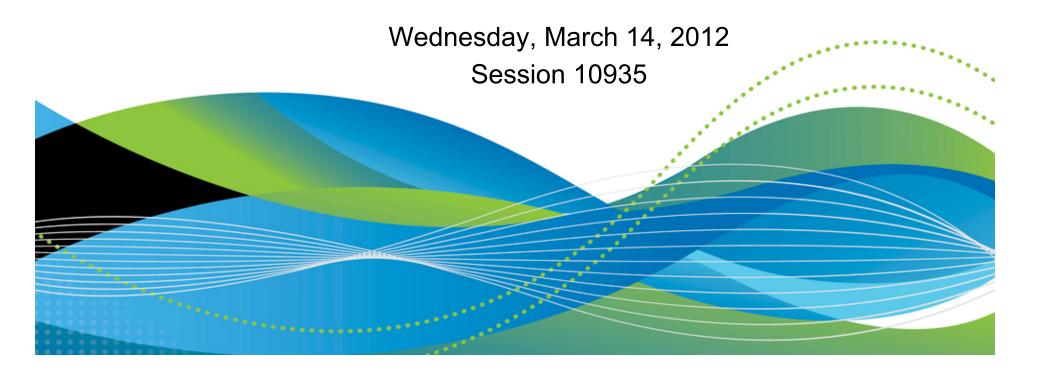




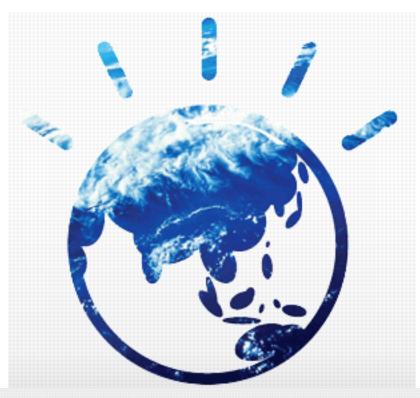
Imperatives for Effective Application Lifecycle Management

Carolyn Pampino IBM Rational





We ARE creating a smarter planet













Business agility





Cloud computing









Software drives Innovation





Mobile banking will be the most widely used banking channel by 2020, if not sooner The average 2010 automobile contains more lines of software code than a fighter jet







Source: *Mobile banking: A catalyst for improving bank performance*, Deloitte, 2010; and *This Car Runs on Code, Robert Charette*, IEEE Spectrum, 2009.



Realities can stall software-driven innovation

Complexities in software delivery compounded by market pressures

Complex, Multi-platform Systems and Applications

62% of companies have agile projects requiring integration with legacy systems

Increasing Mandates

2010 Spending in U.S. on governance, risk and compliance was \$29.8 billion

Globally Distributed Software and Product Supply Chains

50% of outsourced projects are expected to under perform



Cost Reduction

70% budget locked in maintenance and37% of projects go over budget

Unpredictability in Software Delivery

62% of projects fail to meet intended schedule

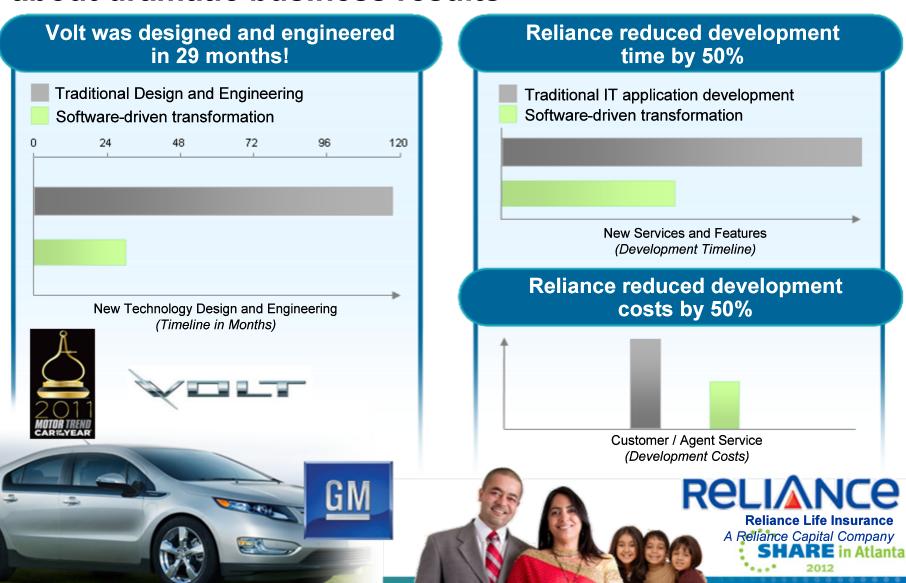
Changing Requirements and Time to Market

30% of project costs are due to rework and poor execution of requirements



Transforming software and systems delivery brings about dramatic business results





How can we overcome silos and create a great experience?





Good design 'disappears' behind a great experience











Design choices are derived from a collective intelligence











Collective intelligence emerges from stakeholder collaboration











Highly productive teams deliver great software to their stakeholders









SHARE in Atlanta

Anytime, for any team, silos inhibit software delivery productivity



1. Business

Decide



"At some point, you take a step back, and you realize you have an awful lot of **siloed systems** that are **limiting transparency** across strategic projects."

- Development Director Temenos, Inc.



