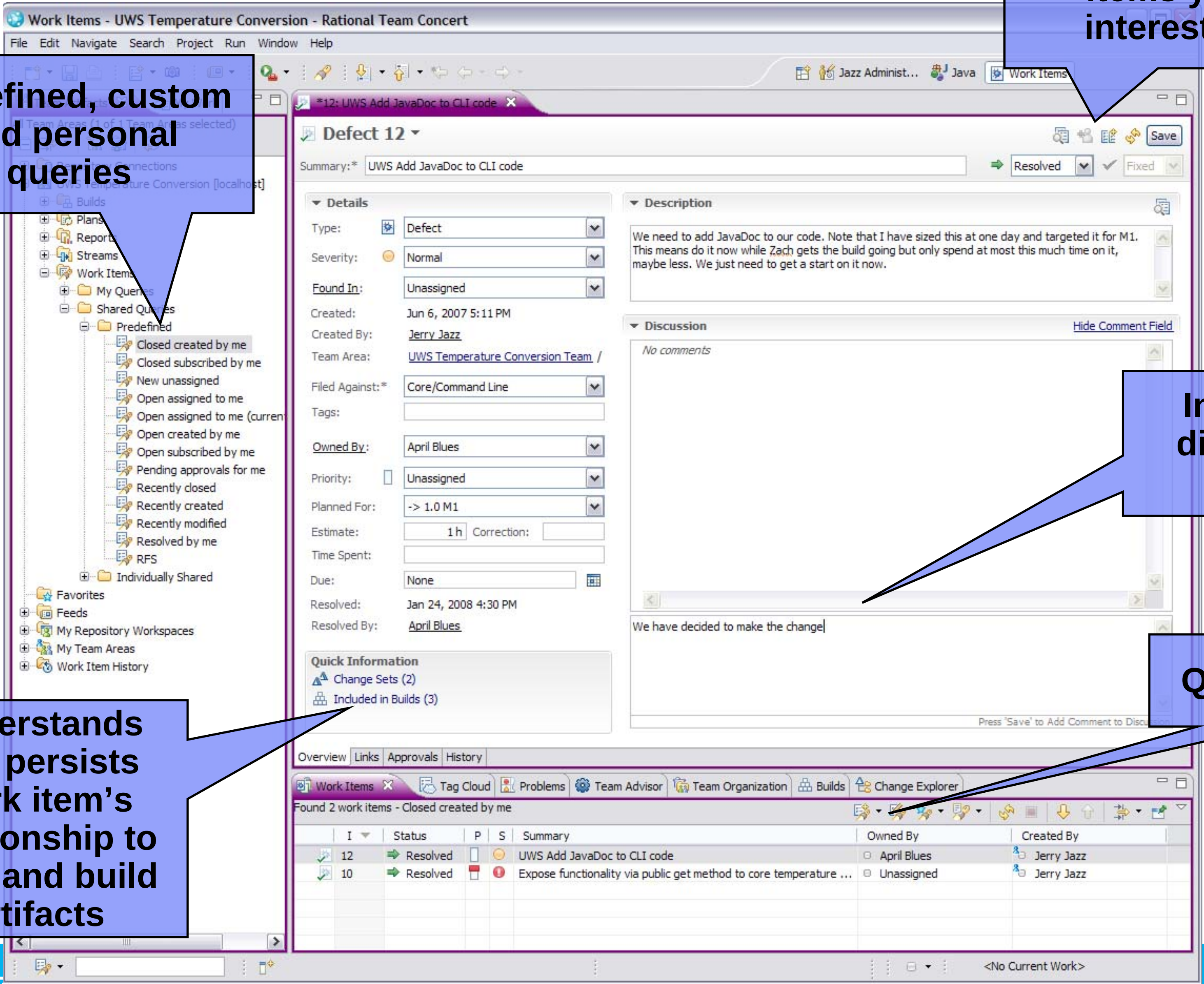
Development projects contained in those components

Working with Change Sets

Work items

Subscribe to work items you're interested in

Predefined, custom and personal queries



Work Items - UWS Temperature Conversion - Rational Team Concert

All Team Areas (1 of 1 Team Areas selected)

- Repository Connections
- UWS Temperature Conversion [localhost]
  - Builds
  - Plans
  - Reports
  - Streams
  - Work Items
    - My Queries
    - Shared Queries
      - Predefined
        - Closed created by me
        - Closed subscribed by me
        - New unassigned
        - Open assigned to me
        - Open assigned to me (curren
        - Open created by me
        - Open subscribed by me
        - Pending approvals for me
        - Recently closed
        - Recently created
        - Recently modified
        - Resolved by me
        - RFS
      - Individually Shared
- Favorites
- Feeds
- My Repository Workspaces
- My Team Areas
- Work Item History

*12: UWS Add JavaDoc to CLI code

Defect 12

Summary:* UWS Add JavaDoc to CLI code — Resolved — Fixed

Type:	Defect
Severity:	Normal
Found In:	Unassigned
Created:	Jun 6, 2007 5:11 PM
Created By:	Jerry Jazz
Team Area:	UWS Temperature Conversion Team /
Filed Against:*	Core/Command Line
Tags:	
Owned By:	April Blues
Priority:	Unassigned
Planned For:	-> 1.0 M1
Estimate:	1 h Correction:
Time Spent:	
Due:	None
Resolved:	Jan 24, 2008 4:30 PM
Resolved By:	April Blues

Description: We need to add JavaDoc to our code. Note that I have sized this at one day and targeted it for M1. This means do it now while Zach gets the build going but only spend at most this much time on it, maybe less. We just need to get a start on it now.

Discussion: No comments

We have decided to make the change

Press 'Save' to Add Comment to Discussion

Quick Information
- Change Sets (2)
- Included in Builds (3)

Found 2 work items - Closed created by me

I	Status	P	S	Summary	Owned By	Created By
12	Resolved	□	●	UWS Add JavaDoc to CLI code	April Blues	Jerry Jazz
10	Resolved	▨	●	Expose functionality via public get method to core temperature ...	Unassigned	Jerry Jazz

<No Current Work>

Integrated discussion threads

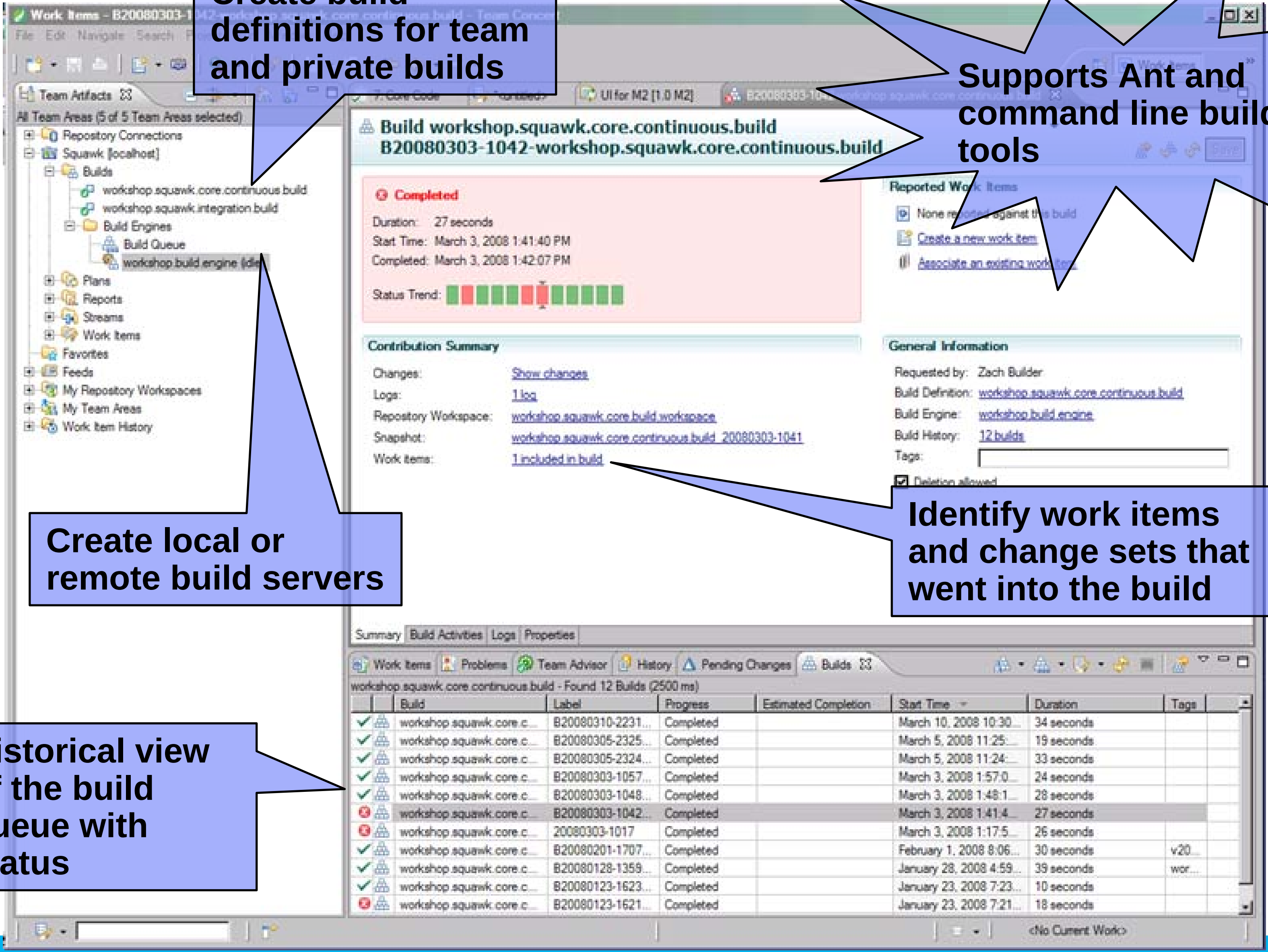
Query results

Understands and persists work item's relationship to SCM and build artifacts

Builds

Create build definitions for team and private builds

Supports Ant and command line build tools



Build workshop.squawk.core.continuous.build
B20080303-1042-workshop.squawk.core.continuous.build

Completed

Duration: 27 seconds
Start Time: March 3, 2008 1:41:40 PM
Completed: March 3, 2008 1:42:07 PM

Status Trend: 🟩🟥🟩🟩🟩🟥🟥🟩🟩🟩🟩🟩

Reported Work Items

None reported against this build

Create a new work item

Associate an existing work item

Contribution Summary

Changes: Show changes
Logs: 1 log
Repository Workspace: workshop.squawk.core.build.workspace
Snapshot: workshop.squawk.core.continuous.build_20080303-1041
Work items: 1 included in build

General Information

Requested by: Zach Builder
Build Definition: workshop.squawk.core.continuous.build
Build Engine: workshop.build.engine
Build History: 12 builds
Tags:
☑ Deletion allowed

workshop.squawk.core.continuous.build - Found 12 Builds (2500 ms)

		Build	Label	Progress	Estimated Completion	Start Time	Duration	Tags
✓		workshop.squawk.core.c...	B20080310-2231...	Completed		March 10, 2008 10:30...	34 seconds	
✓		workshop.squawk.core.c...	B20080305-2325...	Completed		March 5, 2008 11:25:...	19 seconds	
✓		workshop.squawk.core.c...	B20080305-2324...	Completed		March 5, 2008 11:24:...	33 seconds	
✓		workshop.squawk.core.c...	B20080303-1057...	Completed		March 3, 2008 1:57:0...	24 seconds	
✓		workshop.squawk.core.c...	B20080303-1048...	Completed		March 3, 2008 1:48:1...	28 seconds	
☒		workshop.squawk.core.c...	B20080303-1042...	Completed		March 3, 2008 1:41:4...	27 seconds	
☒		workshop.squawk.core.c...	20080303-1017	Completed		March 3, 2008 1:17:5...	26 seconds	
✓		workshop.squawk.core.c...	B20080201-1707...	Completed		February 1, 2008 8:06...	30 seconds	v20...
✓		workshop.squawk.core.c...	B20080128-1359...	Completed		January 28, 2008 4:59...	39 seconds	wor...
✓		workshop.squawk.core.c...	B20080123-1623...	Completed		January 23, 2008 7:23...	10 seconds	
☒		workshop.squawk.core.c...	B20080123-1621...	Completed		January 23, 2008 7:21...	18 seconds	

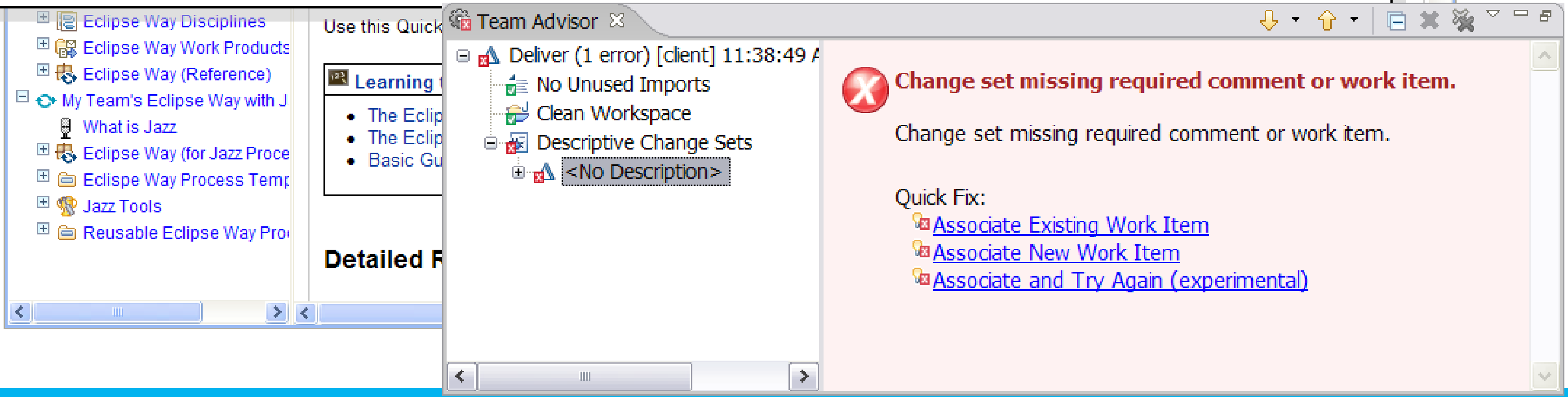
Create local or remote build servers

Identify work items and change sets that went into the build

Historical view of the build queue with status

Enables process awareness and guidance

- **Team Advisor**
  - Rules can be run when delivering changes to enforce team or organizational standards
  - Helps ensure higher quality results through enforcement of agreed-upon standards
  - Rules are configurable
  - “Quick Fixes” can be specified to simplify corrective action
  - Process rules can be defined, refined “on the fly”, enabling continual improvements
  - Out of the box processes include OpenUP, Scrum, The Eclipse Way, etc



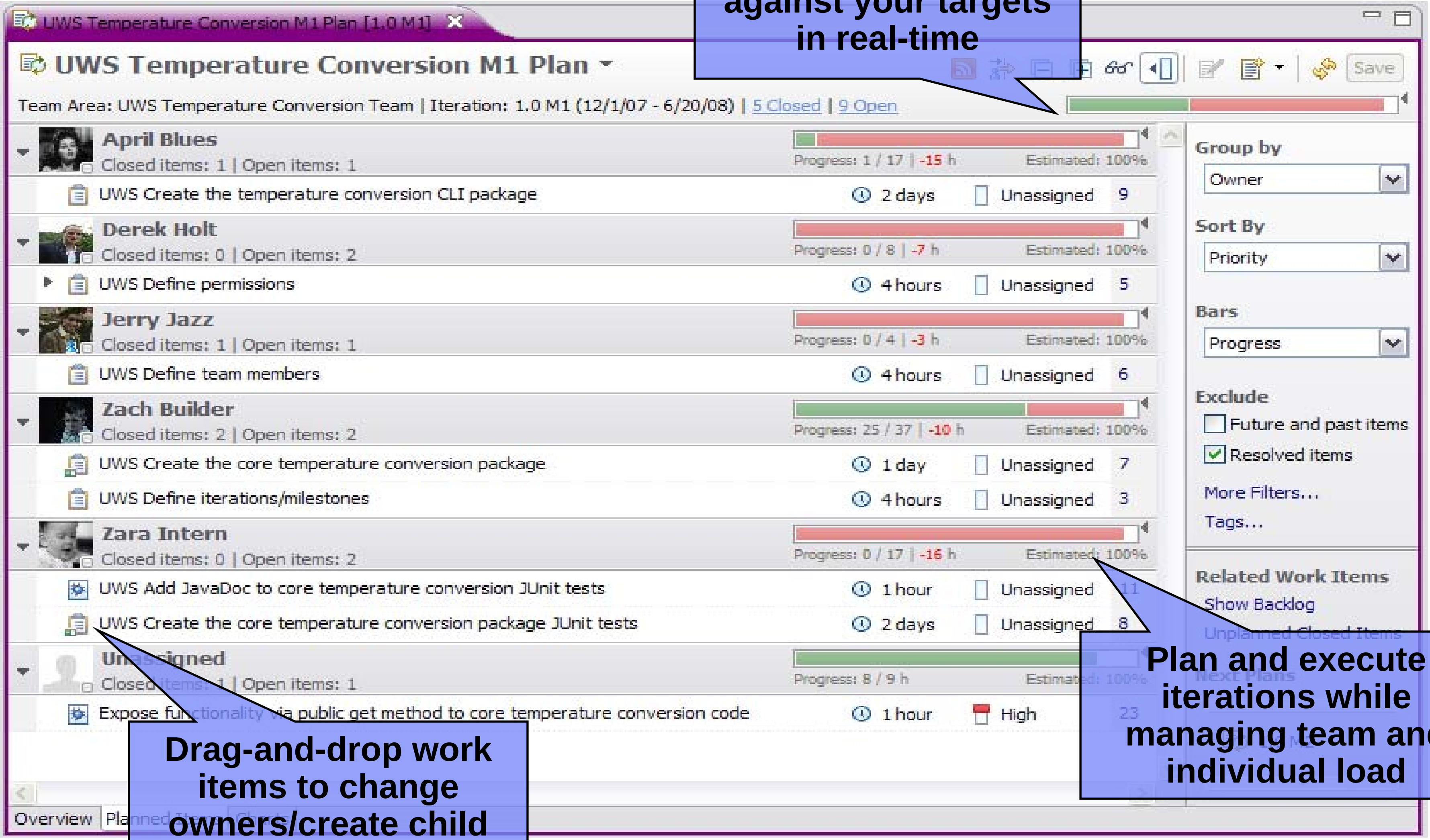
Change set missing required comment or work item.

Change set missing required comment or work item.

Quick Fix:

- Associate Existing Work Item
- Associate New Work Item
- Associate and Try Again (experimental)

Iteration Planning



UWS Temperature Conversion M1 Plan [1.0 M1]

UWS Temperature Conversion M1 Plan

Team Area: UWS Temperature Conversion Team | Iteration: 1.0 M1 (12/1/07 - 6/20/08) | 5 Closed | 9 Open

April Blues
Closed items: 1 | Open items: 1
Progress: 1 / 17 | -15 h Estimated: 100%

UWS Create the temperature conversion CLI package	2 days	Unassigned	9

Derek Holt
Closed items: 0 | Open items: 2
Progress: 0 / 8 | -7 h Estimated: 100%

UWS Define permissions	4 hours	Unassigned	5

Jerry Jazz
Closed items: 1 | Open items: 1
Progress: 0 / 4 | -3 h Estimated: 100%

UWS Define team members	4 hours	Unassigned	6

Zach Builder
Closed items: 2 | Open items: 2
Progress: 25 / 37 | -10 h Estimated: 100%

UWS Create the core temperature conversion package	1 day	Unassigned	7
UWS Define iterations/milestones	4 hours	Unassigned	3

Zara Intern
Closed items: 0 | Open items: 2
Progress: 0 / 17 | -16 h Estimated: 100%

UWS Add JavaDoc to core temperature conversion JUnit tests	1 hour	Unassigned	11
UWS Create the core temperature conversion package JUnit tests	2 days	Unassigned	8

Unassigned
Closed items: 1 | Open items: 1
Progress: 8 / 9 h Estimated: 100%

Expose functionality via public get method to core temperature conversion code	1 hour	High	23

Group by
Owner

Sort By
Priority

Bars
Progress

Exclude
☐ Future and past items
☑ Resolved items
More Filters...
Tags...

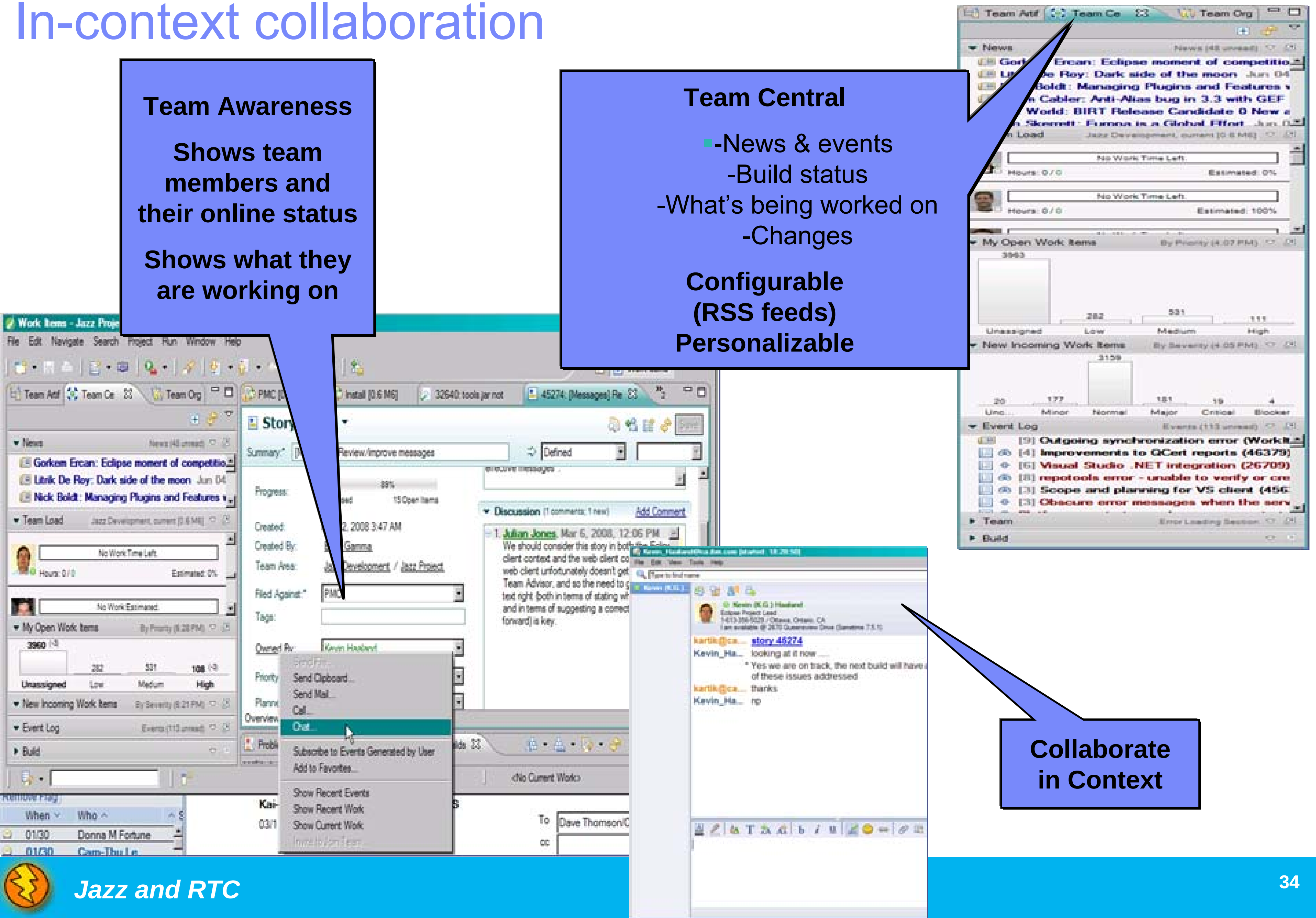
Related Work Items
Show Backlog
Unplanned Closed Items
Next Plans

Understand how well you are progressing against your targets in real-time

Drag-and-drop work items to change owners/create child parent relationships

Plan and execute iterations while managing team and individual load

In-context collaboration



Team Awareness

Shows team members and their online status

Shows what they are working on

Team Central

- -News & events
- -Build status
- -What's being worked on
- -Changes

Configurable (RSS feeds)

Personalizable

Collaborate in Context

News
- Gorkem Ercan: Eclipse moment of competitio...
- Ubrik De Roy: Dark side of the moon Jun 04
- Nick Boldt: Managing Plugins and Features
- ...n Cabler: Anti-Alias bug in 3.3 with GEF
- ...World: BIRT Release Candidate 0 New
- ...n Skerrett: Europa is a Global Effort

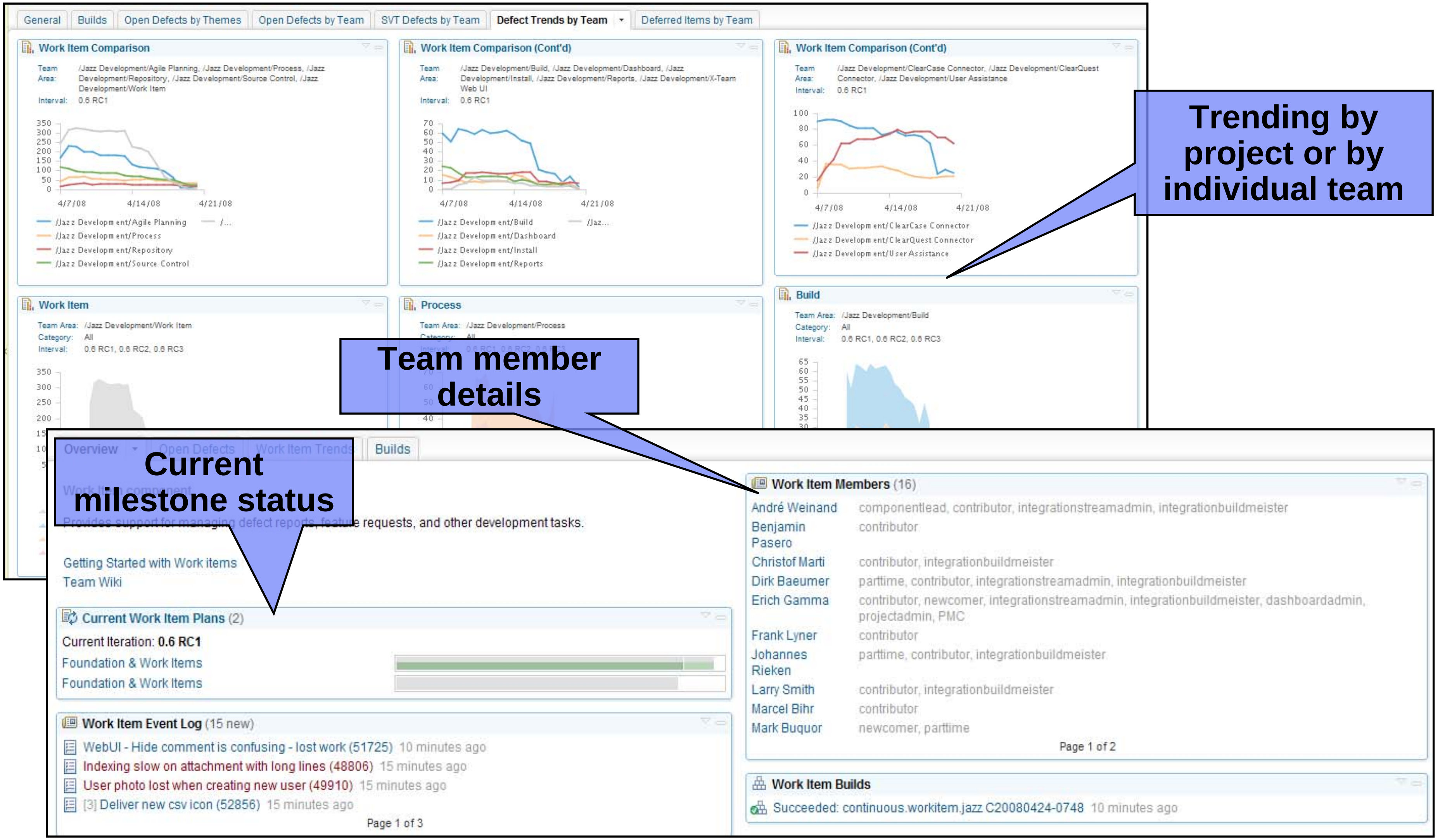
Event Log
- [9] Outgoing synchronization error (Work It...
- [4] Improvements to QCert reports (46379)
- [6] Visual Studio .NET integration (26709)
- [8] repotools error - unable to verify or cre...
- [3] Scope and planning for VS client (456...
- [3] Obscure error messages when the serv...

