

IBM DevOps Solution: Collaborative Development to Spark Innovation and Integration Among Teams

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Abstract



Businesses today are in a constant struggle to keep strategic goals, objectives and projects connected, and not miss out on valuable windows of opportunity. But it can be difficult to gather input, collaborate on design and understand the needs of stakeholders across the business and IT. Without insight into application structure, relationships and dependencies during development and testing, the result may be software that does not meet market needs or business requirements.




This session will discuss the considerations for collaborative application development. Application development cannot be sustained in disjointed silos. New mobile, social, big data and analytics projects demand a development process that is fast, integrated, creative and affordable. Teams need to work closely with one another, regardless of the deployment platform used to run the components of their applications. The needs of the business can change quickly too, making it necessary to re-prioritize work quickly and shift resources to different projects efficiently. Learn how advanced, productive and unified development environments and middleware from Rational® and CICS® can help you apply talent across boundaries and keep the focus on innovation and high-quality code development and test.

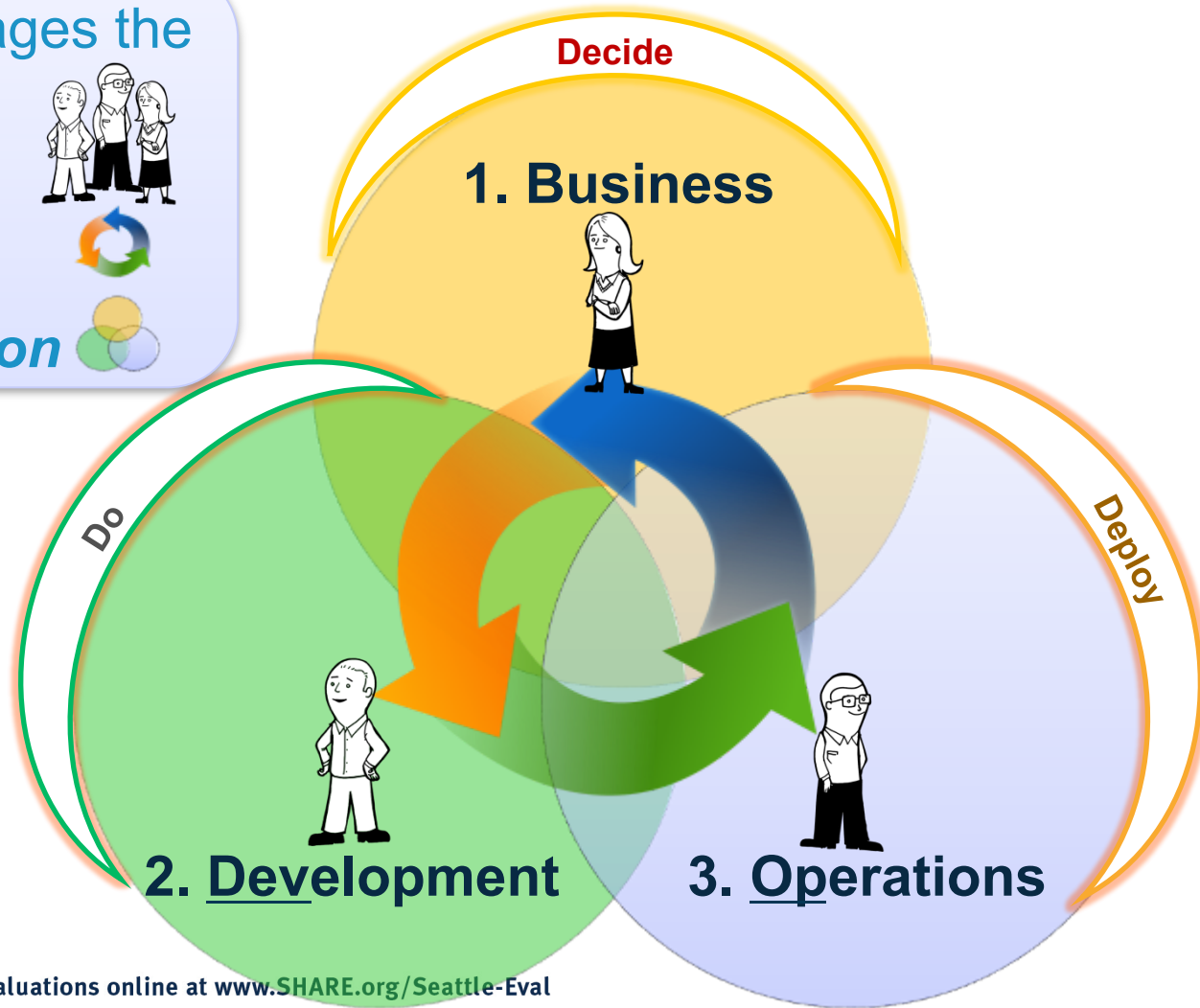

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Application Lifecycle Management can help break down the barriers to effective software delivery any team can face...

ALM manages the flow of:

- People** 
- Process** 
