



IBM Rational Software

jazz

Drinking our own champagne

Inside the concert of RTCz development

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Rational Team Concert for System z Scrum Master

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Rational. software

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Agenda

Back to the *Jazz* basics

Team Concert for *System z*

One world, one agile team

One tool to rule them all

Lessons learned

Are we there yet?

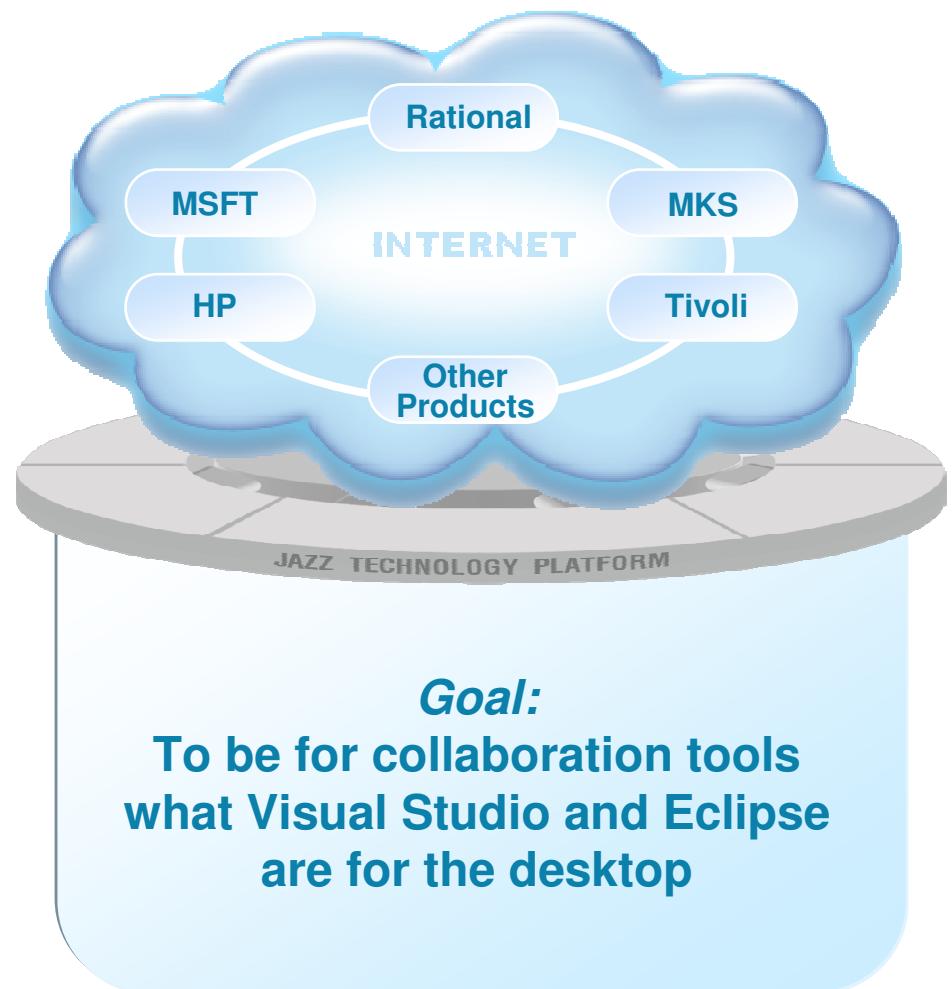
Resources



Transforming our Software Delivery

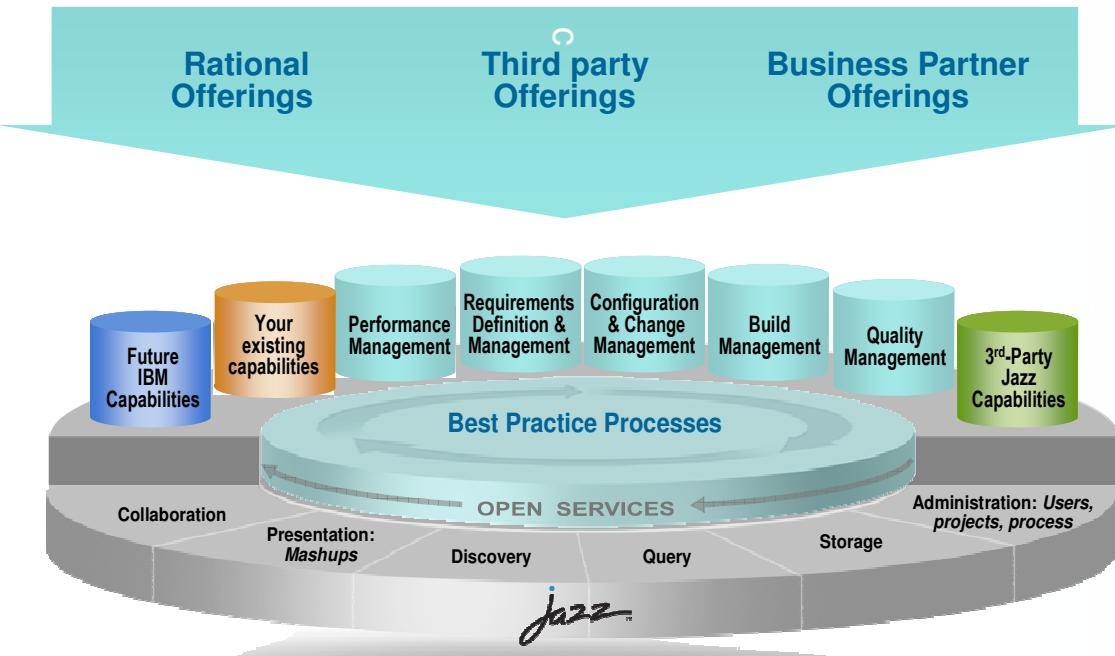
Technical requirements of a software delivery platform

- **Learn from industry mistakes**
 - Don't assume that customers will only use your products
 - Don't assume that all data will be stored in a central repository
- **Take advantage of the Internet**
 - Amazingly scalable and extensible
 - Integrates information on a massive scale
 - Collaboration on an unprecedented scale
- **Make it open and extensible**
 - Specify data independently of tools
 - Standardize data access through HTTP/REST standard protocols



jazz

Jazz is a platform for transforming software delivery



Jazz is...

- Our vision of the future of systems and software delivery
- A scalable, extensible team collaboration platform
- An integration architecture enabling mashups and non-Jazz products to participate
- A community at Jazz.net where Jazz products are built
- An evolution of our portfolio over time

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

Essential attributes of Jazz

jazz



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.

