

Innovate2011

The Rational Software Conference

11th and 12th of October

Let's **build** a smarter planet.



TS1 : End-to-end Software Delivery with IBM Collaborative Lifecycle Management on Jazz

Simon Fisher & Jon Walton
Technical Consultants, IBM Rational



Agenda

- 1 **Current market situation**
- 2 IBM Rational Collaboration Lifecycle Management
- 3 Delivering the 5 ALM imperatives
- 4 Proven results

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Executive summary

Software is integral to business success

- Software is woven through systems, products and services, helping companies bring new – smarter – innovations to market.

Market realities are pushing organizations to innovate with less

- The ability to innovate is impacted by market realities such as increasing complexity, tighter budgets and a more demanding competitive landscape

Integrated Application Lifecycle Management (ALM) provides the ability to innovate while reducing overhead costs

- Improve time to delivery, quality, value, and predictability with integrated Application Lifecycle Management combined with best practices for scaling agility.

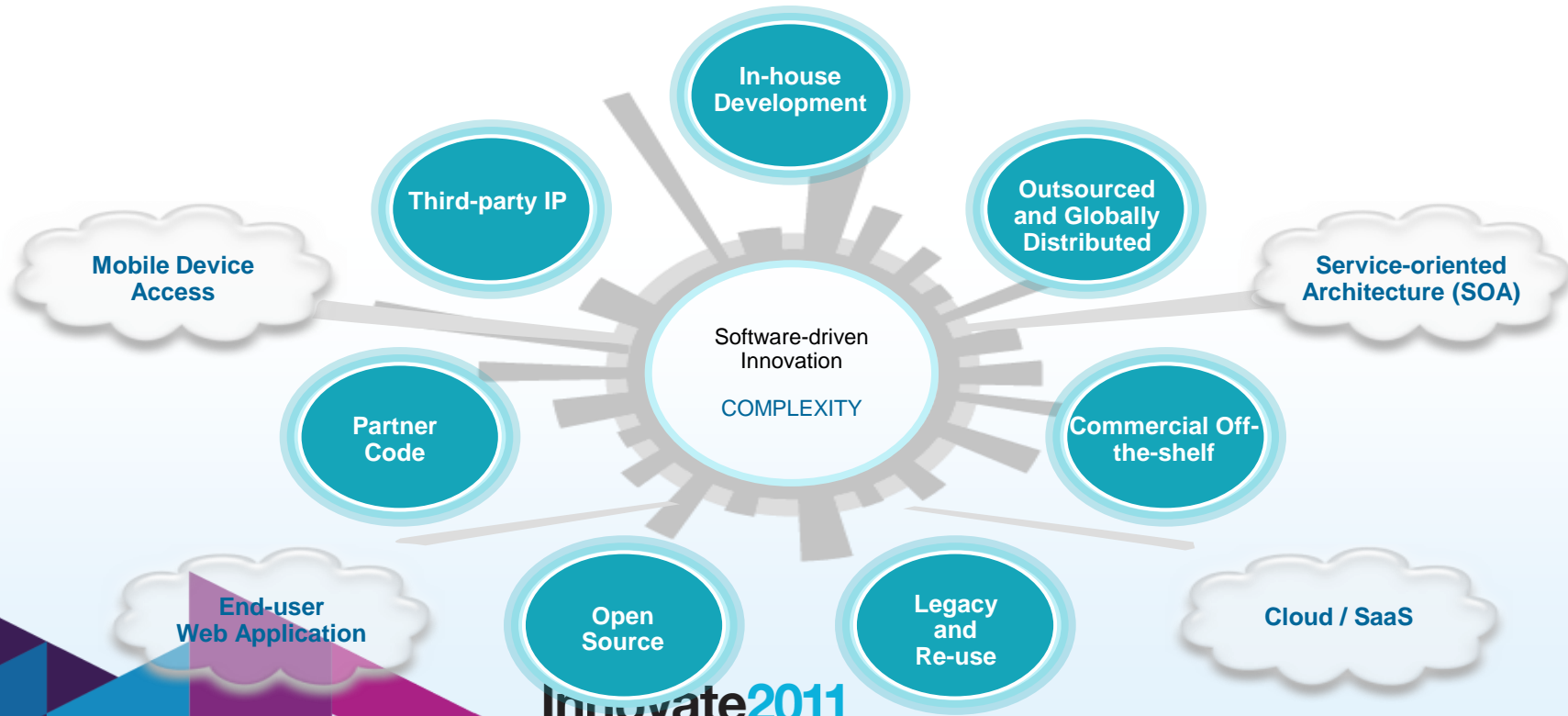
The IBM Rational Collaborative Lifecycle Management Solution provides capabilities that fully support an integrated ALM approach

- Allows organizations to coordinate people, processes, and tools for requirements management, development and quality management by providing traceability across lifecycle artifacts, process definition and enactment, and reporting.



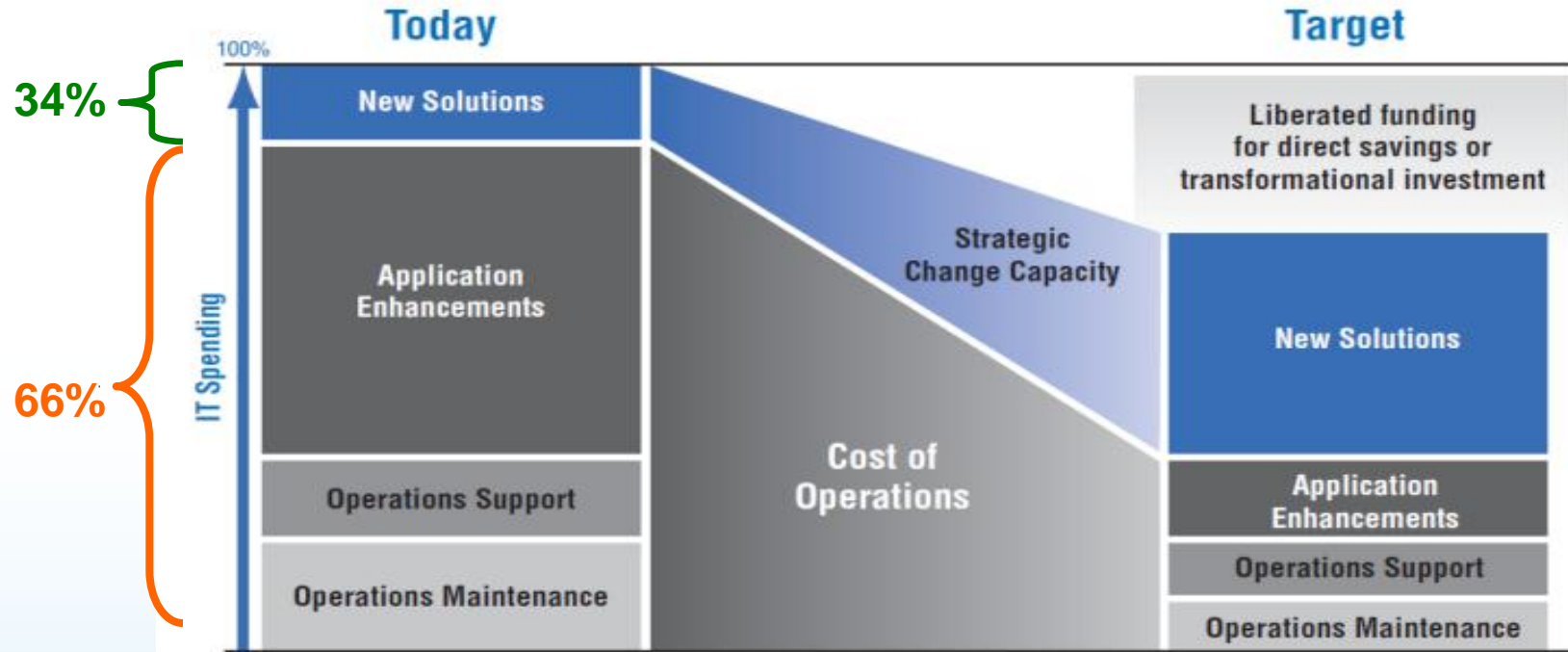
The defining challenge: Managing “systems of systems”

From back-end software to customer facing portals, systems of systems drive your relationships with customers, suppliers and business partners



Business and IT Agility: Balancing Resources to Support Business Innovation

Balance IT investments to focus on new solutions.



