

Rational Team Concert and Agile Development

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IBM Rational Software Development Conference 2008

WHERE TEAMS ARE **R-HEROES**



Rational. software

Agenda

Jazz: The music of collaboration

Introducing Rational Team Concert

Demos

 Rational software



Envisioning a platform that can transform software delivery

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



- robust, extensible and scaleable
- globally distributed, fluid & dynamic
- community-based & 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

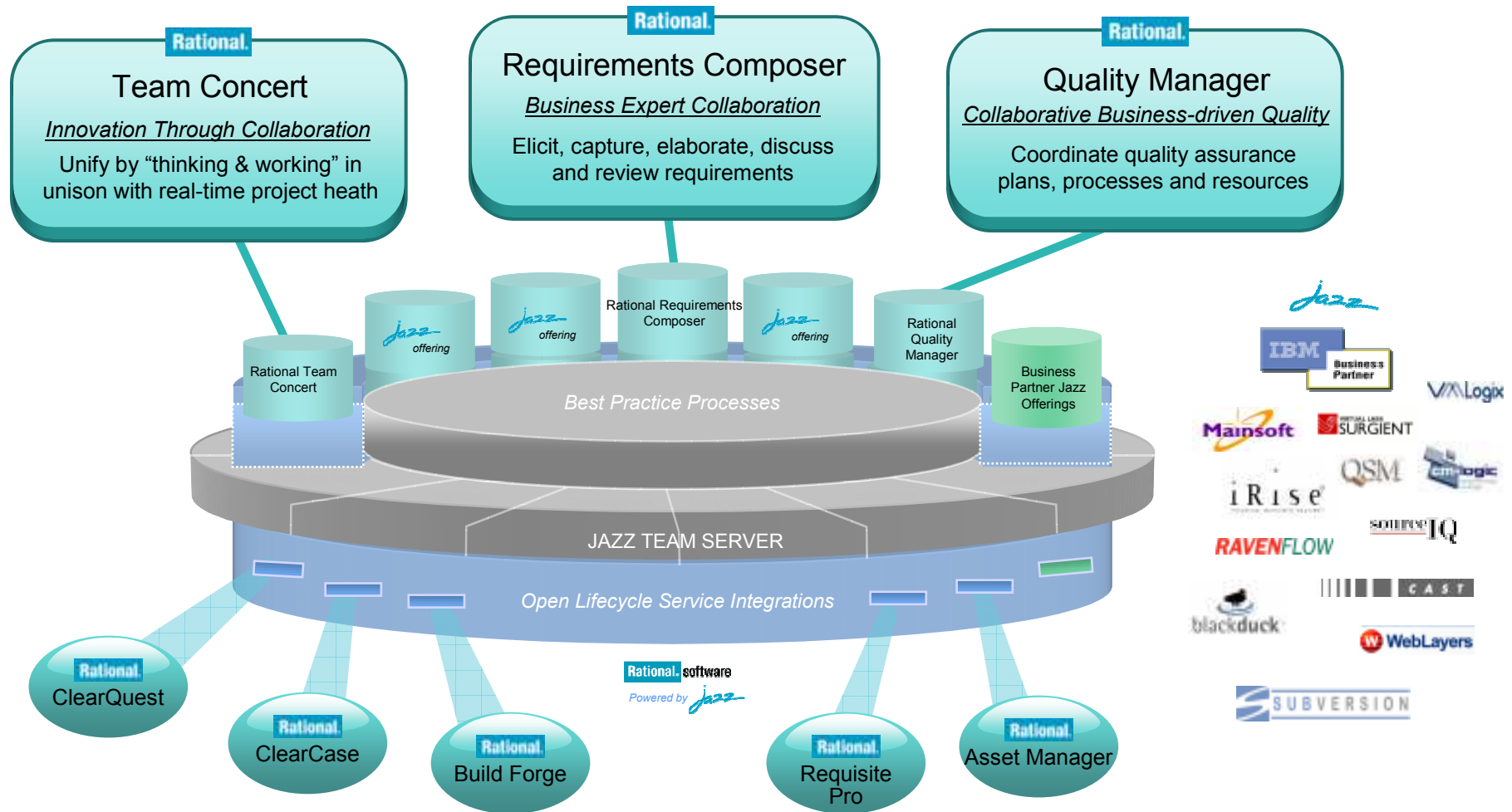
- Automate team workflow improving productivity
- Automate data collection eliminating administrative overhead
- Real time reporting and alerts reduces project risk

Day One Productivity

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

Dynamic integration of people, process and projects across the lifecycle


Introducing the first wave of new Jazz offerings



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 (coming soon!)
 - ▶ Support for System z and System i servers (2H08)

Open and extensible on



- ✓ 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**

JAZZ TEAM SERVER

Agile has gone mainstream

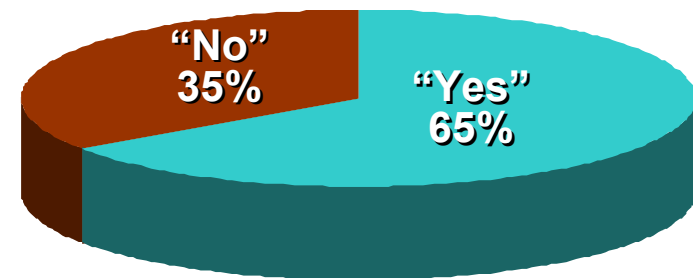
Agile: An iterative and incremental (evolutionary) approach performed in a highly collaborative manner with **just the right amount of ceremony** to produce high quality software in a cost effective and timely manner which meets the changing needs of its stakeholders.