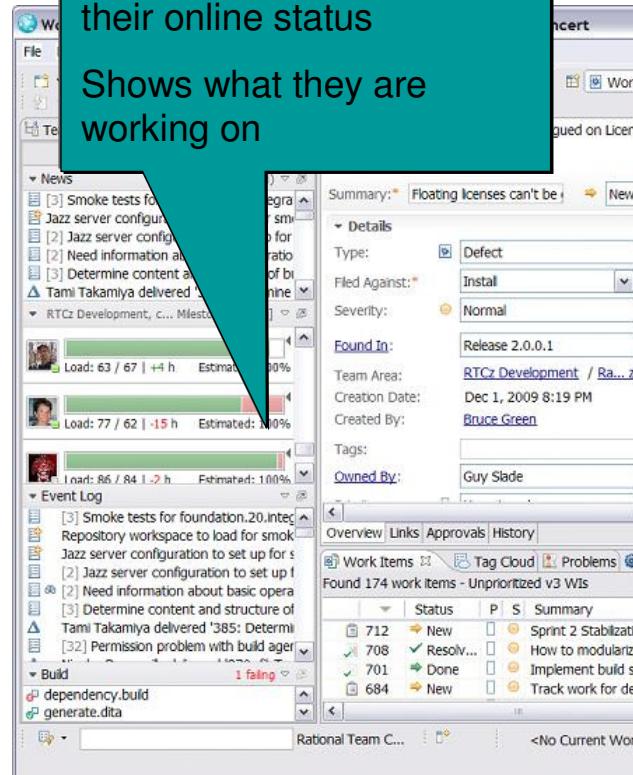


A collaborative team environment

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)

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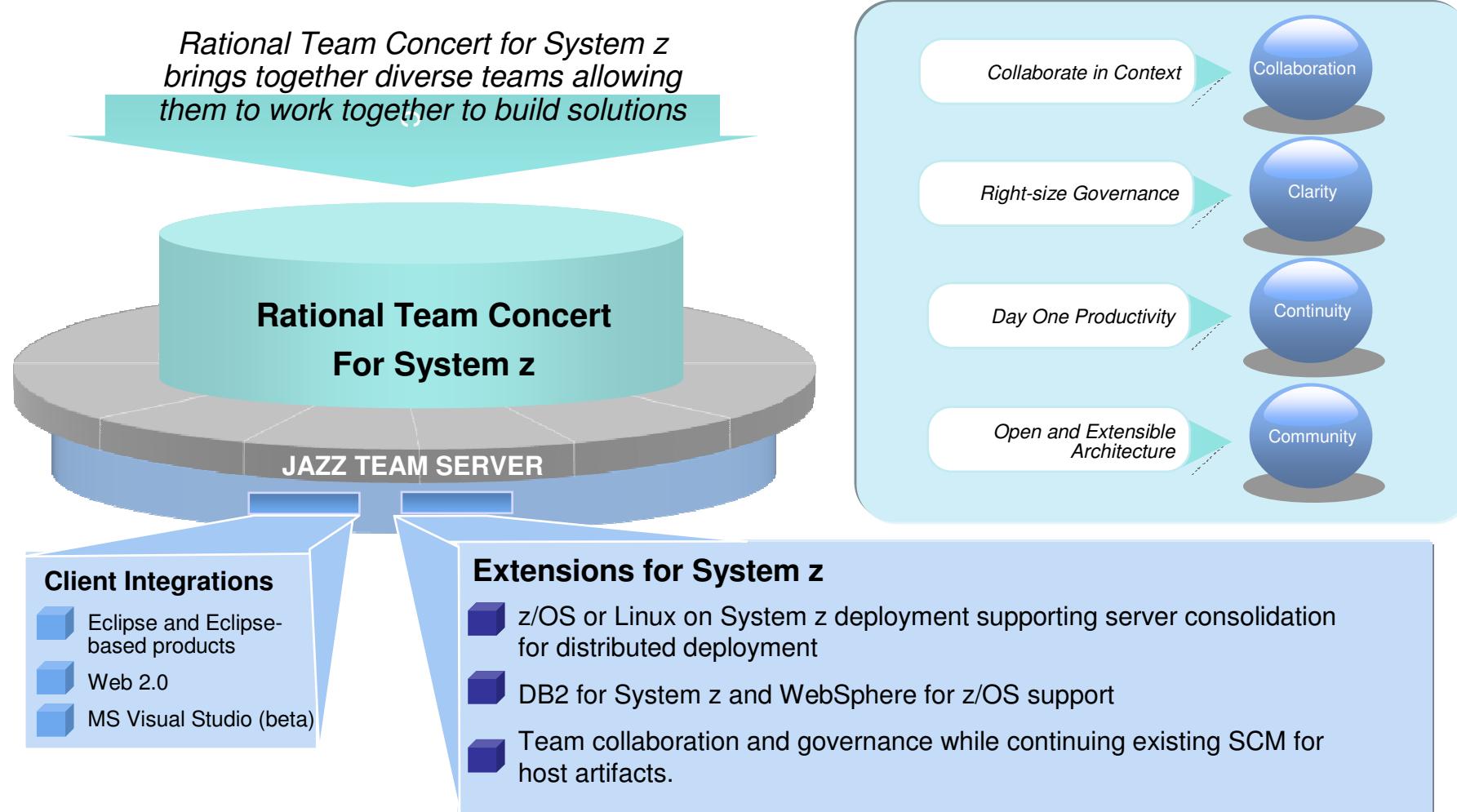
Resources