Summary: Review/improve messages

1. Julian Jones, Mar 6, 2008, 12:06 PM
We should consider this story in both the Eclipse client context and the web client co... web client unfortunately doesn't get... Team Advisor, and so the need to g... text right (both in terms of stating wh... and in terms of suggesting a correct forward) is key.

kartik@ca... story 45274
Kevin_Ha... looking at it now
* Yes we are on track, the next build will have all of these issues addressed
kartik@ca... thanks
Kevin_Ha... np

Dashboards and reporting



Trending by project or by individual team

Team member details

Current milestone status

Work Item Comparison

Team Area: /Jazz Development/Agile Planning, /Jazz Development/Process, /Jazz Development/Repository, /Jazz Development/Source Control, /Jazz Development/Work Item

Interval: 0.6 RC1

350
300
250
200
150
100
50
0
4/7/08
4/14/08
4/21/08
/Jazz Development/Agile Planning
/...
/Jazz Development/Process
/Jazz Development/Repository
/Jazz Development/Source Control

Work Item Comparison (Cont'd)

Team Area: /Jazz Development/Build, /Jazz Development/Dashboard, /Jazz Development/Install, /Jazz Development/Reports, /Jazz Development/X-Team Web UI

Interval: 0.6 RC1

70
60
50
40
30
20
10
0
4/7/08
4/14/08
4/21/08
/Jazz Development/Build
/Jaz...
/Jazz Development/Dashboard
/Jazz Development/Install
/Jazz Development/Reports

Work Item Comparison (Cont'd)

Team Area: /Jazz Development/ClearCase Connector, /Jazz Development/ClearQuest Connector, /Jazz Development/User Assistance

Interval: 0.6 RC1

100
80
60
40
20
0
4/7/08
4/14/08
4/21/08
/Jazz Development/ClearCase Connector
/Jazz Development/ClearQuest Connector
/Jazz Development/User Assistance

Work Item

Team Area: /Jazz Development/Work Item

Category: All

Interval: 0.6 RC1, 0.6 RC2, 0.6 RC3

Process

Team Area: /Jazz Development/Process

Category: All

Build

Team Area: /Jazz Development/Build

Category: All

Interval: 0.6 RC1, 0.6 RC2, 0.6 RC3

Work Item component

Provides support for managing defect reports, feature requests, and other development tasks.

Getting Started with Work items

Team Wiki

Current Work Item Plans (2)

Current Iteration: **0.6 RC1**

Foundation & Work Items

Foundation & Work Items

Work Item Event Log (15 new)

- WebUI - Hide comment is confusing - lost work (51725) 10 minutes ago
- Indexing slow on attachment with long lines (48806) 15 minutes ago
- User photo lost when creating new user (49910) 15 minutes ago
- [3] Deliver new csv icon (52856) 15 minutes ago

Page 1 of 3

Work Item Members (16)

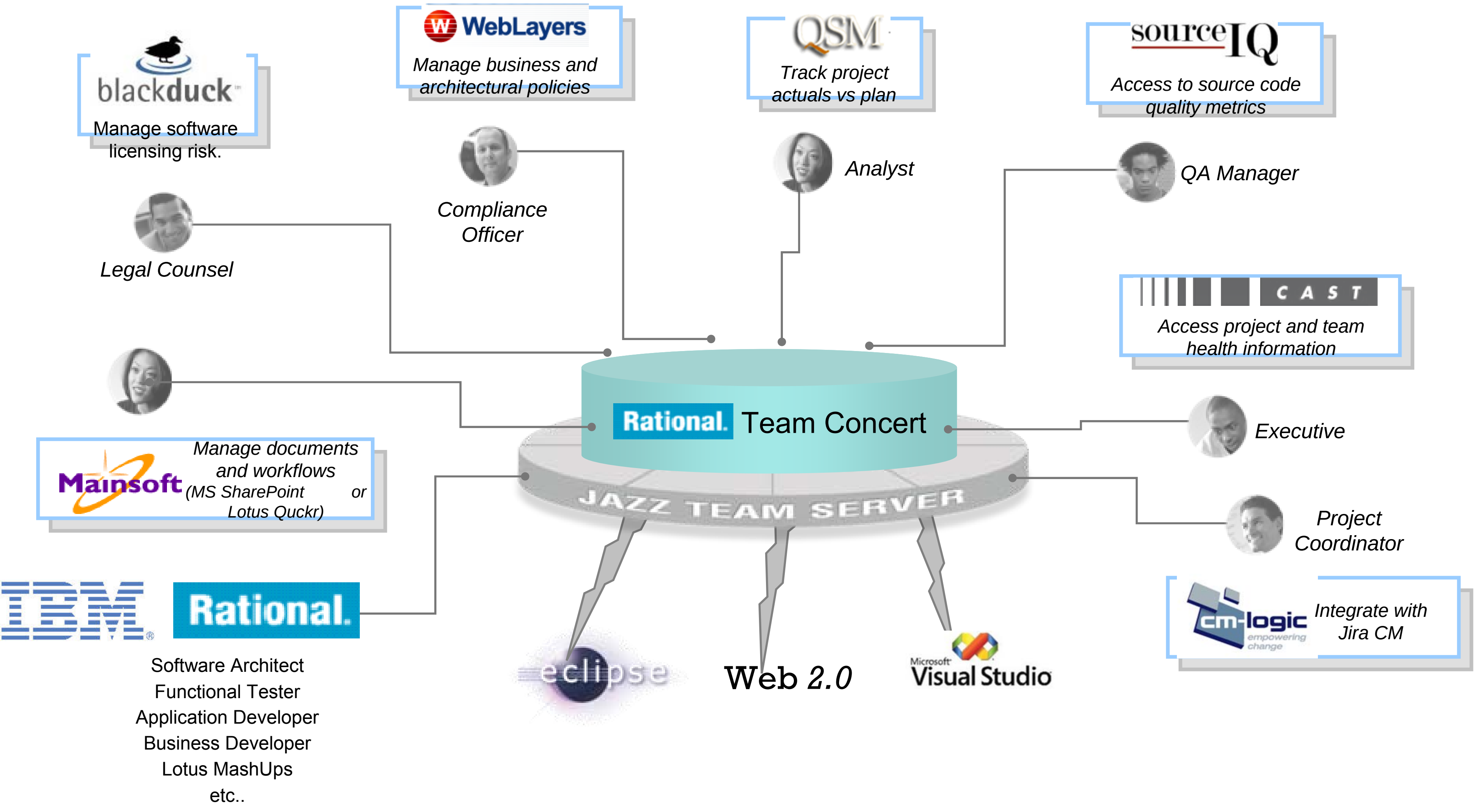
André Weinand	componentlead, contributor, integrationstreamadmin, integrationbuildmeister
Benjamin Pasero	contributor
Christof Marti	contributor, integrationbuildmeister
Dirk Baeumer	parttime, contributor, integrationstreamadmin, integrationbuildmeister
Erich Gamma	contributor, newcomer, integrationstreamadmin, integrationbuildmeister, dashboardadmin, projectadmin, PMC
Frank Lyner	contributor
Johannes Rieken	parttime, contributor, integrationbuildmeister
Larry Smith	contributor, integrationbuildmeister
Marcel Bihr	contributor
Mark Buquor	newcomer, parttime

Page 1 of 2

Work Item Builds

Succeeded: continuous.workitem.jazz C20080424-0748 10 minutes ago

Extend team collaboration to a broad range of software professionals



blackduck

Manage software licensing risk.

Legal Counsel

WebLayers

Manage business and architectural policies

Compliance Officer

QSM

Track project actuals vs plan

Analyst

sourceIQ

Access to source code quality metrics

QA Manager

CAST

Access project and team health information

Rational. Team Concert

JAZZ TEAM SERVER

Executive

Project Coordinator

Mainsoft

Manage documents and workflows (MS SharePoint or Lotus Quckr)

cm-logic empowering change

Integrate with Jira CM

IBM Rational.

Software Architect

Functional Tester

Application Developer

Business Developer

Lotus MashUps

etc..

eclipse

Web 2.0

Microsoft Visual Studio

DEMO

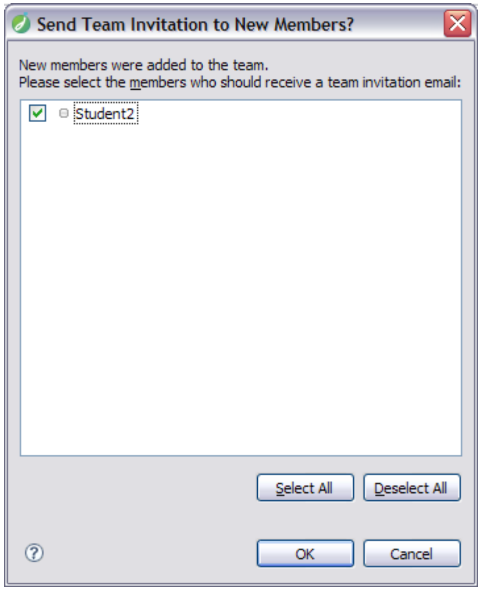
- Introduction to Rational Team Concert

Agenda

- Today’s Software Development Landscape
- All that Jazz
- Rational Team Concert
  - Overview
  - Getting Started with a new Team
  - Software Configuration Management
- Managing Builds and Deployment
- Change Management
- Wrap-up and Next Steps

Joining a Team

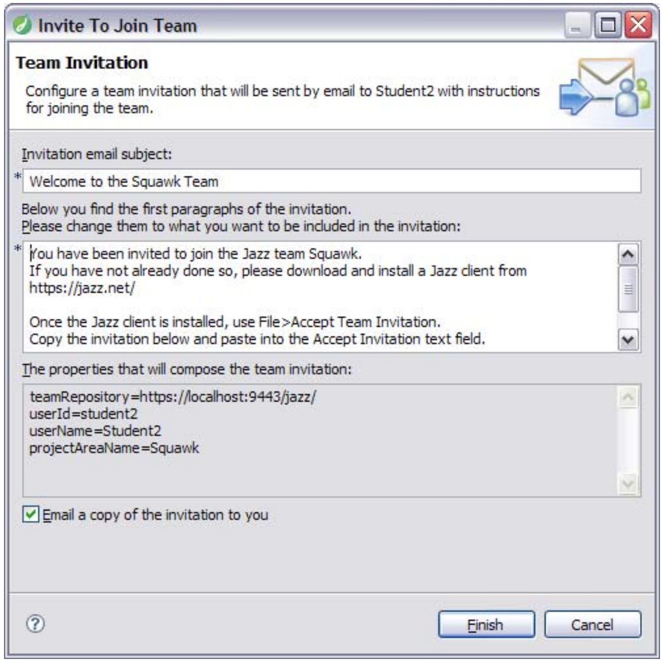
- For most environments, joining a project can be complicated
- Team Concert makes this as easy as possible
- Adding a new team member to a project generates a Team Invitation email
- Contents of the email can be used to set up the new team member’s access to the project resources in Team Concert



Send Team Invitation to New Members?

New members were added to the team.
Please select the members who should receive a team invitation email:

☑ Student2



Invite To Join Team

Team Invitation

Configure a team invitation that will be sent by email to Student2 with instructions for joining the team.

Invitation email subject:

Welcome to the Squawk Team

Below you find the first paragraphs of the invitation.
Please change them to what you want to be included in the invitation:

You have been invited to join the Jazz team Squawk.
If you have not already done so, please download and install a Jazz client from
https://jazz.net/

Once the Jazz client is installed, use File>Accept Team Invitation.
Copy the invitation below and paste into the Accept Invitation text field.

The properties that will compose the team invitation:

```
teamRepository=https://localhost:9443/jazz/
userId=student2
userName=Student2
projectAreaName=Squawk
```

☑ Email a copy of the invitation to you

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

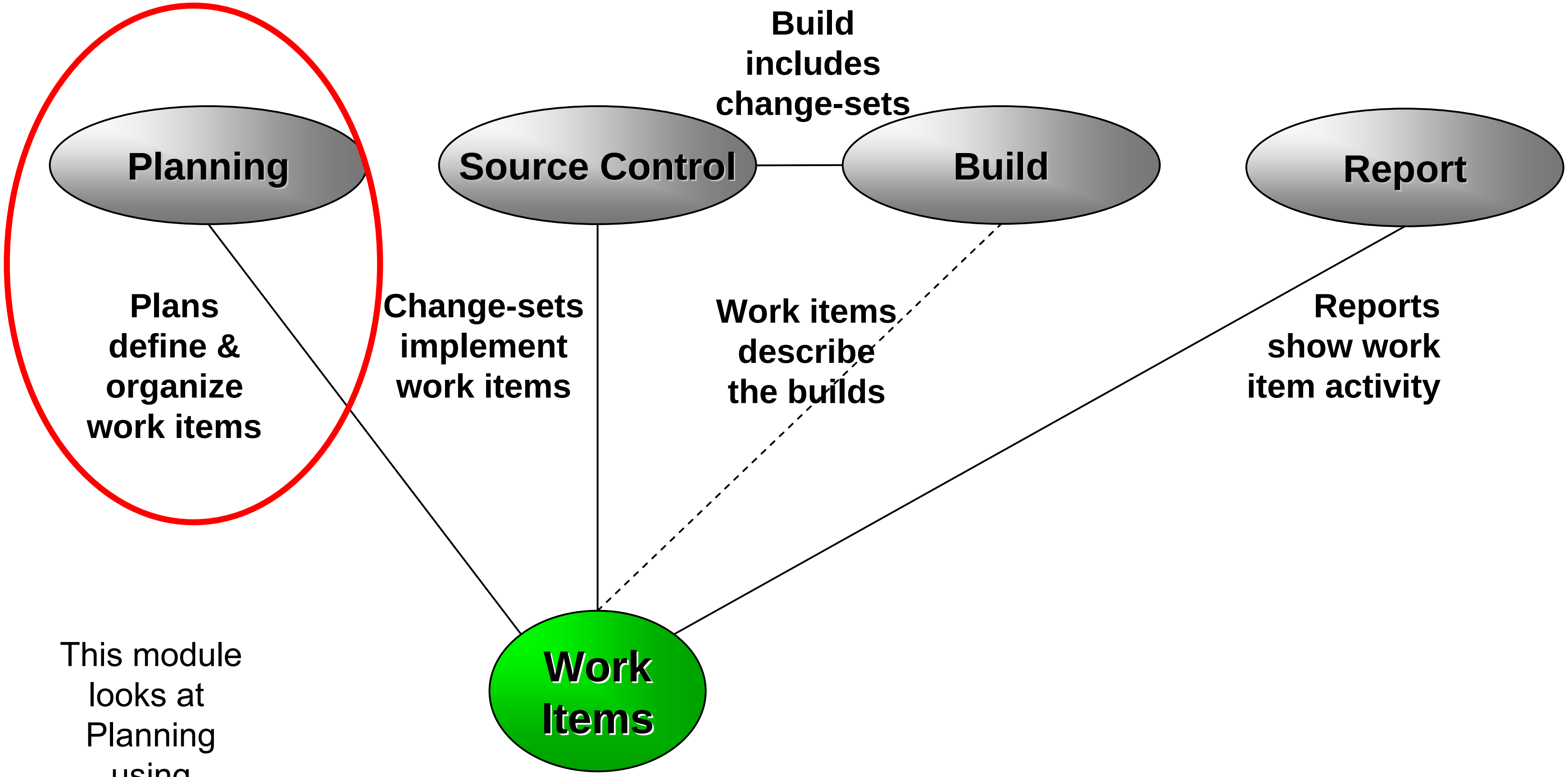
- Today’s Software Development Landscape
- All that Jazz
- Rational Team Concert
  - Overview
  - Getting Started with a new Team
  - Software Configuration Management
- Managing Builds and Deployment
- Change Management
- Wrap-up and Next Steps

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**

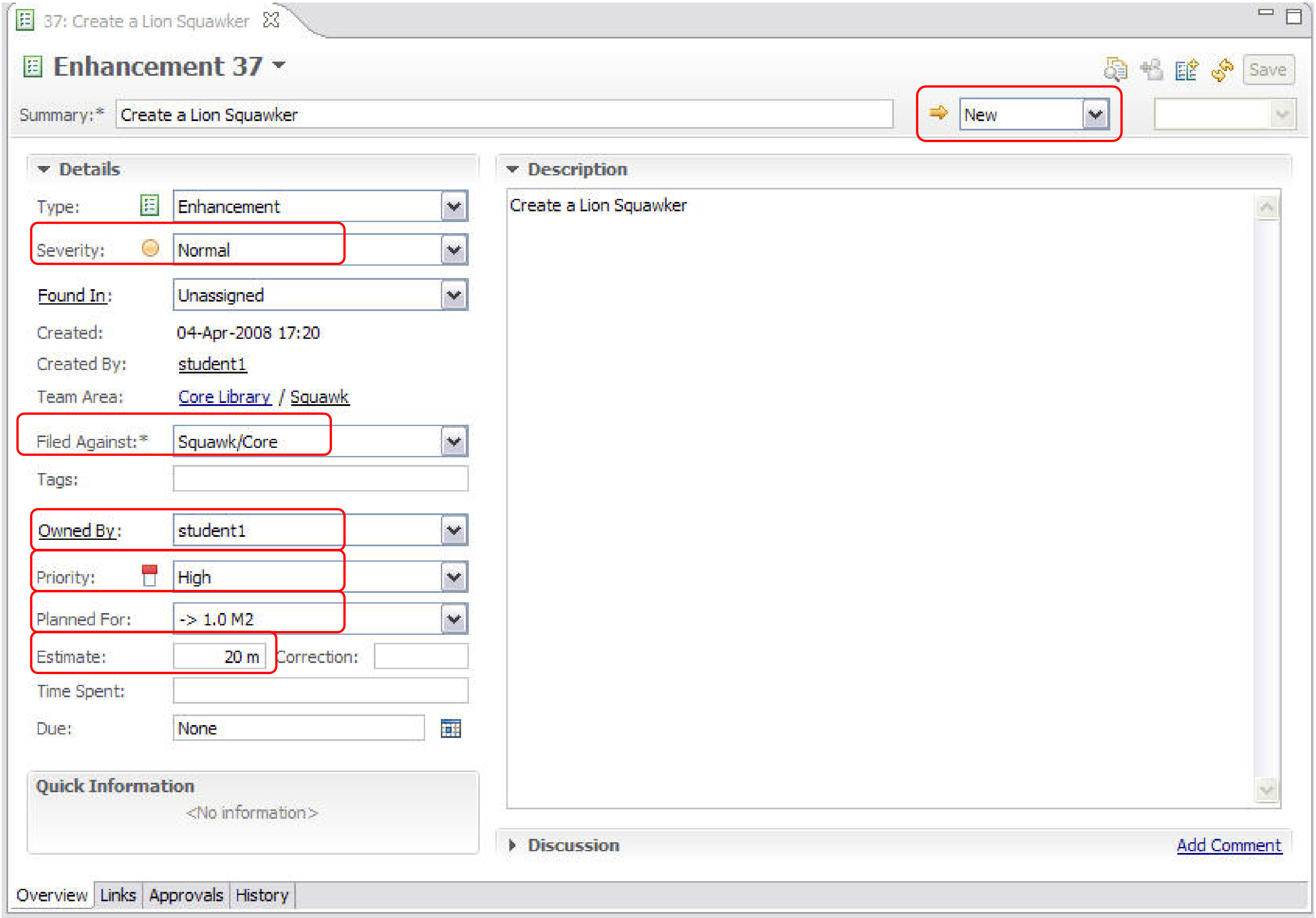
- The way that Rational Team Concert uses **Work items** means that all your work can be planned, tracked and stored under configuration management. Allowing for both the top down view and the low level view of data and project status.

Work Items are central to Rational Team Concert



This module
looks at
Planning
using
Work items

Work Item details



37: Create a Lion Squawker

Enhancement 37

Summary:* Create a Lion Squawker

New

Details

Type:	Enhancement
Severity:	Normal
Found In:	Unassigned
Created:	04-Apr-2008 17:20
Created By:	student1
Team Area:	Core Library / Squawk
Filed Against:*	Squawk/Core
Tags:	
Owned By:	student1
Priority:	High
Planned For:	-> 1.0 M2
Estimate:	20 m
Correction:	
Time Spent:	
Due:	None

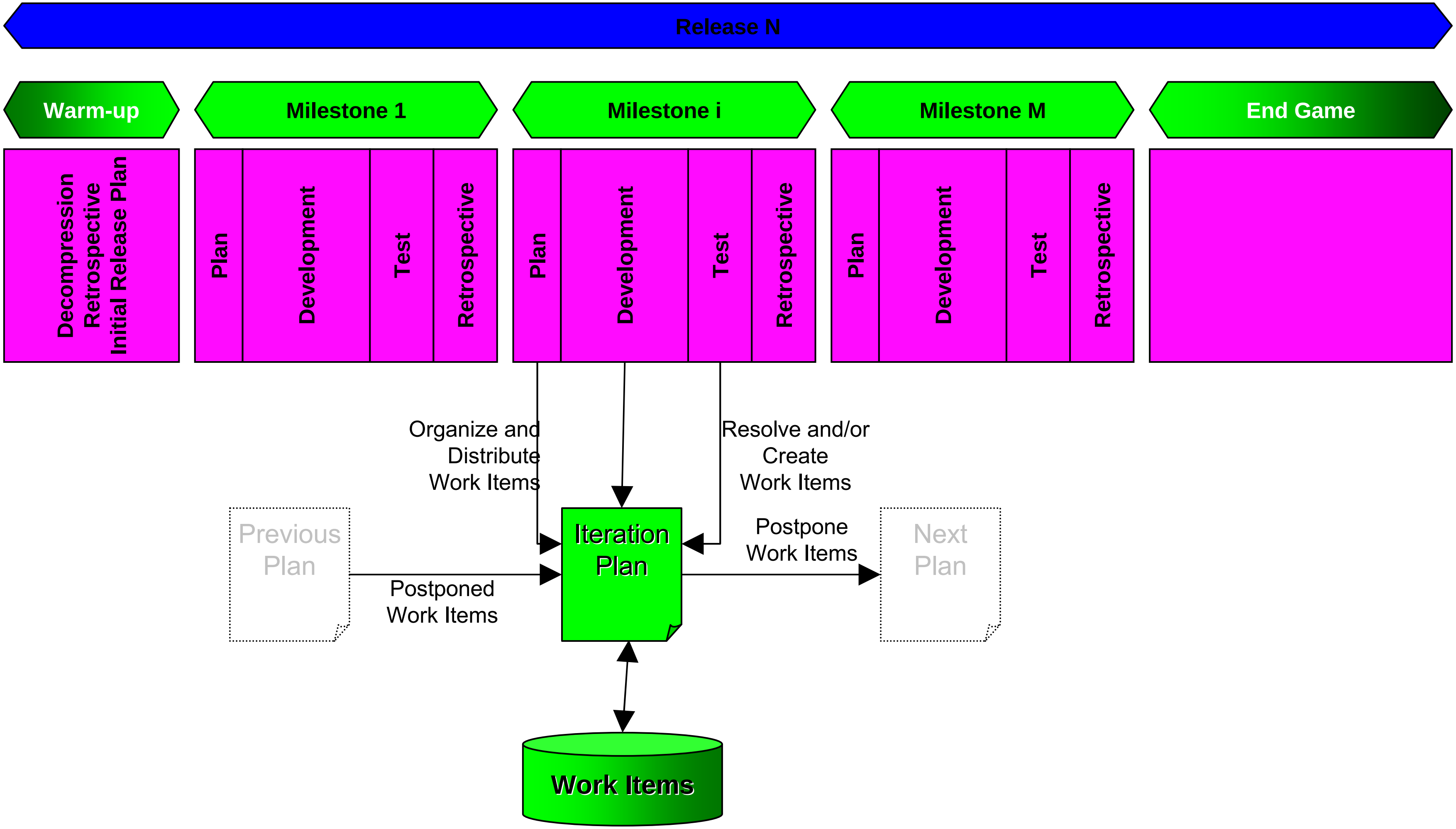
Quick Information

<No information>

Description

Create a Lion Squawker

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 Plan

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.