Core principles

- “Fits just right” process
- Continuous build, testing, and validation
- Consistent team collaboration
- Rapid response to change
- Ongoing customer involvement
- Frequent delivery of working software

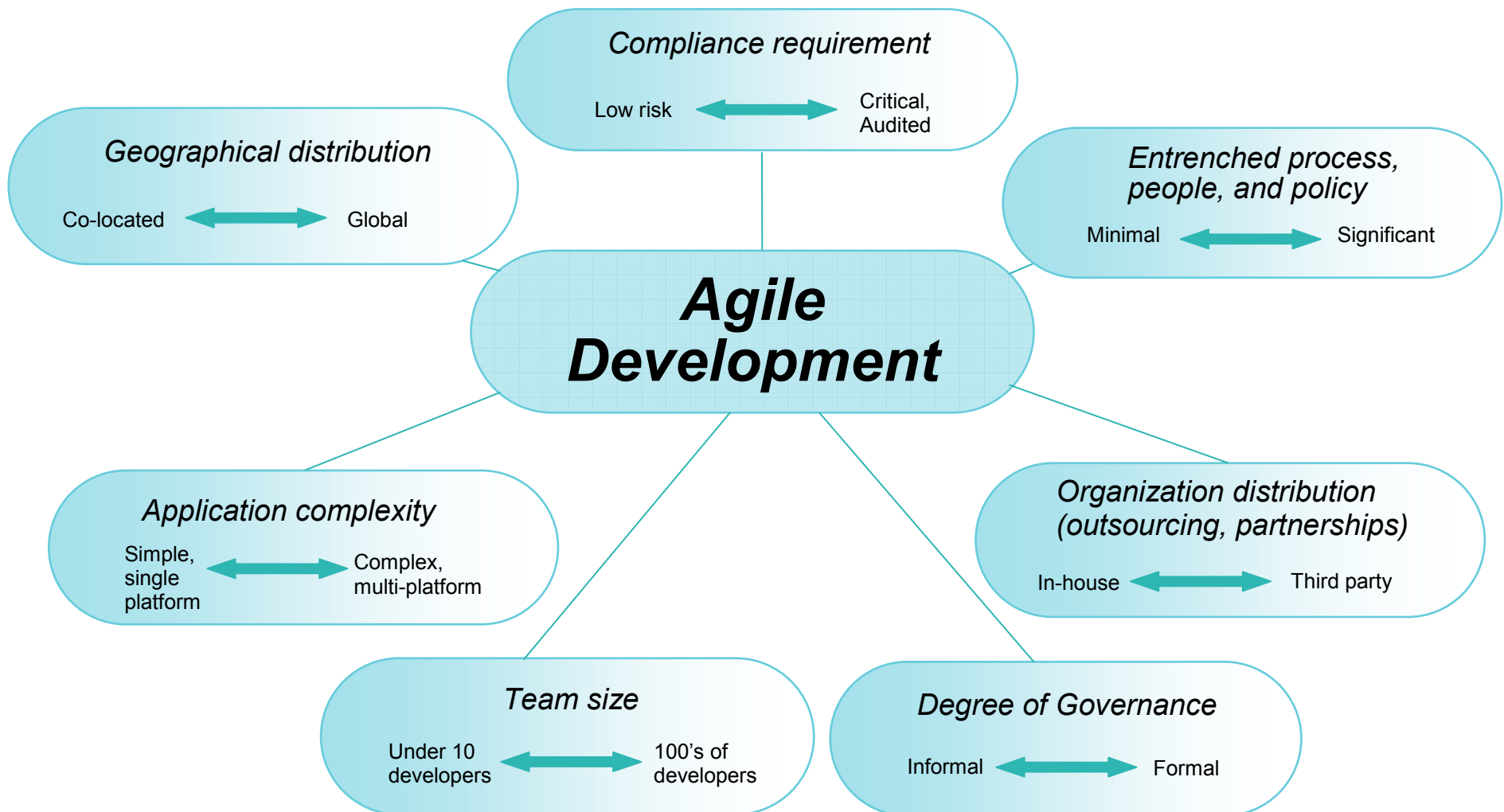


Have you adopted any Agile techniques?



