IBM Software Group

Jazz and IBM Rational Team Concert
Software innovation through collaboration

Rational. software

Agenda

- **Background**

- Jazz, Team Concert and the Rational Jazz offerings

- A closer look at Jazz and Team Concert

- Using Jazz with the Rational Software Development Platform

- Using Jazz with other products - extensions and integrations

- Jazz in use today

Software delivery: A high-value area for business transformation

*"Only **34%** of software projects are deemed successful, costing over $300B annually"*

*"Only **37%** are satisfied with the speed of software development"*

*"Only **42%** of users are satisfied with project quality"*

Geographic Barriers

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

Organizational Barriers

- Lack of domain expertise
- Poor LOB oversight
- Security of IP when outsourcing

Infrastructure Barriers

- Incompatible tools / repositories
- Unreliable access artifacts
- Lengthy on-boarding
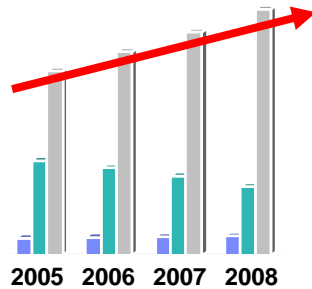
Silos of People, Process, and Projects
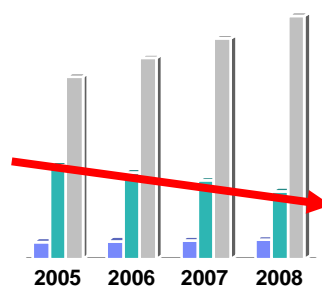
An IT imperative: Innovate for less
Changing the cost structure of IT is a business imperative

Maintenance costs are rising...

2005   2006   2007   2008

Operational & maintenance costs continue to grow

Budgets are shrinking

2005   2006   2007   2008

Budgets are shrinking at a time when investment is needed in strategic business assets

Changing the Cost Structure of IT: A Business Imperative

*"The message for IT is clear; business needs and **expects greater agility from IT**. The current approaches to project prioritization, resourcing, agility and governance are clearly not satisfying customer needs."*

– Gartner, October 14, 2008
"Changing the Cost Structure of IT Will Become a Business Imperative for Most CIOs"

The Jazz Project: Transforming software delivery

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. and collaborative application lifecycle management (C/ALM) platform**.

- IBM's vision of the **future of software delivery**–globally distributed, fluid and dynamic.

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

- **A community at Jazz.net** – where you can see Jazz-based products being built.

Jazz: Collaborative Software Delivery Platform

Collaborate

Deliver transparency of teams and projects for continuous, context-sensitive collaboration

Automate

Automate non-creative tasks with automated processes and workflows

Report

Deliver real-time insight into programs, projects and resource utilization.

Improve knowledge and practice maturity with an environment that develops individual and team talent.

Why collaborate?

Deliver transparency of teams and projects for continuous, context-sensitive collaboration

Speed time-to-market

▸ Accelerate project and team onboarding

▸ Build team cohesion

▸ Leverage talent across and beyond the enterprise

▸ Enable flexible resourcing models

Why automate?

Improve quality

Automate non-creative tasks with automated processes and workflows

▶ Make it easy to "do the right thing"

▶ Reduce tedious and time-consuming manual tasks

▶ Minimize non-productive wait times

▶ Minimize administrative busywork

Why report?

Reduce Cost

Deliver real-time insight into programs, projects and resource utilization.

▸ Identify and resolve problems earlier in the software lifecycle

▸ Get fact-based metrics -- not estimates -- to improve decision making

▸ Leverage metrics for continuous individual and team capability improvement

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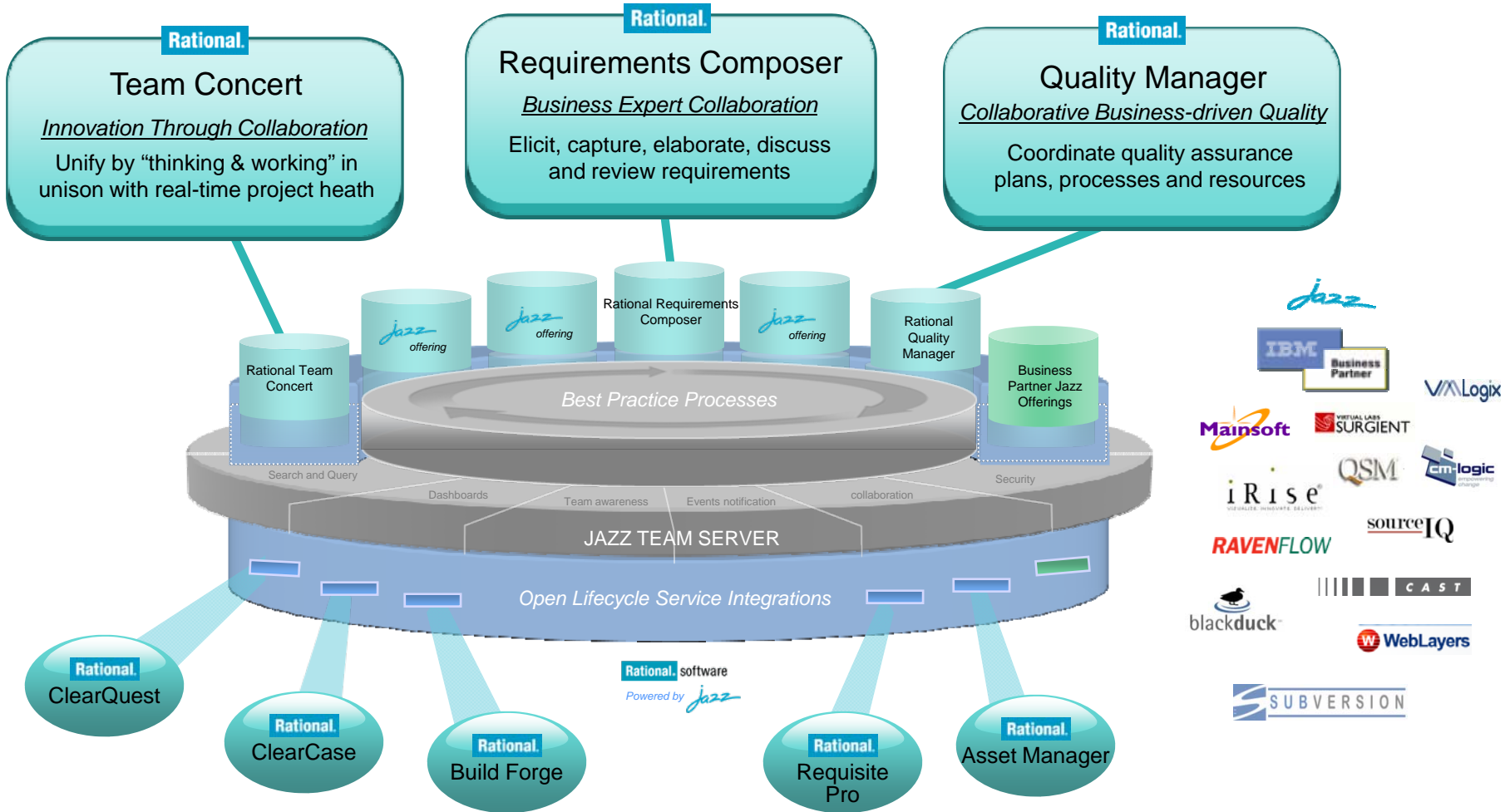
- Jazz in use today

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

- IBM has opened 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

Rational. 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

Rational. software

Open commercial development

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

Open source contribution of selected Jazz technology

eclipse   Open Source Community

The first wave of Jazz offerings

Team Concert
Innovation Through Collaboration
Unify by "thinking & working" in unison with real-time project heath

Requirements Composer
Business Expert Collaboration
Elicit, capture, elaborate, discuss and review requirements

Quality Manager
Collaborative Business-driven Quality
Coordinate quality assurance plans, processes and resources

jazz *offering*
jazz *offering*
Rational Requirements Composer
jazz *offering*
Rational Quality Manager