Transforming our Software Delivery

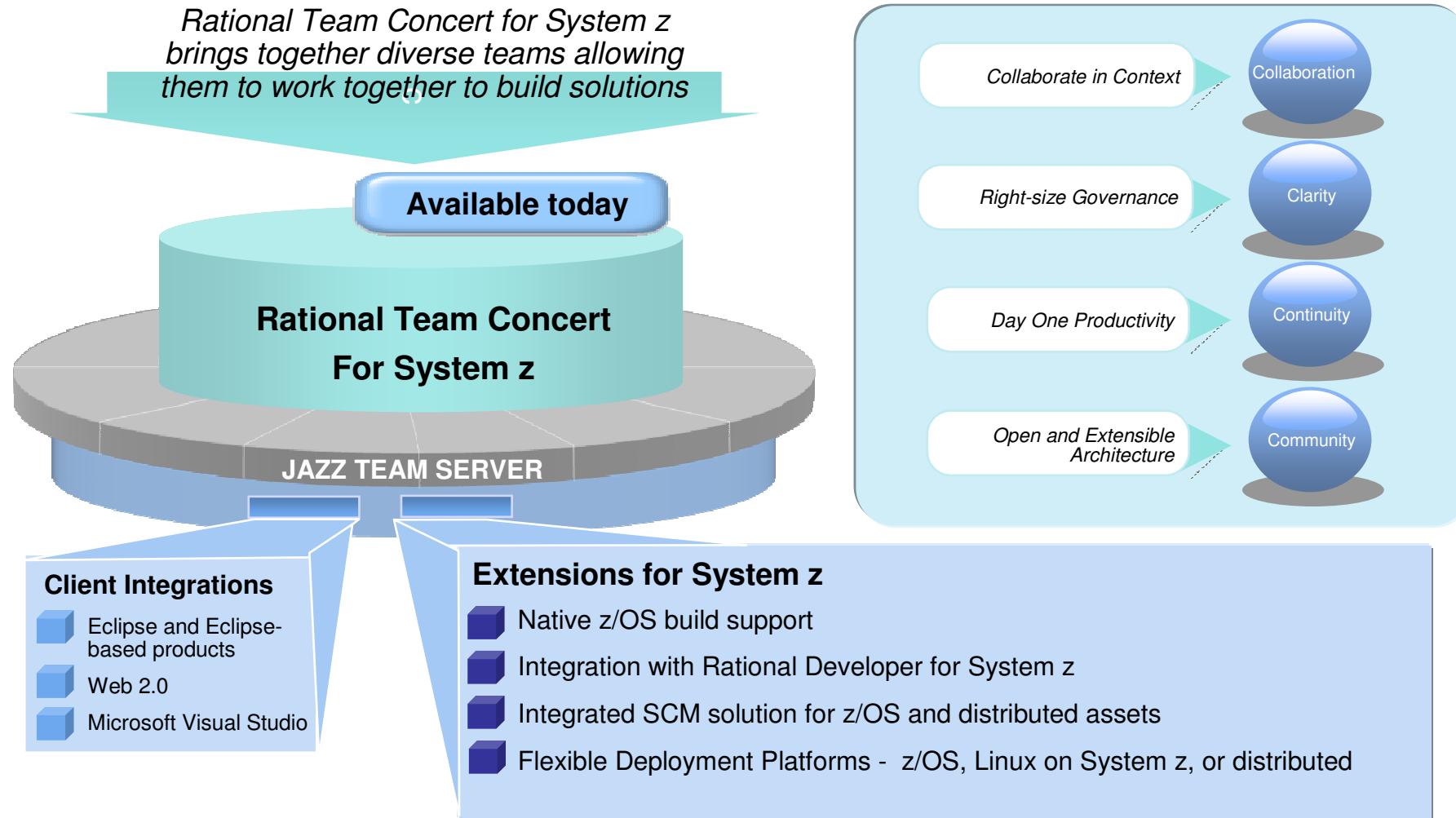
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Team Concert *for System z* delivered in 2008 version 1