Source: Scott Ambler ‘Agile Adoption Rate Survey’ of over 4200 Dr. Dobb’s subscribers, March 2006

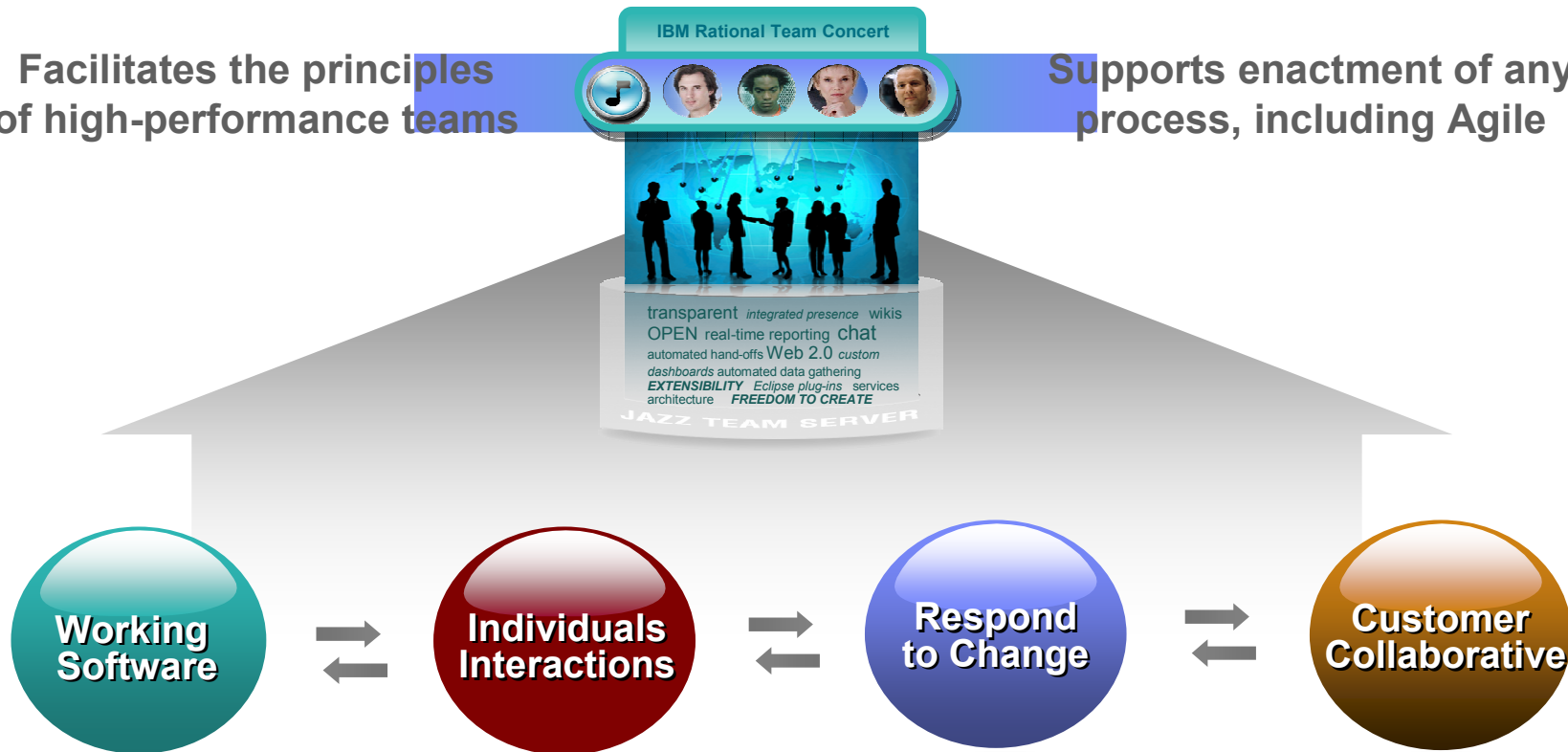
Challenges with Agile at Scale



Improve business agility and project success rates

Facilitates the principles of high-performance teams

Supports enactment of any process, including Agile



- Continuous integration
- Manage team assets
- Change driven
- Integrated / traceable

- Starting ad-hoc teams
- Team awareness
- Process awareness
- Ad-hoc sharing

- Process flexibility
- Iterative plan-execution
- Multiple releases
- JIT code reviews

- Transparency
- Objective commonality
- Project health checks
- Context driven

Pain points before RTC

joining a team
get my environment configured to be productive
what is happening in my team
collecting progress status
following the team's process
ad hoc collaboration/sharing of changes
starting an ad hoc team

Team
awareness

is the fix in the build?
what will be in the next build?
tracking a broken build
Avoid breaking a build/personal build
why is this change in the build?
reconstructing a context for a bug/build failure

