Effective Software Development and Delivery with IBM® Rational Team Concert

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We will use a fictitious company called JK Enterprises for our examples of Change and Configuration Management challenges

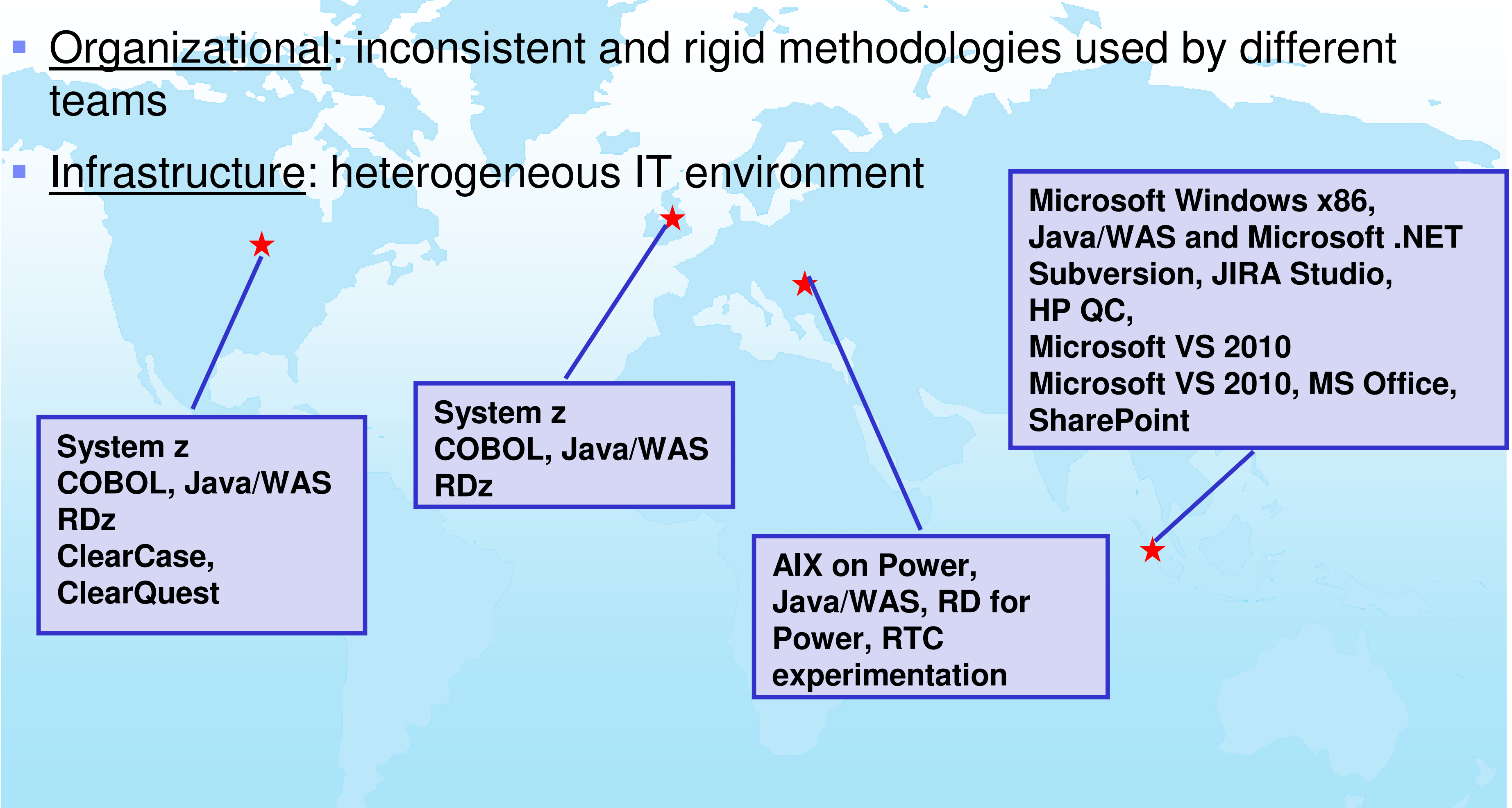
- JK Enterprises (JKE) is an international bank that grew in recent years through mergers and acquisitions

- With the acquisition came multiple application development sites in several countries

- Different sites use different processes and development methodologies and tools
  - Have different platforms, mainframe and distributed
  - Little if any consistency between sites

JKE experienced many challenges because of various barriers in their software delivery

- Geographical: multi-site, globally distributed development
- Organizational: inconsistent and rigid methodologies used by different teams
- Infrastructure: heterogeneous IT environment



System z
COBOL, Java/WAS
RDz
ClearCase,
ClearQuest

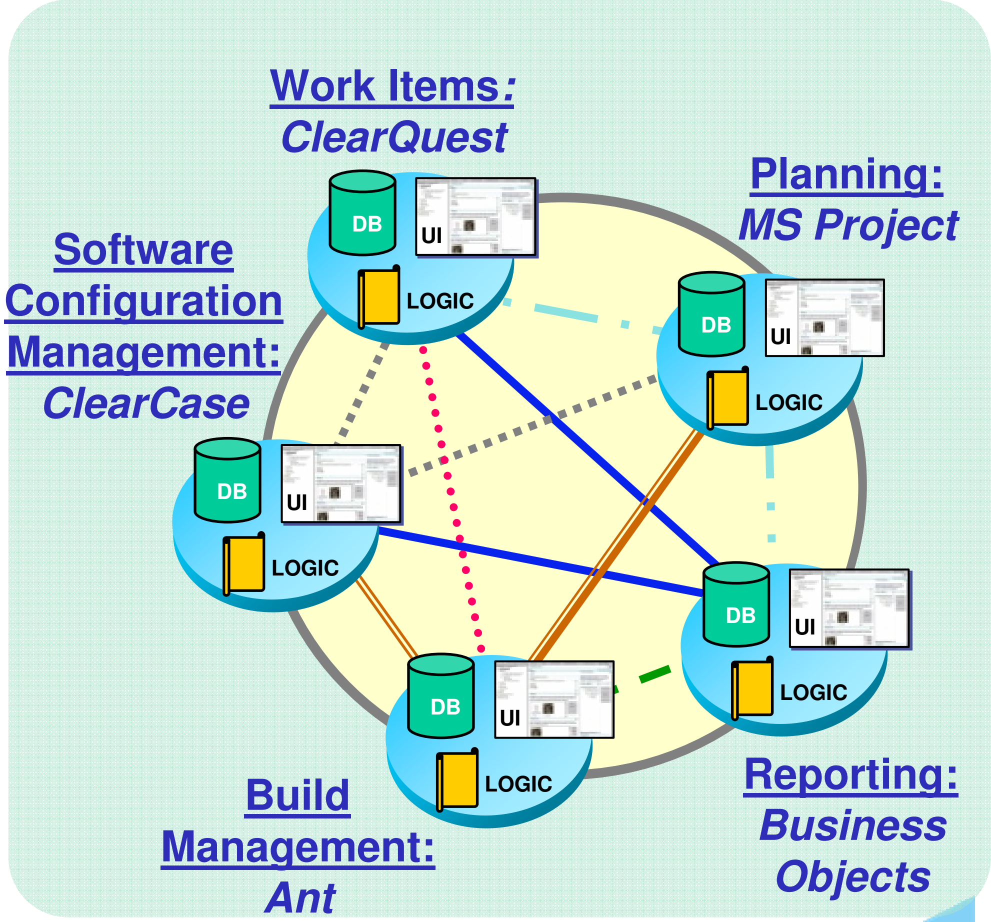
System z
COBOL, Java/WAS
RDz

AIX on Power,
Java/WAS, RD for Power, RTC experimentation

Microsoft Windows x86,
Java/WAS and Microsoft .NET
Subversion, JIRA Studio,
HP QC,
Microsoft VS 2010
Microsoft VS 2010, MS Office, SharePoint

Typically a variety of tools provide Change and Configuration Management in an enterprise software delivery and that creates challenges

- Multi-site, globally distributed development on different platforms
- Many different CCM methodologies/tools
- Each tool requires unique integration with other tools
- Each tool has own repository
- Point-to-point integrations become unmanageable
- Brittle/non-existent linkage to Requirements and Quality tools
- Teams find it hard to work together



Change and Configuration Management issues cross geographies and user roles

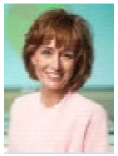
Parties feel isolated from each other…

Developer: "What test uncovered this defect, on which environment and which build?"

Analyst: "Are all the requirements tested?"

Tester: "What defects have been addressed since the last build?"

Project Manager: "Are we ready to release?"



Current Concerns

- No consolidated hub of information
- LOB Analysts and Quality Testers feel detached from the development team
- Project status reporting is labor-intensive

Build Manager "How can I speed up my builds across my platforms?"

A poor CCM process jeopardizes ability to develop high quality solutions

A robust CCM solution is needed to effectively develop and deliver high quality software

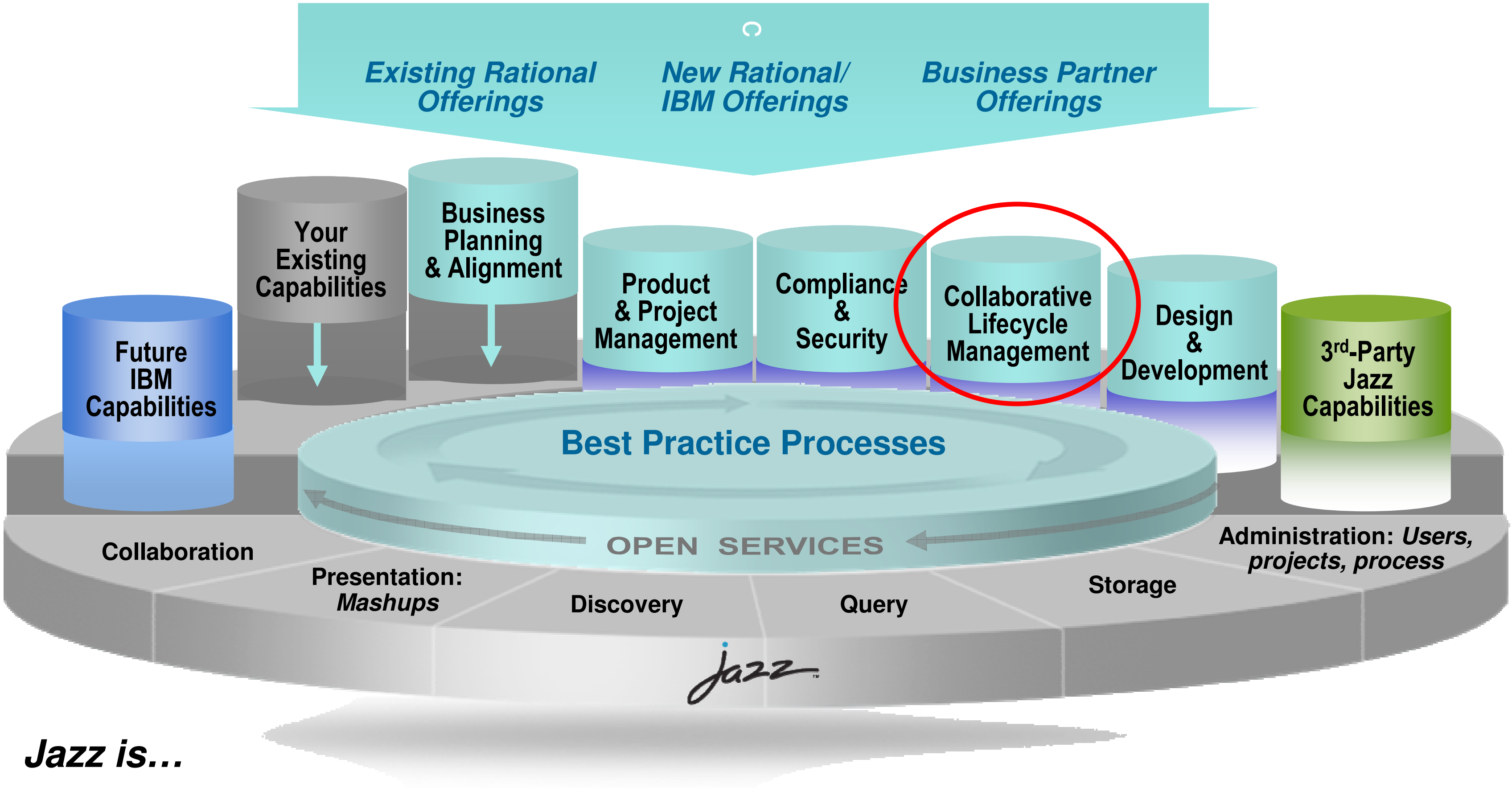
Such solution must have these capabilities:

- Work Item Management
- Linkage with Requirements and Quality Management processes
- Source Control Management
- Project Planning/Management
- Automated Build Management

Rational Team Concert was designed to do this. It allows your team to collaborate on plans, tasks, code and builds, all in one place