jazz

Team Concert for System z developed during 2009 version 2



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Next steps

Resources

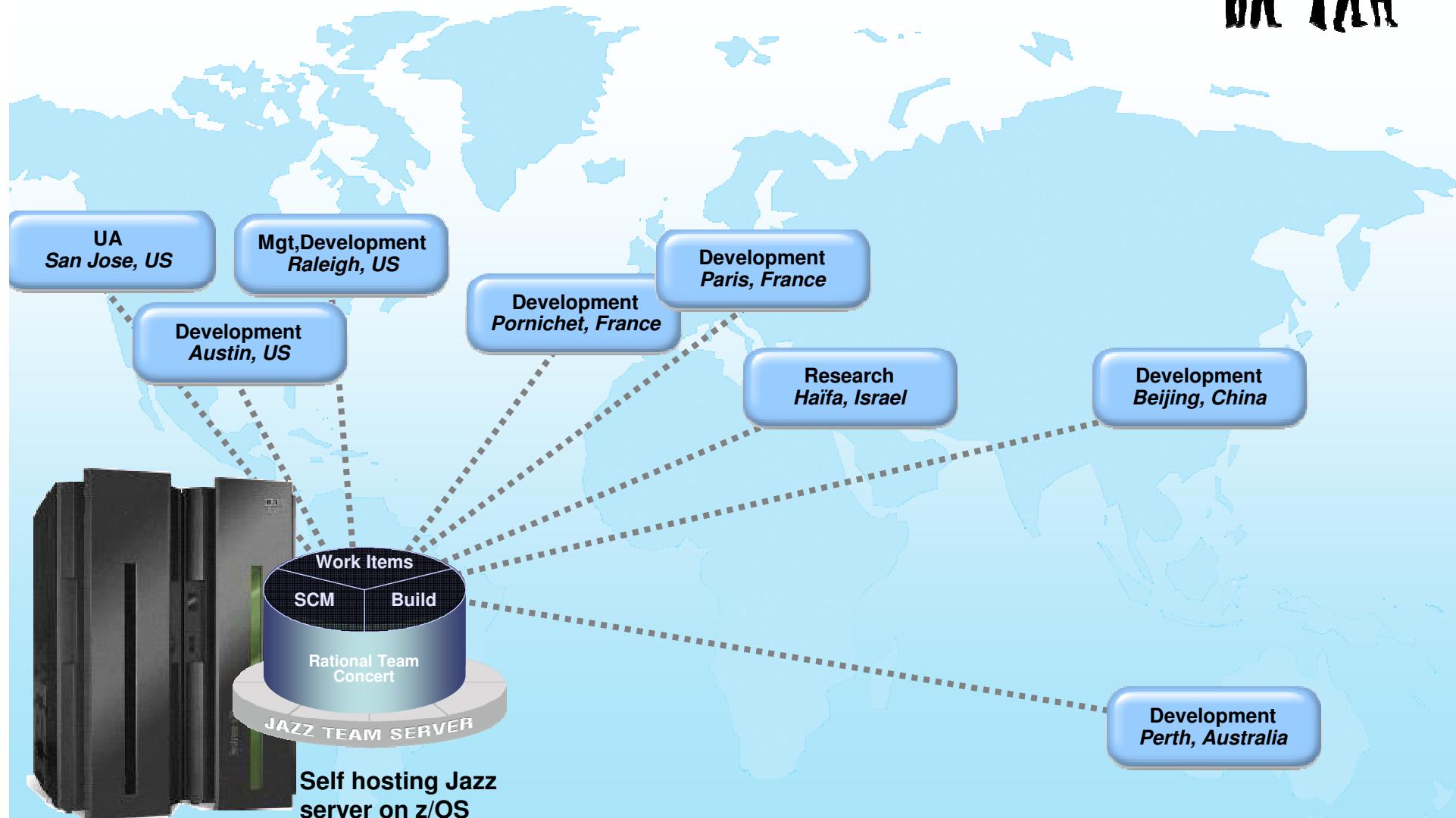


Transforming our Software Delivery

jazz



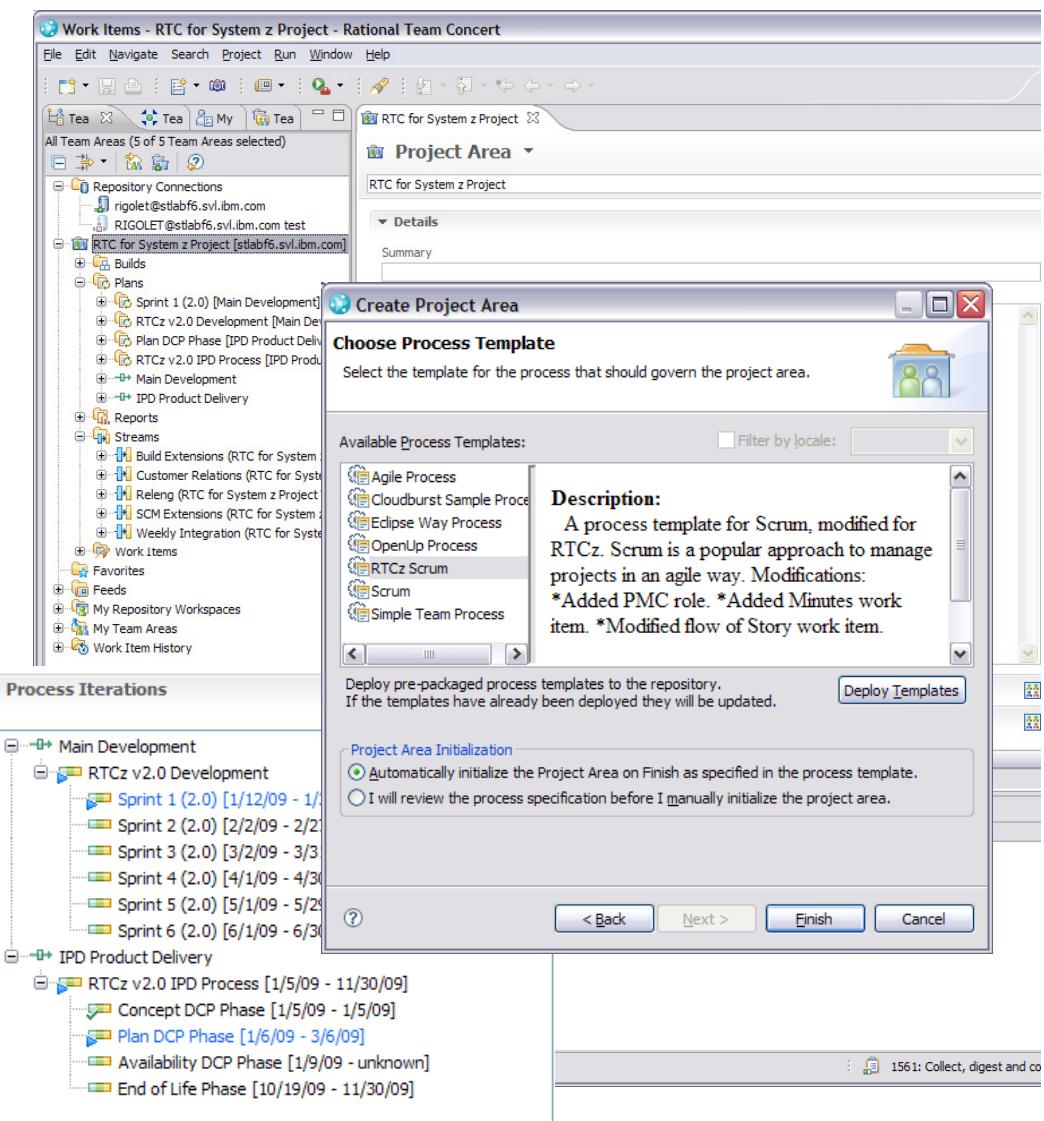
The sun never set on RTCz development





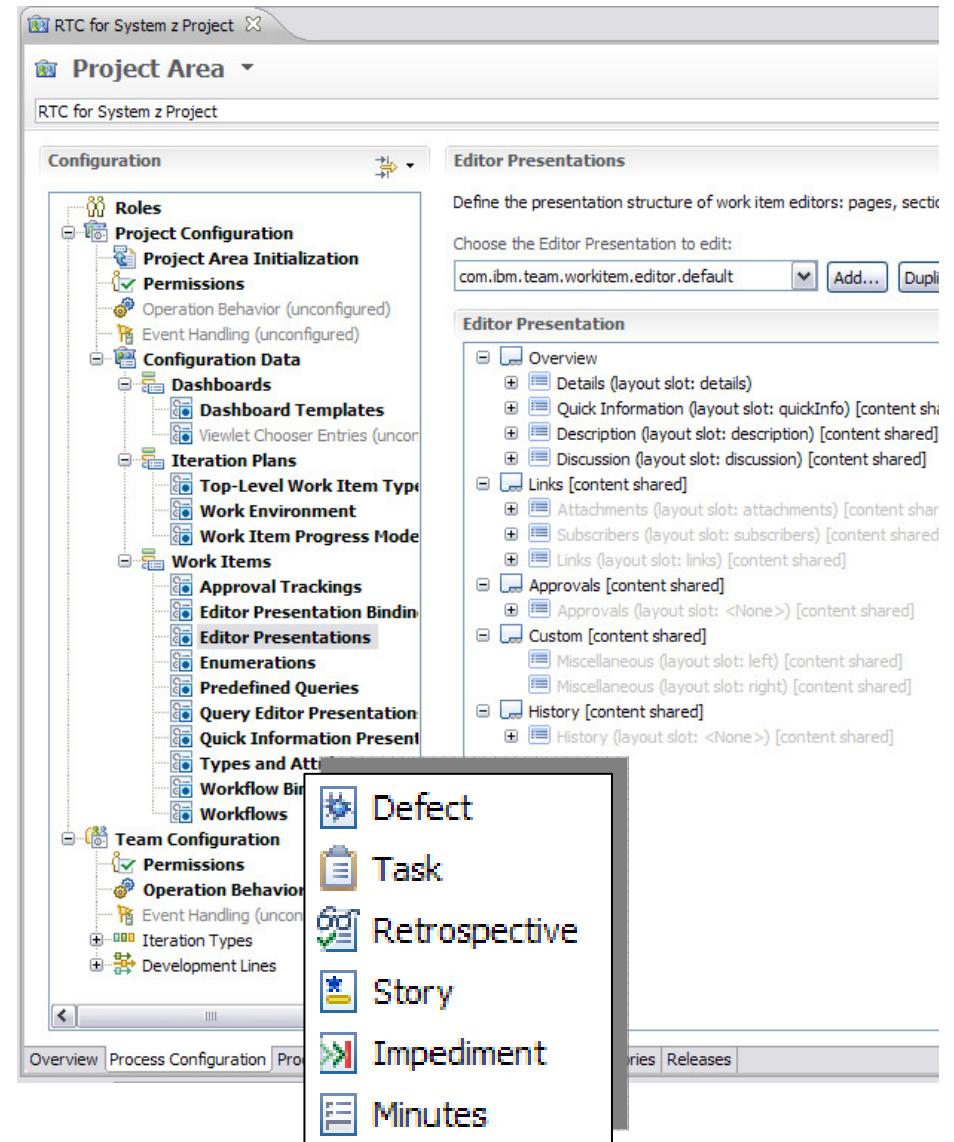
Tooling RTCz development using Team Concert