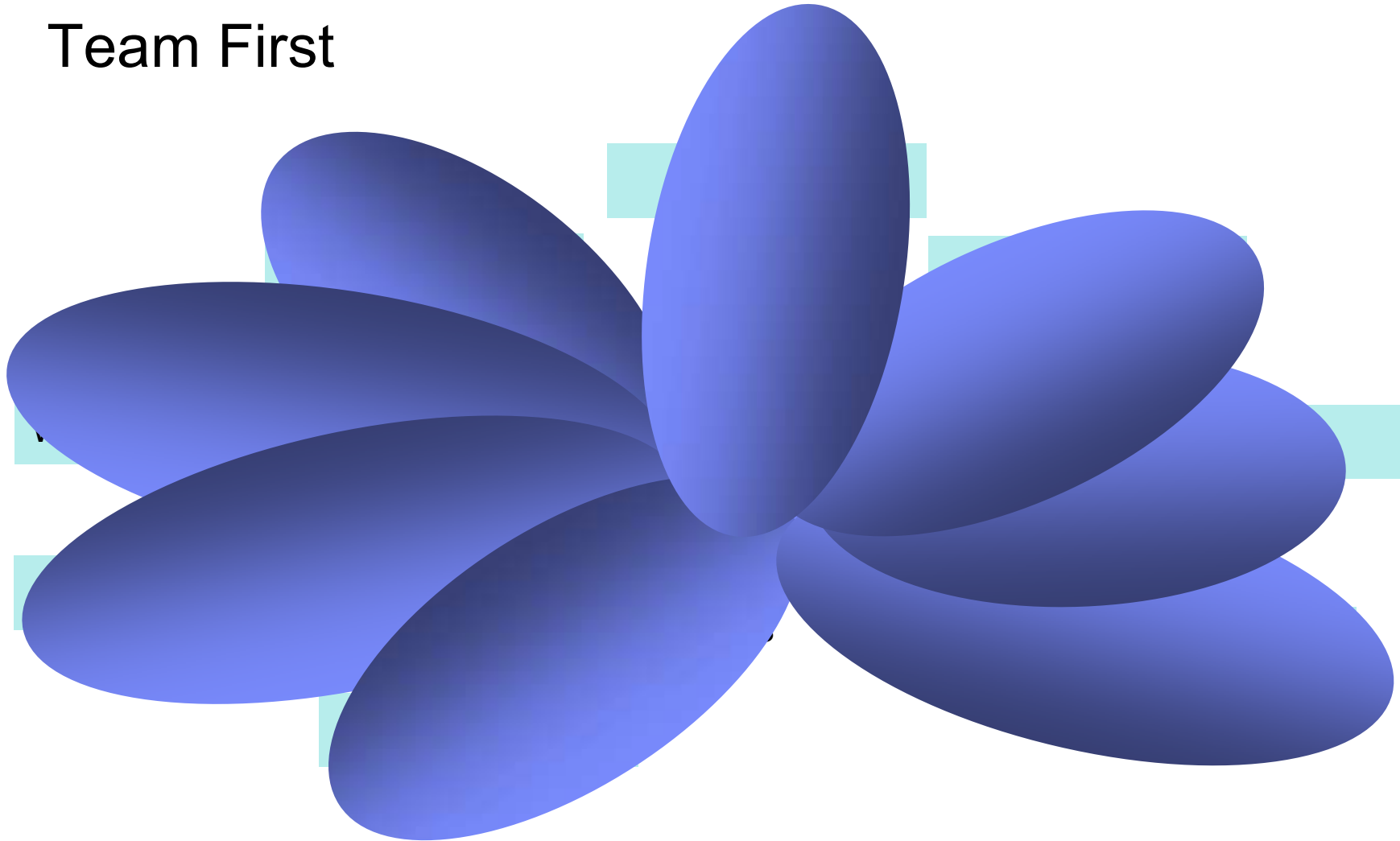
Build
awareness

creating, tracking iteration plans
interrupting development due to a high priority bug fix
working on multiple releases concurrently
tracking the code review of a fix
referencing team artifacts in discussions
how healthy is a component?
collecting project data/metrics?

Project
awareness



Team First



Jazz and Collaboration

We call collaboration rules and patterns **Process**.

Process is part of the **core** of the Jazz platform.

Jazz is process **neutral**, but process **aware**.

Jazz means 'enactment' when it says '**enactment**'.