Rational Team Concert is based on Jazz

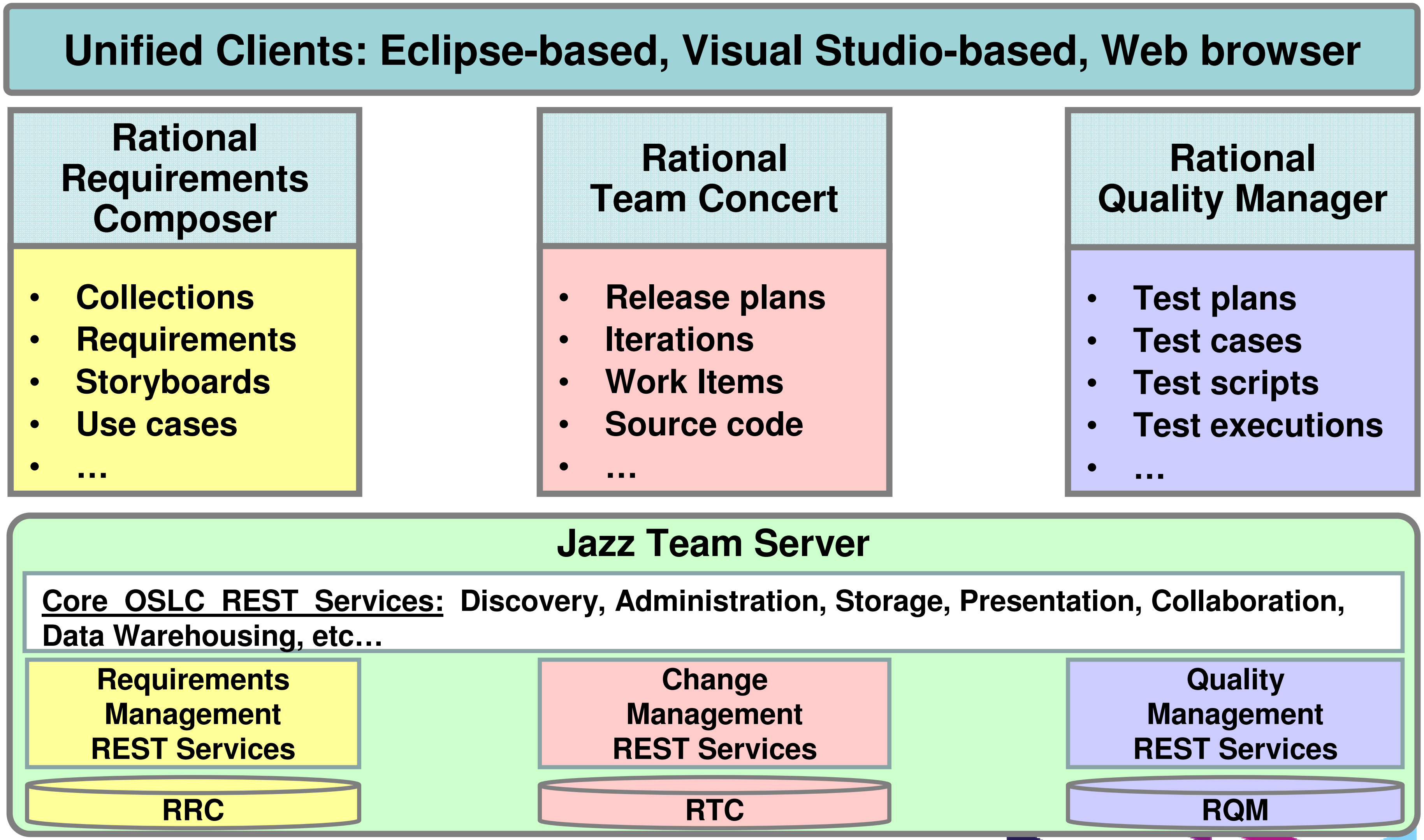
an open platform with a shared set of services


Existing Rational Offerings
New Rational/ IBM Offerings
Business Partner Offerings
Future IBM Capabilities
Your Existing Capabilities
Business Planning & Alignment
Product & Project Management
Compliance & Security
Collaborative Lifecycle Management
Design & Development
3rd-Party Jazz Capabilities
Best Practice Processes
OPEN SERVICES
Collaboration
Presentation: *Mashups*
Discovery
Query
Storage
Administration: *Users, projects, process*
Jazz

Jazz is…

- A scalable, extensible team collaboration platform
- A community at Jazz.net, where you can see Jazz-based products being built
- An integration architecture, enabling mashups and non-Jazz based products to participate

Change and Configuration Management is a central component of IBM Jazz Application Lifecycle Management



Unified Clients: Eclipse-based, Visual Studio-based, Web browser

Rational Requirements Composer

- Collections
- Requirements
- Storyboards
- Use cases
- …

Rational Team Concert

- Release plans
- Iterations
- Work Items
- Source code
- …

Rational Quality Manager

- Test plans
- Test cases
- Test scripts
- Test executions
- …

Jazz Team Server

Core OSLC REST Services: Discovery, Administration, Storage, Presentation, Collaboration, Data Warehousing, etc…

Requirements Management REST Services

Change Management REST Services

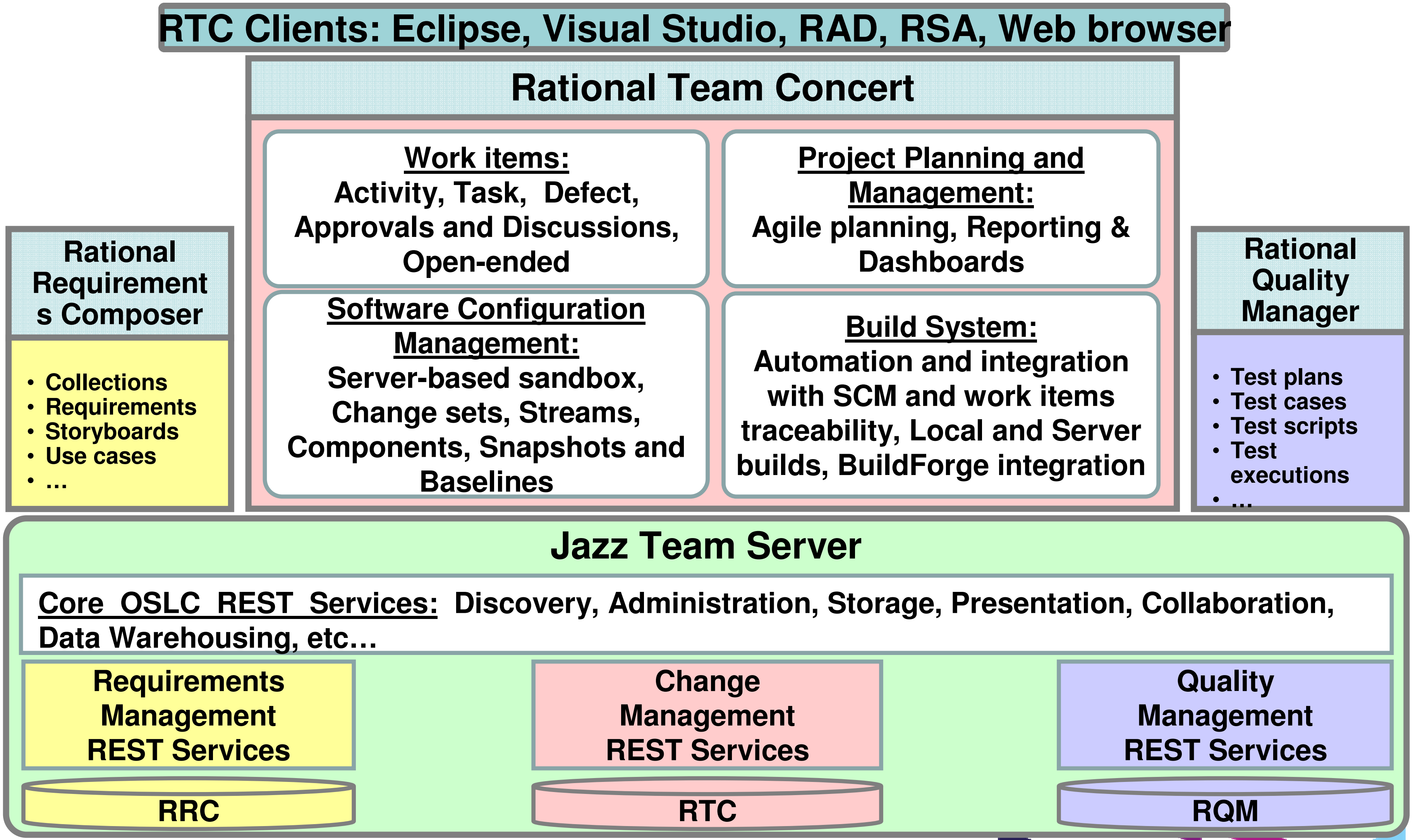
Quality Management REST Services

RRC

RTC

RQM

RTC is the core product in IBM Jazz-based ALM that provides the consolidated hub of all artifacts



RTC Clients: Eclipse, Visual Studio, RAD, RSA, Web browser

Rational Team Concert

Work items:
Activity, Task, Defect, Approvals and Discussions, Open-ended

Project Planning and Management:
Agile planning, Reporting & Dashboards

Software Configuration Management:
Server-based sandbox, Change sets, Streams, Components, Snapshots and Baselines

Build System:
Automation and integration with SCM and work items traceability, Local and Server builds, BuildForge integration

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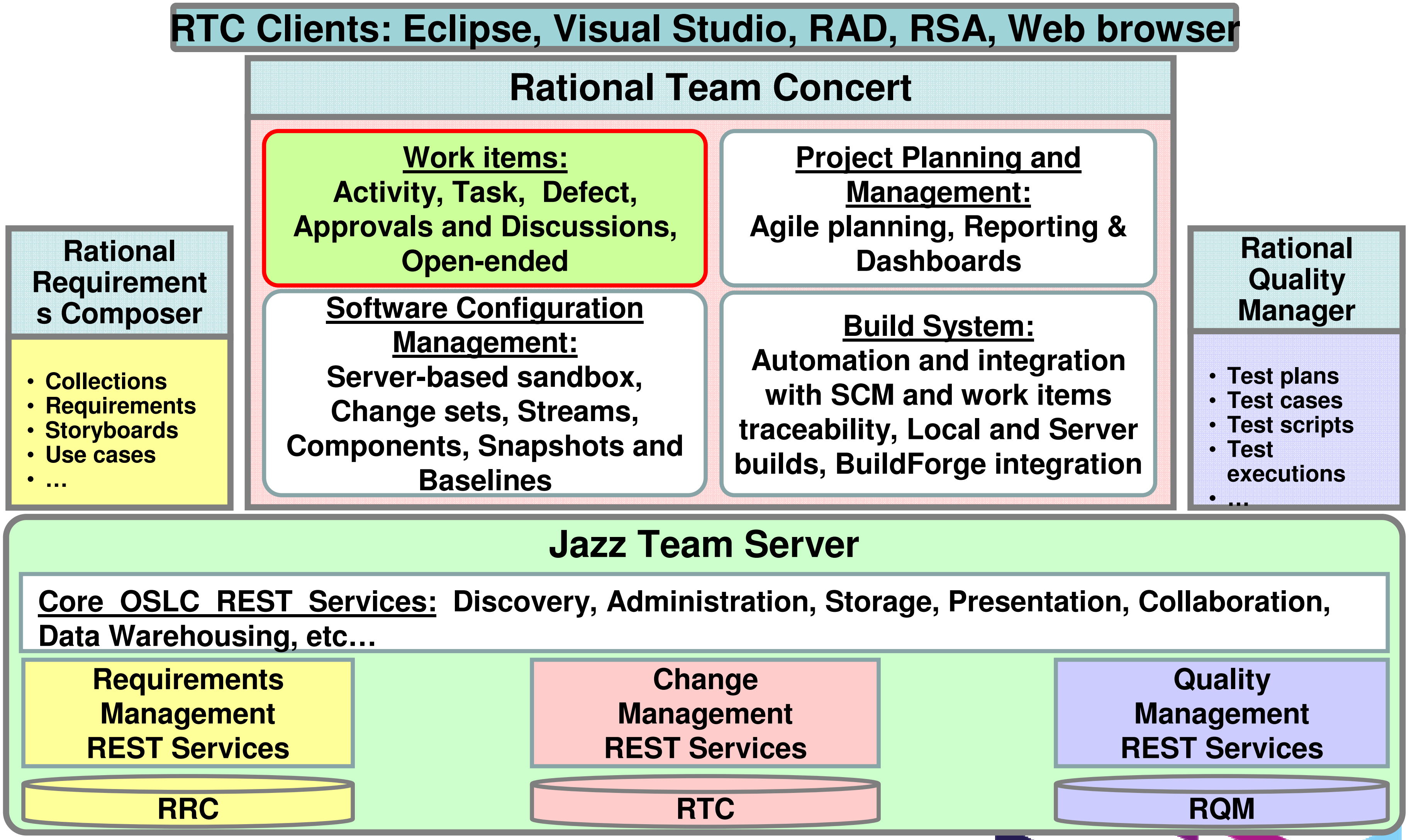
RTC work items are used to track and coordinate development tasks and Workflows



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Jazz Team Server

Core OSLC REST Services: Discovery, Administration, Storage, Presentation, Collaboration, Data Warehousing, etc…

Requirements Management REST Services

Change Management REST Services

Quality Management REST Services

RRC

RTC

RQM

Work Items are the fundamental mechanisms in RTC

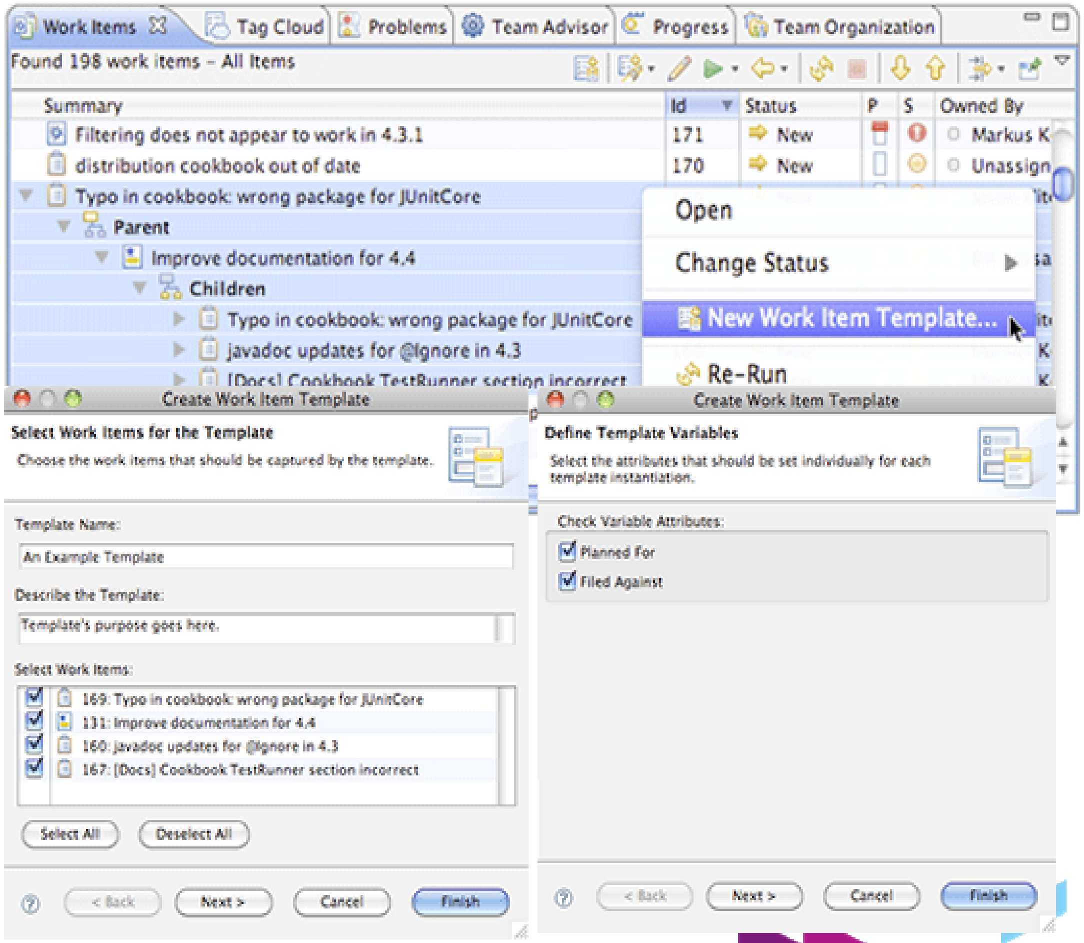
- Plan work item types are used to capture high-level plan elements
  - Epic
  - Story
- Execution work item types are used to capture the lower-level details and the work that should be completed in a single iteration
  - Task
  - Defect
- Work items are the basis for linkage between many artifacts

Work Items are used to track and coordinate development tasks and workflows

Work item creation is easy and fast

Work Item templates allow the creation of work items with pre-populated attributes and links

- Work items that reflect repeating tasks in different iterations
  - Create by instantiating a template for each iteration
- Work item template wizard
  - Capture and create new templates



Found 198 work items – All Items

Summary	Id	Status	P	S	Owned By
Filtering does not appear to work in 4.3.1	171	New			Markus K
distribution cookbook out of date	170	New			Unassign
Typo in cookbook: wrong package for JUnitCore					
Parent					
Improve documentation for 4.4					
Children					
Typo in cookbook: wrong package for JUnitCore					
javadoc updates for @Ignore in 4.3					
[Docs] Cookbook TestRunner section incorrect					

Create Work Item Template

Select Work Items for the Template

Choose the work items that should be captured by the template.