- **RTCz development project area**
 - Self hosting on *System z*
 - *Access from Jazz.net*
 - ‘RTCz for System z Project’
 - Based on the Scrum template
- **Geographically Distributed Development**
 - 3 main *Scrum teams*
 - RTP (Raleigh, US)
 - FASL (France & Australia)
 - BF (Austin, US)
- **2 parallel development lines**
 - *No maintenance*
 - Main development
 - Release v2.0
 - Post v2 development
 - Product Delivery



RTCz Scrum process

- **RTCz development process**
 - Based on the standard Scrum process template
- **Minor process adaptations**
 - New role
 - *PMC: Project Management Council* (based on Stakeholder role)
 - New **Minutes** work item
 - Track meeting minutes
 - Updated permissions
 - **PMC** can update Iteration Plans
 - Limited operations for externals
 - New **automatic tasks** when joining a team
 - [Joining a Team] Update your calendar with your Scheduled Absences
 - [Joining a Team] Update your Work Environment



RTCz stakeholder roles, aka '**Chickens**'

- ‘Chickens’ are not part of the actual Scrum process, but they must be *engaged* and *provide feedback*.
- **Project Management Council (PMC)**
 - **Stakeholders**: Danny, David
 - **PMC**: Pamela, Teresa, Sandra, Guy, Alex, Robin, Jean-Yves
 - **Architects**: Rosalind, Nicolas
- **Product Delivery**
 - **Stakeholders**: Danny, David
 - **PMC**: Pamela, Rosalind, Teresa, Sandra, Nicolas
- **Light adaptation from standard Scrum**
 - Product Owner, Scrum Masters & Architects are also ‘Chickens’ as part of the PMC

Members

Roles determine a user's permissions as well as any preconditions and follow-up actions that for team operations. The roles assignments below are also valid in all child team areas. Unless configured otherwise, all users in the repository play the 'default' role.

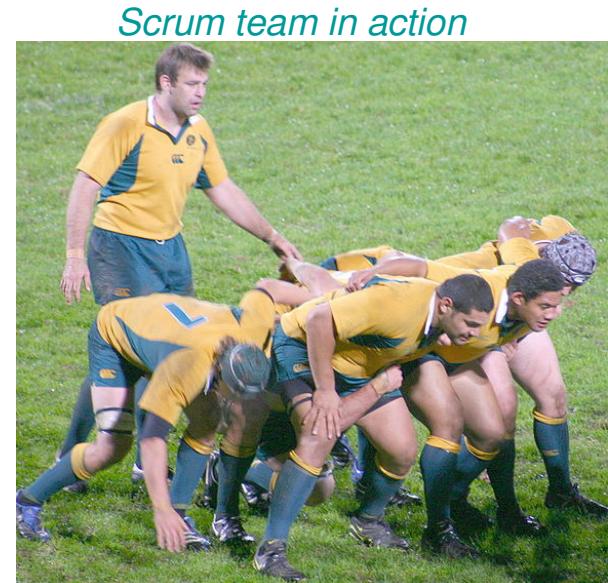
		
□ Danny Mace	■ David Myers	■ Nicolas Dangeville
		
■ Pam Owens	■ Rosalind Radcliffe	■ Sandra Liles
		
■ Teresa J. Stephens		

Ad
Create
Remove
Process

RTCz development roles, aka '*Pigs*'

- *'Pigs' are the ones committed to the project and the Scrum process.*

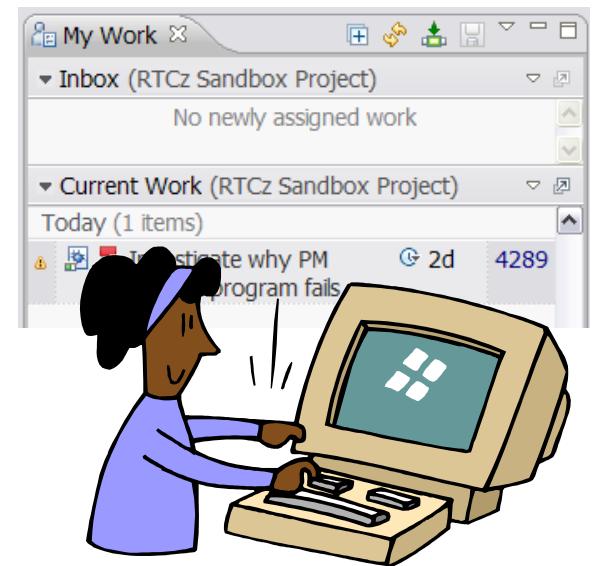
- **RTCz overall project**
 - **Project Owner:** Guy
- **3 main development Scrum teams**
 - RTP, Raleigh
 - **ScrumMaster:** Robin
 - **Team Members:** Alex, Andrew, Bruce, Daniel, Hung, John, Matt, Steve, Tami
 - FASL, France & Australia
 - **ScrumMaster:** Jean-Yves
 - **Team Members:** Valérie, Liam, Nicolas, Jean-Bernard, Pierre, Pascal, Xavier
 - BF, Austin
 - **ScrumMaster:** Robin
 - **Team Members:** Charles, Franck, Leigh, Joseph, Su Juan, Tim, Wei
- **User Assistance - Documentation**
 - **Team Members:** Stephanie, Jocelyn, Patrick
- **Bidi, SUPA research**
 - **Team Members:** Adir, Gregory, Heba, Mohamed, Ramy, Semion, Mordechai, Uri