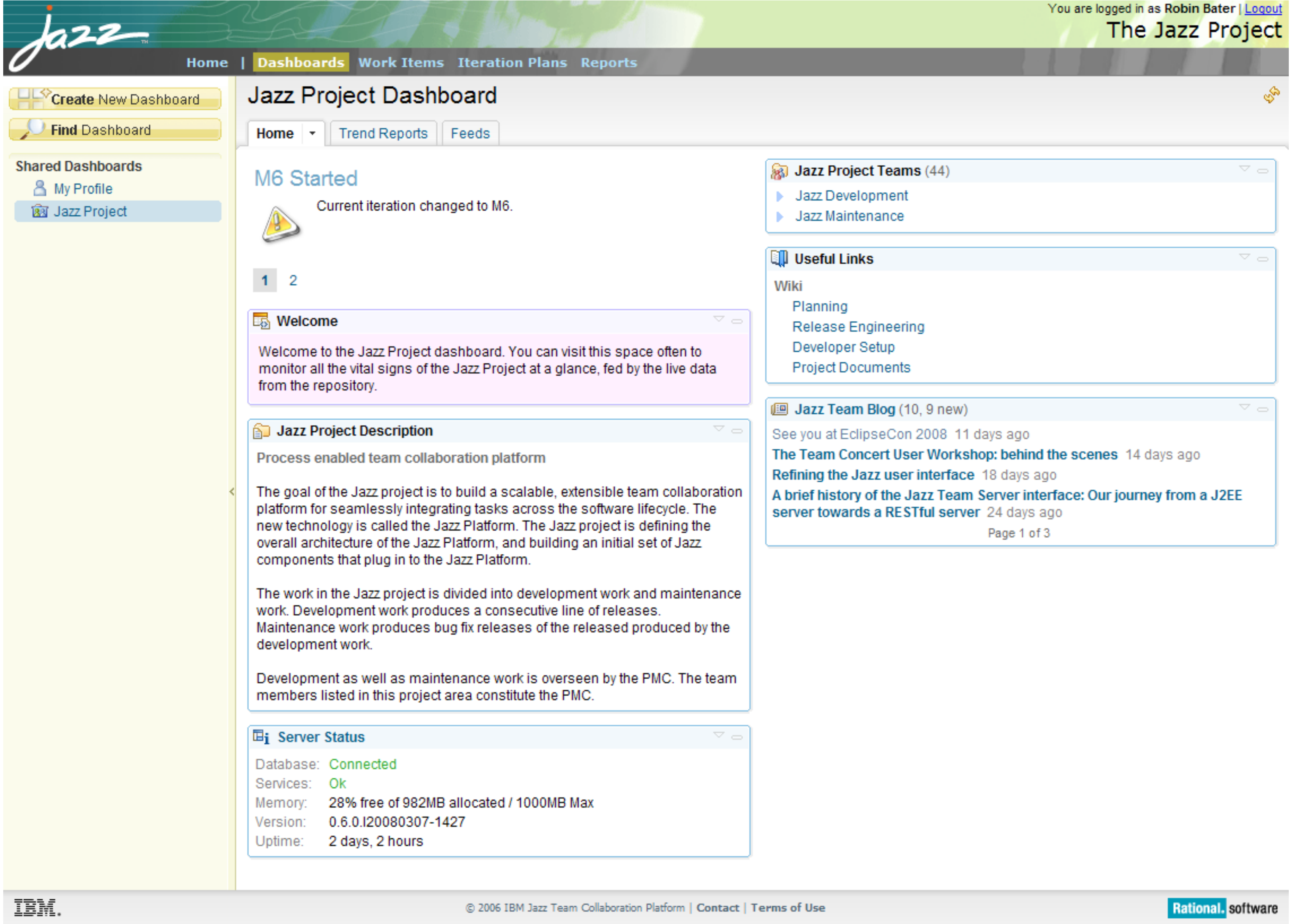
- Rational Team Concert displays the information in automatically refreshed views that are configurable, so that you are up to date with the information you need in real time.

Reports – Displaying the project status

- 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.

Reports – Displaying the project status



You are logged in as Robin Bater | Logout

The Jazz Project

Shared Dashboards

- My Profile
- Jazz Project

Jazz Project Dashboard

M6 Started

Current iteration changed to M6.

1 2

Welcome

Welcome to the Jazz Project dashboard. You can visit this space often to monitor all the vital signs of the Jazz Project at a glance, fed by the live data from the repository.

Jazz Project Description

Process enabled team collaboration platform

The goal of the Jazz project is to build a scalable, extensible team collaboration platform for seamlessly integrating tasks across the software lifecycle. The new technology is called the Jazz Platform. The Jazz project is defining the overall architecture of the Jazz Platform, and building an initial set of Jazz components that plug in to the Jazz Platform.

The work in the Jazz project is divided into development work and maintenance work. Development work produces a consecutive line of releases. Maintenance work produces bug fix releases of the released produced by the development work.

Development as well as maintenance work is overseen by the PMC. The team members listed in this project area constitute the PMC.

Server Status

Database:	Connected
Services:	Ok
Memory:	28% free of 982MB allocated / 1000MB Max
Version:	0.6.0.I20080307-1427
Uptime:	2 days, 2 hours

Jazz Project Teams (44)

- Jazz Development
- Jazz Maintenance

Useful Links

Wiki
- Planning
- Release Engineering
- Developer Setup
- Project Documents

Jazz Team Blog (10, 9 new)

See you at EclipseCon 2008 11 days ago

The Team Concert User Workshop: behind the scenes 14 days ago

Refining the Jazz user interface 18 days ago

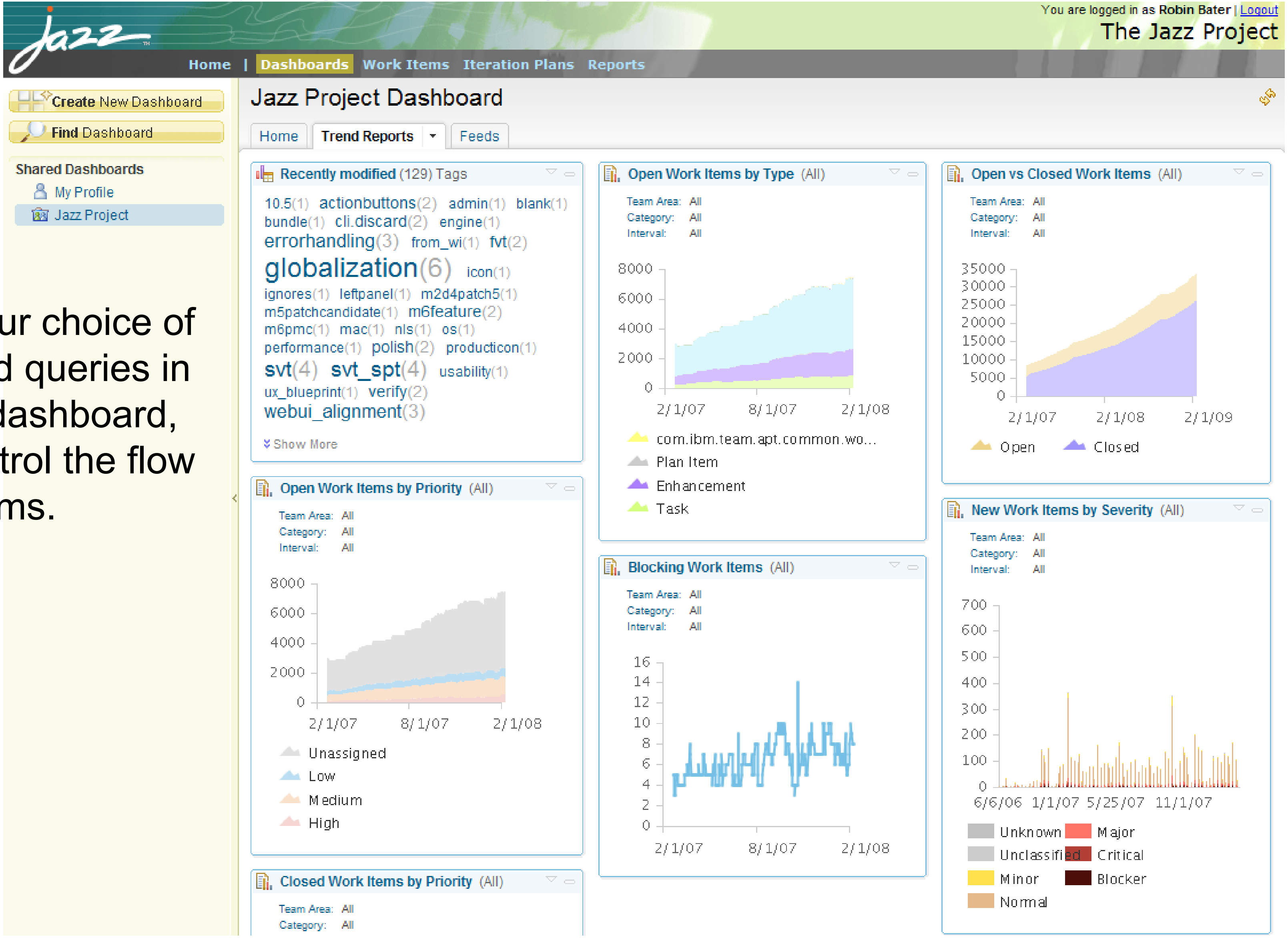
A brief history of the Jazz Team Server interface: Our journey from a J2EE server towards a RESTful server 24 days ago

Page 1 of 3

IBM. © 2006 IBM Jazz Team Collaboration Platform | Contact | Terms of Use Rational. software

Reports – Displaying the project status

Display your choice of reports and queries in your own dashboard, e.g. to control the flow of work items.



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The Jazz Project

Jazz Project Dashboard

Shared Dashboards
- My Profile
- Jazz Project

Recently modified (129) Tags

10.5(1) actionbuttons(2) admin(1) blank(1) bundle(1) cli.discard(2) engine(1) errorhandling(3) from_wi(1) fvt(2) globalization(6) icon(1) ignores(1) leftpanel(1) m2d4patch5(1) m5patchcandidate(1) m6feature(2) m6pmc(1) mac(1) nls(1) os(1) performance(1) polish(2) producticon(1) svt(4) svt_spt(4) usability(1) ux_blueprint(1) verify(2) webui_alignment(3)

Open Work Items by Type (All)

Team Area: All
Category: All
Interval: All

- com.ibm.team.apt.common.wo...
- Plan Item
- Enhancement
- Task

Open vs Closed Work Items (All)

Team Area: All
Category: All
Interval: All

- Open
- Closed

Open Work Items by Priority (All)

Team Area: All
Category: All
Interval: All

- Unassigned
- Low
- Medium
- High

Blocking Work Items (All)

Team Area: All
Category: All
Interval: All

New Work Items by Severity (All)

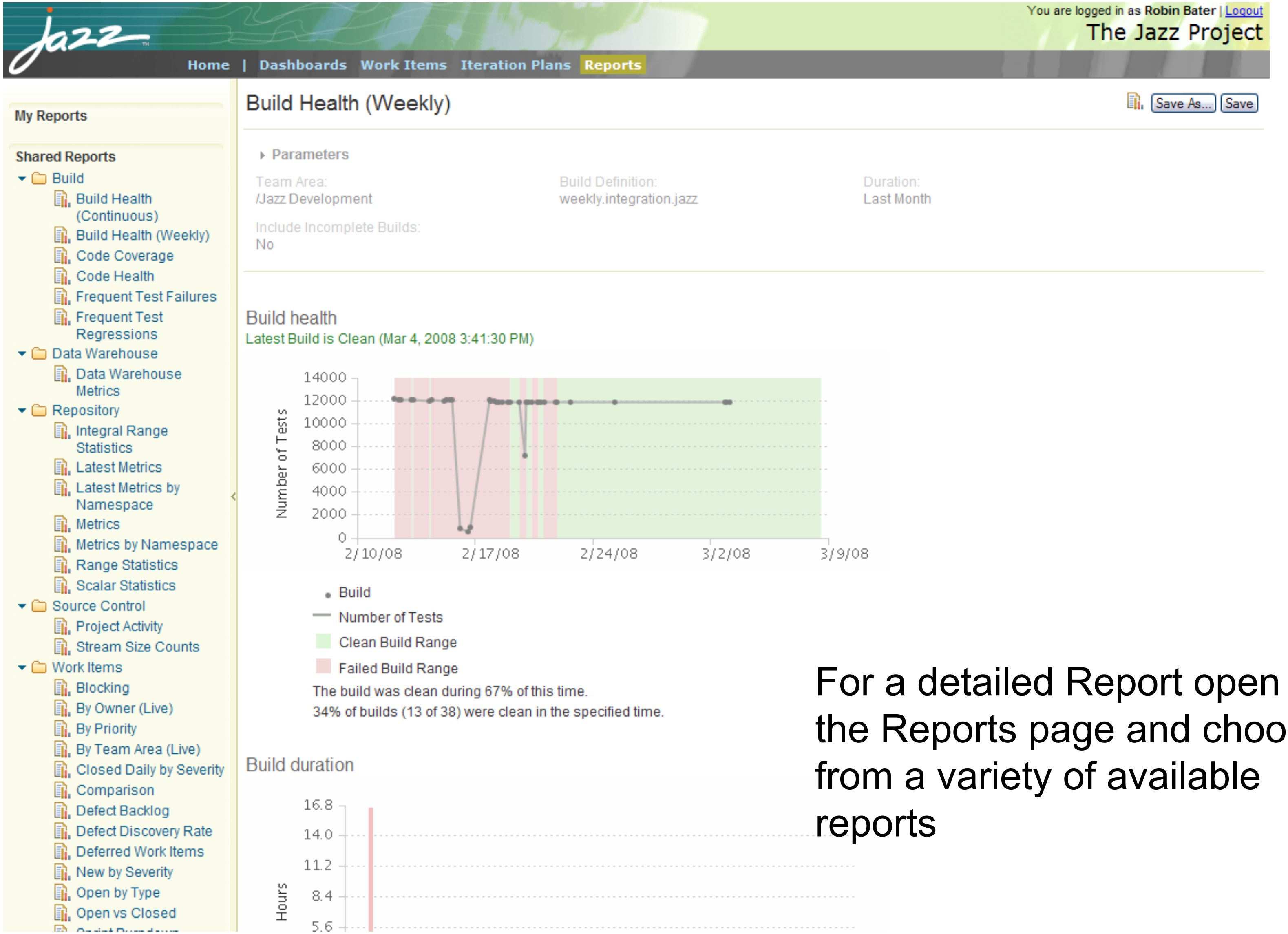
Team Area: All
Category: All
Interval: All

- Unknown
- Major
- Unclassified
- Critical
- Minor
- Blocker
- Normal

Closed Work Items by Priority (All)

Team Area: All
Category: All

Reports – Displaying the project status



You are logged in as Robin Bater | Logout

The Jazz Project

My Reports

Shared Reports

- Build
  - Build Health (Continuous)
  - Build Health (Weekly)
  - Code Coverage
  - Code Health
  - Frequent Test Failures
  - Frequent Test Regressions
- Data Warehouse
  - Data Warehouse Metrics
- Repository
  - Integral Range Statistics
  - Latest Metrics
  - Latest Metrics by Namespace
  - Metrics
  - Metrics by Namespace
  - Range Statistics
  - Scalar Statistics
- Source Control
  - Project Activity
  - Stream Size Counts
- Work Items
  - Blocking
  - By Owner (Live)
  - By Priority
  - By Team Area (Live)
  - Closed Daily by Severity
  - Comparison
  - Defect Backlog
  - Defect Discovery Rate
  - Deferred Work Items
  - New by Severity
  - Open by Type
  - Open vs Closed

Build Health (Weekly)

Parameters

Team Area: /Jazz Development

Build Definition: weekly.integration.jazz

Duration: Last Month

Include Incomplete Builds: No

Build health

Latest Build is Clean (Mar 4, 2008 3:41:30 PM)

● Build

— Number of Tests

🟩 Clean Build Range

🟥 Failed Build Range

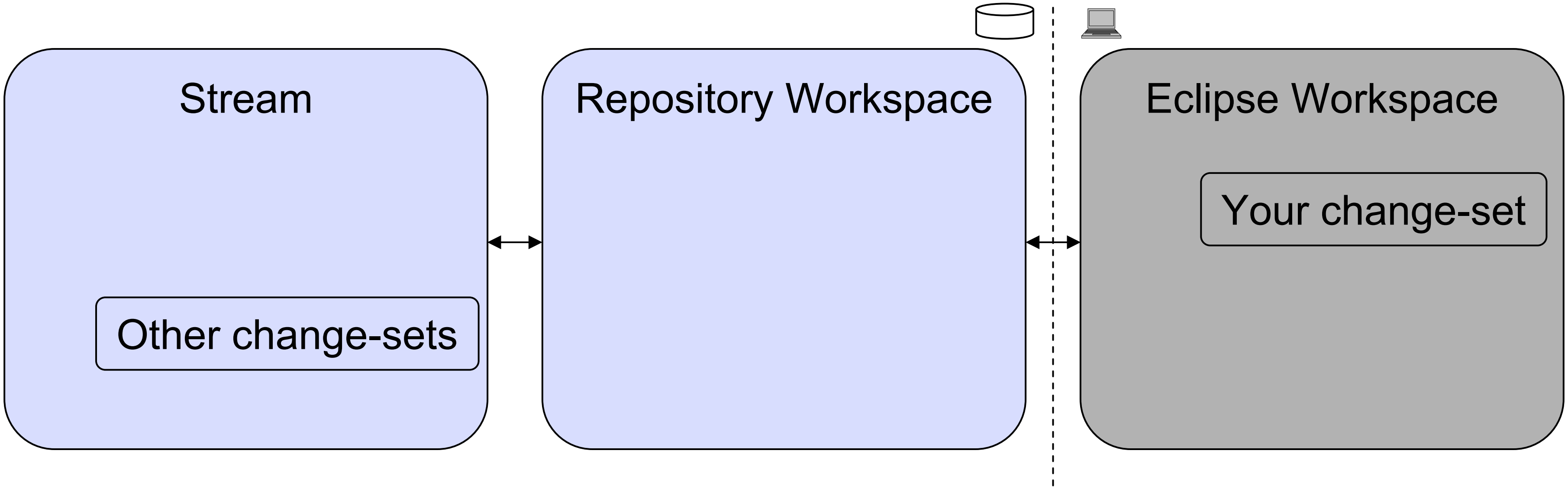
The build was clean during 67% of this time.

34% of builds (13 of 38) were clean in the specified time.

Build duration

For a detailed Report open the Reports page and choose from a variety of available reports

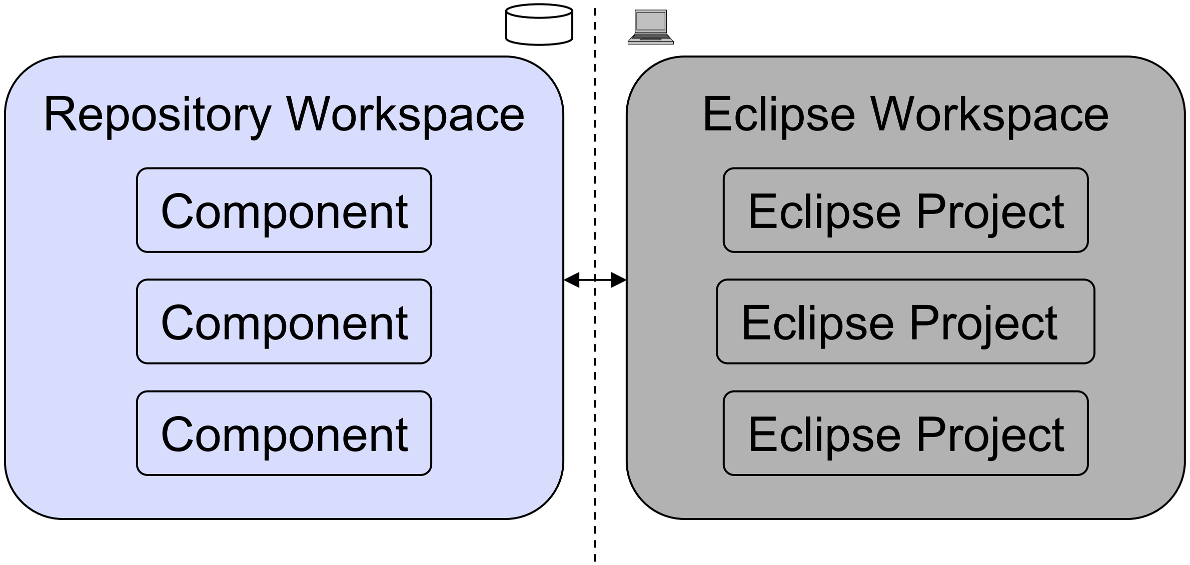
Basic Jazz SCM Anatomy



- 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

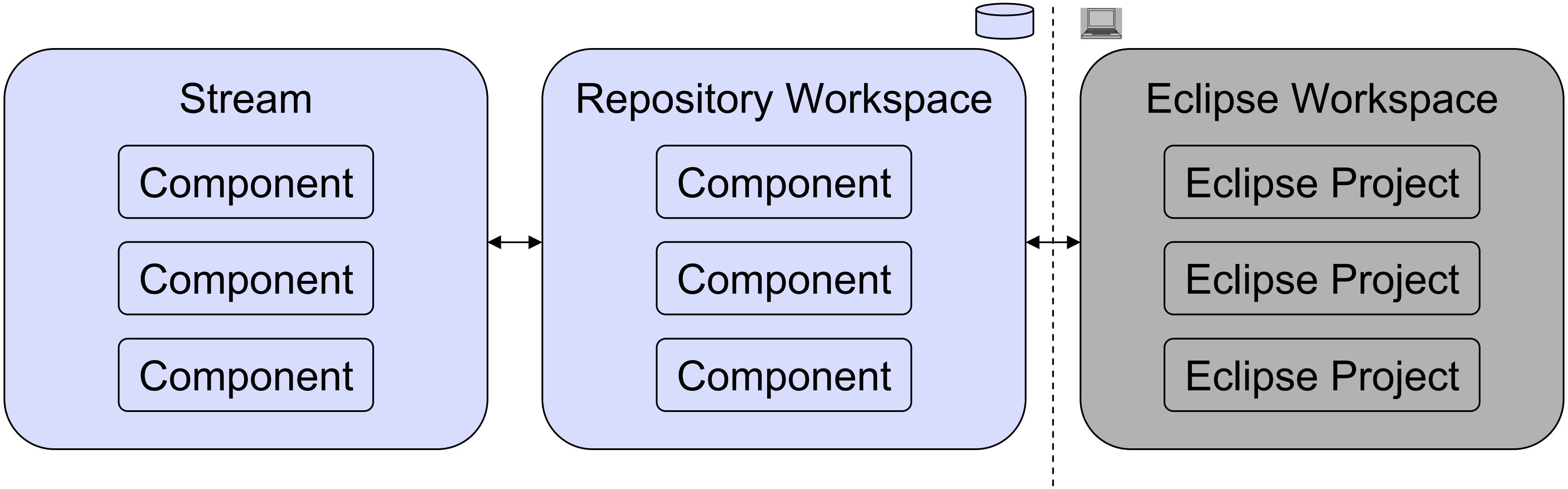
Components…

Stream
Repository Workspace
Eclipse Workspace



- 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

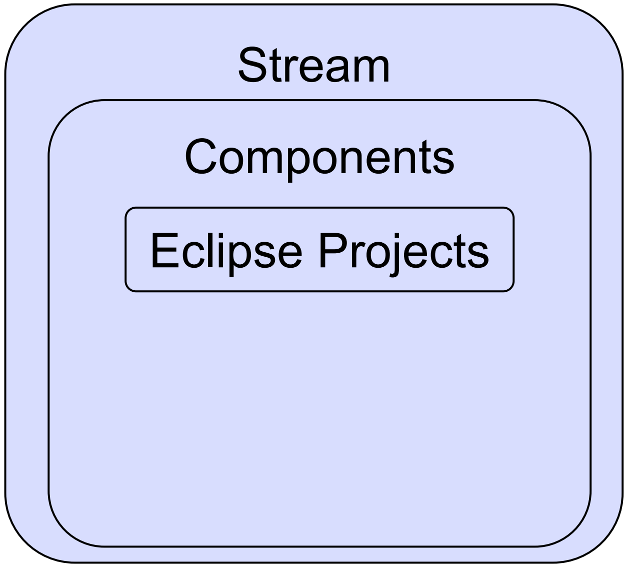
Streams

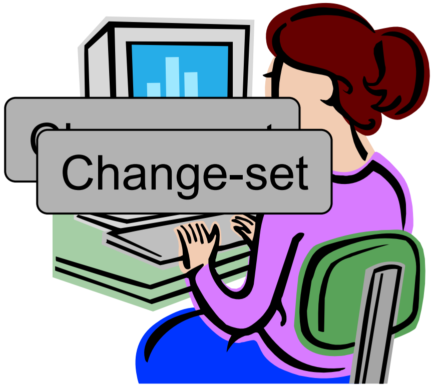


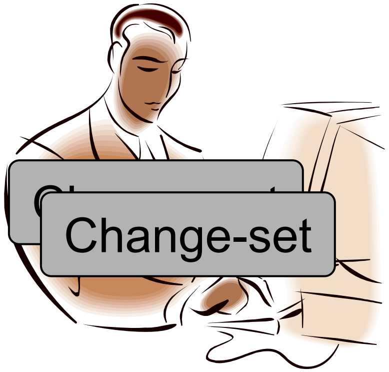
- Eclipse Workspace
  - Where a developer actively adds and changes source
- Repository Workspace
  - A developer's private space in the repository
- Stream
  - A place to share source with your team

