



# Putting the Agility into software delivery with IBM Rational Team Concert

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IBM Software

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## Outline

- **What is Agile?**
- Agile @scale
- Rational Team Concert for Agile Teams

## Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.  
Through this work we have come to value:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

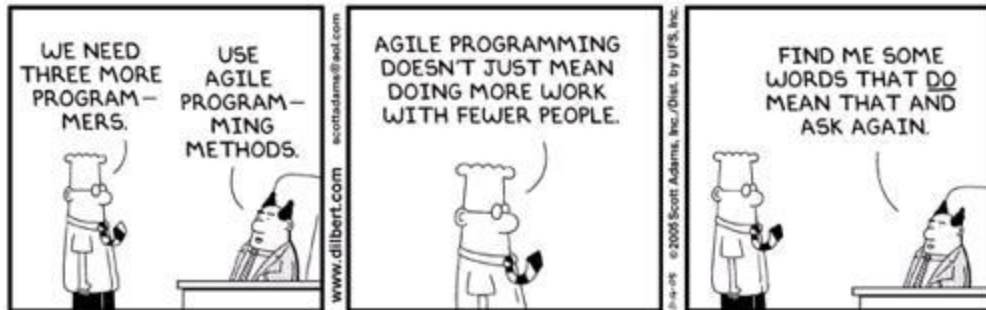
Kent Beck	James Grenning	Robert C. Martin
Mike Beedle	Jim Highsmith	Steve Mellor
Arie van Bennekum	Andrew Hunt	Ken Schwaber
Alistair Cockburn	Ron Jeffries	Jeff Sutherland
Ward Cunningham	Jon Kern	Dave Thomas
Martin Fowler	Brian Marick	

# What *is* Agile?

- Agile is **not** about
  - No design
  - No documentation
  - Stand-up meetings
  - Rapid coding
  - Speed of delivery
  - Doing more with less...



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## What is Agile?

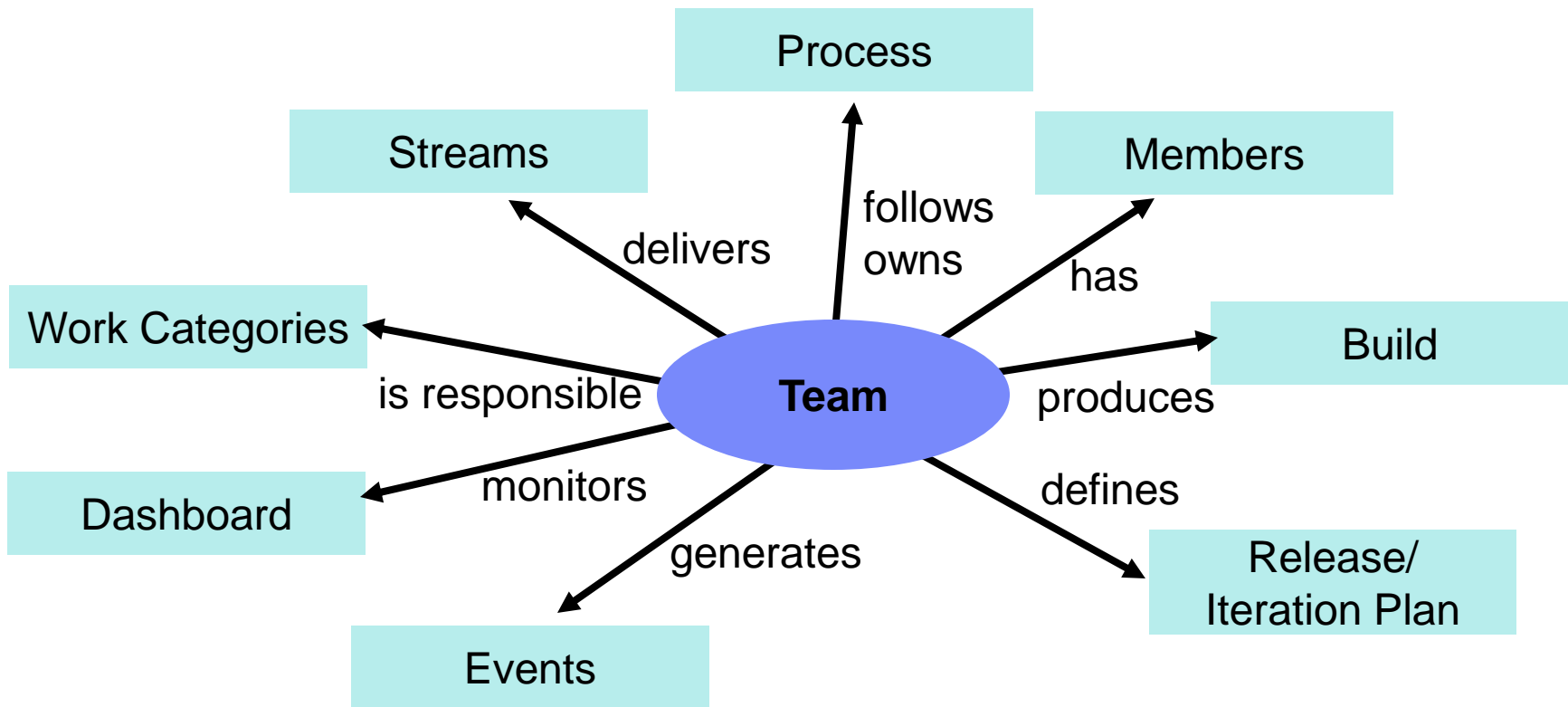
- For every stable development methodology, there need to be checks and balances

