



爱开发 重创新 更智慧

Innovate2011

IBM Rational 软件创新论坛

 Software. Everywhere.



五岳登顶--走进软件交付的新时代

Rational 北方区技术经理

孙昕



Agenda

- 1 应用生命周期管理(ALM)
- 2 IBM Rational协作生命周期管理
- 3 ALM的五大要素
- 4 总结



软件开发生命周期关键领域

三个互有关联的领域包含了不同的时间线、流程与工具

决策
帮助制定战略决策

开发
帮助开发所决策的应用

部署
帮助部署开发的应用

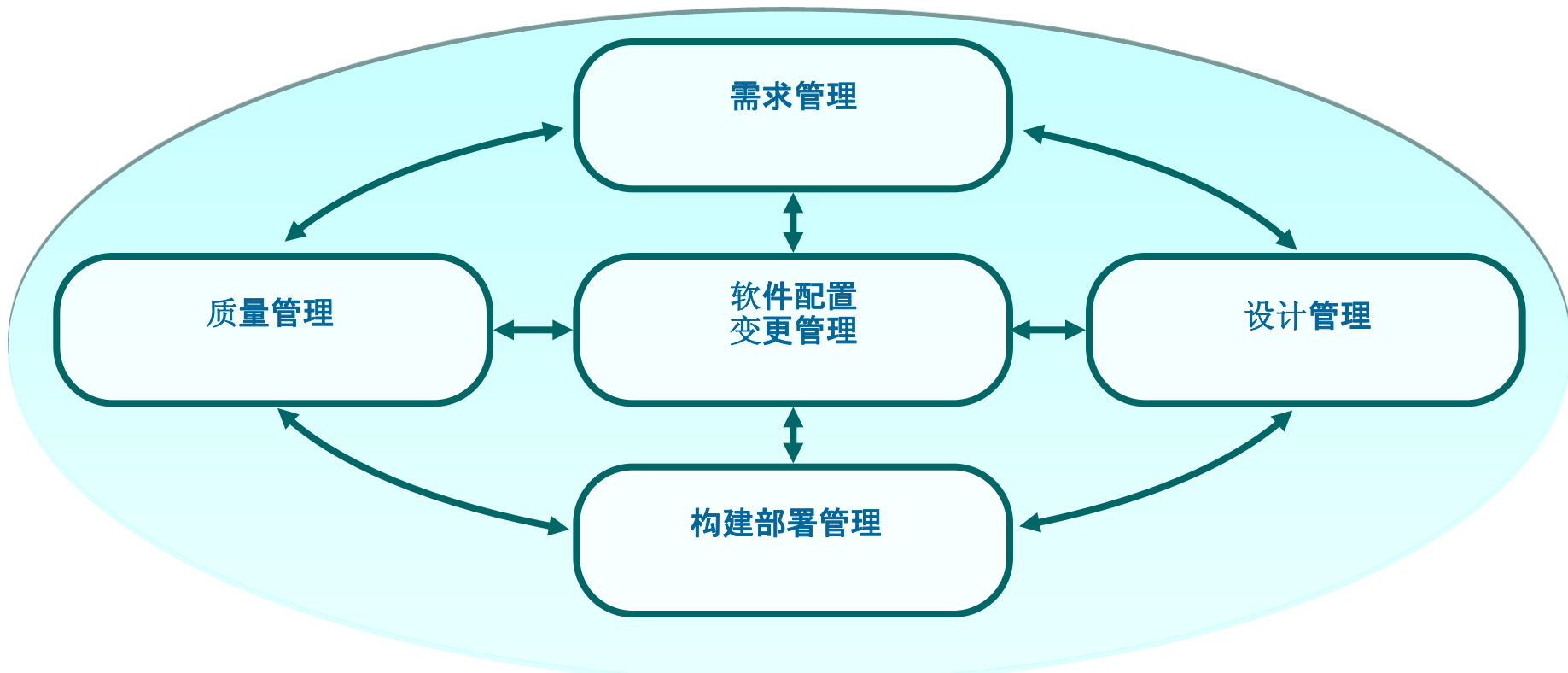
集成、工具、改进
帮助监控整个过程，并实现不断的改进

软件开发生命周期关键领域



Rational应用生命周期

组件化、开放化、可扩展化



Agenda

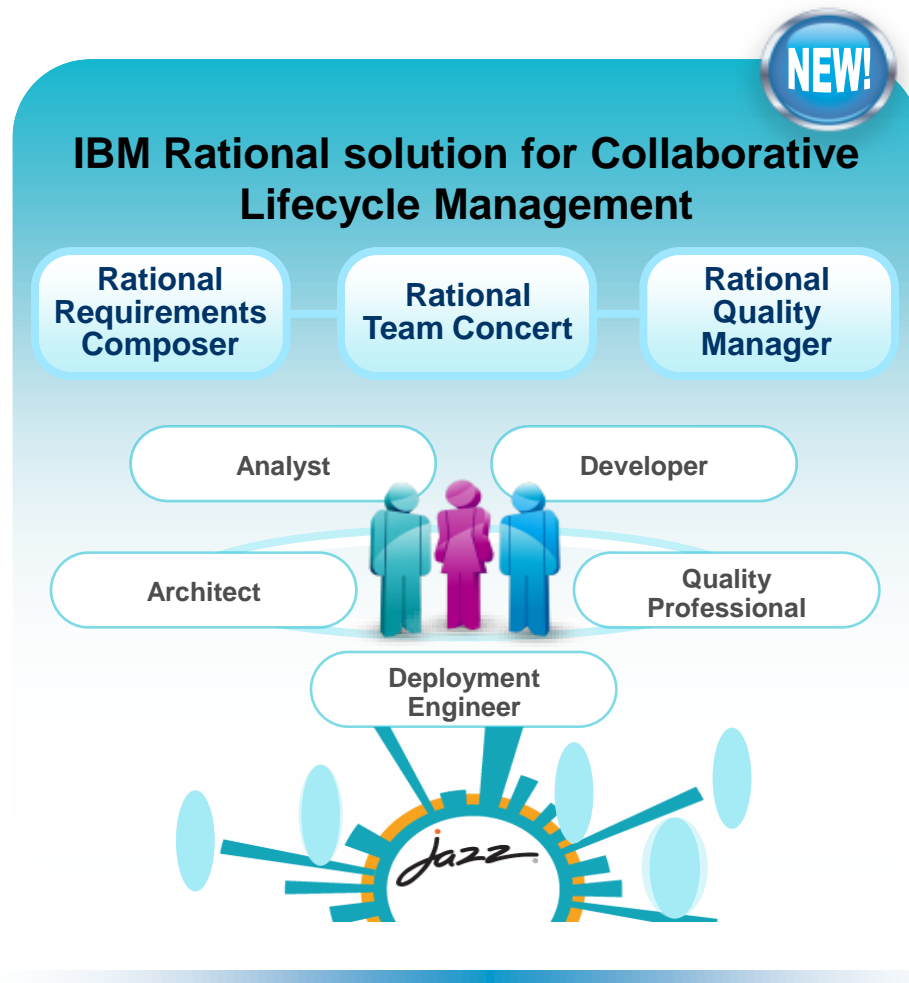
- 1 应用生命周期管理(ALM)
- 2 IBM Rational协作生命周期管理
- 3 ALM的五大要素
- 4 总结



IBM Rational协作生命周期解决方案

每年提高4-6%的生产率

- 通过**5大ALM**的要素，优化团队
 - 实时规划
 - 全生命周期追踪
 - 上下文协作
 - 智能化开发
 - 持续改进
- 快速启动
- 按需扩展
- 跨多平台多技术、支持已购开发



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



Jazz为软件以及系统交付提供了更开放的协作能力

社区
透明的协作与创意沟通



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

Open Services for Lifecycle Collaboration (OSLC)

跨越整个生命周期，实现数据连接与工具集成



Open Services for Lifecycle Collaboration

工具之间资源与资产的共享存在着阻碍：

- ▶ 供应商、开源项目、内部工具
- ▶ 私有信息、格式与存储
- ▶ 数据与工具的依赖

- ▶ 社区驱动 – specified at **open-services.net**
- ▶ ALM, PLM 以及开发协同能力的规格定义
- ▶ 基于Internet架构的灵感
 - 松耦合的集成，“just enough” 标准化
 - 通用资源格式与服务
- ▶ 行业内的发展繁荣

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



Agenda

- 1 应用生命周期管理(ALM)
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跨越团队、工具、项目中，需要什么才能实现端到端透明化管理？



