



IBM Software Group – Rational software

# Collaborative Design Management

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**Rational.** software



# Collaborative Design Management on Jazz

**Rational.**

## Software Architect

*(UML) Modeling and Transformation*

Create/maintain your models and transform these into models/code

**Rational.**

## Team Concert

*Collaborative software delivery*

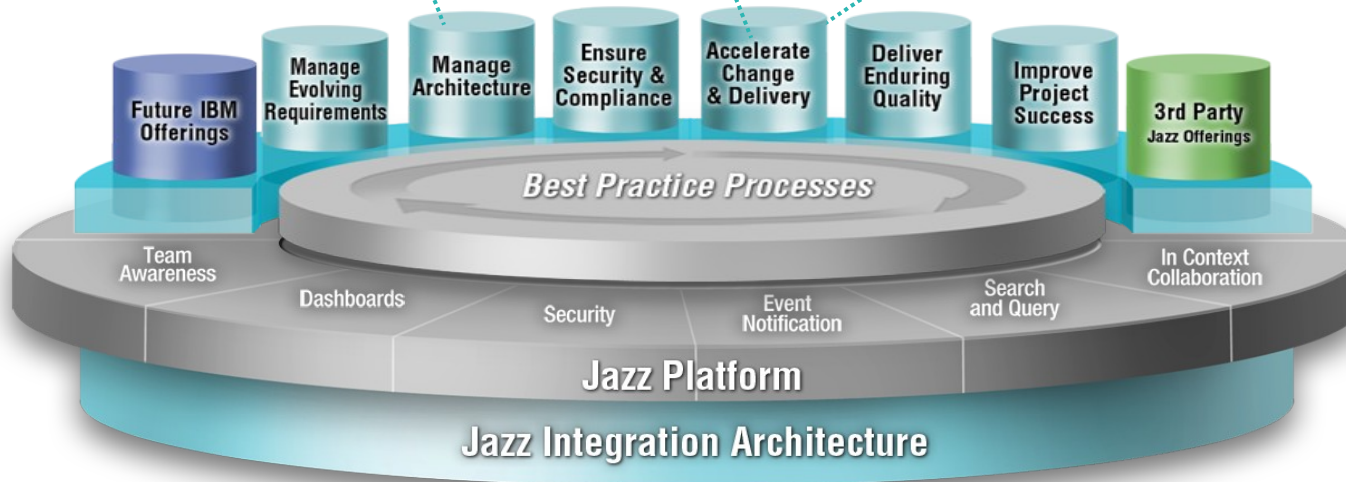
Collaborative SCM, work item, build automation & iteration planning

**Rational.**

## Design Manager

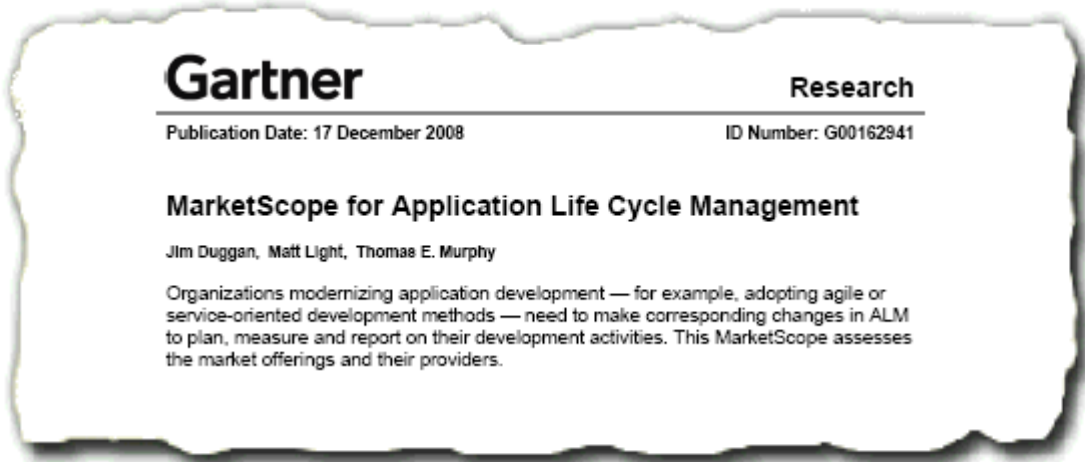
*Collaborative architecture design and analysis*

Collaborate among stakeholders on software architectures, and deployment plans



# Gartner Marketscope on Application Lifecycle Management

## IBM Rational Positioned as a Clear Leader in this Expanding Segment



**Rational.** software

“IBM is one of the few vendors with credible offerings in almost all the requirements of ALM”

“IBM Rational is one of the first vendors to tell a story about integrating across the lifecycle”

“Jazz is a solid architectural foundation for further innovation”

We rate IBM as a **Strong Positive** because of its current market strengths and breadth of portfolio”

	RATING				
	Strong Negative	Caution	Promising	Positive	Strong Positive
Aldon			X		
Borland				X	
CollabNet			X		
IBM					X
Kovair			X		
Microsoft				X	
MKS				X	
Polarion			X		
Rally Software				X	
Serena Software				X	
TechExcel				X	
VersionOne			X		

As of 11 December 2008



# IBM Rational Team Concert



# Software innovation through collaboration

- **Real time, in-context team collaboration**
  - ▶ Make software development more automated, transparent and predictive
- **"Think and work in unison"**
  - ▶ Integrated 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
  - ▶ Eclipse-, Web-, Visual Studio - Client
  - ▶ Support for System z and PowerSystems servers