What you aim for	How you get to it
<ul style="list-style-type: none"><li>➤ Software that works</li><li>➤ Is delivered on time</li><li>➤ Responds to changes</li></ul>	<ul style="list-style-type: none"><li>✓ Just enough design</li><li>✓ Iteration and Release Planning</li><li>✓ Evolving processes</li><li>✓ Continuous integration</li><li>✓ Test driven development</li><li>✓ Stakeholder collaboration throughout the cycle</li><li>✓ End of iteration demos</li><li>✓ Retrospectives</li></ul>

## Agile Methodologies

- XP
- Scrum
- Lean
- OpenUp
- All of them focus on
  - Incremental development
  - Self-organizing teams
  - Time-boxed iterations
  - Stakeholder Collaboration
  - Working software at the end of each iteration
  - Continuous integration
  - Continuous testing

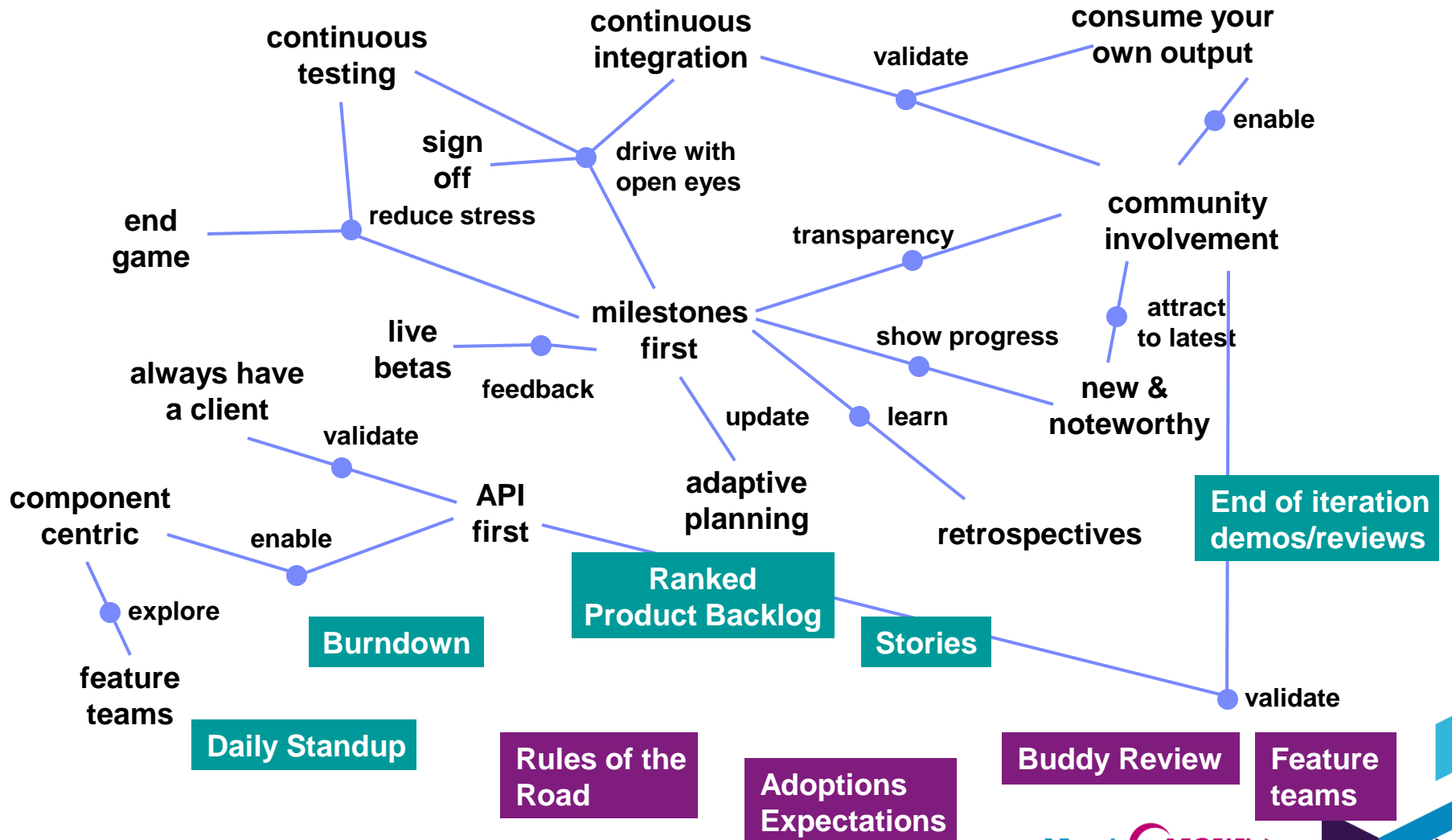
# Agile Way of Working: Team Centric



## Teams are self-tuned but share a common rhythm

Agile Roles: **Stakeholder**, Team Lead, Team Member, Product Owner, Architecture Owner