有效的生命周期管理的标准: ALM 要素

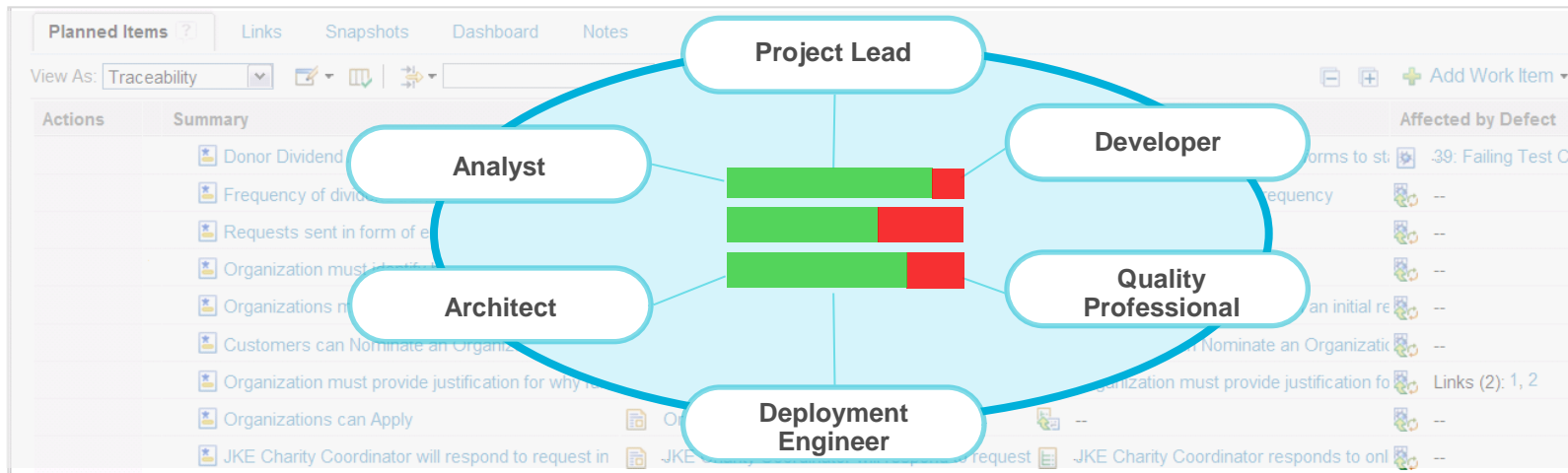
1. 实时规划
2. 全生命周期的追踪
3. 基于上下文的协作
4. 智能化开发
5. 持续改进



要素1：什么是实时规划？

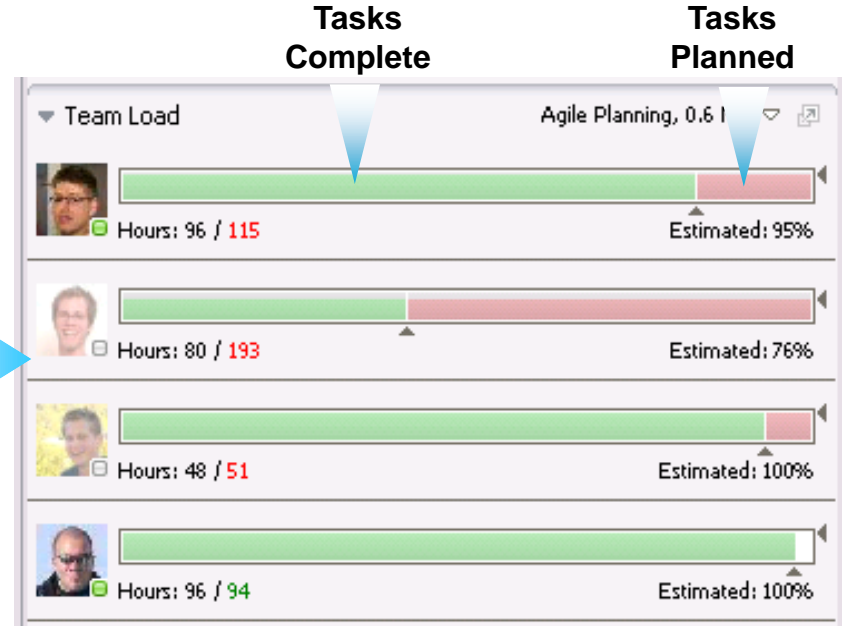
实时规划改进了时间管理：

- 提供了一个计划，跨越了需求、开发、测试诸多阶段，保证团队了解整个项目的全貌
- 计划与执行相结合，保证整个团队随时了解真实的项目状态
- 允许每个成员参与，保证了计划的及时性与准确性
- 帮助团队对意外事情做出及时响应，保证团队执行符合计划



要素1: 实时规划

ID	Start Date	End Date	Status	Title	Changed Date	Dept/Owner/Task/Status
15	05/20/2009 9:34 AM		22	Samuel Rook	05/20/2009 9:34 AM	1
16	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	27
18	05/20/2009 9:34 AM		22	Jim Larkin	05/20/2009 9:34 AM	1
20	05/20/2009 9:34 AM		24	Ram Chandra	05/20/2009 9:34 AM	26
30	05/20/2009 9:34 AM		22	Stephen Lead	05/20/2009 9:34 AM	8
38	05/20/2009 9:34 AM		22	Stephen Lead	05/20/2009 9:34 AM	8
39	05/20/2009 9:34 AM		22	Stephen Lead	05/20/2009 9:34 AM	8
40	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
41	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
42	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
43	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
44	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
45	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
46	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
47	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
48	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
49	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
50	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
51	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
52	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
53	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
54	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
55	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
56	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
57	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
58	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
59	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
60	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
61	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
62	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
63	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
64	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
65	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
66	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
67	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
68	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
69	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
70	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
71	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
72	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
73	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
74	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
75	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
76	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
77	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
78	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
79	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
80	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
81	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
82	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
83	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
84	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
85	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
86	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
87	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
88	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
89	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
90	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
91	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
92	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
93	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
94	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
95	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
96	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
97	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
98	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
99	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8
100	05/20/2009 9:34 AM		22	Jim Bayle	05/20/2009 9:34 AM	8



✗ Don't

计划脱离ALM的环境，需求、开发、测试计划等都是被分别管理，甚至不受管理。

依赖于人工。

计划与团队的活动以及分配的任务相脱离。

+ Do

计划贯穿整个团队，没有信息竖井。通过链接及时掌握从需求到开发和测试的计划。

使用查询和项目仪表盘监控相应变更，从而持续的改进计划

计划与执行紧密结合，团队成员直接从工作任务上更新时间并反映到计划上，保证计划执行的准确性

不同颗粒细度的计划

- 人人参与计划

- ✓ 计划包含所有工作
- ✓ 包含所有成员

- ✓ 故事分解为一系列任务

BRM Sprint 2 (1.0) Plan 3 days

Auto-Save Save

Plan Details Edit

Planned Items Links Snapshots Dashboard Notes

View As: Work Breakdown (5 items filtered) Add Work Item

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	--	--

Bob
Closed Items: 1 | Open Items: 3
Progress: 0/9 | -8 h Estimated: 100%

Deb
Closed Items: 0 | Open Items: 9
Progress: 0/100 | -87 h Estimated: 78%

Marco
Closed Items: 2 | Open Items: 11
Progress: 12/52 | -33.25 h Estimated: 91%

Tanuj
Closed Items: 0 | Open Items: 0
Progress: -- No Work Estimated: --

Unassigned
Closed Items: 0 | Open Items: 2

- 交付物和工作产品作为结果展现
计划与执行相结合

BRM Sprint 2 (1.0) Plan

Auto-Save

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

Plan Details

Planned Items Links

View As: Work Breakdown

Bob
Closed Items: 1 | Open Items: 3

Deb
Closed Items: 0 | Open Items: 9

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

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

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: --

✓ 所关联的变更集与附件

✓ 清晰的执行进度与状态指示.

优先级提高团队效率

- 团队清楚的了解目标

BRM Sprint 2 (1.0) Plan

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

✓ 更好的评级!

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

✓ 更清晰的优先级.

计划保证按时交付

- ✓ 避免无效的投入— 开发是准确的基于需求。
- ✓ 质量保障 – 测试团队清楚的了解什么需求以及功能还没有被测试验证过。
- ✓ 整个团队的认同增进的团队的信任, 提高了效率与关注度

JKE Banking

1: JKE Banking Release 1

Release 1.0 Backlog

Plan Details

Planned Items Links Snapshots

Add: Contributes To Plan in 'Current'

Implements Requirement Collection

Release 1 Planning

Tested by Test Plan

1: JKE Banking Release 1

Name State
1: JKE Banking Release 1 Approved

Description
Defines testing for the Release 1 of JKE Banking. Significant capabilities being added in Release 1 include the Money that Matters initiative whereby account holders can elect to redirect dividends from their investments to causes needing assistance.