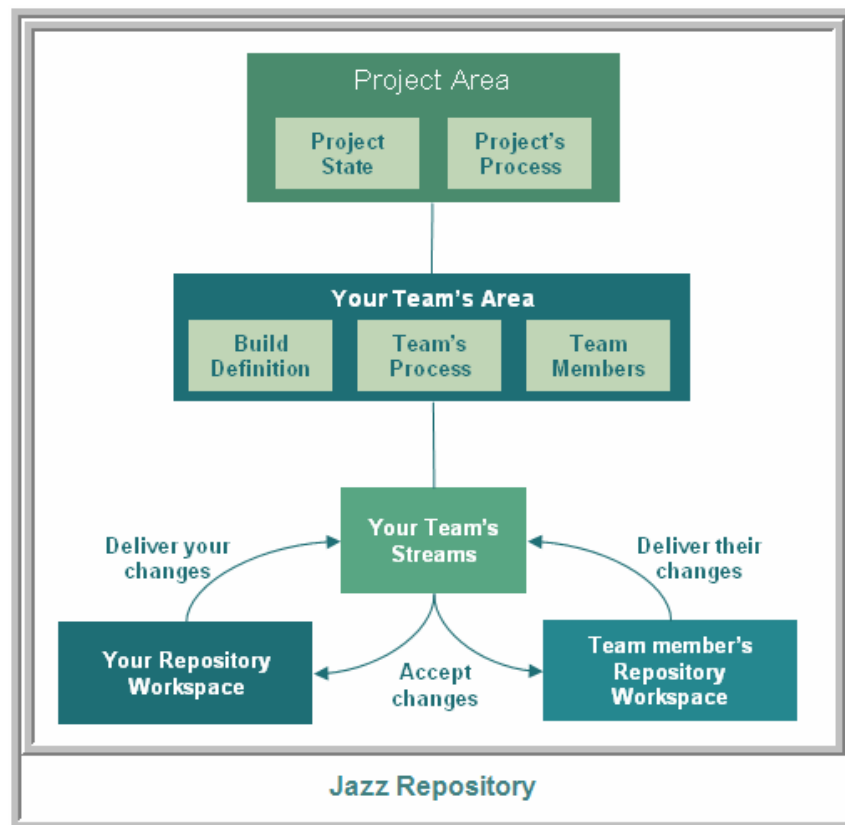
- Guide and advise

- Enforce defined rules

- Live process

- Easy to get started

Team Concert Terminology



Jazz artifacts are stored in a [repository](#).

The repository contains [project areas](#), which are the system's representation of a software projects.

Each project area has an associated [process](#), which governs how the project is run.

Project Areas are decomposed into a set of [team areas](#), which describe the teams that work on the project.

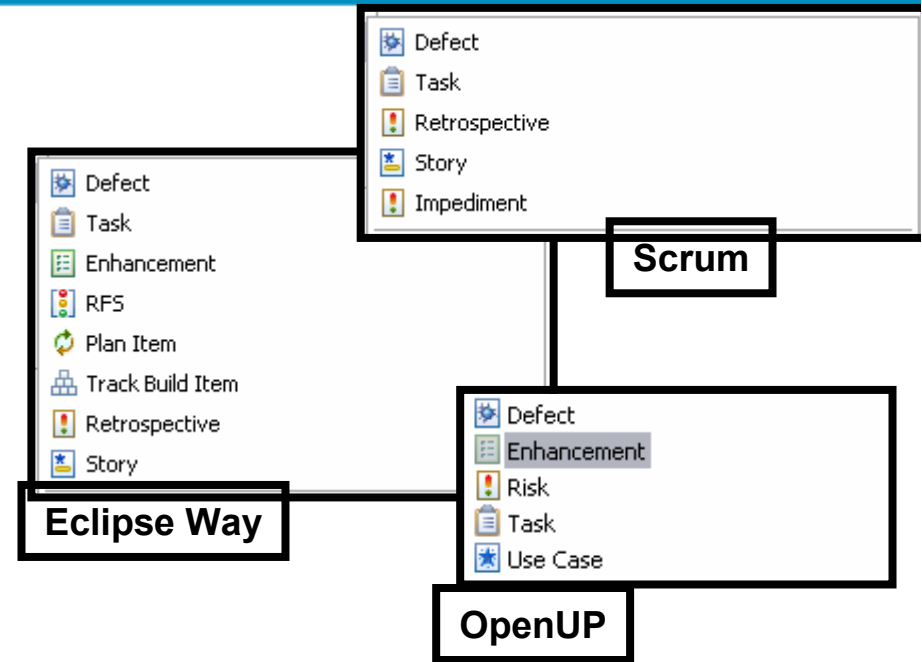
Teams use a [stream](#) to store the master copy of project's files.

Team Members use a personal [repository workspace](#) to work on project files.

Process

Process manifested through:

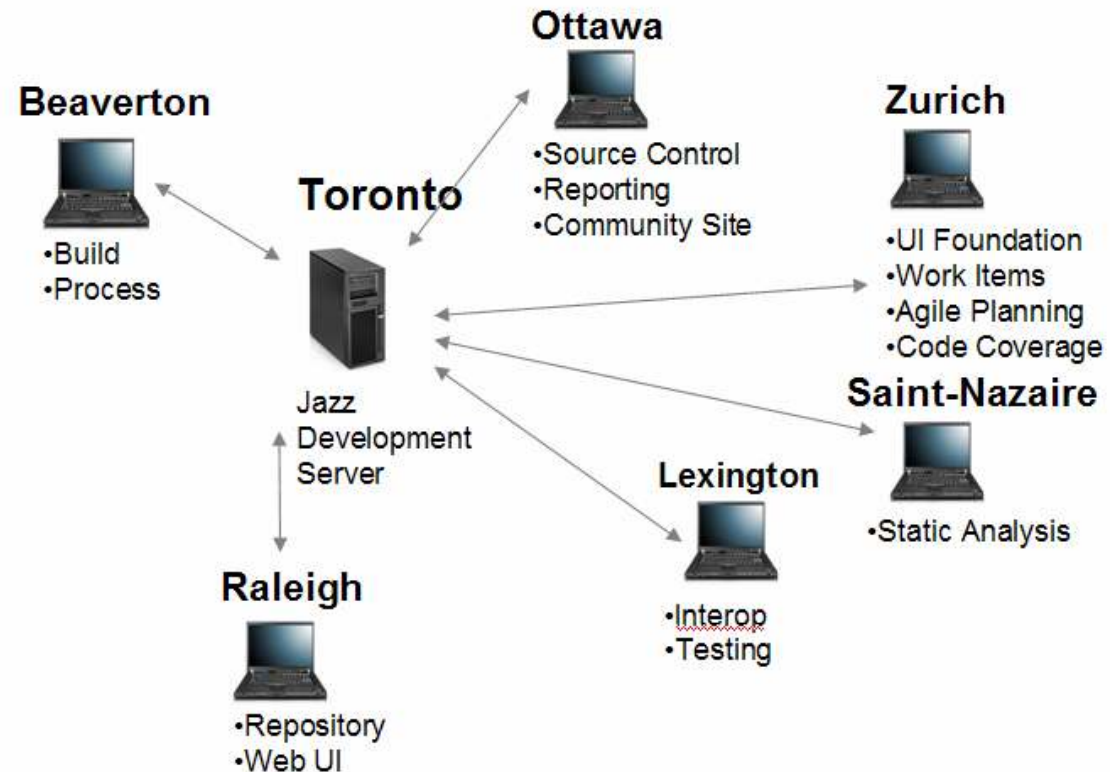
- artifact types and their states
- role-specific preconditions and follow-up actions on operations manipulating artifacts
- artifact change events
- role-specific and permissions



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

How we use Rational Team Concert

- 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 35 internal Rational teams using RTC including over 700 unique users over various Jazz Team Servers



Let's take a live look

Project Application: Temperature Conversion

Conversion between multiple temperature scales. Project is following the “Eclipse Way” process and is entering the final week of the first milestone and the build has broken!!

Our Team

Jerry Jazz

Teamlead
Temperature conversion guru



April Blues

Developer
Owns the user interface



Our Plan

Release 1



Milestone 1

Milestone 2



Case Study: Scrum

Scrum Process Template available in RTC v1.0

First version was developed within a few hours

Is being continuously improved based on Scrum Master feedback

Scrum: Iteration Structure

The screenshot displays a software interface for managing Scrum iterations. It is divided into two main sections:

- Process Description:** Contains the text "Scrum v0.62 (in progress) Scrum a process for managing complex projects. --- this is work in progress ---".
- Process Iterations:** Shows a hierarchical tree structure:
 - Main Development
 - Release 1.0 [3/17/08 - 6/15/08]
 - Sprint 1 [3/15/08 - 3/28/08]
 - Sprint 2 [3/31/08 - 3/31/08]
 - Sprint 3

To the right of the tree is a vertical toolbar with the following buttons: Edit Properties..., Duplicate..., Create Line..., Create Iteration..., and Delete... The "Create Line..." button is highlighted with a blue border.

Scrum: Roles and Permissions

Permissions ?

Show by role Show all roles

Actions	Product Owner	ScrumMaster	Team Member	default
[-] Process				
+ Save Project Area (server)	✓	✓	✗	✓
[-] <Uncategorized>				
+ Delete Synchronization Rule (server)	✗	✗	✗	✓
+ Save Attachment (server)	✗	✗	✗	✓
+ Save Categories (server)	✗	✗	✗	✓
+ Save Deliverable (server)	✗	✗	✗	✓
+ Save Personal Dashboard (server)	✗	✗	✗	✓
+ Save Project Dashboard (server)	✗	✗	✗	✓
+ Save Synchronization Rule (server)	✗	✗	✗	✓

Scrum: Work Item Types

Work Item Workflow Definition

Choose the workflow to edit:

User Story Workflow ▼ [Add Workflow](#)

Workflow

Name: User Story Workflow

Description:

Start action: New ▼ Resolve action: Accepted ▼ Reopen action: Redefine ▼

Transitions

State	⇒ Defined	🔧 Done	⇒ Implemented	💡 New	⇒ Ready for Sprint Review
⇒ Defined			⇒ Implemented	🔄 Redefine	
🔧 Done	🚫 Reject				
⇒ Implemented	🔄 Reiterate			🔄 Redefine	⇒ Tested
💡 New	⇒ Defined				
⇒ Ready for Sp...	🔄 Reiterate	🔧 Accepted		🔄 Redefine	

- 🔧 Defect
- 📄 Task
- 📅 Retrospective
- 💡 Story
- 🚫 Impediment

Planning Support for Scrum

The screenshot displays the 'Product Backlog' interface for 'Release 1.0'. On the left, the 'Stories' section lists three items:

- Create Group By Folder Mode (66)
- Implement Progress Items to track progress of implementing tasks for stories (67)
- Provide reports for Scrum process (68)

The 'Defects & Enhancements' section below it shows 'No Work Planned' and 'Estimated: 0%'. A callout bubble with a blue border and orange gradient background points to the backlog items, containing the text: 'backlog is a special iteration plan'.