- Forrester estimates that ongoing operations and maintenance consume 66% of IT budgets
- While new projects and software initiatives represent only 34%

ALM is about connecting the disciplines

Project/Planning

- Business Drivers
- Iterations
- Sign-off
- Contract
- Risk Assess
- User Involvement

Requirements

- Use Cases
- Nonfunctional
- Sign-off
- Contract
- Risk Assess
- Threat Model
- Test Requirements

Development

- TDD
- Build Management
- Static Analysis
- BVT
- Source Management
- Pair Programming/
Code Review

Testing

- Scenario-Driven Automation
- Exploratory Test
- User Involvement
- Contract Validation

Continuous Learning and Feedback

Agenda

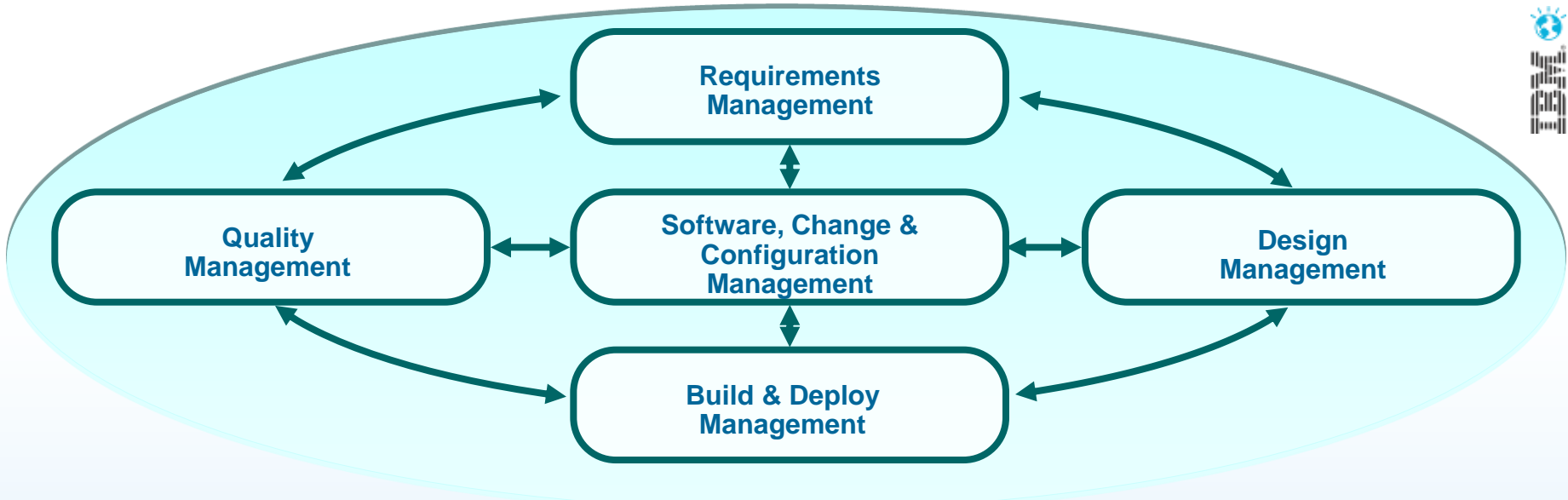
- 1 Current market situation
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Rational Application Lifecycle Management (ALM)

Modular, open and extensible



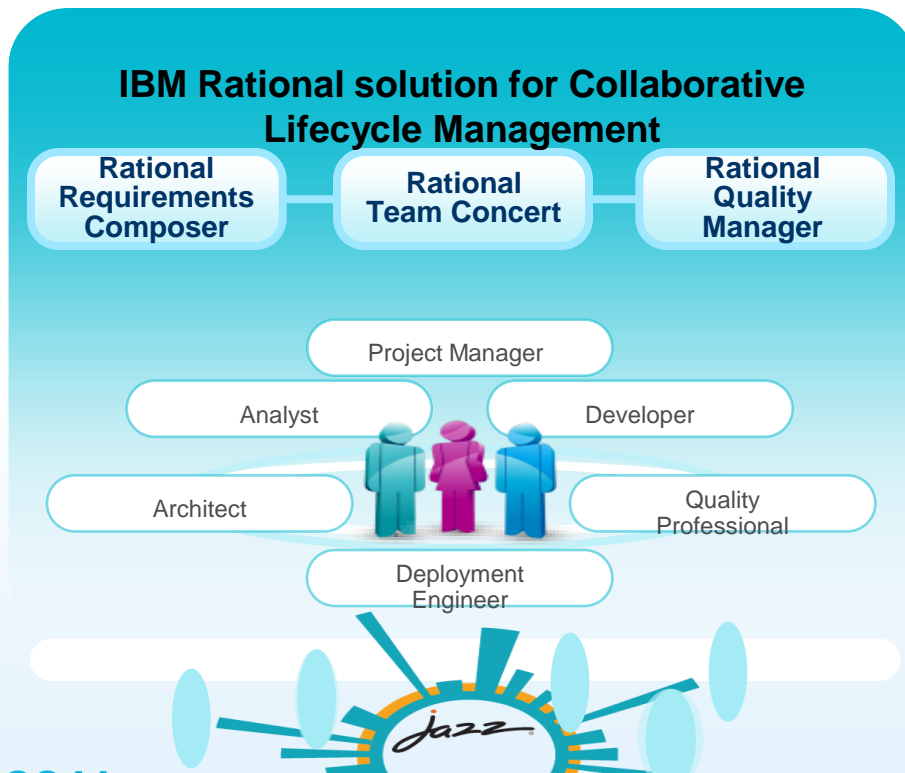
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IBM Rational solution for Collaborative Lifecycle Management

Improve productivity with an integrated ALM solution

- **Optimize your team through support of the 5 ALM Imperatives**
 - Real-time planning
 - Lifecycle 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**



Learn more at: <https://jazz.net/projects/clm/>

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Open interfaces. Open possibilities.



Open Services
for Lifecycle Collaboration

*An industry initiative for
simplifying tool integration across the software lifecycle*



Barriers to sharing resources across the software lifecycle

- ▶ Multiple vendors, open source projects, and in-house tools
- ▶ Private vocabularies, formats and stores
- ▶ Entanglement of tools and data

▶ The Open Services initiative is

- *Building* a community of vendors, open source projects, integrators and IT teams, at open-services.net
- *Creating* public specifications of resources and services, like change requests, test cases, defects, requirements and user stories
- *Delivering* loosely coupled resource formats and services with “just enough” standardization

SIEMENS

db MAESTRO



iTKO LISA™

ascendant
TECHNOLOGY



BSD GROUP
Better Software Development

Tasktop



ORACLE®

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Agenda

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The Five Imperatives of Application Lifecycle Management

Improve organizational productivity

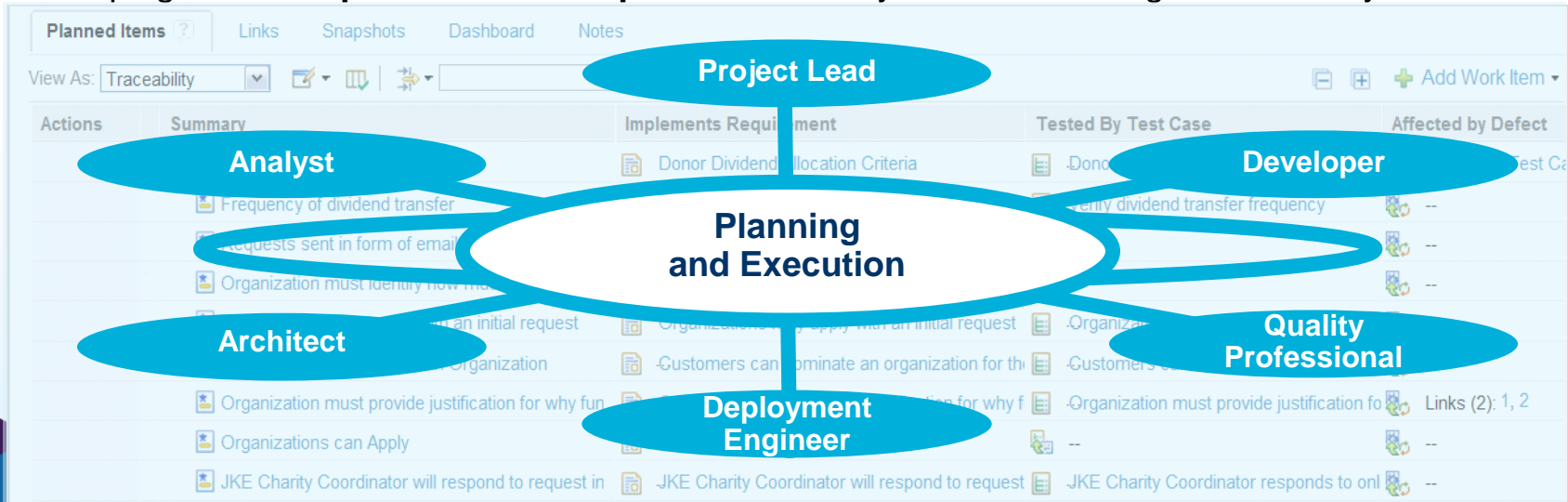
1. Accelerate **time to delivery** with Real-time Planning
2. Improve **quality** with Lifecycle Traceability
3. Maximize **product value** with In-context Collaboration
4. Refine **predictability** with Development Intelligence
5. Reduce **costs** with Continuous Improvement