- Information** 



What happens if you do nothing?

When failure is not an option...

“What happens if you can’t easily or effectively integrate your most critical software delivery applications?”



“What happens if your deliverable date slips?”



“What happens if you can’t effectively manage product quality before your ship/release?”



***Only 47% are successful, 36% are challenged, and 17% are failures**



Software failures do have impact the bottom line!

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*Source: 2010 IT Project Success Rates, 2010 – Scott Ambler [LINK](#)

What is required to deliver end-to-end visibility across teams, tools and projects?

Five Imperatives for Effective Application Lifecycle Management 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**



imperatives help answer questions such as these

Can your team(s)...

...find all the information related to a specific task?

...instantly see the impact of project changes

...see what requirements we're implementing in a given release/milestone?

...provide a single view of project health at multiple levels?

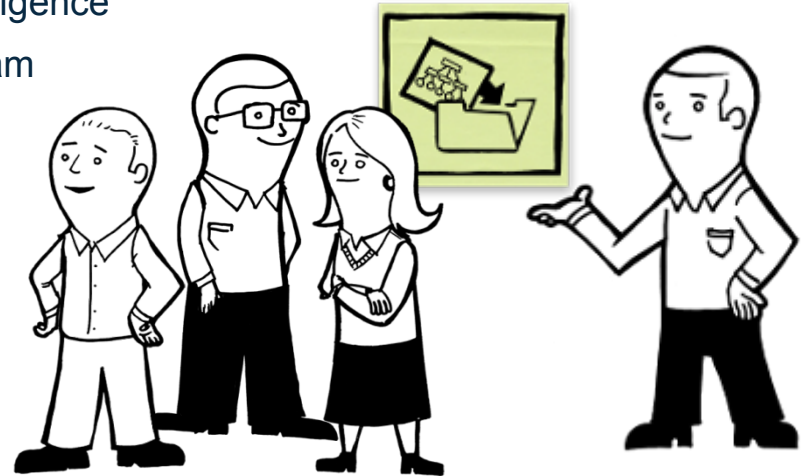
It's not all or nothing!

Tackle the ones causing the greatest pain.



In-Context Collaboration improves product value

- Teams can collaborate on and review software development artifacts while **incorporating feedback early and often to continuously** align delivery with the stakeholders' vision
- Provides a **single source of truth** hosted in a shared repository so team members can collaborate effectively around the globe and build a collective intelligence
- Makes **information immediately accessible** to all team members in the context of their work