The right side of the interface shows the details for 'Story 66'. The 'Summary' is 'Create Group By Folder Mode'. The 'Planning' section includes:

- Progress: No Work Planned (0 / 0 h, Estimated: 0%)
- Story Points: 40 pts
- Tags: (empty)
- Estimate: (empty) Correction: (empty)
- Time Spent: (empty)
- Due: None

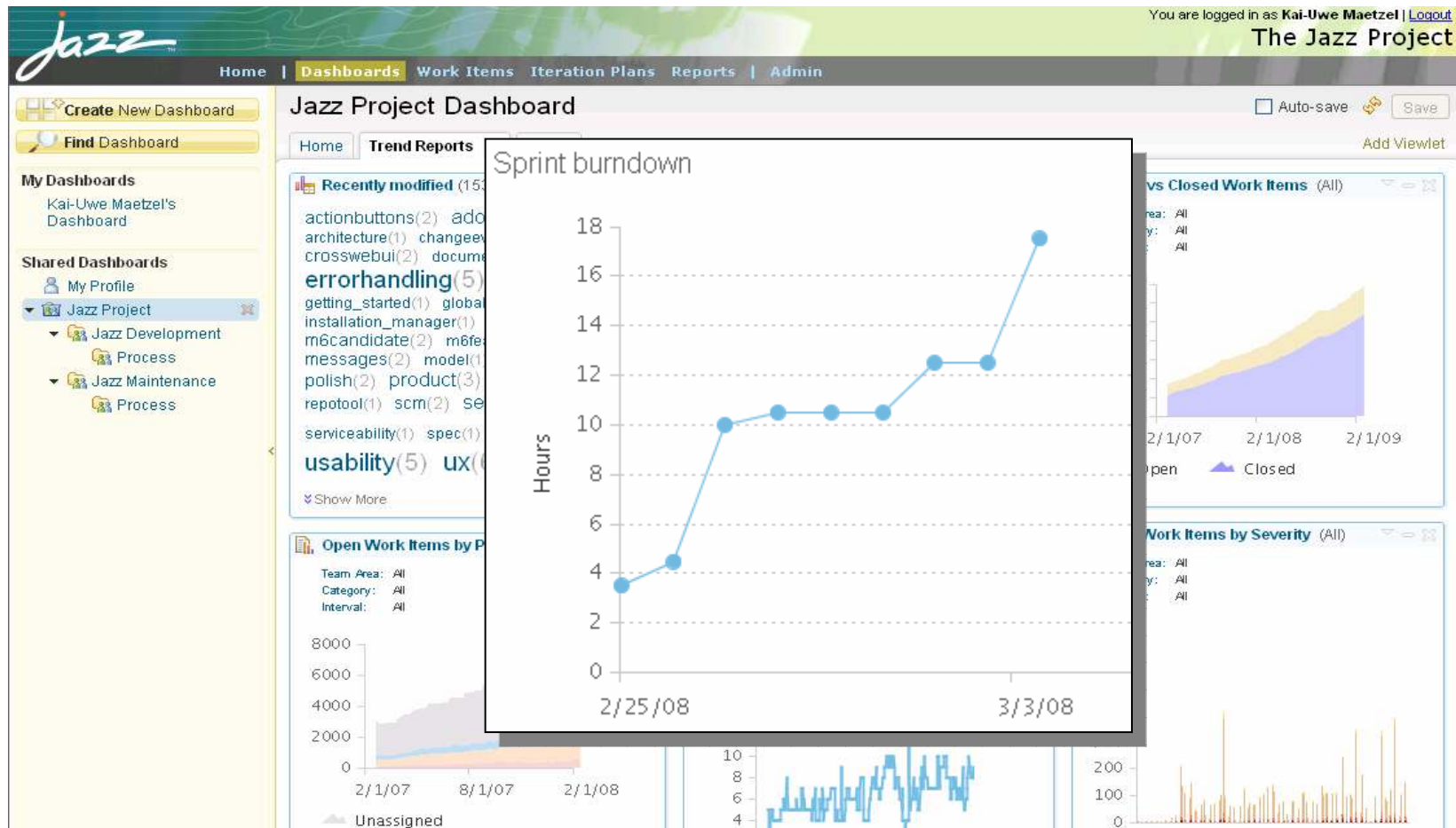
The 'Description' section contains the text: 'Provide a group by Folder mode to support precise ordering of stories in product back log'. The 'Discussion' section is currently empty with 'No comments'.