Rational Team Concert

Business Partner Jazz Offerings

Best Practice Processes

Search and Query

Security

Dashboards
Team awareness
Events notification
collaboration

JAZZ TEAM SERVER

Open Lifecycle Service Integrations

Rational software
Powered by jazz

ClearQuest

ClearCase

Build Forge

Requisite Pro

Asset Manager

jazz

IBM Business Partner

VMLogix

Mainsoft

SURGIENT

QSM

cm-logic

iRise

sourceIQ

RAVENFLOW

blackduck

CAST

WebLayers

SUBVERSION

IBM Rational Team Concert

Software innovation through collaboration

- **Real time, in-context team collaboration**
  - ▶ Make software development more automated, transparent and predictive
- **"Think and work in unison"**
  - ▶ Integrated planning, source control, work item, build management and project visibility
- **Deliver end-to-end governance**
  - ▶ Assess real-time project health
  - ▶ Capture data automatically and unobtrusively
  - ▶ Integrate document collaboration with enterprise infrastructure
- **Automate best practices**
  - ▶ Dynamic processes accelerate team workflow
  - ▶ Out-of-the-box choice of agile processes or customize
- **Unify software teams**
  - ▶ Broad array of clients: Web, Eclipse, Visual Studio
  - ▶ Extends the value of ClearQuest and ClearCase
  - ▶ Support for System i and System z

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**
JAZZ TEAM SERVER

Open and extensible on
Jazz
✓ Collaborate
✓ Automate
✓ Report

The road ahead
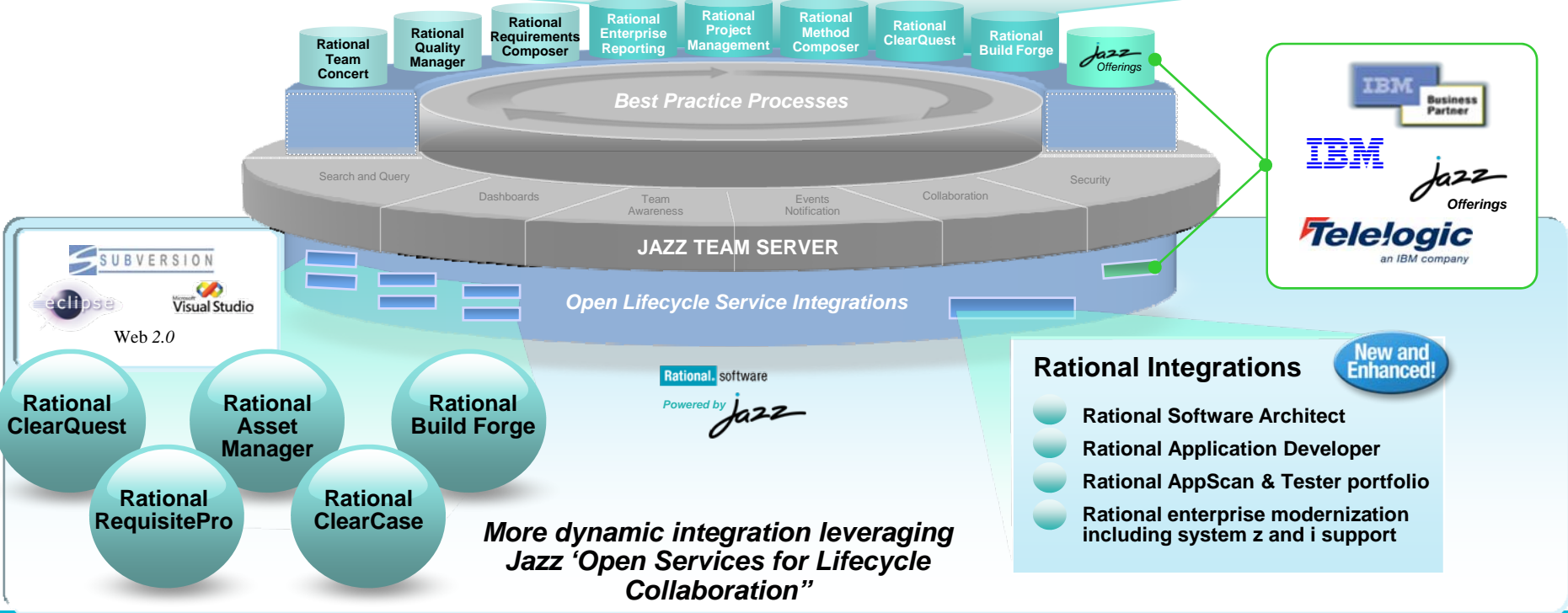
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Rational Team Concert – a closer look

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 / off-boarding 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

Source code management

Integrated stream management solution

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

Development projects contained in those components

Individual user server workspaces

Working with Change Sets

Work items

Builds

Create build definitions for team and private builds

Supports Ant and command line build tools

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 including OpenUP, Scrum, The Eclipse Way, Agile (XP-like) etc…
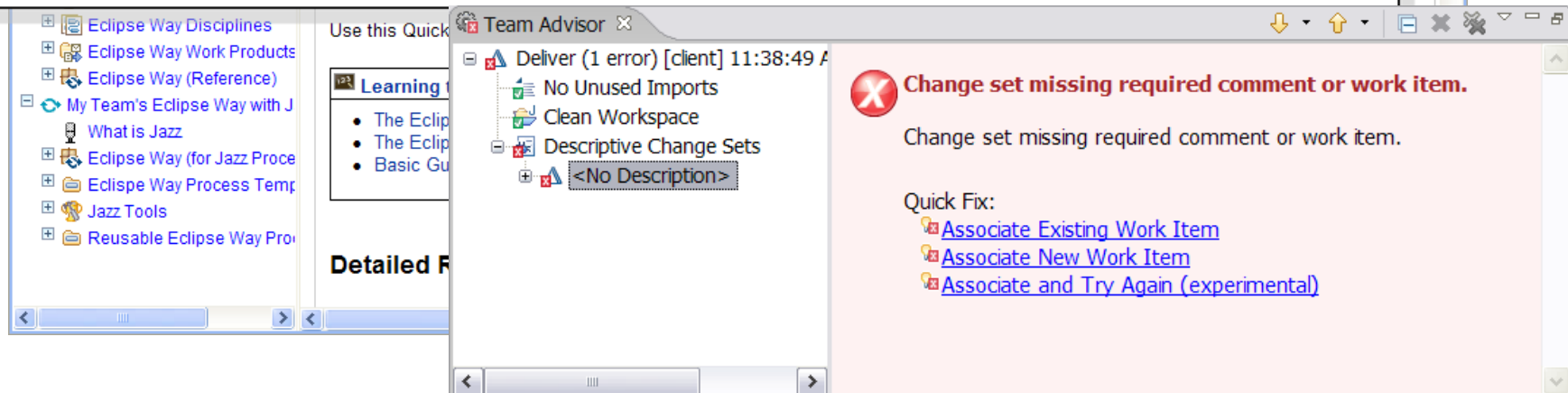
Iteration Planning