# Agile Practices

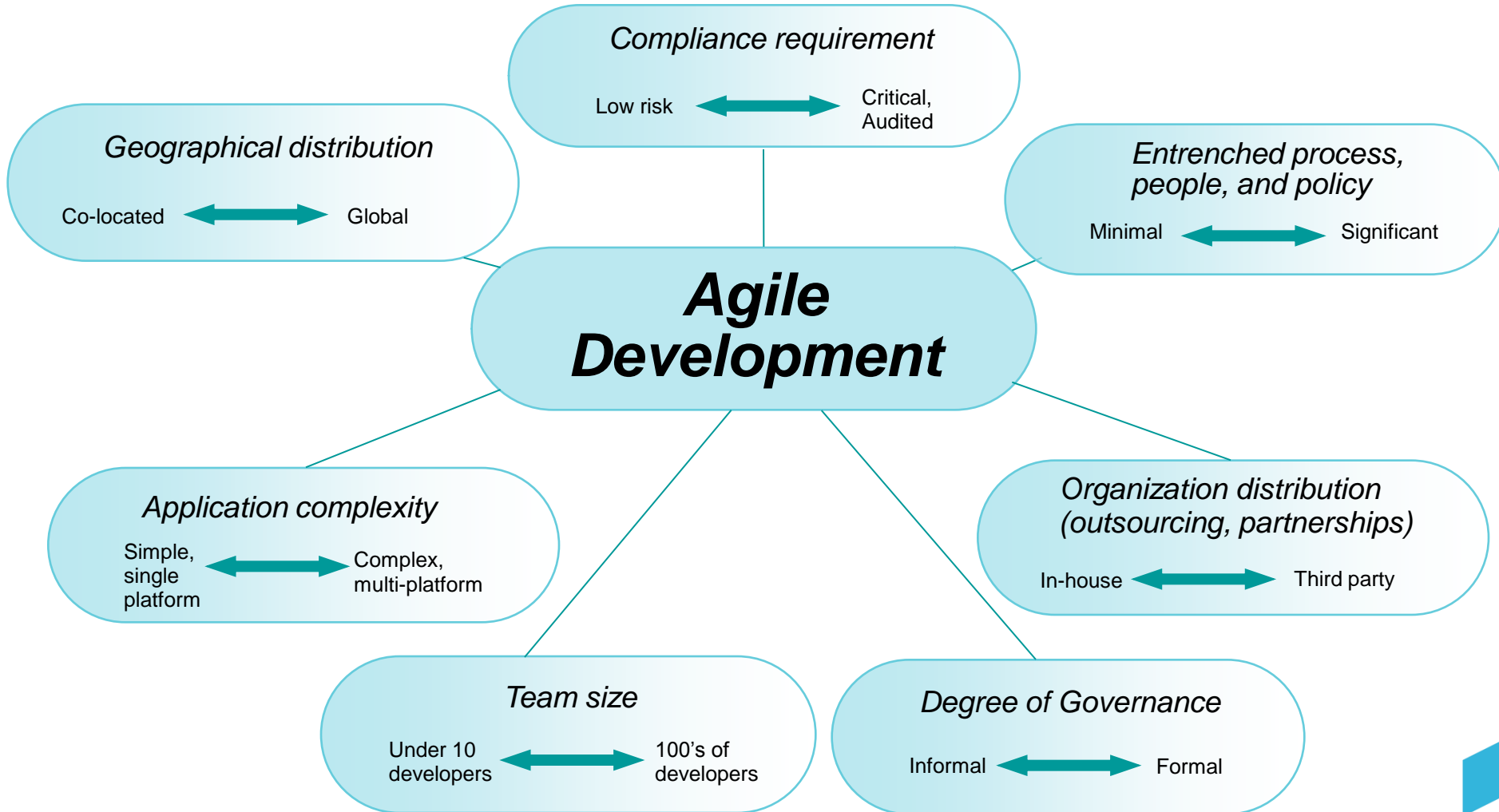




## Outline

- What is Agile?
- **Agile @scale**
- Rational Team Concert for Agile Teams

# What is Agile @ Scale?



## Challenges with Agile @ Scale

- Agile works really well for small, near-located teams developing fairly straightforward solutions
- Many organizations have succeeded with applying agile techniques on a handful of projects
- BUT, now they're finding that moving forward is a bit harder:
  - They're addressing harder situations in their agile teams
  - They're trying to roll out agile to a large number of teams