Template Name: An Example Template

Describe the Template: Template's purpose goes here.

Select Work Items:

☑ 169: Typo in cookbook: wrong package for JUnitCore
☑ 131: Improve documentation for 4.4
☑ 160: javadoc updates for @Ignore in 4.3
☑ 167: [Docs] Cookbook TestRunner section incorrect

Create Work Item Template

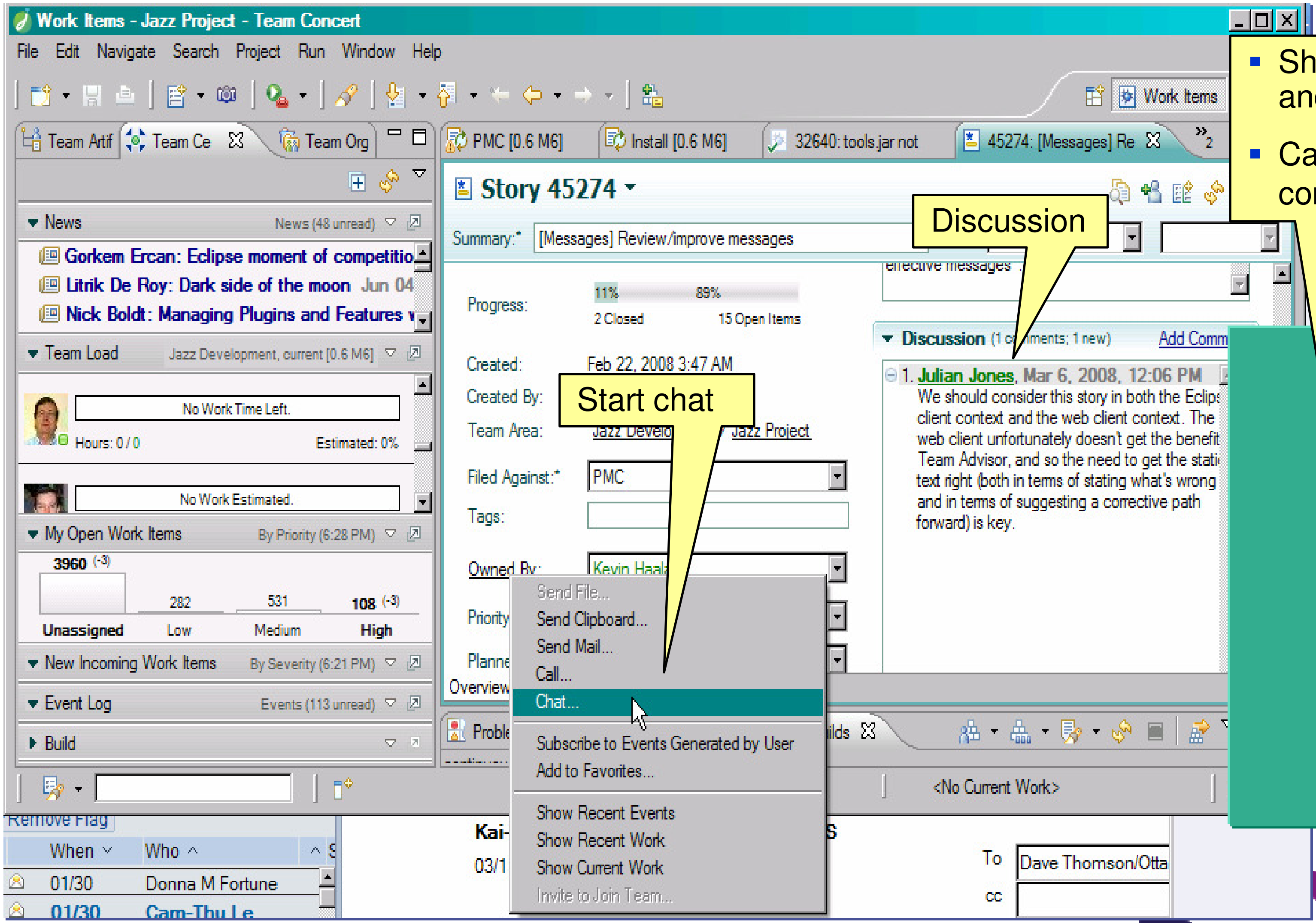
Define Template Variables

Select the attributes that should be set individually for each template instantiation.

Check Variable Attributes:

☑ Planned For
☑ Filed Against

RTC allows users to collaborate with a real-time, in context Work Item discussions and via instant messaging



Summary:* [Messages] Review/improve messages

effective messages

Progress: 11% 89% 2 Closed 15 Open Items

Created: Feb 22, 2008 3:47 AM

Created By:

Team Area: Jazz Develo Jazz Project

Filed Against:* PMC

Tags:

Owned By: Kevin Haal

Priority

Planne

Overview

Discussion (1 comments; 1 new) Add Comm

1. Julian Jones, Mar 6, 2008, 12:06 PM

We should consider this story in both the Eclipse client context and the web client context. The web client unfortunately doesn't get the benefit Team Advisor, and so the need to get the stati text right (both in terms of stating what's wrong and in terms of suggesting a corrective path forward) is key.

When	Who
01/30	Donna M Fortune
01/30	Cam-Thu Le

To Dave Thomson/Otta

Discussion

Start chat

- Shows team members and their online status
- Can start chat in context with work item

Traceability helps team members understand what everyone else is doing

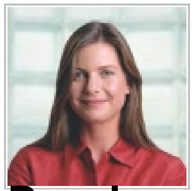
- What requirements did this iteration address?
- Are all the requirements tested?
- What defects are reported against which requirements?

LOB Analyst

- What is the quality of the build?
- What has changed that I need to test?
- What defects did the last build address?

Tester

- What requirements am I implementing?
- How can I recreate the last version?
- What test uncovered this defect?
- What changes occurred last night?



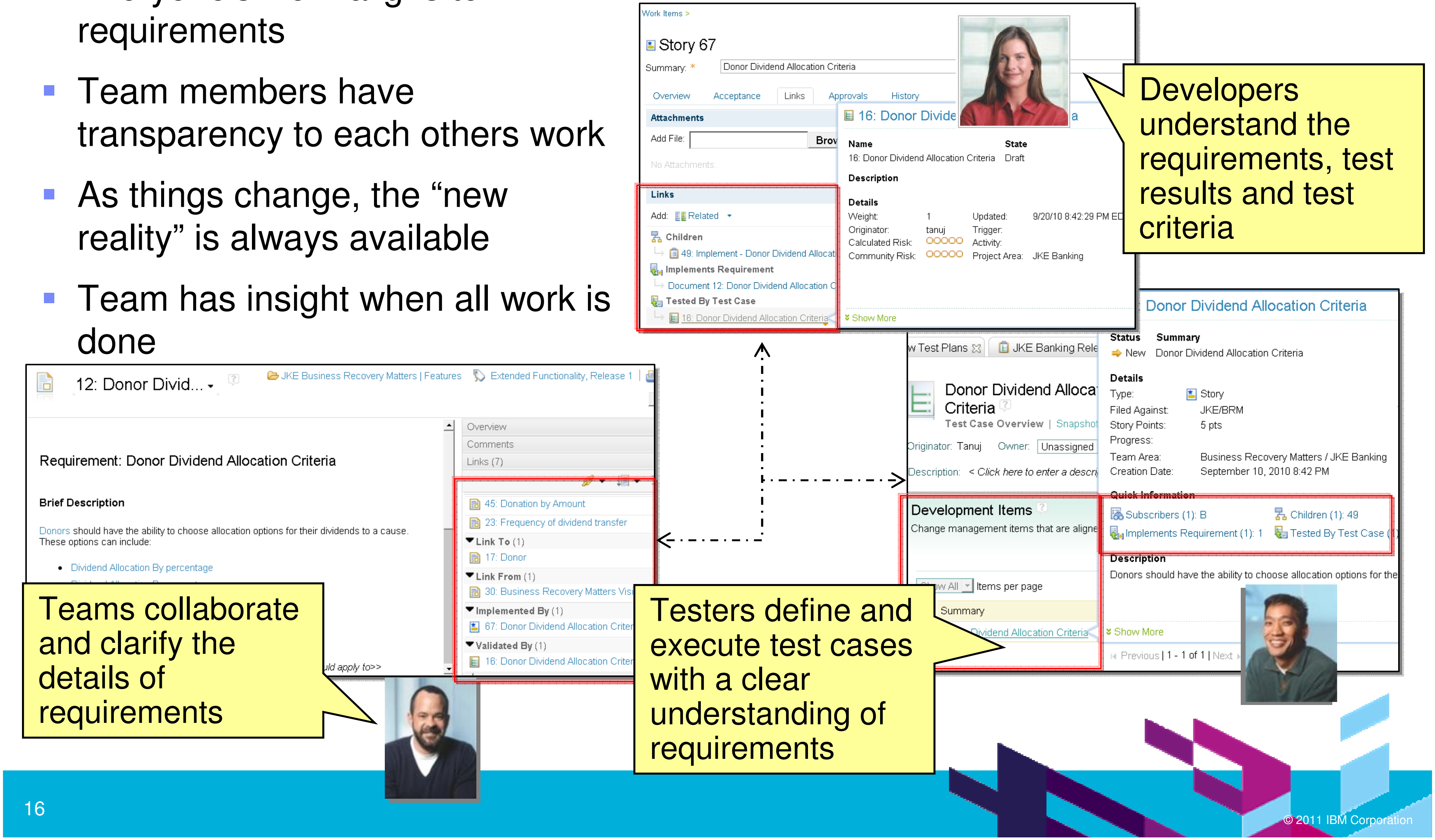
Developer

- How can I speed up my builds?
- Are build times getting longer or shorter?

Build Manager

Plan Item traceability improves quality and predictability

- Everyone's work aligns to requirements
- Team members have transparency to each others work
- As things change, the “new reality” is always available
- Team has insight when all work is done



Work Items >

Story 67

Summary: * Donor Dividend Alignment Criteria

Overview | Acceptance | Links | Approvals | History

Attachments

Add File: Brov

No Attachments

Links

Add: Related

Children
49: Implement - Donor Dividend Allocat

Implements Requirement
Document 12: Donor Dividend Allocation C

Tested By Test Case
16: Donor Dividend Allocation Criteria

16: Donor Divide a

Name	State
16: Donor Dividend Allocation Criteria	Draft

Description

Details

Weight: 1 Updated: 9/20/10 8:42:29 PM ED
Originator: tanuj Trigger:
Calculated Risk: ○○○○○ Activity:
Community Risk: ○○○○○ Project Area: JKE Banking

Show More

Developers understand the requirements, test results and test criteria

Donor Dividend Allocation Criteria

Status	Summary
New	Donor Dividend Allocation Criteria

Details

Type: Story
Filed Against: JKE/BRM
Story Points: 5 pts
Progress:
Team Area: Business Recovery Matters / JKE Banking
Creation Date: September 10, 2010 8:42 PM

Quick Information

Subscribers (1): B | Children (1): 49
Implements Requirement (1): 1 | Tested By Test Case (

Description

Donors should have the ability to choose allocation options for the

Show More

w Test Plans | JKE Banking Rele

Donor Dividend Alloca Criteria

Test Case Overview | Snapshot

Originator: Tanuj Owner: Unassigned

Description: < Click here to enter a descri

Development Items

Change management items that are aligne

w All Items per page

Summary

Dividend Allocation Criteria

Previous | 1 - 1 of 1 | Next

12: Donor Divid...