Planning Support for Scrum

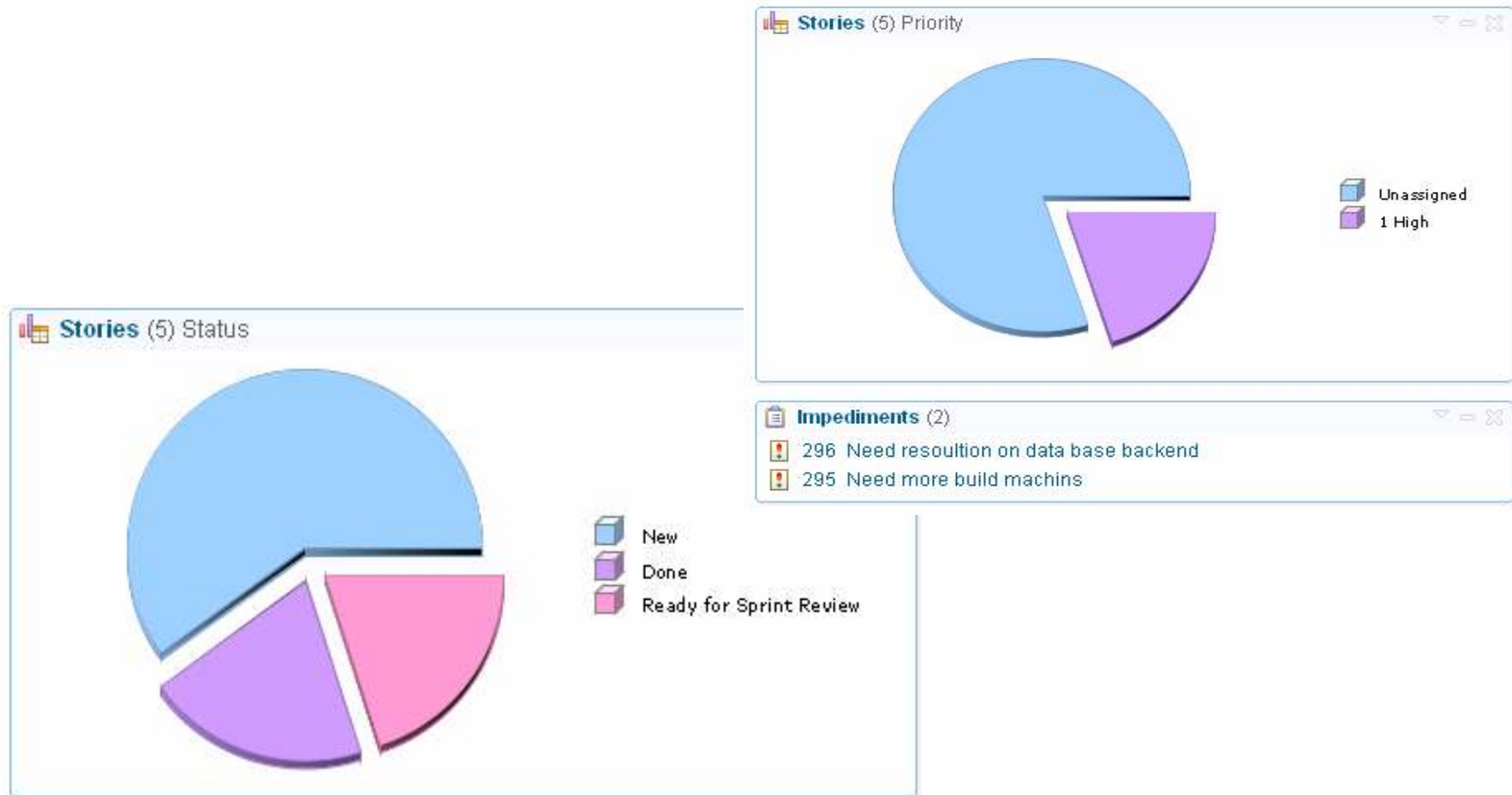
The screenshot displays two views of the IBM Rational software interface:

- Product Backlog [Release 1.0]:** Shows a list of stories under the 'Stories' section. A blue box highlights the story 'Implement Group By Folder mode', and a callout bubble points to it with the text 'implementing tasks'. Other stories include 'Make grouping structure pluggable' and 'Provide reports for Scrum process'. The progress bar shows 0% closed and 75% estimated.
- Agile Planning [Sprint 1 (1.0)]:** Shows a list of implementing tasks. A blue box highlights the task 'Make grouping structure pluggable', and a callout bubble points to it with the text 'implementing task for sprint 1'. The progress bar shows 0 closed and 100% estimated.

Scrum: Burndown Report



Scrum: Dashboard Viewlets



Additional resources



Find out more about Rational Team Concert

<http://ibm.com/rational/rtc>

Download the trial and participate in the open commercial development project

<http://jazz.net>

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

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

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

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

THANK
YOU

The image features the words "THANK YOU" in large, 3D block letters. Each letter is filled with a different portrait of a person, likely attendees or speakers from the conference. The portraits are arranged in two rows: "THANK" on top and "YOU" on the bottom. The overall color scheme is light blue and white, with the portraits providing a variety of colors and subjects.