Change-sets

Stream
Repository Workspace
Eclipse Workspace





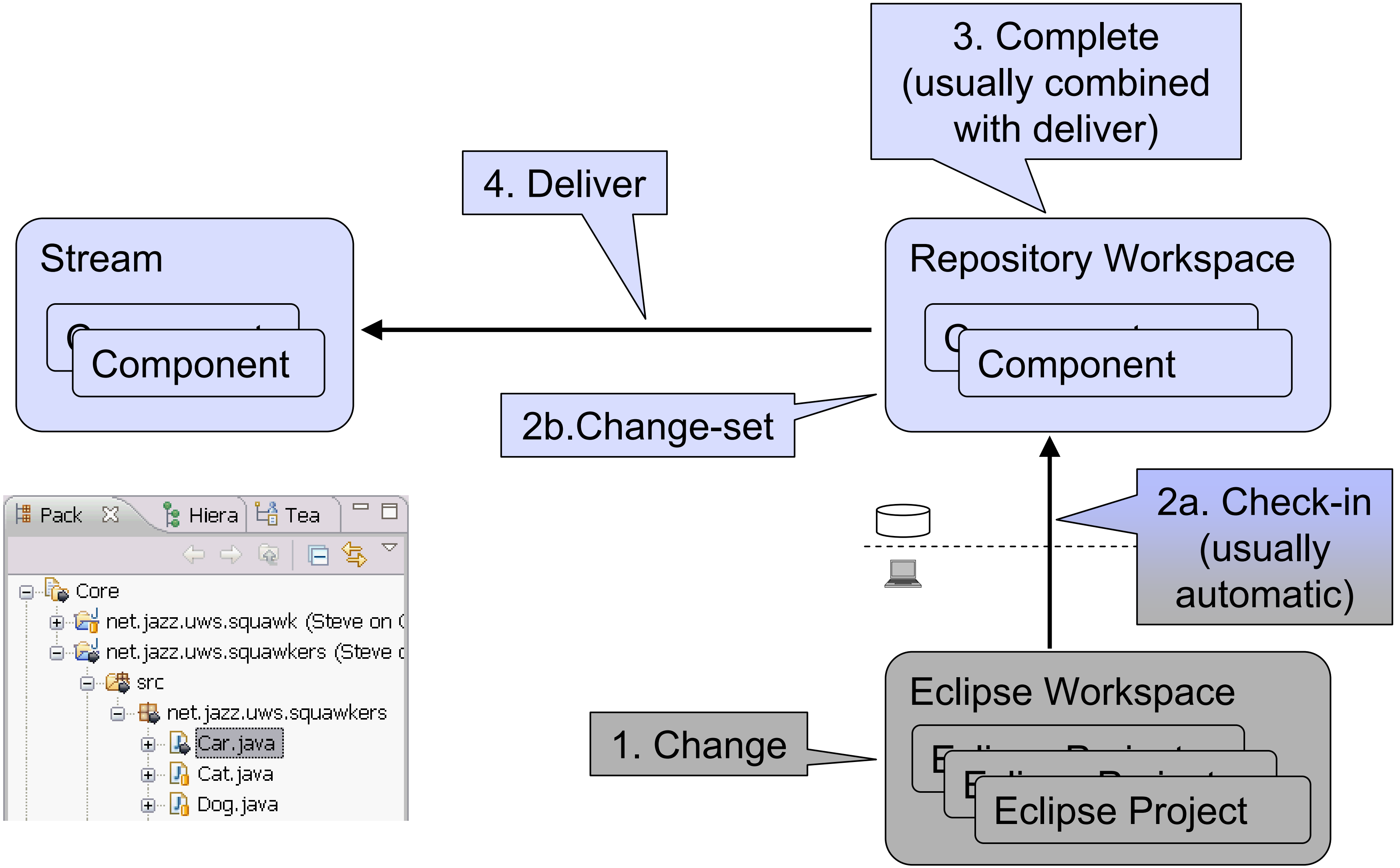


- Components Track Changes
  - Collection of files and folders is built up from the steady build up of change-sets
  - Each change-set builds on what came before
- Change History
  - A time-ordered sequence of change-sets
  - Describes how the component’s content was built from nothing

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



Stream

Component

4. Deliver

3. Complete (usually combined with deliver)

Repository Workspace

Component

2b.Change-set

2a. Check-in (usually automatic)

Eclipse Workspace

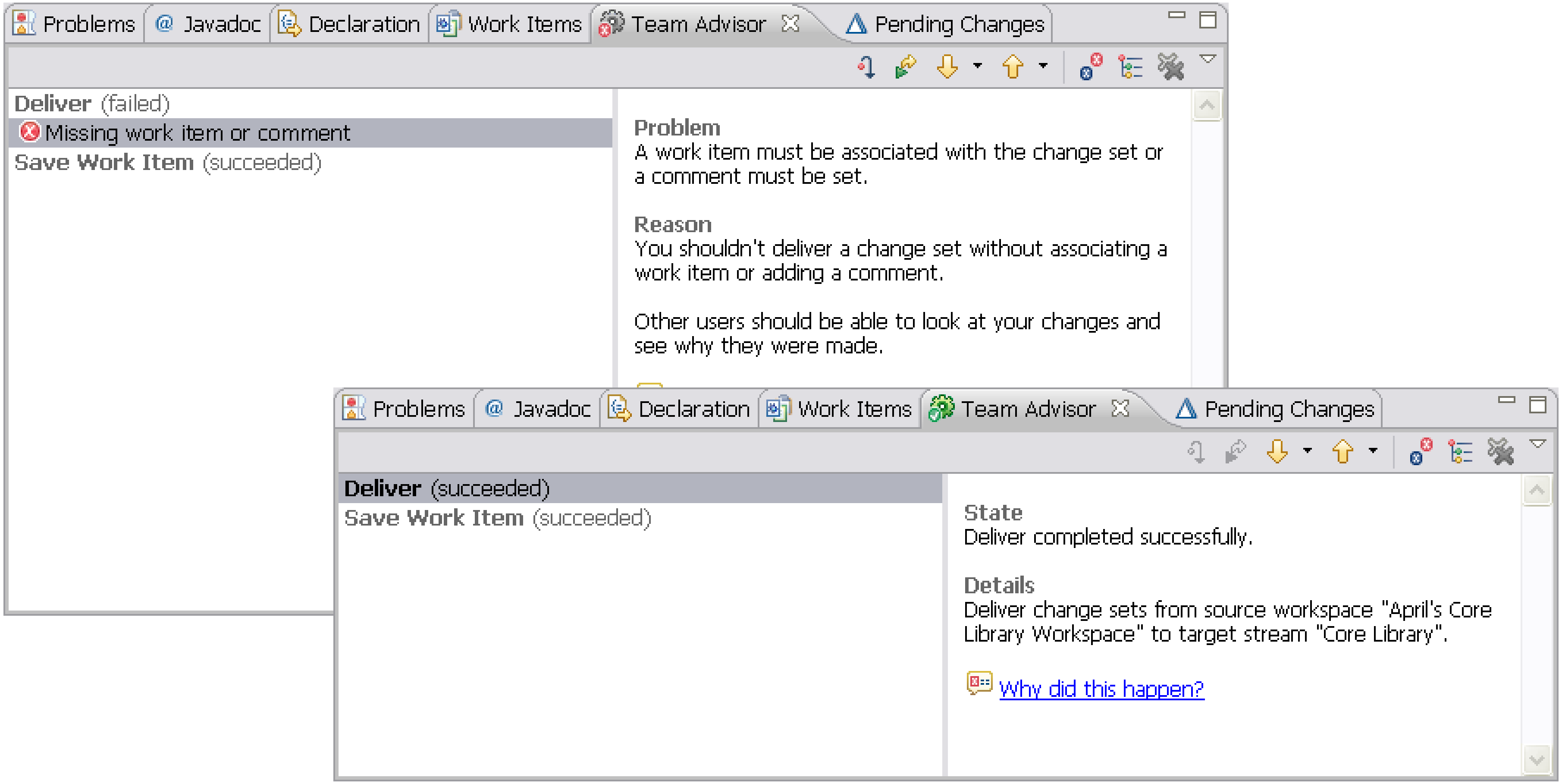
Eclipse Project

1. Change

```
Core
  net.jazz.uws.squawk (Steve on (
  net.jazz.uws.squawkers (Steve c
    src
      net.jazz.uws.squawkers
        Car.java
        Cat.java
        Dog.java
```

Change-set Delivery is Process Enabled

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



Deliver (failed)
Missing work item or comment
Save Work Item (succeeded)

Problem
A work item must be associated with the change set or a comment must be set.

Reason
You shouldn't deliver a change set without associating a work item or adding a comment.

Other users should be able to look at your changes and see why they were made.

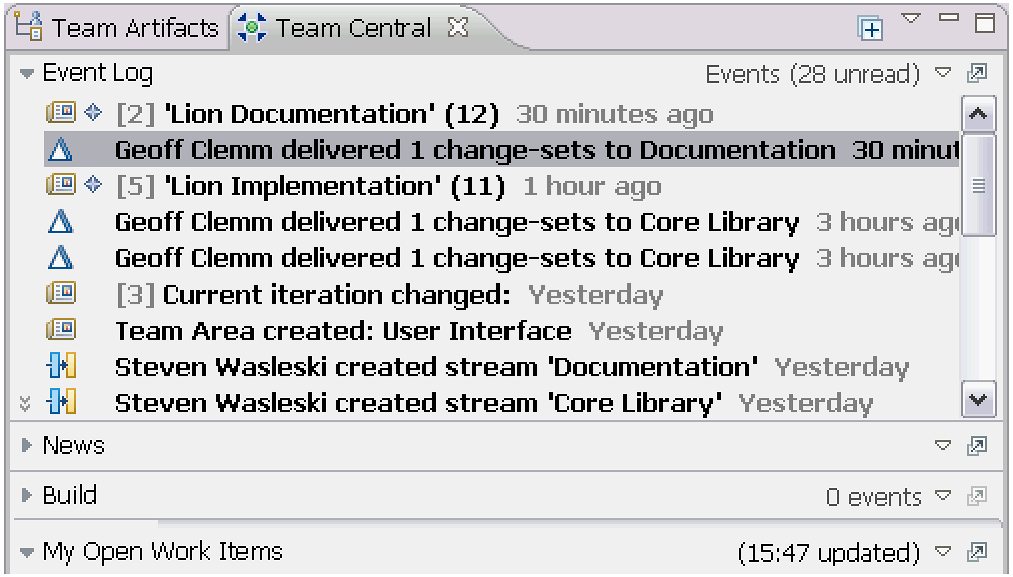
Deliver (succeeded)
Save Work Item (succeeded)

State
Deliver completed successfully.

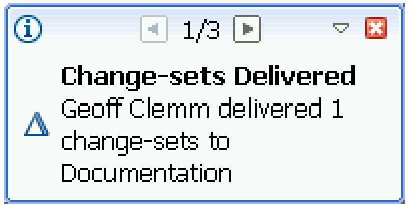
Details
Deliver change sets from source workspace "April's Core Library Workspace" to target stream "Core Library".

Why did this happen?

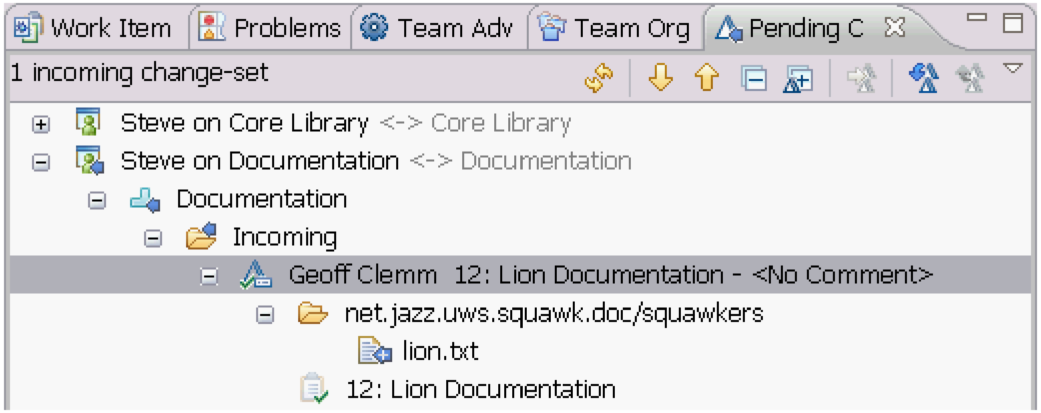
Delivery Notifications



[2] 'Lion Documentation' (12) 30 minutes ago
Geoff Clemm delivered 1 change-sets to Documentation 30 minut
[5] 'Lion Implementation' (11) 1 hour ago
Geoff Clemm delivered 1 change-sets to Core Library 3 hours ag
Geoff Clemm delivered 1 change-sets to Core Library 3 hours ag
[3] Current iteration changed: Yesterday
Team Area created: User Interface Yesterday
Steven Wasleski created stream 'Documentation' Yesterday
Steven Wasleski created stream 'Core Library' Yesterday



Change-sets Delivered
Geoff Clemm delivered 1 change-sets to Documentation



1 incoming change-set

```
⊞ Steve on Core Library <-> Core Library
⊟ Steve on Documentation <-> Documentation
    ⊟ Documentation
        ⊟ Incoming
            ⊟ Geoff Clemm  12: Lion Documentation - <No Comment>
                ⊟ net.jazz.uws.squawk.doc/squawkers
                      lion.txt
                12: Lion Documentation
```

Agenda

- Today’s Software Development Landscape
- All that Jazz
- Rational Team Concert
  - Overview
  - Getting Started with a new Team
  - Software Configuration Management
- Managing Builds and Deployment
- Change Management
- Wrap-up and Next Steps

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Managing Builds and Deployment

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CARM

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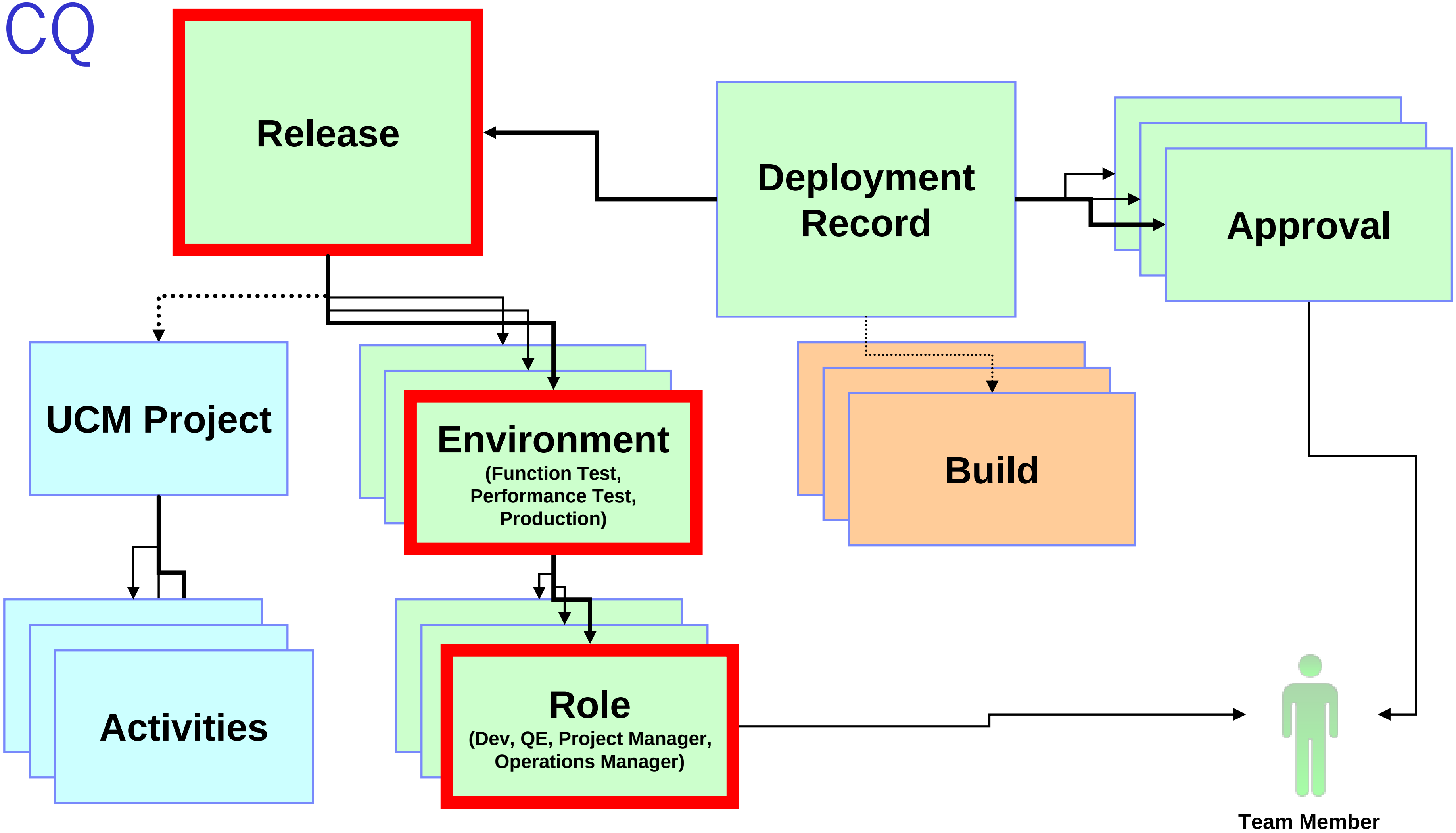
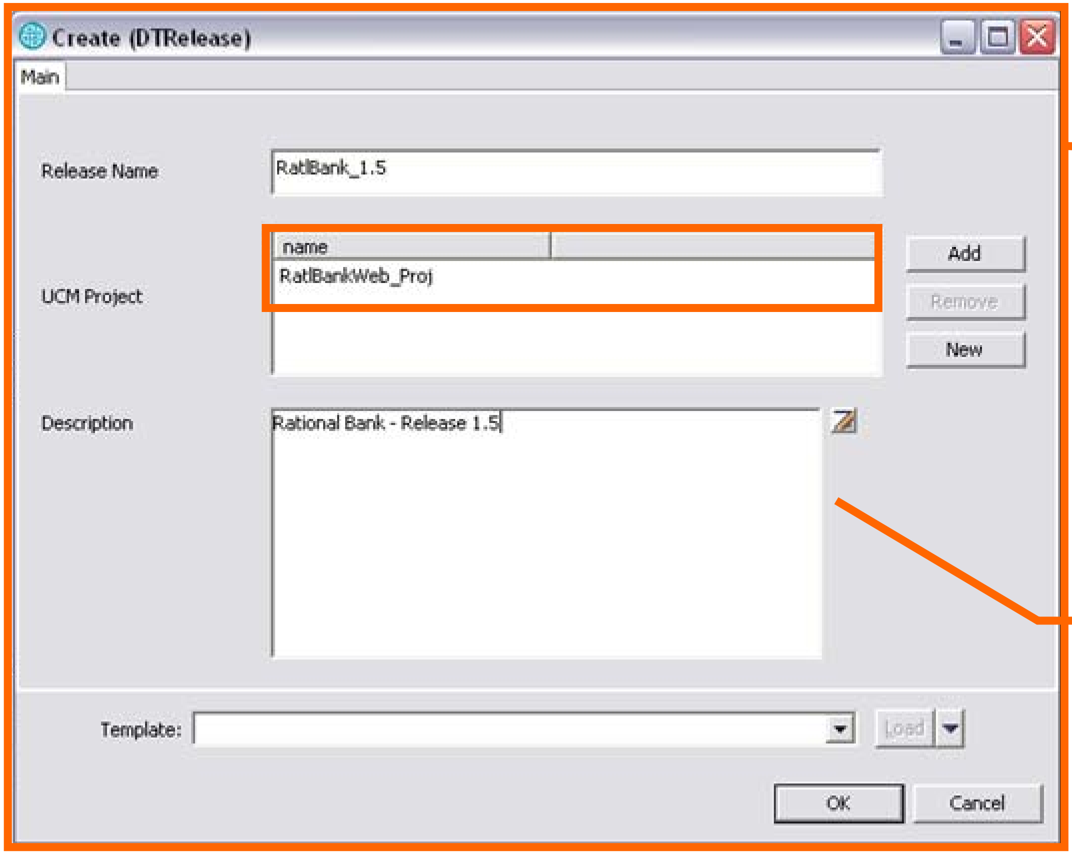
Build and Deployment Tracking Records in CQ


Release
Deployment Record
Approval
UCM Project
Environment
(Function Test, Performance Test, Production)
Build
Activities
Role
(Dev, QE, Project Manager, Operations Manager)
Team Member

Define the release



Create (DTRelease)

Release Name: RatlBank_1.5

UCM Project:

name	
RatlBankWeb_Proj	

Description: Rational Bank - Release 1.5

Template:

Project Manager creates a Release record to represent the release

Choosing a UCM Project to associate with the release provides a link to UCM activities

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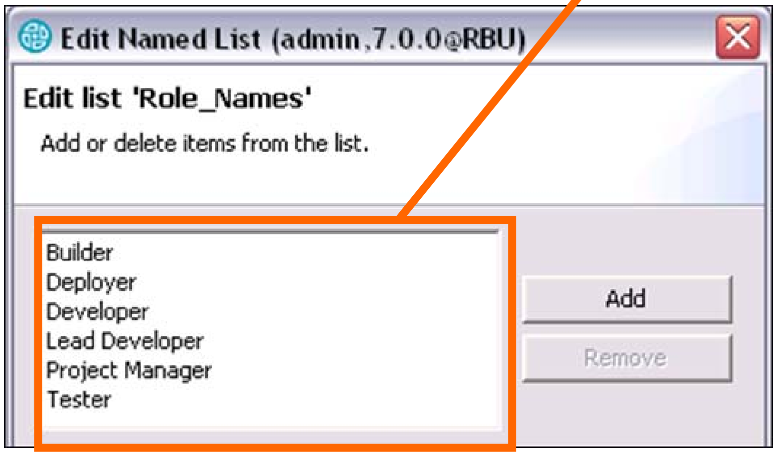
Define the roles



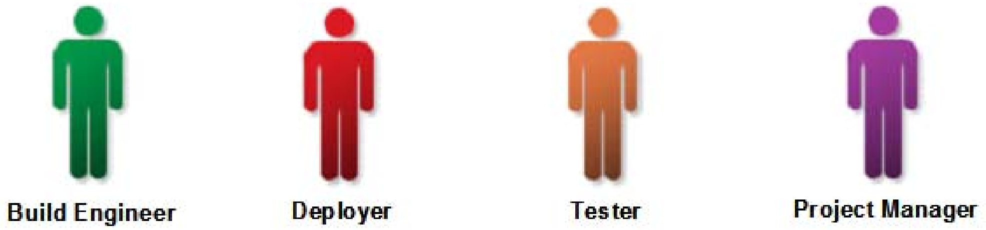
Edit Named List (admin,7.0.0@RBU)

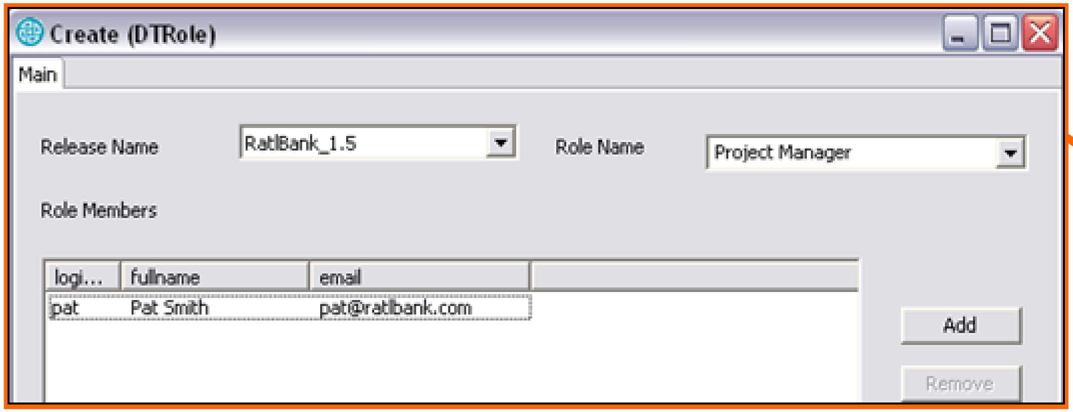
Edit list 'Role_Names'

Add or delete items from the list.