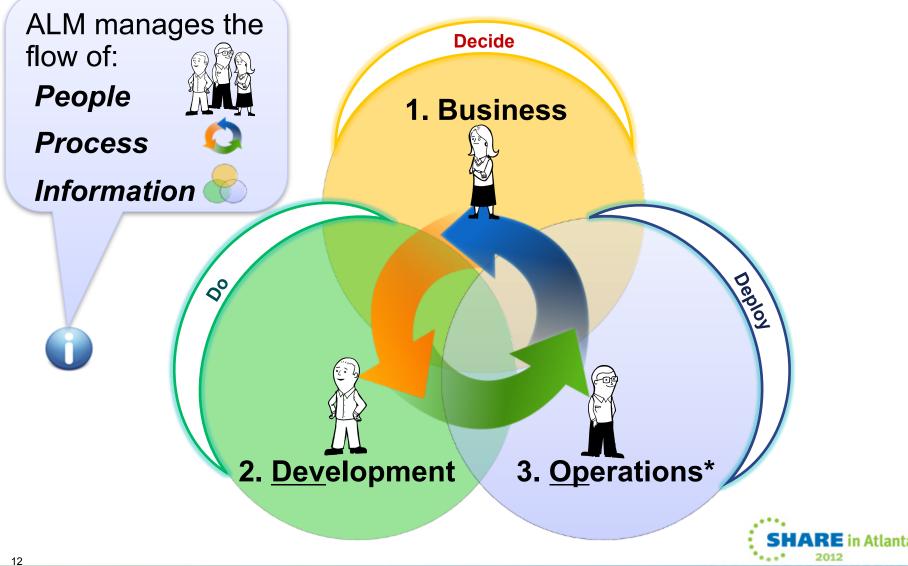
2. <u>Dev</u>elopment





Application Lifecycle Management can improve team productivity





Does Agile scale across the application lifecycle? Yes!



- majority of Agile teams are geographically distributed
- Organizations have reported successful Agile programs of 500+ people
- 33% are in regulatory situations
- 75% are doing Agile for medium and greater complexity projects

17% are successfully applying Agile for outsourcing

- 78% are working with legacy systems
- 32% successful interaction between enterprise architects and Agile teams
- 11% report that their governance strategy works well with Agile teams



Source: Dr Dobb's November 2009 State of the IT Union Survey HARE in Atlanta





Productivity is achieved through 5 areas





Productivity





Predictability





Cost





Five Imperatives for <u>Effective Application Lifecycle Management</u> to improve organizational productivity



Maximize product value with In-Context Collaboration



Accelerate time to delivery with Real-Time Planning



Improve quality with Lifecycle Traceability



Achieve predictability with Development Intelligence



Reduce costs with Continuous Improvement

Learn more at ALM Everywhere





"I used to think collaboration was a hippie word leftover from the 1960's...

...now I define it as survival"

A speaker at Innovate 2011, Rational user conference



Collaboration challenges

Can your team...



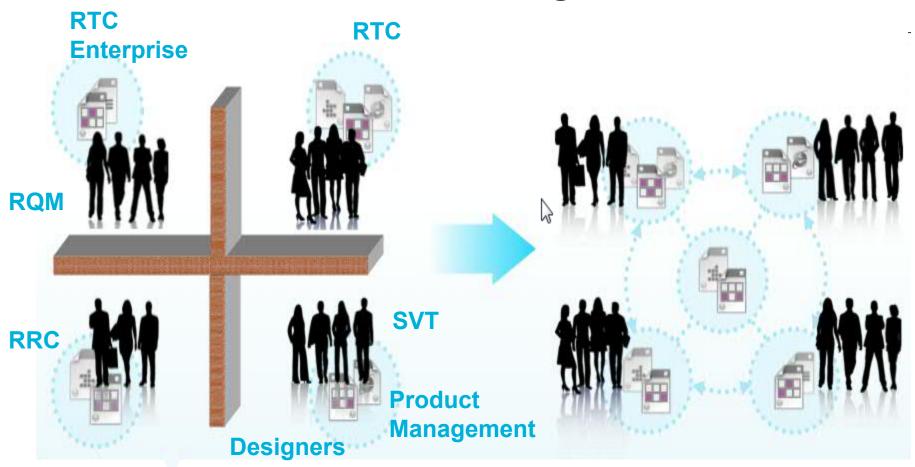
- ...find all the information related to a specific task?
- ...quickly grasp the "who, what, when and why" of team activities?
 - ...bring new team members up-to-speed quickly?
 - ...overcome the barriers of multiple time zones when working with outsourced and distributed team members?







IBM Jazz team - Transforming our Teams





Jazz team collaborates on Scenarios

Comments appear in Context

















2310: Plan Sprint (iteration)

Goal: Ensure feedback from

CLM Best practices you

- Grooming the produ
- Conducting a require
- Linking a requirement a
- · Linking work items to designs and requirements for team traceability
- · Ranking the product backlog in preparation of a planning meeting

Roles: Product Owner (Bob, who works with Ursula), Customer (Curtis)

Synopsis: Bob is preparing for the sprint planning meeting. He reviews the Product backlog to evaluate if his stakeholders h submitted any new requests. While reviewing the backlog he finds a Story submitted by Curtis, one of his key stakeholders. also finds new compliance requirements submitted by the Corporate Compliance and Governance Team. **Note**: Because the has already agreed to a Release plan, the team must be careful about introducing changes that haven't already been discussed agreed to. This scene demonstrates how the team remains aware of, and takes into account ongoing stakeholder feedback. The constant challenge for delivery teams and must be handled with discipline and collaboration. Our intent is to show how the business can propose changes while enabling the development and test teams to discuss and assess the request.

Elapsed time: Expert: ~10 minutes

Let's go through the steps Bob performs to get ready for the sprint planning meeting.

 Fariz Saracevic to Cindy VanEpps, Scott Rich Jan 20, 2012

RE: Can we replace this with a Business Process diagram? [RE: #1]

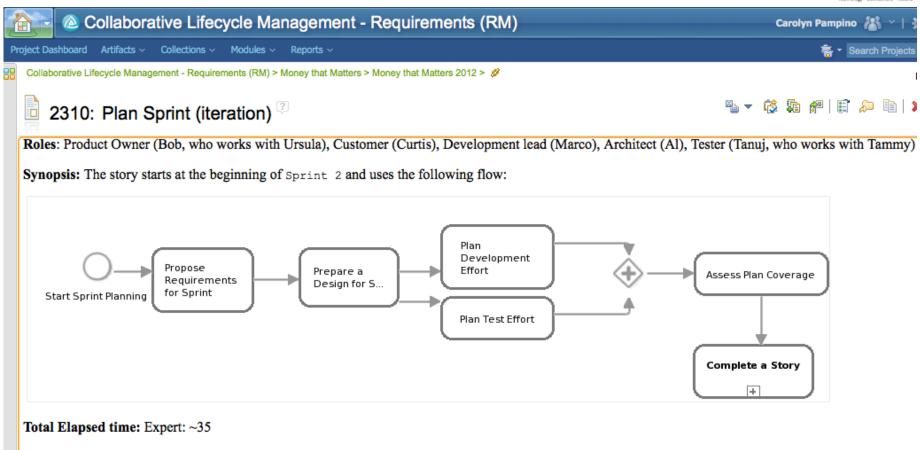
It is in the plan to update all websequence diagrams using RSA, as well as add design acts. I will create a new task, so we do not look track of it.