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**



# Source code management

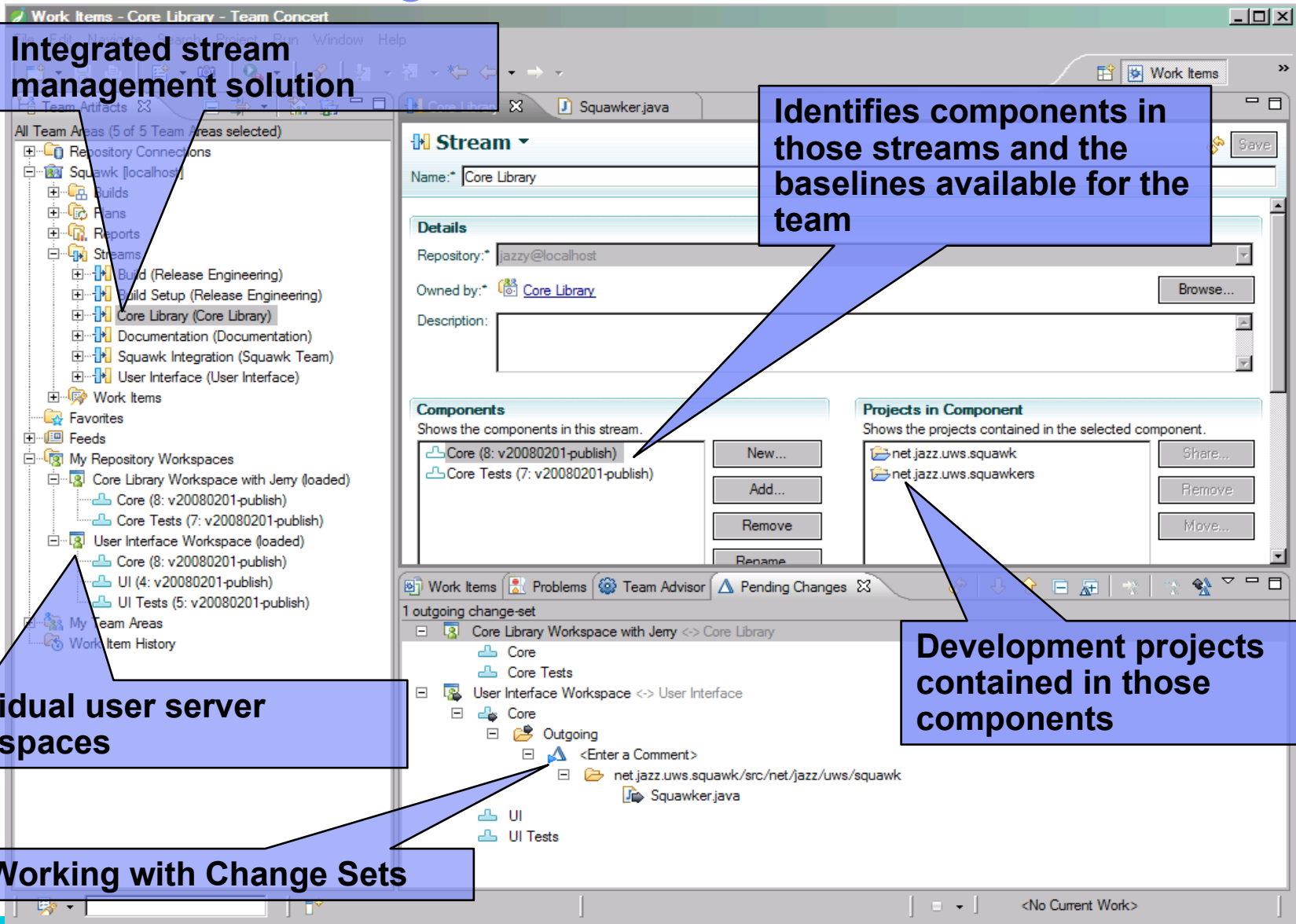
**Integrated stream management solution**

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

**Individual user server workspaces**

**Working with Change Sets**

**Development projects contained in those components**



# Work items

Subscribe to work items you're interested in

Predefined, custom and personal queries

Integrated discussion threads

Query results

Understands and persists work item's relationship to SCM and build artifacts

The screenshot displays the Rational Team Concert Work Items interface. The main window shows the details for 'Defect 12', which is titled 'UWS Add JavaDoc to CLI code'. The defect is in a 'Resolved' state and is assigned to 'April Blues'. The description states: 'We need to add JavaDoc to our code. Note that I have sized this at one day and targeted it for M1. This means do it now while Zach gets the build going but only spend at most this much time on it, maybe less. We just need to get a start on it now.' The 'Discussion' section shows a comment: 'We have decided to make the change|'. Below the main view, a table shows query results for 'Closed created by me', listing two items: item 12 (resolved) and item 10 (resolved).

I	Status	P	S	Summary	Owned By	Created By
12	Resolved			UWS Add JavaDoc to CLI code	April Blues	Jerry Jazz
10	Resolved			Expose functionality via public get method to core temperature ...	Unassigned	Jerry Jazz