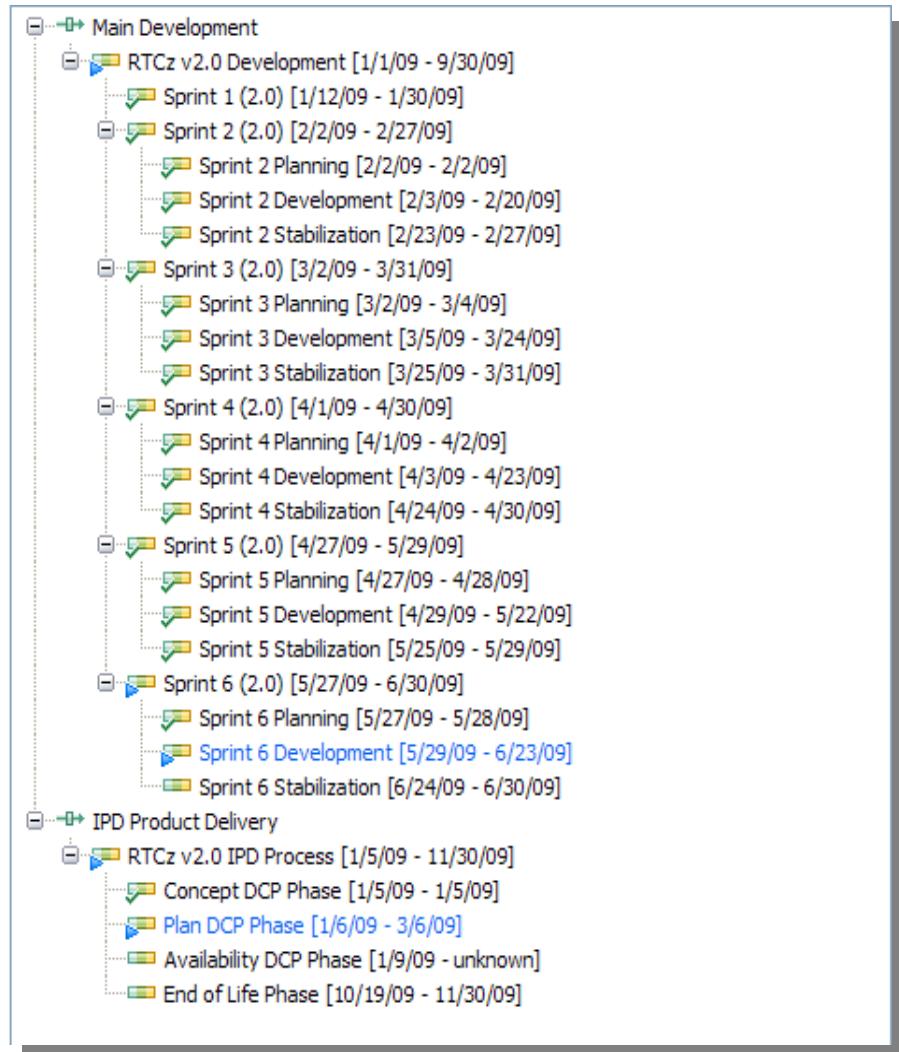
A day in the life... of a Scrum team member

- **Always starts with a daily scrum**
- **Think!... Document ... Write JUnit testcases... Code... Test**
 1. Check *My Work*
 2. API First; *improve the collaboration with your clients*
 3. Test Driven Development (**TDD**); *solidify your code*
 4. Update work items; *let other members know what you've done*
- **Deliver code to the Team Stream**
 - Test team integration; *now your component is not alone*
- **Deliver code to the Integration Stream**
 - **Daily & Weekly** builds
 - Test project integration; *we now have a product*
 - Control JUnit testcases execution; *check the overall quality*
- **Recurrent activities**
 - Actively participate in design meetings; *across Scrum teams*
 - Regular JUnit jam sessions; *leverage the know-how within the teams*
 - **Scrum of Scrums** meetings when appropriate; *keep the rhythm*



RTCz development rhythm

- **Project timeline**
 - Started Jan 2009
 - All packages were available on Oct 8, 2009
- **Monthly Sprints**
- **9 iterations**
 - Initial iteration (training, envt set up,...)
 - **5 development iterations**
 - Included FVTs
 - End-game & Cleanup
 - Includes SVTs, TVTs, GVTs
- **3 phases in all development iterations**
 - Planning (2-3 days)
 - Development
 - Stabilization (3-4 days)





Sprint planning detailed

- **First days of each Sprint**
 - Get **Sprint directions** from Product Owner
 - Analyze **Stories** with the Architects
- **All Scrum team members are involved**
- **Check time budget**
 - Verify absences in RTCz
- **From Product Backlog...**
 - Query Work items
 - Team members try to fully understand **Stories** with the help of the Architects
 - Give estimates using the **Planning Poker** technique
- **...To Iteration Plan**
 - Fill Sprint backlog with selected Stories based on **team velocity** and priorities

Rational Team Concert

Dashboards Project Areas Work Items **Plans** Source Control Builds

FASL Sprint 6 Development Plan

Team Area: FASL Scrum | Iteration: Sprint 6 Development (5/29/09 - 6/15/09)

Overview **Planned Items** Charts Drop-Offs Progress

View As: Work Breakdown

Jean-Yves Rigolet
Closed Items: 5 | Open Items: 0

- CHKPII errors for the zOS hyperlinks messages
- com.ibm.teamz.interop.ide.ui - manifest.mf has a dependency that may be too strict
- Upgrade existing code to RTC v2 M3
 - Upgrade existing zOS Hyperlinks code to RTC v2 M3
 - Upgrade existing RTCz Jazz gateway code to RTC v2 M3

Story Points: 13 pts

Progress: 0 pts, 1 pt, 2 pts, 3 pts, 5 pts, 8 pts, 13 pts, 20 pts, 40 pts, 100 pts

Team Area: FASL Scrum

Creation Date: 5/29/09

Created By: Jean-Yves Rigolet

Tags:

Owned By: Jean-Yves Rigolet

RDz JCL and config member point to SAMPLIB instead of

Agenda

- Back to the Jazz basics
- Team Concert for *System z*
- One world, one agile team
- One tool to rule them all**
- Lessons learned
- Are we there yet?
- Resources



Transforming our Software Delivery



Tests coordinated using Rational Quality Manager (RQM)

- **All defined in RQM**
 - FVT, SVT & Performance Test Plans
- **Defined by developers**
 - During the *Stabilization* phase
- **Executed by all members**
 - Developers, release engineer, ..., and **managers included**
 - Test execution records
- **Creating & linking Defects on failure**
- **Formal reviews**
 - Test cases approvals by Product Owner & ScrumMasters
- **Metrics & charts on quality presented at Sprint stakeholders meetings**

Test Case: S4: Ensure SCLM Edit is allowed if a valid workitem (Change code) is entered - Rational Quality Manager - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Home View Test Cases S4: Submit the Gatewa... S4: Query the gateway ... S4: Return workitem ... S4: Ensure SCLM edit

Requirements Planning Construction Lab Management Execution Reports Defects

Manage Sections Table Of Contents Summary Test Case Design Formal Review Requirements Pre-Condition Post-Condition Test Scripts Test Execution Records Attachments Show All Sections

S4: Ensure SCLM Edit is allowed if a valid workitem (Change code) is entered

Test Case Overview | View Snapshots

Originator: Liam Doherty Action: Select Action State: Under Review

Using the SCLM userexit that calls the gateway, ensure that edit is allowed if a workitem (Change code in 'New' or 'In Progress' status is provided.

Summary

Work Item: 1708 - An infrastructure to...

Categories

Defects created

Defects resolved

Defects total open

Date	Defects created	Defects resolved	Defects total open
2/1/09 12:00 AM	0	6	42
4/1/09 12:00 AM	0	9	198
4/1/09 12:00 AM	0	0	180
6/1/09 12:00 AM	0	0	168
6/1/09 12:00 AM	0	0	130
6/1/09 12:00 AM	5	5	110

Collaborate using Work items and Plans

The screenshot displays the Rational Team Concert interface, showing two main windows: a 'Work Items' window and a 'Work Items - Plan' window.