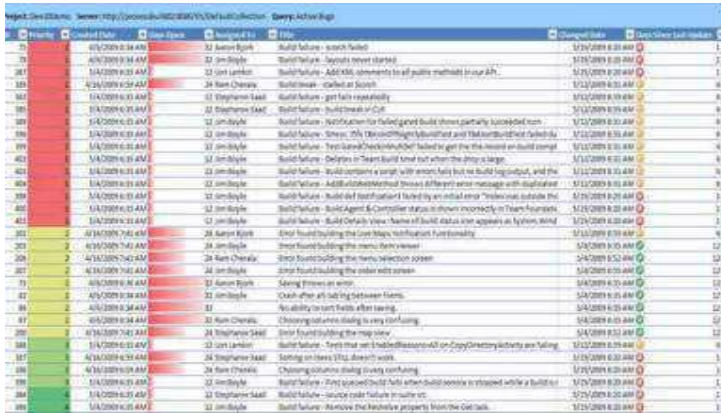
What is Real-time Planning?

Real-time Planning accelerates time to delivery by:

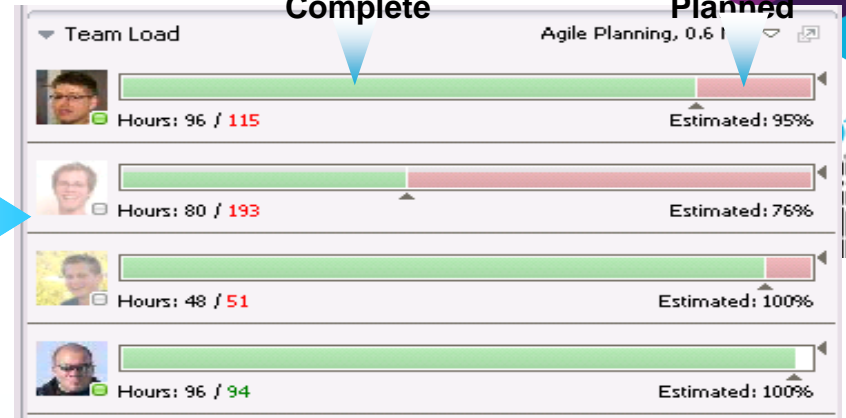
- Providing a **single plan** that spans requirements, development, and test, ensuring a team understanding of the overall scope of a project
- **Integrating planning with execution** ensuring the entire team understands the true project status
- Allowing **everyone to participate** in keeping the plan current and accurate
- Helping teams **respond to the unexpected** in a timely manner ensuring the team stays on schedule



Imperative 1: Real-time Planning



Issue Key	Created Date	Issue Type	Assignee	Status	Due Date	Priority
175	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - search failed	1/14/2009 9:38 AM	1
176	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - Search event started	1/14/2009 9:38 AM	1
181	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - AEMX comments to all public methods in our API	1/14/2009 9:38 AM	1
183	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - carload in search	1/14/2009 9:38 AM	1
187	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - get facts repository	1/14/2009 9:38 AM	1
189	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
190	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
191	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
192	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
193	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
194	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
195	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
196	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
197	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
198	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
199	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
200	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
201	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
202	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
203	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
204	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
205	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
206	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
207	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
208	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
209	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
210	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
211	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
212	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
213	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
214	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
215	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
216	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
217	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
218	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
219	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1
220	1/14/2009 9:38 AM	Build failure	Jim Boyke	Build failure - build fails in CI	1/14/2009 9:38 AM	1



Don't

Have plans that live outside of ALM environment where requirements, development and test plans are disconnected and managed separately, or not at all.

Rely on manual, error-prone updates.

Have plans that are separate from team activities and assignments.

Do

Plan across the entire team, not silos, by linking and populating development and test plans from requirements.

Practice continuous planning using lifecycle queries and project dashboards to respond to changing events.

Use plans that are fully integrated with execution where updating time spent directly from the work item makes easy to keep accurate plans.

One plan - Multiple views facilitate detailed analysis



1 **BRM Sprint 2 (1.0) Plan** 26 items: 23 open, 3 closed | Ends in: 3 days

Plan Details Edit

Planned Items Links Snapshots Dashboard Notes

View As: Roadmap (3 items filtered) Add Work Item

Actions	Summary	Effective Estimate	Owned By
▶	Frequency of dividend transfer	--	Unassig
▶	Requests sent in form of email	--	Unassig
▼	Organization must identify how much money is desired	--	Marco
	Implement - Organization must identify how much money	1.5 days	Marco
▼	Organizations may apply with an initial request	--	Marco
	Implement - Organizations may apply with an initial requ	4 hours	Marco
▼	Customers can Nominate an Organization	--	Deb
	Implement - Customers can Nominate an Organization	1 day	Deb
▶	Organization must provide justification for why funds are		

2 **BRM Sprint 2 (1.0) Plan** 30 items: 25 open, 5 closed | Ends in: 6 days

Plan Details

Planned Items Links Snapshots Dashboard Notes

View As: Taskboard

Story	Open	In Pro
Donor Dividend Allocation Criteria	Implement - Donor Dividend Allocation Criteria	
Frequency of dividend transfer		Implement - Frequency of dividend transfer

3 **BRM Sprint 2 (1.0) Plan** 30 items: 25 open, 5 closed | Ends in: 6 days

Plan Details

Planned Items Links Snapshots Dashboard Notes

View As: Planned Time

▶	Bob	Closed Items: 0 Open Items: 1	Load: 0/8 +8 h
▶	CP	Closed Items: 0 Open Items: 1	Load: 0/8 +8 h
▶	Deb	Closed Items: 3 Open Items: 5	Load: 168/8 -160 h
▶	Marco	Closed Items: 2 Open Items: 14	Load: 92/8 -84 h
▶	Tanuj	Closed Items: 0 Open Items: 0	Load: 0/8 +8 h

Test your real-time planning capabilities

Can your team...



Plan across the entire team?

**Plan for waterfall, iterative
and agile environments?**

Integrate planning with execution?

**Instantly see the impact of a change
in project scope or resources?**

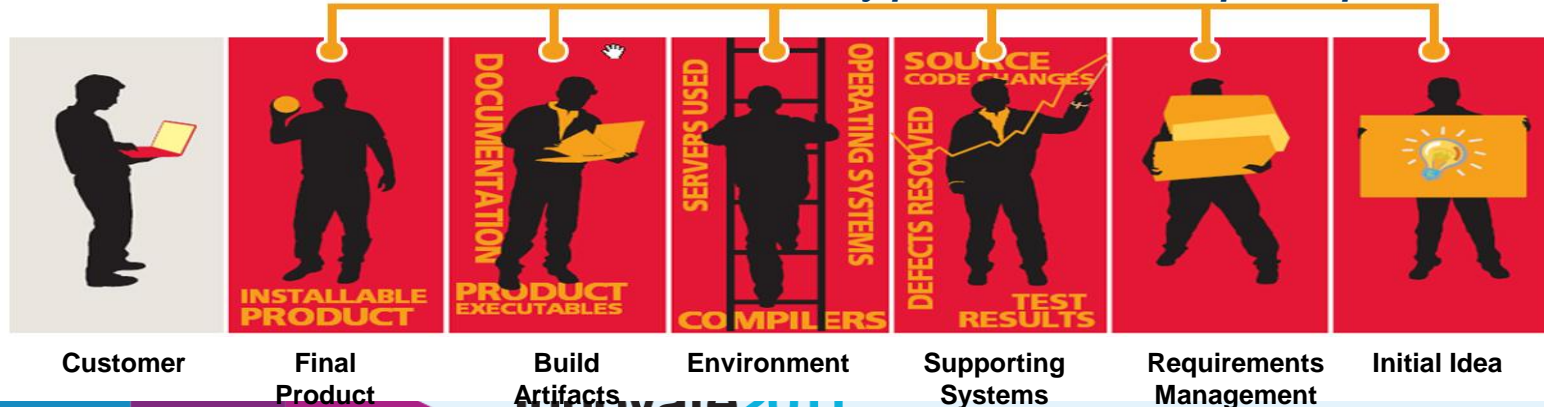


What is Lifecycle Traceability?