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

Plan and execute iterations while managing team and individual load

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

In-context collaboration

Team Awareness

Shows team members and their online status

Shows what they are working on

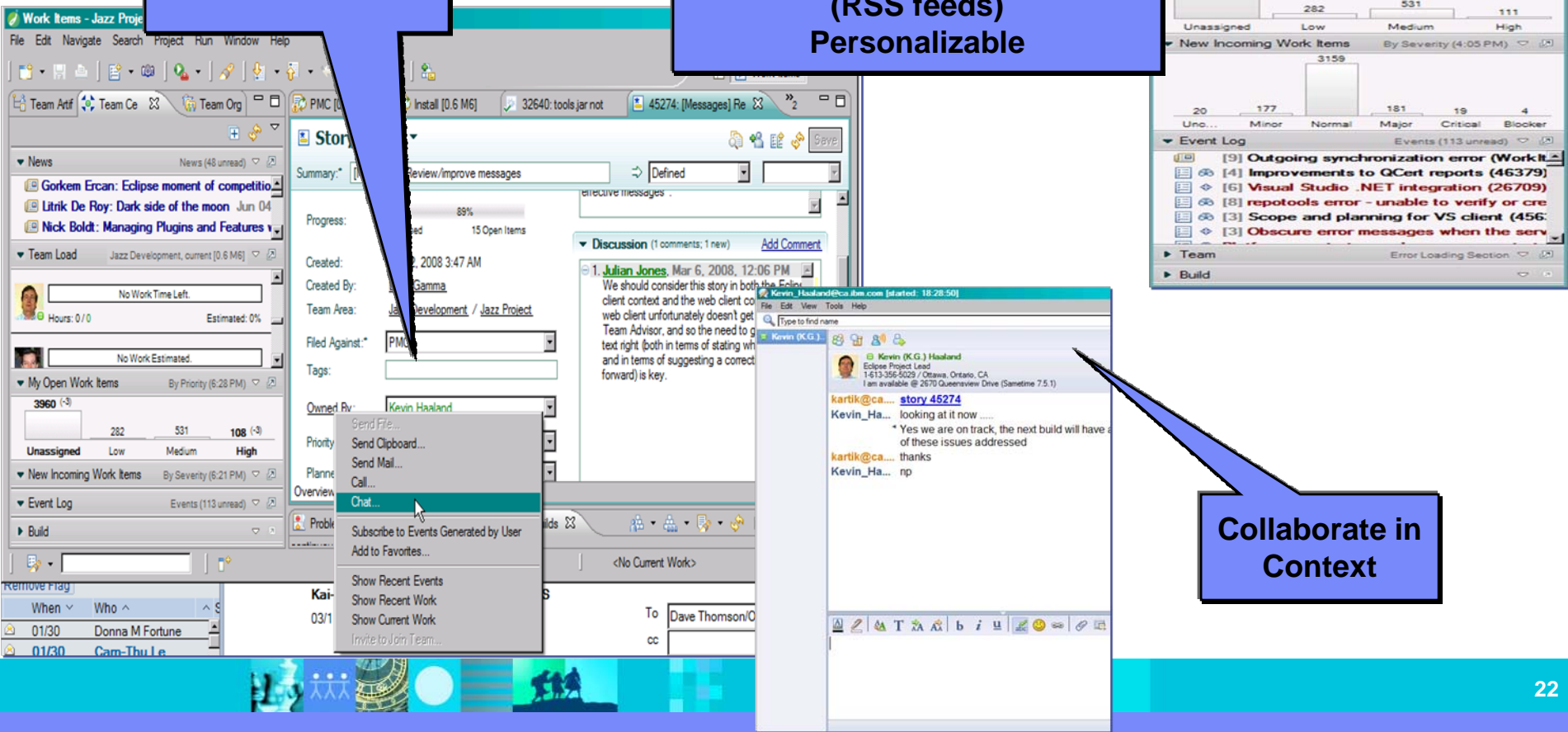**Team Central**

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

Configurable (RSS feeds) Personalizable

Collaborate in Context

Dashboards

Transparency, collaboration and control via customizable dashboards

Development

| General ▾ | Builds | Open Defects by Themes | Open Defects by Team | SVT Defects by Team | Defect Trends by Team | Deferred Items by Team |

Endgame Has Started

Detailed Plan available here:
End Game Plan

Jazz Development Description

Umbrella area for all Jazz development work

Development work is done in a separate development line named 'development'. This team area is the parent of all team areas dedicated to the Jazz development work. The development work is structured around releases. Each release is performed in it's own project phase.

Each component team that actively contributes to the development work is represented with its own child team area.

The PMC oversees the development work. Team members listed in this team area are working across all component boundaries.

Open Track Build Items (1)

1841 RC1 status

Current Development Plans (33)

Current Iteration: **0.6 RC1**

for RC1	
CQ Connector	
Component Development	No planned work
Foundation & Work Items	
Install	No planned work
PMC	No planned work
Process	
Release Engineering	
Repository	
SCM	
UI Design	
User Assistance	
Web Dashboards	
Web UI	No estimated work

Page 1 of 3

Risks (10)

- 48863 [Risk] Migrating/importing SVN repositories
- 48865 [Risk] Migrating from an existing bug tracking system
- 48868 [Risk] CC Connector
- 48862 [Risk] We need to build what we ship
- 48871 [Risk] CQ Connector Set-up
- 48875 [Risk] Scale to 250 users
- 48870 [Risk] Oracle Support
- 48876 [Risk] Scale towards large repositories
- 48874 [Risk] Derby Support
- 48872 [Risk] Active Directory

RFS (28)

- 9619 [RFS] Monitoring a continuous build
- 9629 [RFS] Create iteration plan, assign work, tracking progress
- 26827 [RFS] Getting Started Experience
- 11321 [RFS] Install and configure a Jazz server
- 9631 [RFS] Process governed work item customization
- 9625 [RFS] Starting a Project
- 9627 [RFS] Joining a team
- 9623 [RFS] Browsing the history of changes
- 9632 [RFS] Duplicate handling
- 9908 [RFS] Managing Team Artifacts

Page 1 of 3

Jazz Development Event Log (2 new)

- Test scenario: Process author creates/refines a Process Template (51513) Now
- Test scenario: Customer hears about Jazz and installs it (51452) 15 minutes ago

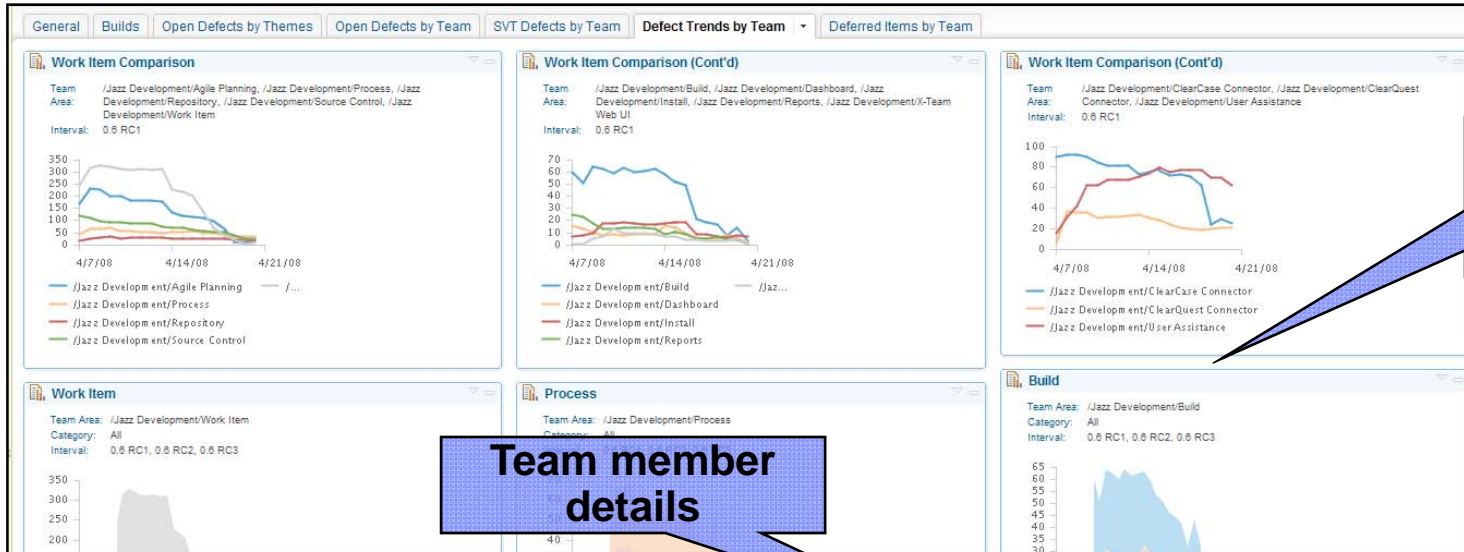**Clearly understand team goals**

Risks, issues, challenges surfaced at both the team and project level

Real-time status

Dashboards and reporting

Trending by project or by individual team

Team member details

Current milestone status

Agile Processes Included with Rational Team Concert

- ## Agile process template

  ▶ The Agile process template provides a mash-up of best practices of several existing agile processes. Incorporates "XP" style agile methods.

- ## The Eclipse Way process template

  ▶ The Eclipse Way process is an agile, iteration-based process with a focus on consistent, on-time delivery of quality software.

- ## OpenUp process template

  ▶ The OpenUp process preserves the essential characteristics of the Rational Unified Process®, which includes iterative development, use cases and scenarios driving development, risk management, and an architecture-centric approach.

- ## Cloudburst Sample process template

  ▶ The Cloudburst Sample Process template is designed to support the Cloudburst reference project, which is available with theJazz technology platform.

- ## Scrum process template

  ▶ The Scrum process template supports a popular approach to managing projects in an agile way.

- ## Simple Team process template

  ▶ The Simple Team process template enables teams to get started quickly. Team members have permissions to perform any modification in the project.