Details
Originator: tammy Updated: 9/21/10



开发者理解业务需求和测试工作量

JKE Banking Release 1

Test Plan Overview | Snapshots | History

Originator: Tammy Owner: Tammy Action: Select Action State: Approved

Description: Defines testing for the Release 1 of JKE Banking. Significant capabilities being added in Release 1 include the Money that Matters initiative whereby account holders can elect to redirect dividends from their investments to causes needing assistance.

Development Plan Link

Linked development plans

Show All Items per page

Summary

Release 1.0 Backlog [Release 1.0]

Owner: JKE Banking
Iteration: Release 1.0 (9/6/10 - 10/17/10)

4278 pts 100%

Show More



Testers understand Sprint Plans and business expectations

49: Release 1 Planning

Showing 18 Artifacts

ID	Name	Artifact Type	Last Modified By	Last Modified Date
5	Allocate dividends by amount and frequency	User Story Elaboration	cp	Sep 20, 2010 8:39:57 PM
8	Dividend allocated by percentage	Release 1.0 Backlog [Release 1.0]		
11	Customers can nominate an organization for the program			
12	Donor Dividend Allocation Criteria			
13	Donors Deposit Money in a Pooled Assistance Fund			

Overview

49: Release 1 Planning

Project: JKE Business Recovery Matters

Created On: Sep 20, 2010 8:39:46 PM

Modified On: Sep 21, 2010 4:17:12 PM

Modified By: cp

Owner: JKE Banking
Iteration: Release 1.0 (9/6/10 - 10/17/10)

4278 pts 100%

Show More

Requirements owners clarify the business needs in a collection



测试实时规划能力

你的团队能...?

- 跨越整个团队进行计划?
- 适应瀑布、迭代、敏捷多种不同开发方法?
- 计划与执行紧密结合?
- 迅速察觉变更对项目范围和资源的影响?

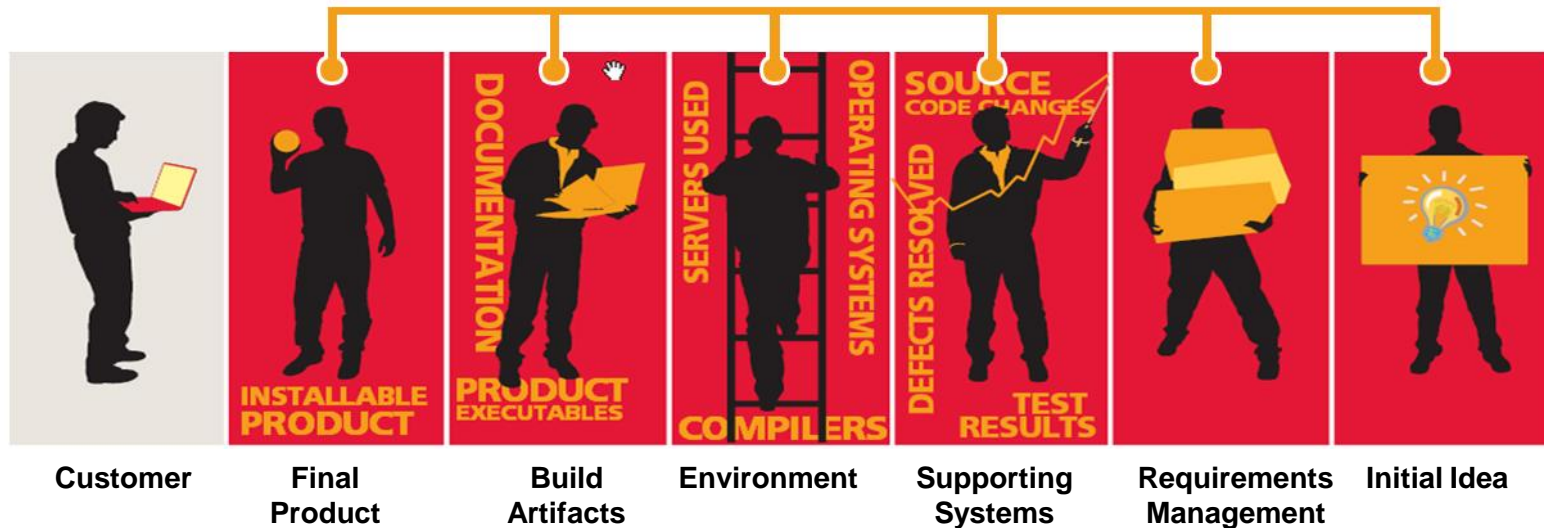


要素2：什么是全生命周期追踪？

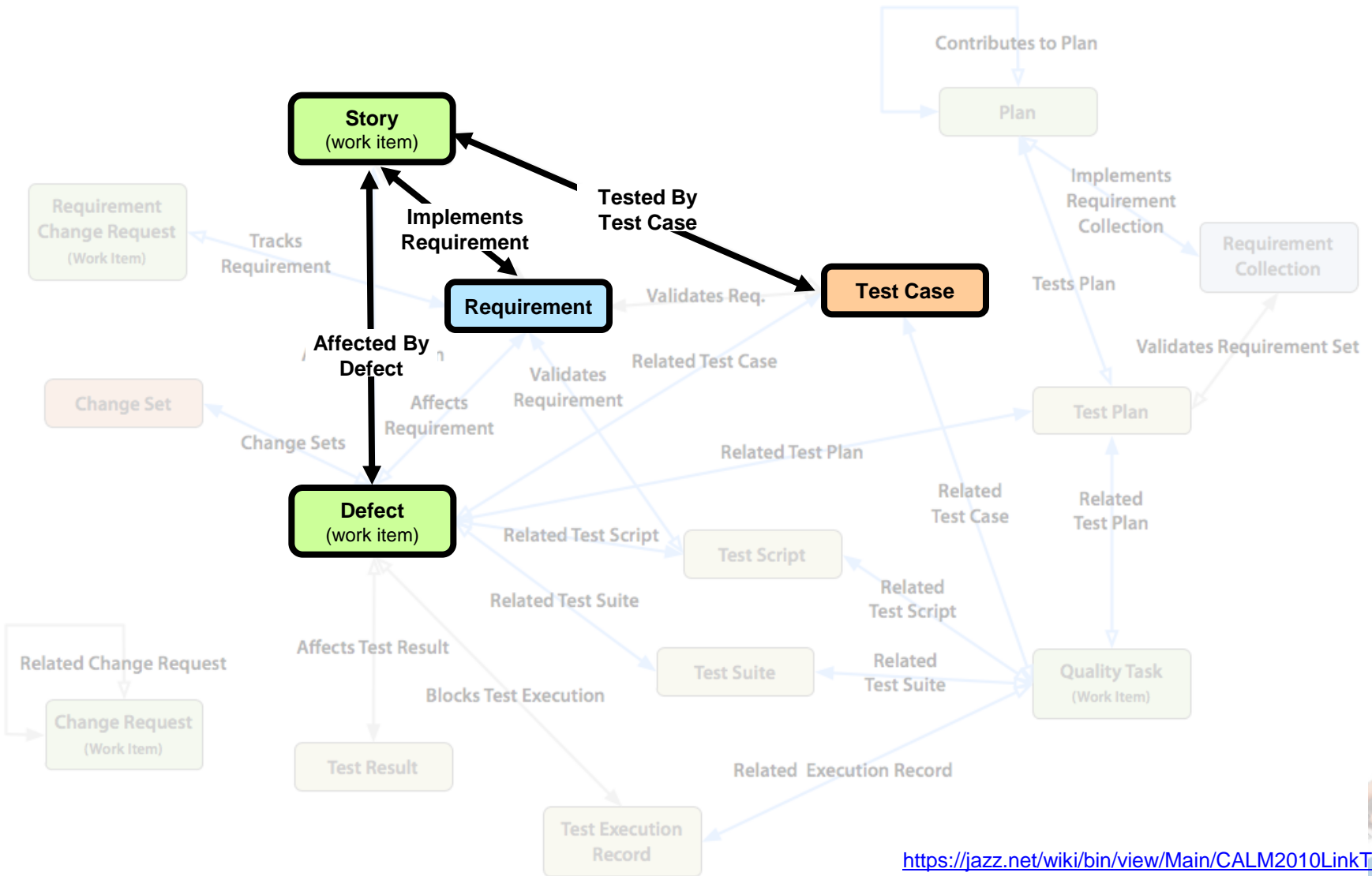
全生命周期追踪提高了质量：

- 建立软件资产之间的**关联关系**
- 帮助识别与减少工件之间关系的缺失，确保**覆盖率**
- 提供可视化能力，确保计划项的**完整性**
- 提供方便的访问途径，可以快速访问**相关联的工件**，确保团队的统一视图
- 提供了透明化管理，保障每个人能给予业务优先级进行**准确的决策**