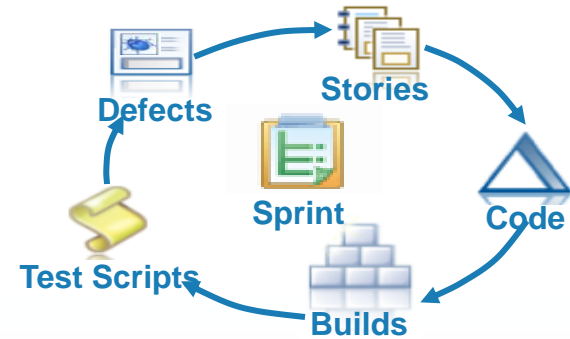
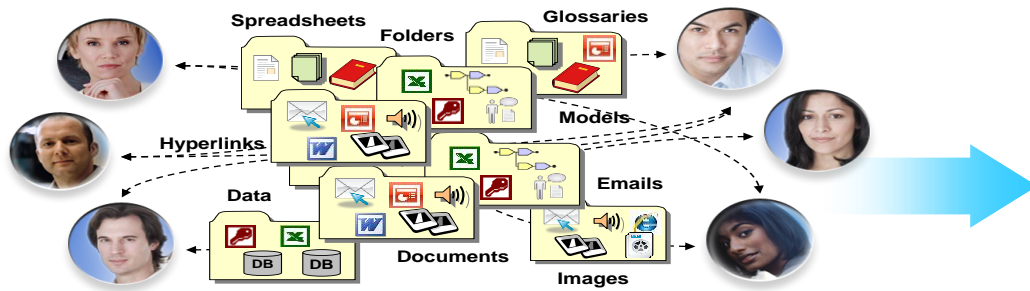
Lifecycle Traceability improves quality by:

- Establishing **relationships between software artifacts**
- Helping you **identify and close artifact gaps**, ensuring **coverage** across disciplines
- Provides visibility into the **completeness** of planned items by inspecting all related artifacts
- Provides easy **access to related artifacts** ensuring everyone shares the same view
- Delivers transparency which enables everyone to make **fully informed decisions** based business priorities

Instant access to details from any point in the development process



Imperative 2: Lifecycle Traceability



Don't

Create silos of information with disconnected and incompatible tooling and terminology

Email copies of deliverables to remote team members and break linkages

Integrate by replicating data



Do

Link deliverables and connect the dots so every deliverable has the proper upstream and downstream relationship

Share links to deliverables with related deliverables context including reviews and comments from other team members

Link critical project deliverable so that the entire team have access to the latest version of the truth

Developer have visibility into the Requirement they will be implementing

For the Developer

- ✓ Rich Hovers provides insight at your finger tips reducing time to value.
- ✓ Clickable links provides valuable information on requirement

The screenshot displays a software development tool interface. On the left, a card titled "Story 64" is visible, with a green box highlighting its "Attachments" and "Links" sections. A green line connects this box to a larger, detailed hover window on the right. The hover window is titled "29: Customers can nominate an organization for the program" and contains the following information:

- Requirement:** Customers can Nominate an Organization Brief
- Description:** Customer may nominate an organization for assistance whether a result of a catastrophic event or from some other justification. A
- Location:** JKE Banking (Requirements) > Features > Extended Functionality, Release 1
- Attributes:**

Type:	Feature	Format:	Text
Description:		Stability:	Medium
Origin:	Customer	Difficulty:	Medium
Status:	Draft	Business Priority:	Should
- Links:**
 - Constrained by (3): 27, 72, 84
 - References Term (3): 13, 31, 102
 - Implemented By (1): ...
 - Link To (1): 81
 - Embedded In (1): 112
- Tested By Test Case:**
 - 6: Organization must identify how much money is desired
 - 7: Allocate dividends by amount and frequency
 - 10: Customers can Nominate an Organization
 - 9: Donors Can Choose to Support an Organization

Team Leads have visibility into coverage & completeness



- Proactively respond to gaps as they surface through out the project
- Issues quickly highlighted and resolved

BRM Sprint 2 (1.0) Plan

26 items: 23 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items

View As: Traceability (17 items filtered)

Actions	Summary	Owned By	Implements Requirement	Tested By Test Case	Affected by
	Requests sent in form of email	Unassigned	Requests sent in form of email	--	--
	Frequency of dividend transfer	Unassigned	--	Verify dividend transfer frequency	--
	Organization must provide justification for why funds are nee	Marco	Organization must provide justification for why funds are ne	Organization must provide justificatio	--
	Organizations can Apply	Marco	Organizations can apply	Organizations can Apply	--
	Organization must identify how much money is desired	Marco	Organization must identify how much money is desired	Organization must identify how much	Links (2)
	Donor Dividend Allocation Criteria	Deb	Donor Dividend Allocation Criteria	Donor dividend allocation conforms t	--
	Organizations may apply with an initial request	Bob	Organizations may apply with an initial request	Organizations may apply with an initi	--
	JKE Charity Coordinator will respond to request in the websit	Marco	JKE Charity Coordinator will respond to request in the web	JKE Charity Coordinator responds to	425: Rur
	Customers can Nominate an Organization	Marco	Customers can nominate an organization for the program	Customers can Nominate an Organi	--

Test your lifecycle traceability capabilities

Can your team answer these questions...



Analyst

Which requirements are addressed in this iteration?

Are all of the requirements tested?

What's the **quality** of the high priority requirements?

What **defects** are reported against which **requirements**?

Project Manager

Can we pass an audit?

Are we ready to release?

What defects were resolved in this release?

What tradeoffs can we make to release on time?

Developer

What **requirements** am I implementing?

What **test** uncovered this **defect**, on which **environment** and what **build**?

How can I recreate the **last version** to do a patch?

What **changes** occurred overnight?

Release Engineer

How can I **standardize** when teams use different tools?

Where are the **bottlenecks** in our processes?

Are build times getting longer or shorter?

How can I **speed up** my builds?

Quality Professional

What is the **quality** of the build?

What **has changed** that I need to test?

What **defects** have been addressed since the last build?



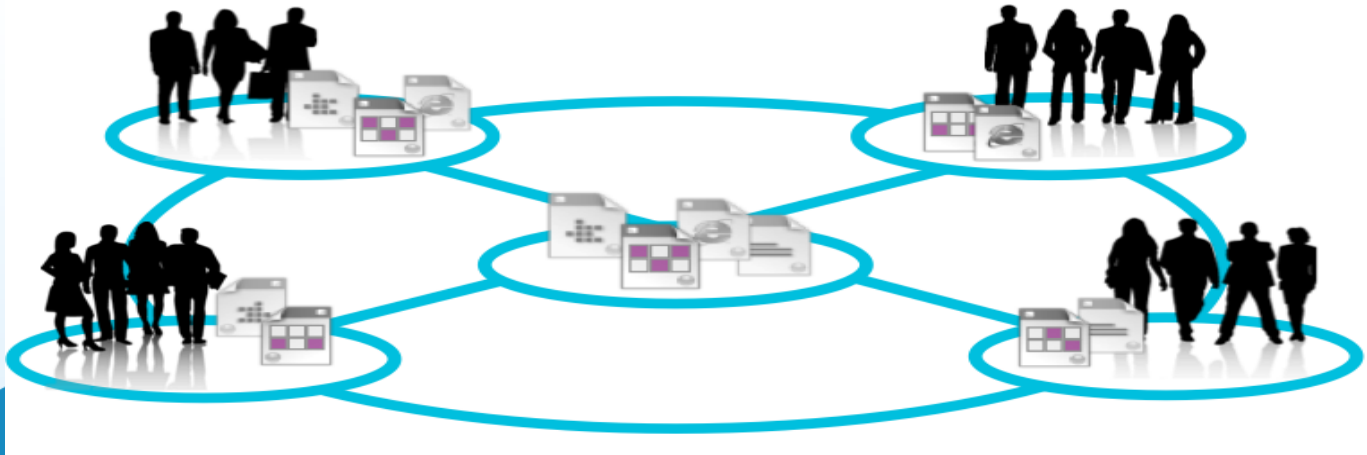
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What is In-Context Collaboration?