IBM

The Rational Team Concert family **2009**

Standard

Express

Express-C

Corporate Teams

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

Mid-sized and Departmental

- Project dashboard
- Out-of-the-box processes
- Commercial middleware
- Up to 50 developers per server

Community and Academia

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

Eclipse^{TM}, Linux®, MS Windows®, UNIX® , z/OS® & i5/OS with native asset & work item managment

Rational Team Concert – Express Edition

Express

Mid-sized and Departmental

- Project dashboards
- Out-of-the-box processes
- Commercial middleware
- Up to 50 developers per server

- Customizable project dashboards
  - Real-time status on trends and tracking to project milestones

- Unlimited number of contributors
  - Contributor licenses no longer count towards server 50 developer limit

- Popular platform support
  - SQLServer supported as Jazz repository
  - Windows 2008 supported for Jazz Team Server

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

RTC Express Project Dashboards
Real-time status on trends and tracking to project milestones
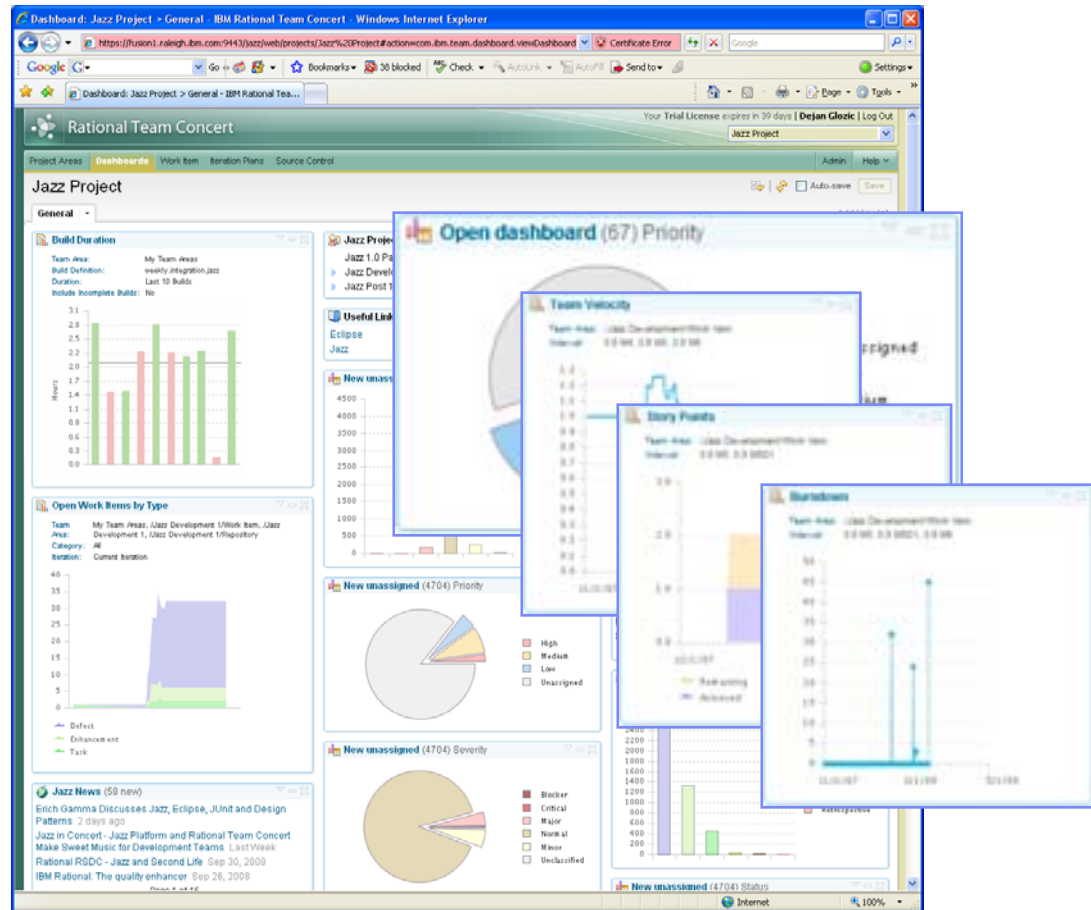
- ✓ **Transparency, collaboration and control via customizable project dashboard**
- ✓ **Project risks, issues, challenges highlighted**
- ✓ **Customizable viewlets for every project**

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Leveraging Rational Team Concert independently

Development US

Work Items

SCM | **Build**

Rational Team Concert

JAZZ TEAM SERVER

Subversion

Development Europe
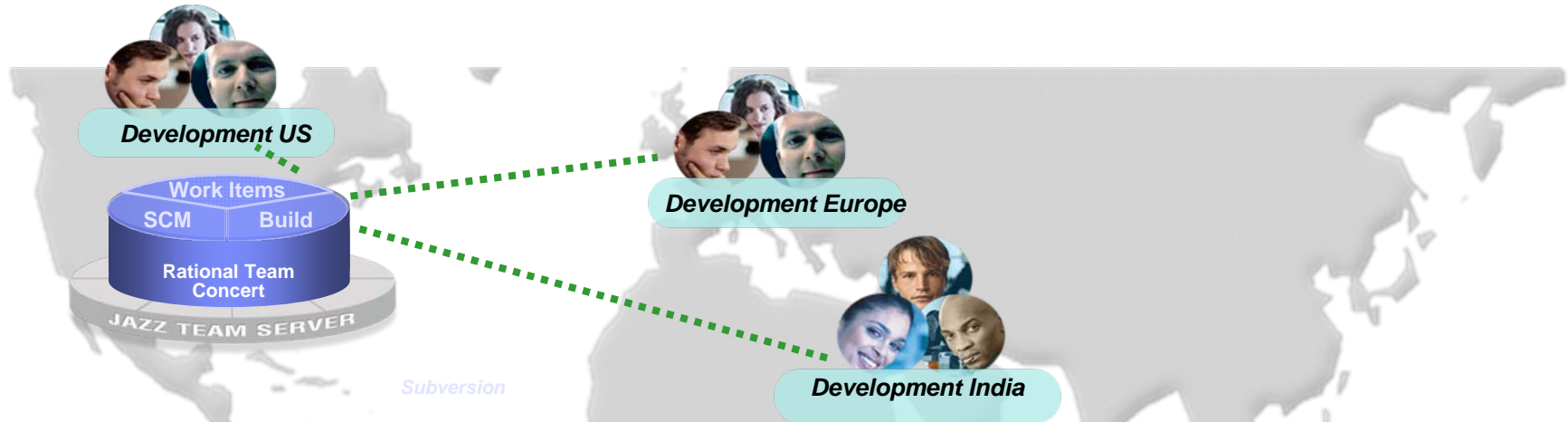
Development India

✓ **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

Open Source vs Rational Team Concert
Cut administration costs and increase productivity with Rational Team Concert

Open Source

Web View

Eclipse View

Bugzilla, Jira, etc.   ✕   Cruise Control, ANT, etc.   ✕   SubVersion, CVS, etc.

Increased productivity with Rational Team Concert

Iteration/Milestone Planning and Execution | Integrated SCM, Work Tracking, Build | In-context Collaboration and Real-time Dashboards

Rational Team Concert

Team Awareness | In Context Collaboration
Dashboards | Security | Events Notification | Search and Query

JAZZ TEAM SERVER

Open Lifecycle Service Integrations

Client Integrations
- Eclipse
- Web 2.0
- Visual Studio (4Q)

Rational. software

Server Integrations
- Existing IBM offerings
- Business Partner offerings
- Open source offerings including SVN

Point Products for individual productivity

- Significant costs to maintain and administer federated databases
- No concept of project, teams or schedules
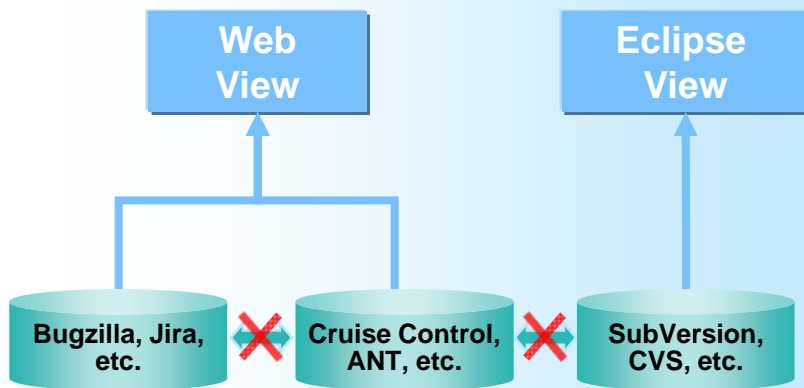- No single, consolidated view into project status and health
- SCM, work items, build functionality unaware of each other providing little to no insight into relationships between artifacts