Yes, I plan to do that. Having a task to track it will help.

2012

...the Business diagram is added...





Propose Requirements for Sprint

Goal: Ensure feedback from stakeholders is reviewed and considered for the next sprint.

CLM Best practices you learn:

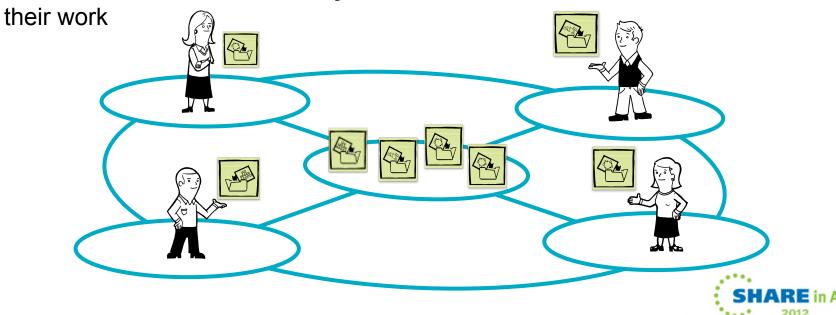
SHARE in Atlanta

In-Context Collaboration improves product value



- Empower teams to collaborate on and review software development artifacts so they can incorporate feedback early and often aligning delivery with stakeholders' vision
- Provide a single source of truth hosted in a shared repository so that team members can collaborate effectively around the globe to build a collective intelligence

Make **information immediately accessible** to all team members in the context of





"Observe always that everything is the result of change, and get used to thinking that there is nothing Nature loves so well as to change existing forms and make new ones of them."

Marcus Aurelius, emperor of Rome (121-180 AD)

"He, who could foresee affairs three days in advance would be rich for thousands of years."

Chinese Proverb

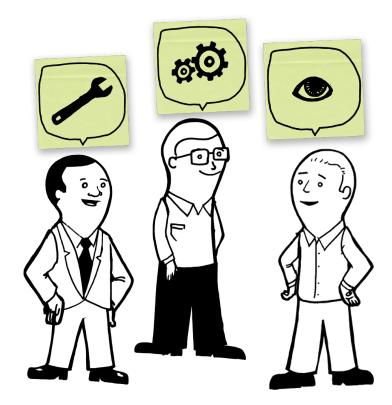


Planning challenges

Does your team...



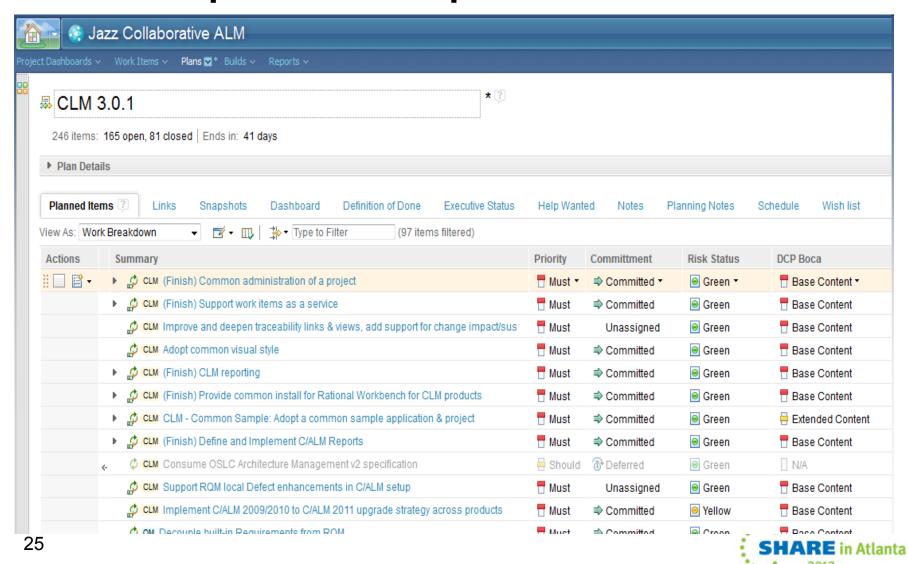
- ...plan across the entire team?
- ...manually collect and report status?
- ...instantly see the impact of a change in project scope or resources?
- ...integrate planning with execution?
- ...plan for waterfall, iterative and agile environments?