JKE Business Recovery Matters | Features   Extended Functionality, Release 1

Requirement: Donor Dividend Allocation Criteria

Brief Description

Donors should have the ability to choose allocation options for their dividends to a cause. These options can include:

- Dividend Allocation By percentage

ld apply to>>

Overview
Comments
Links (7)

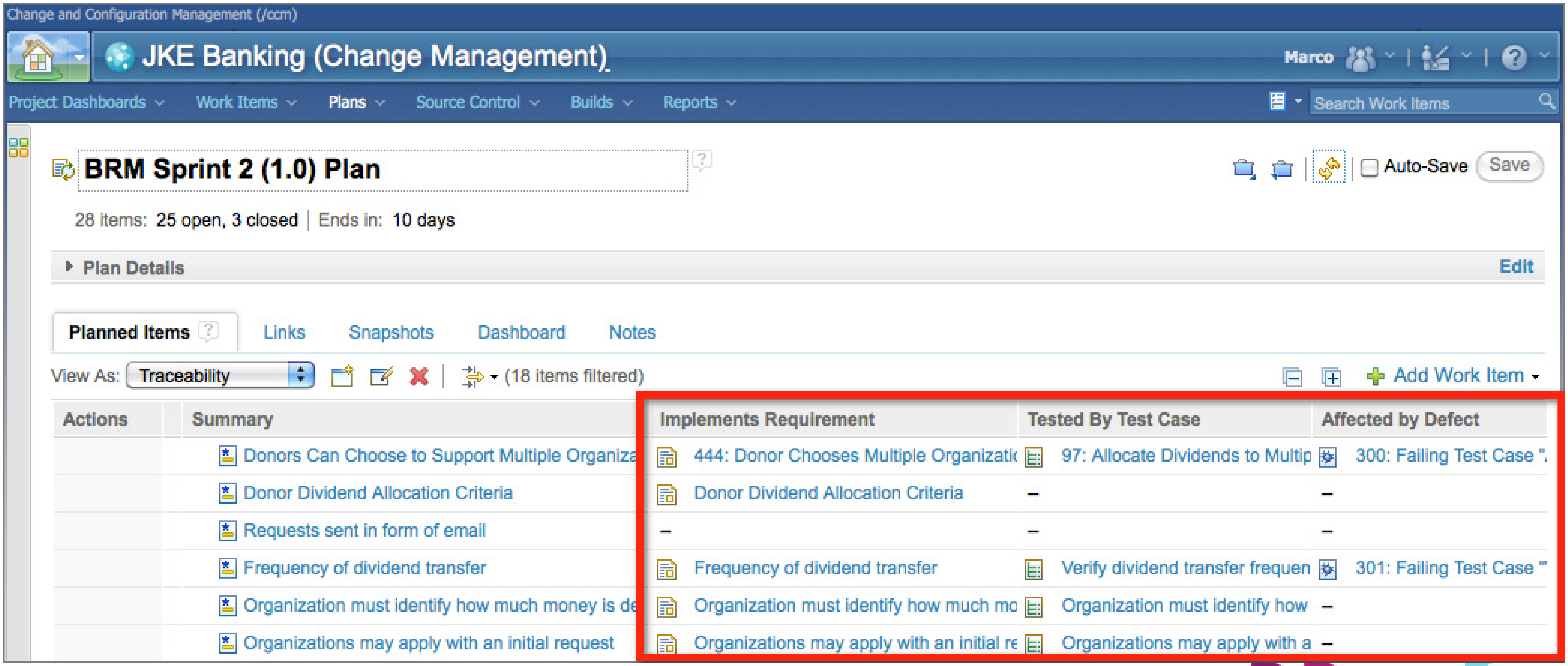
45: Donation by Amount
23: Frequency of dividend transfer
Link To (1)
17: Donor
Link From (1)
30: Business Recovery Matters Visi
Implemented By (1)
67: Donor Dividend Allocation Criter
Validated By (1)
16: Donor Dividend Allocation Criter

Teams collaborate and clarify the details of requirements

Testers define and execute test cases with a clear understanding of requirements

Relationship Views enable continuous traceability

- Find and respond to gaps as they surface through out the project
- Tracing throughout the project improves regulatory compliance



BRM Sprint 2 (1.0) Plan

28 items: 25 open, 3 closed | Ends in: 10 days

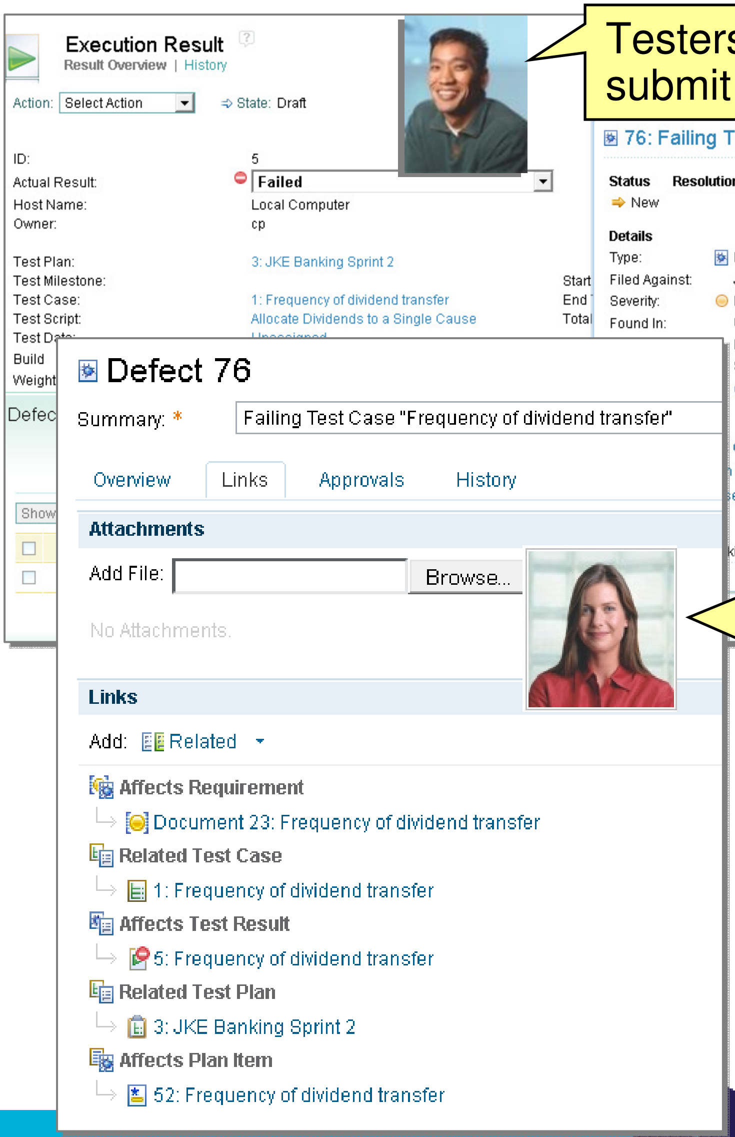
Plan Details

View As: Traceability (18 items filtered)

Actions	Summary	Implements Requirement	Tested By Test Case	Affected by Defect
	Donors Can Choose to Support Multiple Organiza	444: Donor Chooses Multiple Organizati	97: Allocate Dividends to Multip	300: Failing Test Case ".
	Donor Dividend Allocation Criteria	Donor Dividend Allocation Criteria	–	–
	Requests sent in form of email	–	–	–
	Frequency of dividend transfer	Frequency of dividend transfer	Verify dividend transfer frequen	301: Failing Test Case "
	Organization must identify how much money is de	Organization must identify how much mo	Organization must identify how	–
	Organizations may apply with an initial request	Organizations may apply with an initial re	Organizations may apply with a	–

Defect collaboration in the development-test cycle reduces costs and improves quality

- Minimal number of clicks needed to submit a defect that is automatically linked to impacted artifacts
- Test results recorded and linked to test cases and associated requirements
- Test results can link to software builds
- Everyone has visibility to defects, their impact, and actions taken to resolve them



Testers execute tests and submit defects found to RTC

Execution Result
Result Overview | History

Action: Select Action State: Draft

ID: 5
Actual Result: Failed
Host Name: Local Computer
Owner: cp
Test Plan: 3: JKE Banking Sprint 2
Test Milestone:
Test Case: 1: Frequency of dividend transfer
Test Script: Allocate Dividends to a Single Cause
Test Data: Unassigned
Build
Weight
Start
End
Total

Defect 76

Summary: * Failing Test Case "Frequency of dividend transfer"

Overview | Links | Approvals | History

Attachments

Add File: Browse...

No Attachments.

Links

Add: Related

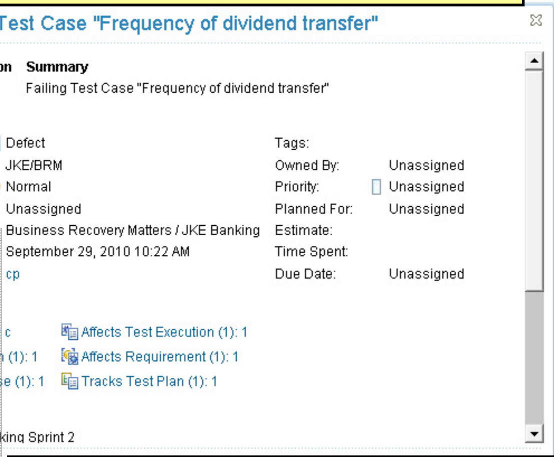
Affects Requirement
- Document 23: Frequency of dividend transfer

Related Test Case
- 1: Frequency of dividend transfer

Affects Test Result
- 5: Frequency of dividend transfer

Related Test Plan
- 3: JKE Banking Sprint 2

Affects Plan Item
- 52: Frequency of dividend transfer



76: Failing Test Case "Frequency of dividend transfer"

Status	Resolution	Summary
New		Failing Test Case "Frequency of dividend transfer"

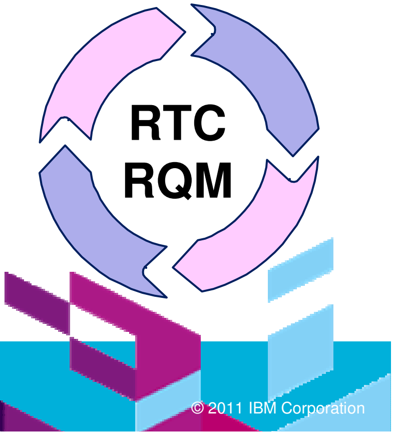
Details

Type:	Defect	Tags:	
Filed Against:	JKE/BRM	Owned By:	Unassigned
Severity:	Normal	Priority:	Unassigned
Found In:	Unassigned	Planned For:	Unassigned
	Business Recovery Matters / JKE Banking	Estimate:	
	September 29, 2010 10:22 AM	Time Spent:	
	cp	Due Date:	Unassigned

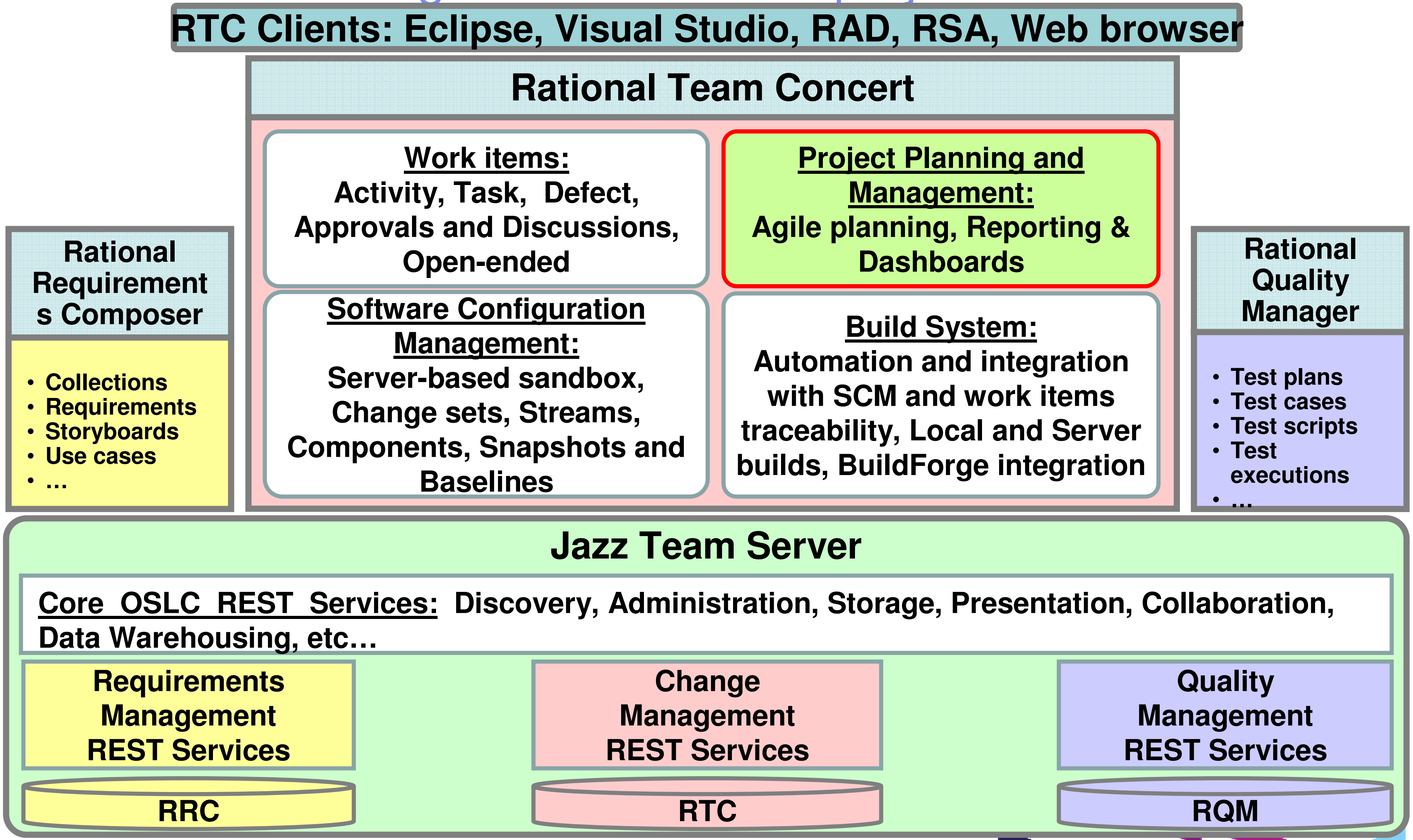
Affects Test Execution (1): 1
Affects Requirement (1): 1
Tracks Test Plan (1): 1

king Sprint 2

Developers can see the exact test failure without having to ask for it.