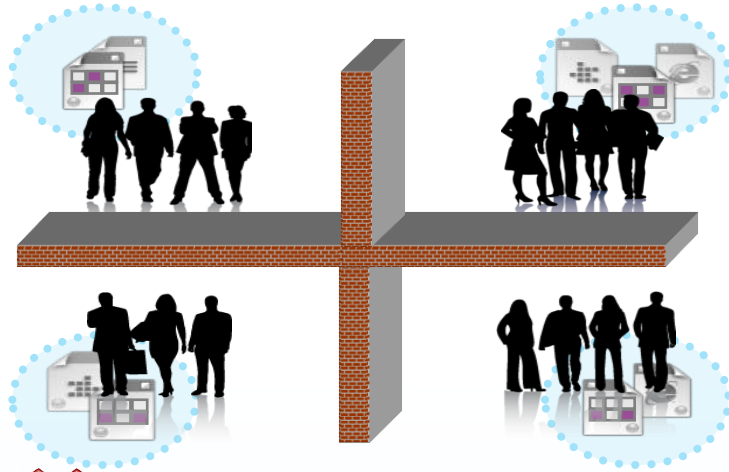


In-Context Collaboration improves product value by:

- Making information immediately accessible to all team members in the context of their work
- Empowering teams to collaborate on and review software development artifacts so they can incorporate feedback early and often
- Providing single source of truth hosted in a shared repository so that team members can collaborate effectively around the globe



Imperative 3: In-Context collaboration

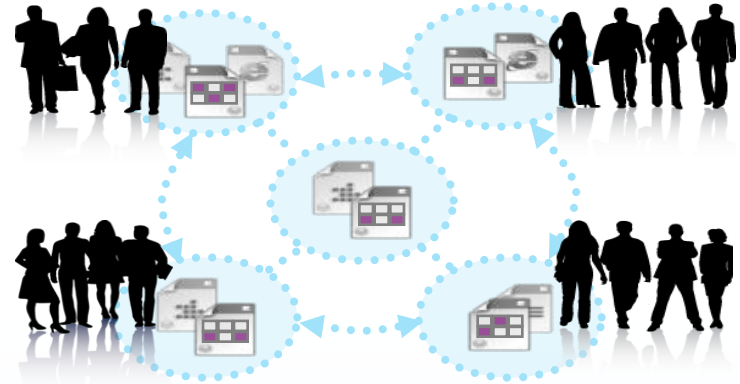


✗ Don't

Create an environment of silo'd teams and disconnected data

Manually collect status reports or wait for status meetings to take action

Rely on email discussions.



✚ Do

Unified teams share linked data providing visibility into each others work.

Collaboration is also about knowing what is going on without having to ask. Dashboards and traceability views provide real-time status of the team's progress.

All discussions in work items integrated on the plan. Use lifecycle queries to answer more meaningful questions such as "Which requirements are affected by defects?"



In-Context Collaboration always shows the latest



Comments (4)

1. Bob to Deb, Marco 5 minutes ago (2 replies)
Percentage format - numer of decimal places
How many decimal places should we support for percent
Example: none - 16%, 1 decimal place 16.5%

2. Marco to Bob, Deb 5 minutes ago
RE: Percentage format - numer of decimal places #1]
I checked the DB table. We did not take into account decimals for this percentage. If we are going to support decimals I need to know ASAP.

4. Deb to Bob, Marco Now
RE: Percentage format - numer of decimal places #2]
Bob, is no decimal support acceptable to the business

3. Tanuj to Bob 1 minute ago
What is the minimum percentage?

Threaded discussions on requirements

View All Artifacts

Page size: 20

Highlight recently commented

ID	Name	Artifact Type	Last Modified By	Last Modified Date
44	Accounts Overview	Part	JTSAdmin	Mar 26, 2011 5:43:06 PM
50	Transaction History	Part	JTSAdmin	Mar 26, 2011 5:43:10 PM
53	Accounts Overview (Home Page)	Sketch	JTSAdmin	Mar 26, 2011 5:43:11 PM
55	Dividend Contribution - screen flow	Screen Flow	JTSAdmin	Mar 26, 2011 5:43:11 PM
60	Account Details	Part	JTSAdmin	Mar 26, 2011 5:43:13 PM
67	Dividend Contribution	Storyboard	JTSAdmin	Mar 26, 2011 5:43:15 PM
75	Donor must be registered user to access account details	Business Rule	JTSAdmin	Mar 26, 2011 5:43:19 PM
79	Donors will receive confirmation and receipt	Feature	JTSAdmin	Mar 26, 2011 5:43:21 PM
89	Dividend contribution - confirmation	Sketch	JTSAdmin	Mar 26, 2011 5:43:23 PM

Recent discussions highlighted on requirements

Work Items Tag Cloud Problems

Found 9 work items - Stories (current sprint)

Id	Status	P	Story Points	Summary	Owned By
55	New	13 pts	13 pts	Frequency of dividend transfer	Deb
59	Implemented	8 pts	8 pts	Requests sent in form of email	Marco
60	New	3 pts	3 pts	Organization must identify how much money is desired	Marco
62	New	1 pt	1 pt	Organizations may apply with an initial request	Marco
64	In Progress	2 pts	2 pts	<u>Customers can Nominate an Organization</u>	Deb
66	New	1 pt	1 pt	Organization must provide justification for why funds are needed	Marco
69	New	2 pts	2 pts	Organizations can Apply	Marco
70	In Progress	5 pts	5 pts	Donor Dividend Allocation Criteria	Deb
71	New	1 pt	1 pt	JKE Charity Coordinator will respond to request in the website trigger...	Marco

Unread work Items bolded for developers

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Glossaries provide a common vocabulary for teams

ID	Name	Artifact Type
17	 Enterprise Glossary	Glossary Collection
18	 Bank Regulation	Term
22	 Account Activity	Term

JKE Banking (Requirements) > ... > Features >

79: Donors will receive confirmation and receipt

Key Scenarios

1. [Donor](#) will receive confirmation notice that donation has been processed.
2. Once the confirmation is received, the [Back Office System](#) will initiate an email to the donor based on the primary contact information in the donor's profile.
3. If the profile indicates no email address available and or the given email address is not valid, then a hard copy of the donation will be sent to the donor's mailing address specified in the donor's profile.
4. The [Donor](#) will receive an email - mail notice affirming the donation % ar
 1. If in email, the donor will be provided an option to print the confirm for tax purposes.
5. The printed confirmation notice must be in a format that is acceptable by state, and province agencies and will be mail in their [Bank Statement](#)

Related Features

24: Bank Statement

A periodic record of a customer's Account that is issued at regular intervals, showing all transactions recorded for the period in question,

[Show More](#)



Formal Reviews drive agreement and prevent re-work

- ✓ Reviews & approvals ensures artifacts are reviewed and/or approved by key team members and captures compliance requirements.

Requirements

JKE Banking (Requirements) >
Approval

Participant's Review: In progress 0% completed | Your role: Approver

Overall Review: Draft In progress 65% completed | Pause Review

Due: Apr 18, 2011

Instructions to reviewers:
List of requirements for our second sprint. All comments have been resolved. Please review and approve requirements as written.

<input type="checkbox"/>	Participant	Type of Participant	Review results
<input type="checkbox"/>	Bob	Approver	Done - 5 Approved
<input type="checkbox"/>	Deb	Approver	Done - 5 Approved
<input type="checkbox"/>	Marco	Approver	60% - 2 Approved, 1 Disapproved
<input type="checkbox"/>	Tanuj	Approver	

Test Artifacts

18 : Dividend Allocation by Percentage
Test Case Overview | Snapshots | History

Originator: Tanuj Owner: Tanuj State: Under Review

Description: select a list of potential donations and enter percentages for each

Formal Review

List the people who will be reviewers and approvers of this content and define your roles

View: All

Show All Items per page

<input type="checkbox"/>	Review Type	Name	Status	Comments
<input type="checkbox"/>	Approver	Bob	Pending	
<input type="checkbox"/>	Reviewer	Sally	Pending	

Work Items

Task 41 *
Summary: * Implement - Frequency of dividend transfer

Overview Links Approvals History

Approvals (1) - 1 pending

New: Approval

Type	Name	State	Due
Review	Check of algorithm to prevent transfer on weekend	Pending	Apr
	AI	Pending	
	Curtis	Pending	
	Tanuj	Approved	

Add Approvers...

Test your In-Context Collaboration capabilities

Can your team...

**Easily access the “single source of the truth”
through linked artifacts?**

**Quickly grasp the “who, what,
when and why” of team activities?**

**Bring new team members
up-to-speed quickly?**

**Overcome the barriers of multiple time zones
when working with outsourced
and distributed team members?**



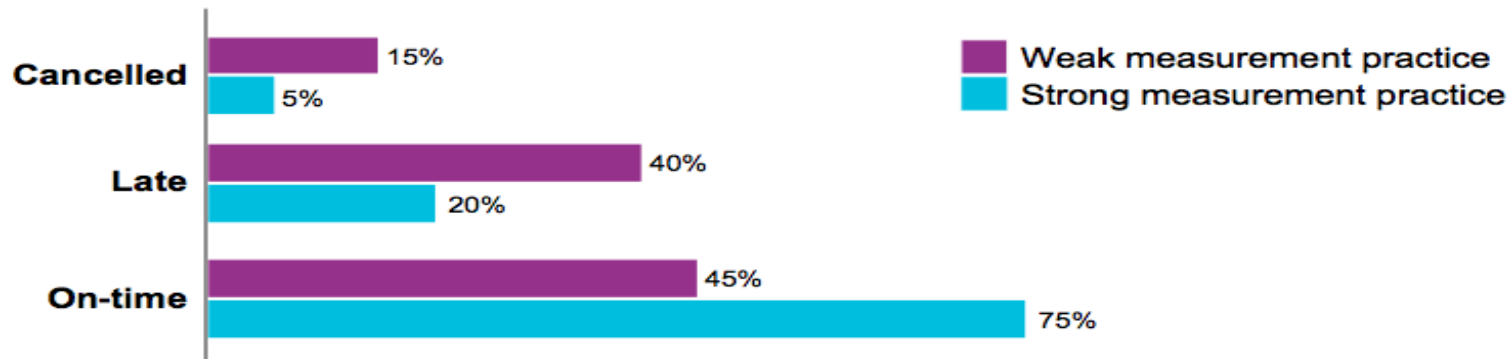
What is Development Intelligence?