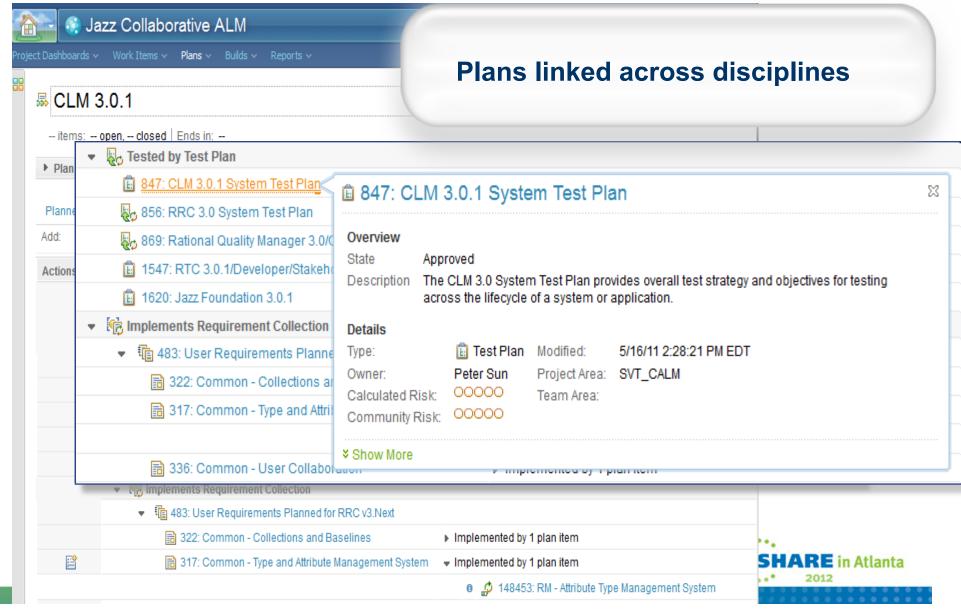


Jazz team plans in the open on Jazz.net



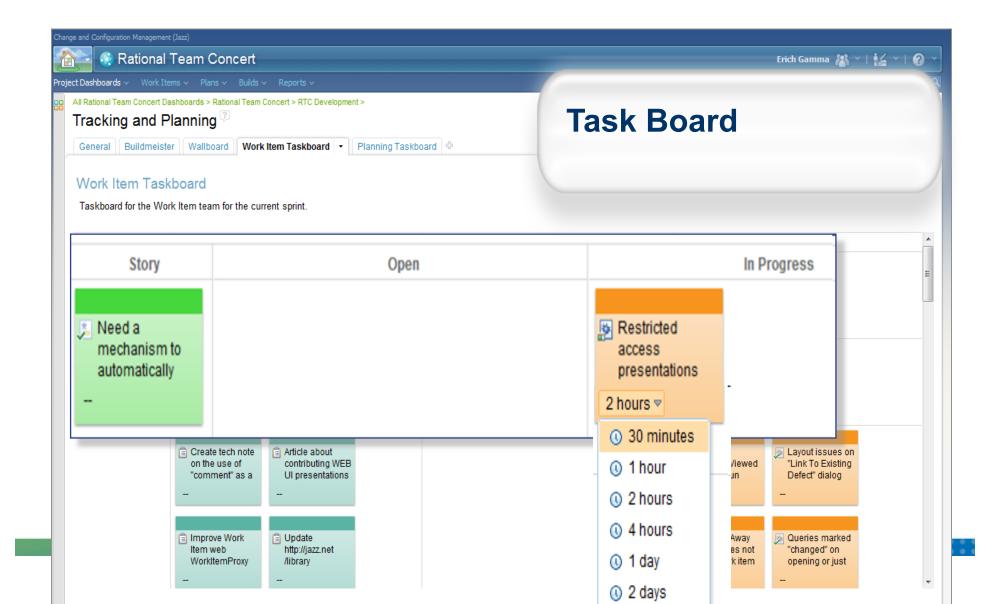


Jazz team plans across disciplines



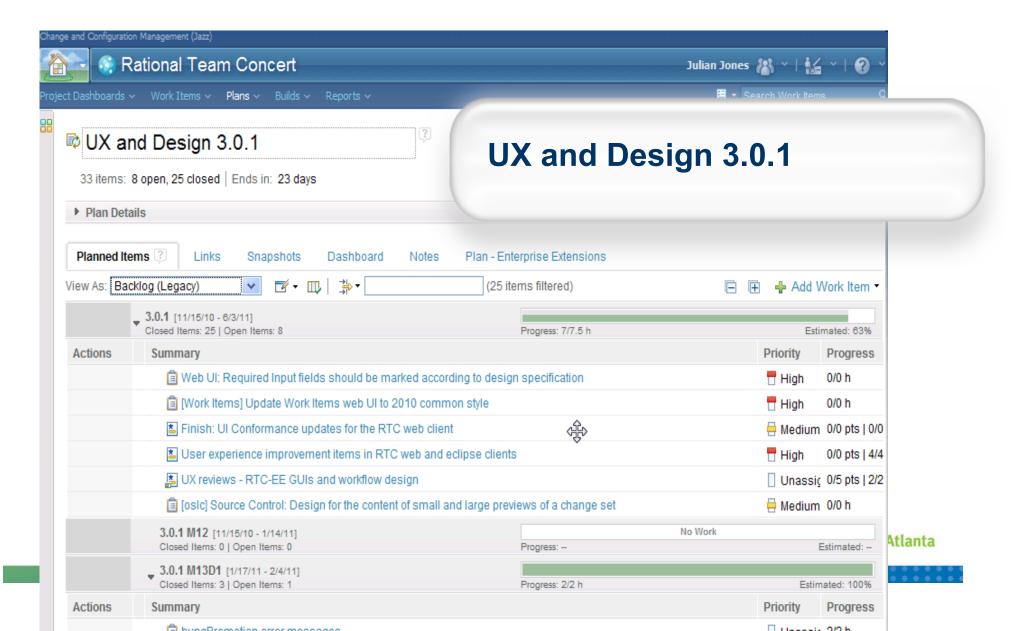


All Jazz team members participate





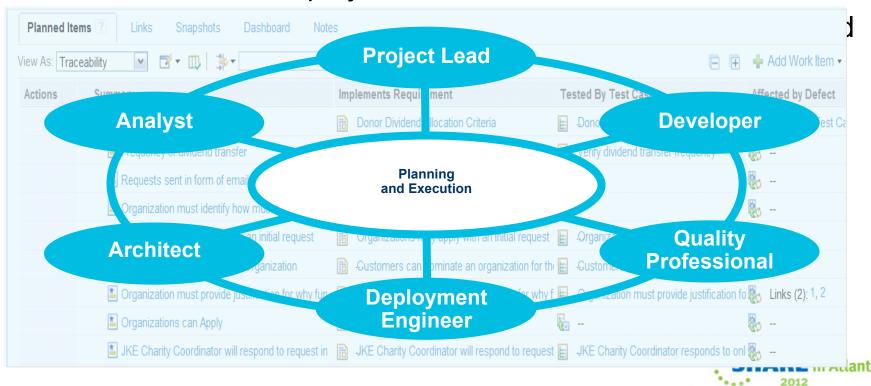
All Jazz team members participate



Real-Time Planning accelerates time to delivery



- Provides a single plan that spans requirements, development, and test, ensuring the whole team understands the overall scope of a project
- Integrates planning with execution ensuring the entire team understands the true project status



29



The head bone's connected to the neck

bone... the neck bone's connected to the

backbone... the backbone's connected to the

hip bone...



Lifecycle Traceability challenges Can your team answer...