- Builder
- Deployer
- Developer
- Lead Developer
- Project Manager
- Tester

Defining role names modeled on the role hierarchy in your organization





Create (DTRole)

Main

Release Name: RatlBank_1.5

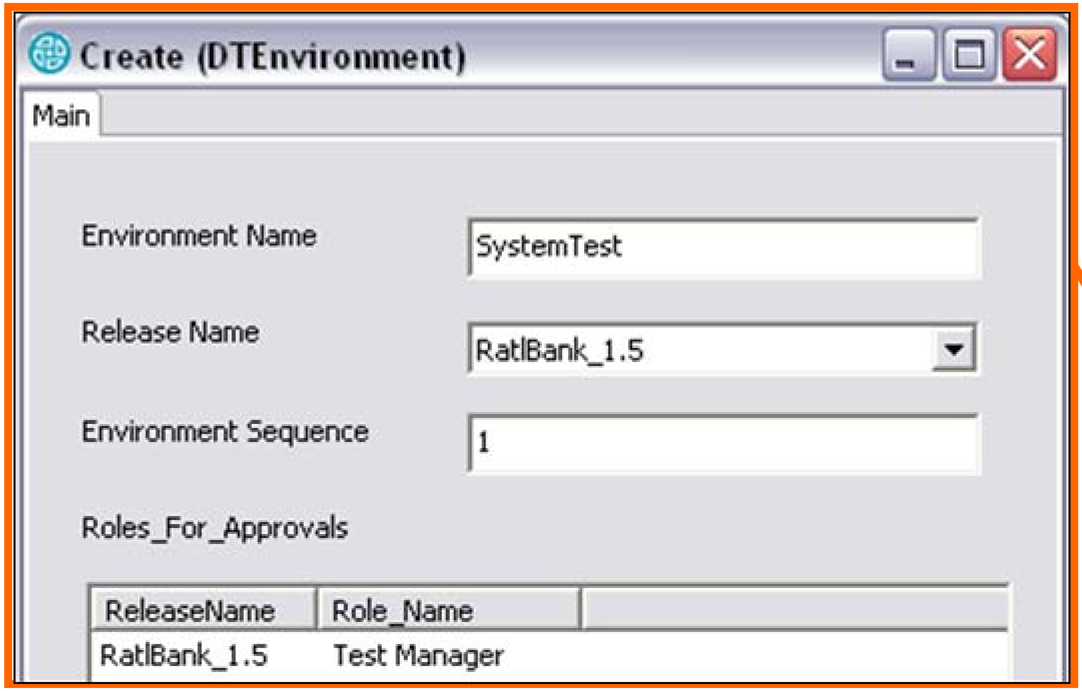
Role Name: Project Manager

Role Members

logi...	fullname	email
pat	Pat Smith	pat@ratlbank.com

Project Manager creates one or more Roles and associate them with a Release

Define environments



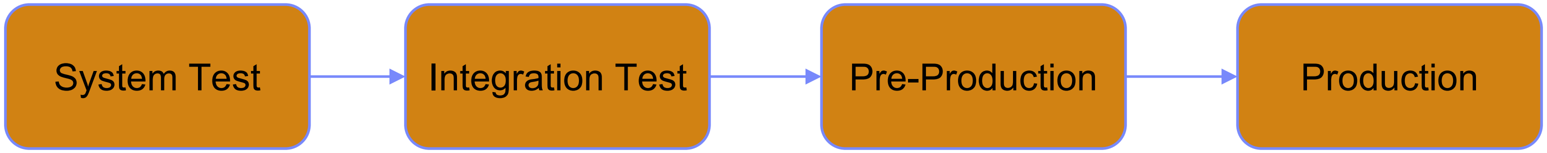
Create (DTEnvironment)

Environment Name	SystemTest
Release Name	RatlBank_1.5
Environment Sequence	1

Roles_For_Approvals

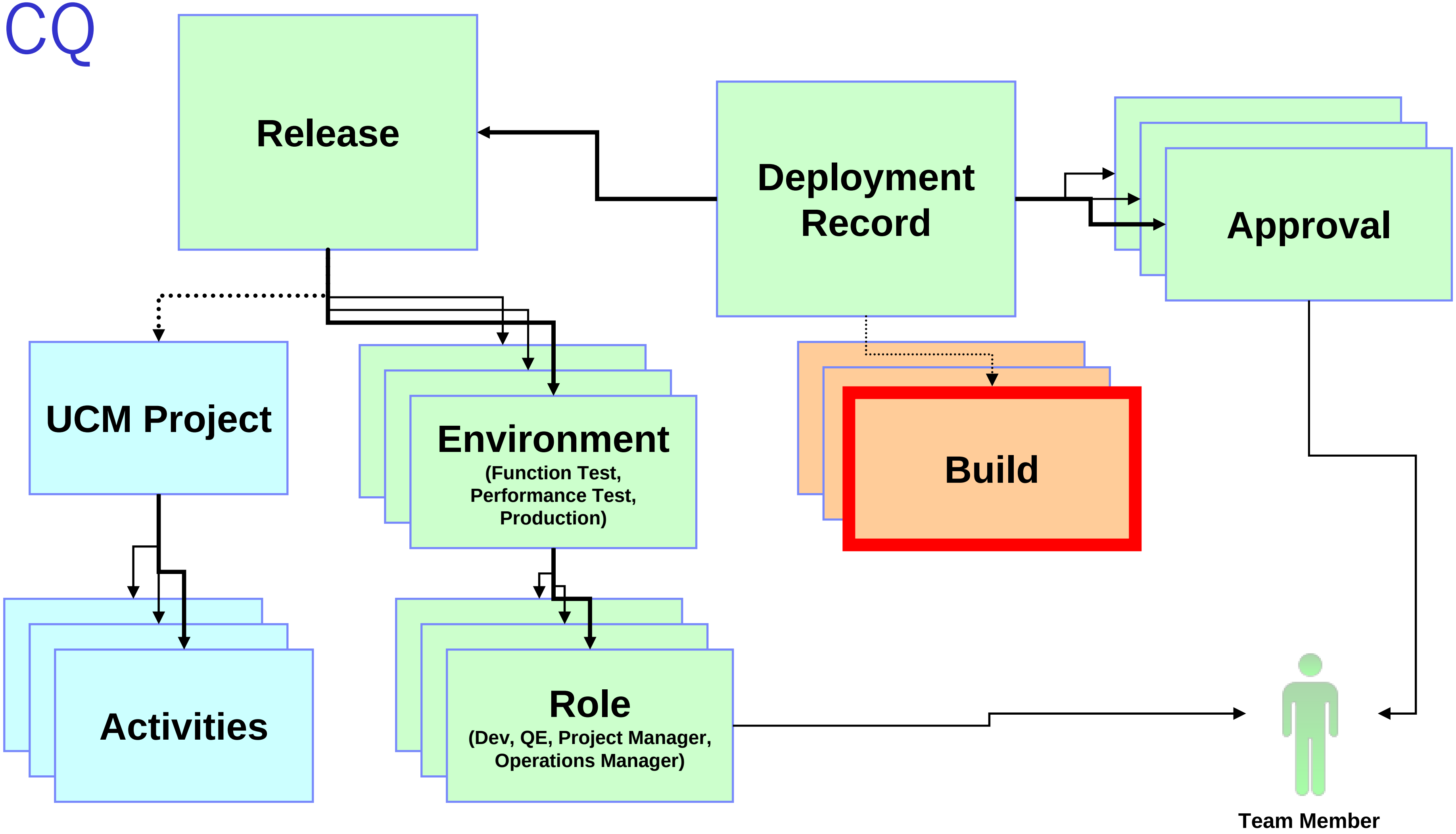
ReleaseName	Role_Name
RatlBank_1.5	Test Manager

Project Manager creates one or many Test Environments for a Release



System Test → Integration Test → Pre-Production → Production

Build and Deployment Tracking Records in CQ



Release
Deployment Record
Approval
UCM Project
Environment
(Function Test, Performance Test, Production)
Build
Activities
Role
(Dev, QE, Project Manager, Operations Manager)
Team Member

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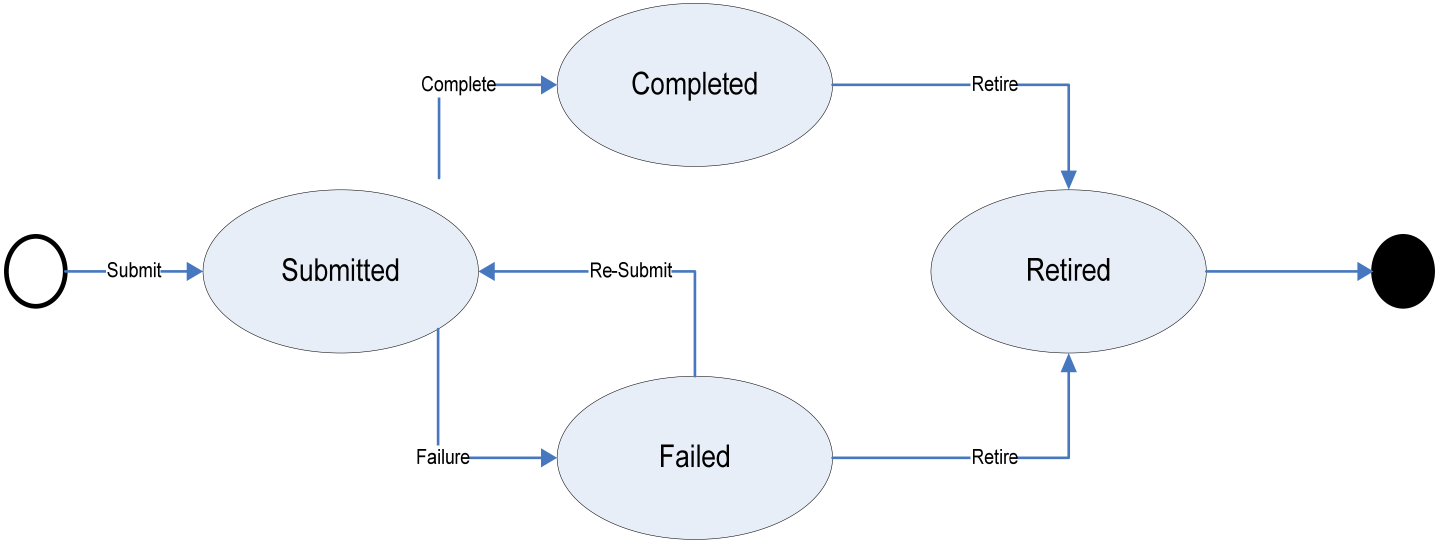
Build tracking

§ A Build Record in CQ is used for tracking the build results related to compliance traceability

The build record has a pre-defined workflow is a stateful record with the following states:

- **Submitted** - build has been started
- **Completed** - build has completed without errors
- **Failed** - build has failed
- **Retired** - this build record is no longer relevant.



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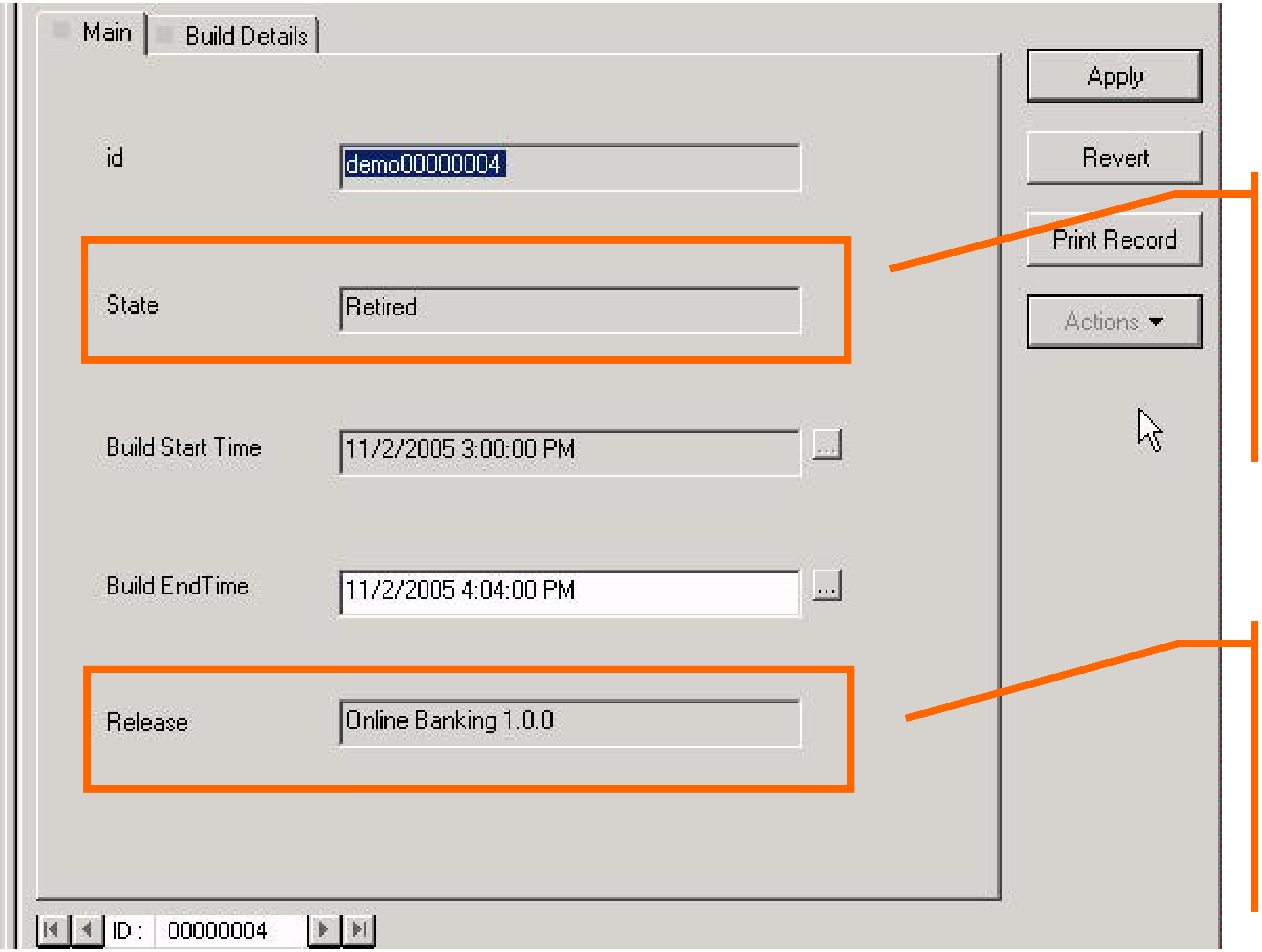
Build record



id	demo00000004
State	Retired
Build Start Time	11/2/2005 3:00:00 PM
Build EndTime	11/2/2005 4:04:00 PM
Release	Online Banking 1.0.0

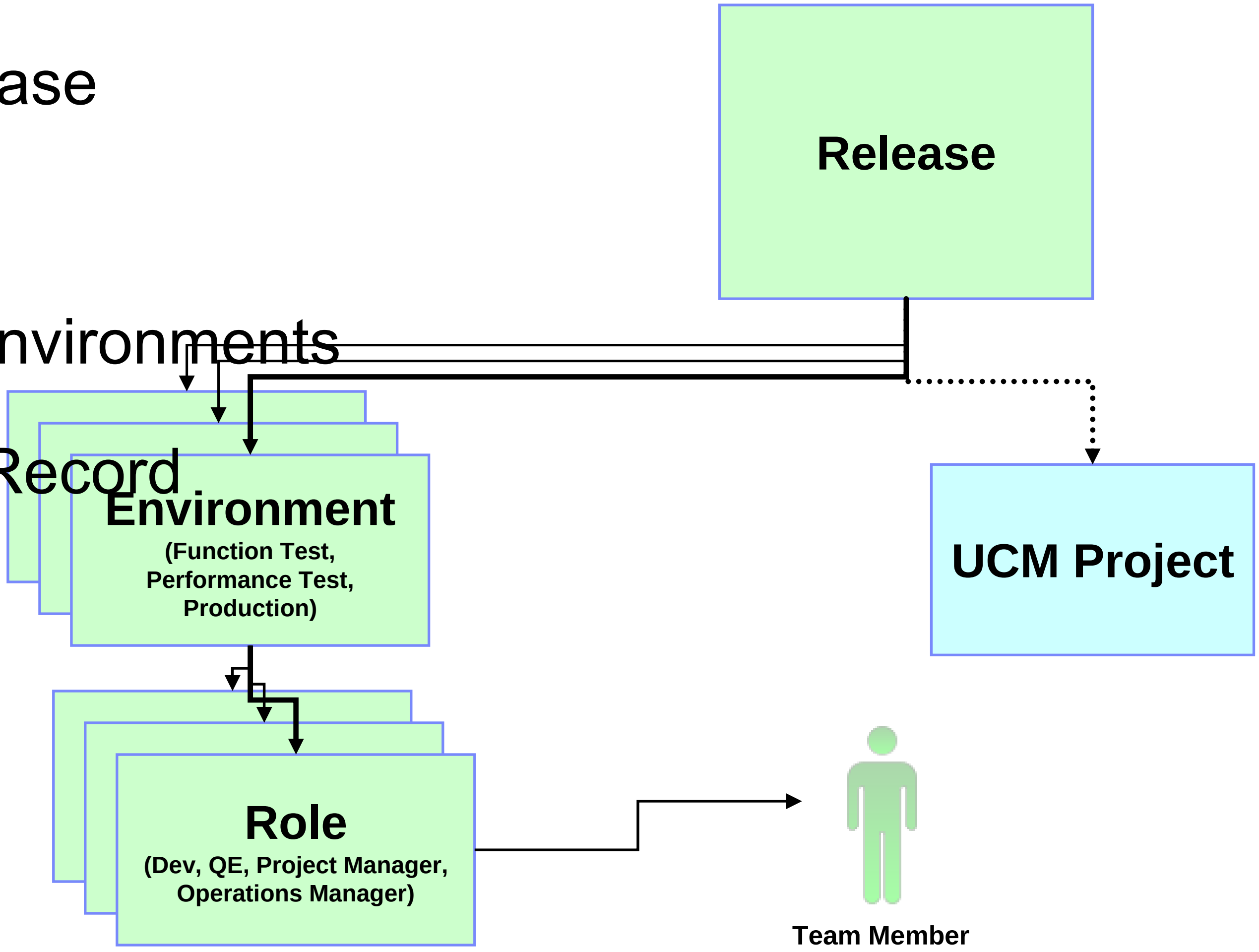
ID : 00000004

States communicate status of the build: Submitted Complete, Failed, Retired

Aggregate build records for each release

Demo: Managing Builds and Deployment

- Define a Release
- Define Roles
- Define Test Environments
- Create Build Record



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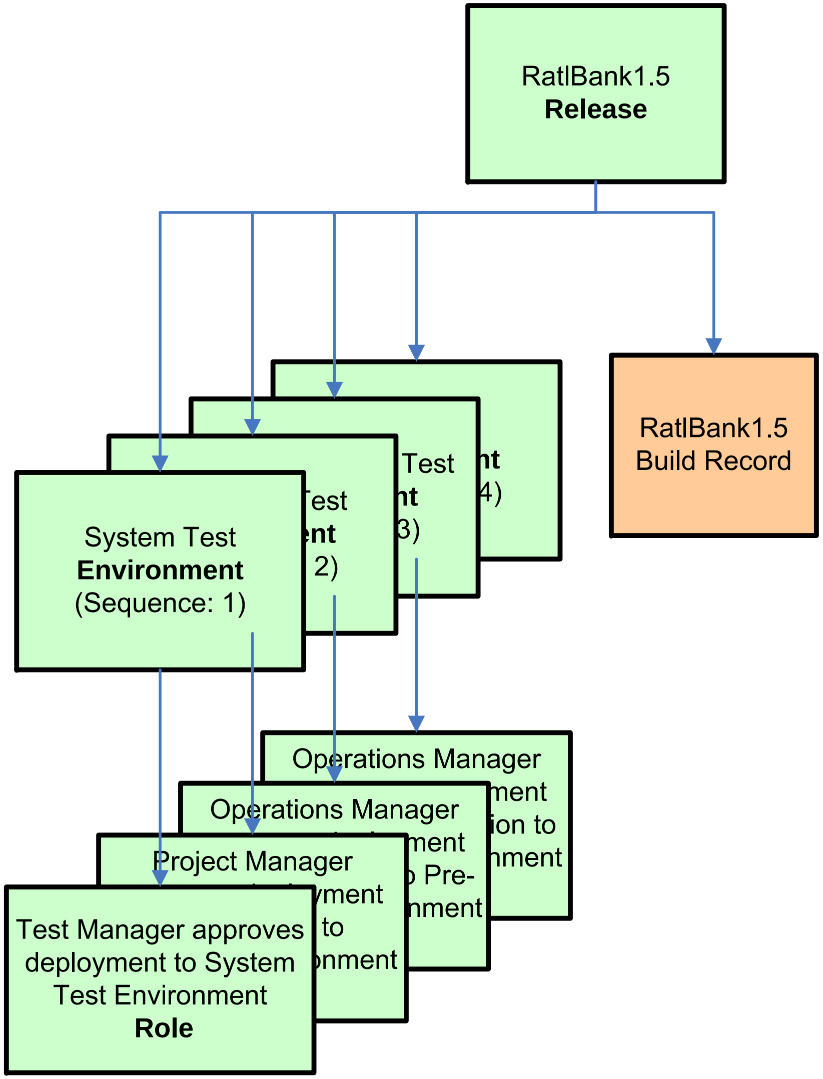
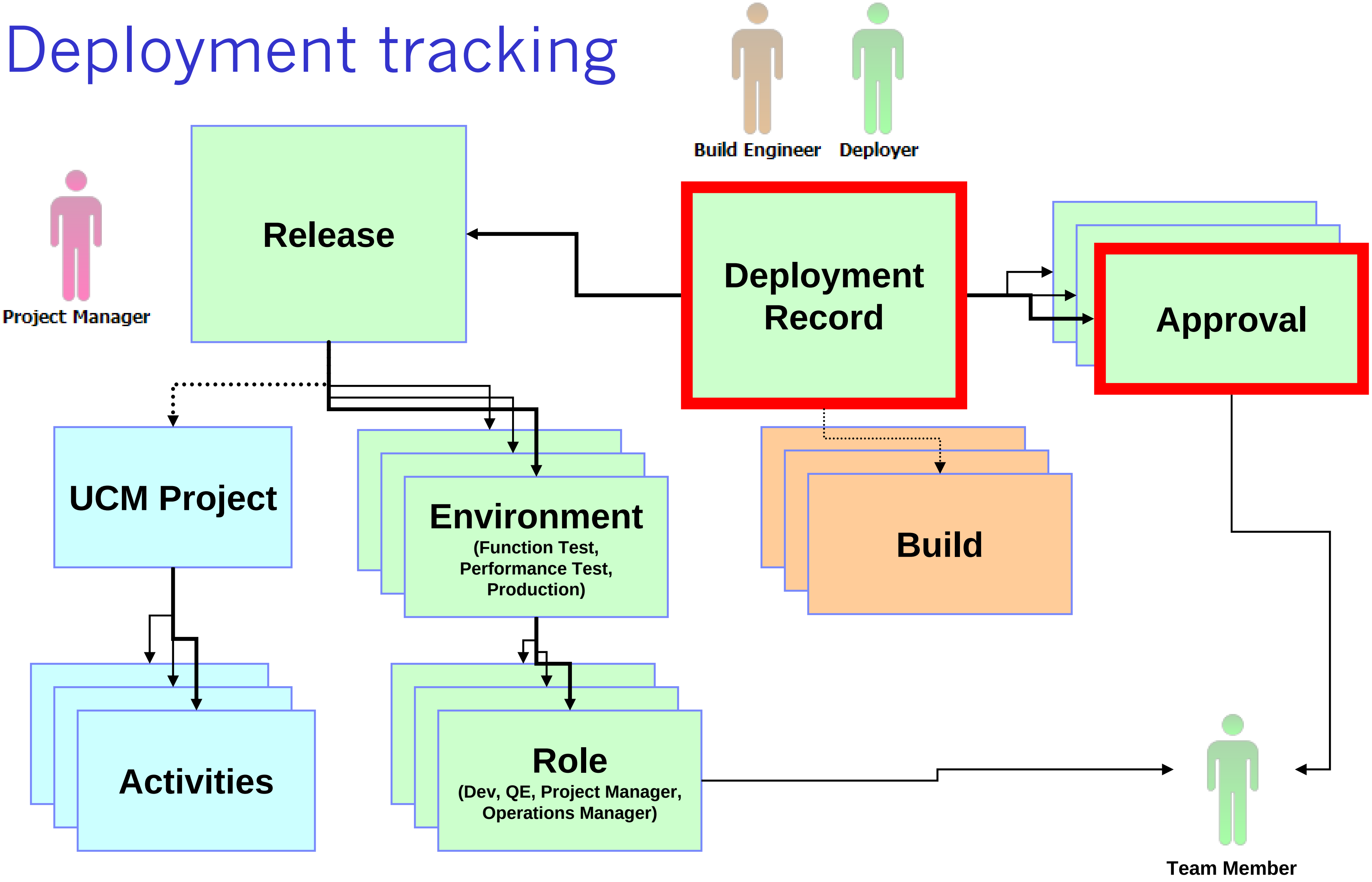
Summary of what we configured in ClearQuest:



Deployment tracking



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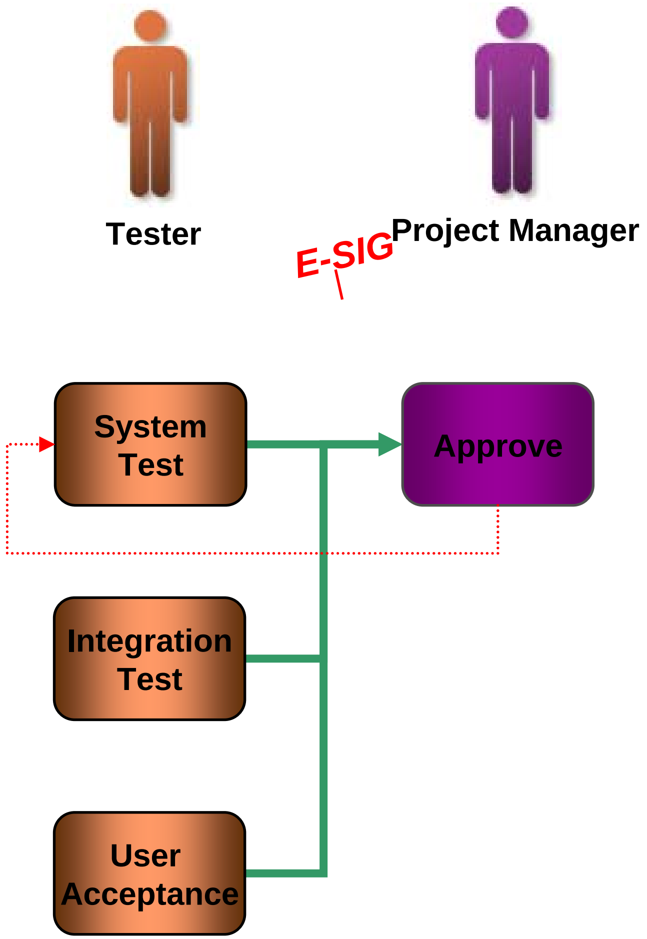
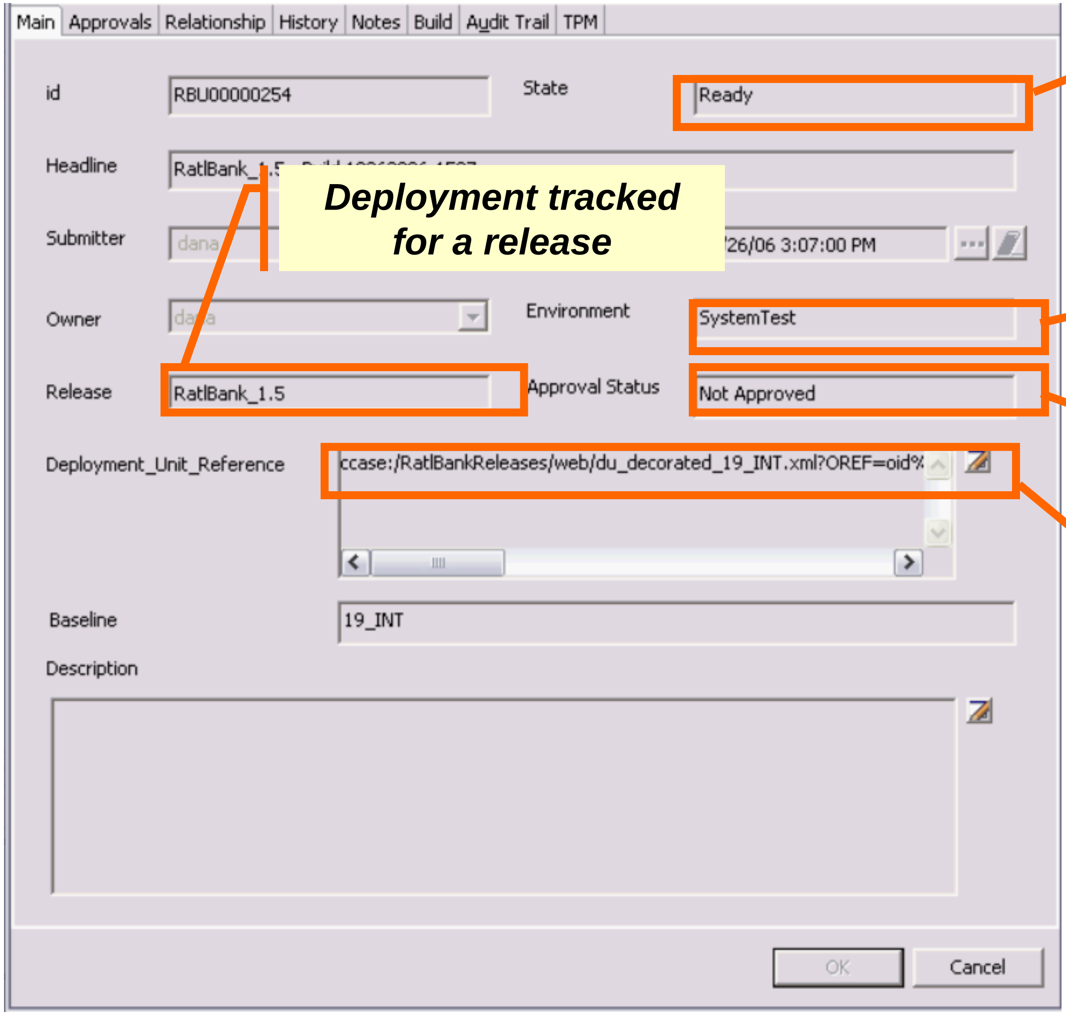
Deployment tracking

- For each Release, define the test environments and approvals needed
- Create Deployment records that track the state of a deployment through the test environments
- Create Deployment Units to describe which managed artifacts to deploy
- Optionally link the deployment record to build record(s) for traceability between the build and the deployment



Track deployments

Deployment records track each deployment



id: RBU00000254

State: Ready

Headline: RatlBank_1.5

Submitter: dana /26/06 3:07:00 PM

Owner: dana

Environment: SystemTest

Release: RatlBank_1.5

Approval Status: Not Approved

Deployment_Unit_Reference: ccase:/RatlBankReleases/web/du_decorated_19_INT.xml?OREF=oid%

Baseline: 19_INT

Description:

Deployment tracked for a release

Indicates current state for the environment

Records move through the pre-determined environments

Approvals provide auditable gates for deploying into an environment

Versioned Deployment Units identify build artifacts to deploy

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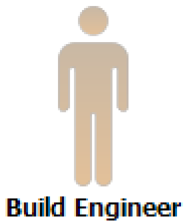
Preparing the deployment unit



1. Create Deployment Unit “template”

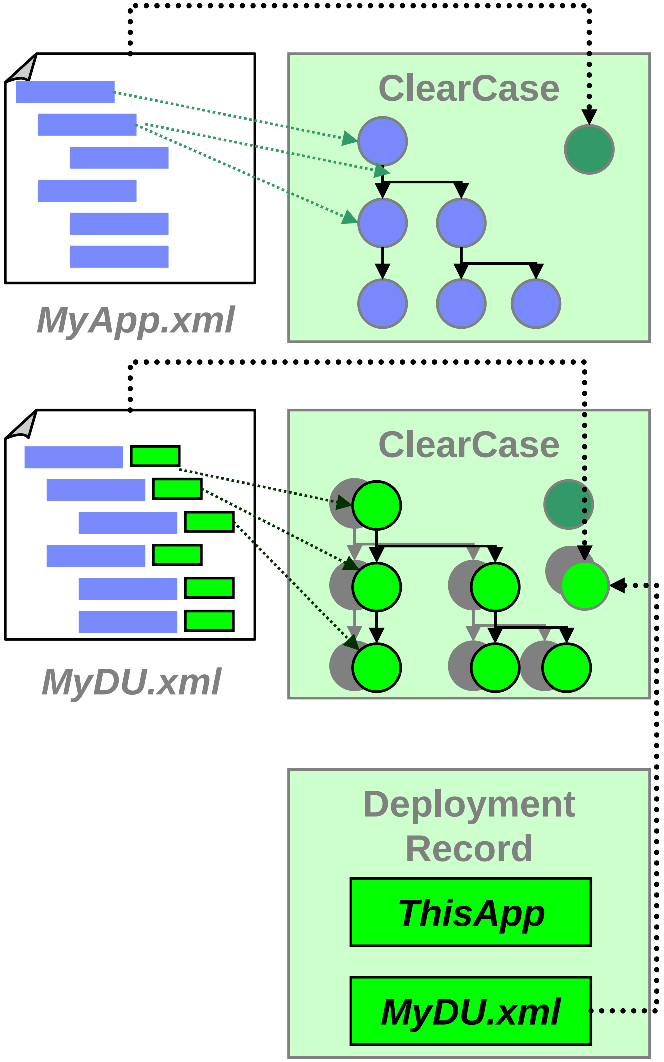
Create View of build artifacts
Capture list of files
Check into ClearCase

2.Create *build specific* Deployment Unit

Build the system
Check-in the build artifacts
Capture version information
Check in Deployment Unit

3.Create Deployment Record

Create Deployment Record in CQ
Associate the Deployment Unit



Deployment unit template example

```
 <?xml version="1.0" encoding="UTF-8" ?>
```

Schema Info

```
<tracking:deployment_unit xmlns:xsi="http://www.w3.org/2001/XMLSchema-
   instance"
   xmlns:tracking="http://www.ibm.com/deployment/schema/deploymentTracking.xsd"
   name="My Test Application" version="1.0">
```

Changes to this file

```
  <history changeOperation="Generate" changeNote="" user="medawson"
   hostname="melamine.yourco.com" datetime="2005-11-02T09:13:38-0500" />

  <file path="/vobs/test_vob/shlib/foo.so" orig_path="foo.so" />
  <file path="/vobs/test_vob/shlib/bar.so" orig_path="bar.so" />
  <file path="/vobs/test_vob/shlib/baz.so" orig_path="baz.so" />
  <file path="/vobs/test_vob/shlib/linked_foo.txt" orig_path="linked_foo.txt" />
```

List of files & their location

```
</tracking:deployment_unit>
```

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Change Management

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CARM

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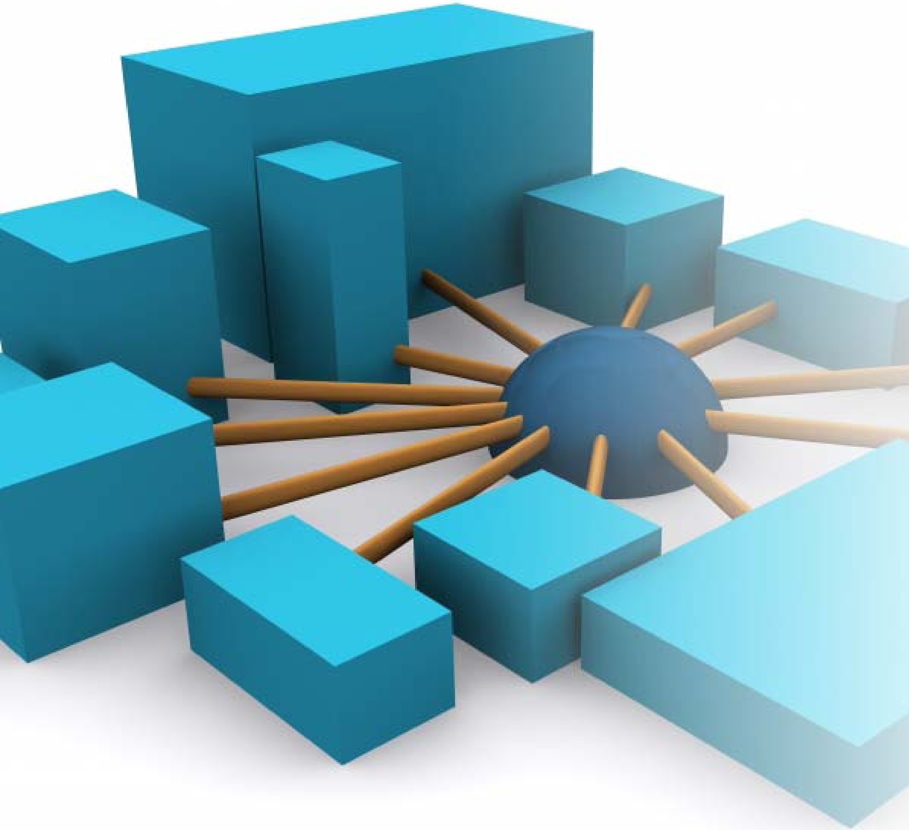
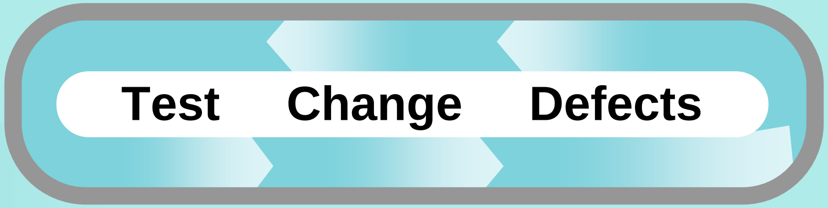
The hub for life-cycle management

Govern the test and development process



IBM Rational ClearQuest



Test Change Defects

- Single project view
- Global test project coordination
- Configurable, enforceable processes
- Extensible test ecosystem

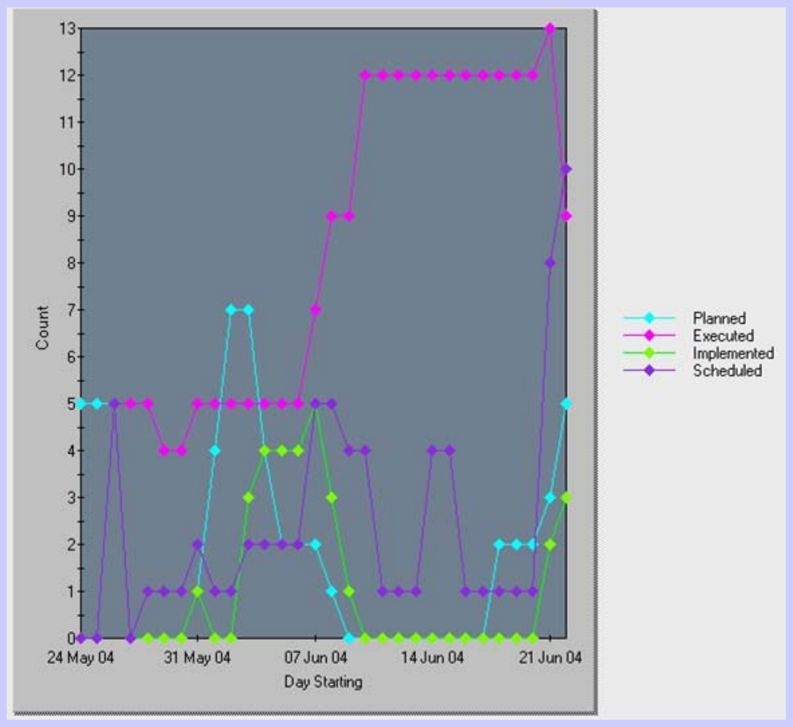
IBM Rational ClearQuest

Single project view

Single solution to manage tests, defects and project change

- Benefits:
  - Single reporting solution for all development metrics
  - Traceable, auditable relationships between development, test and project artifacts
    - Manages test planning, test results, quality metrics, and defects
    - Central repository with integrated version control
    - Comprehensive, customizable quality metrics reports
    - Centralized user management

Defect Trending



IBM Rational ClearQuest

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Activity-based change management

- Simplifies key SCM functions and workflows
- Easy to adopt
- Optimized for team productivity
- Based on hundreds of successful CM implementations

Unified Change Management

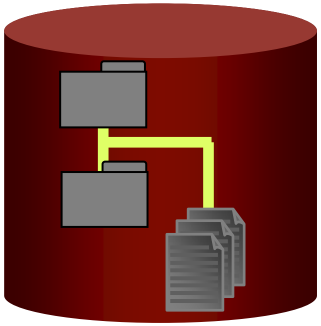
Manage Activities

- To Do Lists
- Automated Workflow

Manage Assets

- Versioning: code, models, XML, HTML
- Parallel development

Manages High-level Objects



- ✓ Components
- ✓ Streams
- ✓ Baselines
- ✓ Activities

IBM Rational ClearCase and IBM Rational ClearQuest

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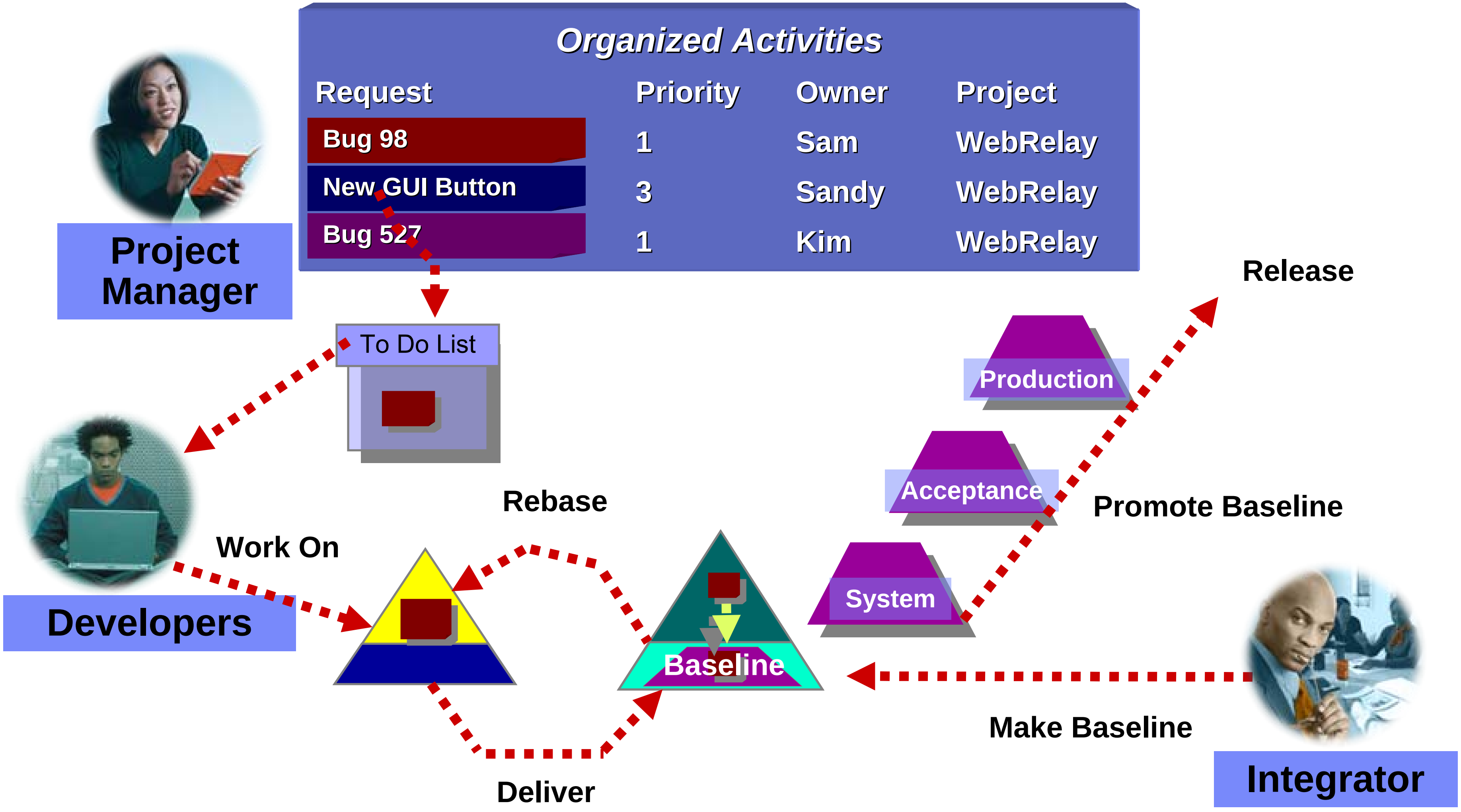
UCM workflow



Organized Activities

Request	Priority	Owner	Project
Bug 98	1	Sam	WebRelay
New GUI Button	3	Sandy	WebRelay
Bug 527	1	Kim	WebRelay

Unified Change Management

- UCM activities automatically manage change sets
  - Activities in IBM Rational ClearQuest track IBM Rational ClearCase assets
  - Developers, integrators, and testers work with activities, not low-level assets

ClearQuest

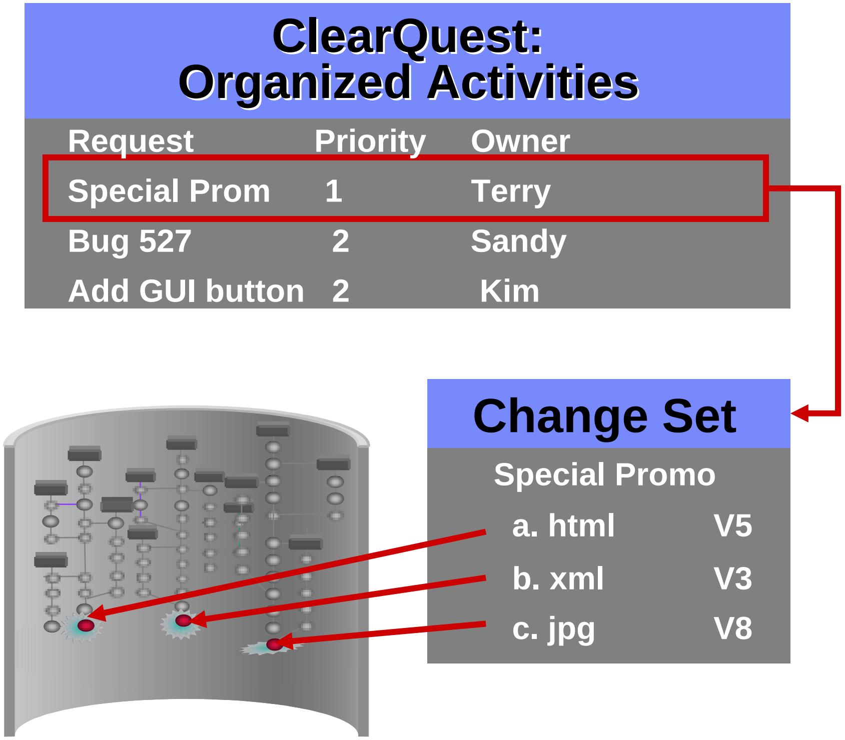
Manages activities

- To Do Lists
- Workflow

ClearCase

Manages assets

- Versioning: code, models, XML, HTML
- Parallel development



ClearQuest: Organized Activities

Request	Priority	Owner
Special Prom	1	Terry
Bug 527	2	Sandy
Add GUI button	2	Kim

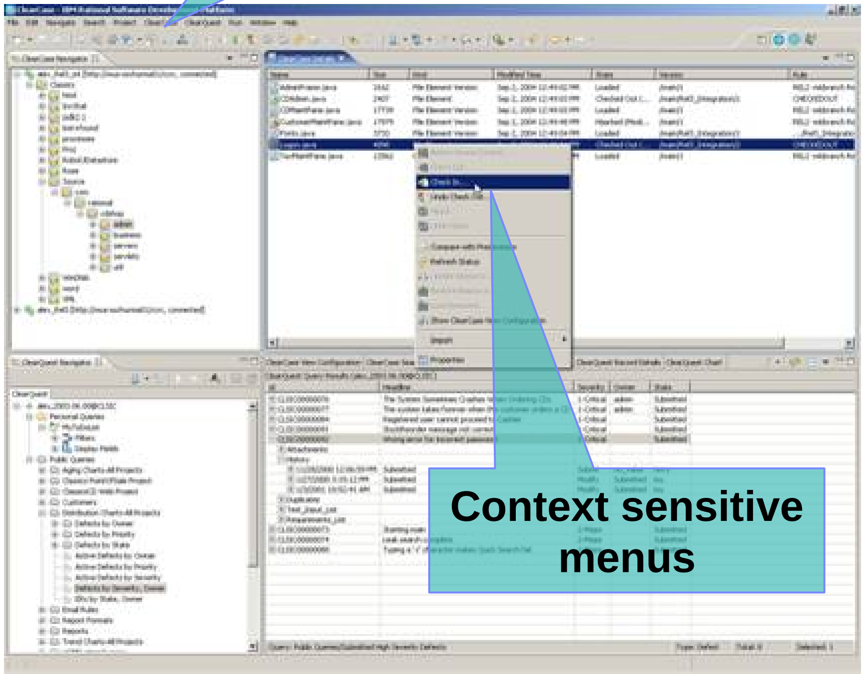
Change Set

Special Promo

a. html	V5
b. xml	V3
c. jpg	V8

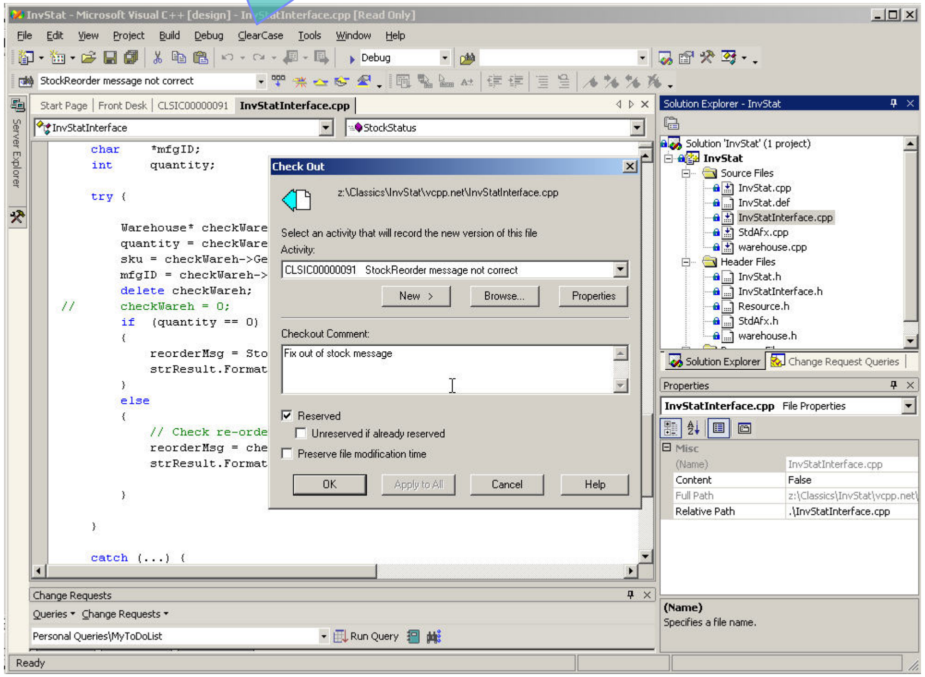
Manage change in *your* environment

Rational ClearCase and Rational ClearQuest Menu and Toolbar



Context sensitive menus

Rational ClearCase and Rational ClearQuest Menu and Toolbar


InvStat - Microsoft Visual C++ [design] - InvStatInterface.cpp [Read Only]
File Edit View Project Build Debug ClearCase Tools Window Help
Debug
StockReorder message not correct
Start Page | Front Desk | CLSIC00000091 | InvStatInterface.cpp
InvStatInterface
StockStatus
Server Explorer
Solution Explorer - InvStat
Solution 'InvStat' (1 project)
InvStat
Source Files
InvStat.cpp
InvStat.def
InvStatInterface.cpp
StdAfx.cpp
warehouse.cpp
Header Files
InvStat.h
InvStatInterface.h
Resource.h
StdAfx.h
warehouse.h
Solution Explorer
Change Request Queries
Properties
InvStatInterface.cpp File Properties
Misc
Change Requests
Queries
Change Requests
Personal Queries\MyToDoList
Run Query
Ready

```
        char     *mfgID;
        int      quantity;

        try {

            Warehouse* checkWare
            quantity = checkWare
            sku = checkWareh->Ge
            mfgID = checkWareh->
            delete checkWareh;
//          checkWareh = 0;
            if  (quantity == 0)
            {
                reorderMsg = Sto
                strResult.Format
            }
            else
            {
                // Check re-orde
                reorderMsg = che
                strResult.Format

            }

        }

        catch (...) {
```

Check Out

z:\Classics\InvStat\vcpp.net\InvStatInterface.cpp

Select an activity that will record the new version of this file

Activity: CLSIC00000091 StockReorder message not correct

New > | Browse... | Properties

Checkout Comment: Fix out of stock message

☑ Reserved

☐ Unreserved if already reserved

☐ Preserve file modification time

OK | Apply to All | Cancel | Help

(Name)	InvStatInterface.cpp
Content	False
Full Path	z:\Classics\InvStat\vcpp.net\
Relative Path	.\InvStatInterface.cpp

(Name)
Specifies a file name.

