

Value of IBM Rational Collaborative Lifecycle Management Solution

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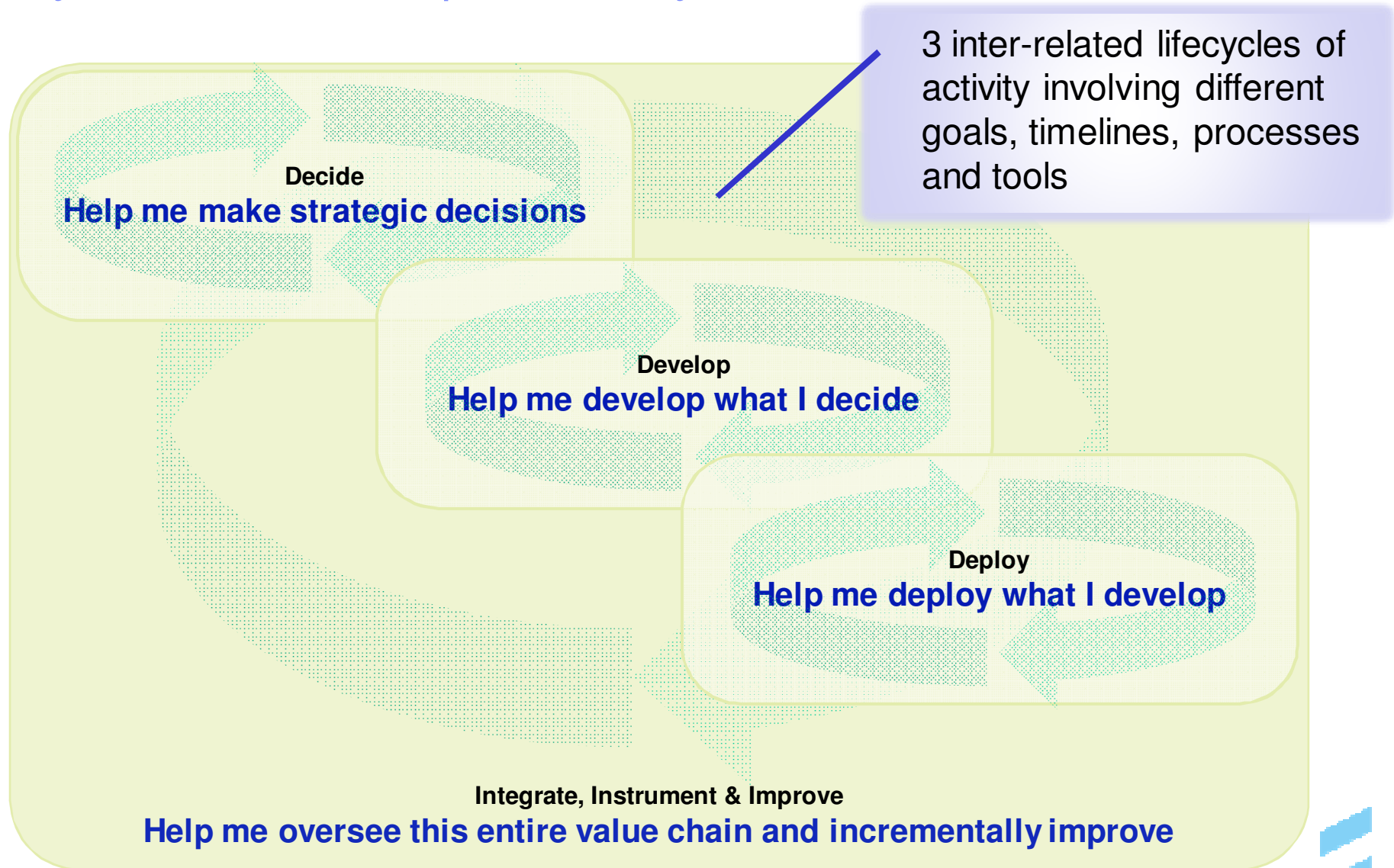
Agenda



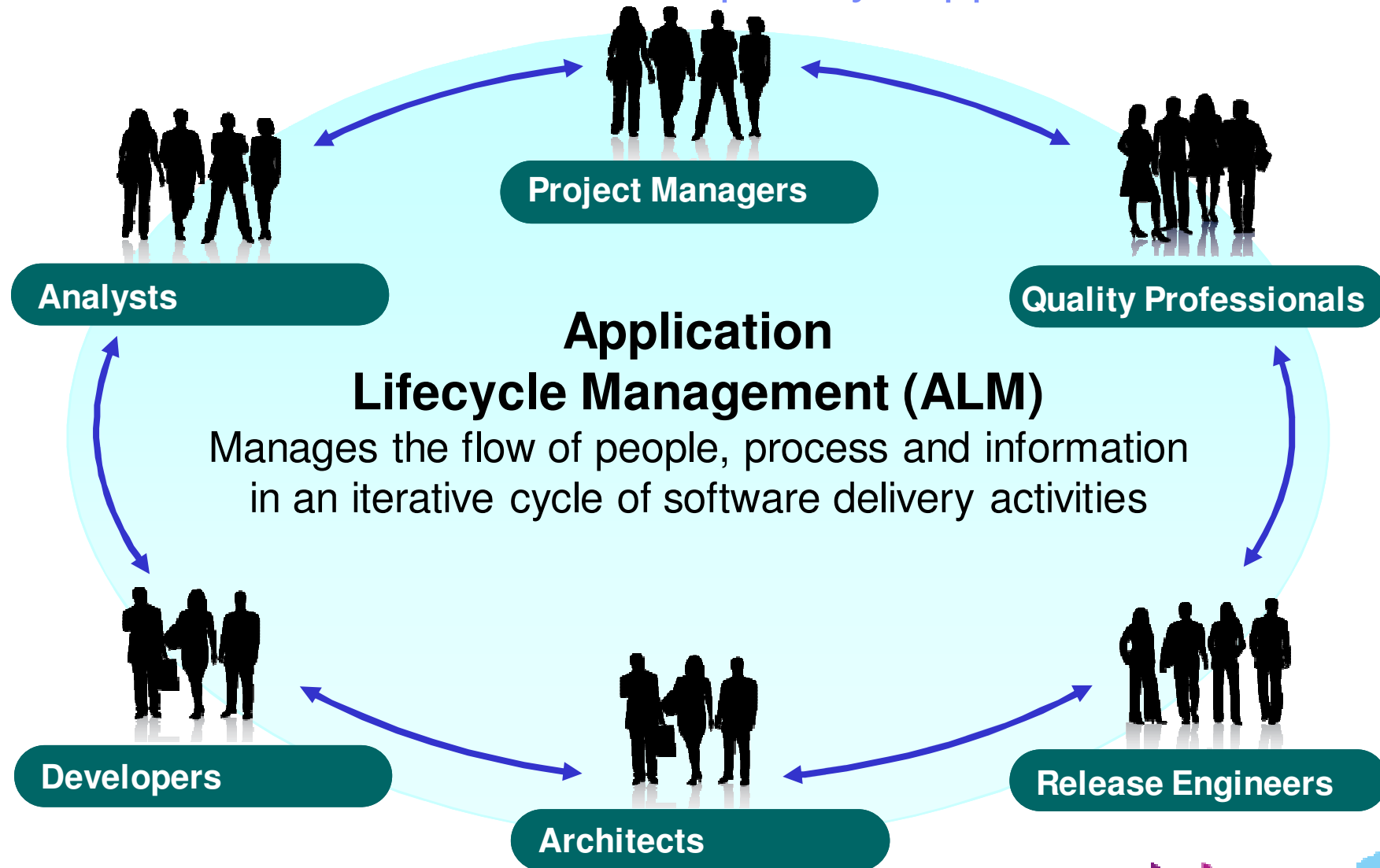
- 1 Application Lifecycle Management (ALM)
- 2 IBM Rational Collaboration Lifecycle Management (CLM)
- 3 Delivering the 5 ALM imperatives
- 4 Summary



Key Software development lifecycles



ALM addresses the breadth of capability support needed



Agenda



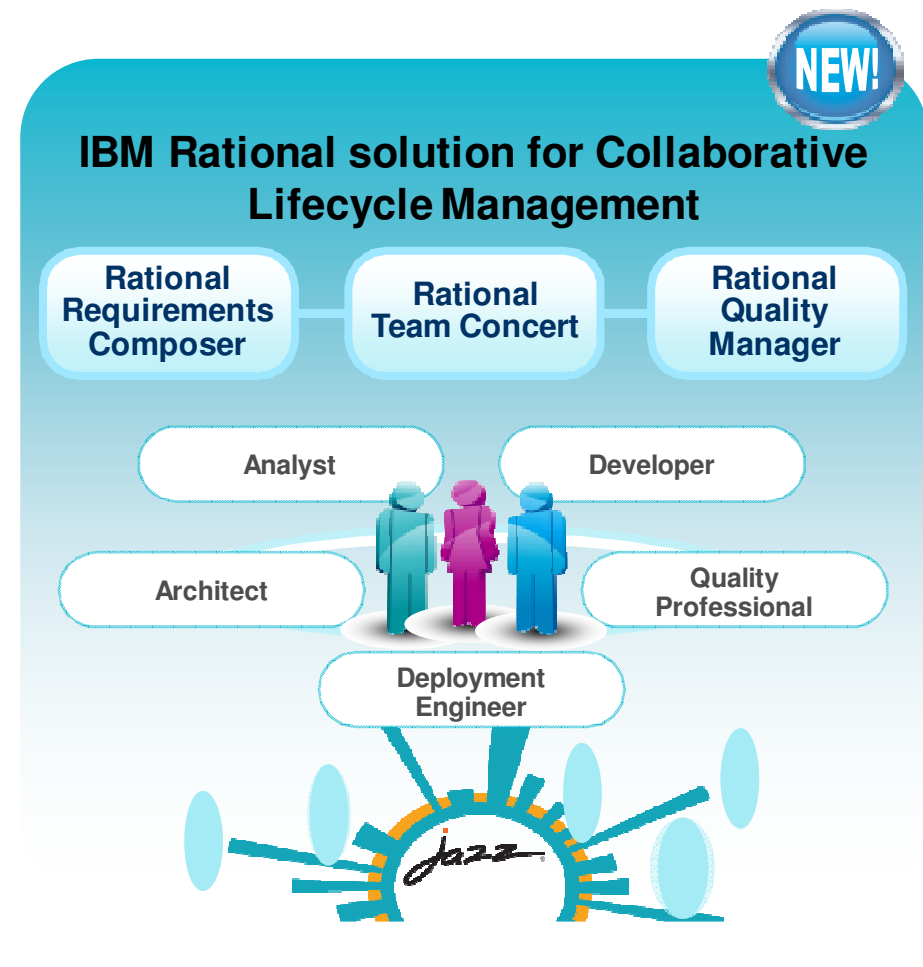
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IBM Rational solution for Collaborative Lifecycle Management