Analyst

Which requirements are addressed in this iteration?

Are all of the requirements tested?

What defects are affecting which requirements?

Project Manager

Can we pass an audit?

Are we **ready** to release?

What **defects** were resolved in this release?

Are we aligned with the business?

Architect

Can we implement in a way that supports maintainability?

Which requirements impact the design?

Are there reusable components we can leverage?

Developer

What requirements
am I implementing? What test
uncovered this defect,
on which environment
and what build?

What changes occurred overnight?

Release Engineer

How can I standardize when teams use different tools?

Where are the bottlenecks getting longer or shorter?

How can I speed up my builds?

Quality Professional

what is the quality of the build?

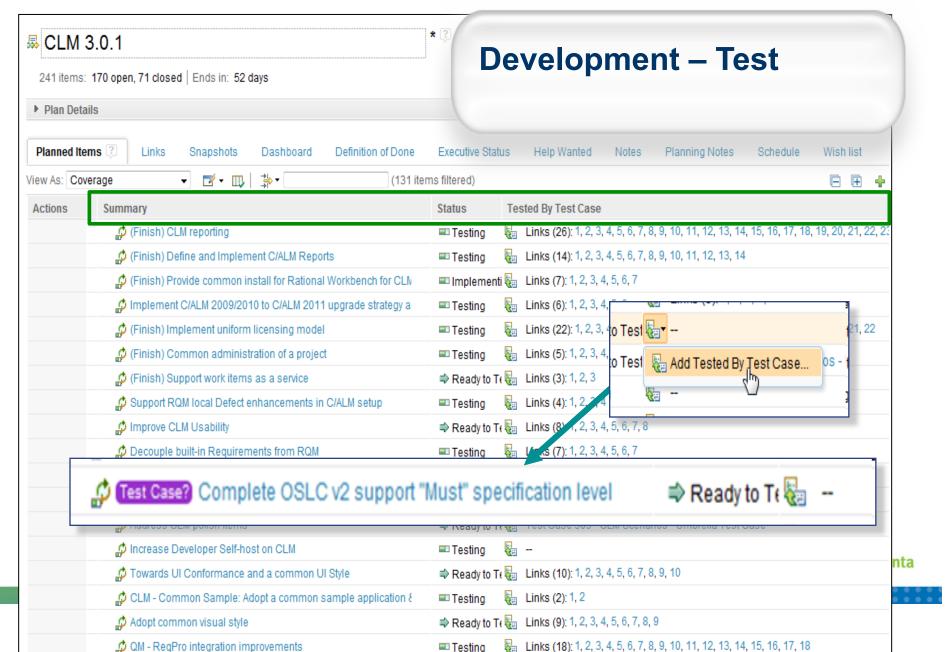
What is ready for me to test?

What defects have been addressed since the last build?



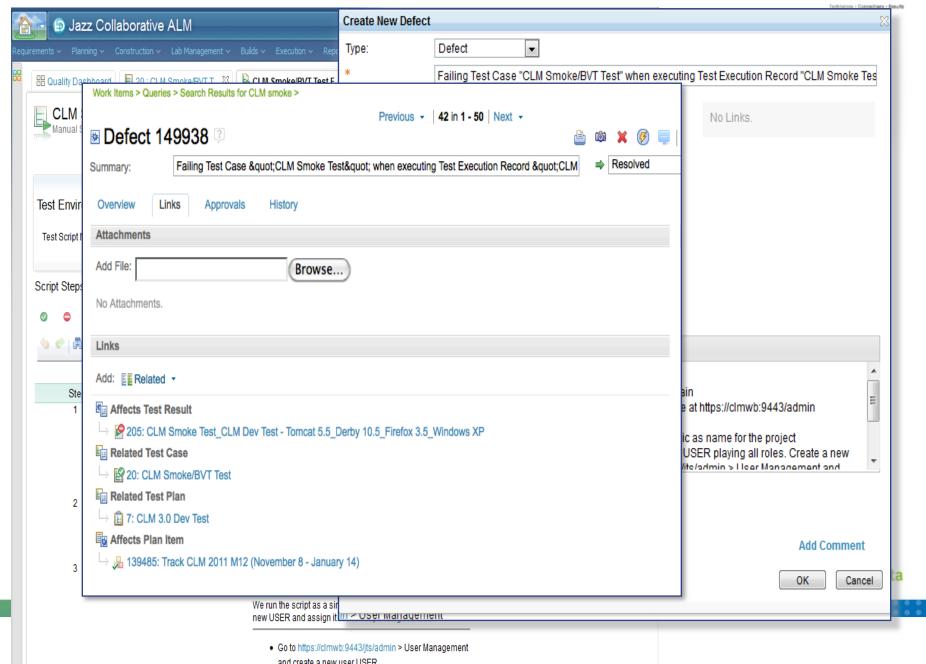
Jazz team uses lifecycle traceability





Jazz team uses lifecycle traceability





Lifecycle Traceability improves quality



- Establish relationships between software artifacts
- 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

Customer Final Product Artifacts Supporting Systems Requirements Management Managemen



Are we there yet?

Our childhood selves expressing themselves through out the release cycle?

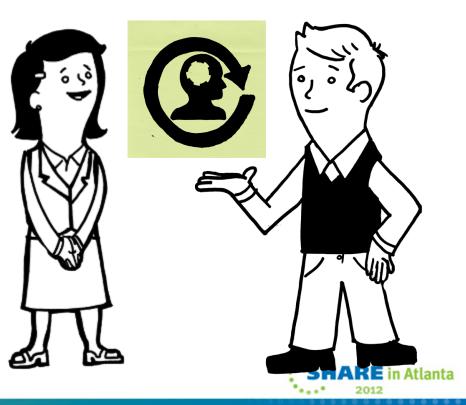
Or those of us wishing this talk would end. ©



Measuring and steering challenges Can your team...