  - They realize that they need to consider more than just development teams
- Solution:
  - You need to hire coaches and mentors experienced in agility@scale
  - **You need tooling that will evolve to meet your needs as your agile strategy grows**

## Being Agile @ Scale

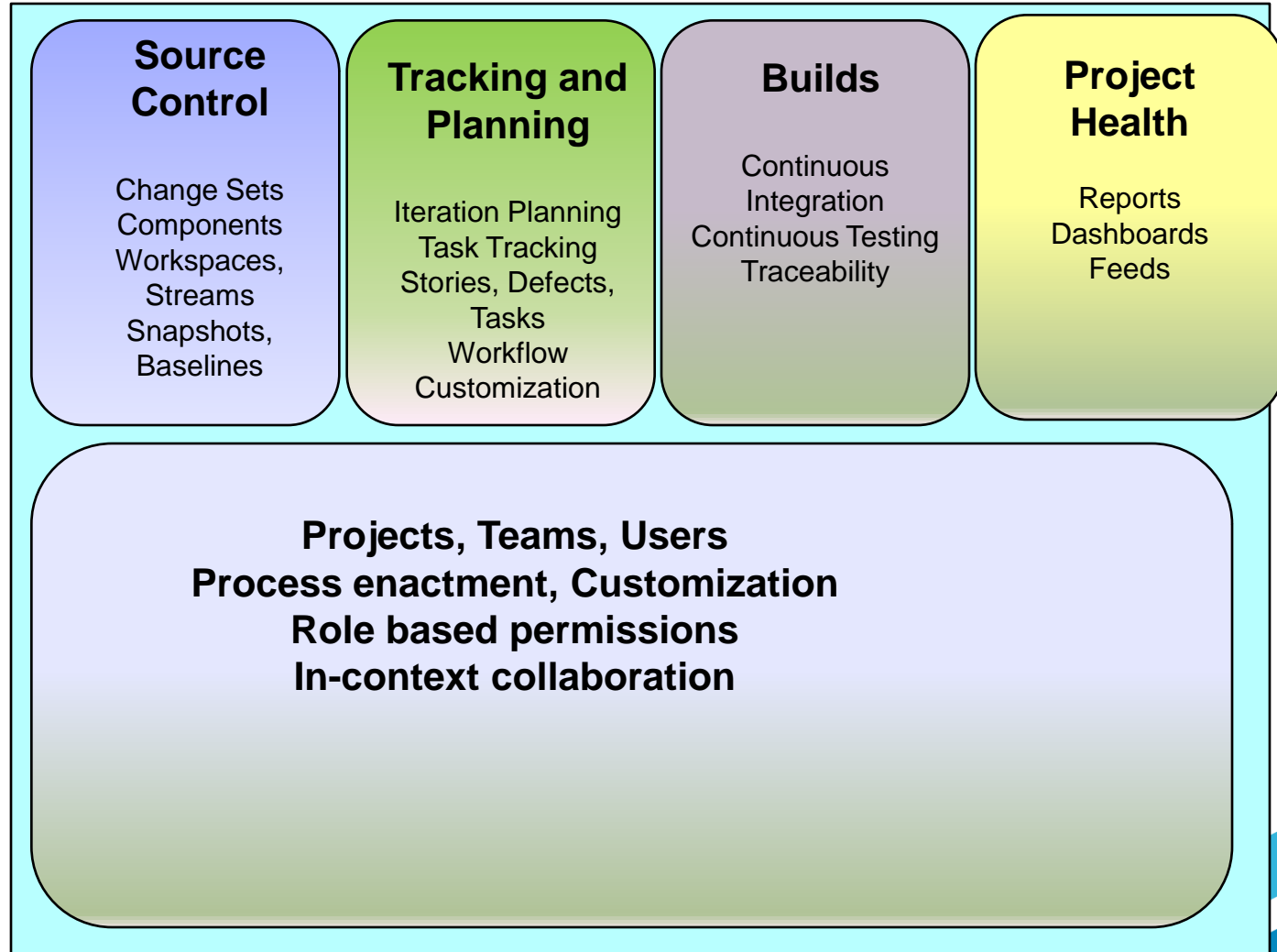
- Optimize your agile teams through
  - Real-time planning
  - Traceability
  - In-context collaboration
  - Development Intelligence
  - Continuous Improvement
- Get up and running quickly
- Extend as your needs evolve
- Support heterogeneous development across multiple platforms and technologies
  