Development Intelligence improves predictability by:

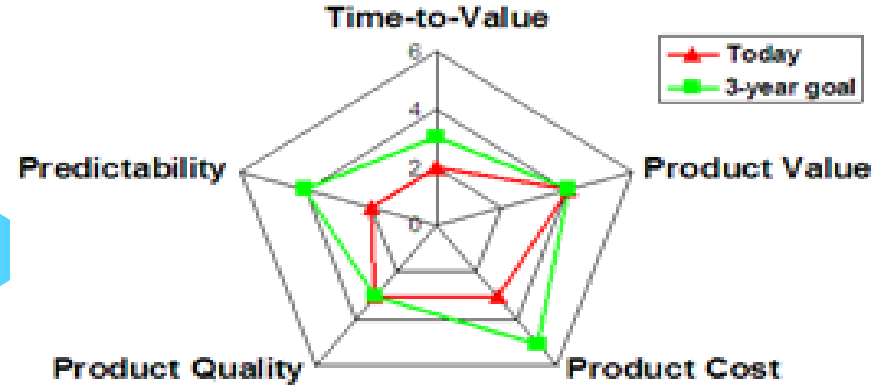
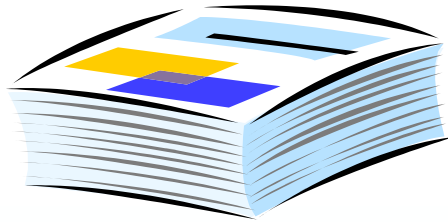
- Applying **Business Intelligence techniques** to software and systems development
- Enabling **fact-based decision making** (to communicate status, monitor progress, diagnose problems, identify corrective actions)
- **Steering projects and programs** to deliver on-time

Measurement Practices Impact Project Success



Source: Capers Jones, Measurement, Metrics and Industry Leadership, 2009 and [Software Engineering Best Practices](#), McGraw Hill, 2010.

Imperative 4: Development Intelligence



✗ Don't

Manually collect data by hounding the team for status reports.

Take a 'big bang' approach to instituting measures

Don't expect to get it right the first time.

✚ Do

Use live dashboards that provide transparency of information and dashboard reports based on data coming from the team's activity.

Identify a weak spot or a current pain point or bottleneck.

Conduct retrospectives to discover what worked, what didn't work, and how you can improve.

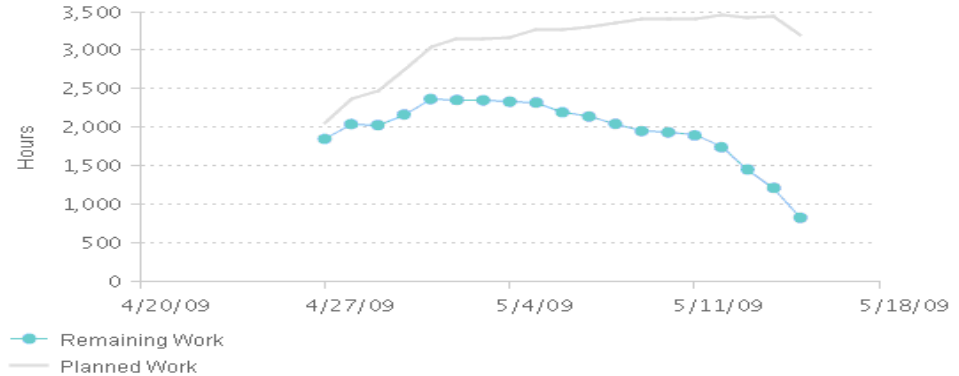
Measuring Time-to-Value (Schedule)



Iteration Burndown

Showing how much work is left to do in an iteration. It enables the team to adjust scope or resources to finish the iteration successfully.

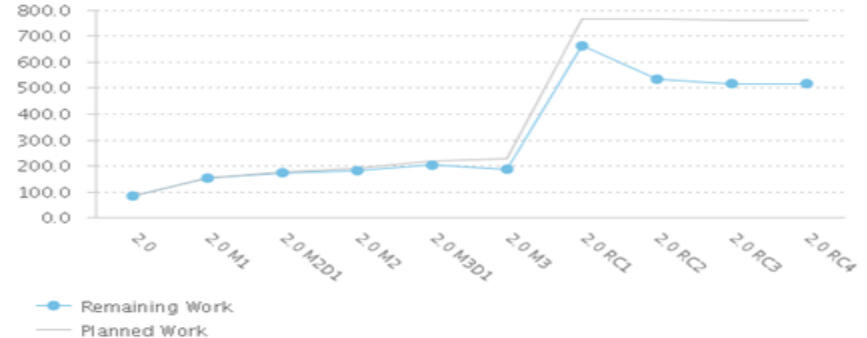
Burndown



Release Burndown

Shows the estimated functionality remaining to complete the current release.

Release burndown



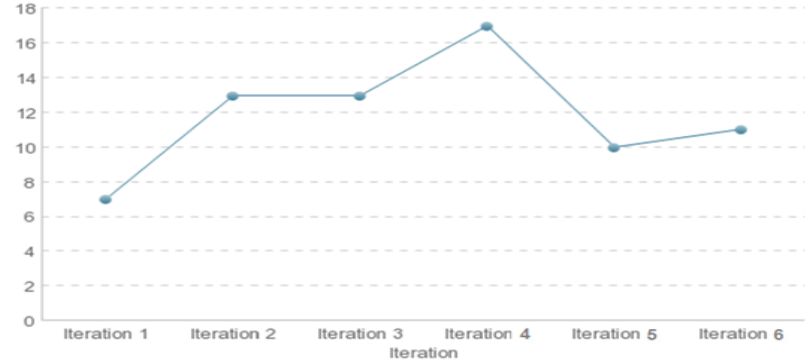
Measuring Product Cost

Cost per unit of work

Tracks the cost of delivering a single unit of work (such as a user story point or use case point) across iterations. Monitoring this metric in each iteration helps the team understand if they are burning budget at a sustainable rate.

Cost per Unit of Work

Effort per Story Point



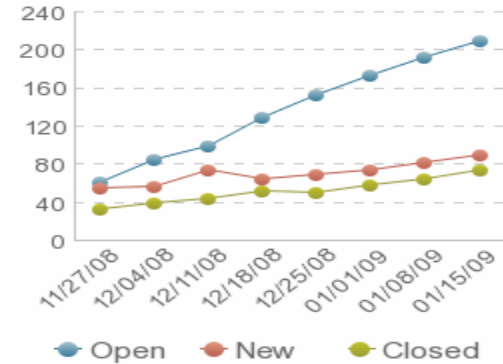
Measuring Product Quality



Defect Trends

Shows defect arrival and closure rates, determines the remaining defect backlog, projects the future defect arrival/close rate up to and post-ship

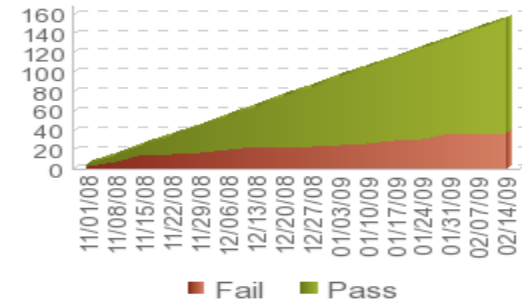
Number of Defects



Test Execution Status

Monitors test completion and success

Number of Executed Tests

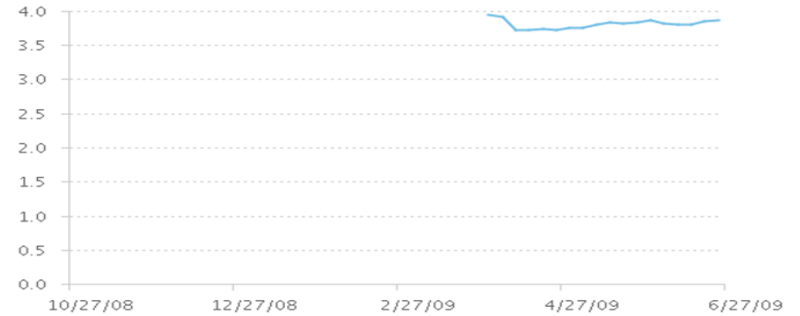


Measuring Predictability

Velocity Variance

Indicates ability of team to deal with uncertainty of the iteration. This helps the team identify the degree to which variance across the lifecycle might impact the cost and schedule of the project.