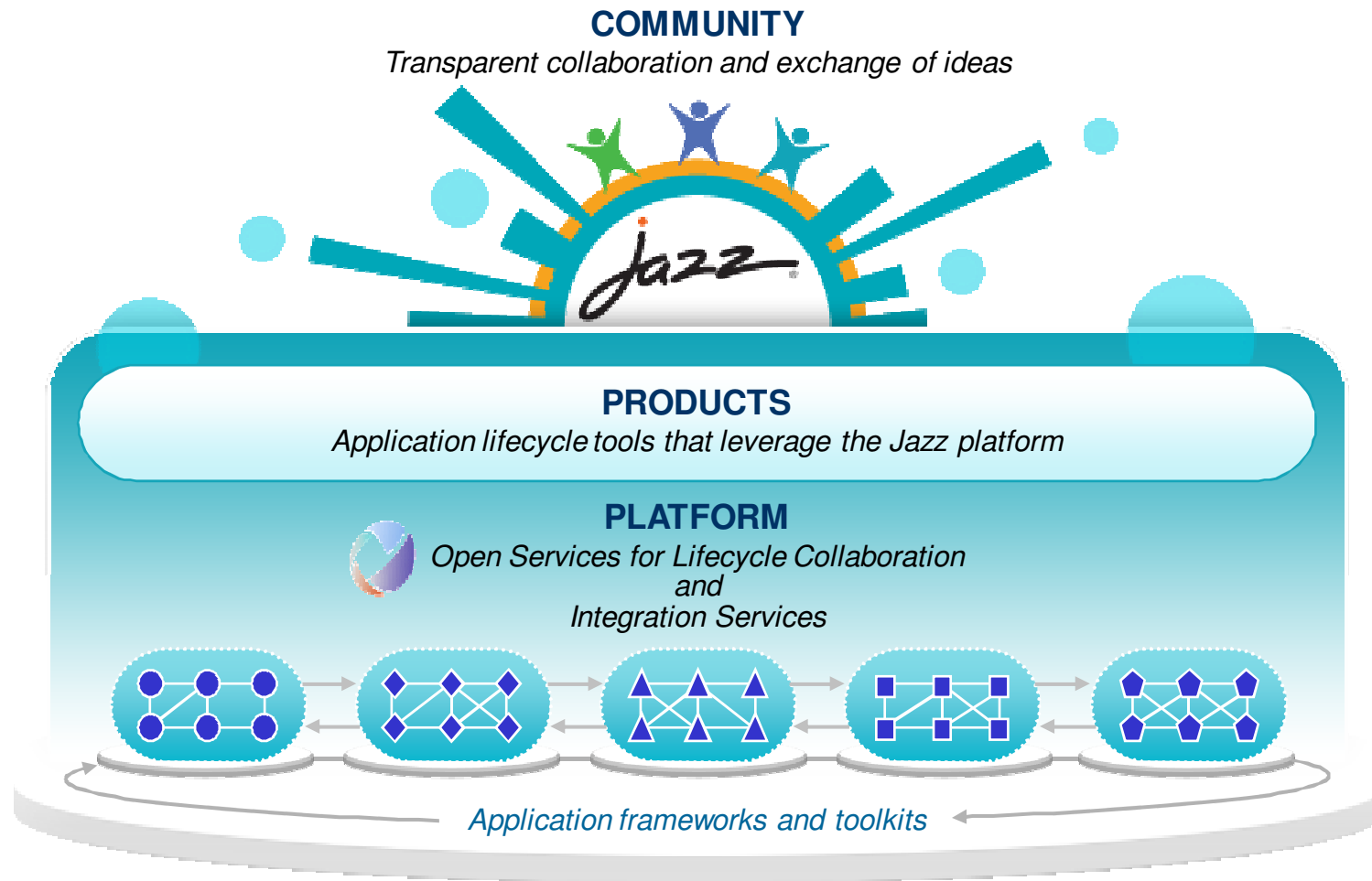
Improve productivity by 4-6% annually with an integrated ALM solution

- **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/>

Jazz provides open collaboration across the software and systems lifecycle



Learn more at: <https://jazz.net/about/>

Open Services for Lifecycle Collaboration (OSLC)

An initiative aimed at simplifying data linking and tool integration across the lifecycle



Open Services for Lifecycle Collaboration

Barriers to sharing resources and assets among tools

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

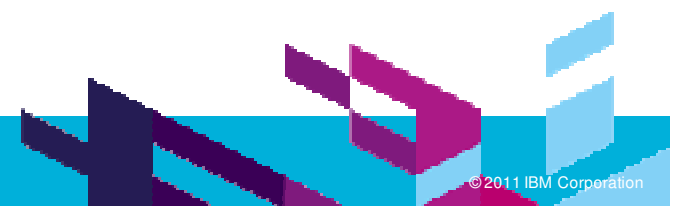
- ▶ Community Driven – specified at **open-services.net**
- ▶ Specifications for ALM, PLM and DevOps Interoperability
- ▶ Inspired by Internet architecture
 - Loosely coupled integration with “just enough” standardization
 - Common resource formats and services
- ▶ A different approach to industry-wide proliferation

Learn more at: <http://open-services.net/>

Agenda



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



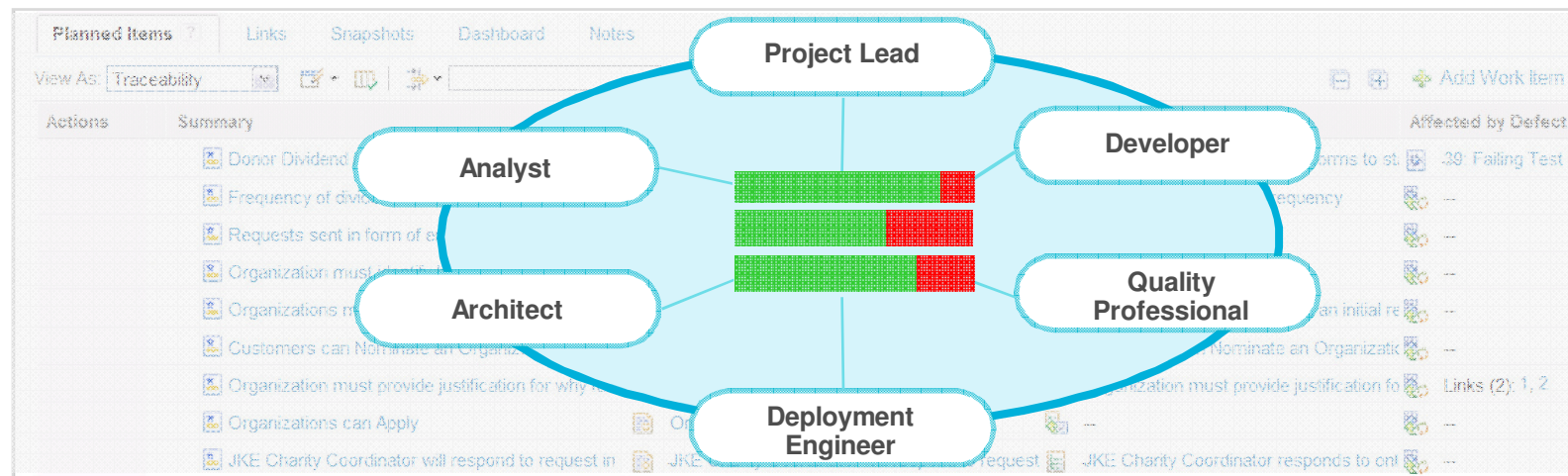
Criteria for effective lifecycle management: ALM imperatives

1. Real-time Planning
2. Lifecycle Traceability
3. In-Context Collaboration
4. Development Intelligence
5. Continuous Improvement

What is Real-time Planning?