Real-Time Planning accelerates time to delivery

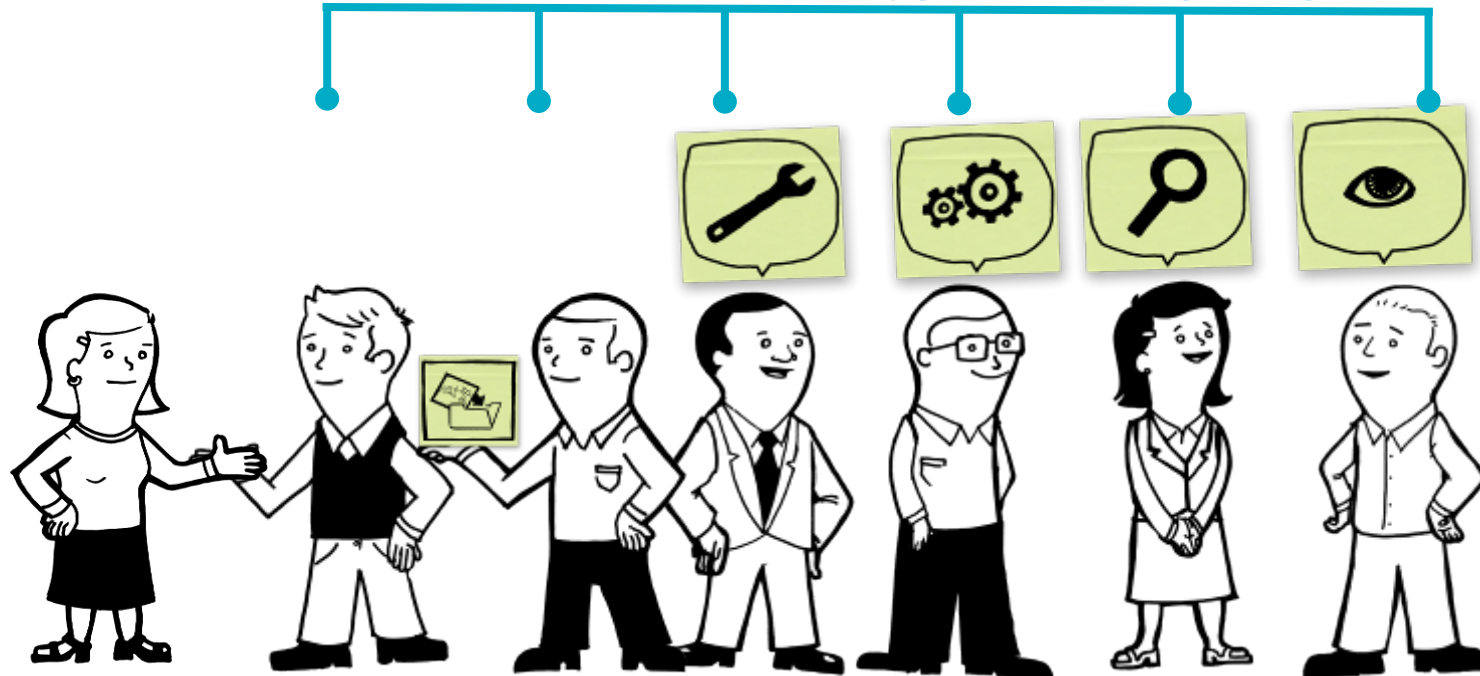
- Provides a **single plan** that spans requirements, development, and test, ensuring the whole team understands the overall scope of a project
- **Integrates planning with execution** ensuring the entire team understands the true project status
- Allows **everyone to participate** in keeping the plan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



Lifecycle Traceability supports compliance, 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