RTC Planning provides tools to assist with planning and execution of both agile and traditional projects



RTC Clients: Eclipse, Visual Studio, RAD, RSA, Web browser

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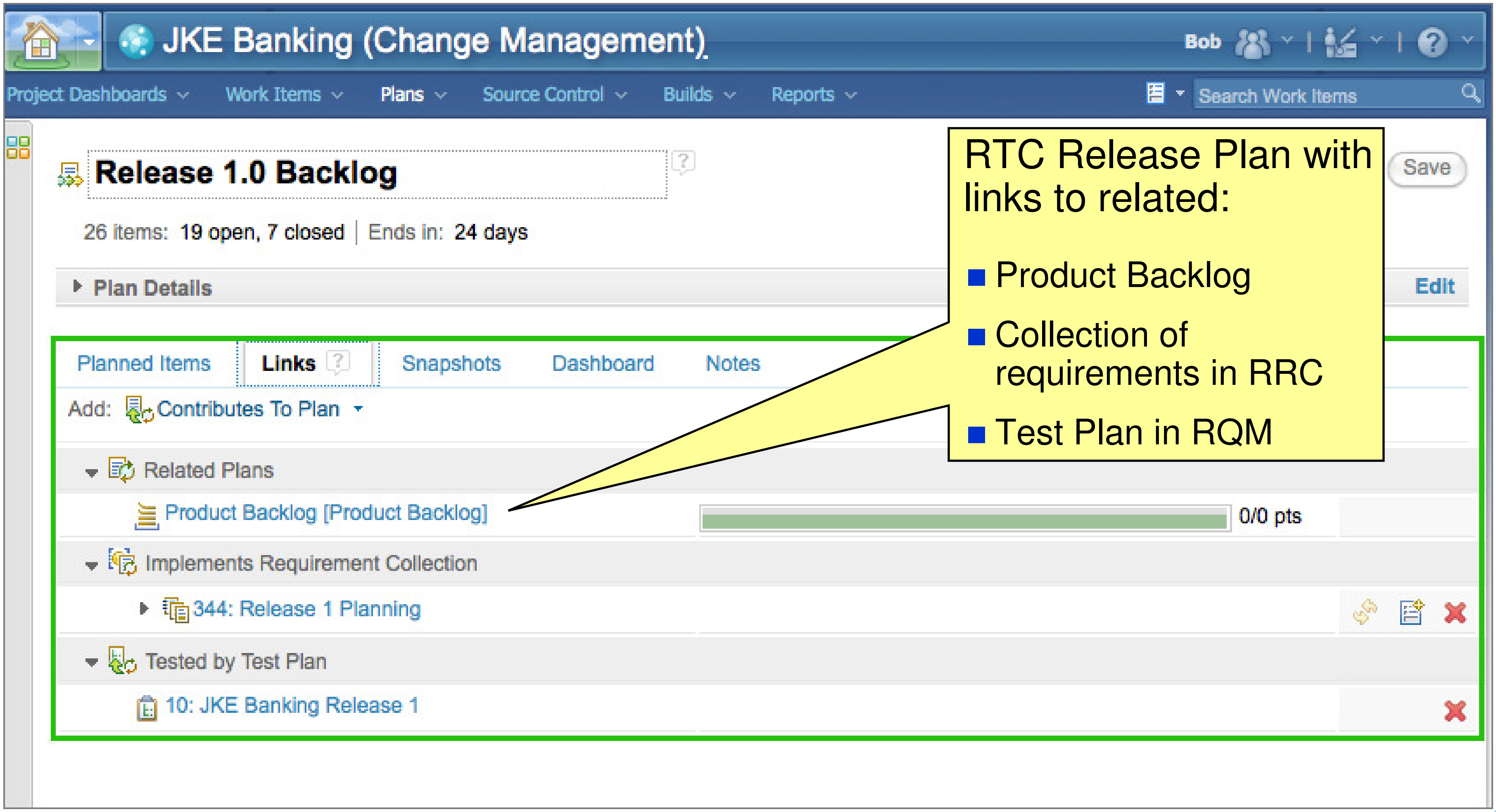
RRC

RTC

RQM

Planning across the entire team includes requirements and test team roles



JKE Banking (Change Management)

Release 1.0 Backlog

26 items: 19 open, 7 closed | Ends in: 24 days

Plan Details

Add: Contributes To Plan

- Related Plans
  - Product Backlog [Product Backlog] — 0/0 pts
- Implements Requirement Collection
  - 344: Release 1 Planning
- Tested by Test Plan
  - 10: JKE Banking Release 1

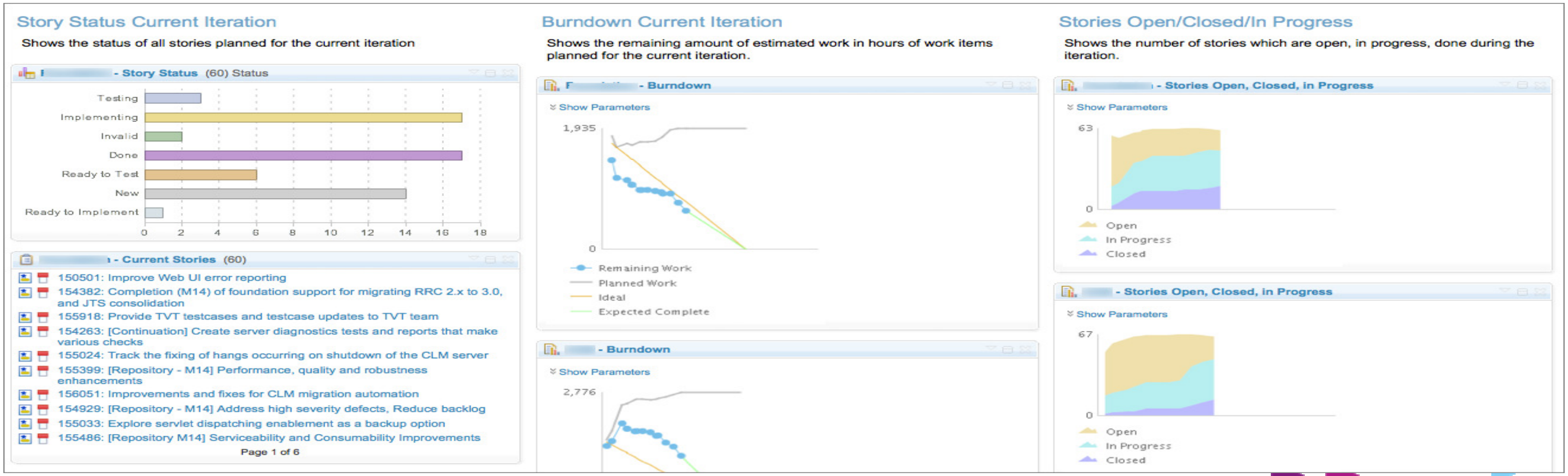
RTC Release Plan with links to related:

- Product Backlog
- Collection of requirements in RRC
- Test Plan in RQM

RTC has reports and dashboards to help managers track and report on project status

- Keep tabs on project health
- Prevent unpleasant surprises
- Reports provide both real-time views and historical trends

- Ships with library of 50+ predefined reports
- Dashboards provide at-a-glance views on project progress
- Both customizable/configurable



Story Status Current Iteration

Shows the status of all stories planned for the current iteration

[redacted] - Story Status (60) Status

[redacted] - Current Stories (60)

- 150501: Improve Web UI error reporting
- 154382: Completion (M14) of foundation support for migrating RRC 2.x to 3.0, and JTS consolidation
- 155918: Provide TVT testcases and testcase updates to TVT team
- 154263: [Continuation] Create server diagnostics tests and reports that make various checks
- 155024: Track the fixing of hangs occurring on shutdown of the CLM server
- 155399: [Repository - M14] Performance, quality and robustness enhancements
- 156051: Improvements and fixes for CLM migration automation
- 154929: [Repository - M14] Address high severity defects, Reduce backlog
- 155033: Explore servlet dispatching enablement as a backup option
- 155486: [Repository M14] Serviceability and Consumability Improvements

Page 1 of 6

Burndown Current Iteration

Shows the remaining amount of estimated work in hours of work items planned for the current iteration.

[redacted] - Burndown

[redacted] - Burndown

Stories Open/Closed/In Progress

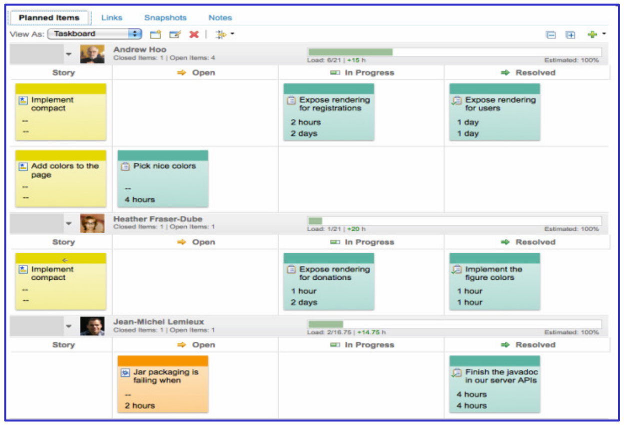
Shows the number of stories which are open, in progress, done during the iteration.

[redacted] - Stories Open, Closed, in Progress

[redacted] - Stories Open, Closed, in Progress

RTC planning and management is directly linked to execution

- Track progress during an iteration
- Balance work load of developers
- Determine schedule dependencies and constraints
- Make plans accessible to everyone on team
- Change plan dynamically over course of project to reflect team's position and direction
- Perform estimation and planning at daily, iteration, and release level
- Make plans and status Web-accessible to extended stakeholders



Andrew Hoo
Closed Items: 1 | Open Items: 4
Load: 6/21 | +15 h
Estimated: 100%

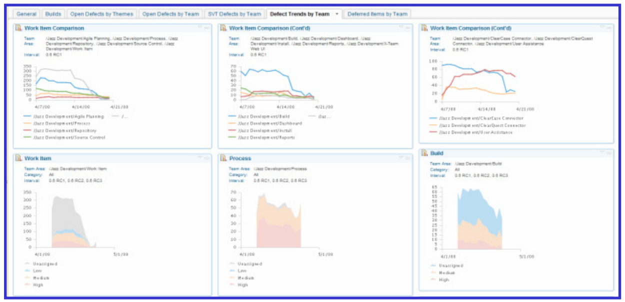
Story	Open	In Progress	Resolved
Implement compact -- --		Expose rendering for registrations 2 hours 2 days	Expose rendering for users 1 day 1 day
Add colors to the page -- --	Pick nice colors -- 4 hours		

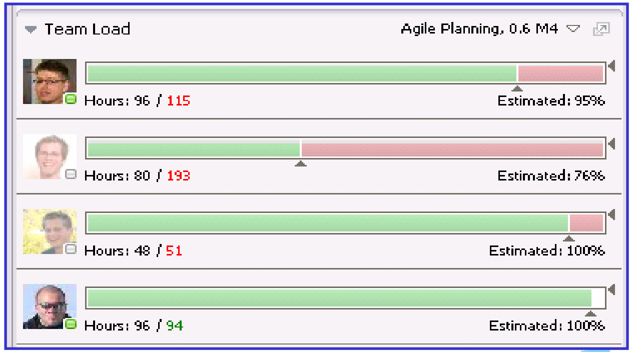
Heather Fraser-Dube
Closed Items: 1 | Open Items: 1
Load: 1/21 | +20 h
Estimated: 100%

Story	Open	In Progress	Resolved
Implement compact -- --		Expose rendering for donations 1 hour 2 days	Implement the figure colors 1 hour 1 hour

Jean-Michel Lemieux
Closed Items: 1 | Open Items: 1
Load: 2/16.75 | +14.75 h
Estimated: 100%

Story	Open	In Progress	Resolved
	Jar packaging is failing when -- 2 hours		Finish the javadoc in our server APIs 4 hours 4 hours





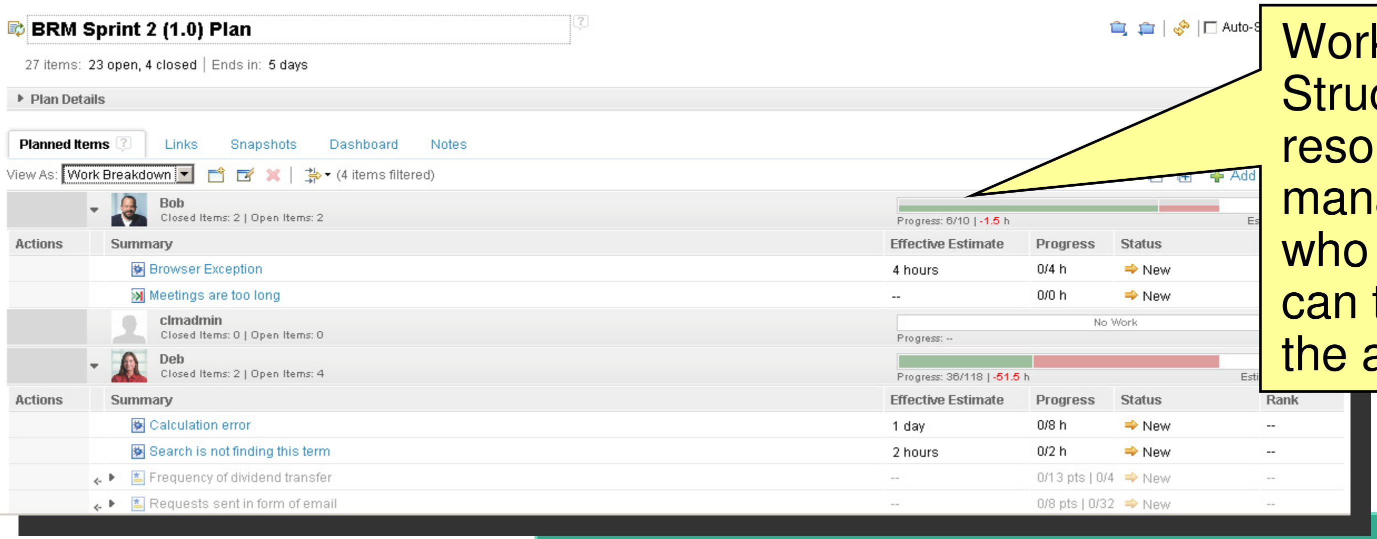
Hours: 96 / 115 Estimated: 95%

Hours: 80 / 193 Estimated: 76%

Hours: 48 / 51 Estimated: 100%

Hours: 96 / 94 Estimated: 100%

Variety of views helps managers keep track of work items and changes



BRM Sprint 2 (1.0) Plan

27 items: 23 open, 4 closed | Ends in: 5 days

View As: Work Breakdown (4 items filtered)