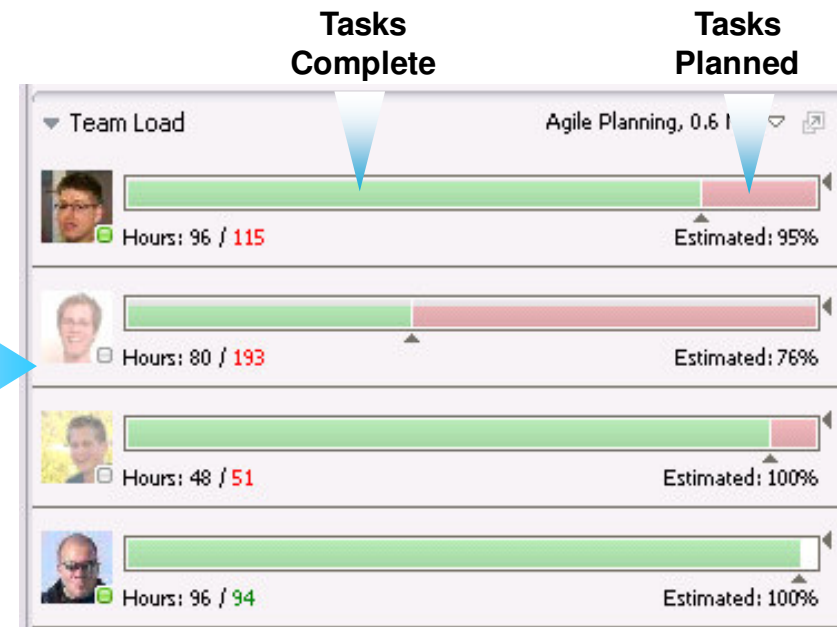
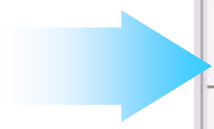
Real-time Planning improves time to delivery by:

- ▶ 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

Priority	Scheduled Date	Open Tasks	Assigned To	Title	Changed Date	Open/Closed Status
1	4/12/2009 9:34 AM	12	Jason Park	Build failure - search failed	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - search never started	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Carl Larkin	Build failure - ADXMS elements to all public methods in our API	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Ram Chandra	Build failure - called at boot	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Stephanie Kahl	Build failure - get fails repeatedly	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Stephanie Kahl	Build failure - build break in CI	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - notification for failed build items partially loaded from	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - Show 'My Dashboard' button and 'My Dashboard' button	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - Try to send 'Checkin' to get the this record or build script	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - Delay in team build time out when the job is large	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - build complete a target with error fails but no build log output, and the	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - Add buildMethod to build item error message with build item	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - build item build failed by an external error 'no record outside the	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - build agent & controller status shown incorrectly in Team Foundation	3/25/2009 9:20 AM	1
1	4/12/2009 9:34 AM	12	Jim Boyle	Build failure - Build Default View Name of build status view appears as 'System.Mat	3/25/2009 9:20 AM	1
2	4/12/2009 7:40 AM	28	Jason Park	Error found building the user help notification functionality	3/25/2009 9:20 AM	1
2	4/12/2009 7:40 AM	28	Jim Boyle	Error found building the menu item view	3/25/2009 9:20 AM	1
2	4/12/2009 7:40 AM	28	Ram Chandra	Error found building the menu selection screen	3/25/2009 9:20 AM	1
2	4/12/2009 7:40 AM	28	Jim Boyle	Error found building the order with screen	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Jason Park	Missing images in error	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Jim Boyle	Crash after all tasks between items	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Jim Boyle	Ability to sort fields after loading	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Ram Chandra	Choosing columns dialog is very confusing	3/25/2009 9:20 AM	1
3	4/12/2009 7:40 AM	28	Stephanie Kahl	Error found building the map view	3/25/2009 9:20 AM	1
3	4/12/2009 7:40 AM	28	Carl Larkin	Build failure - Tests that use buildMethod in all onCopyOperations are failing	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Stephanie Kahl	Setting on item 'ID' doesn't work	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Ram Chandra	Choosing columns dialog is very confusing	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Jim Boyle	Build failure - First opened build fails when build item is stopped while a build is	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Stephanie Kahl	Build failure - source code failure in build	3/25/2009 9:20 AM	1
3	4/12/2009 6:40 AM	12	Jim Boyle	Build failure - Remove the build item property from the get task	3/25/2009 9:20 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		Marco

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

Insure alignment across the business, development and test teams

The screenshot displays the IBM Rational Change Management interface for a project named "JKE Banking (Change Management)". The user is logged in as "Bob". The main view is the "Release 1.0 Backlog", which contains 26 items (19 open, 7 closed) and ends in 24 days. The "Links" tab is selected, showing a list of related items:

- Planned Items** (selected)
- Links** (selected)
- Snapshots**
- Dashboard**
- Notes**

Under the "Links" tab, the following items are listed:

- Add:** Contributes To Plan
- Related Plans:** Product Backlog [Product Backlog] (0/0 pts)
- Implements Requirement Collection:** 344: Release 1 Planning
- Tested by Test Plan:** 10: JKE Banking Release 1

Plan at the right level of detail

- Everyone participates in planning

- ✓ Plans include all work!
- ✓ All team members,
- ✓ All types of work

- ✓ Stories decomposed into the right set of tasks

BRM Sprint 2 (1.0) Plan

View AS: Work Breakdown (5 items filtered)

Actions	Summary	Effective Estimate	Progress	Status	Work Item Type	Change Sets	Attachments
	Improve link colors	1 hour	0/1 h	New	Defect	--	--
	Donor Dividend Allocation Criteria	--	0/5 pts 0/20 h	In Progress	Story	--	Links (2...)
	Implement - Donor Dividend A...	2.5 days	0/20 h	New	Task	--	--
	Update router module with ne...	--	0/0 h	In Progress	Task	Changes in P...	--
	create new service for validati...	--	0/0 h	In Progress	Task	Changes in W...	--
	Performance on first startup is bad	2 hours	0/2 h	New	Defect	--	--
	Some links are not working	5 hours	0/5 h	New	Defect	--	--
	Frequency of dividend transfer	--	0/13 pts 0/40 h	New	Story	--	--
	Requests sent in form of email	--	0/8 pts 0/32 h	New	Story	--	--

Team Overview:

- Bob: Closed Items: 1 | Open Items: 3
- Deb: Closed Items: 0 | Open Items: 3
- Marco: Closed Items: 2 | Open Items: 11
- Tanuj: Closed Items: 0 | Open Items: 0
- Unassigned: Closed Items: 0 | Open Items: 2

Progress: 0/9 | -8 h Estimated: 100%

Progress: 0/100 | -87 h Estimated: 78%

Progress: 12/52 | -33.25 h Estimated: 91%

No Work Progress: -- Estimated: --

Plans tied to execution

- Deliverables and Work Products show results

BRM Sprint 2 (1.0) Plan

28 items: 25 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items ? Links

View As: Work Breakdown

Bob
Closed Items: 0 | Open Items: 3

Deb
Closed Items: 0 | Open Items: 3

Actions	Summary	Effective Estimate	Progress	Status	Work Item Type	Change Sets	Attachments
	Improve link colors	1 hour	0/1 h	New	Defect	--	--
	Donor Dividend Allocation Criteria	--	0/5 pts 0/20 h	In Progress	Story	--	Links (2...)
	Implement - Donor Dividend A...	2.5 days	0/20 h	New	Task	--	--
	Update router module with ne...	--	0/0 h	In Progress	Task	Changes in P...	--
	create new service for validati...	--	0/0 h	In Progress	Task	Changes in W...	--
	Performance on first startup is bad	2 hours	0/2 h	New	Defect	--	--
	Some links are not working	5 hours	0/5 h	New	Defect	--	--
	Frequency of dividend transfer	--	0/13 pts 0/40 h	New	Story	--	--
	Requests sent in form of email	--	0/8 pts 0/32 h	New	Story	--	--

Marco
Closed Items: 2 | Open Items: 11

Tanuj
Closed Items: 0 | Open Items: 0

Unassigned
Closed Items: 0 | Open Items: 2

Progress: 12/52 | -33.25 h Estimated: 91%

No Work

Progress: -- Estimated: --

Change Sets & Attachments are better !

Progress & Status are good indicators of execution.

Rankings improve clarity

- Team clearly understand the goals

BRM Sprint 2 (1.0) Plan

28 items: 25 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items ? Links Snapshots Dashboard Notes

View As: Ranked List

Actions	Summary	Story Points	Effective Estimate	Priority	Rank
	Search is not finding this term	--	1 hour	High	1
	Improve link colors	--	1 hour	High	2
	Login not working anymore	--	5 hours	High	3
	Donor Dividend Allocation Criteria	5 pts	--	High	4
	Implement - Donor Dividend Allocation Criteria	--	2.5 days	High	5
	Logout is not working anymore	--	3 hours	Medium	6
	Performance on first startup is bad	--	2 hours	Medium	7
	Some links are not working	--	5 hours	Medium	8
	Implement - Frequency of dividend transfer	--	1 week	Medium	9
	SWT Exception	--	1.5 days	Medium	10
	Implement - Requests sent in form of email	--	4 days	Medium	11
	Implement - Organization must identify how much money is desired	--	1.5 days	Medium	12
	Implement - Organization must provide justification for why funds are nee...	--	4 hours	Medium	13
	Implement - Organizations can Apply	--	1 day	Medium	14

Annotations:

- ✓ Rankings are better!
- ✓ Priorities are good.

Align Plans to improve your time to delivery

- ✓ No wasted effort – development is qualitative and aligned to the agreed upon requirements at the right time
- ✓ Quality Assured – test teams know exactly what requirements and functionality have and haven't been tested
- ✓ Whole team buy-in improves team trust, efficiency and focus

Developers understand the business needs and test effort




Testers understand Sprint Plans and business expectations

Requirements owners clarify the business needs in a collection



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?