Instant access to details from any point in development process



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Customer

Final
Product

Build Environment
Artifacts

Supporting
Systems

Requirements
Management

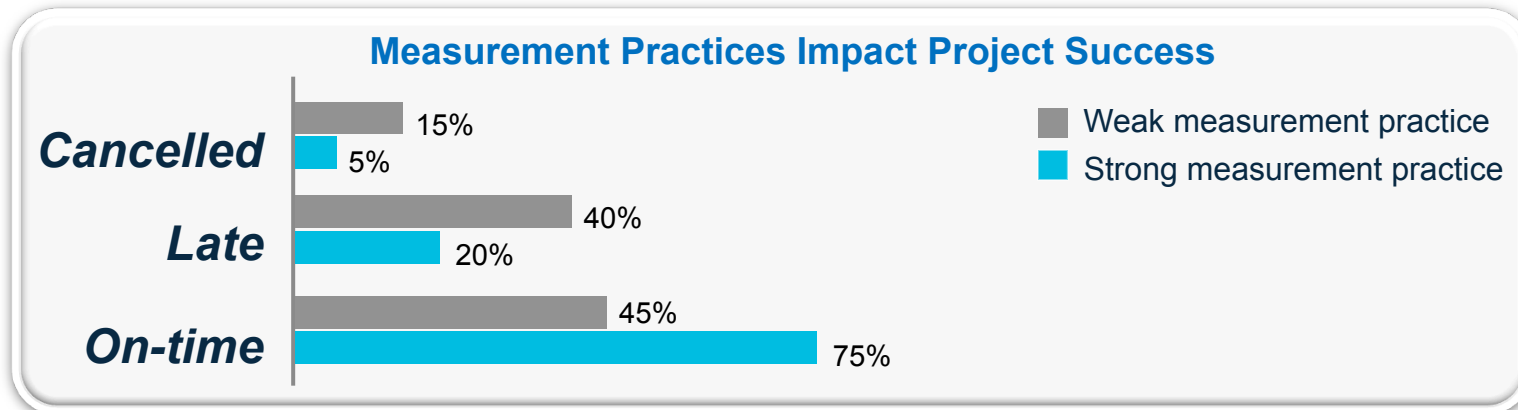
Initial Idea... in Seattle 2015



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



Continuous Improvement reduces cost

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

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Capers Jones, Software Engineering Best Practices, Copyright © 2010 McGraw-Hill



Proven capabilities for accelerating software delivery

Reduce the costs of inefficient, multiplatform software delivery!

- **Focus on the five imperatives** to establish effective ALM
- **Create resilient designs** by involving more stakeholders with integrated design
- **Prioritize entry point;** extend as needs evolve
- **Leverage open Jazz platform** to unify and protect current infrastructure investments
- **Fill in gaps and unify** across diverse lifecycle toolset by integrating ALM tools and Rational capabilities with latest Lifecycle Integration Adapters
 - *Standard Edition*: connects HP, Jira, Git tools
 - *Tasktop Edition*: provides additional use cases; connects Microsoft Visual Studio and Bugzilla tools



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Multiplatform Development

A Common platform for all types of development

- Common Eclipse-based IDEs
- Broad coverage of technologies, languages, and platforms
- Connect systems of record to systems of engagement and apply talent across boundaries while keeping the focus on innovation

- ✓ Modern tools to attract new talent
- ✓ 22-37% improvement in developer productivity¹

- Rational Developer for the Enterprise v9.0*
 - Rational Developer for z V9.0
 - Rational Asset Analyzer
- * Includes
IBM Worklight

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¹ Aggregation of results from a productivity study conducted by IBM System z customers.



Rational Developer for the Enterprise:

THE Premier Integrated Development Environment for System z & Multi-Platform Development

Integration with Team Concert for Lifecycle and Source Management

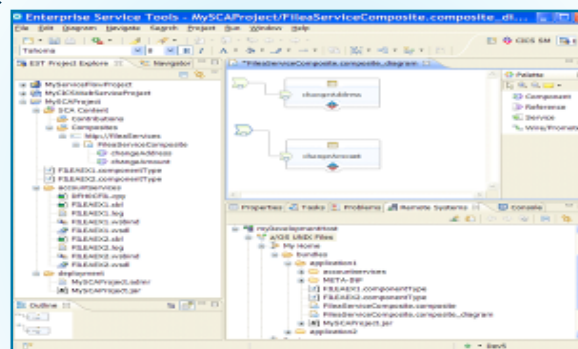


Access to typical System z sub-system functionality in z/OS, CICS, IMS, DB2, WAS



Rational Developer for System z

A modern IDE for productive development of cross-platform applications written in COBOL, PL/I, ASM, Java, EGL or C/C++ in System z CICS, IMS, DB2, Batch applications



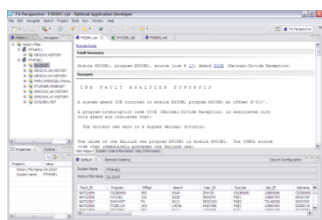
Robust Mobile Development in conjunction with Worklight



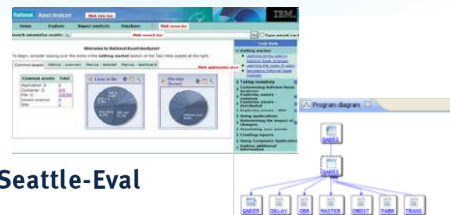
Integration with RD&T for flexible access to System z environment



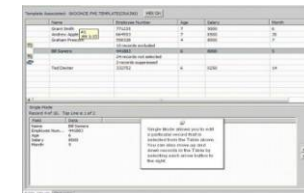
Integration with Fault Analyzer for Dump Analysis