# Builds

**Create build definitions for team and private builds**

**Supports Ant and command line build tools**

**Create local or remote build servers**

**Identify work items and change sets that went into the build**

**Historical view of the build queue with status**

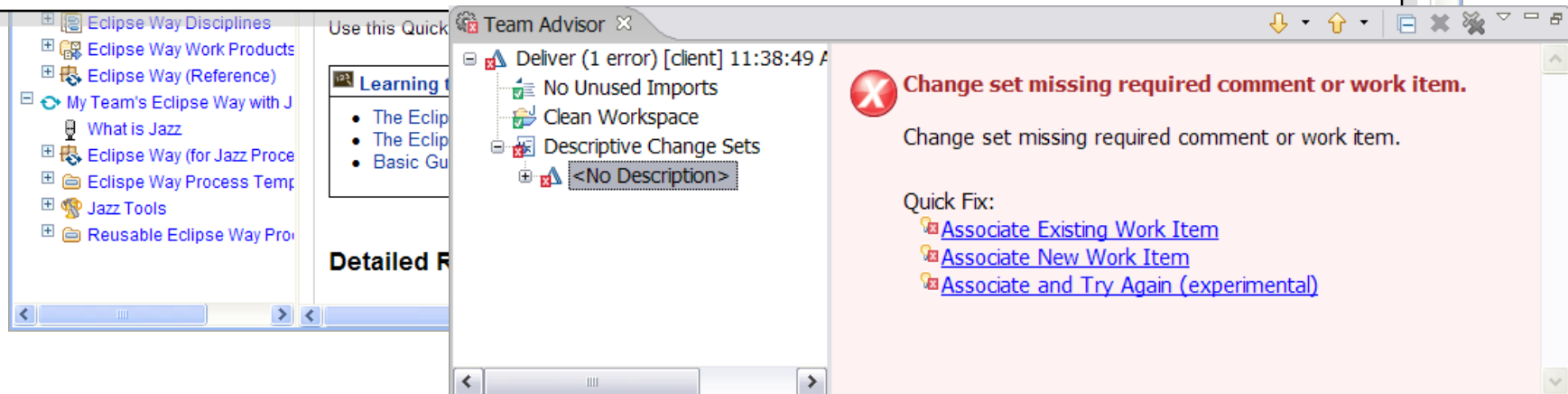
The screenshot displays the IBM Rational software interface for managing builds. On the left, a tree view shows 'Team Artifacts' with sub-items like 'Repository Connections', 'Builds', 'Build Engines', and 'Build Queue'. The main area shows a 'Completed' build summary for 'workshop.squawk.core.continuous.build'. Below this, a 'Contribution Summary' lists changes, logs, repository workspace, snapshot, and work items. To the right, 'General Information' includes fields for 'Requested by', 'Build Definition', 'Build Engine', 'Build History', and 'Tags'. At the bottom, a 'Summary' tab shows a 'Historical view of the build queue with status' as a table of build records.

	Build	Label	Progress	Estimated Completion	Start Time	Duration	Tags
✓	workshop.squawk.core.c...	B20080310-2231...	Completed		March 10, 2008 10:30...	34 seconds	
✓	workshop.squawk.core.c...	B20080305-2325...	Completed		March 5, 2008 11:25...	19 seconds	
✓	workshop.squawk.core.c...	B20080305-2324...	Completed		March 5, 2008 11:24...	33 seconds	
✓	workshop.squawk.core.c...	B20080303-1057...	Completed		March 3, 2008 1:57:0...	24 seconds	
✓	workshop.squawk.core.c...	B20080303-1048...	Completed		March 3, 2008 1:48:1...	28 seconds	
✗	workshop.squawk.core.c...	B20080303-1042...	Completed		March 3, 2008 1:41:4...	27 seconds	
✗	workshop.squawk.core.c...	20080303-1017...	Completed		March 3, 2008 1:17:5...	26 seconds	
✓	workshop.squawk.core.c...	B20080201-1707...	Completed		February 1, 2008 8:06...	30 seconds	v20...
✓	workshop.squawk.core.c...	B20080128-1359...	Completed		January 28, 2008 4:59...	39 seconds	wor...
✓	workshop.squawk.core.c...	B20080123-1623...	Completed		January 23, 2008 7:23...	10 seconds	
✓	workshop.squawk.core.c...	B20080123-1621...	Completed		January 23, 2008 7:21...	18 seconds	

# Enables process awareness and guidance

## Team Advisor

- Rules can be run when delivering changes to enforce team or organizational standards
- Helps ensure higher quality results through enforcement of agreed-upon standards
- Rules are configurable
- “Quick Fixes” can be specified to simplify corrective action
- Process rules can be defined, refined “on the fly”, enabling continual improvements
- Out of the box processes include OpenUP, Scrum, The Eclipse Way, etc



# Iteration Planning

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

**UWS Temperature Conversion M1 Plan [1.0 M1]**

Team Area: UWS Temperature Conversion Team | Iteration: 1.0 M1 (12/1/07 - 6/20/08) | 5 Closed | 9 Open

Owner	Task	Progress	Estimated	Time	Status	Count
April Blues	UWS Create the temperature conversion CLI package	1 / 17	100%	2 days	Unassigned	9
Derek Holt	UWS Define permissions	0 / 8	100%	4 hours	Unassigned	5
Jerry Jazz	UWS Define team members	0 / 4	100%	4 hours	Unassigned	6
Zach Builder	UWS Create the core temperature conversion package	25 / 37	100%	1 day	Unassigned	7
Zach Builder	UWS Define iterations/milestones			4 hours	Unassigned	3
Zara Intern	UWS Add JavaDoc to core temperature conversion JUnit tests	0 / 17	100%	1 hour	Unassigned	11
Zara Intern	UWS Create the core temperature conversion package JUnit tests			2 days	Unassigned	8
Unassigned	Expose functionality via public get method to core temperature conversion code	8 / 9 h	100%	1 hour	High	23

**Group by:** Owner

**Sort By:** Priority

**Bars:** Progress

**Exclude:**  Future and past items,  Resolved items

**Related Work Items:** Show Backlog

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

Plan and execute iterations while managing team and individual load



# In-context collaboration

**Team Awareness**  
Shows team members and their online status  
Shows what they are working on

**Team Central**  
-News & events  
-Build status  
-What's being worked on  
-Changes  
**Configurable (RSS feeds)**  
**Personalizable**

**Collaborate in Context**

The screenshot displays the IBM Rational software interface with several key components:

- Team Awareness:** Located on the left, it shows a 'Team Load' section for 'Jazz Development, current [0.6 M6]' with a progress bar and 'Hours: 0/0'. Below it, 'My Open Work Items' are listed by priority (Low, Medium, High) with counts: 282, 531, and 108. 'New Incoming Work Items' are listed by severity (Unclassified, Minor, Normal, Major, Critical, Blocker) with counts: 20, 177, 181, 19, and 4. An 'Event Log' shows recent events like 'Outgoing synchronization error' and 'Visual Studio .NET integration'.
- Team Central:** The main workspace shows a 'Story' for 'Review/improve messages' with a progress bar at 88%. It includes a 'Discussion' section with a comment from 'Julian Jones' dated Mar 6, 2008, 12:06 PM. A context menu is open over the 'Chat...' option.
- Collaborate in Context:** A chat window is open on the right, showing a conversation between 'Kevin (K.G.) Haaland' and 'kartik@ca...'. The chat content includes: 'kartik@ca... story 45274', 'Kevin\_Ha... looking at it now .....', '\* Yes we are on track, the next build will have c of these issues addressed', and 'kartik@ca... thanks', 'Kevin\_Ha... np'.