Estimated vs. Actual Work



Quality of Planning: fair (41%)

Use dashboards to provide that 1 view of project health

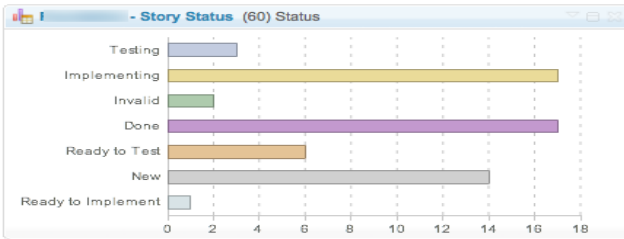


JKE Banking (Change Management)*

Overview  Time to Value (Schedule) Product Value Product Cost Product Quality Reports Stabilization 

Story Status Current Iteration

Shows the status of all stories planned for the current iteration

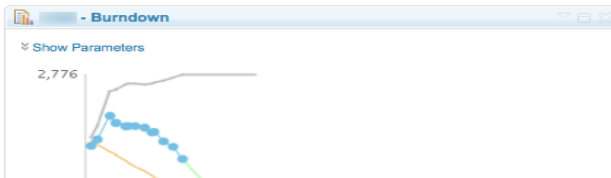


Story ID	Description
150501:	Improve Web UI error reporting
154382:	Completion (M14) of foundation support for migrating RRC 2.x to 3.0, and JTS consolidation
155918:	Provide TVT testcases and testcase updates to TVT team
154263:	[Continuation] Create server diagnostics tests and reports that make various 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

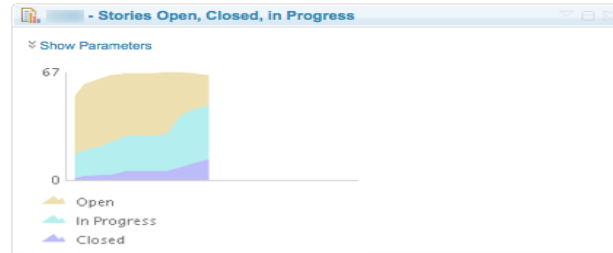
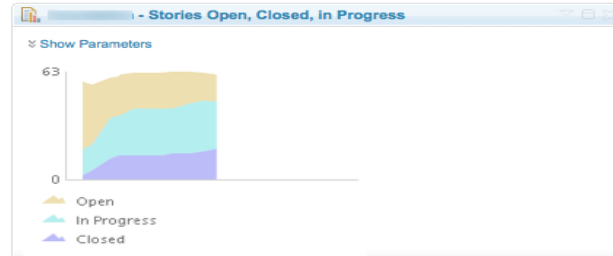
Burndown Current Iteration

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



Stories Open/Closed/In Progress

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



Test your development intelligence

Can your team...

Time-to-Value

- Produce the right capabilities according to the committed schedule?

Product Value

- Deliver a valuable product?

Product Cost

- Measure what we spending to deliver the system?

Product Quality

- Build a high quality system?

Predictability

- Manage the risk and uncertainty?



What is Continuous Improvement?

Continuous Improvement reduces cost by:

- Improving software delivery through the ongoing **adoption of best practices and automation** to reduce manual, non-creative and error prone tasks
- Promoting **incremental improvement of a project** when needed
- Enabling breakthrough improvement by **capturing best practices and reusing** across teams
- Allowing **everyone to participate** with easy to adopt best practices at your fingertips.



“Successful analytics requires taking it beyond software and reporting, and into the realm of management practices and operations improvement.”

Information Management Online, February 23, 2011

Imperative 5: Continuous process improvement



Don't

Define a process and place it on a shelf

Ignore process altogether or treat it like an unnecessary burden.

Institute process police

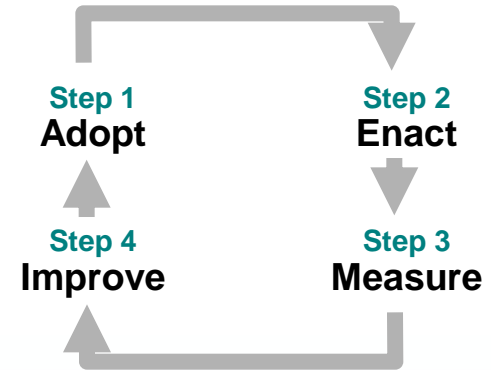


Do

Use a tool that can 'enact' your process definition and guide the team toward the desired result.

Learn from what other teams have done and leverage their results across other teams when appropriate. Ignore process altogether or treat it like an unnecessary burden.

Let the tool govern behavior and refine it over time. Add peer reviews to encourage knowledge sharing and collaboration.

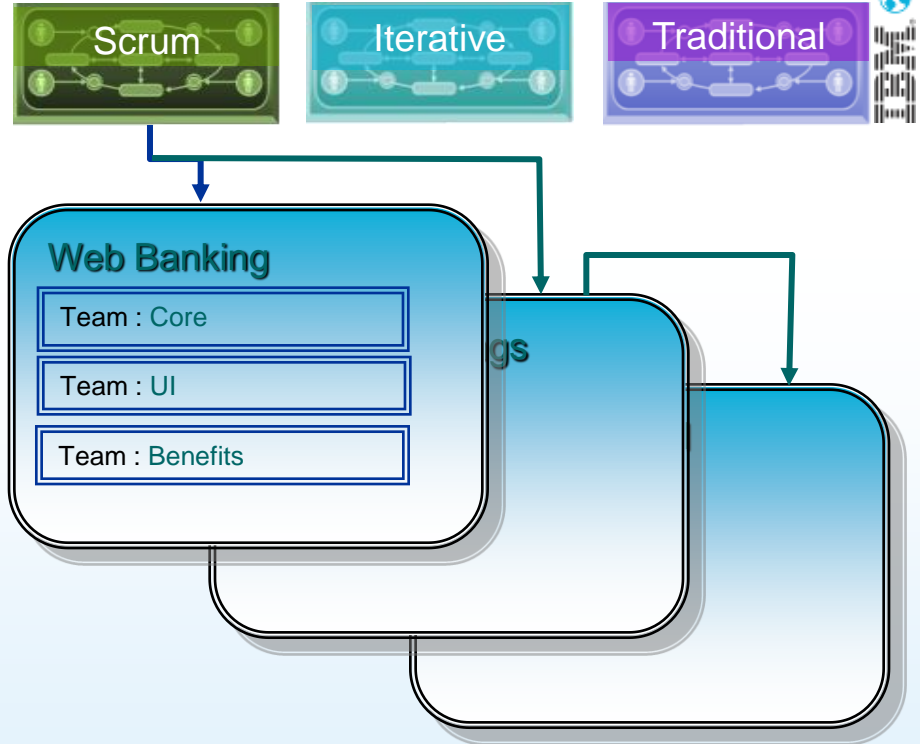


Adopt - Process Sharing

Leverage the Best practices from Rational and other teams



Process Templates on Server: JKE.tools.com:9443/JTS



1

Import/export Templates
Provides the ability to leverage best practices from Rational and other teams

2

Servers support multiple templates
Allowing administrators to support different processes.
Teams improve their process independently.

3

Process updates can be shared
Allows teams to control when they want to accept improvements.

Team Retrospectives help identify areas of improvement



Tracking Retrospectives help team members to collaborate on improvements.

- Ranking of process improvements help to focus on where the team feels the biggest pain.
- Metrics where available help support process improvements and show results.

The screenshot displays the IBM Jazz CCM interface for 'JKE Banking (Change Management)'. It shows a list of retrospectives with columns for Id, Status, Summary, Filed Against, and Planned For. A detailed view for '31: Retrospective for Sprint 1' is open, showing its status as 'Done', project area as 'JKE Banking (Change Management)', and planned for 'March 26, 2011 5:44 PM'. The interface also includes a 'Quick Information' section with subscribers and mentions, and a 'Notes' section with a discussion thread.

Id	Status	Summary	Filed Against	Planned For	Actions
77	New	Builds are not completing as frequent as before	Build	Unassigned	
32	New	Retrospective for Sprint 2	JKE	Sprint 2	
31	Done	Retrospective for Sprint 1			

31: Retrospective for Sprint 1

Status: ✔ Done

Details

Filed Against:	JKE	Planned For:	Sprint 1
Project Area:	JKE Banking (Change Management)	Resolution Date:	March 26, 2011 5:44 PM
Owned By:	Marco	Resolved By:	Marco

Quick Information

Subscribers (1): M Mentions (3)

Approve Sprint 1 Retrospective: Approved (1 of 1)

Notes

Discussion

1. Deb, Mar 6, 2011, 1:58 AM
@marco When will we have the meeting for the retrospective?
2. Sally, Mar 6, 2011, 8:10 PM
@deb I think it will be tomorrow?
3. Marco, Mar 8, 2011, 6:41 AM
Yes @deb and @sally, it will be today!