Work Items - RTC for System z Project - Rational Team Concert (Left Window):

- Defect 4273** (Summary: scm script does not work when it is invoked from Build Forge Agent)
- Details** section: Type (Defect), Severity (Normal), Found In (Unassigned), Creation Date (Jun 18, 2009 3:48 PM), Created By (Tami Takamya), Team Area (FASL Scrum / RTC for ... Project), Filed Against (FASL Backlog), Tags, Owned By (Liam Doherty), Priority (1 High), Planned For (Sprint 6 Development), Estimate (2 h), Time Remaining (1 h), Due Date (None).
- Description** section: Liam, Although I am not sure who should take a look, I think you need to be aware of this problem. I was developing my code to change Antz build code to use SCM CLI instead of standalone replace the interface to call standalone File Agent by SCM shell script, which was created invoked from USS command line, but it fails when it is invoked from Build Forge Agent. I debugged and found it was caused by the user.home Java system property. It was set while it was set to /u/tami when it was called from USS command line. In the shell script, do not know exactly what it means, but it seems like SCM CLI tries to create a workspace.
- Discussion** section: (2 comments; 2 new)
- OMVS INFORMATION** section: UID=0000000000, HOME=/u/tami, PROGRAM=/bin/sh
- Quick Information** section: Subscribers (9): DB, HVL, JYR, PF, RF, SD, TT ...; Blocks (1): 4241; Depends On (1): 4255; Related (2): 4044, 4272; Mentions (2); Mentioned By (1).
- Discuss/exchange work with members** (Callout): A callout box points to the 'Discussion' and 'Comments' sections of the work item details.

Work Items - Plan 'FASL Sprint 6 Development Plan - Sprint 6 Development' (Right Window):

- FASL Sprint 6 Development Plan** (Team Area: FASL Scrum | Iteration: Sprint 6 Development (5/29/09 - 6/23/09) | 68 Closed | 27 Open)
- Liam Doherty** (Closed items: 15 | Open items: 6): scm script does not work when it is invoked from Build Forge Agent (1 hour, 1 High, 2247), RTCz v2.0 - SCM: File Agent, Dependency metadata collection in RTCz.
- Nicolas Dangerville** (Closed items: 3 | Open items: 5): Need to know the function sets of FA to finalize FA SCM Config GUI on Build Definition Editor (10 mins, 6 Low, 1739), Dependency metadata collection in RTCz.
- Pascal Fantoni** (Closed items: 13 | Open items: 8): RTCz v2.0 - SCM: File Agent, PDS is locked when created by the File Agent Miner (4 hours, 1 High, 4316), Unknown single quote handling for this file. Special NLS_MESSAGEFORMAT comment must be added (10 mins, 2 Medium, 4307), Re-factoring messages for NLS (1 day 4 hours, 2 Medium, 4295), Improve the consuming of Data Set Definition for allocating Data Set in the File Agent (1 day, 3 Medium, 4172).
- Pierre Coucoureux** (Closed items: 6 | Open items: 4): RTCz v2.0 - SCM: File Agent, Improve the consuming of Data Set Definition for allocating Data Set in the File Agent (10 hours, 1 High, 2247), PDS is locked when created by the File Agent Miner (10 hours, 2 Medium, 4187), Unknown single quote handling for this file. Special NLS_MESSAGEFORMAT comment must be added (10 hours, 3 Medium, 4196).
- Jean-Yves Rigolet** (started: 2:33:01 PM): Jean-Yves Rigolet [started: 2:33:01 PM] (Software Engineer - Rational Team Concert for System z Scrum Master 757680 / 33-1941-7680, I am available)

Various levels of work planification (Callout): A callout box points to the 'Plan' window, highlighting the hierarchical structure of work items and the team area.

Instant collaboration / share context (Callout): A callout box points to the 'Instant Collaboration' window, showing a message from Jean-Yves Rigolet.

Share & build source code using RTCz

The screenshot displays the Rational Team Concert (RTCz) interface with several key components highlighted:

- Build definitions**: A callout points to the Stream management interface, showing a list of components and their details.
- Source code Components**: A callout points to the Stream management interface, specifically the Components section.
- Pending updates**: A callout points to the Pending Changes view, showing a list of incoming and outgoing change sets.
- Integration Streams and flows**: A callout points to the Flow Diagram view, showing the integration streams and flows between various build agents and components.



Check the project status and health

Dashboard: FASL Scrum > General - IBM Rational Team Concert - Mozilla Firefox: IBM Edition

File Edit View History Bookmarks Tools Help

https://stlabf6.svl.ibm.com:9443/jazz/web/projects/RTC for System z Project#action=com.ibm.team.dashboard.viewDashboard&team=RTC for

Rational Team Concert

Your Trial License expires in 37 days | Jean-Yves Rigole

Dashboards Project Areas Work Items Plans Source Control Builds Reports ClearQuest Records Admin

FASL Scrum

General Builds Backlogs +

Welcome to FASL Scrum

Welcome to the FASL team dashboard. This dashboard gives you an overview of the RTCz French & Australian development team acting as one, called FASL.

FASL Scrum Members (9)

- Dominique Lelièvre
- Jean-Bernard Curni
- Jean-Yves Rigole
- Liam Doherty
- Nicolas Dangeville
- Pascal Fanta
- Pierre Couc
- Valerie Le T
- Xavier Hous

Team communication

Sprint 6 Development phase in progress

- Dates: 5/29-6/23
- Beta 3 preparation 6/23 - DCUT
- 6/24 - 6/30 FVT
- 6/29 - 6/30 Documentation Review
- 7/1 - Beta code delivery to jazz.net
- 7/8 - Beta 3 customer availability

Bookmarks

Find: Next Previous Highlight all Match case

Burndown charts

Various project health dashboards

Team communication

Sprint 6 Development phase in progress

Open vs Closed Work Items

Open Work Items by Priority

Sprint Burndown

Project Activity

Item Queries

Current FASL Scrum Plan

FASL Sprint 6 Development Plan

FASL Sprint 6 Development Plan

Team Area: FASL Scrum | Iteration: Sprint 6 Development | 5/29/09 - 6/23/09 | 68 Closed | 27 Open

Hours

26/09

19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0

5/19/09 5/26/09 6/2/09 6/9/09 6/16/09

Unassigned 2 Medium
6 Low 5 Medium
4 Medium 3 Medium
3 Medium 1 High

Agenda

Back to the Jazz basics

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One tool to rule them all

Lessons learned

Are we there yet?