- **Choose the right tools**

## Outline

- What is Agile?
- Agile @scale
- **Rational Team Concert for Agile Teams**

# Rational Team Concert

- Collaboration in Context
- Team First
- Process
- Transparency



## Rational Team Concert – A single tool, many capabilities

- Process simplified
  - A living, breathing process: trained by you
- Track your tasks
  - Smartly linked work items that behave how you want them to
- Plan your way
  - Scrum, Open-up, Kanban
- Manage your sources
  - Create, undo, share, update, review, suspend, resume, patch
- Be Team aware
  - Day one: up, running, coding, and productive
- Keep builds healthy
  - Build continuously, at multiple levels, with the technology of your choice

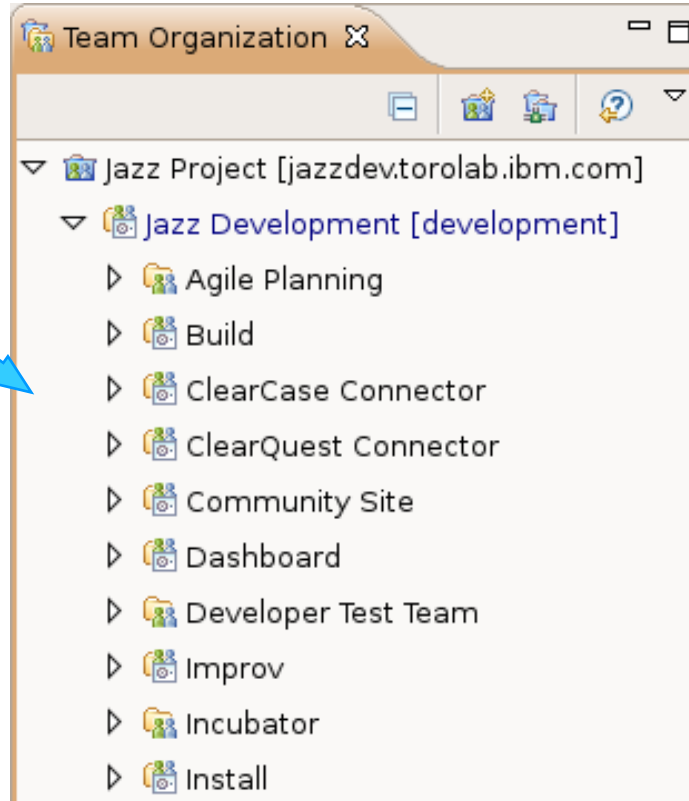
## Rational Team Concert – A single tool, many capabilities

- Dashboards for status
  - Easy-to-create, web-based dashboards
- Runs anywhere
  - From Linux to Windows, Mac to mainframe, Eclipse to Visual Studio
- Open for Integration
  - OSLC



## Being Team Aware

- Team Centric
- Support self-organized teams
- Teams are first-class objects



# Process Rules and Enforcement

- Teams work on projects
  - each project follows a **process**
  - different processes for different
- Process determines:
  - how you organize your work
  - artifact types and their states
  - preconditions and follow-up actions on operations manipulating artifacts
  - roles and permissions
- Described with **Process templates**
- Process can evolve as project progresses
  - customized
  - Workitem categories
- **Automatic Process enforcement!**

Actions	Everyone (default)	Product Owner	ScrumMaster	Team Member
Dashboards				
+ 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				
+ 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				
+ Save Project Area (server)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Work Items				
+ 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"/>

**Create Project Area**

Choose Process Template

Select the template for the process that should govern the project area.