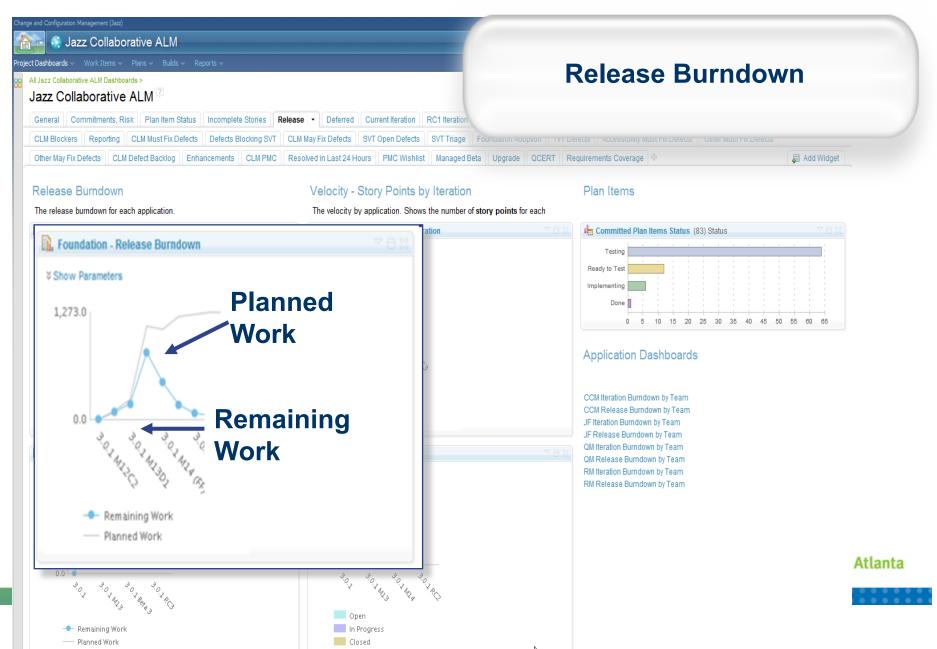


- ...provide one view of project health at multiple levels?
- ...make steering decisions based on facts rather "guesstimates"?
 - ...track desired improvements with metrics?
 - ...minimize administrative overhead by relying on your environment to capture metrics?



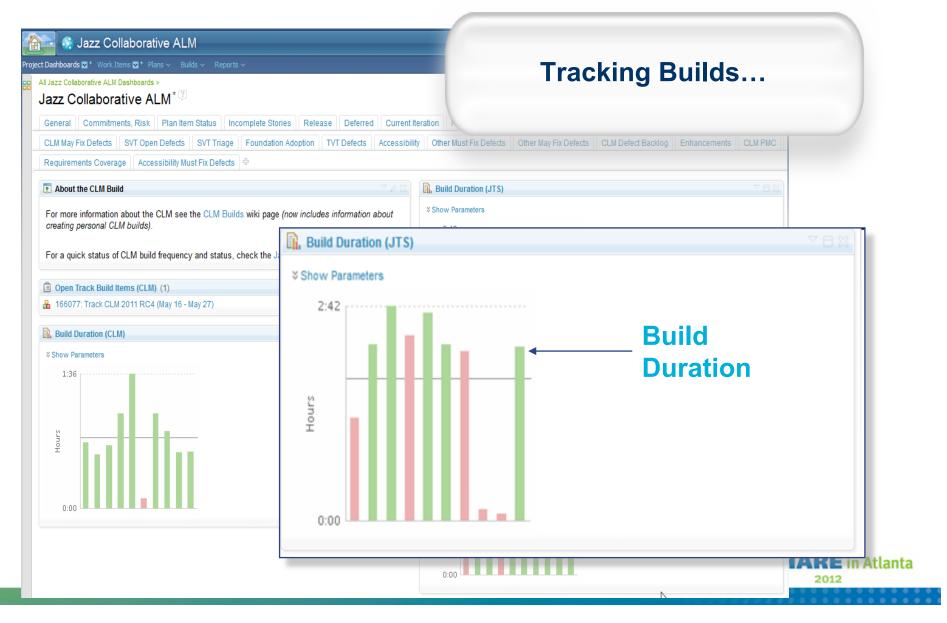
Jazz team dashboards - on Jazz.net





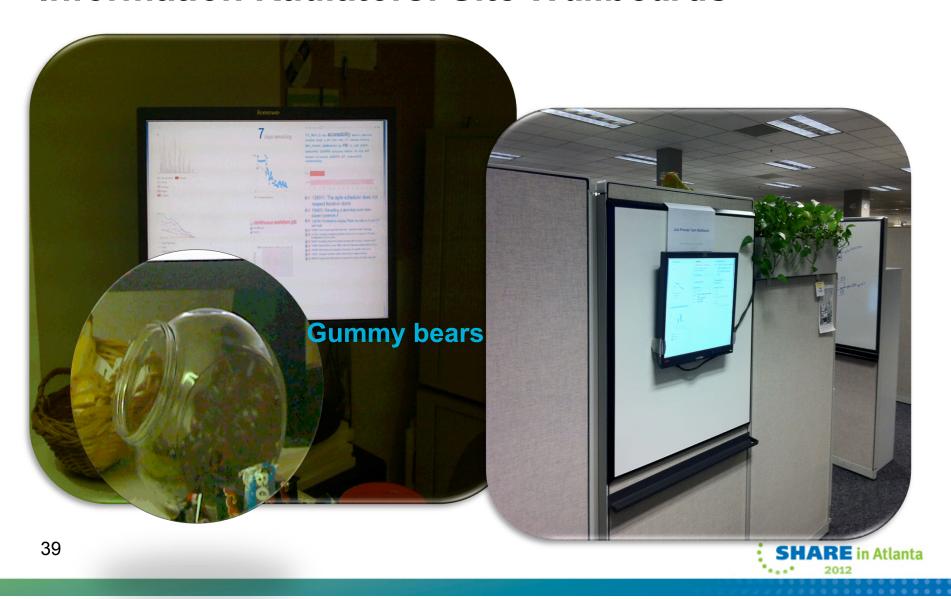
Jazz team dashboards – on Jazz.net







Information Radiators: Site Wallboards

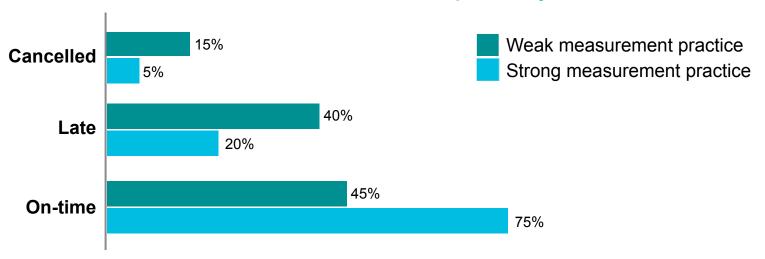


Development Intelligence improves predictability



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

Measurement Practices Impact Project Success



Sources: Capers Jones, Measurement, Metrics and Industry Leadership, Copyright © 2002-2007 by Capers Jones LLC Capers Jones, Software Engineering Best Practices, Copyright © 2010 McGraw-Hill





"It is not the strongest of the species that survive, not the most intelligent, but the one most responsive to change."