IBM Rational ClearCase and IBM Rational ClearQuest

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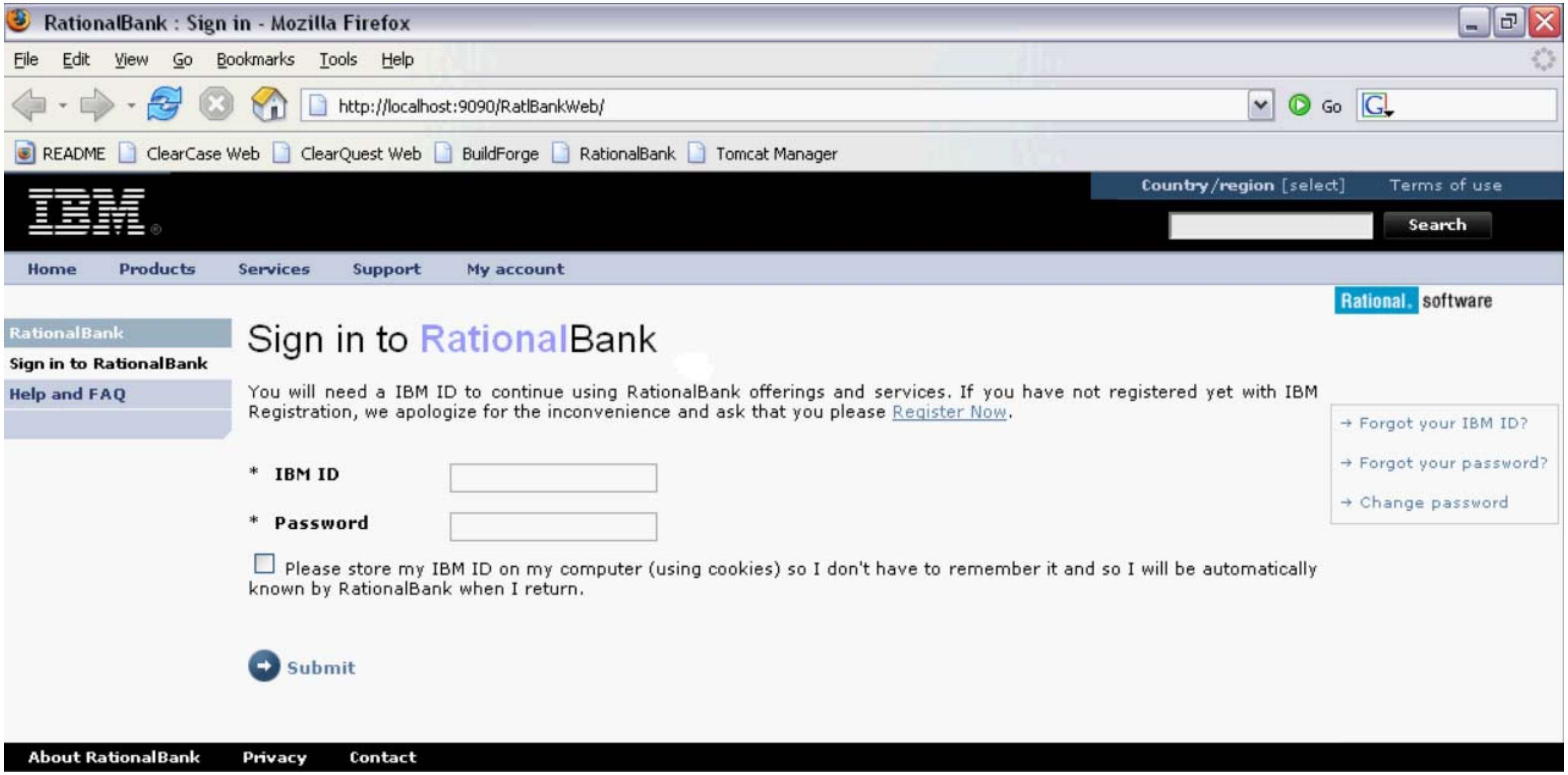
Demo Modifying the Application

- Web-based banking application (the “RatlBankWeb” application)
- Deployed to Apache Tomcat web server
- Release 2 under development
- Contains defect that needs to be resolved



RationalBank : Sign in - Mozilla Firefox

http://localhost:9090/RatlBankWeb/

README | ClearCase Web | ClearQuest Web | BuildForge | RationalBank | Tomcat Manager

Country/region [select] Terms of use

Search

Home Products Services Support My account

Rational. software

RationalBank
Sign in to RationalBank
Help and FAQ

Sign in to RationalBank

You will need a IBM ID to continue using RationalBank offerings and services. If you have not registered yet with IBM Registration, we apologize for the inconvenience and ask that you please Register Now.

→ Forgot your IBM ID?
→ Forgot your password?
→ Change password

* IBM ID

* Password

□ Please store my IBM ID on my computer (using cookies) so I don't have to remember it and so I will be automatically known by RationalBank when I return.

Submit

About RationalBank Privacy Contact

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Demo roles

- Pat – Project Manager
- Dana – Tester / Deployer
- Alex – Developer
- Jan -- Builder

Alex

Pat

Jan

Dana

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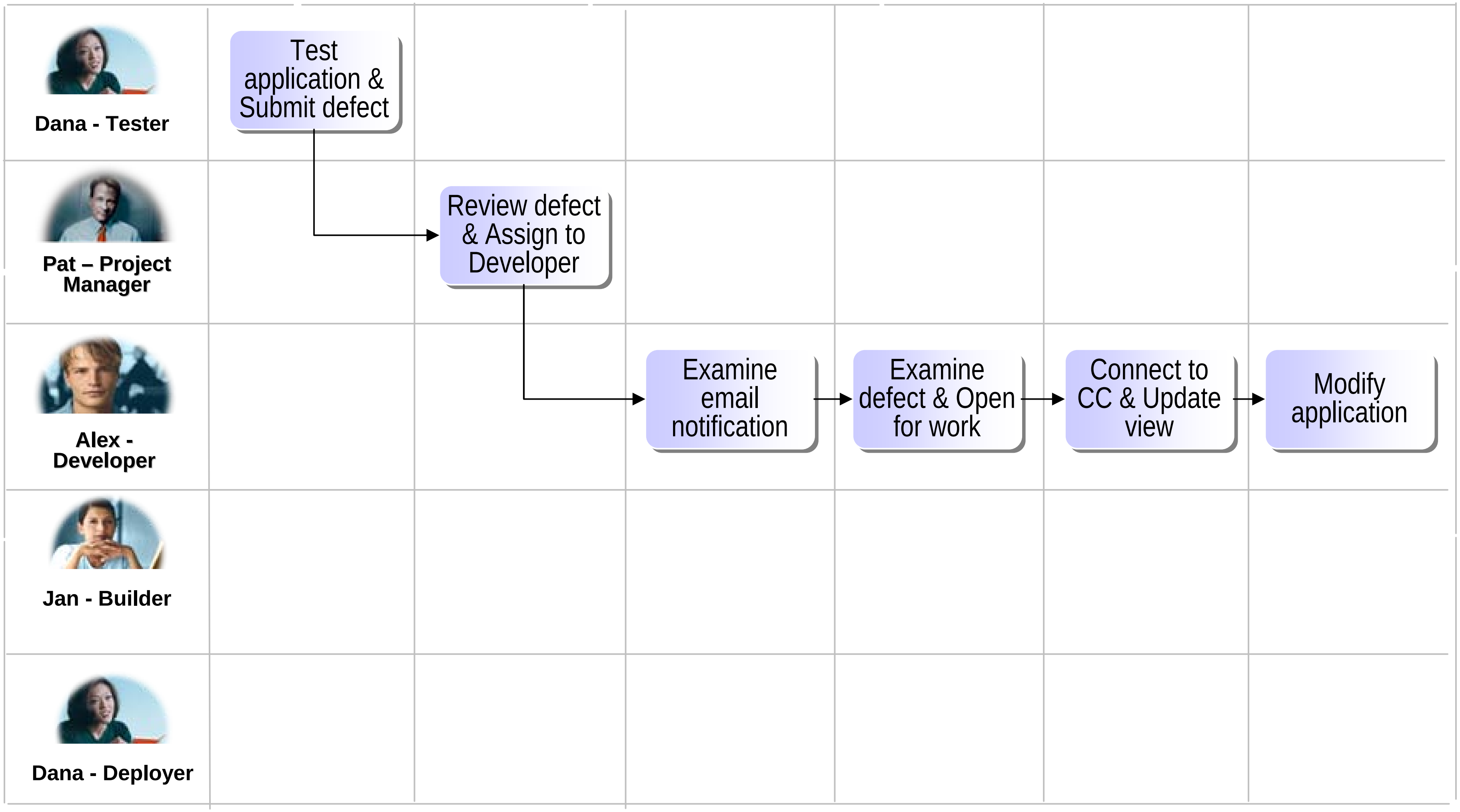
Demo - Sequence of events



Dana - Tester

Test application & Submit defect

Pat – Project Manager

Review defect & Assign to Developer

Alex - Developer

Examine email notification

Examine defect & Open for work

Connect to CC & Update view

Modify application

Jan - Builder

Dana - Deployer

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Build Management

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Objectives

§ Demonstrate use of Build Forge Management Console to execute Builds

§ View detailed results of each build including success/failure, build times, bill of materials

§ Observe integration between Build Forge and ClearQuest and ClearCase

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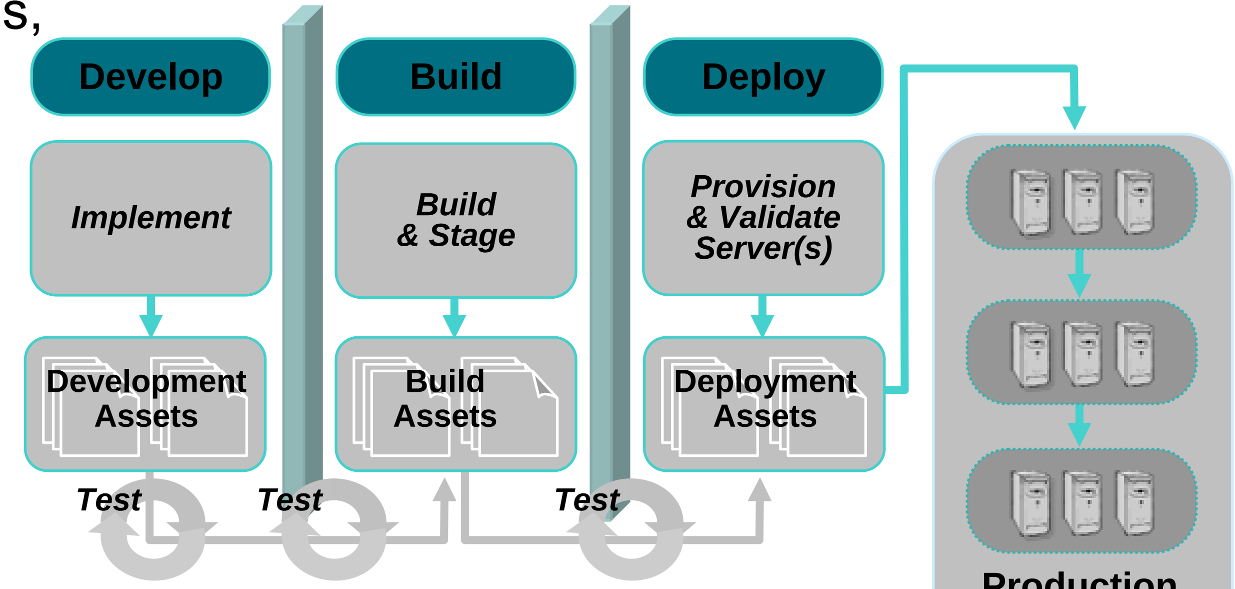
Challenge: Silos between Development, Build and Deployment

- Difficulty tracking testing status of multiple builds
- No shared processes, artifacts or controls
- “Over the wall” communication
- Minimal reuse



- Labor intensive
- Error prone handoffs

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Software Delivery Challenges

Typical Challenges	Business Impact
Manual, **error-prone** tasks and processes	**Delays and missed deadlines** for application releases/updates
Proprietary, **internally-developed** systems	**Costly** systems to support, troubleshoot and maintain; **High Risk** with assembly and build knowledge held by few
Inconsistent processes for different products and platforms	**Unpredictable** product release cycles, **limited repeatability and portability**
Dependence on the build team for setup, execution, status, and troubleshooting	**Bottlenecks** occur without **increased headcount** to handle additional volume
Separation of developer **environments** from test and production systems	**Unauthorized changes** to build and test systems lead to **unpredictable results**
Difficult and **time consuming to resolve** problems	Can lead to **delayed releases** and **customer satisfaction issues**
Compliance and governance objectives	Requires better **tracking and auditing** throughout the application lifecycle

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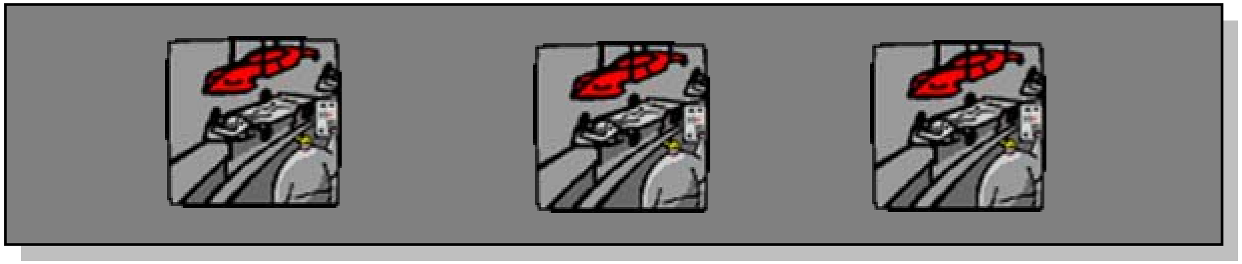
Automating the Software Delivery Lifecycle

- **Manages the “assembly” phase of the development lifecycle**
  - Build and release process management
  - The part of the lifecycle between coding (source control) and deployment
  - Automate manual, repetitive task allowing focus on more strategic functions
  - This segment of the lifecycle is very immature today! (home grown scripts)



- **Build Forge is a process execution framework**
  - Automates the process of creating a deployable application from source artifacts
  - The part of the lifecycle between coding (source control) and deployment
  - Self documenting system

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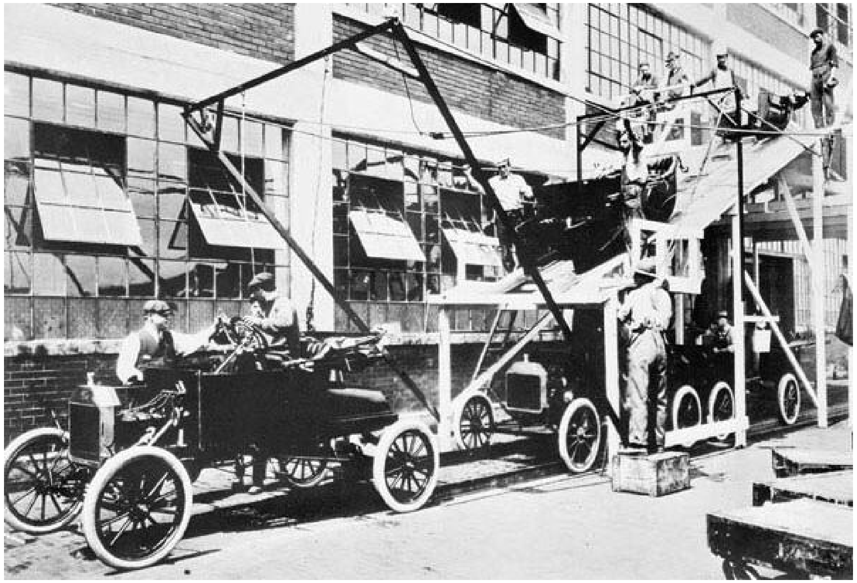
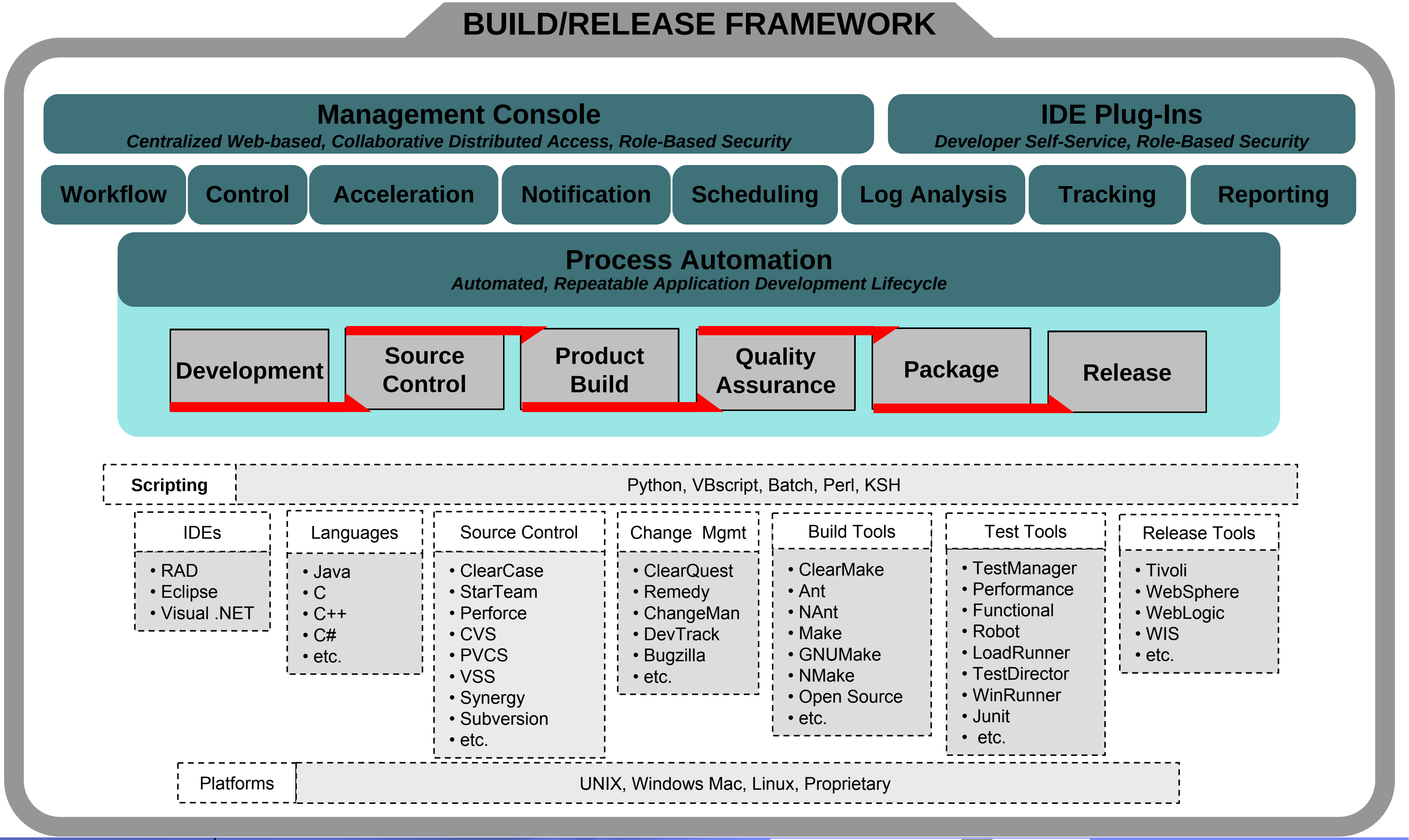
Streamlining Software Delivery with Build Forge Express Edition

- **Build Forge Express Edition is a process execution framework**
  - Automates the process of creating a deployable application from source artifacts
  - Eliminates manual handoffs between code, build, test, package, and deploy teams
  - Self documenting system
- **Manages the "assembly" phase of the development lifecycle**
  - Build and release process management
  - The part of the lifecycle between coding (source control) and deployment
  - This segment of the lifecycle is <u>very</u> immature today! (home grown scripts)



System Overview



BUILD/RELEASE FRAMEWORK

Management Console

Centralized Web-based, Collaborative Distributed Access, Role-Based Security

IDE Plug-Ins

Developer Self-Service, Role-Based Security

Workflow **Control** **Acceleration** **Notification** **Scheduling** **Log Analysis** **Tracking** **Reporting**

Process Automation

Automated, Repeatable Application Development Lifecycle

Development **Source Control** **Product Build** **Quality Assurance** **Package** **Release**

Scripting Python, VBscript, Batch, Perl, KSH

IDEs
- RAD
- Eclipse
- Visual .NET

Languages
- Java
- C
- C++
- C#
- etc.

Source Control
- ClearCase
- StarTeam
- Perforce
- CVS
- PVCS
- VSS
- Synergy
- Subversion
- etc.

Change Mgmt
- ClearQuest
- Remedy
- ChangeMan
- DevTrack
- Bugzilla
- etc.

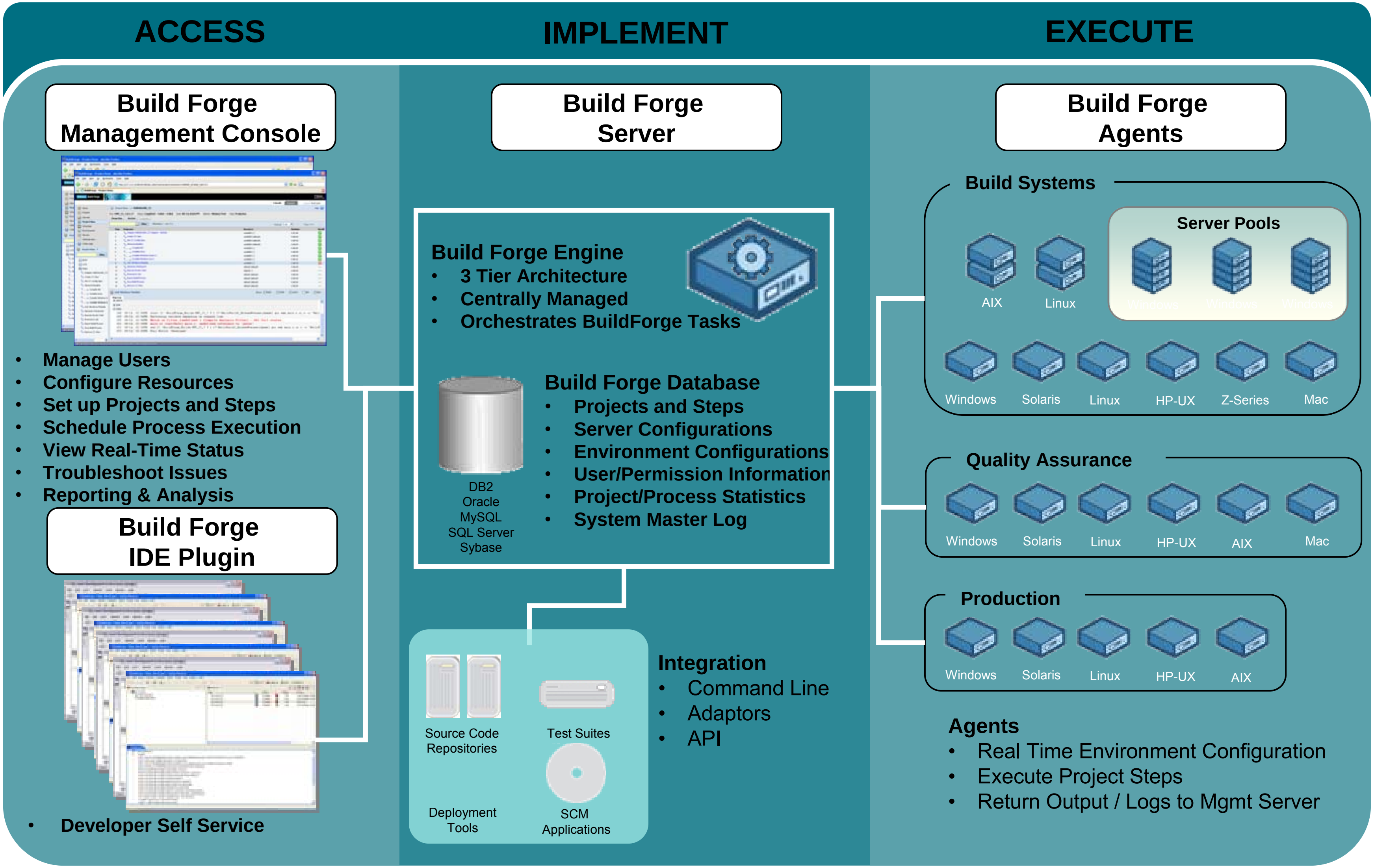
Build Tools
- ClearMake
- Ant
- NAnt
- Make
- GNUMake
- NMake
- Open Source
- etc.