Instant access to details from any point in the development process



SCRUM 流程模板



<https://jazz.net/wiki/bin/view/Main/CALM2010LinkTypes>

对所需实现的需求，开发者拥有透明化、可视化的能力

对于开发者

- ✓ Rich Hovers技术提高了更快速精准的信息定位能力.
- ✓ 链接提供了需求相关联的有价值信息

The screenshot displays a software development interface. On the left, a requirement card titled 'Story 64' is visible. A green line indicates a hover action over the card. On the right, a rich tooltip is shown, providing detailed information about the requirement. The tooltip includes a title, a description, location, attributes, and links. The 'Status' attribute is highlighted with a red box, showing it is 'Draft'. Below the tooltip, a list of related requirements is shown, including '29: Customers can nominate an organization for the program', '6: Organization must identify how much money is desired', '7: Allocate dividends by amount and frequency', '10: Customers can Nominate an Organization', and '9: Donors Can Choose to Support an Organization'.

29: Customers can nominate an organization for the program

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

Implementing Requirements

- 29: Customers can nominate an organization for the program

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

团队主管可以查看完成性与覆盖率

- 主动的针对项目中存在的不完整性进行相应
- 快速的关注和解决问题

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: Traceability | Type to Filter (17 items filtered) [Add Work Item](#)

Actions	Summary	Owned By	Implements Requirement	Tested By Test Case	Affected by I
	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	--



团队主管可以查看完成性与覆盖率 根据需求剪裁可追踪视图

BRM Sprint 2 (1.0) Plan

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

Auto-Save Save

Link Type : value

Colors	gap	implementsRequirement:unset
Colors	gap	testedByTestCase:unset
Colors	Defect	affectedbyDefect:set

Colors	gap	testedByTestCase:unset
Colors	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	--

自动化缺陷追踪能力，降低成本、提高质量

- ✓ 四步点击就可以提交缺陷，并自动化管理受影响的工件
- ✓ 测试结果被记录，链接到测试用例，并关联到相应需求
- ✓ 测试结果被链接到软件的构建版本上
- ✓ 团队成员能够洞察缺陷本身，以及影响范围，从而采取更好的解决方案



Testers execute tests and submit defects

Execution Result
Result Overview | History

Action: Select Action → State: Draft

ID: 5
Actual Result: Failed
Host Name: Local Computer
Owner: cp

Test Plan: 3: JKE Banking Sprint 2
Test Milestone:
Test Case: 1: Frequency of dividend transfer
Test Script: Allocate Dividends to a Single Cause
Test Data: Unassigned
Build: Unassigned
Weight: 1

Defects

Show All | Items per page | Previous | 1 - 1 of 1 | Next

Blocking Status	Summary
<input type="checkbox"/>	Defect 76: Failing Test Case "Frequency of dividend transfer"

Defect 76: Failing Test Case "Frequency of dividend transfer"

Status: New
Resolution: Failing Test Case "Frequency of dividend transfer"

Details

Type:	Severity:	Found In:	Team Area:	Creation Date:	Created By:	Tags:	Owned By:	Priority:	Planned For:	Estimate:	Time Spent:	Due Date:
Defect	Normal	Unassigned	Business Recovery Matters / JKE Banking	September 29, 2010 10:22 AM	cp		Unassigned	Unassigned	Unassigned			Unassigned

Quick Information

- Subscribers (1): c
- Affects Plan Item (1): 1
- Affects Requirement (1): 1
- Tracks Test Case (1): 1
- Tracks Test Plan (1): 1

Description
Test Plan: JKE Banking Sprint 2



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

Defect 76

Summary: * Failing Test Case "Frequency of dividend transfer"

Overview | Links | Approvals | History

Attachments

Add File: Browse...

No Attachments.

Links

Add: Related

- Affects Requirement
 - Document 23: Frequency of dividend transfer
- Related Test Case
 - 1: Frequency of dividend transfer
- Affects Test Result
 - 5: Frequency of dividend transfer
- Related Test Plan
 - 3: JKE Banking Sprint 2
- Affects Plan Item
 - 52: Frequency of dividend transfer



测试你的全生命周期追踪能力

你的团队是否回答这些问题？

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?**

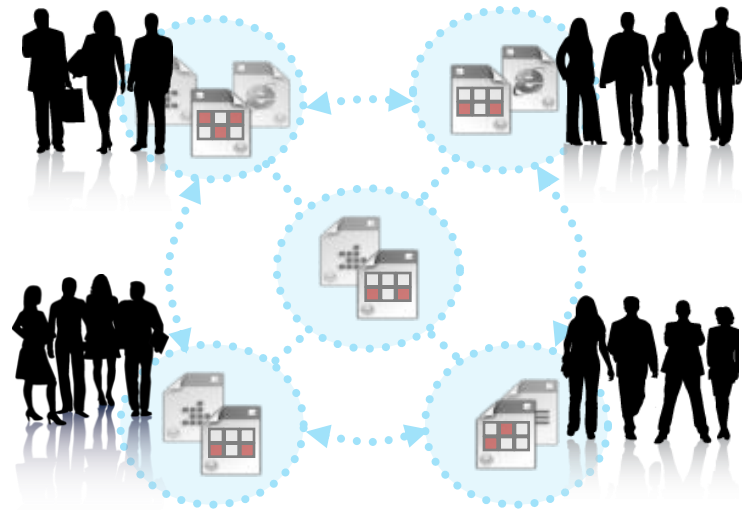
What defects have been addressed since the last build?



要素3：什么是基于上下文的协作？

基于上下文的协作提高生产率：

- 在整个团队中，基于工作的上下文，随时访问信息
- 团队成员能够审核软件开发工件，进行更好的合作，更早更频繁的提供反馈意见
- 提供统一的数据源，实现全球化高协作的开发模式



无需鼠标点击，实现自动化信息读取

The screenshot shows the IBM Rational Quality Management (JKE Banking) interface. A tooltip is displayed over the '14: Release 1 Planning' item in the 'My Tasks' list. The tooltip contains the following information:

- 14: Release 1 Planning**
- 58: Dividend processing payment is a one time transaction.
- 78: Requests sent in form of email
- 80: Donors will receive confirmation and receipt
- 69: Dividend allocation by percentage
- 79: Organizations may apply with an initial request
- ... 13 More
- Location**
 - JKE Banking (Requirements) Collections
 - Release 1
- Attributes**
 - Type: Release Collection
 - Format: Collection
 - Description:
 - Status: Approved
- Links**
 - Validated By (1): ...
 - Implemented By (1): ...

✓ Rich hovers技术提供了快速读取详细信息能力



基于上下文的协作，展示最新信息

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

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	Customers can Nominate an Organization	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

仪表盘帮助快速获取最新信息

Comments in All Projects (6)

Deb 5 minutes ago

- Account Details
- Donor must be registered user to access account details
- 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



术语表提供团队通用词汇

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 % and
 1. If in email, the donor will be provided an option to print the confirmation 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](#)



需求注释是基于上下文的

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 % and amount.
 1. If in email, the donor will be provided an option to print the confirmation notice for tax purposes.
5. The printed confirmation notice must be in a format that is acceptable by country, state, and province agencies and will be mailed in their Bank Statement

Related Features

Overview

Comments (2)

1. Marco to Bob 1 minute ago (1 reply)
Statements must be mailed?
We need to understand if this applies to customers that have opted for electronic statements. Does paper still need to be mailed?
2. Bob to Marco 2 minutes ago
RE: Statements must be mailed? [RE: #1]
No requirement to mail if customer selected electronic statments.

A click on the comment highlights the text under discussion.



测试基于上下文协作的能力

你的团队是否...