Resources



Transforming our Software Delivery

Lessons learned (1/4): Getting ready for completion

- **Need to spend more time initially to better understand goals**
 - Better shape the product backlog
 - Developers need a good understanding of the architecture and goals
 - Need at least a sprint to design before starting development Sprints
- **Short development time (5 Sprints) is a difficult challenge**
- **Self hosting is not frictionless**
 - Many servers (self host, dev, build & test)
 - Keeping up with upgrades from various levels can be painful
- **Scrum teams made good progress**
 - Velocity increased over time
 - Ended to get a good understanding of the overall architecture
 - Good vision of progress, facilitated with RTCz dashboards
- **Language is a barrier to communication**
 - Various levels of English & French
 - A lot of misunderstandings due to the language & cultural differences
 - Communication improved between Scrum teams
- **Keep the rhythm**
 - Plans and dates were strictly followed, content evolved
 - Show/demonstrate regularly what has been accomplished



Lessons learned (2/4): Agile is fragile

- **Overlapping Sprints was a big mistake**
 - Planning Sprint $n+1$ during Stabilization of Sprint n
 - Planning sessions not based on **Stakeholders feedback**
 - Planning is using half of developers' brain when the other half is busy fixing bugs
- **Updates to plan during Sprint**
 - Members fully booked resulted in overbooking
 - External pressure due to product integration (RDz, RTC)
 - **Unplanned** activities (like SMP/E packaging)
- **Poor Scrum support until late in development cycle**
 - Changes made during v2 helped
- **Agile acceptance can vary amongst members**
 - Well accepted by most developers, some simply ignored it
 - Managers tend to go back to what they're used to when they are under pressure
 - Technical resources who are not developers (release engineers, admins,...) have problem to find a space in a development-oriented model
 - Most team members didn't see the **Retrospectives** as an opportunity to adapt
 - Don't hesitate to use the Product Owner as a shield
- **Keep fit**
 - Loss of rhythm makes it hard to restart



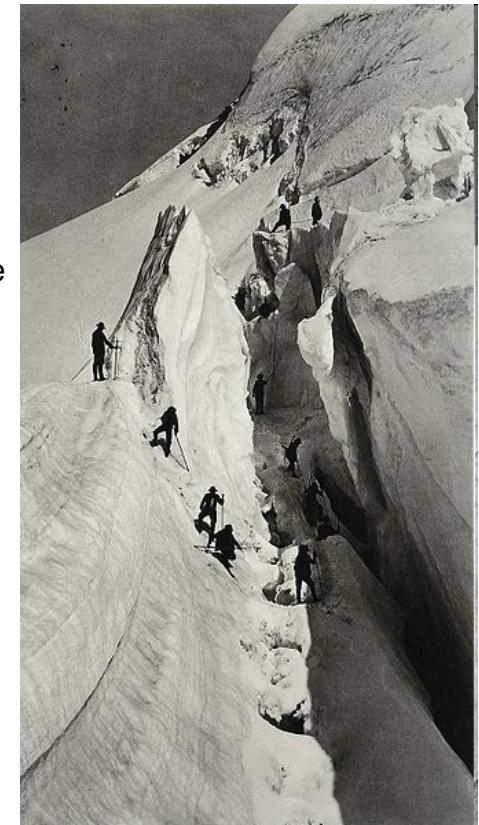
Lessons learned (3/4): Time is valuable

- **No time to step back & think, or simply take a break**
 - Always running due to the Scrum rhythm
 - Want to put a maximum in a release, probably too much...
 - We were too **greedy**
 - Lost Think Fridays; not prepared for the future
- **Try to identify Scrum smells early**
 - Confidence in agile is fragile; *don't over-estimate it*
 - Difficult to operate later; *leaves scars on members*
 - Agile training is needed for both developers and managers
 - Easy to go back to what we know best when times are hard
- **Reduced paperwork using RTCz & RQM**
 - RTCz & RQM, if used correctly by members can reduce manual/verbal reporting
 - Project health was more accurate with time and members tool knowledge
 - Development knowledge base; *track development & architectural choices (what & why)*
- **Take time to reassess backlog often**
 - Never have time to do everything; *do the right thing & do it right*



Lessons learned (4/4): Development is a team sport

- **RTCz team across multiple geos**
 - 17 time zones; From West Australia to the US West coast
 - Hard to find convenient times to **set up meetings**
 - **Extra long working hours or split days**
 - Reduced sleeping time (early mornings or late evenings)
 - It takes more time to do things in GDD than in a single location
- **Components by location**
 - Sharing components across locations make them **hard to build**
 - Inter-component collaboration creates **development frictions**
 - RTCz being at the centre of the development helped sharing code and knowledge
- **Teams by location**
 - A team must be formed from at least 2 people at one location
 - People need help from others
 - We never actually met; **hard to know each other**
 - We gained experience in Globally Distributed Development
- **Team members diffidence**
 - Generations can collide
 - Important messages seem to be shared out of official Scrum ceremonies
 - Only a few critics come out of the **Retrospectives**



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Are we there yet?

The Jazz logo is a stylized, handwritten-style word "jazz" in black, with a blue dot above the "i". It is set against a background of abstract, colorful brushstrokes in shades of green, blue, and yellow.

- **We've made it; RTCz v2.0.0.1 is out there for you**
 - We published [3 betas](#) to jazz.net & RTCz was available [on Oct 8](#)
 - We set a Scrum project & applied most [agile principles & Scrum](#)
- **Now, based on our first Scrum experience we can work on RTCz v3**
 - RTCz development joined core RTC and moved to Jazz.net last summer
 - Plans already published to [jazz.net](#); *take a look at them, we need your feedback*
- **More integration and collaboration with external teams expected**
 - Jazz, RTC, RDz, RTCp, RDp, ... with [more friction](#) expected too ;-)

The agile adoption problems we're facing today, our customers will have to face

- **We realize this is not as easy as it seems, so we are sharing our experience on *Drinking our own champagne***

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Transforming our Software Delivery

Resources

- Agile/Scrum
 - Agile Manifesto: <http://agilemanifesto.org/>
 - Wikipedia: http://en.wikipedia.org/wiki/Agile_software_development
 - Wikipedia: <http://en.wikipedia.org/wiki/Scrum>
 - Glossary of Scrum terms: <http://www.scrumalliance.org/articles/39#1127>
 - Scrum Alliance: <http://www.scrumalliance.org/>
 - Scrum Community: <https://scrumcommunity.pbwiki.com/>
- IBM Rational Team Concert *for System z*
 - Jazz platform: <http://jazz.net>
 - Product information: <http://www-01.ibm.com/software/awdtools/rtc/>
 - Articles & papers:
 - [In tune with IBM Jazz and IBM Rational Team Concert enterprise development tools](#)
 - [Easier, faster collaborative development by globally distributed teams](#)

Images & graphics

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- "final 1500m" image (slide 25) was obtained under the Creative Commons Attribution 3.0 Unported License: <http://creativecommons.org/licenses/by/3.0/legalcode> - Original Author is "Albertus teolog" [http://commons.wikimedia.org/wiki/User:Albertus_teolog]
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- [Change and release management](#)
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