Fully integrated collaborative application lifecycle management solution

✓ Designed for agile and distributed teams

✓ Fully aware of projects, team process, team composition, who's doing what and by when, in-context collaboration with instant messaging discussions, discussion threads kept with work items

✓ All-in-one solution for the core development team with planning, SCM, work items, workflow, build management, dashboards and reporting fully integrated

✓ Single download package, easy to install and get started, minimal administration, easy startup of projects, onboarding and offboarding of team members quickly

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. Asset Manager

Rational. Build Forge

Rational. ClearCase

Eclipse™, Linux®, Microsoft® Windows®, UNIX®, IBM z/OS®, IBM i5/OS
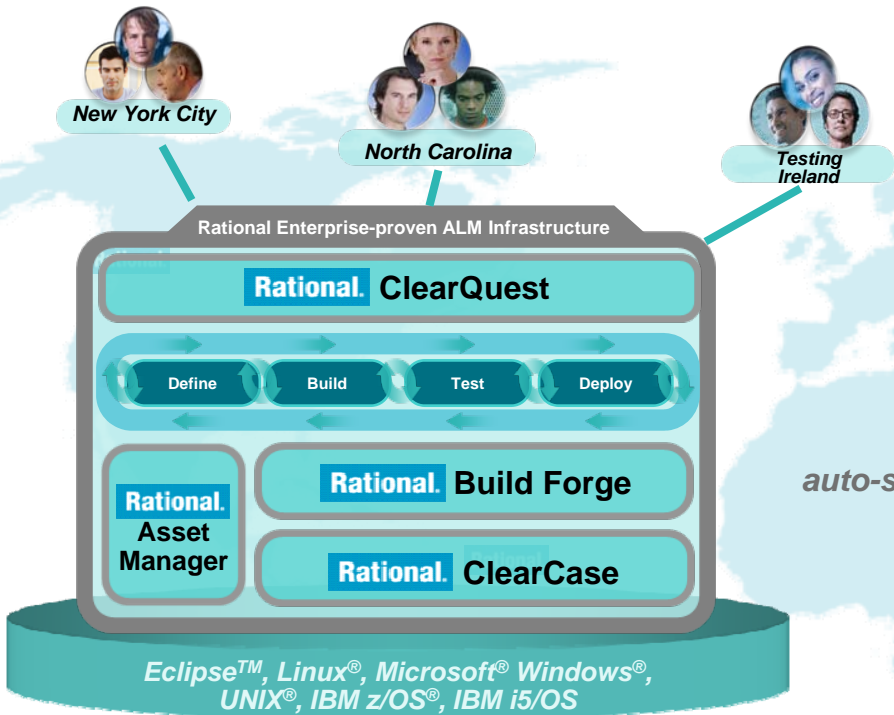
Bi-directional auto-synchronization

A complete, solution for departmental and medium-sized distributed teams

Project Management Europe

Development China

Rational.

Team Concert

JAZZ TEAM SERVER

Config & Build China

SUBVERSION

Bridge to Subversion

Development Australia
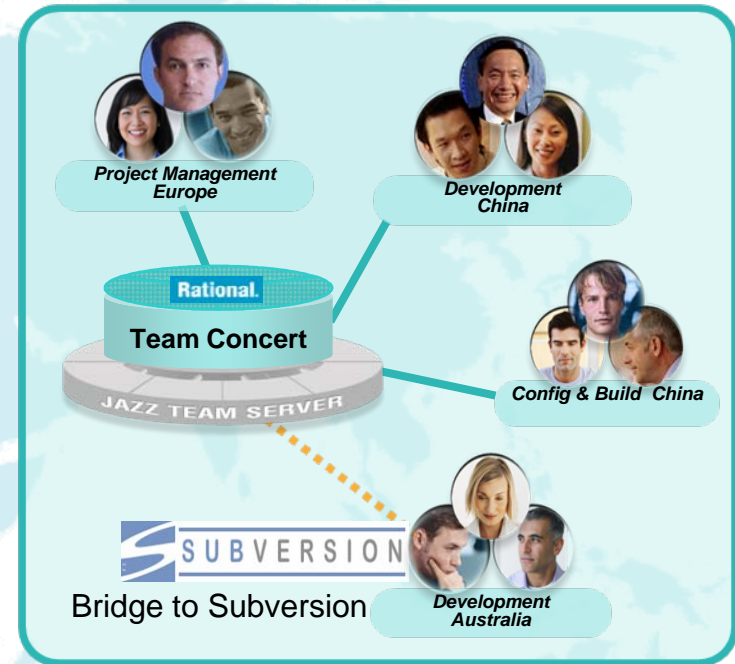
- Enables teams to reuse enterprise assets, process and investment in ClearCase/ClearQuest

- Take advantage of new collaborative ALM in an evolutionary way with lower business risk

- Manage status/priorities in ClearQuest and develop with the right ALM solution for your project.

- Use the "right-sized" governance solution for different projects needs.

- Developers can deliver work from "satellite" teams directly into enterprise ClearCase projects

The ClearCase/ClearQuest customer view:

CIO

*"How do I transform my business to **Collaborative ALM** while **reusing enterprise assets in ClearCase/ClearQuest** and minimizing disruption and risk?"*

Project Lead

*"We do all of our reporting and work assignment in **ClearQuest** and **we want to maintain a consistent reporting process** for all our development projects"*

Developer

*"I'm on a small team, developing web 2.0 UI applications **using agile methods**. But I need to deliver to a much larger **ClearCase-based** project"*

SCM Lead Architect

*"Our **ClearCase process works great** but some small teams have deployed many different variants of Subversion and there is no common process or method to report status. We are losing control and consistency. HELP! "*

Collaborative debugging
Using Rational Team Concert and Rational Application Developer

Share live debug sessions between team members
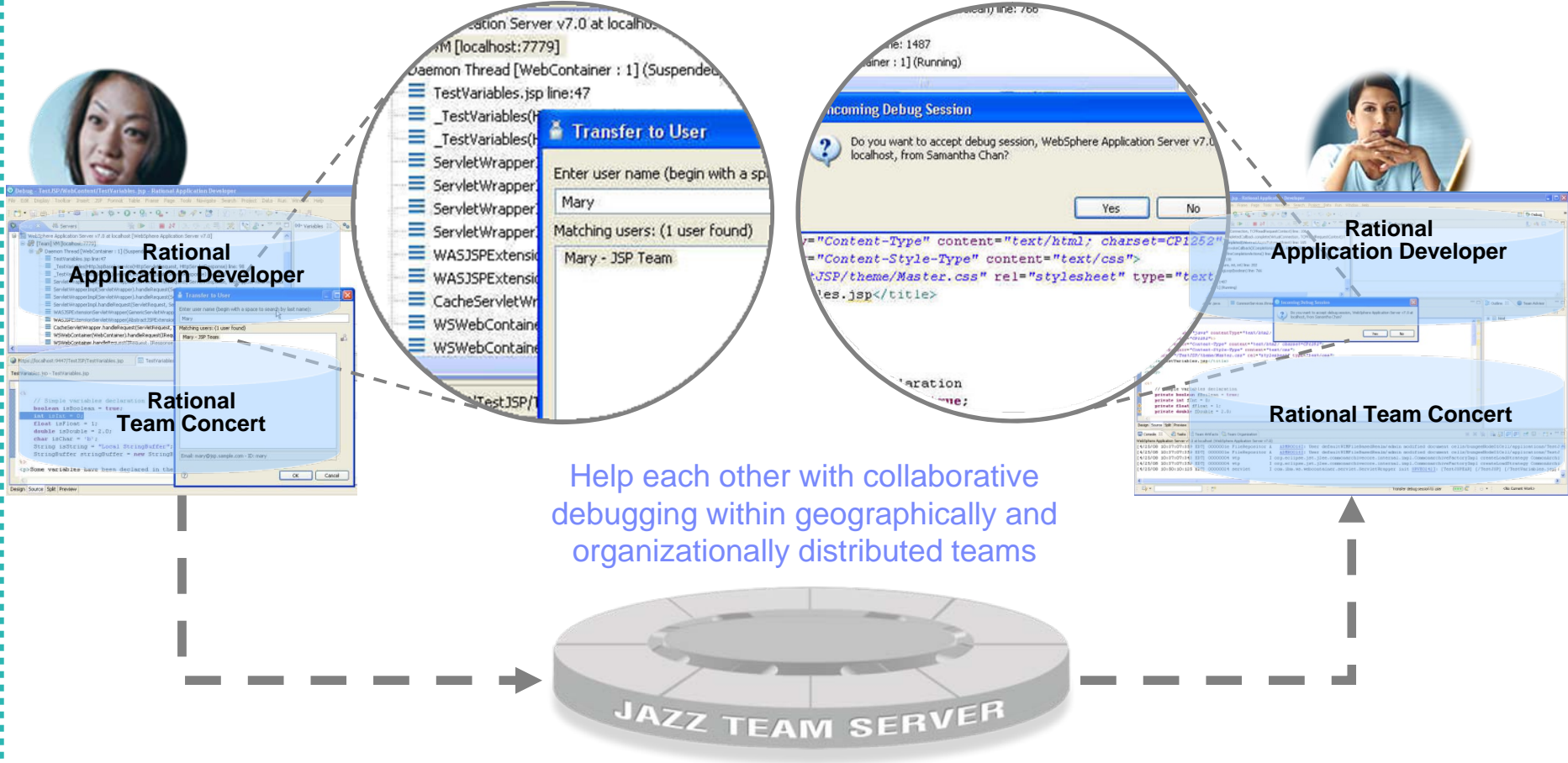
Help each other with collaborative debugging within geographically and organizationally distributed teams