Test Tools
- TestManager
- Performance
- Functional
- Robot
- LoadRunner
- TestDirector
- WinRunner
- Junit
- etc.

Release Tools
- Tivoli
- WebSphere
- WebLogic
- WIS
- etc.

Platforms UNIX, Windows Mac, Linux, Proprietary

Functional Architecture



ACCESS

Build Forge Management Console

- Manage Users
- Configure Resources
- Set up Projects and Steps
- Schedule Process Execution
- View Real-Time Status
- Troubleshoot Issues
- Reporting & Analysis

Build Forge IDE Plugin

- Developer Self Service

IMPLEMENT

Build Forge Server

Build Forge Engine

- 3 Tier Architecture
- Centrally Managed
- Orchestrates BuildForge Tasks

Build Forge Database

- Projects and Steps
- Server Configurations
- Environment Configurations
- User/Permission Information
- Project/Process Statistics
- System Master Log

Integration

- Command Line
- Adaptors
- API

EXECUTE

Build Forge Agents

Build Systems

Quality Assurance

Production

Agents

- Real Time Environment Configuration
- Execute Project Steps
- Return Output / Logs to Mgmt Server

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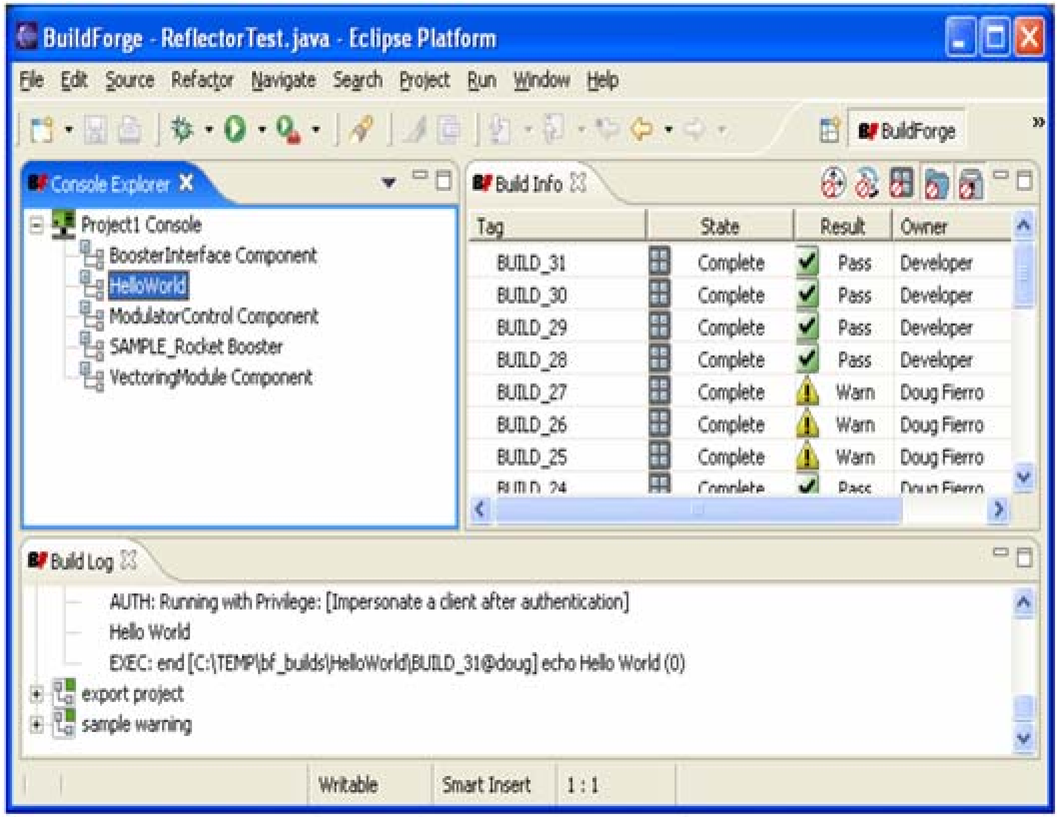
Introducing Developer self-service


BuildForge - ReflectorTest.java - Eclipse Platform
File Edit Source Refactor Navigate Search Project Run Window Help
BuildForge
Console Explorer
Project1 Console
BoosterInterface Component
HelloWorld
ModulatorControl Component
SAMPLE_Rocket Booster
VectoringModule Component
Build Info
Build Log
Writable
Smart Insert
1 : 1

Tag	State	Result	Owner
BUILD_31	Complete	✓ Pass	Developer
BUILD_30	Complete	✓ Pass	Developer
BUILD_29	Complete	✓ Pass	Developer
BUILD_28	Complete	✓ Pass	Developer
BUILD_27	Complete	⚠ Warn	Doug Fierro
BUILD_26	Complete	⚠ Warn	Doug Fierro
BUILD_25	Complete	⚠ Warn	Doug Fierro
BUILD_24	Complete	✓ Pass	Doug Fierro

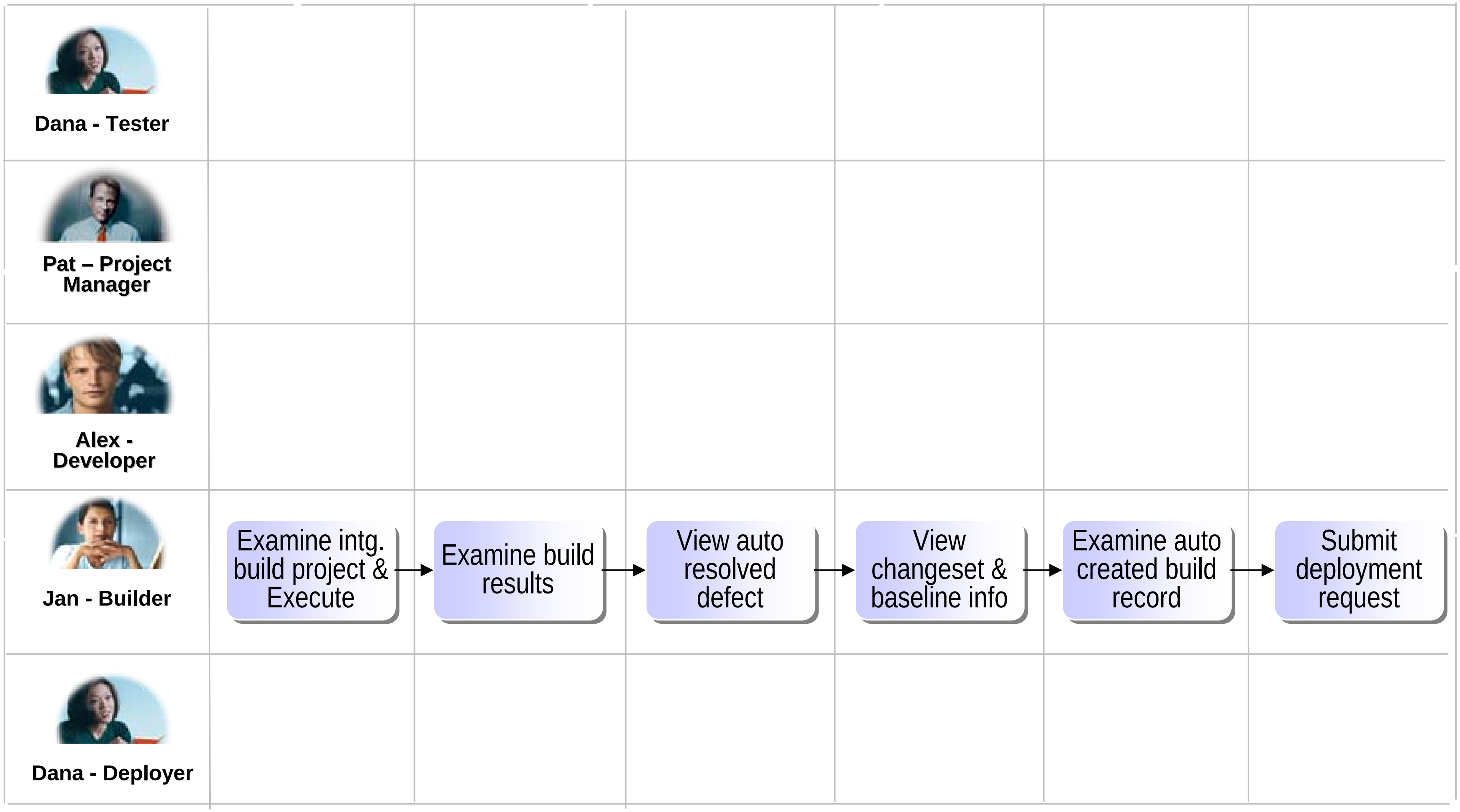
```
    AUTH: Running with Privilege: [Impersonate a client after authentication]
    Hello World
    EXEC: end [C:\TEMP\bf_builds\HelloWorld\BUILD_31@doug] echo Hello World (0)
+ export project
+ sample warning
```

Figure2- BuildForge Prism

Eclipse Plug-in for Rational Application Developer

- ***Developer self service***
  - Controlled access to established build processes helps break down the wall between development and CM/build activities and eliminates manual bottlenecks.
  - Developers can build their projects on demand and view results leveraging pre-configured environments and resources, all without having to leave their IDE.
- ***Pre-flight build support***
  - Improve quality and reduce build errors with the ability to take local file changes within RAD on the developer’s desktop and run them through established build processes before committing source changes to check-in.

Demo - Build the application using Build Forge



Dana - Tester

Pat – Project Manager

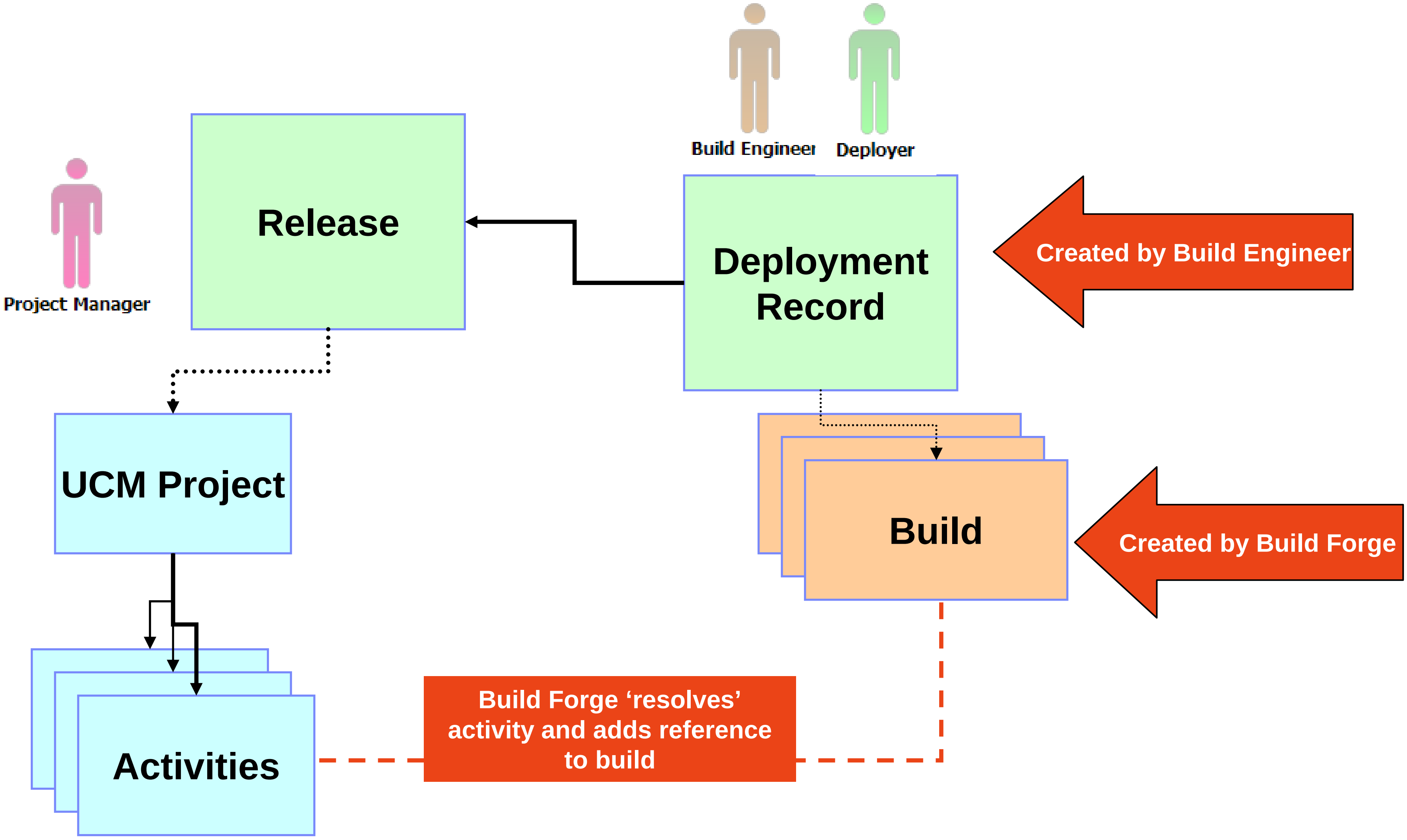
Alex - Developer

Jan - Builder

Dana - Deployer

Examine intg. build project & Execute → Examine build results → View auto resolved defect → View changeset & baseline info → Examine auto created build record → Submit deployment request

Build and Deployment tracking



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  - Business Driven Development for Compliance POT
  - Service Oriented Architecture Governance POT
  - Tivoli Provisioning Manager POT

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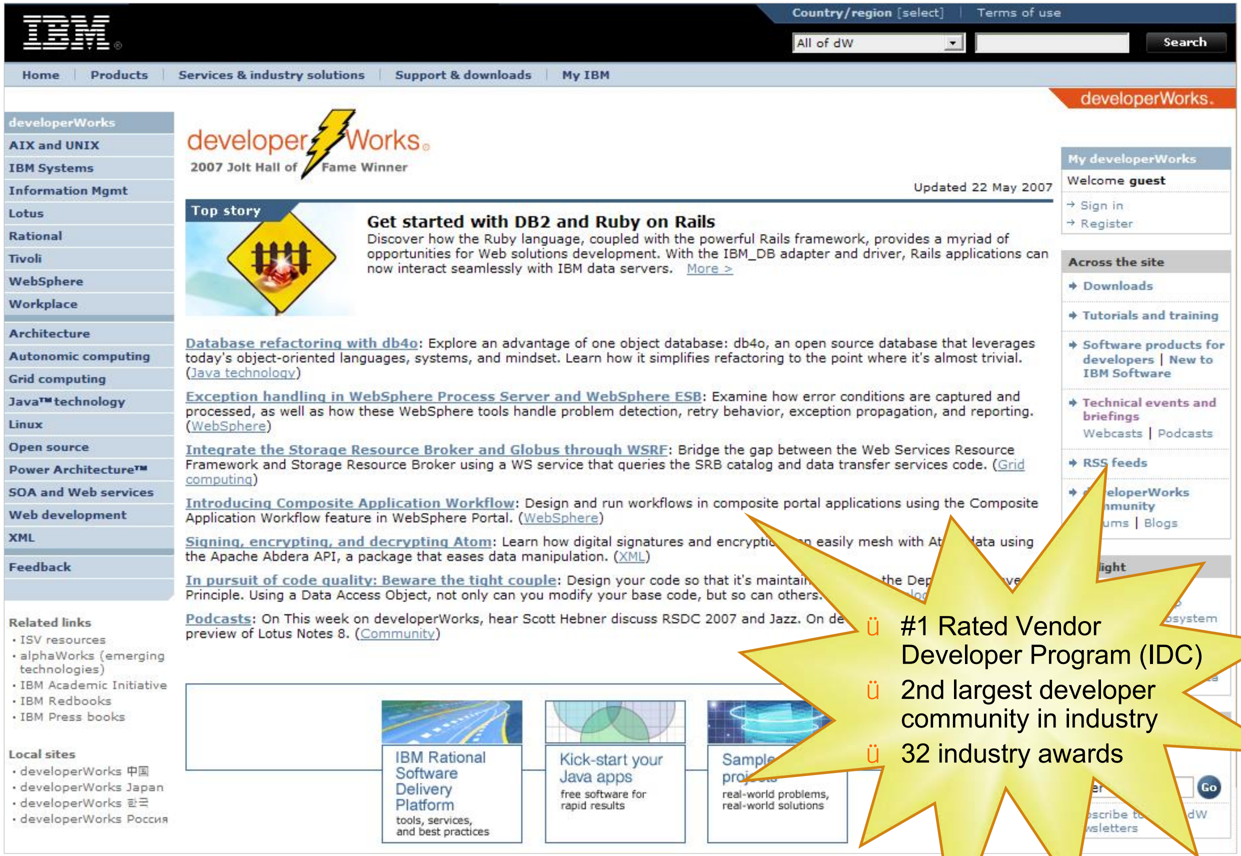
  - Brand zones
  - alphaWorks
  - Discussion forums
  - Blogs
  - Wikis
  - RSS Feeds
  - Podcasts
  - Localized sites in key non-US markets



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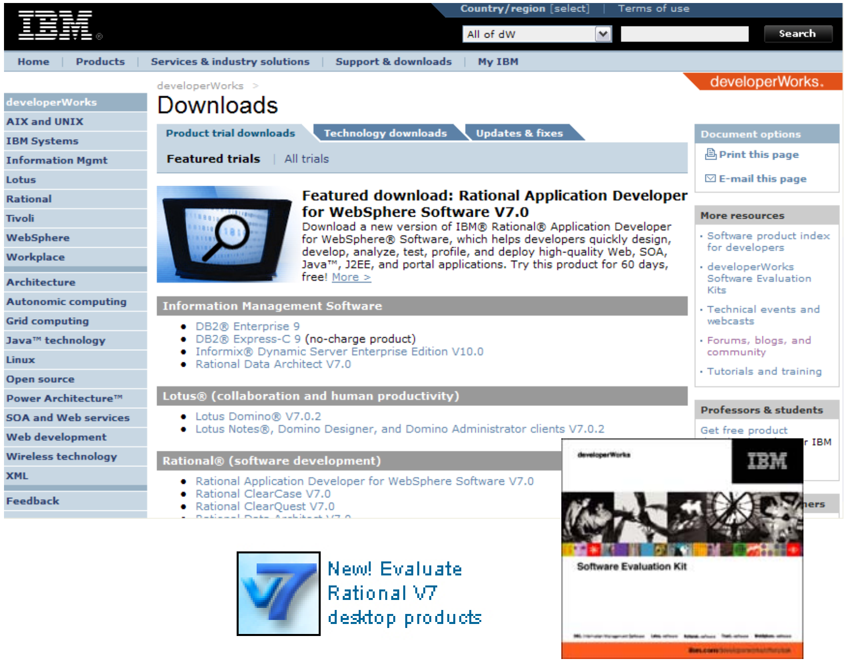

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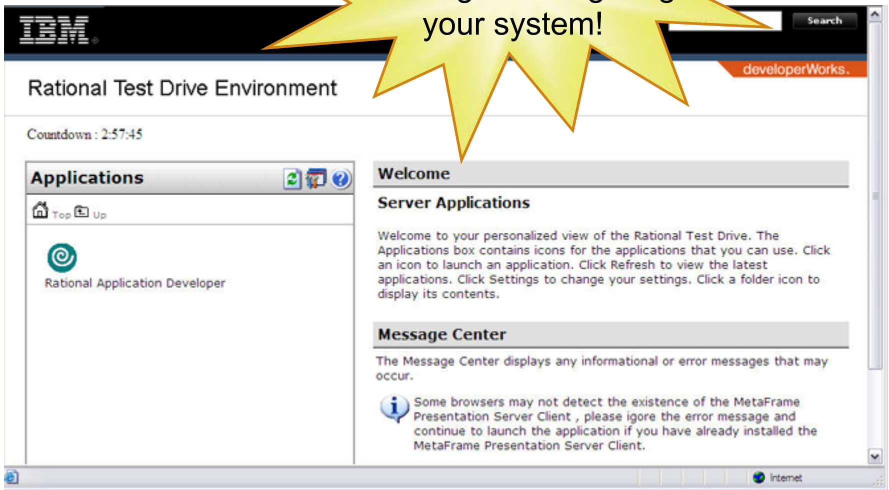


Rational Test Drive Environment

Countdown : 2:57:45

Applications

Top Up

Rational Application Developer

Welcome

Server Applications

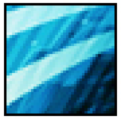
Welcome to your personalized view of the Rational Test Drive. The Applications box contains icons for the applications that you can use. Click an icon to launch an application. Click Refresh to view the latest applications. Click Settings to change your settings. Click a folder icon to display its contents.

Message Center

The Message Center displays any informational or error messages that may occur.

Some browsers may not detect the existence of the MetaFrame Presentation Server Client , please igore the error message and continue to launch the application if you have already installed the MetaFrame Presentation Server Client.

Evaluate Rational Appl. Developer without installing



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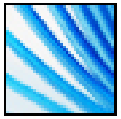

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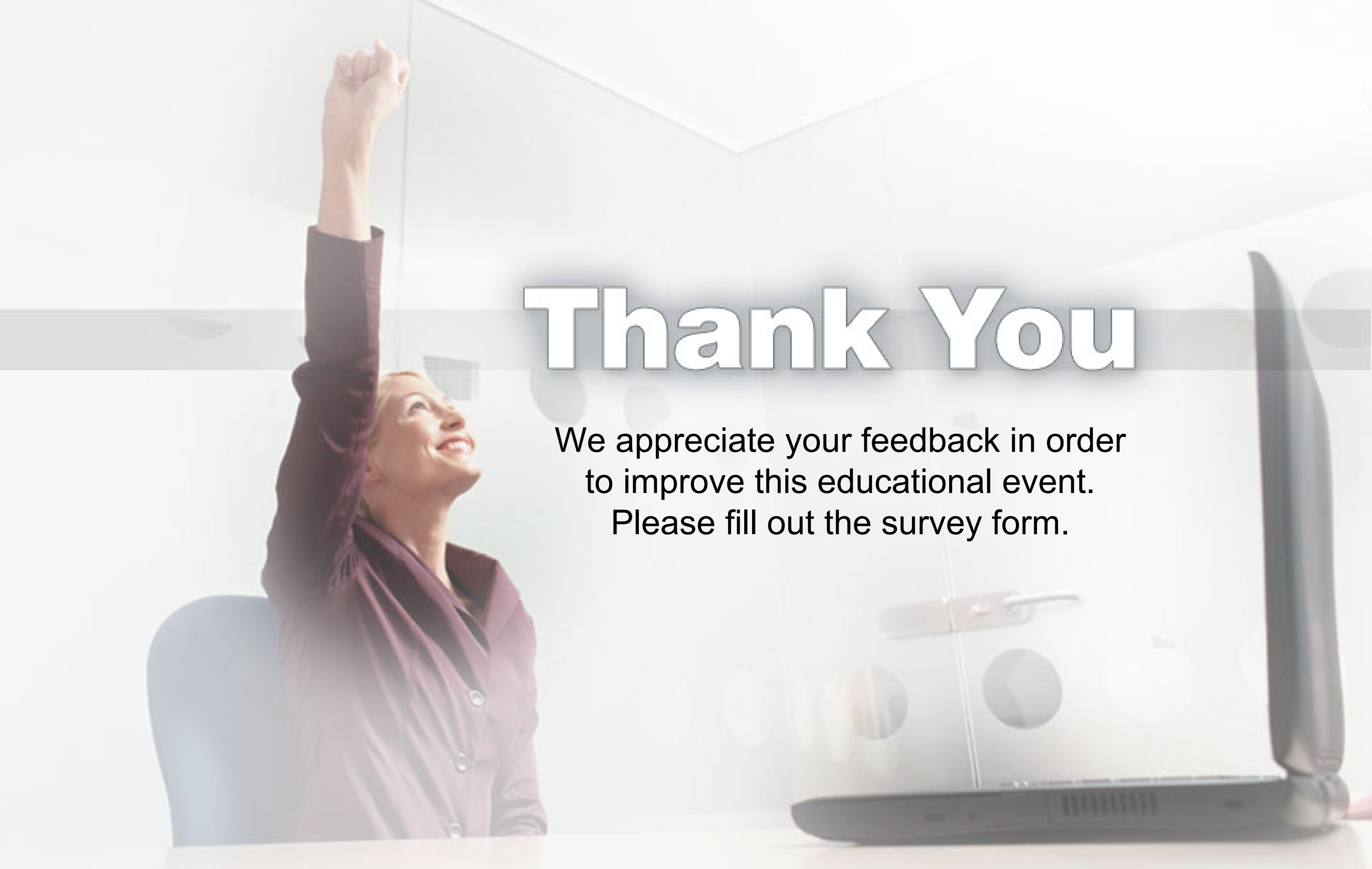

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