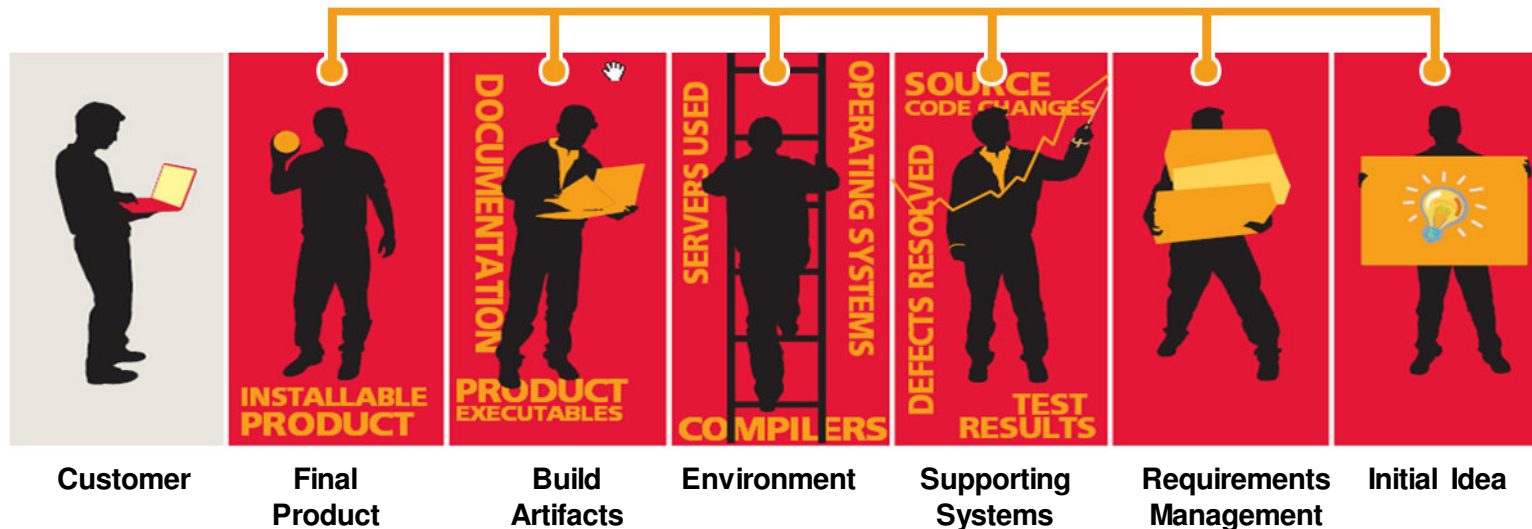


What is Lifecycle Traceability?

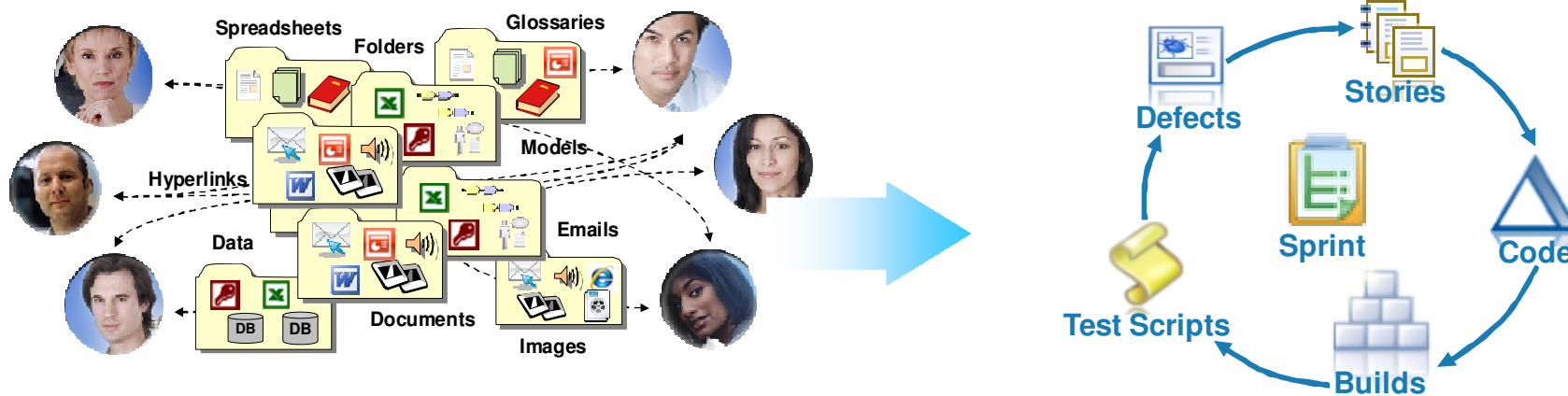
Lifecycle Traceability improves quality by:

- ▶ 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 shows a software development tool interface. On the left, a panel for 'Story 64' is visible with sections for Summary, Overview, Attachments, Links, Implements Req, and Tested By Test Case. A green line connects this panel to a larger, detailed hover window on the right. The hover window displays the following information:

- Title:** 29: Customers can nominate an organization for the program
- Description:** Requirement: Customers can Nominate an Organization Brief Description Customermay 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

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 Auto-Save Save

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

Plan Details Edit

Planned Items Links Snapshots Dashboard Notes

View As: Traceability Type to Filter (17 items filtered) Add Work Item

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 needed	Marco	Organization must provide justification for why funds are needed	Organization must provide justification for why funds are needed	--
	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 money is desired	Links (2)
	Donor Dividend Allocation Criteria	Deb	Donor Dividend Allocation Criteria	Donor dividend allocation conforms to criteria	--
	Organizations may apply with an initial request	Bob	Organizations may apply with an initial request	Organizations may apply with an initial request	--
	JKE Charity Coordinator will respond to request in the website	Marco	JKE Charity Coordinator will respond to request in the website	JKE Charity Coordinator responds to request in the website	425: Rur
	Customers can Nominate an Organization	Marco	Customers can nominate an organization for the program	Customers can Nominate an Organization	--

Team Leads have visibility into coverage & completeness

Tailor traceability View to highlight planning Gaps

BRM Sprint 2 (1.0) Plan

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

Link Type : value

Plan Details

Planned Items ?

View As: Traceability

Traceability

Options

Sorting

Filter

Colors

Colors

Colors

Colors

Colors

gap | testedByTestCase:unset

Defect | affectedbyDefect:set

Colors

gap | implementsRequirement:unset

gap | testedByTestCase:unset

Defect | affectedbyDefect:set

Actions	Summary	Owned By	Implements Requirement	Tested By Test Case	Affected by Defect
gap	Requests sent in form of email	Unassigned	Requests sent in form of email	--	--
gap	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 fund	Organization must provide justification fc	--
	Organizations can Apply	Marco	Organizations can apply	Organizations can Apply	--
Defect	Organization must identify how much money is desired	Marco	Organization must identify how much money is des	Organization must identify how much mc	Links (2): 1, 2
	Donor Dividend Allocation Criteria	Deb	Donor Dividend Allocation Criteria	Donor dividend allocation conforms to sl	--
	Organizations may apply with an initial request	Bob	Organizations may apply with an initial request	Organizations may apply with an initial re	--
Defect	JKE Charity Coordinator will respond to request in the we	Marco	JKE Charity Coordinator will respond to request in	JKE Charity Coordinator responds to onl	425: Running out of SW
	Customers can Nominate an Organization	Marco	Customers can nominate an organization for the pi	Customers can Nominate an Organizati	--

Team leads can improve quality and predictability

- ✓ Creating a shared vision delivers what the stakeholders want
- ✓ Whole team buy-in improves team trust, efficiency and focus
- ✓ Everyone knows what work is needed by whom and when.
- ✓ Traceability provides insight to knowing when you are DONE!

Developers understand the requirements, test criteria and test results

Work Items >
Story 67
Summary: * Donor Dividend Allocation Criteria
Overview Acceptance Links Approvals History

Attachments
Add File: Browse
No Attachments.

Links
Add: Related
Children
49: Implement - Donor Dividend Allocati
Implements Requirement
Document 12: Donor Dividend Allocation C
Tested By Test Case
16: Donor Dividend Allocation Criteria

16: Donor Dividend Allocation Criteria
Name: 16: Donor Dividend Allocation Criteria State: Draft
Description
Details
Weight: 1 Updated: 9/20/10 8:42:29 PM EDT
Originator: tanuj Trigger:
Calculated Risk: ○○○○○ Activity:
Community Risk: ○○○○○ Project Area: JKE Banking



67: Donor Dividend Allocation Criteria

Status Summary
New Donor Dividend Allocation Criteria

Details
Type: Story
Filed Against: JKE/BRM
Story Points: 5 pts
Progress:
Team Area: Business Recovery Matters / JKE Banking
Creation Date: September 10, 2010 8:42 PM

Quick Information
Subscribers (1): B
Implements Requirement (1): 1
Children (1): 49
Tested By Test Case (1)

Description
Donors should have the ability to choose allocation options for the

Requirement: Donor Dividend Allocation Criteria

Brief Description
Donors should have the ability to choose allocation options for their dividends to a cause. These options can include:

- Dividend Allocation By percentage
- Dividend Allocation By amount
- Define frequency of allocation

Applicable Roles

Overview
Comments
Links (7)
45: Donation by Amount
23: Frequency of dividend transfer
Link To (1)
17: Donor
Link From (1)
30: Business Recovery Matters Vision
Implemented By (1)
67: Donor Dividend Allocation Criteria