Rational Software Build Solutions
When to use each

Build Forge
- Many platforms
- Cross organizational audit
- Broad lifecycle automation
- CI for many projects
- Complex staging/deployment
- Production labor cost reduction
- Data standardization

Jazz TeamBuild
- Fewer platforms
- Fewer Teams
- CI for a few projects
- More homogeneous environment
- Dev-focused lifecycle

Complexity

Number of Projects
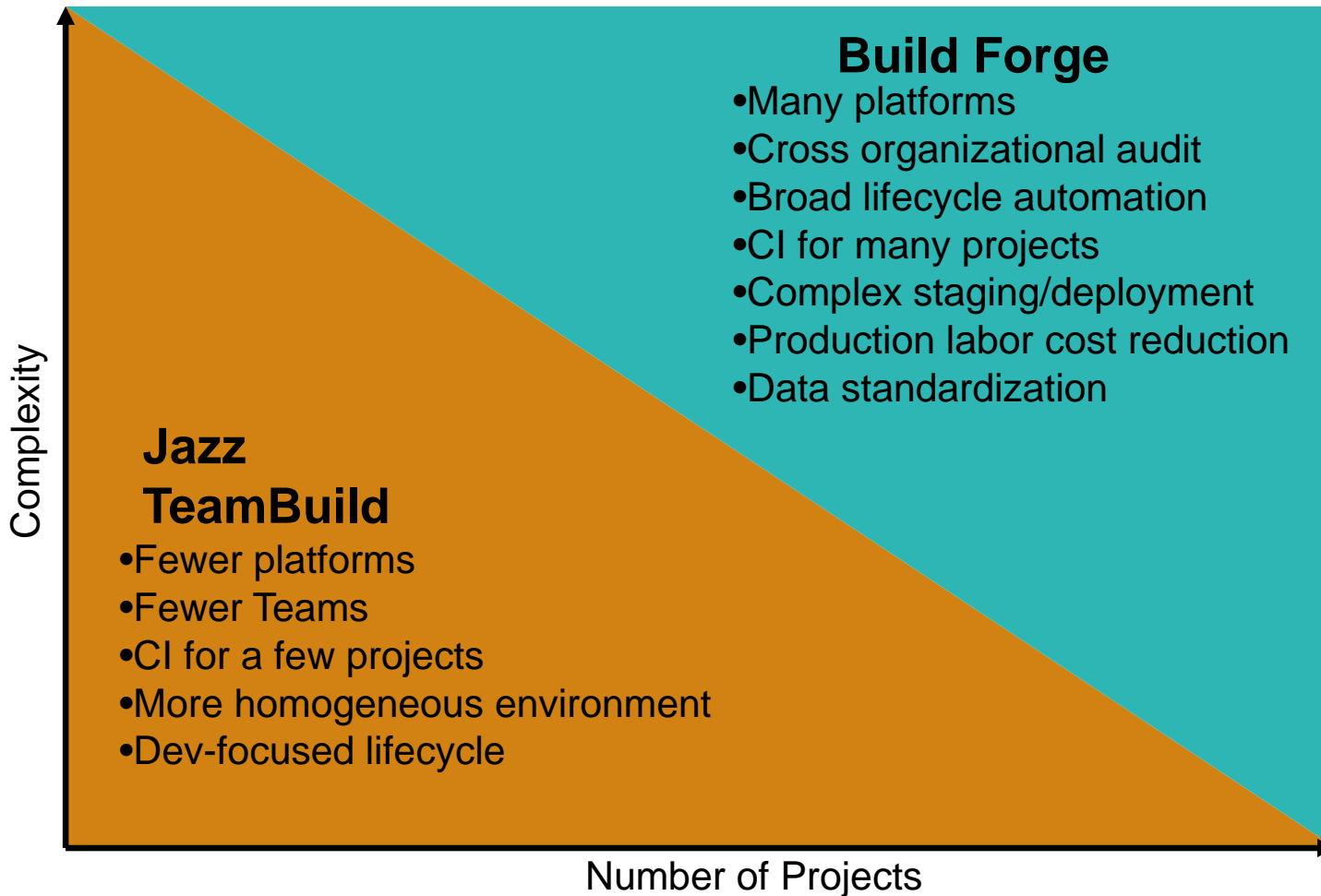
Leverage existing and new investments to facilitate asset collaboration and governance

- **Understand and leverage the artifacts used to develop and build an asset**
  - Identify an asset's versioned artifacts quickly
- **Quickly submit change requests for an asset**
  - Track and fix problems quickly - all in the same IDE!
- **Increase Productivity**
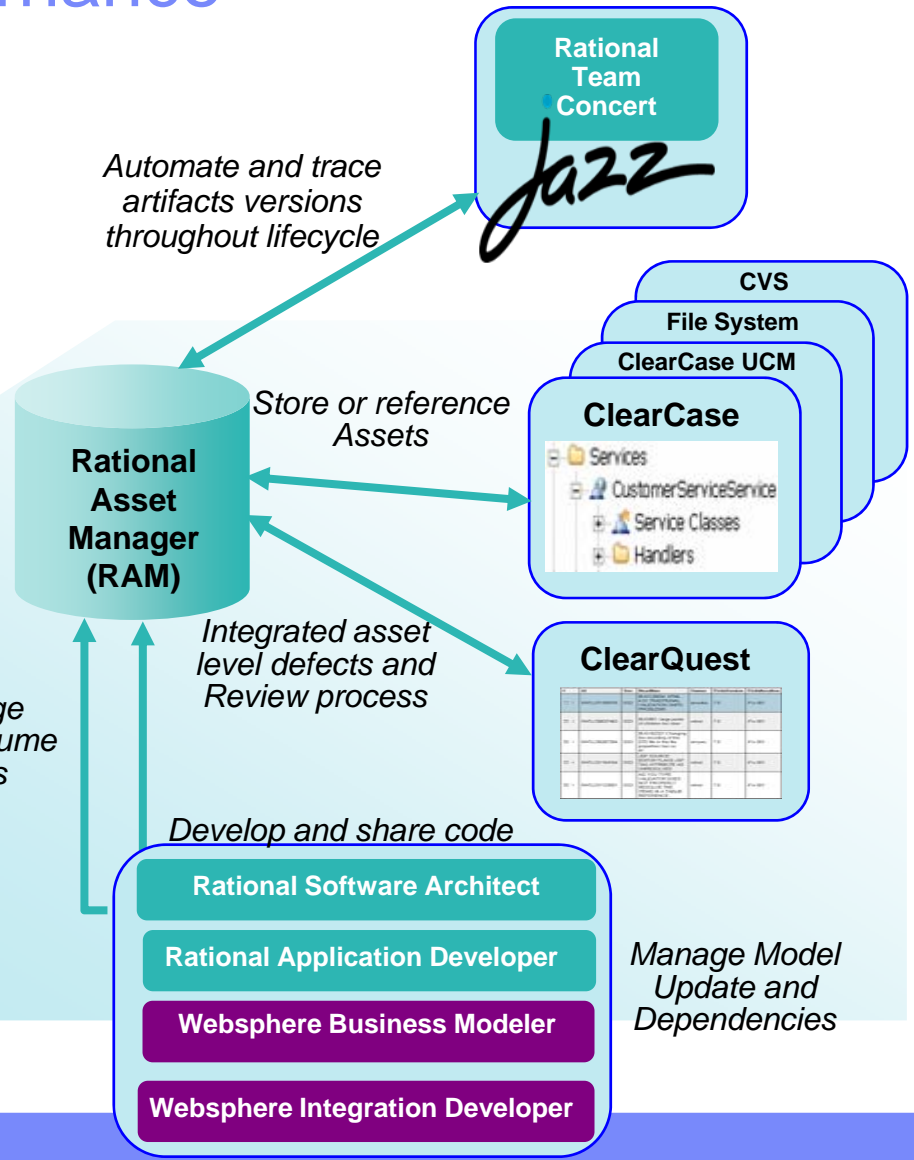 - Develop code in a team environment
  - Integrate with a customer's existing environment
  - Search, create, reuse and communicate created assets