Bob
Closed Items: 2 | Open Items: 2
Progress: 6/10 | -1.5 h

Actions	Summary	Effective Estimate	Progress	Status
	Browser Exception	4 hours	0/4 h	New
	Meetings are too long	--	0/0 h	New

clmadmin
Closed Items: 0 | Open Items: 0
No Work
Progress: --

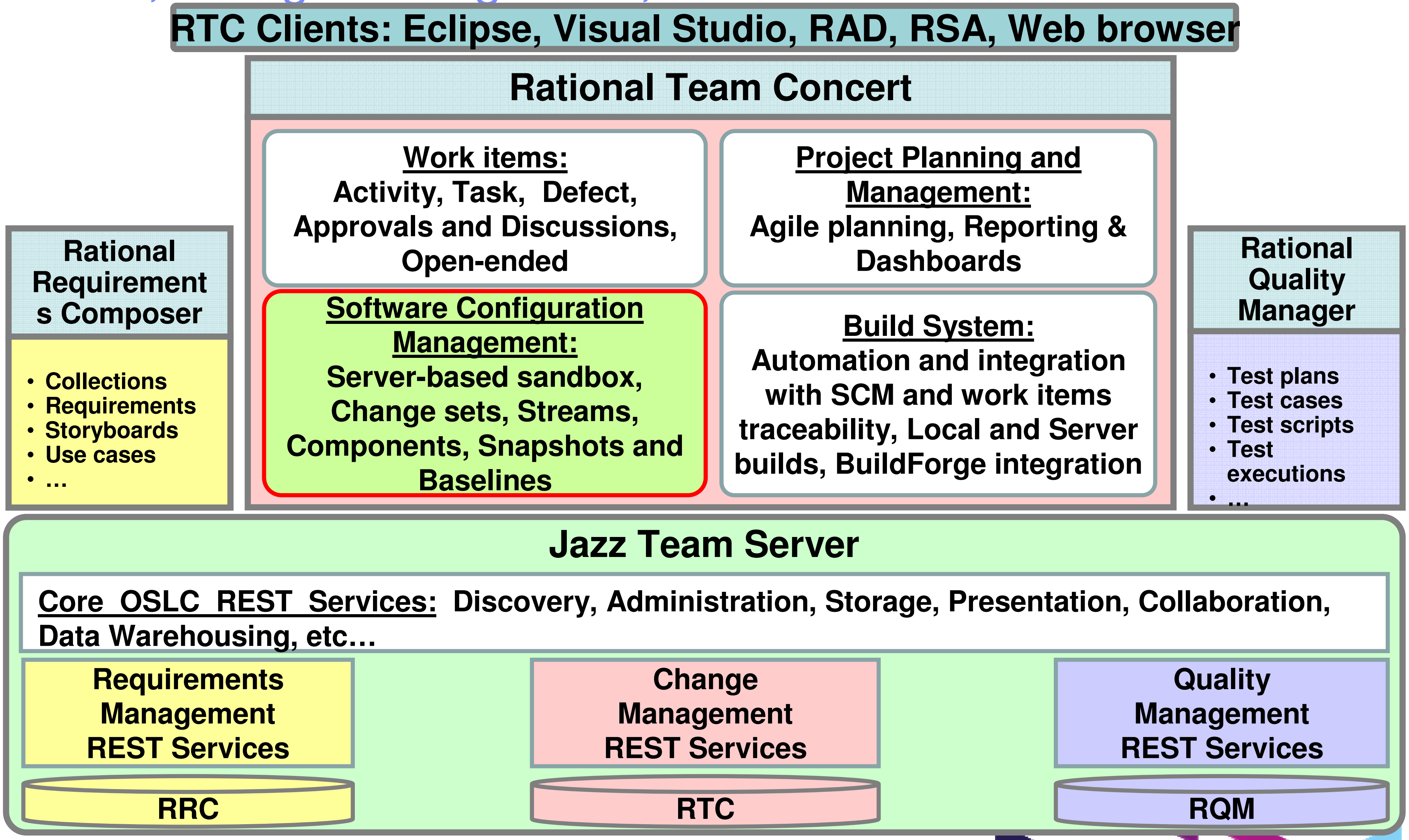
Deb
Closed Items: 2 | Open Items: 4
Progress: 36/118 | -51.5 h

Actions	Summary	Effective Estimate	Progress	Status	Rank
	Calculation error	1 day	0/8 h	New	--
	Search is not finding this term	2 hours	0/2 h	New	--
	Frequency of dividend transfer	--	0/13 pts | 0/4	New	--
	Requests sent in form of email	--	0/8 pts | 0/32	New	--

Work Breakdown Structure view has resource bars so that managers can determine who is overloaded. They can then manually level the assignments

Taskboard view is ideal for daily Scrums. At a glance everyone can see who is working on and what is in the pipeline

RTC Software Configuration Management consists of source control, change management, and version control



RTC Clients: Eclipse, Visual Studio, RAD, RSA, Web browser

Rational Team Concert

Work items: Activity, Task, Defect, Approvals and Discussions, Open-ended

Project Planning and Management: Agile planning, Reporting & Dashboards

Software Configuration Management: Server-based sandbox, Change sets, Streams, Components, Snapshots and Baselines

Build System: Automation and integration with SCM and work items traceability, Local and Server builds, BuildForge integration

Rational Requirements Composer

- Collections
- Requirements
- Storyboards
- Use cases
- …

Rational Quality Manager

- Test plans
- Test cases
- Test scripts
- Test executions
- …

Jazz Team Server

Core OSLC REST Services: Discovery, Administration, Storage, Presentation, Collaboration, Data Warehousing, etc…

Requirements Management REST Services

Change Management REST Services

Quality Management REST Services

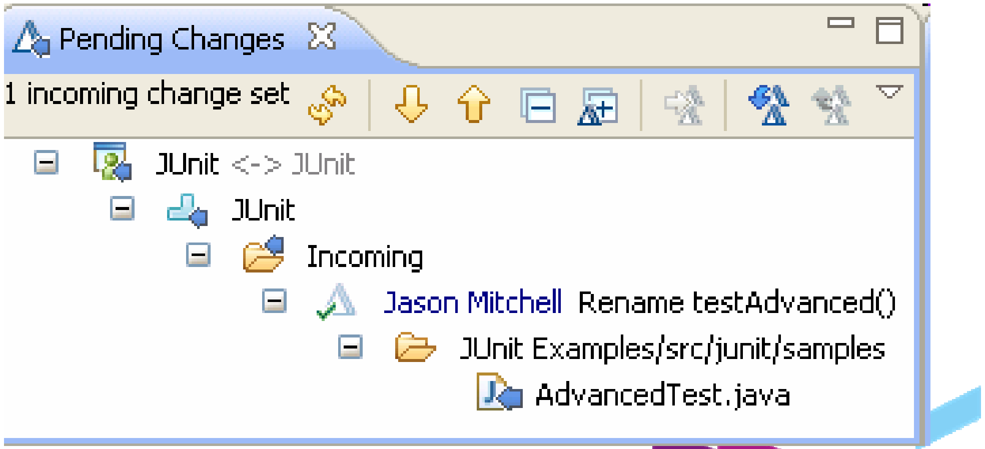
RRC

RTC

RQM

Software Configuration Management tracks and controls changes in software artifacts

- Software Configuration Management (SCM) provides processes and methodologies for managing assets that
  - Are stored in a secure repository
  - Can be organized into versioned artifacts, components and subsystems
  - Can be baselined for milestones in projects, and tracked
  - Can be worked on by multiple developers at the same time
- RTC has its own indigenous source control that is built into Jazz for better integration
  - Storage model is based on the change set – a collection of changes to one or more files and folders



Pending Changes

1 incoming change set

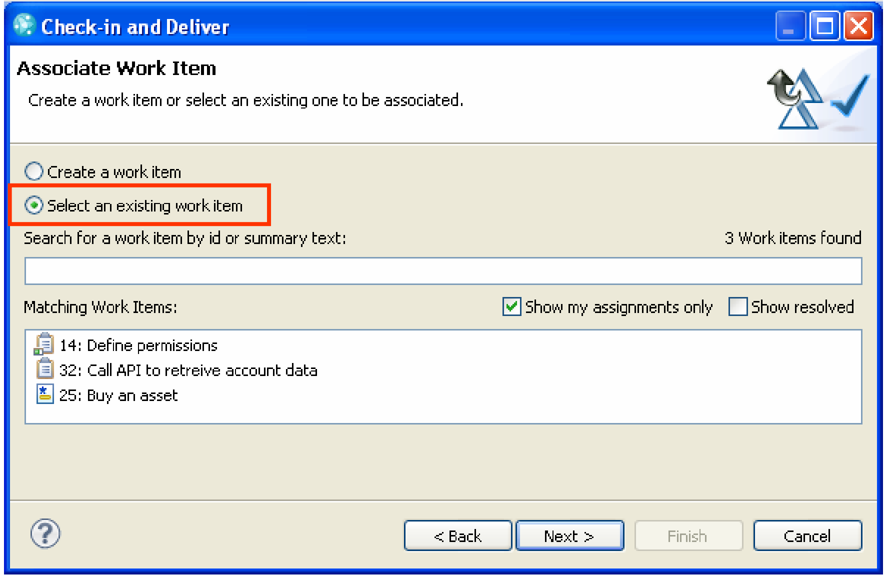
JUnit <-> JUnit
JUnit
Incoming
Jason Mitchell Rename testAdvanced()
JUnit Examples/src/junit/samples
AdvancedTest.java

Integrated Configuration Management is critical for effective software delivery solution

- RTC offers native source control allowing better integration especially when it comes to linking change sets with work items

- Many ALM suites integrate with 3rd party tools like Subversion for configuration management
- Results in poor integration -- in order to link a change set to a work item one has to enter the artifact ID in the comment field

Rational Team Concert
Planning, Work items, SCM, Build, Deployment



Check-in and Deliver

Associate Work Item

Create a work item or select an existing one to be associated.

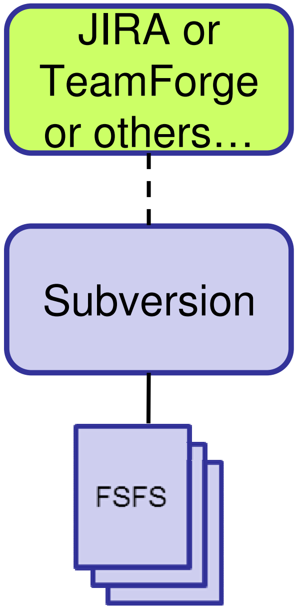
○ Create a work item

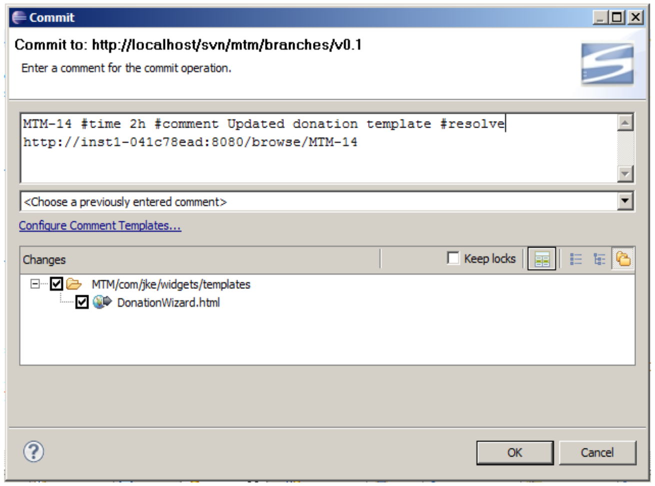
● Select an existing work item

Search for a work item by id or summary text: 3 Work items found

Matching Work Items: ☑ Show my assignments only □ Show resolved

- 14: Define permissions
- 32: Call API to retreive account data
- 25: Buy an asset





Commit

Commit to: http://localhost/svn/mtm/branches/v0.1

Enter a comment for the commit operation.

```
MTM-14 #time 2h #comment Updated donation template #resolve
http://inst1-041c78ead:8080/browse/MTM-14
```

<Choose a previously entered comment>

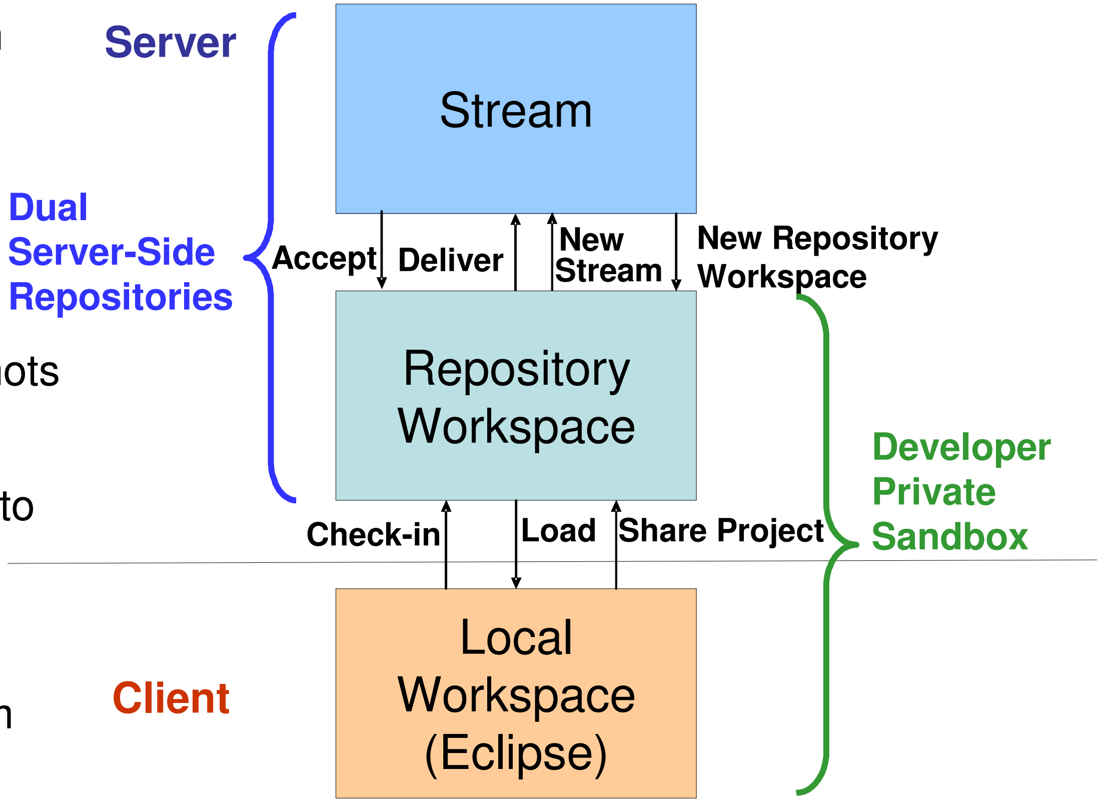
Configure Comment Templates...