# Dashboards

**Transparency, collaboration and control via customizable dashboards**

The dashboard is titled "Development" and features several key sections:

- General Navigation:** Includes tabs for "Builds", "Open Defects by Themes", "Open Defects by Team", "SVT Defects by Team", "Defect Trends by Team", and "Deferred Items by Team".
- Endgame Has Started:** A warning icon and text indicating a "Detailed Plan available here: End Game Plan".
- Jazz Development Description:** A text box explaining the development structure, mentioning "Umbrella area for all Jazz development work" and "Development work is done in a separate development line named 'development'".
- Open Track Build Items (1):** A list showing "11841 RC1 status".
- Current Development Plans (33):** A table with progress bars for various components:
 

Component	Status
Connector for RC1	Progress bar
CQ Connector	Progress bar
Component Development	No planned work
Foundation & Work Items	Progress bar
Install	No planned work
PMC	No planned work
Process	Progress bar
Release Engineering	Progress bar
Repository	Progress bar
SCM	Progress bar
UI Design	Progress bar
User Assistance	Progress bar
Web Dashboards	Progress bar
Web UI	No estimated work
- Risks (10):** A list of risk items such as "48863 [Risk] Migrating/importing SVN repositories" and "48872 [Risk] Active Directory".
- RFS (28):** A list of Risk-Free Status items such as "9619 [RFS] Monitoring a continuous build" and "9908 [RFS] Managing Team Artifacts".
- Jazz Development Event Log (2 new):** A log of recent events, including "Test scenario: Process author creates/refines a Process Template" and "Test scenario: Customer hears about Jazz and installs it".

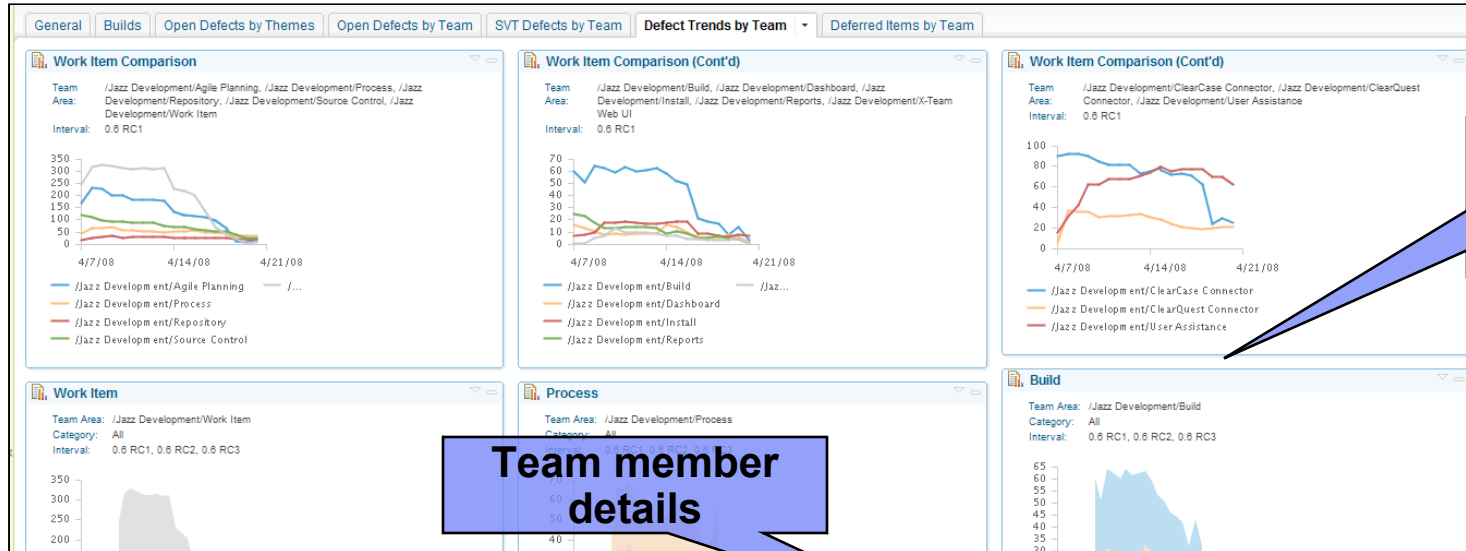
**Clearly understand team goals**

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

**Real-time status**



# Dashboards and reporting



**Trending by project or by individual team**

**Team member details**

**Current milestone status**

Overview | Open Defects | Work Item Trends | Builds

Provides support for managing defect reports, feature requests, and other development tasks.

Getting Started with Work items  
Team Wiki

**Current Work Item Plans (2)**  
Current Iteration: 0.6 RC1  
Foundation & Work Items

**Work Item Event Log (15 new)**

- WebUI - Hide comment is confusing - lost work (51725) 10 minutes ago
- Indexing slow on attachment with long lines (48806) 15 minutes ago
- User photo lost when creating new user (49910) 15 minutes ago
- [3] Deliver new csv icon (52856) 15 minutes ago

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**Work Item Members (16)**

André Weinand	componentlead, contributor, integrationstreamadmin, integrationbuildmeister
Benjamin Pasero	contributor
Christof Marti	contributor, integrationbuildmeister
Dirk Baeumer	parttime, contributor, integrationstreamadmin, integrationbuildmeister
Erich Gamma	contributor, newcomer, integrationstreamadmin, integrationbuildmeister, dashboardadmin, projectadmin, PMC
Frank Lyner	contributor
Johannes Rieken	parttime, contributor, integrationbuildmeister
Larry Smith	contributor, integrationbuildmeister
Marcel Bihl	contributor
Mark Buquor	newcomer, parttime

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**Work Item Builds**

- Succeeded: continuous.workitem.jazz C20080424-0748 10 minutes ago



# Superior reporting for real time status

**Jazz Project Description**

Process enabled team collaboration platform

The goal of the Jazz project is to build a scalable, extensible team collaboration platform for seamlessly integrating tasks across the software lifecycle. The new technology is called the Jazz Platform. The Jazz project is defining the overall architecture of the Jazz Platform, and building an initial set of Jazz components that plug in to the Jazz Platform.