Teams collaborate and clarify the details of requirements



Testers define and execute tests cases with a clear understanding of requirements

Automated defect traceability reduces costs and improves quality

- ✓ 4-clicks to submit a defect automatically linked to impacted artifacts
- ✓ Test results are recorded and linked to test cases, and associated requirements
- ✓ Test results can be linked to software builds
- ✓ Everyone has visibility into the defects, their impact, and the action taken to resolve them



Testers execute tests and submit defects



Developers can see the exact test failure without having to ask and remediate it



Linked data is visible on all artifacts

- All roles can view the links on their artifacts.
- Each user has their own perspective and user interface for viewing links.
- Create, delete, navigate links on artifacts
- Example: Developer sees the relationships on a defect
- Traceability links on defects are automatically created

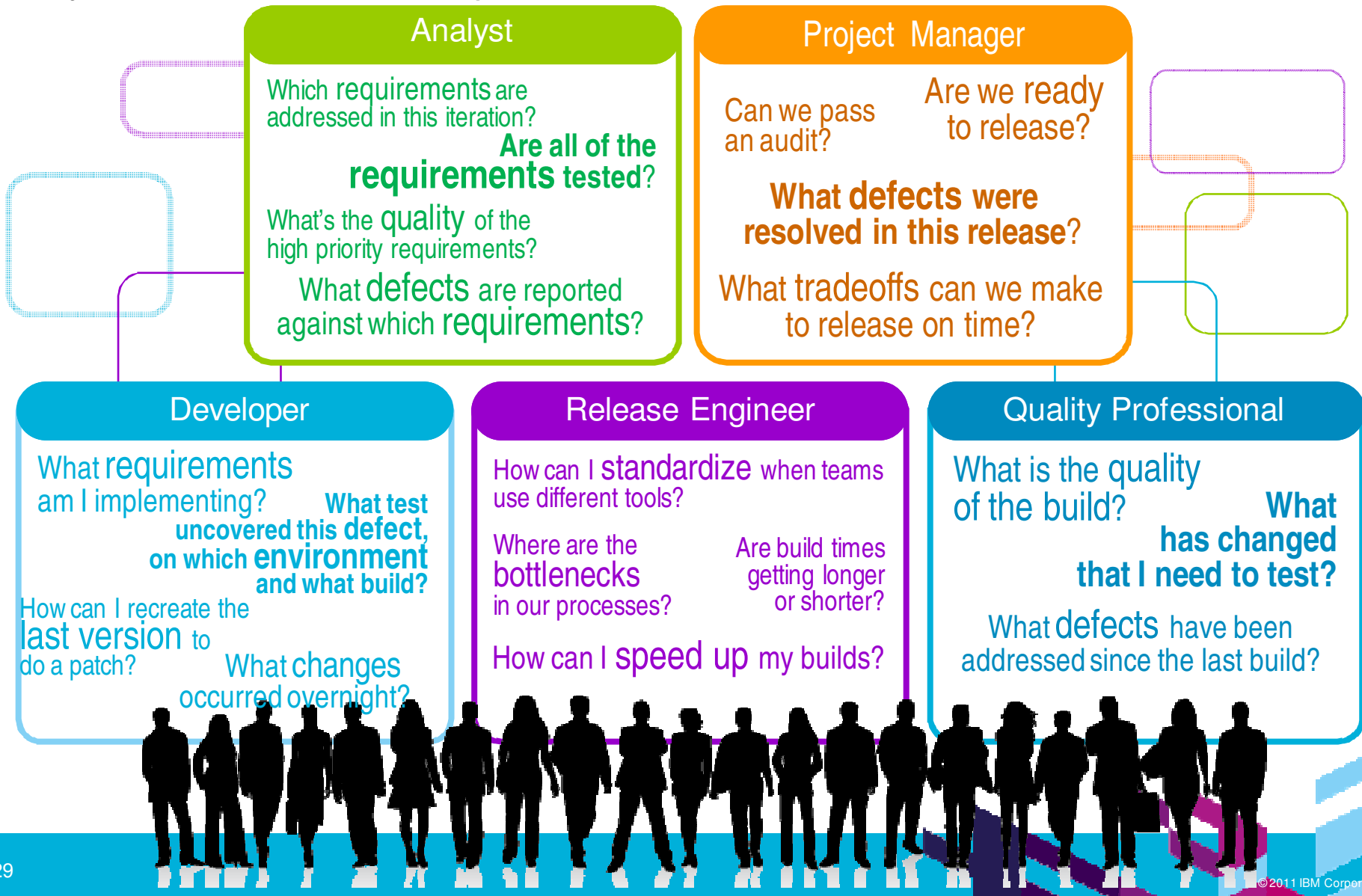
The screenshot shows a web interface for a defect titled "Defect 300". The summary is "Failing Test Case 'Allocate Dividends to Multiple Causes'". Below the summary are tabs for "Overview", "Links", "Approvals", and "History". The "Links" tab is active and highlighted with a green border. Under the "Links" section, there is a dropdown menu set to "Related". Below this, a list of linked artifacts is displayed, each with a relationship icon and a title:

- Affects Test Result
 - 14: Allocate Dividends to Multiple Causes
- Affects Requirement
 - 444: Donor Chooses Multiple Organizations
- Related Test Plan
 - 12: JKE Banking Sprint 2
- Blocks Test Execution
 - 13: Allocate Dividends to Multiple Causes
- Related Test Case
 - 97: Allocate Dividends to Multiple Causes
- Affects Plan Item
 - 284: Donors Can Choose to Support Multiple Organizations

Three large green arrows point from the left towards the "Links" section of the interface, highlighting the relationship types and the list of artifacts.

Test your lifecycle traceability capabilities

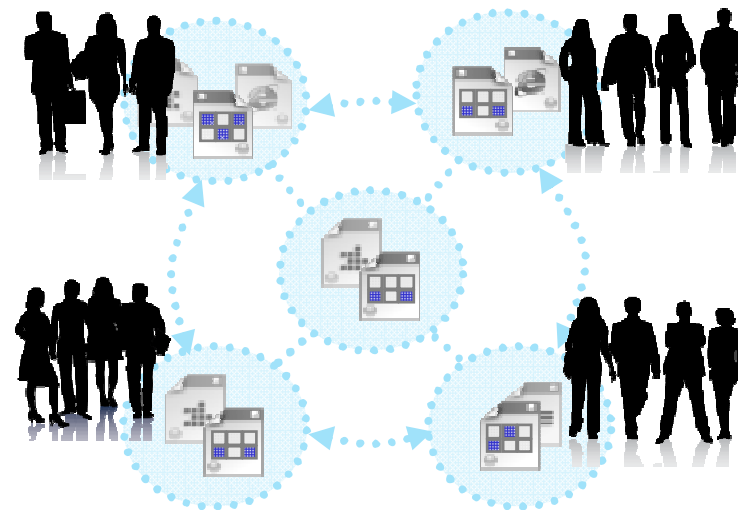
Can your team answer these questions...



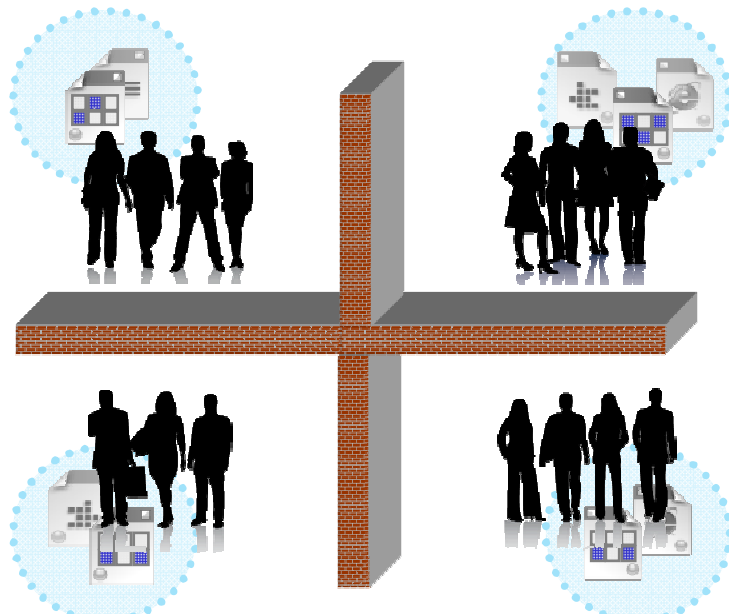
What is In-Context Collaboration?

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

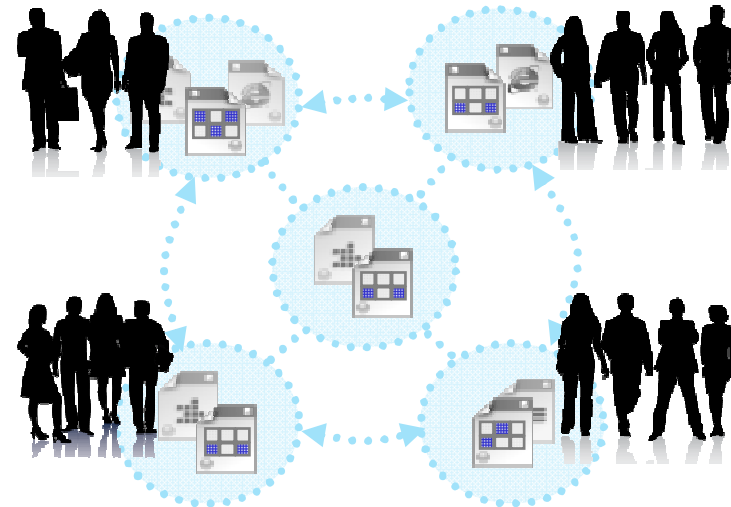
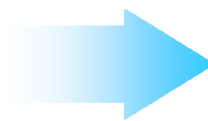


✗ Don't

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?"