Rational Team Concert

jazz

Automate and trace artifacts versions throughout lifecycle

CVS

File System

ClearCase UCM

ClearCase

Store or reference Assets

Rational Asset Manager (RAM)

Package and consume assets

Integrated asset level defects and Review process

ClearQuest

Develop and share code

Rational Software Architect

Rational Application Developer

Websphere Business Modeler

Websphere Integration Developer

Manage Model Update and Dependencies

Eclipse based Rational Software Delivery Platform

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3rd party Jazz offerings

Extend the Jazz platform with powerful, integrated offerings from IBM Rational ISV's
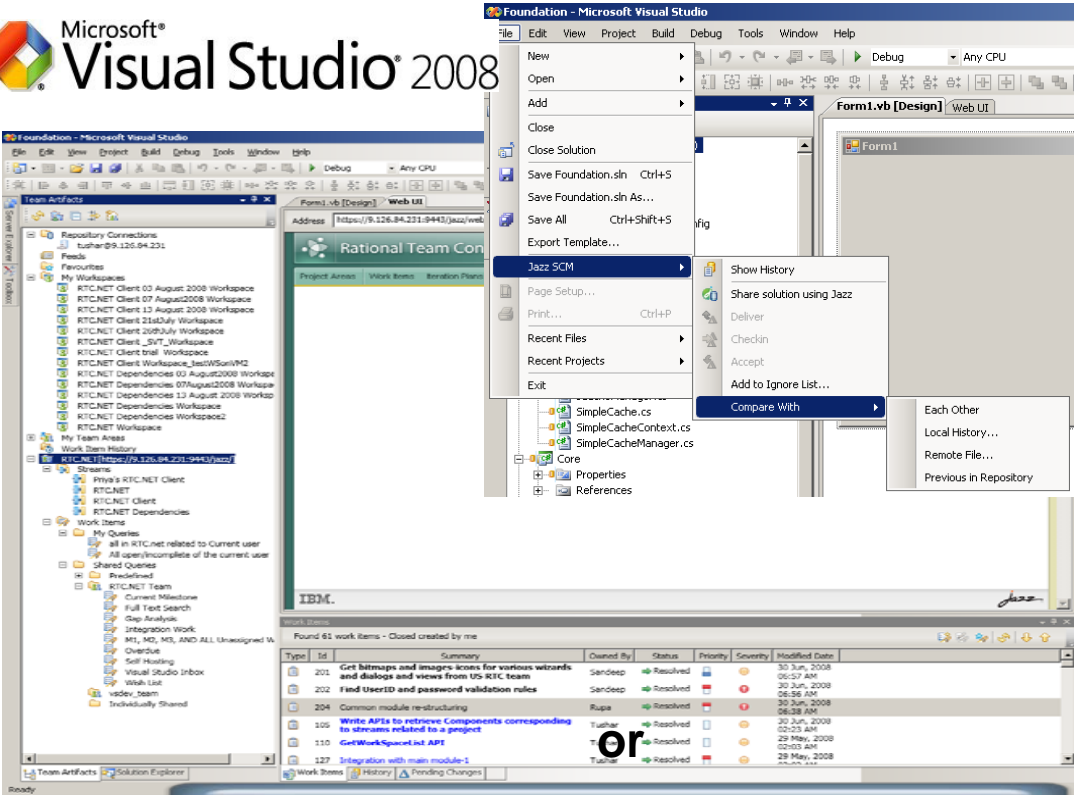
Extend team collaboration to Visual Studio developers

Rational Team Concert client for Microsoft Visual Studio IDE

- Enables you to work *within your Microsoft Environment* for maximum efficiency

- Manage SCM, Build, & work items from *within Visual Studio*

- Collaborate across teams

- Central repository across environments

- Included with Rational Team Concert

Mainsoft Document Collaboration for Rational Jazz
Microsoft SharePoint, Lotus Quickr Integrations

Collaboration in context
Extend development teams'
collaboration toolkit with direct,
per-project document linkages

End-to-end governance
Improve the transparency of software
deliveries as well as automate
and enforce project governance

**Business stakeholders can participate
in software deliveries**
Using their preferred collaboration tools
– either Microsoft or Lotus

*Connect Rational Team Concert with
Microsoft SharePoint or Lotus Quickr*
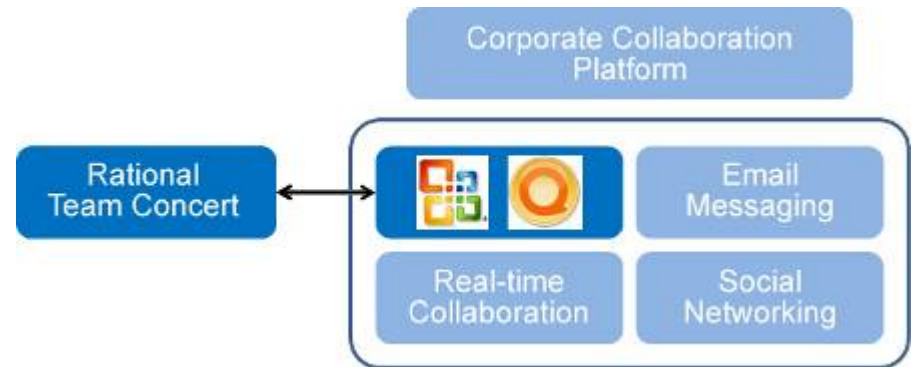
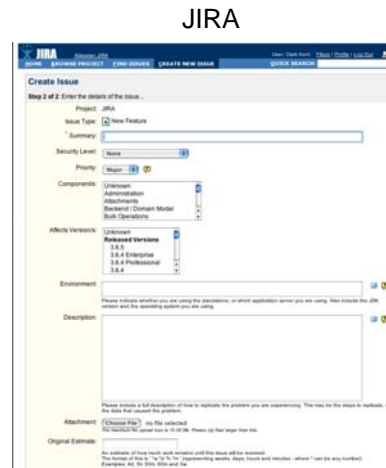# JIRA2RTC Connector for RTC

- Developed by CM-Logic Ltd
  - IBM Rational Business Partner

- Connector provides these features:

  - Create records in either RTC or JIRA

  - Update records in either RTC or JIRA

  - Export all records from JIRA and import into RTC

  - Bi-directional synchronization

- Brings RTC to the JIRA community

JIRA

Bi-directional Synchronization
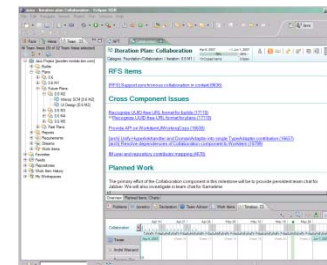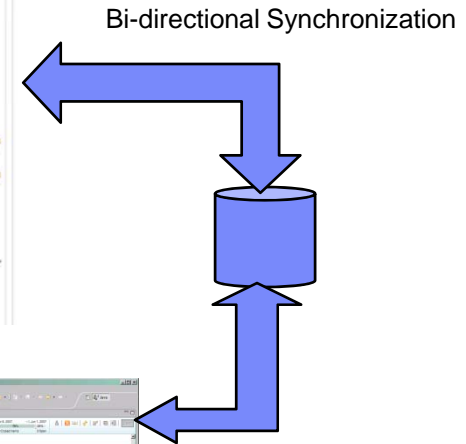
Rational Team Concert v1.0

RTC Adapter for HP Quality Center

IBM Rational Team Concert provides a collaborative, role-based, business-driven project management solution.

How do you bring your test team's Quality Center assets into the fold?