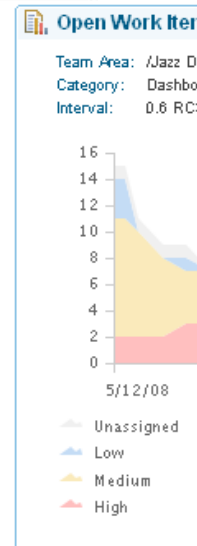
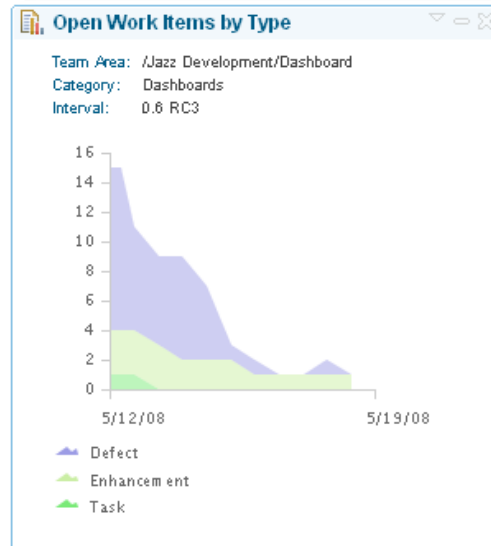
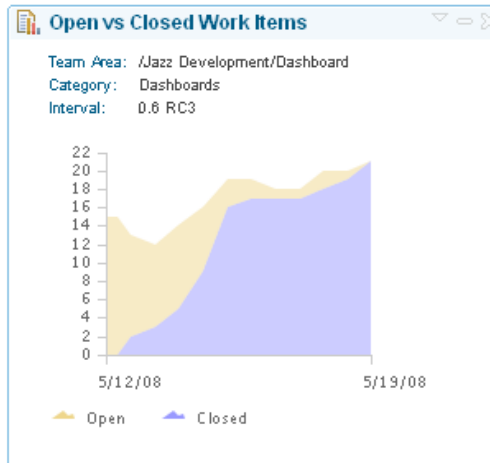
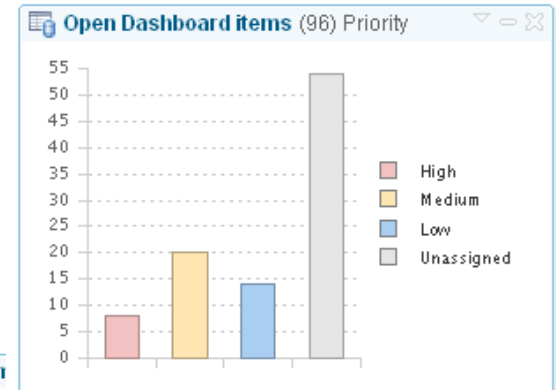
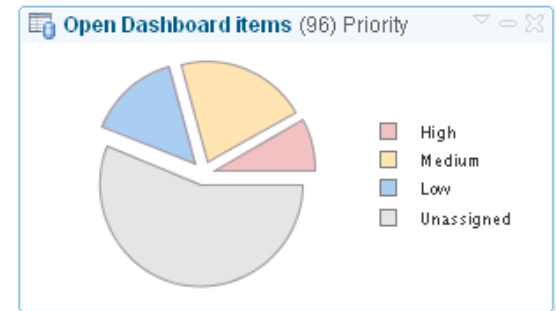
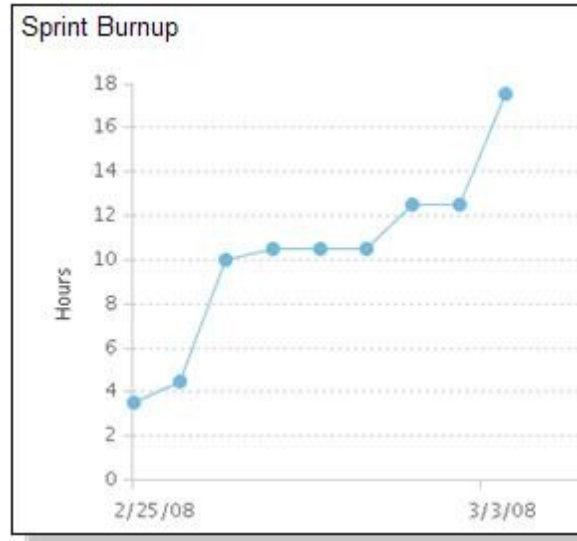
The work in the Jazz project is divided into development work and maintenance work. Development work produces a consecutive line of releases. Maintenance work produces bug fix releases of the released produced by the development work.

Development as well as maintenance work is overseen by the PMC. The team members listed in this project area constitute the PMC.

**Jazz Project Members (11)**

CQ Connector Account	connector
Dejan Glozic	dashboardadmin
Erich Gamma	dashboardadmin, projectadmin, PMC, contributor
Jean-Michel Lemieux	dashboardadmin, projectadmin, PMC, contributor
John Vasta	connectoradmin
Kai-Uwe Maetzel	PMC, contributor
Kevin Haaland	PMC, contributor
Kim Moir	projectadmin
Peter Klenk	PMC, contributor
Scott Rich	PMC, contributor

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**Open Dashboard items (96) Priority**