Changes □ Keep locks

- ☑ MTM/com/jke/widgets/templates
  - ☑ DonationWizard.html

RTC uses a dual developer workspace design

- “Sandbox” – Developer work area where code changes made. In RTC:
  1. On the developer’s machine (Eclipse workspace shown), plus…
  2. Personal repository workspace on the server
- Personal repository workspace
  - Backed up with other server repositories
  - Preserved in baseline and snapshots
  - Searchable and collaborative
  - Available to other team members to view and access
- Permits personal builds
  - Test your code against latest team build before delivered to stream
  - Avoids accidentally breaking team build with your changes



Server

Dual Server-Side Repositories

Client

Stream

Accept

Deliver

New Stream

New Repository Workspace

Repository Workspace

Check-in

Load

Share Project

Developer Private Sandbox

Local Workspace (Eclipse)

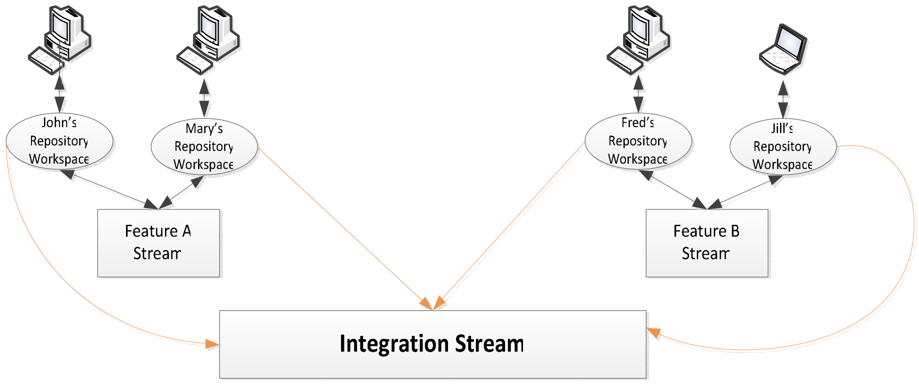
RTC streams avoid the chaos that emerges from constant branching and merging

Change set: ***A collection of changes to one or more files and folders***

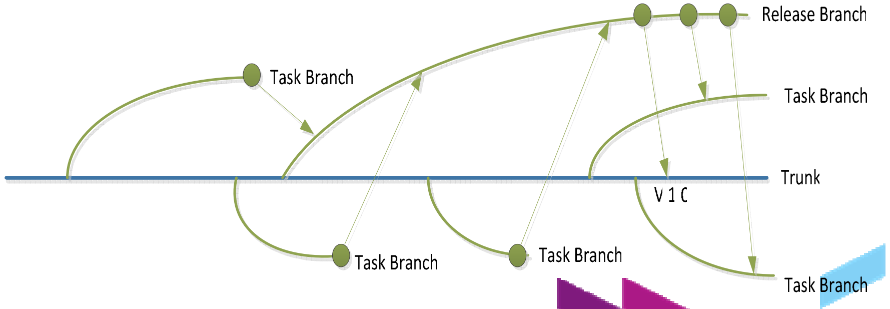
Stream: ***A single configuration of source code***

Team members can share change sets using streams or even in an ad hoc manner directly from each other's repository workspaces

- RTC's streams are integrated, organized and managed
- The repository manages searchable metadata about streams, components, and how they're linked
- The tool is the "integration agent"

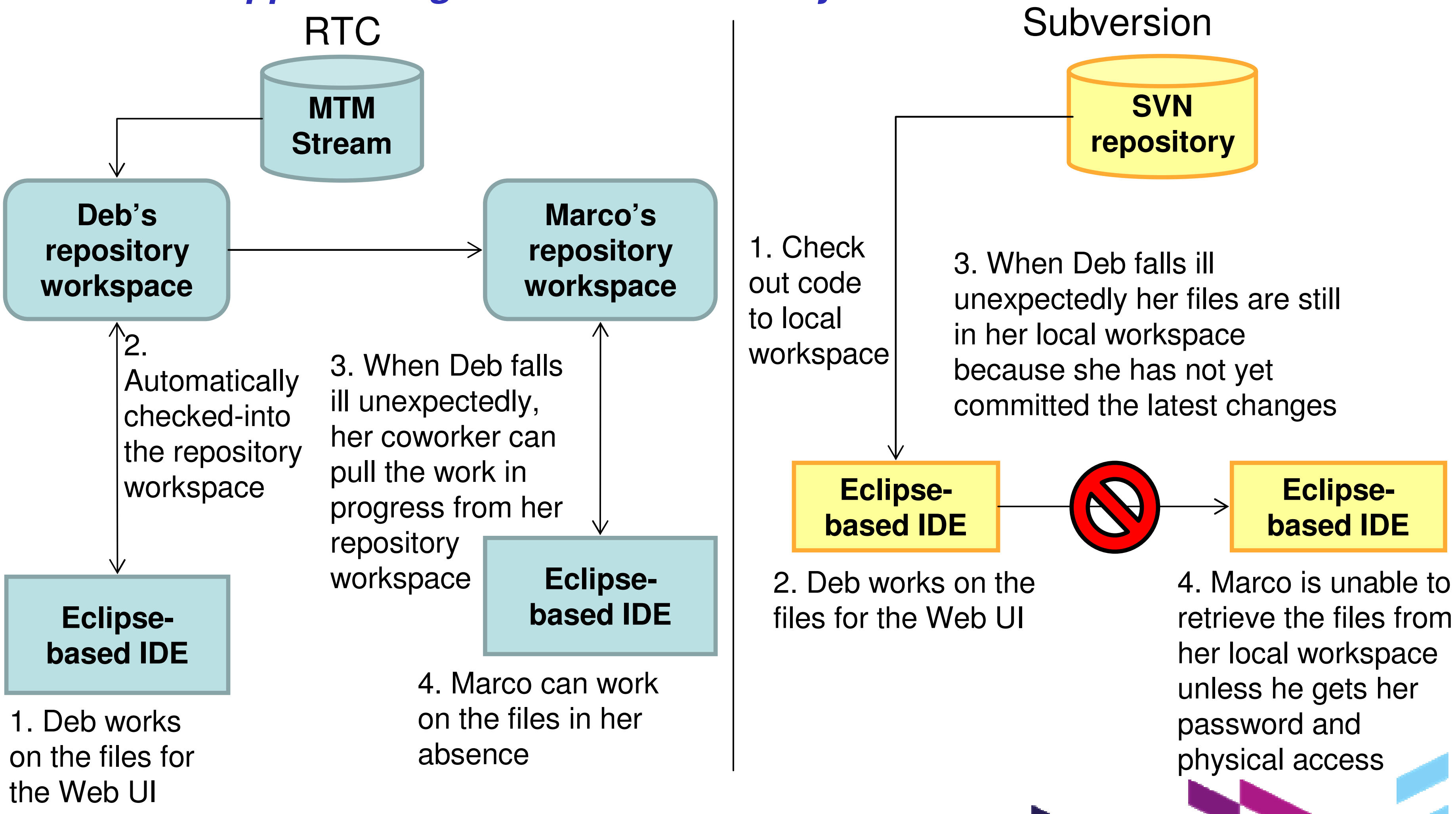

John's Repository Workspace
Mary's Repository Workspace
Fred's Repository Workspace
Jill's Repository Workspace
Feature A Strearr
Feature B Strearr
Integration Stream

- Subversion uses branches and merges, not streams
- Relies on conventions for naming and committing
- Depends on the underlying file system
- Developers need to understand that structure



Scenario: Jazz Source Control and repository workspaces

Deb is working on the website user interface for Money that Matters (MTM). What will happen though when she suddenly falls ill?



RTC

MTM Stream

Deb's repository workspace

Marco's repository workspace

2. Automatically checked-into the repository workspace

3. When Deb falls ill unexpectedly, her coworker can pull the work in progress from her repository workspace

Eclipse-based IDE

Eclipse-based IDE

1. Deb works on the files for the Web UI

4. Marco can work on the files in her absence

Subversion

SVN repository

1. Check out code to local workspace

3. When Deb falls ill unexpectedly her files are still in her local workspace because she has not yet committed the latest changes

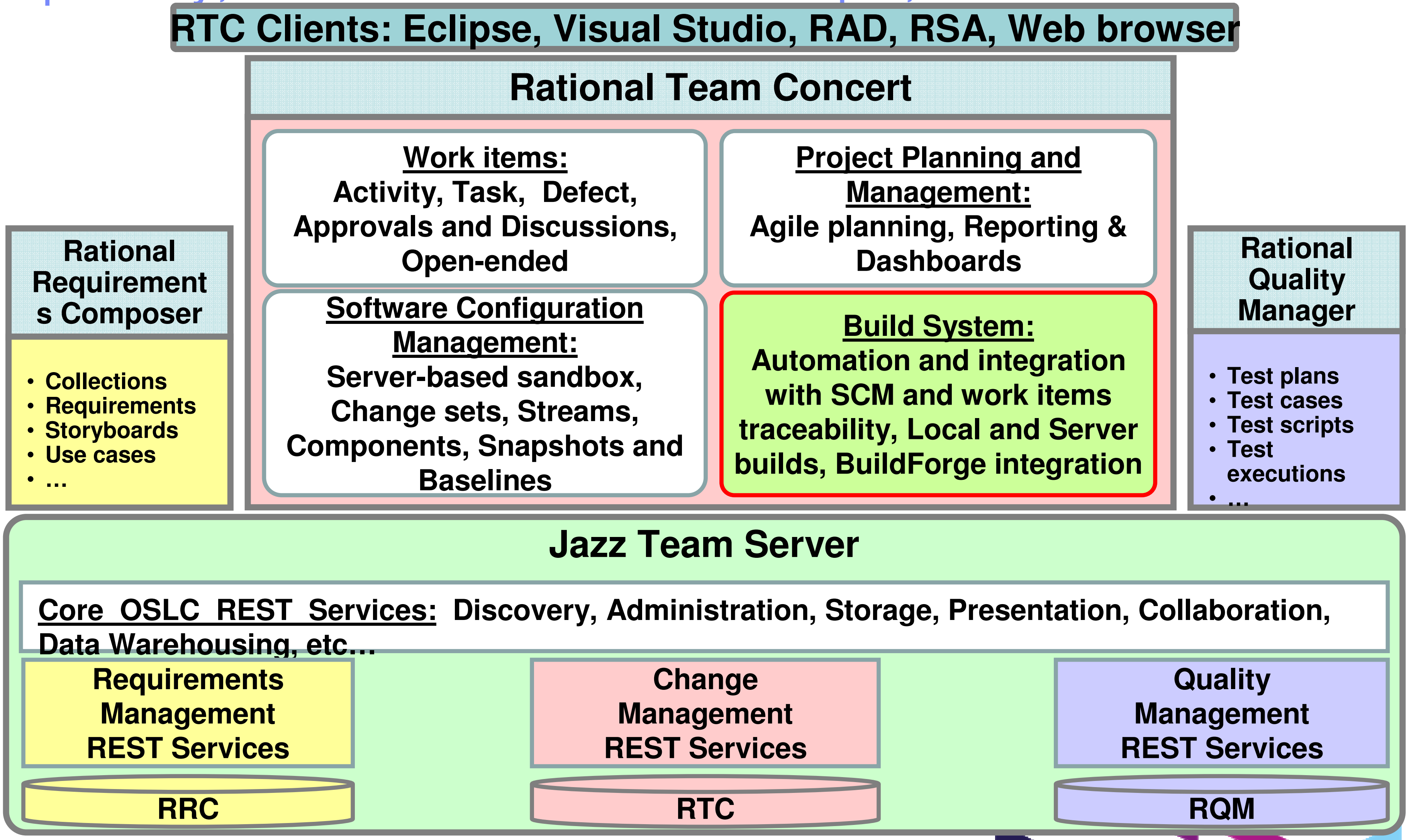
Eclipse-based IDE

Eclipse-based IDE

2. Deb works on the files for the Web UI

4. Marco is unable to retrieve the files from her local workspace unless he gets her password and physical access

RTC Build System provides means to retrieve work from repository, make available to build scripts, and deliver results



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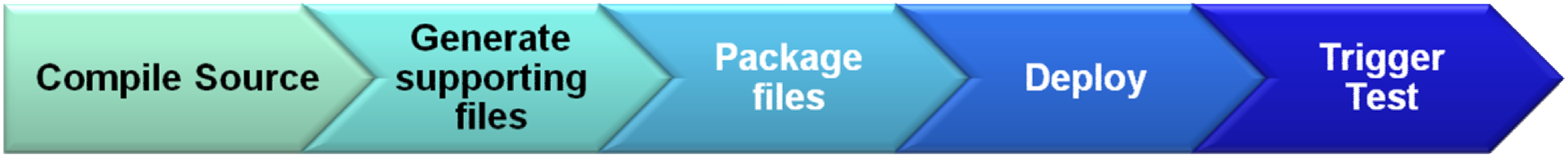
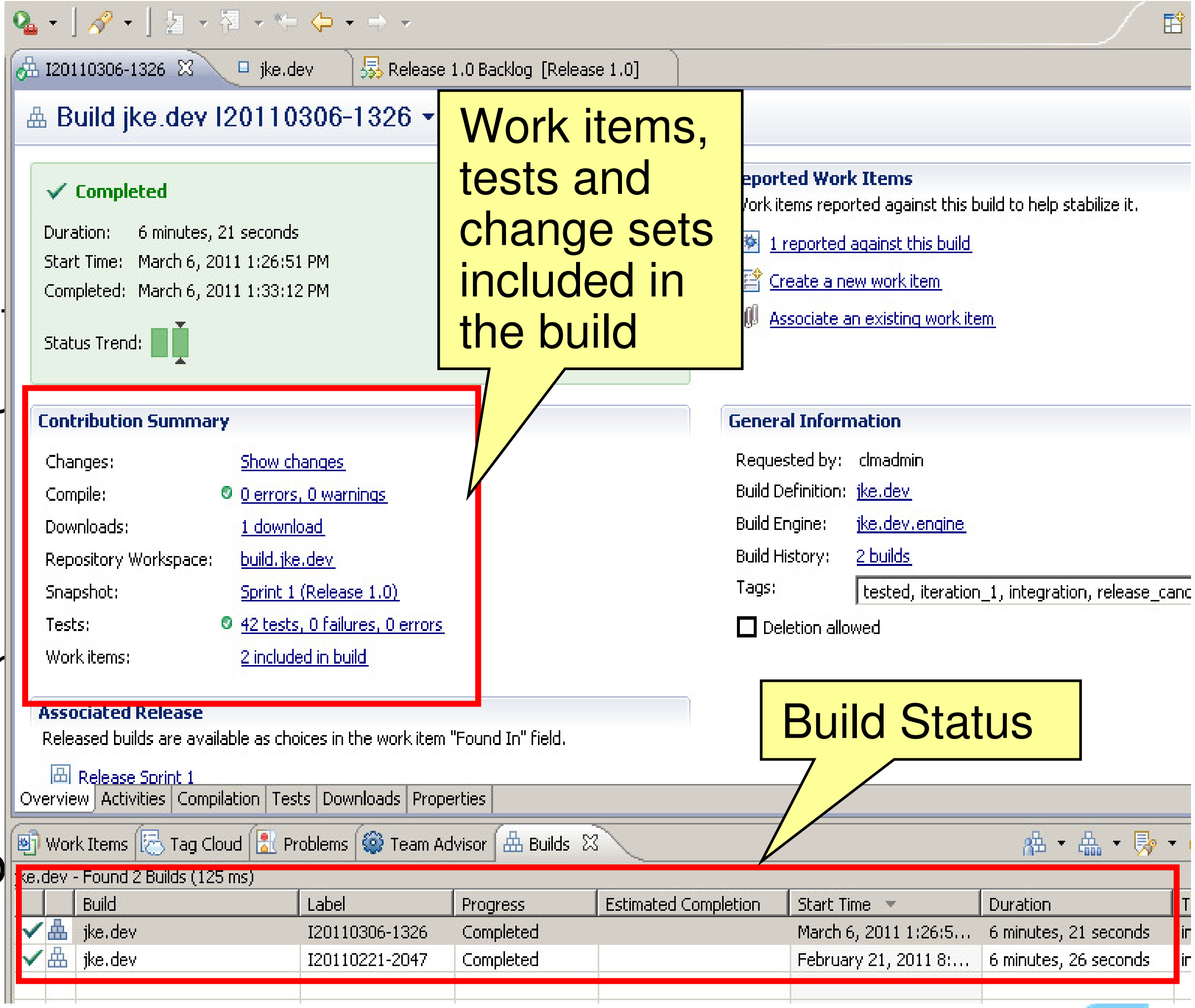
Automated builds save time and effort, so that developers can focus on writing code



- RTC Build System automates builds as part of the continuous integration process
  - Small changes are constantly applied and integrated
  - In some cases, builds are triggered on every commit
- Process of integrating early and often improves quality and reduces rework and cost
- The build can be fully automated
  - Compile the source
  - Generate documentation or supporting files
  - Package the binaries
  - Deploy, Trigger test execution
  - Publish build results
- RTC Build System tracks and monitors status of builds

Development teams can schedule and execute software builds efficiently

- Visibility to build engines, queues and schedules
- Results of each build displayed on status page
  - Any failures/errors highligh
- Drill down for each build ru
  - Performance
  - Work performed
- Build results can link to change sets and work item
  - Traceability across the lifecycle
- Build results can deploy to servers for testing or production



Build jke.dev I20110306-1326

✓ Completed

Duration: 6 minutes, 21 seconds
Start Time: March 6, 2011 1:26:51 PM
Completed: March 6, 2011 1:33:12 PM

Status Trend:

eported Work Items
/ork items reported against this build to help stabilize it.