- 通过连接工件信息，能否对同一的数据源进行快速的访问？
- 能否针对工作，快速的抓取“谁，做了什么，什么时间，为什么做”等信息？
- 让新团队成员快速融入工作？
- 在外包或者分布式开发团队中，克服不同时区而导致的工作瓶颈和障碍？

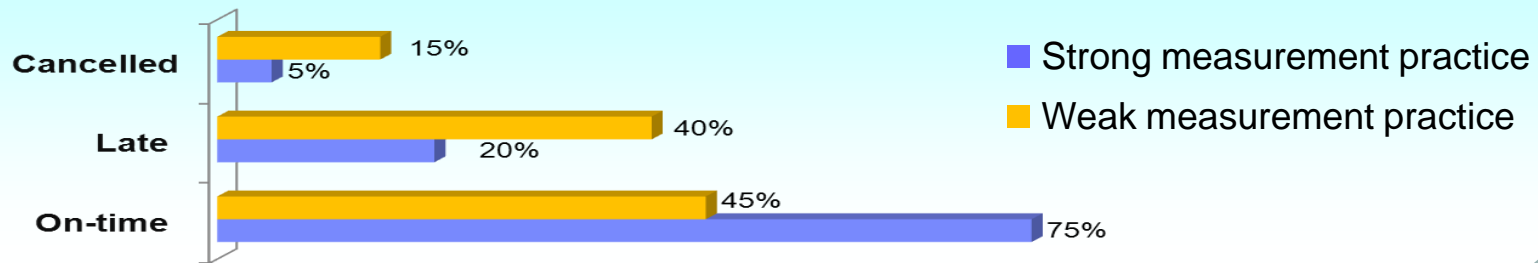


要素4：什么是智能开发？

通过以下，智能开发提高了可预测性：

- 在软件以及系统开发中，应用了**商业智能**分析技术
- 实现了**基于事实模式**的决策分析 (从而实现进度监控、状态沟通、问题诊断、识别纠错行为，等等。)
- 为了达到按时交付，**调整项目和项目群组**

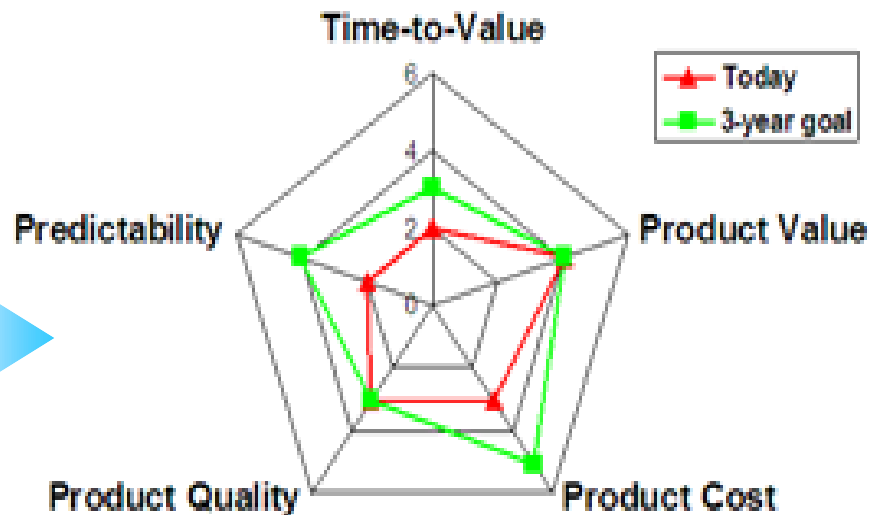
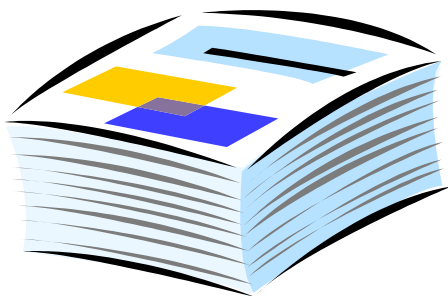
Measurement practices impact project success



Source: Capers Jones, Measurement, Metrics and Industry Leadership, 2009 and Software Engineering Best Practices, McGraw Hill, 2010.



要素4: 智能开发



✗ Don't

手工手机数据.

“大而全”的开始度量

期望第一次就可以完成

✚ Do

使用仪表板取得真实的信息, 使用基于团队活动数据生成的报告

识别当前需要改进的重点

开发改进度量体系

从团队关注的进度到执行官关注的业务价值

从每个不同的管理视角，确定准确的度量尺度

维度	团队 (In Process)	中层管理 (Development Mgmt.)	开发执行官(VP Development)
Time-to-Value (Schedule)	User Story Points / Use Case Points		
	Iteration Burndown, Blocking Work Item		
		Release Burndown	
Product Value	Iteration Velocity		
	Stakeholder Feedback, # of Enhancement Request, Age of Enhancement Request		
		Tested and Delivered Requirements, Business Value Velocity, Customer Satisfaction	
Product Cost	Effort (Man-hours)		
		Cost / Unit of work	
			Development / Maintenance Costs
Product Quality	Technical Debt (Defect trend, defect density)		
	Test Status, Test Coverage of Requirement, Test Execution Status		
		Quality at Ship	
Predictability	User Story Points / Use Case Points		
		Planned/Actual Cost and Velocity	
		Trend Variance. Likelihood of on-time delivery	

Note: **Bold** indicates that there is Out-Of-The-Box report supported by Rational tools

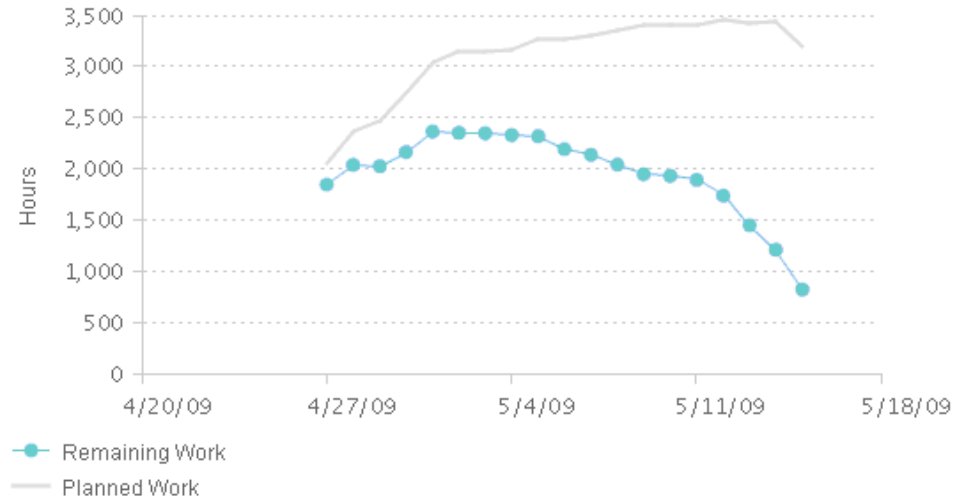


衡量Time-to-Value (进度)

Iteration Burndown

展现在迭代中多少工作量还需要完成. 帮助团队及时的调整资源和范围, 从而保障迭代的成功。

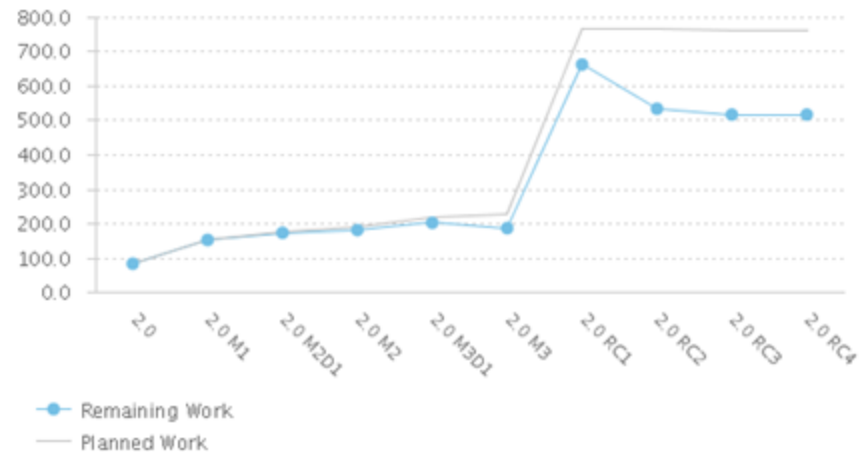
Burndown



Release Burndown

当前发布中, 展现预计尚未完成的功能点

Release burndown

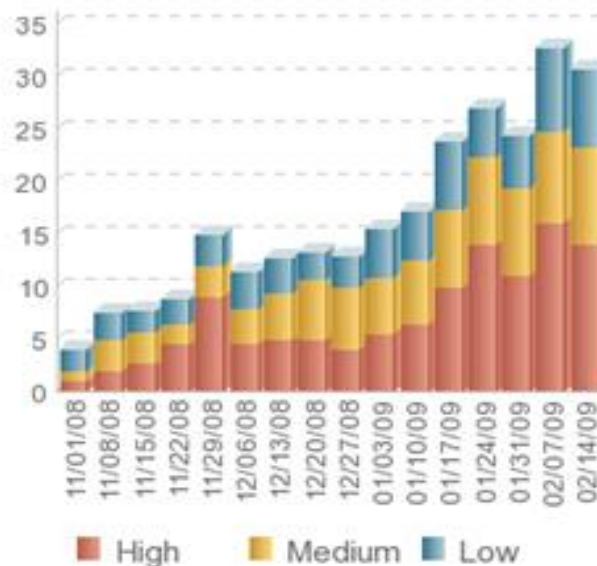


衡量Product Value

改进请求趋势

在整个项目期间，已收到、已审批、已关闭功能改进请求的要素分析. 过多的请求说明系统功能没有满足干系人的期望.