High(8) Medium(20) Low(14)  
**Unassigned(54)**

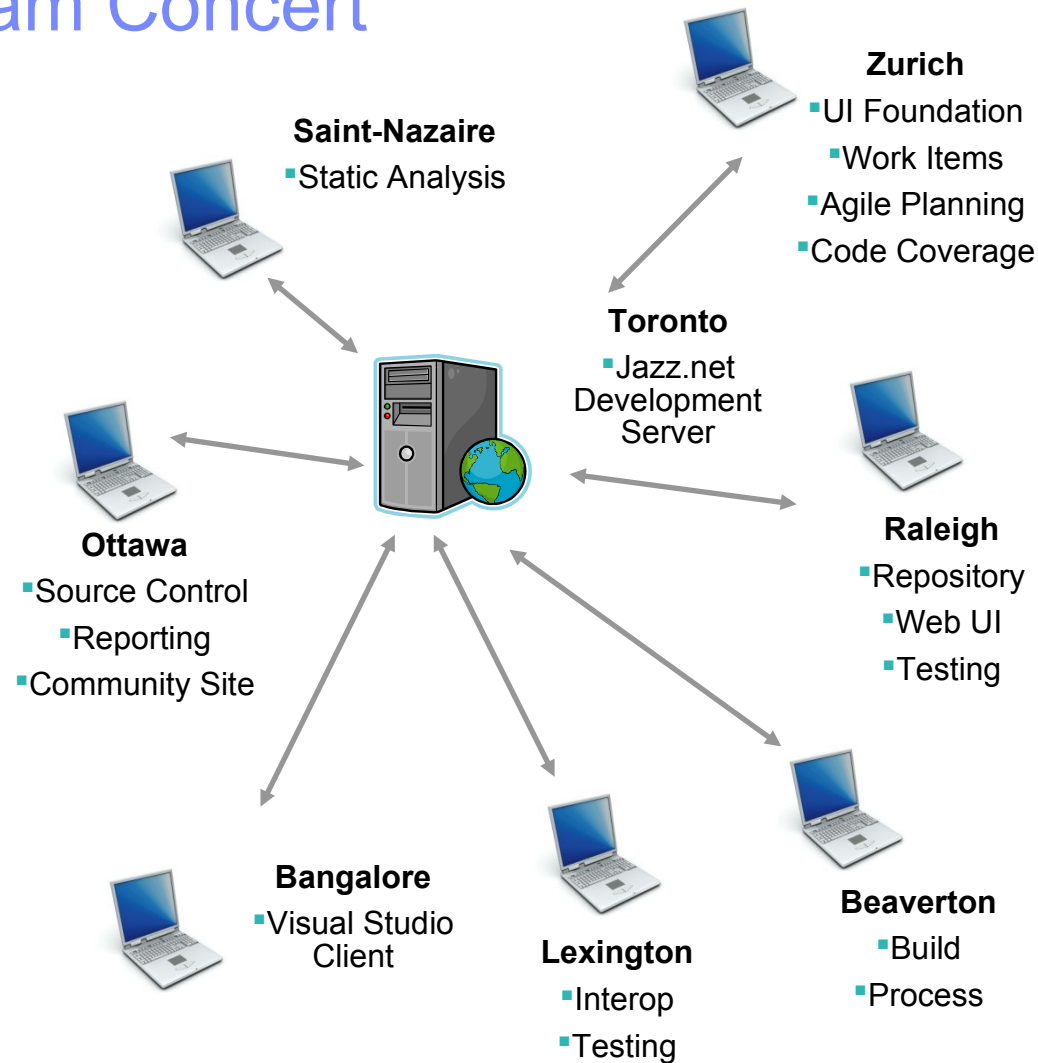
**Open Dashboard items (96) Priority**

Priority	Count
High	8
Medium	20
Low	14
Unassigned	54



# How we use Rational Team Concert

- Two-way Intel® Xeon® server running WebSphere® Application Server and another running IBM DB2®
- Jazz Project – Using bi-weekly iteration builds
  - Jazz and Rational Team Concert self hosting since 4Q06
  - Global team in seven locations in North America, Europe and India
  - ~150 developers, plus jazz.net webclient access
  - Repository >24G, >170K files, >60K work items
- Over 60 Rational development teams using Rational Team Concert
- More than 125 other teams around IBM



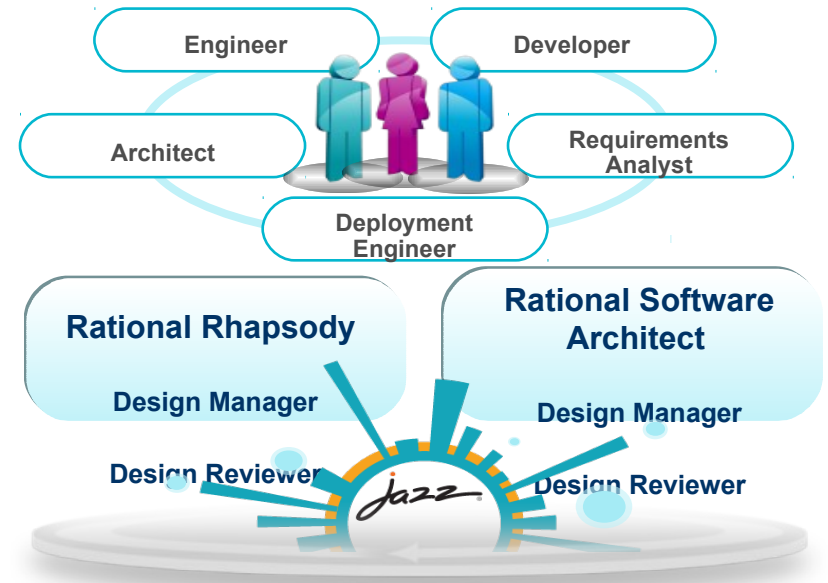
# Rational Design Manager



# Collaborative Design Management Offerings



- ✓ ***RSA Design Manager provides Collaborative Design Management for the Rational Software Architect family***
- ✓ *Extends RSA's existing design authoring capabilities with enhanced team collaboration*
- ✓ *Connects RSA into the Jazz platform, so teams can collaborate in the context of designs*
- ✓ *Team capability offered through Design Manager and Design Reviewer user roles*
- ✓ *Users access through either Web client or desktop client with Design Management client installed*