Available Process Templates:  Filter by locale: English (United States)

- Agile Process
- Eclipse Way Process
- Formal Project Management
- Jazz Support (Private)
- Jazz Support v2
- OpenUP Process
- Scrum
- Scrum
- Simple Team Process
- Unconfigured Process

**Description:**  
A process template for Scrum. Scrum is a popular approach to manage projects in an agile way.

**Locale:**  
English (United States)

to the repository.  
ed they will be updated.

on Finish as specified in the process template.  
efore I manually initialize the project area.

**Deliver (failed)**  
 Missing work item or comment

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

**Reason**  
All change sets should be associated with a work item which is planned for the current iteration.

This makes it easier for the team to track its progress through the iteration and allows other users to understand why your changes were made.

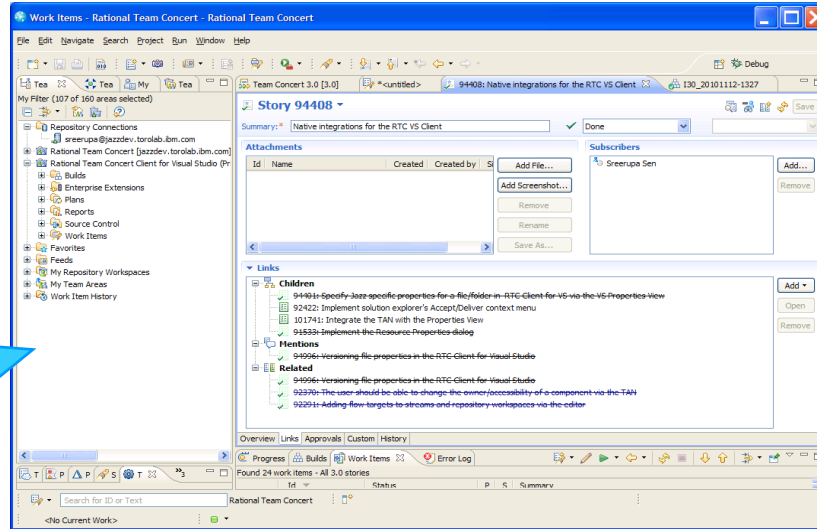
**Solutions**

- [Associate Existing Work Item](#)
- [Associate New Work Item](#)
- [Associate and Try Again \(experimental\)](#)
- [Overrule 'Descriptive Change Set'](#)

# Tracking work in distributed teams

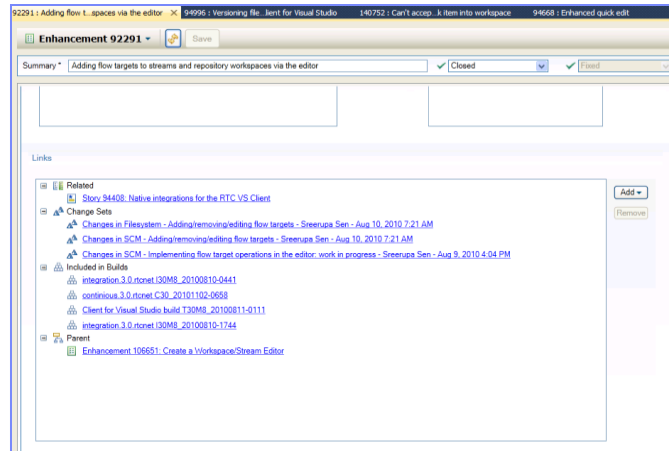
## WorkItems

- Customizable
- Workitem categories
- In-context collaboration
- Transparent
- Execution items and Plan Items
- Queries



## Integration

- Link to your SCM
- Get included in your builds
- Link to
  - Each other
  - Test cases
  - Requirements



# Agile Planning

- Type of plans determined by process
  - Product backlog
  - Release Plan
  - Iteration Plan
- Real time planning
  - Plans reflect your team’s progress