- **The Need:**
  - ▶ Bi-directional integration of IBM Rational Team Concert and HP Mercury Quality Center
  - ▶ Synchronize QC defect records and workflows with RTC

- **The Solution:**
  - ▶ **BSD Rational Team Concert Adaptor for Quality Center** in conjunction with **IBM Rational Team Concert**
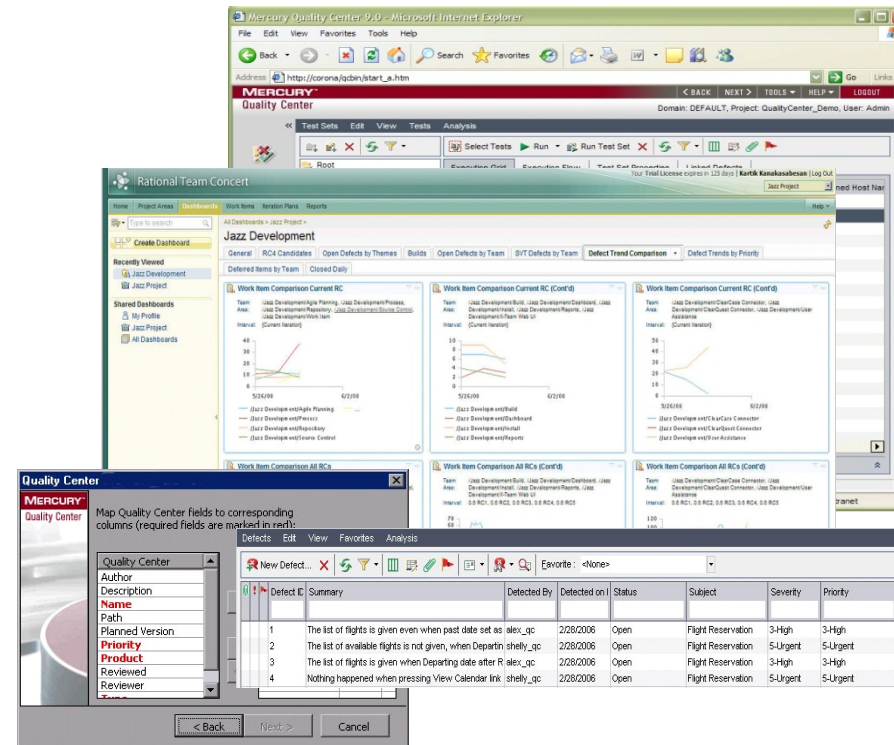
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- **Jazz in use today**

How we use Rational Team Concert at IBM

- 2-way Xeon Server running application server (WAS) and another running DB2
- Jazz Project – Using bi-weekly iteration builds
  - Jazz and Rational Team Concert self hosting since 4Q06
  - Global team in 7 locations in NA Europe and India
  - ~100 developers, plus jazz.net webclient access
  - Repo > 10G, 66K files, 43K work items
- Over 10 internal Rational development teams leveraging Rational Team Concert
- 25+ Other Rational teams using Rational Team Concert

Beaverton
- Build
- Process

Ottawa
- Source Control
- Reporting
- Community Site

Toronto

Jazz Development Server

Zurich
- UI Foundation
- Work Items
- Agile Planning
- Code Coverage

Saint-Nazaire
- Static Analysis

Lexington
- Interop
- Testing

Raleigh
- Repository
- Web UI
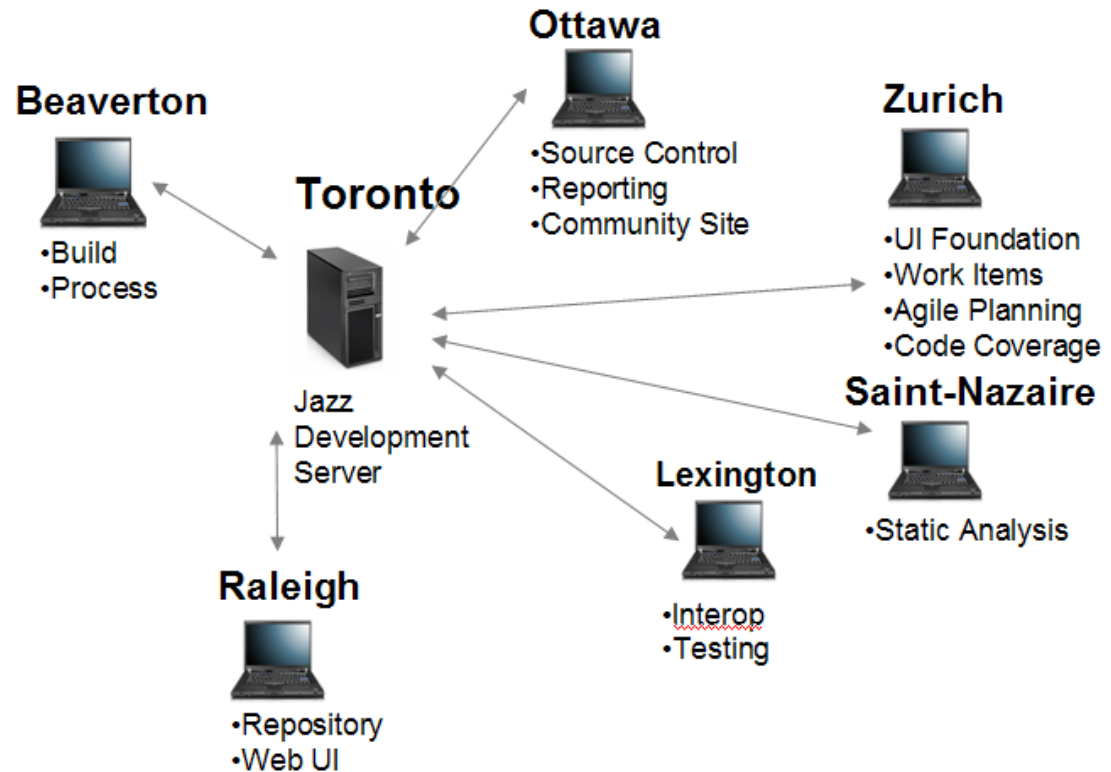
800 Business Partners worldwide "*jazzed*" about Rational

North America: 245 companies

Iceland: 2 companies

Antarctica: 1 company

EMEA: 182 companies

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

encore

NÝHERJI
Betri lausnir

DIASOFT

Slovak: 94 companies

CLEAR BLADE

ascendant
TECHNOLOGY
www.atech.com

TietoEnator

Phillipines: 4

sofwre
CONSULTING ESPAÑA

Longtop Group

Vietnam: 1 company

rocket gang

Island
Training

ITWORX

Cambodia: 1 company

ChangeVision

interware
development
company

Mexico: 8 companies

GCE Solutions

South America: 80 companies

INTEGRASI

Logica

IndigoCube

AP: 102 companies

INSIGHT

Africa: 6 companies

Customer feedback

"By helping us to make project deliveries more repeatable and predictable, we anticipate that Rational Team Concert will *reduce project overrun costs by 20%."*
  --Matt Pomroy - Executive, Software Engineering, Ascendant Technology

"Its automated project management dashboards are transparent to everyone – not just managers. This immediate and *automated feedback helps keeps teams on track and motivated* **to achieve project goals."**
  --Han Jie - Senior Consultant, Siemens

"Where we previously used separate systems, with Rational Team Concert we now have well integrated functionality. *Our developers are more efficient because they are better able to focus on important issues.* **Our project managers greatly value the ability to customize these dashboards and** *instantly provide status* **on their milestones!"**
  --Mika Koivuluoma - Production Manager, TietoEnator

"Having a *unified and extensible environment is very compelling for us.* **Rational Team Concert provides** *the team transparency and visibility needed to keep work progressing* **so everyone knows what's going on without finger-pointing."**
  --Carson Holmes - Unified ALM Services Manager, Noblestar

"With IBM Rational Team Concert we've seen a *30% productivity gain* **on our global projects. The ability to** *easily suspend and resume work, along with advanced SCM features***, helps team members juggle multiple tasks and priorities without missing a beat."**
  --Alain Bergeron - VP Consulting Services, CGI

Additional resources

- Find out more about Rational Team Concert

  http://ibm.com/rational/rtc

- Download a FREE trial of Rational Team Concert

  http://jazz.net

- Explore Rational Team Concert tutorials, demos and other developer learning resources

  http://ibm.com/developerworks/spaces/jazz

- Learn about the Jazz technology and the future IBM Rational product roadmap

  http://ibm.com/rational/jazz/roadmap

Thank You