Integration with Asset Analyzer for Application Understanding and Impact Analysis



Integration with File Manager and Fault Analyzer for file and test data handling and Dump Analysis

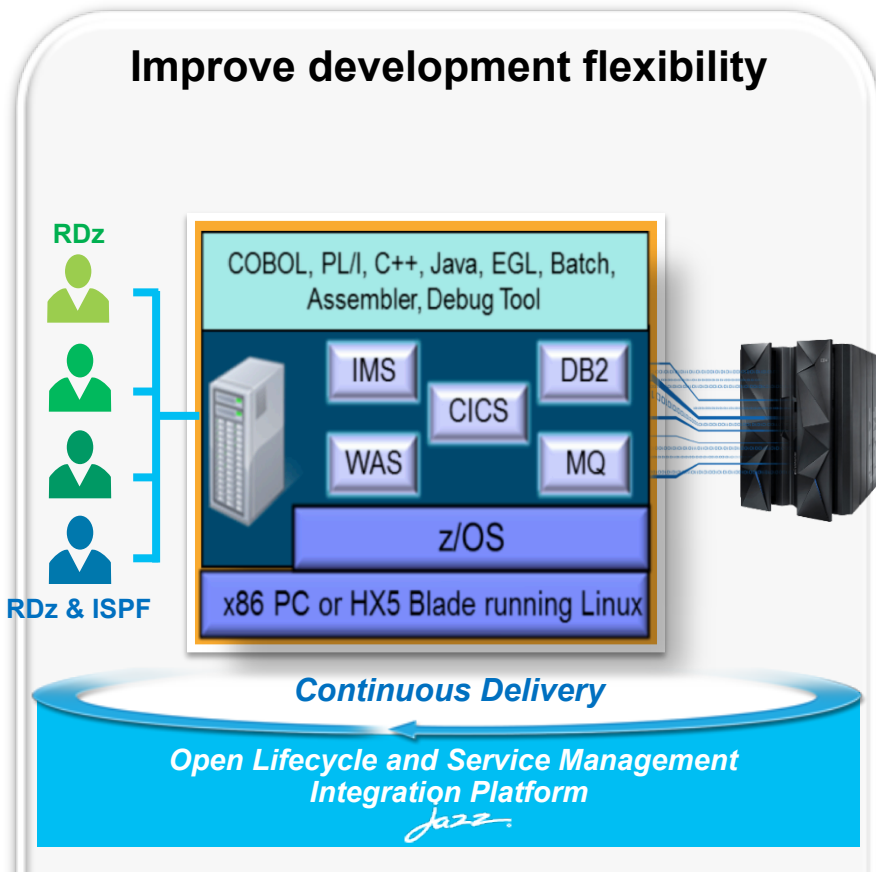


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Cost Effective Off-Host Development and Unit Test

Offload testing to reduce MIPS, improve development flexibility

- DevOps will dramatically increase build and test activity
- Makes it affordable by offloading from System z
- ✓ Liberate developers to rapidly prototype new applications
- ✓ Free up mainframe development MIPS for production capacity



▪ IBM Rational Development and Test Environment for System z

Nationwide embraces DevOps to drive continuous delivery across platforms and improve speed to market

50% increase
in software **quality** over
the last three years

90% on-time delivery
vs. 60% previously

70% decrease
in user downtime

58% of developers moved to
industry top quartile in
productivity measures

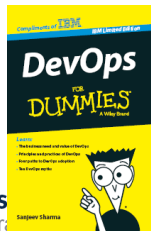


“We’re more agile as a business and more responsive to our customers. Collaboration has become an expected part of our culture.”

— **Steve Farley**, Vice President,
Application Development Center, Nationwide

Take Action Now!

- Develop an end-to-end DevOps strategy
- Adopt mobile-first design thinking, and cloud-centric architectures
- Start incrementally on business-critical projects
- Measure and reduce overhead, rework and duplication
- Innovate! It's a great time to be in the technology business
- Get your free guide to faster, continuous software delivery with DevOps



<http://ibm.co/devopsfordummies>

It is not a typo...use .co not .com

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