Actions	Summary	Story Points	Effective Estimate	Progress	Rank
	▶ Provide improved Assertion syntax	20 pts	--	0/16 h	5
	▶ Give TimeoutTest.timeoutFailure more time to pass	--	--	0/0 h	9
<input checked="" type="checkbox"/>	▶ No download link to latest version	--	--	0/0 h	23
	▶ BaseTestRunner.getTest() requires class to extend TestCase	--	--	0/0 h	26
4.4 s1 Closed Items: 1   Open Items: 0 Progress: 0/0 h Estimated: --					
4.4 s2 Closed Items: 10   Open Items: 12 Progress: 13.5/186.5 h Estimated: 75%					
	▶ assertEquals throws NPE while comparing null elements	--	3 weeks	0/120 h	2
	▶ assertEquals misses differences	--	2 hours	0/2 h	3
	▶ testCount hard-coded to 1 for childless Description	--	--	0/0 h	4

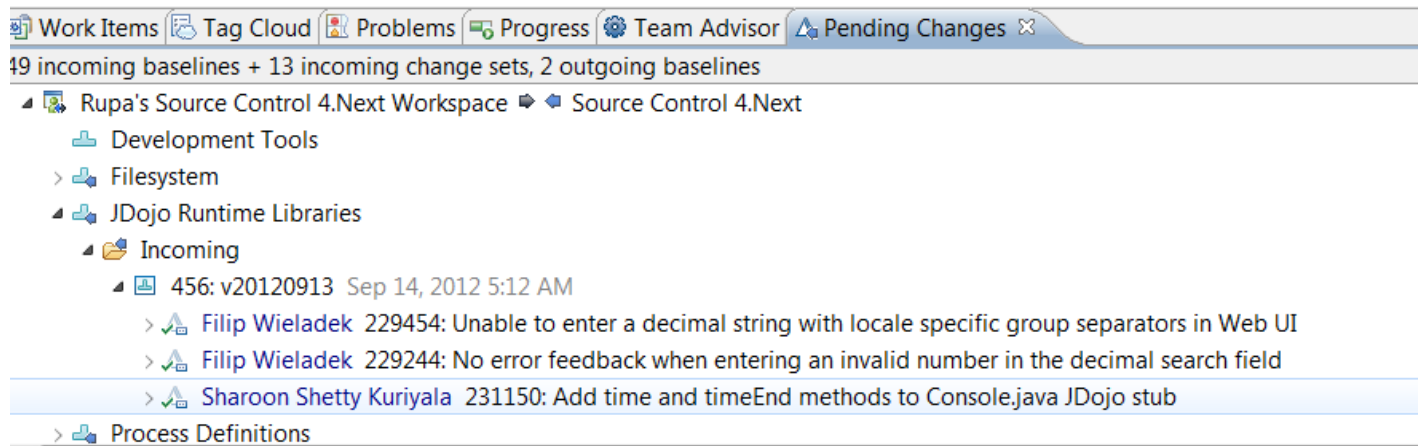
# Agile Planning Contd

- Planning for teams
  - Release plan
  - Iteration Plan
  - Plan editor
- Planning for individual
  - My work view
- Plans are visible to stakeholders



## RTC SCM core concepts

- Streams
- Workspaces
- Sandbox
- Changesets
  - Collaboration based on changesets
- Traceability
  - Change sets get attached to work items
  - Get included in builds

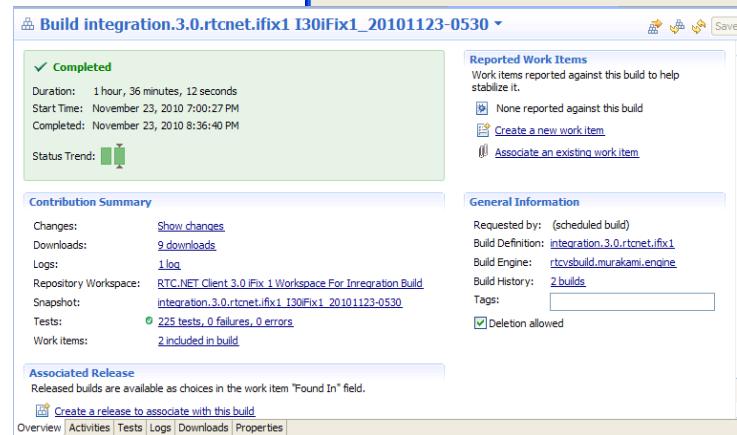
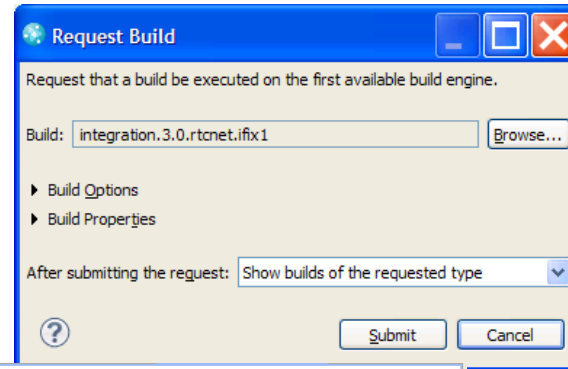