***"We are excited about the capabilities in Collaborative Design Management .... We see it playing a significant role in our development process because it allows us to transition away from our home grown solutions in that area to standardized Rational products."***

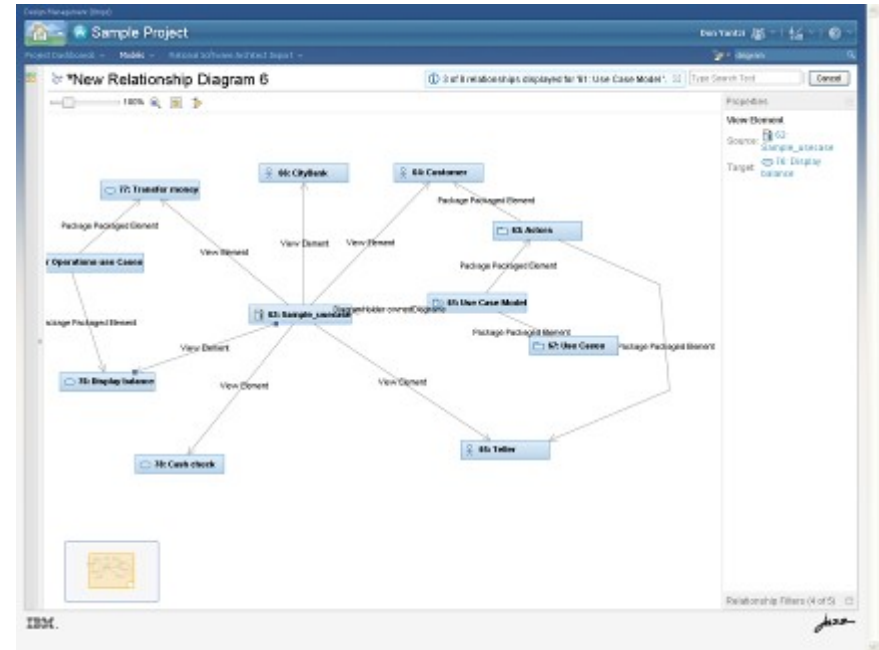
Hans-Peter Berger, Department Head, Application Development Infrastructure, GAD



# Design Server

*Maximize productivity and lower costs*

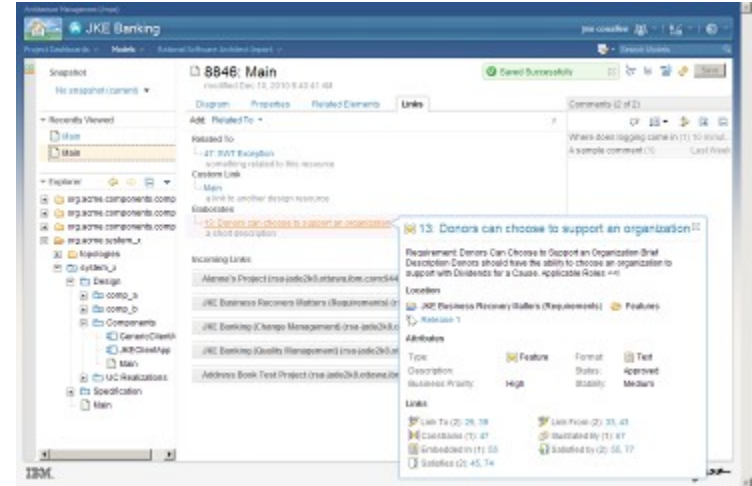
- ✓ *Increase team knowledge through an enterprise and system-wide repository with Web-based access*
  - ✓ *Leverage Jazz to quickly search across designs for review, analysis and potential reuse*
  - ✓ *Analyze the impact of design changes*
- **Teams need to quickly find existing designs to review, analyze, and identify reuse, but...**
    - ✗ Information may be stored in multiple designs or models
    - ✗ Desktop client installation is required to view the design information
    - ✗ Access to SCM system also may be required to access the information
  - **With RSA Design Manager...**
    - ▶ All designs for an organization or system can be stored and accessed from a central location
    - ▶ All known designs can be searched, viewed, analyzed on the server from RSA or Web client
    - ▶ The new *Relationship diagram* supports impact analysis and discovery of related design elements and resources



# Stakeholder Collaboration

*Easily share software architectures, deployment plans and system designs*

- ✓ *Improve quality by enabling the extended team to easily access and review designs and trace analysis*
- ✓ *Keep stakeholders informed on how their work relates to designs*



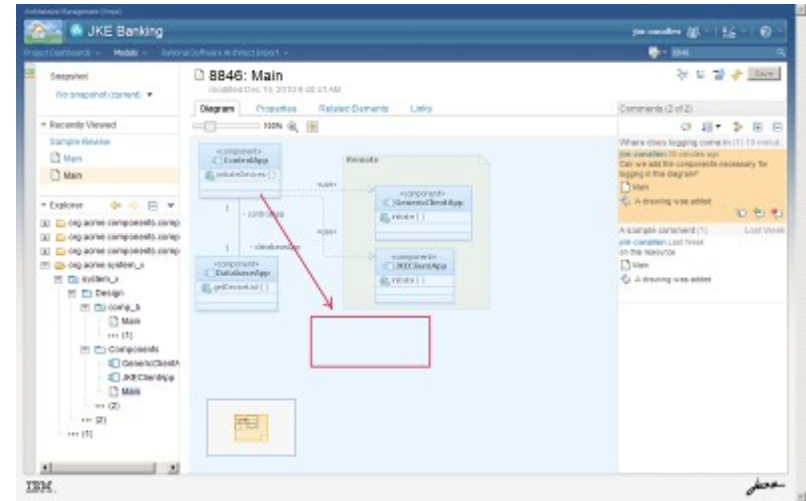
- **Teams need to collaborate on designs and incorporate design into the workflow, but...**
  - ✗ Stakeholders cannot easily access the latest design information
  - ✗ It's not clear to stakeholders which designs are related to their work
  - ✗ Design dependencies are mismanaged, resulting in data duplication and inefficient workflows
    - **With RSA Design Manager...**
      - ▶ Stakeholders have self-serve access to design milestones, improving collaboration and quality of designs
        - ▶ Stakeholders can determine how their task relates to designs with traceable links to work items, requirements and test cases