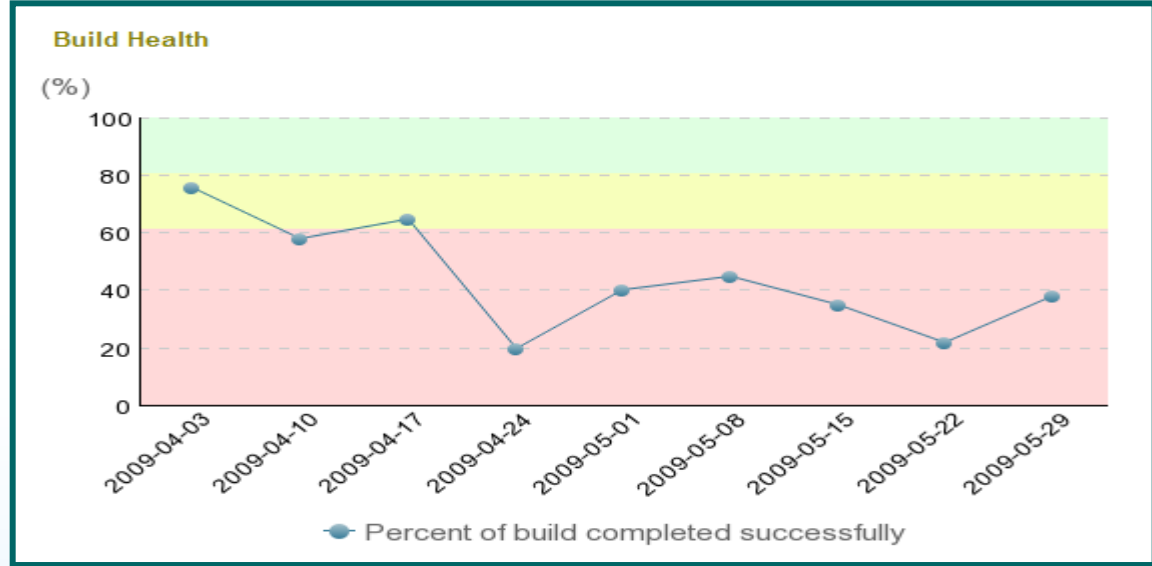
Show More

Build Health

Build completion over time shows if the team is impacted by build

Other Metrics

- # of daily builds



Implement : Require Unit test before deliver



Operation Behavior

Select a cell in the table below to configure the preconditions and follow-up actions for the corresponding operation and role.

Preconditions are checked before running an operation; follow-up actions are executed after. An operation's preconditions and follow-up actions can be configured differently for each role. Note that operation configurations completely replace each other; they are not additive. The process runtime will choose the most appropriate operation configuration for the logged-in user and will use only the preconditions and follow-up actions defined in that configuration.

Operations	Everyone (d...	Team Member	Team Lead
Reports			
Deploy Report (server)			
Deploy Report Template (server)			
Display Report (server)			
Manage Report Folder (server)			
Source Control			
Deliver (client)			
Deliver (server)			
Save Change Set Links and Comments (server)			
Work Items			
Save Work Item (server)			

The deliver operation is performed when changes or baselines are delivered from a workspace to a stream.

Preconditions and follow-up actions are configured for this operation
 Final (ignore customization of this operation in child team areas)

Preconditions (7 available):

Name: <Select a precondition or follow-up action>
Description:

Follow-up actions (0 available):

Add Preconditions

Select the preconditions to add:

- Prohibit Non-Externalized Java Strings
- Prohibit Unused Java Imports
- Prohibit Workspace Errors
- Require Content
- Require JUnit Test Run**
- Require Work Item Approval
- Require Work items and Comments

Test your Continuous Improvement capabilities

Can your team...

Leverage out-of-the-box process templates for traditional and agile workflows?

Change process “on the fly” as part of a continuous feedback loop?

Allow team leads to determine how strict or lax the “rules of the road” should be?

Modify process enforcement over the life of a project, to encourage early-stage experimentation and end-game stability?



Agenda

- 1 Current market situation
- 2 IBM Rational Collaboration Lifecycle Management
- 3 Delivering the 5 ALM imperatives
- 4 Proven results

Innovate2011



Business results

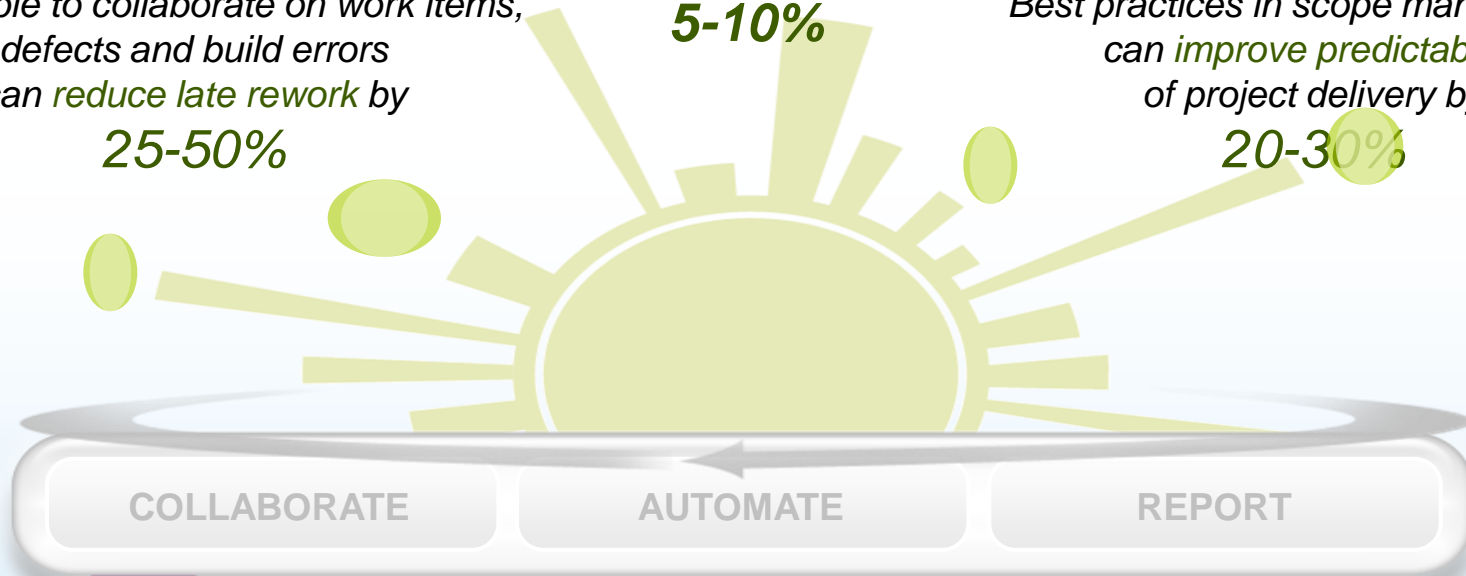


Automated status reporting
derived from evolving engineering artifacts
can **improve productivity** by

5-10%

Being able to collaborate on work items,
defects and build errors
can **reduce late rework** by
25-50%

Best practices in scope management
can **improve predictability**
of project delivery by
20-30%



Source: IBM analysis based on services research.

Innovate2011

IBM has set the bar for software and systems engineering platforms



“Rational has the best current offering... and continues to raise the bar on building a complete development and delivery platform.”

2010 Forrester Wave, *Agile Development Management Tools Report*



“GM’s use of the Rational platform will deliver business results in efficiency, time-to-market, quality, and overall customer satisfaction.”

Eric Gassenfeit, Global Director, Electrical, Controls and Software Development, General Motors



“For the 5th time in 6 years, Rational has achieved the top overall ranking in our 2010 Users’ Choice Survey on Software Development Platforms.”

Users Choice Survey, *Software Development Platforms*, Evans Data Corporation



Summary: Rational Collaborative Lifecycle Management

Transforming software and systems delivery



Collaborate

Bridge the gap between technical and business communities through shared access to enterprise documents, workflows and collaboration solutions.

Automate

Make it easy for individuals and teams to "do the right thing" and "do things right" by automating team process and workflow.

Report

Track and measure progress across multiple teams, tools and geographies by leveraging the real-time instrumentation of the software lifecycle.



Helping customers improve the value and performance of their investments in software as strategic business assets