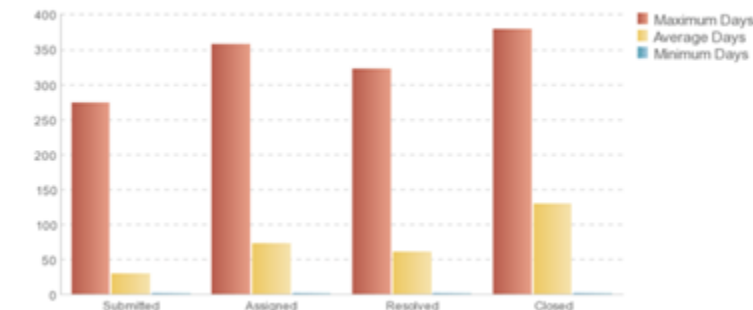
Number of Enhancements



改进请求龄期

跟踪干系人改进请求保持打开状态的时间长度. 仍未解决的请求会影响干系人的价值观念.

Days Spent in Each State



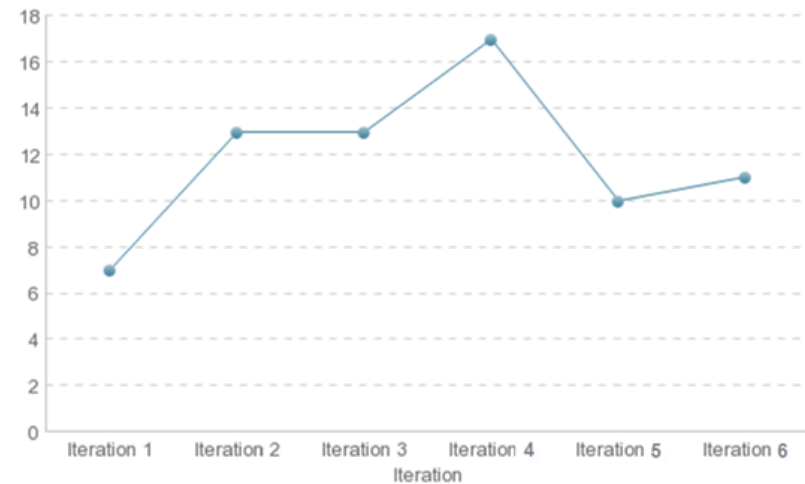
衡量Product Cost

工作单元成本

在迭代中，跟踪单一工作单元的成本（例如用户故事分）。在每次迭代中，按照这个度量标准监控，从而保证团队了解预算是否合理的被花费。

Cost per Unit of Work

Effort per Story Point

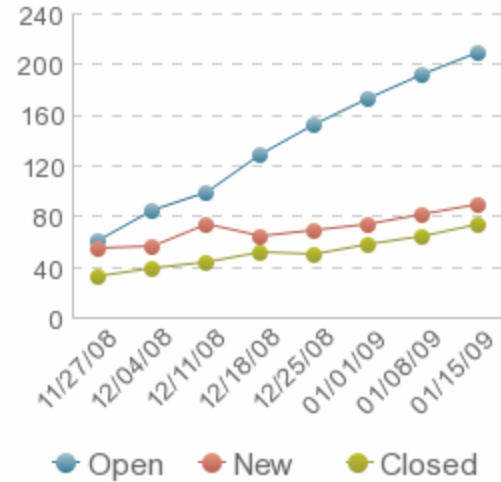


衡量Product Quality

缺陷要素

展示缺陷抵达率和关闭率。
 决定剩余缺陷贮备，项目未来缺陷抵达/关闭速率

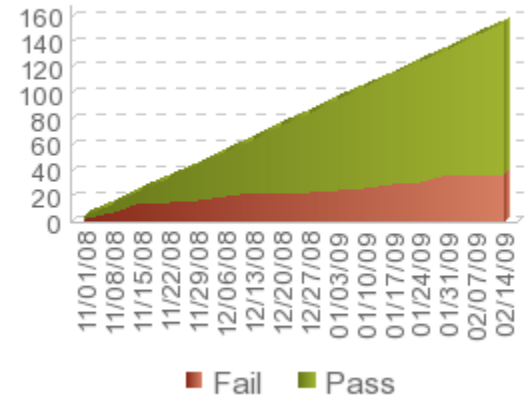
Number of Defects



测试执行状态

监控测试完整度和成功率

Number of Executed Tests

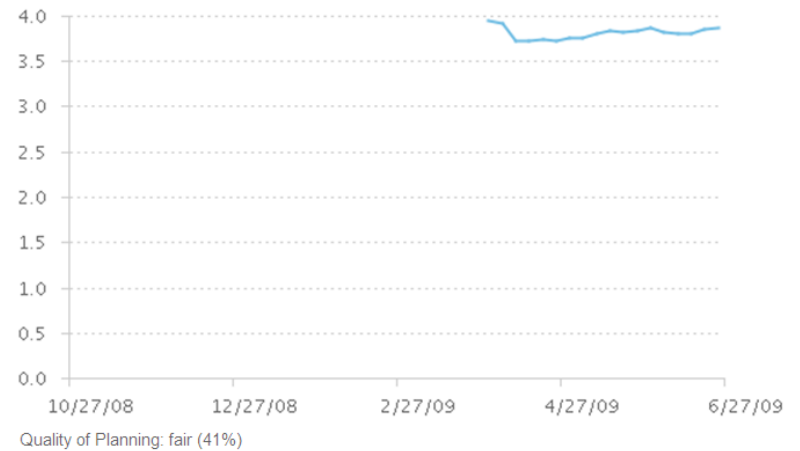


衡量可预测性

Velocity Variance

预测团队处理意外事件的能力. 帮助团队识别什么样类型的变化可能会影响项目的成本以及进度

Estimated vs. Actual Work



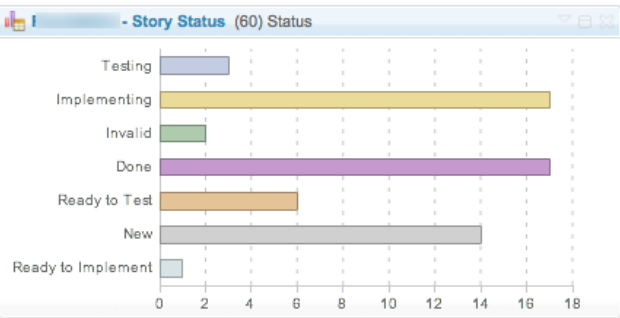
利用仪表盘提供统一项目健康视图

JKE Banking (Change Management)* ?