· Charles Darwin, scientist

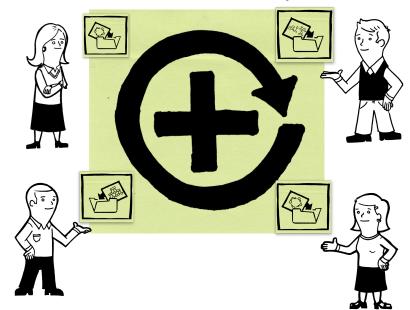


Continuous improvement challenges

Can your team...



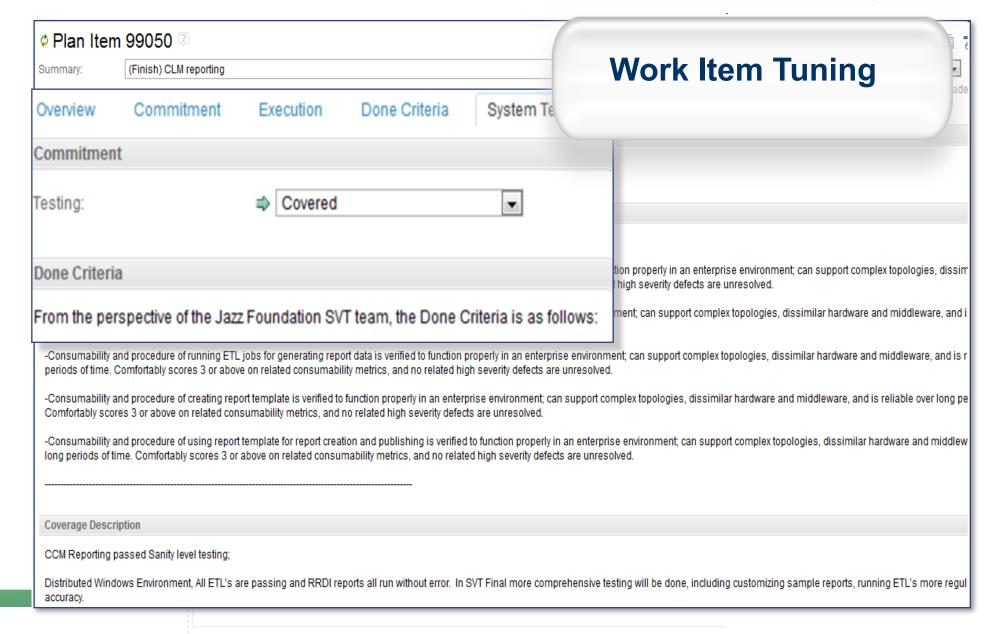
- ...leverage out-of-the-box templates that support traditional and agile workflows?
- ...change process "on the fly" as part of a continuous feedback loop?
- ...allow team leads to determine how strict or lax the "rules of the road" should be?
- ...modify process enforcement over the life of a project, to encourage early-stage experimentation and end-game stability?