# Faster Design Reviews

*Shorten time-to-market and improve quality*

- ✓ *Speed up decision-making by keeping people informed as decisions are made*
- ✓ *Improve quality by ensuring that the extended team has direct input into updates and corrections*
- ✓ *Automate the design review process*



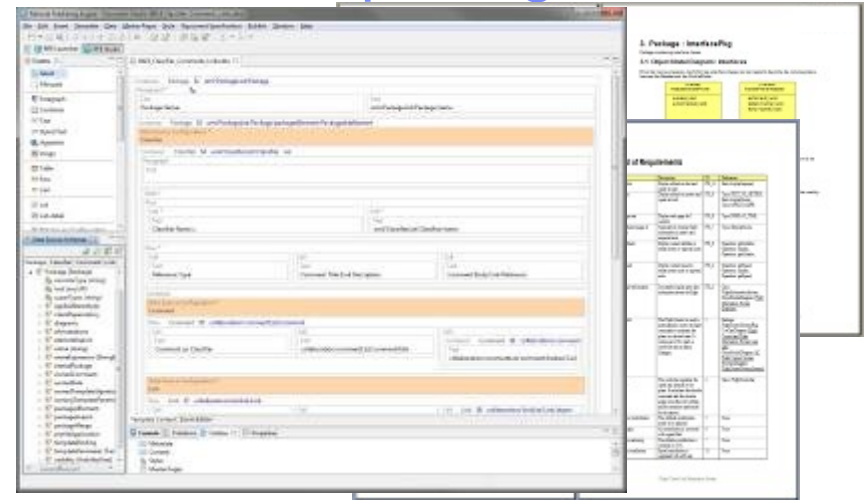
- **Teams need to collaborate with stakeholders on software architectures, deployment plans, and system designs, but..**
  - ✗ Design reviews are painful, tedious, and time consuming
  - ✗ Stakeholders do not have direct access to designs so reviews need to be handled outside of the design tools; feedback is difficult to communicate and confirm
    - **With RSA Design Manager...**
      - ▶ Designers automate reviews, specifying which designs and stakeholders participate
      - ▶ Stakeholders can view the design and attach comments and mark-up via the Web or rich client
        - ▶ Design reviews can be linked to RTC work items for planning and tracking



# Multi-discipline Document Generation and Reporting

*Satisfy regulatory and customer demands*

- ✓ *Easily create comprehensive documentation for specifications, communication, compliance and auditing*
- ✓ *Help prove compliance by including OSLC link information and design review information*



- **Teams must document for specifications, communication, regulatory compliance, and auditing, but...**
  - ✗ Documents need to contain information from different domains (requirements, design, change management); individual products have separate reporting solutions
  - ✗ Existing solutions are difficult to use for designs and limited in the types of information they can access
    - **With RSA Design Manager and Rational Publishing Engine...**
      - ▶ Users create templates and generate documents and reports pulling data from all relevant sources using open interfaces
      - ▶ Documents can show the impact of design changes on other lifecycle resources leveraging the OSLC linking data
        - ▶ Reports can include comments and details from design reviews



# DEMO



# Collaborative Design Management on Jazz

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*(UML) Modeling and Transformation*

*Create/maintain your models and transform these into models/code*

**Rational.**

## Team Concert

*Collaborative software delivery*

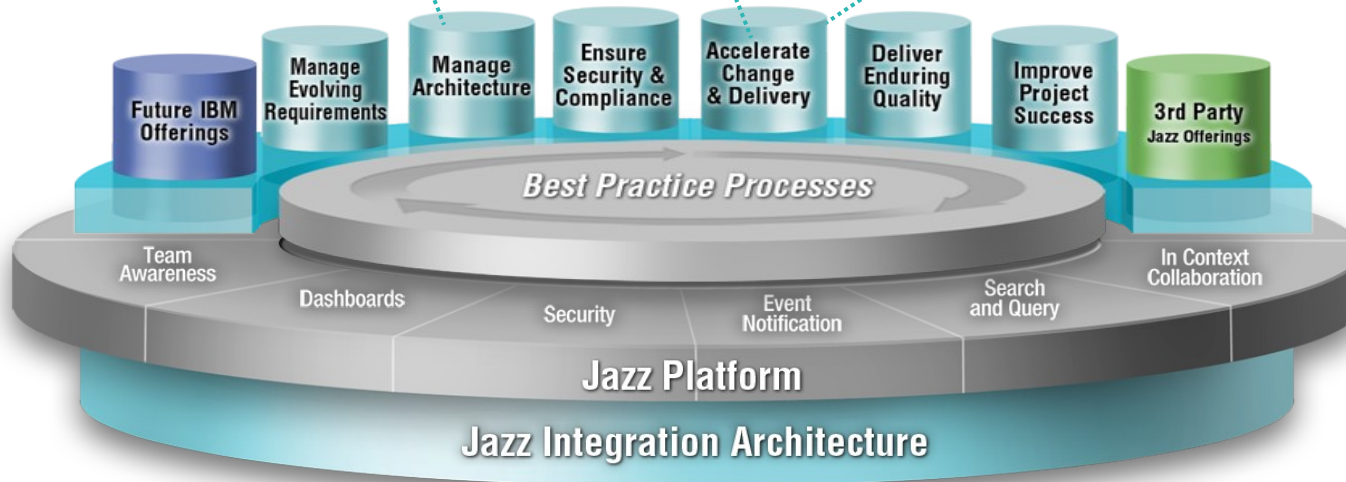
*Collaborative SCM, work item, build automation & iteration planning*

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## Design Manager

*Collaborative architecture design and analysis*

*Collaborate among stakeholders on software architectures, and deployment plans*



## 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>
- Find out more about Rational Design Manager  
<https://jazz.net/projects/design-management/>





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