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

Story Status Current Iteration

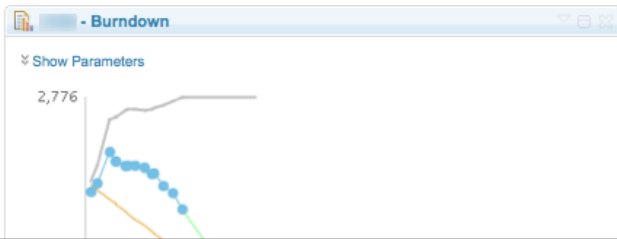
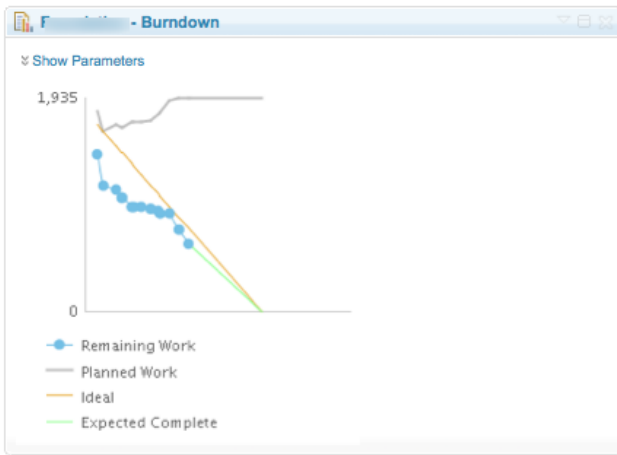
Shows the status of all stories planned for the current iteration



- #### 1 - 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

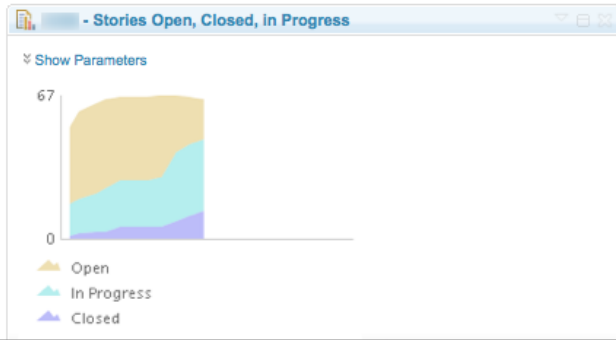
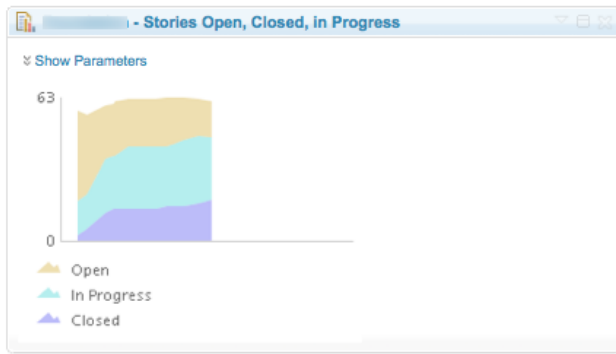
Burndown Current Iteration

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.



测试你的而团队智能开发化

你的团队能否...

- **Time-to-Value**
 - 根据承诺的进度，产生准确的能力预测？
- **Product Value**
 - 角度有价值的产品？
- **Product Cost**
 - 衡量为了交付系统我们所花费的东西？
- **Product Quality**
 - 构建高质量的系统？
- **Predictability**
 - 管理风险和不确定性？



要素5：什么是持续改进？

持续改进降低了项目成本:

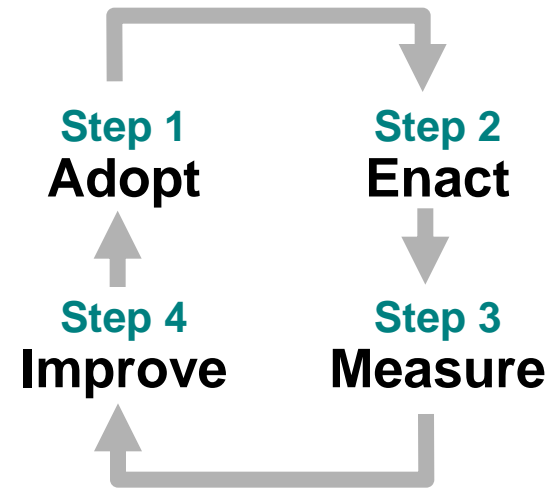
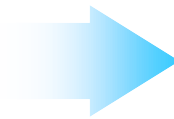
- 通过持续的应用**最佳实践和自动化**，减少由手工、非创造性以及容易出错的任务，从而改进软件交付
- 按照需要，以**增量**方式不断改进项目
- 跨团队的**获取最佳实践和重用**，达到改进的突破点
- 允许**每个参与者**方便的学习、采用最佳实践