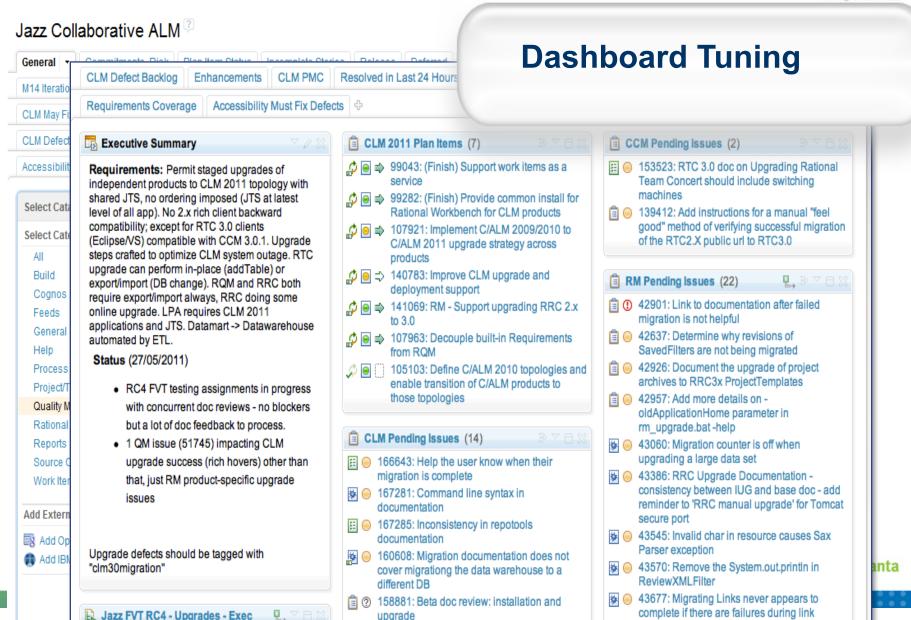
Jazz team continuously improves





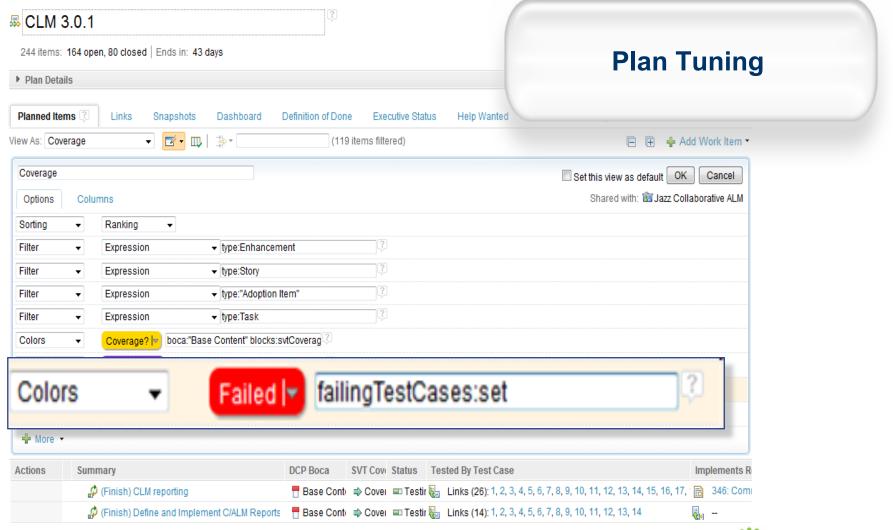
Jazz team continuously improves





Jazz team continuously improves







Continuous Improvement reduces cost by:



- Enabling breakthrough improvement 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 through user interfaces that are easy to customize and 'in-flight' changes to process
- 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



Five Imperatives for <u>Effective Application Lifecycle Management</u> to improve organizational productivity



Maximize product value with In-Context Collaboration



Accelerate time to delivery with Real-Time Planning



Improve quality with Lifecycle Traceability



Achieve predictability with Development Intelligence



Reduce costs with Continuous Improvement

Learn more at ALM Everywhere





IBM Rational solution for Collaborative Lifecycle Management

Improve productivity with an integrated ALM solution

- Optimize your team through support of the 5 ALM Imperatives
 - In-context collaboration
 - Real-time planning
 - Lifecycle traceability
 - Development Intelligence
 - Continuous Improvement
- Lifecycle Integration supporting multiple programming languages and platforms
- Get up and running quickly
- Extend as your needs evolve
- Robust educational content





Leveraging the Power of Jazz and OSLC

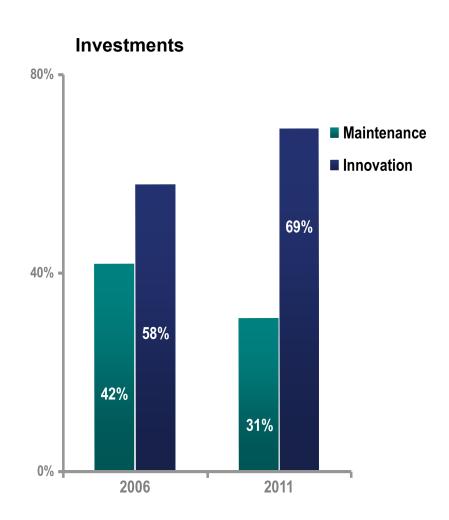
Transparent collaboration and exchange of ideas





Rational Transformation: Improved Efficiency Means More Innovation

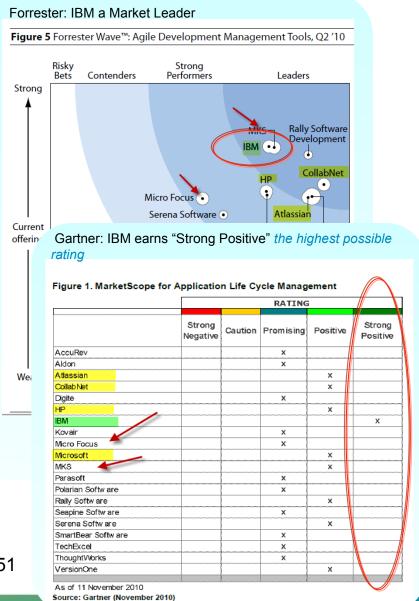


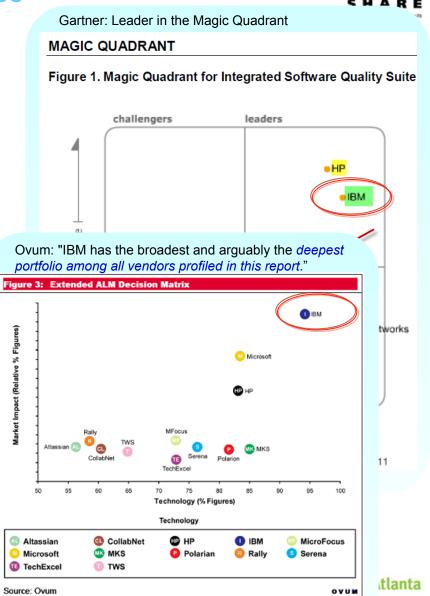


Efficiency Measures	2006 > 2011	
On time delivery	47%	95%
Defect backlog in months	>9	2.7
Beta defects fixed before GA	3%	95%
Agile / iterative projects	5%	85%



IBM leadership dominates marketplace





Get Started! Collaborative Lifecycle Management





watch videos

☑ see a project dashboard

✓ review the release plan

Try it out at jazz.net!

1 Download RTC, RRC or RQM for CLM

https://jazz.net/downloads/rational-team-concert/

Sample scenarios for CLM

https://jazz.net/wiki/bin/view/Main/MTM_Lifecycle_Welcome

Track our progress at jazz.net!

We openly develop our software with our own tools!

https://jazz.net/projects/clm/

Interactive White Board



Short, simple way to share the 5 ALM imperatives

ibm.co/alm-everywhere

WWW Search "ALM Imperatives"

Role-based Demo



VP of Development, a Business Analyst or Project Owner, Agile Team Lead, Developer and Test Lead.

bit.ly/jazzCLMarker in Atlanta

Summary



- Software is integral to business success the best and brightest companies use software to propel innovation
- Effective ALM provides the ability to innovate while reducing overhead costs -whole-team, whole-view approach to the software delivery cycle.
- The solution for IBM Rational Collaborative Lifecycle Management (CLM)
 provides capabilities that fully support an effective ALM approach and you can
 customize or start your ALM journey based on your unique pain points
- IBM Rational leverages the CLM solution to drive business results its our own organization
- IBM Rational has the offerings best practices, tooling and services that can help you achieve business results



















www.ibm.com/software/rational

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