Rich hovers automate information access without having to click

The screenshot shows a web application interface for 'Quality Management (jcm)' with a sub-section for 'JKE Banking (Quality Management)'. The main navigation includes 'Requirements', 'Planning', 'Construction', 'Lab Management', 'Builds', 'Execution', and 'Reports'. A 'Mini Dashboard' is visible on the left with a 'My Tasks' section. A rich hover menu is displayed over the '14: Release 1 Planning' item, showing a list of tasks (e.g., '58: Dividend processing payment is a one time transaction'), location information ('JKE Banking (Requirements)', 'Collections'), attributes ('Type: Release Collection', 'Format: Collection', 'Status: Approved'), and links ('Validated By (1): ...', 'Implemented By (1): ...').

✓ Rich hovers provide quick access to information to determine if additional details are required!

In-Context Collaboration always shows the latest

Comments (4)

- 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%
- 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.
- Tanuj to Bob 1 minute ago

What is the minimum percentage?
- Deb to Bob, Marco Now

RE: Percentage format - numer of decimal places #2]
Bob, is no decimal support acceptable to the business?

Threaded discussions on requirements

View All Artifacts

Page size: 20

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

Unread work Items bolded for developers

Dashboards summarize for quick access to the latest information

Comments in All Projects (6)

Deb 5 minutes ago

- Account Details
- Dividend allocation by percentage
- Dividend allocation by percentage
- Dividend allocation by percentage
- Dividend allocation by percentage
- Dividend allocation by percentage

Page 1 of 1



Requirements comment updates

Feeds focused on Requirement comments focus stakeholders on changes and strip out the noise of attributes changes etc..

Any changes to a Requirement

Feeds on all changes give project leads visibility into all requirements changes so that know exactly what is changing by whom and can access immediately assess the impact for the team.



Recent Changes in All Projects (100)

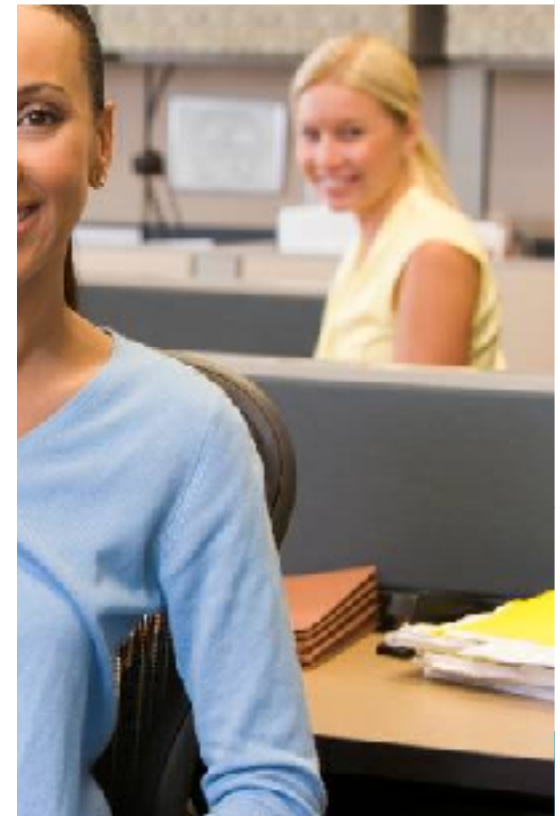
- Dividend Contribution to Multiple Organizations (122) Mar 26, 2011
- User Story Elaboration Template (121) Mar 26, 2011
- Dividend allocation by percentage (120) Mar 26, 2011
- Use Case Template (119) Mar 26, 2011
- Donors can choose to support an organization (118) Mar 26, 2011
- Allocating Dividends to Cause (117) Mar 26, 2011
- Allocate dividends by amount and frequency (116) Mar 26, 2011
- Donate wizard pg 1 (115) Mar 26, 2011
- Apply for Organizational Funding (114) Mar 26, 2011
- Core Functionality (113) Mar 26, 2011

Page 1 of 10

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?

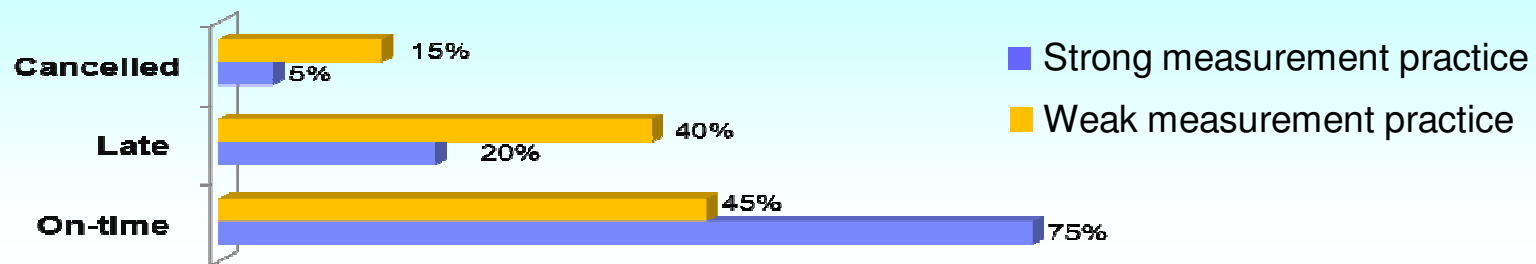


What is Development Intelligence?

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



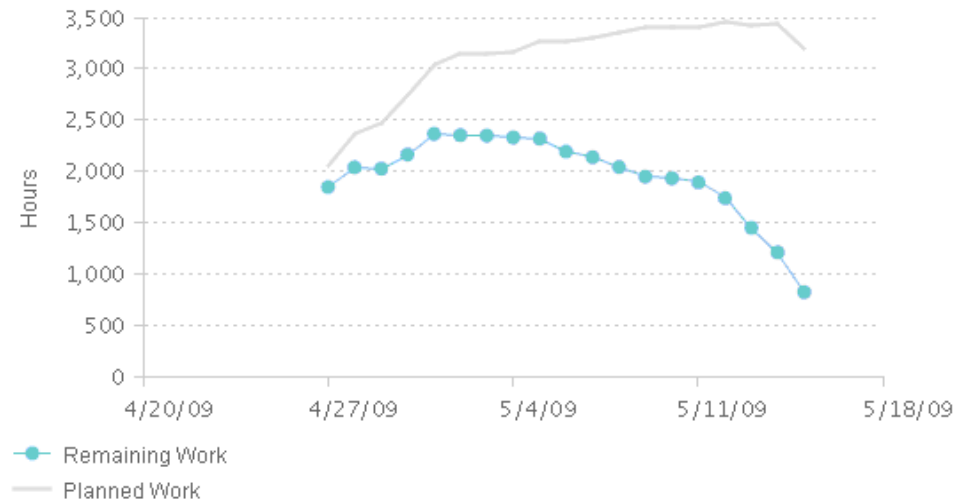
Source: Capers Jones, Measurement, Metrics and Industry Leadership, 2009 and [Software Engineering Best Practices](#), McGraw Hill, 2010.

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.

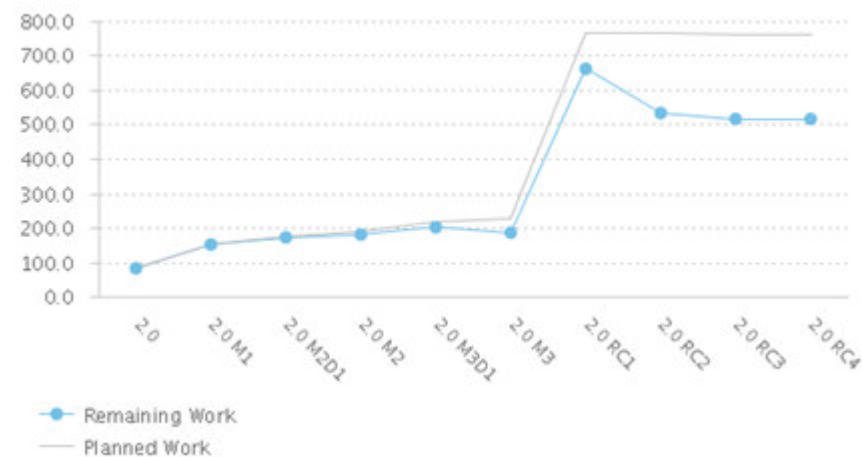
Burndown



Release Burndown

Shows the estimated functionality remaining to complete the current release.

Release burndown



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

Status	Count
Testing	2
Implementing	17
Invalid	2
Done	17
Ready to Test	6
New	14
Ready to Implement	1

Burndown Current Iteration

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

1,935

Stories Open/Closed/In Progress

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

63

Current Stories (60)

- 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 (2,776)

2,776

Stories Open, Closed, in Progress (67)

67

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?