## Isolation Levels – Parallel development with SCM

- Repository workspaces – Provides **individual** isolation
  - you don't have to make your changes visible to the team to:
    - backup or use the repository features.
    - collaborate on a change with someone else
- Streams – Provides **team** isolation.
- Suspend and Resume – Provides **task** level isolation for personal work.
- Team areas – Provides **process** isolation.

# Continuous Integration with builds

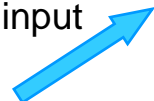
- Validate
  - Automated builds
  - Unit tests
- Each Team
  - Owns their builds
  - Monitor the status of the builds
- A Developer
  - Personal builds





# Transparency with Feeds, Dashboards, Reports

- Transparency
  - self-organized teams
  - monitor real time progress
  - stakeholder input
- Feeds
  - Event notifications
  - Associate with teams
  - Up to date
- Dashboards
  - Live project status
  - For all stakeholders
- Reports
  -



The image displays three screenshots of the Rational Team Concert (RTC) software interface:

- Top Screenshot:** Shows a 'My Teams in Rational Team Concert' feed. It lists recent activities such as 'Martha DasSarma delivered 3244foundation.stable.jcb-RJF-120101130-1700 to 'RelEng RTC-RTC Integration'' and 'Team Area created: ClearCase Connector'.
- Middle Screenshot:** Shows the 'RTC Development' dashboard. It includes sections for 'Open vs Closed Work Items', 'Metrics' (with a list of criteria like 'Verify the QCert numbers for your component'), 'Quality Metrics', and 'Tracking' (with a bar chart showing 'Closed', 'Verified', and 'Resolved' items).
- Bottom Screenshot:** Shows a 'Burndown' report. The chart plots 'Hours' (0 to 3,500) against dates (9/13/10 to 10/13/10). It features three lines: 'Remaining Work' (blue circles), 'Planned Work' (grey line), and 'Ideal' (orange line).

# Retrospectives

- Teams reflect on what worked and what didn't
- How to tune the process
- PMC retrospective summarizes team retrospectives
  - Defines actions for the PMC

**Retrospective 197779** 🔍 📅 📄 📊

Summary:  📅 Finished

**Details**

Type:

Creation Date: Feb 22, 2012 2:43 AM

Created By: [James Stuckey](#)

Team Area: [RTC / PMC \(Private\)](#)

Filed Against:

Owned By:

Planned For:

Due Date:

Resolution Date: Mar 14, 2012 3:59 PM

Resolved By: [Sreerupa Sen](#)

**Quick Information**

👤 Subscribers (7): CM, CC, JS, KUM, KK, LNV, MA

📁 Parent: 197770

📄 Copied From: 197770

**Agenda**

**Goals**

- \* Reflect on the RTC 4.0 M8 and RCO development efforts
- \* Consider what the team accomplished
- \* Identify what worked well at both the team and project level

**Summary**

**Big ticket items that the team achieved**

-----

- Beta for all the clients

**What worked well**

-----

- The beta demos went well and were well received.
- Most of the MSSCCI work got completed in M8/RCO. The discussions we've had with the [Rhapsody](#) team proved to be very helpful, so did the testing they did for us.
- CLI team could defect a bunch of important fixes in RCO especially w.r.t help [texting](#). It looks more professional now.
- Vandana's testing helped a lot especially the stack traces helped us reproduce and fix a lot of defects in the shell client.
- The SCM Core team took on the brunt of the server rename work and that somewhat reduced the work in the downstream clients.
- Feedback from the SCM team on the Shell client has been really helpful.

Overview | Discussion | Links | History

# QUESTIONS

[www.ibm.com/software/rational](http://www.ibm.com/software/rational)



For more information on Rational Team  
Concert visit [jazz.net](http://jazz.net).

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