1 reported against this build
Create a new work item
Associate an existing work item

Contribution Summary

Changes:	Show changes
Compile:	0 errors, 0 warnings
Downloads:	1 download
Repository Workspace:	build.jke.dev
Snapshot:	Sprint 1 (Release 1.0)
Tests:	42 tests, 0 failures, 0 errors
Work items:	2 included in build

General Information

Requested by:	clmadmin
Build Definition:	jke.dev
Build Engine:	jke.dev.engine
Build History:	2 builds
Tags:	tested, iteration_1, integration, release_canc

□ Deletion allowed

Associated Release
Released builds are available as choices in the work item "Found In" field.

Release Sprint 1

ke.dev - Found 2 Builds (125 ms)

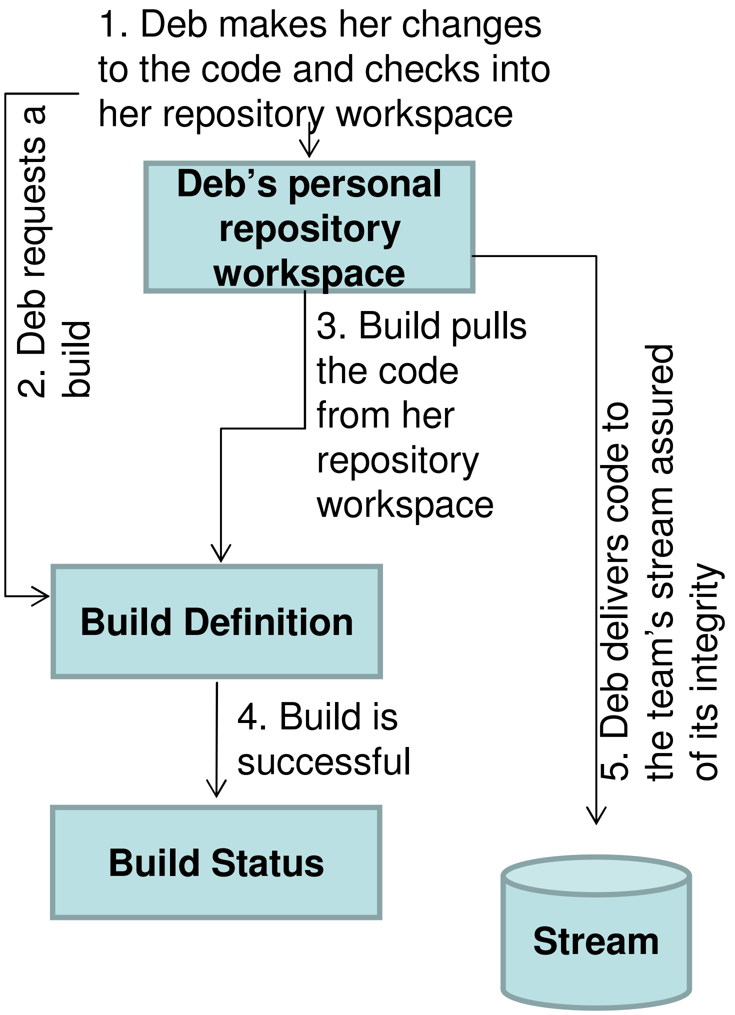
		Build	Label	Progress	Estimated Completion	Start Time	Duration	T
✓		jke.dev	I20110306-1326	Completed		March 6, 2011 1:26:5...	6 minutes, 21 seconds	ir
✓		jke.dev	I20110221-2047	Completed		February 21, 2011 8:...	6 minutes, 26 seconds	ir

Work items, tests and change sets included in the build

Build Status

Scenario: Personal Builds

Running a personal build in RTC



1. Deb makes her changes to the code and checks into her repository workspace

Deb's personal repository workspace

2. Deb requests a build

3. Build pulls the code from her repository workspace

Build Definition

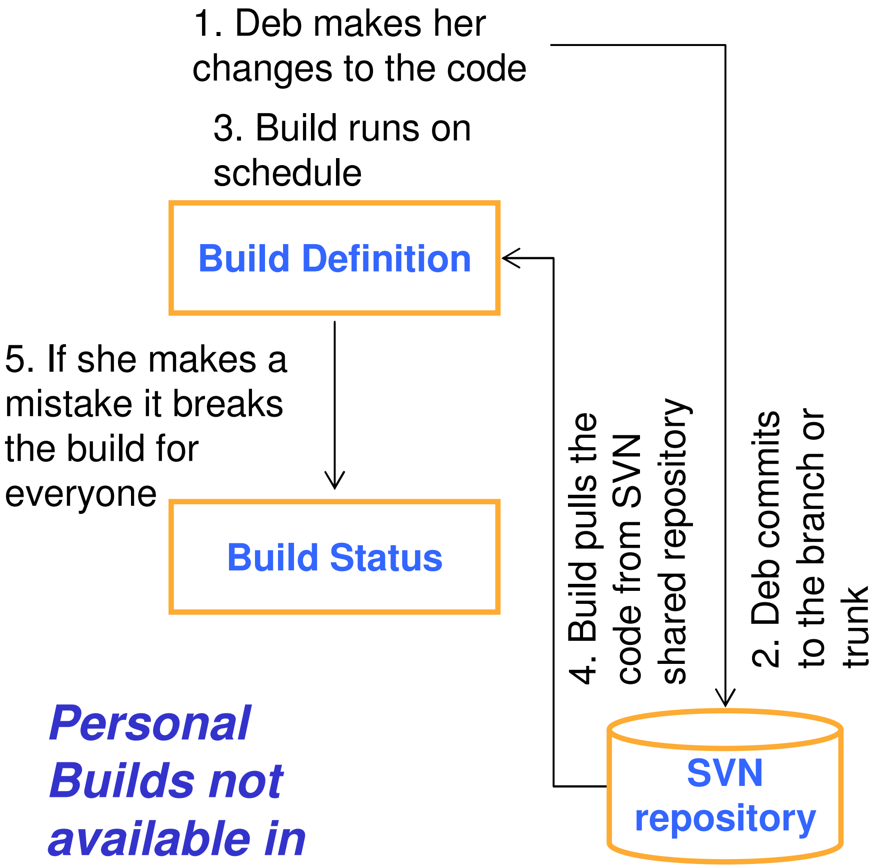
4. Build is successful

Build Status

5. Deb delivers code to the team's stream assured of its integrity

Stream

Build process with Subversion + 3rd party build engine



1. Deb makes her changes to the code

3. Build runs on schedule

Build Definition

5. If she makes a mistake it breaks the build for everyone

Build Status

4. Build pulls the code from SVN shared repository

2. Deb commits to the branch or trunk

SVN repository

Personal Builds not available in Subversion

For organizations that require advanced integration, IBM offers Build Forge

- Can execute centrally-controlled builds in parallel across distributed systems, speeding up the overall process
- Utilizes sophisticated scripting and scheduling of the steps comprising each build
  - Minimizes the amount of manual intervention required by a build engineer
- Support for a broad spectrum of platforms (including System z), scripting languages, and source code repositories
  - For usage as an enterprise standard build infrastructure
- Builds source code, but also automatically deploys the underlying software infrastructure (e.g. WebSphere Application Server, Portal) for the code to run on
  - This level of automation completely frees up the build engineer and is not found in any competing product
- Tight integration with Rational Team Concert and Jazz artifacts for end-to-end traceability

RTC offers tight integration with Rational Build Forge

RTC and Build Forge integration is ideal for customers who require:

- Enterprise-wide process automation across multiple platforms
- Software assembly for Jazz and traditional environments
- Build server load balancing
- Deployment process automation support
- Stringent compliance mandates for governance and traceability

Even when Build Forge manages and runs your builds, RTC will:

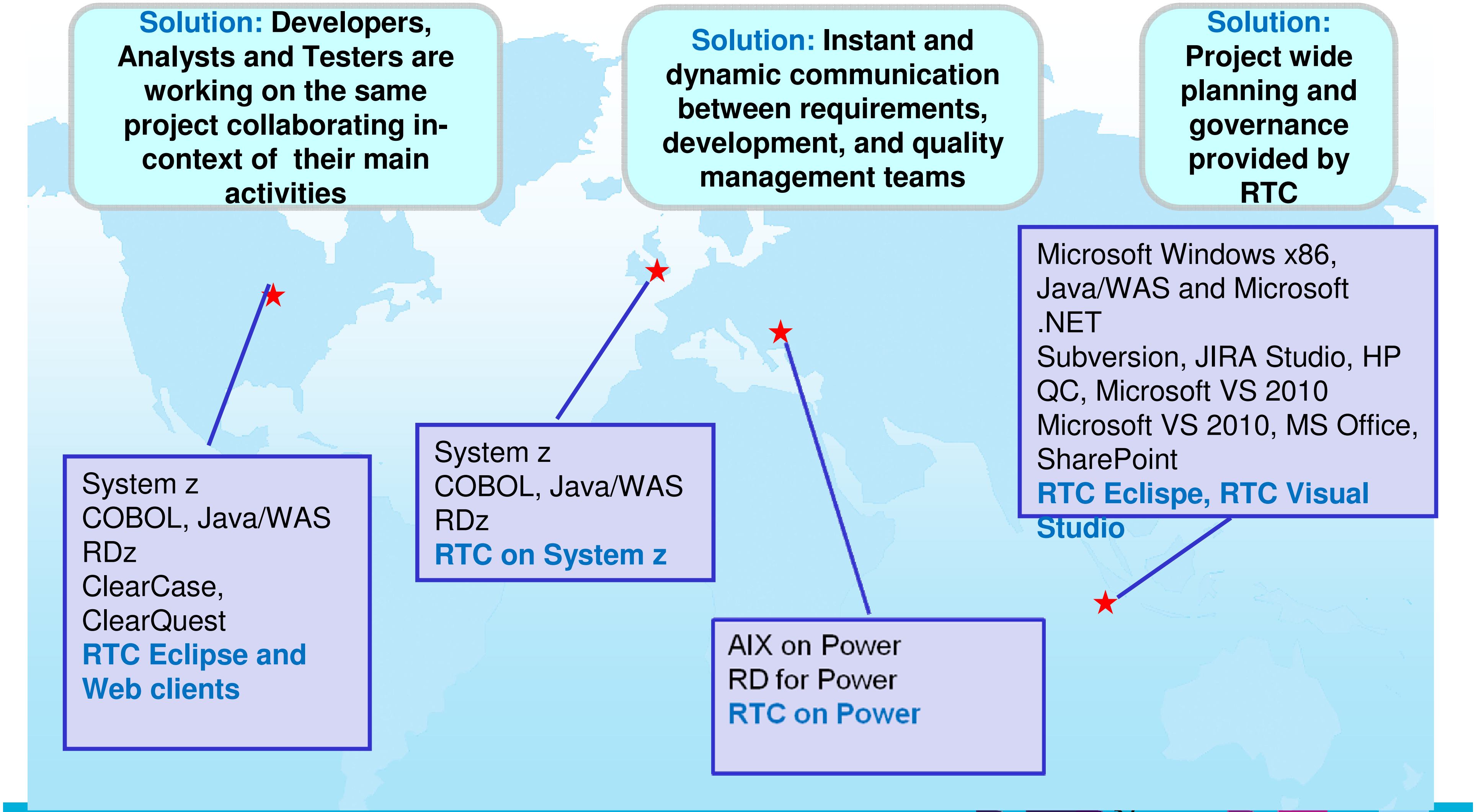
- Publish build results
- Show links to RTC-managed change sets and work items consumed by build
- Create metrics reporting/health status of Build Forge builds
- Start Build Forge jobs from the RTC User Interface

Summary

- Integrated Planning and Work Items management provide in-context collaborative environment
  - Plan is always up to date, developers and other team members track their work with zero overhead
- Life cycle traceability of work items
  - Coverage of requirements, development, builds and test results
- Productive Software Configuration Management
  - Integrated Jazz Source Control links code artifacts to work items and then to builds and build results
  - Enables developers to effectively work in parallel and to easy track versions of code artifacts for issue resolution
- Integrated and extensible Build System that seamlessly links to work items and code version artifacts
  - Can execute tests and automatically create issues linked to code artifacts and work items
  - Supports all platforms
- RTC creates and deploys packages on all platforms

RTC Within JKE’s Current Environment

RTC and Jazz break down barriers throughout the lifecycle



Solution: Developers, Analysts and Testers are working on the same project collaborating in-context of their main activities

Solution: Instant and dynamic communication between requirements, development, and quality management teams

Solution: Project wide planning and governance provided by RTC

System z
COBOL, Java/WAS
RDz
ClearCase,
ClearQuest
RTC Eclipse and Web clients

System z
COBOL, Java/WAS
RDz
RTC on System z

AIX on Power
RD for Power
RTC on Power

Microsoft Windows x86, Java/WAS and Microsoft .NET
Subversion, JIRA Studio, HP QC, Microsoft VS 2010
Microsoft VS 2010, MS Office, SharePoint
RTC Eclipse, RTC Visual Studio

www.ibm/software/rational