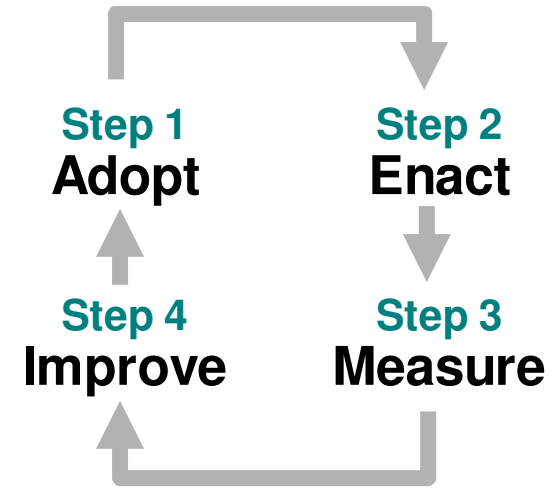
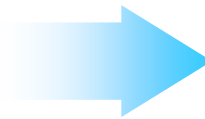


What is Continuous Improvement?

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.

Imperative 5: Continuous 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

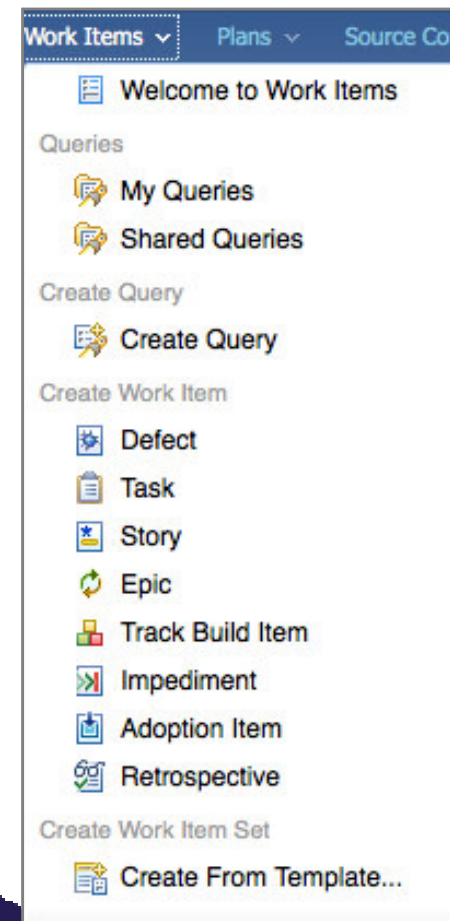
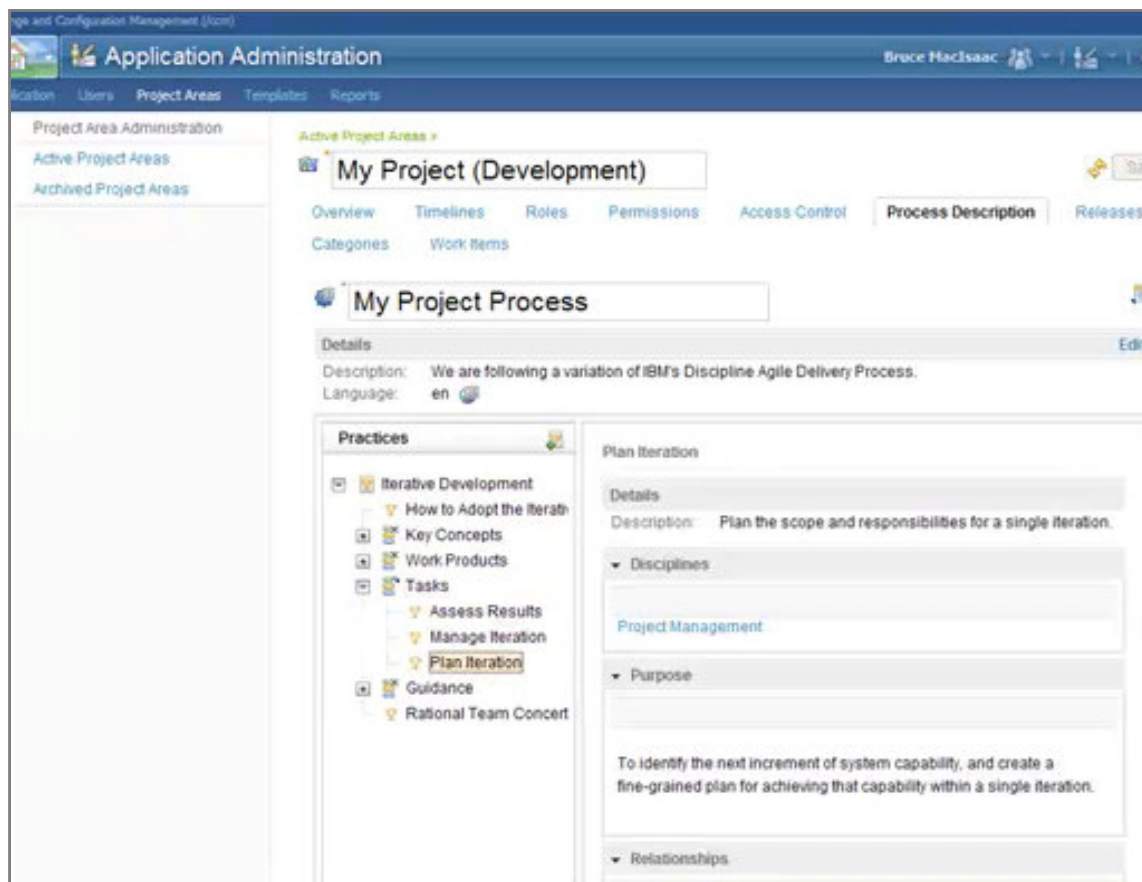
Use a tool that can 'enact' your process definition and guide the team toward the desired result.

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.

Process specifications and work-item templates speed team adoption

- Modify processes using a rich set of practice content
- Teams use work item types defined by your process



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 shows the IBM Jazz CCM interface for 'JKE Banking (Change Management)'. It displays a list of Retrospectives with columns for Id, Status, Summary, Filed Against, Planned For, and Actions. Item 31, 'Retrospective for Sprint 1', is highlighted as 'Done'. A detailed view for this item shows its status, details (Filed Against: JKE, Planned For: Sprint 1, Project Area: JKE Banking (Change Management), Owned By: Marco), quick information (Subscribers: M, Mentions: 3), and a discussion thread with three messages from Deb, Sally, and Marco.

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

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):

Add... (highlighted)

Remove

Up

Down

Name: <Select a Precondition or Follow-up action>

Description:

Follow-up actions (0 available):

Add...

Remove

Up

Down

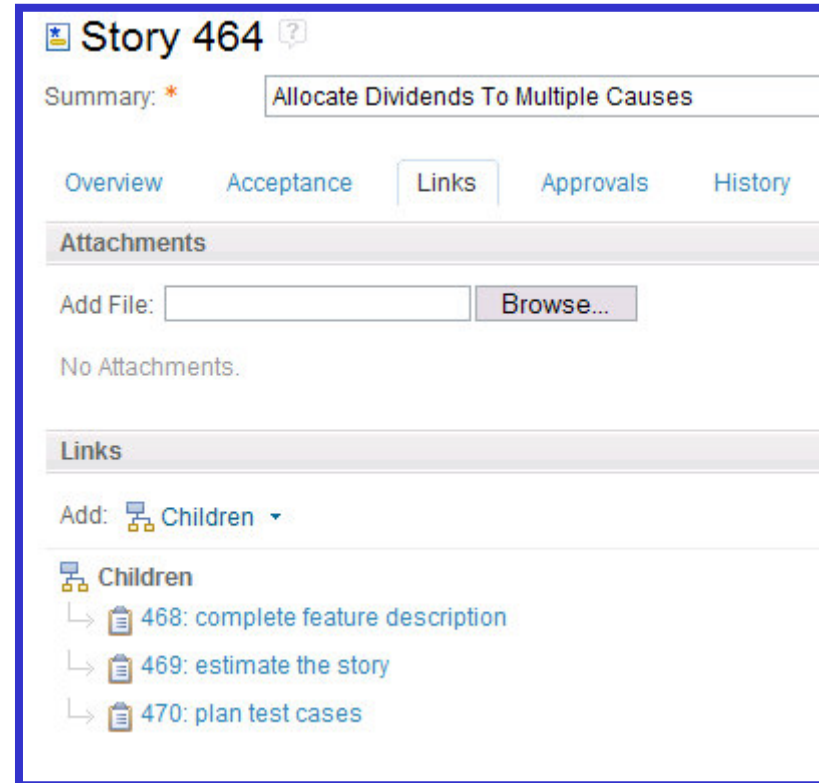
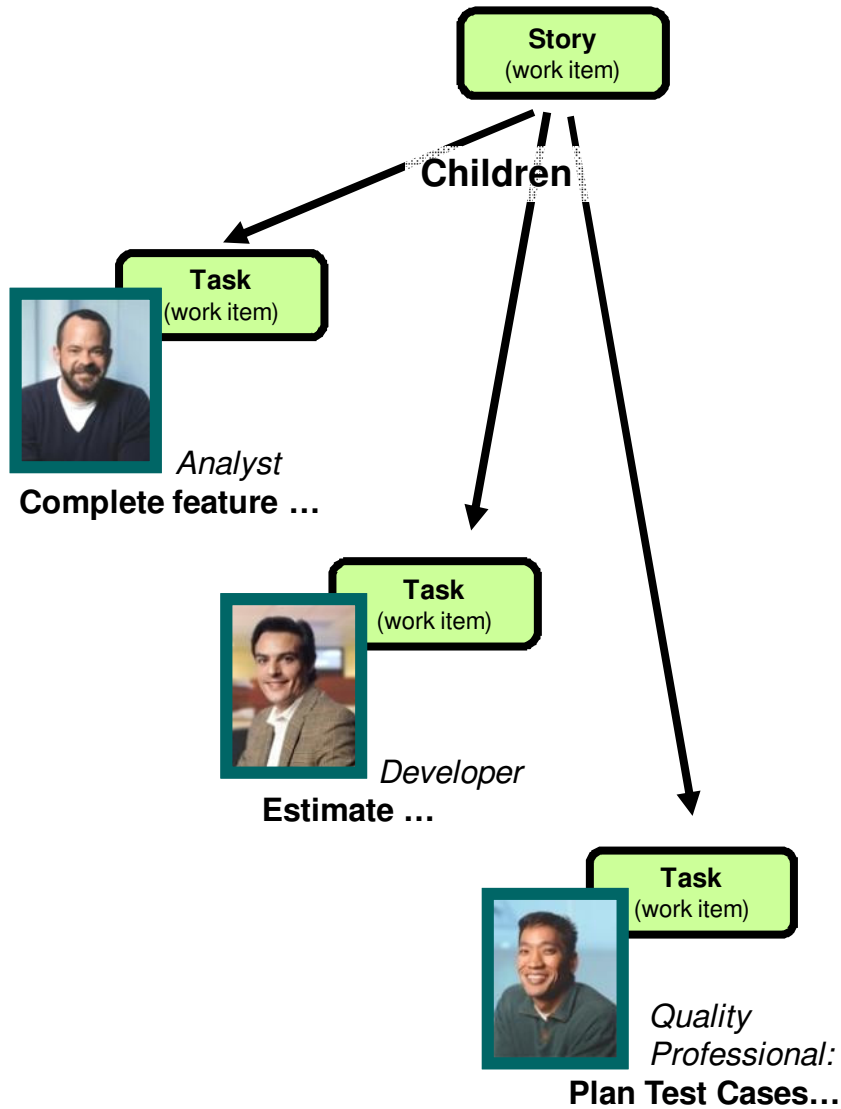
Add Preconditions

Select the preconditions to add:

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

OK Cancel

Problem: Story completed without all work completed



Implement: Require detailed tasks completed before completing parent

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 (def...)	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 Save Work Item operation is executed whenever a work item is saved in the repository.

Preconditions and follow-up actions are configured for this operation

Final (ignore customization of this operation in child team areas)

Preconditions (8 available):

Add... Required Properties

Remove

Up

Down

Name: Required Properties

Description: Work items must be Filed Against a specific category and a Summary team can quickly evaluate who is responsible for the issue.

Category or Type	Attributes
com.ibm.team.workitem.workItemType	Filed Against,
workitem.workItemType.deliverable	Filed Against,

Follow-up actions (0 available):

Add...

Remove

Up

Down

Add Preconditions

Select the preconditions to add:

- All Children Resolved
- E-Signature
- Implied Properties
- Permissions Advisor
- Prevent Editing
- Required Approvals
- Required Estimates Precondition
- Required Properties

OK Cancel

Plan tasks are not being completed before Story completed

Previous | 14 in 1 - 15 | Next

Story 464 * ?

Child work item '470' is unresolved. Can't resolve work item '464' because its child work item '470' is unresolved.

Summary: * Allocate Dividends To Multiple Causes

Save

Loaded: Jun 2, 2011 12:27 PM

Overview Acceptance **Links** Approvals History

Attachments

Add File: Browse...

No Attachments.

Subscribers [Add...](#)

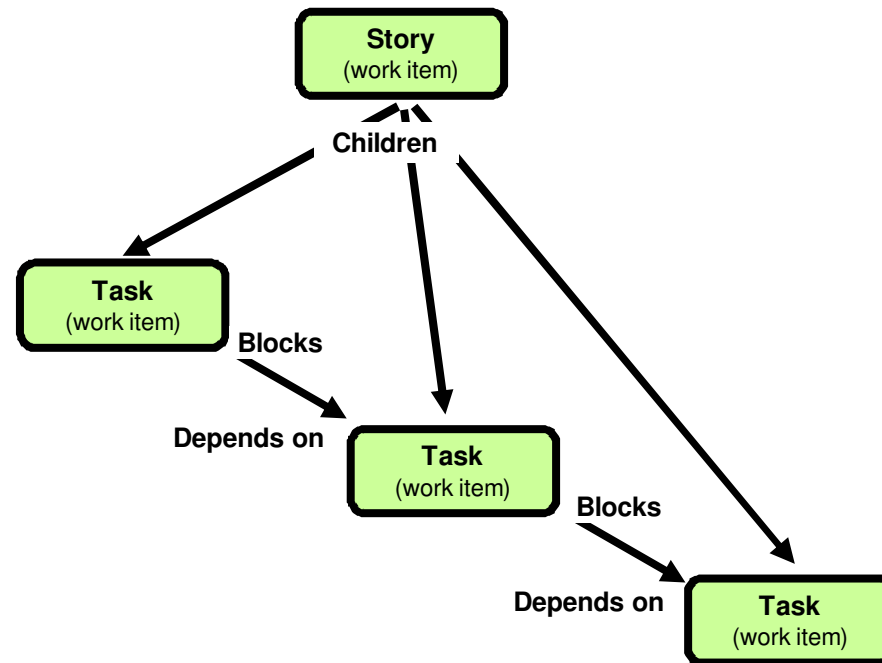
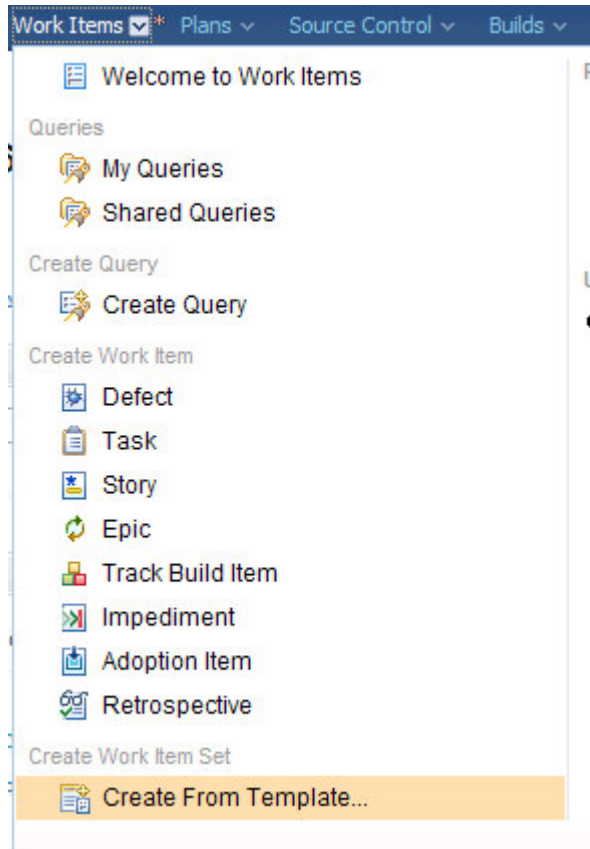
Curtis

Links

Add: Children

- Children
 - 468: complete feature description
 - 469: estimate the story
 - 470: plan test cases
 - 471: update calculations module with dividends formula

Implement: Work Item Template for a set of repetitive tasks



Test your Continuous Improvement capabilities

Can your team...

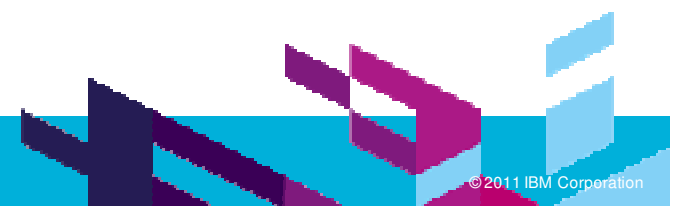
- Leverage out-of-the-box process templates for traditional and agile workflows?
- Change process “on the fly” as part of a continuous feedback loop?
- Allow team leads to determine how strict or lax the “rules of the road” should be?
- Modify process enforcement over the life of a project, to encourage early-stage experimentation and end-game stability?



Agenda



- 1 Application Lifecycle Management (ALM)
- 2 IBM Rational Collaboration Lifecycle Management (CLM)
- 3 Delivering the 5 ALM imperatives
- 4 Summary



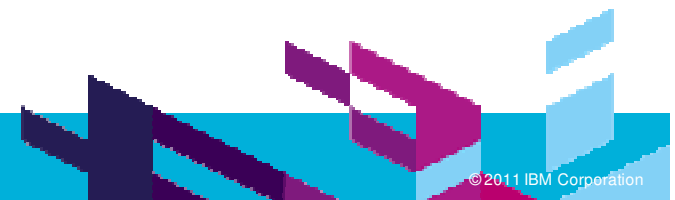
Criteria for effective lifecycle management: ALM imperatives

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**

Learn more at: <https://jazz.net/library/article/637>



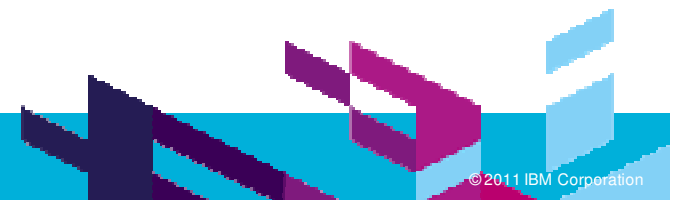
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QUESTIONS



www.ibm.com/software/rational



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