“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



要素5: 持续改进



✗ Don't

定义好一个流程然后放之不用

忽略过程，或者认为过程是一个不必要的负担

设定过程警察

✚ Do

使用工具贯彻既定流程，并指导团队达到预期值。

从其他团队中学习，将其他团队的成果共享

使用工具监控，通过peer reviews 鼓励知识共享与协作



采用—共享流程

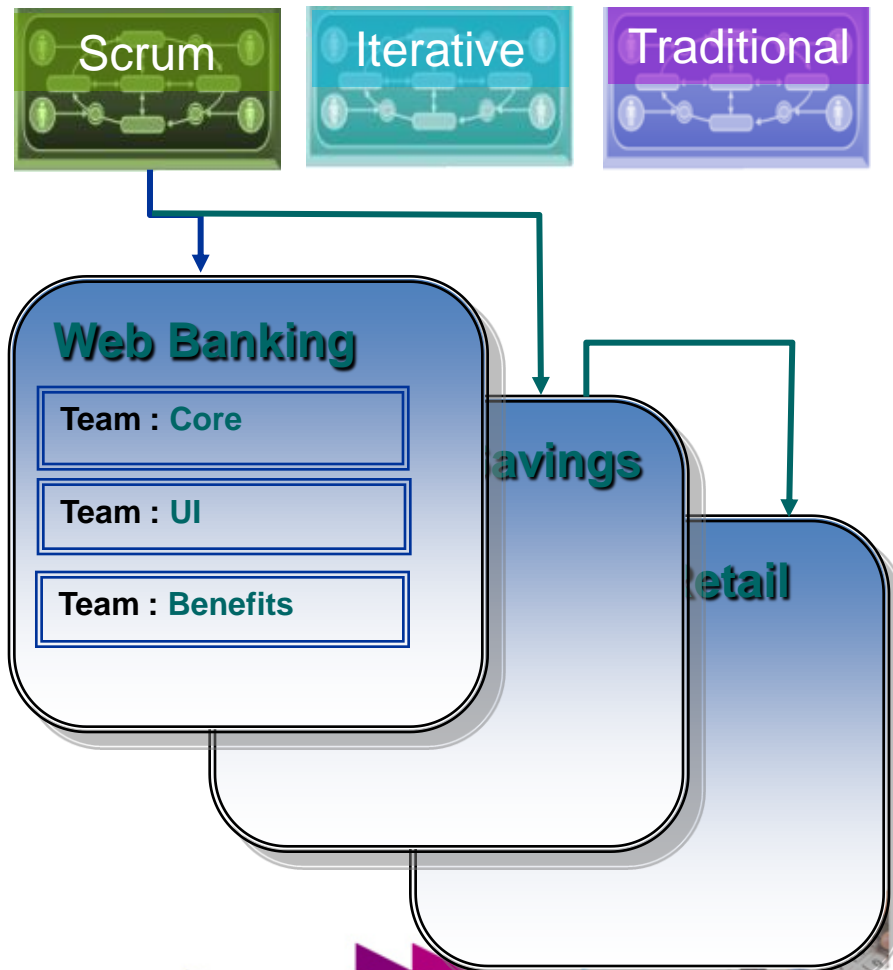
从Rational和其他团队吸取最佳实践

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

- 1 **导入导出模板**
提供从Rational和其他团队吸取最佳实践的能力

- 2 **服务器支持多模板**
允许管理员支持不同的流程。团队可以独立的改善自己的流程

- 3 **流程更新能够被共享**
允许团队控制他们所需要的改进

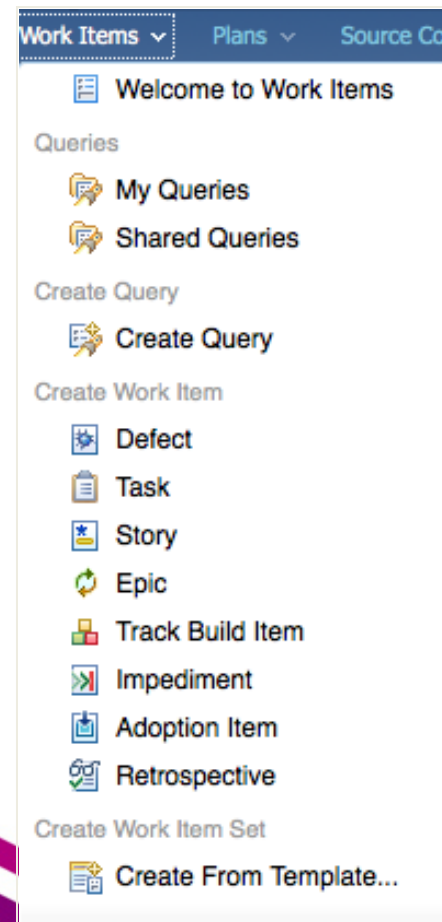
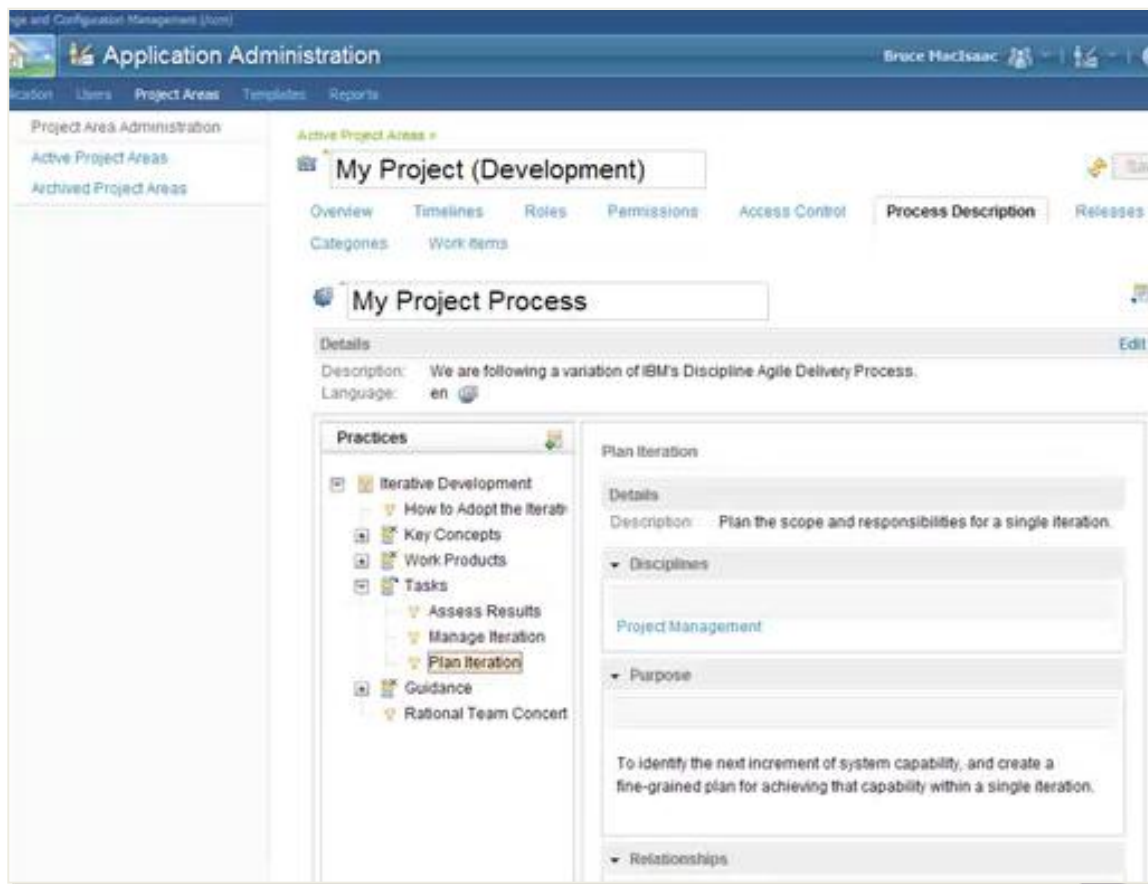


RTC 流程模板

Artifact Type (WI Type)	SCRUM process template	OpenUP process template	Formal Project Management process template	Simple Team process Template	Money that Matters Sample process template
Adoption Item	Y				Y
Business Need			Y		
Defect	Y	Y	Y	Y	Y
Enhancement		Y		Y	
Epic	Y				Y
Impediment	Y				Y
Issue			Y		
Milestone			Y		
Project Change request			Y		
Retrospective	Y				Y
Risk		Y	Y		
Risk Action			Y		
Story	Y				Y
Task	Y	Y	Y	Y	Y
Track Build Item	Y				Y
Use Case		Y			
Total Types:	8	5	8	3	8

流程规格定义和工作项模板将加速团队的适应过程

- 基于最佳实践的内容，修改过程
- 团队使用在自身流程中定义的不同工作项类型



团队回顾帮助识别改进区域

- 团队回顾帮助团队成员在互相协作实现改进
 - 根据团队在最大痛点上的感激，对流程改进进行打分。
 - 度量能力帮助流程改进，并展示改进结果。

The screenshot shows the IBM Rational Change and Configuration Management (ccm) interface. The main view is titled "Retrospectives" and displays a table of items. The table has columns for Id, Status, Summary, Filed Against, Planned For, and Actions. Item 31 is highlighted as "Done" and is titled "Retrospective for Sprint 1".

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			

The detailed view for item 31 shows the following information:

- 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
 - Approve Sprint 1 Retrospective: Approved (1 of 1)
 - Mentions (3)
- 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!

需求稳定性

- 需求变更很频繁?

改进: 实现需求变更管理流程

- 需求变更花费了太长时间, 从而推迟了项目进度, 增加了返工而造成的成本?

改进: : 建立筹划指导委员会!



实现: 需要交付前进行单元测试

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:

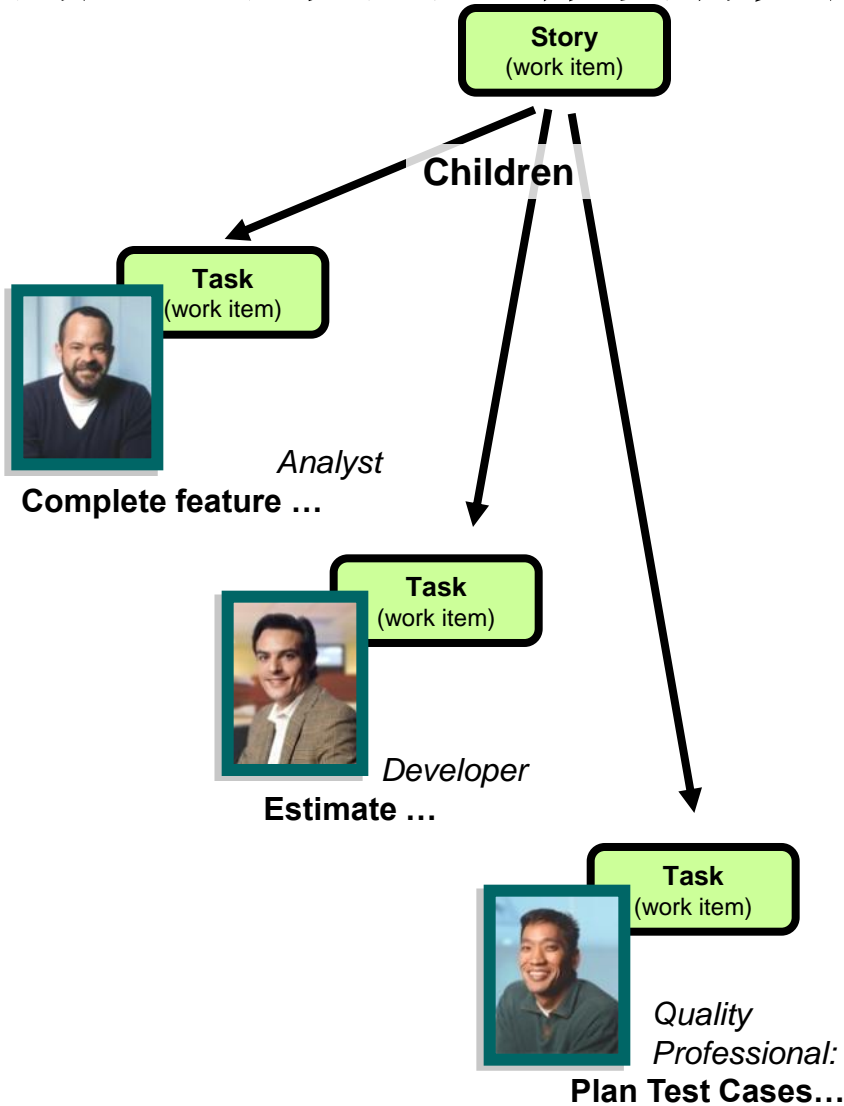
Follow-up actions (0 available):

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

问题：相关的工作没有完成的情况下，需求完成？



Story 464 ?

Summary: * Allocate Dividends To Multiple Causes

Overview Acceptance **Links** Approvals History

Attachments

Add File:

No Attachments.

Links

Add: Children ▾

- Children
- ↳ 468: complete feature description
- ↳ 469: estimate the story
- ↳ 470: plan test cases



实现：需要所有相关工作完成，需求才能完成

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 of 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):

Required Properties

Follow-up actions (0 available):

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,

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

任务不应该在需求完成之前完成

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.

Save

Summary: *

✓
Set Done
▾

Loaded: Jun 2, 2011 12:27 PM

Overview
Acceptance
Links
Approvals
History

Attachments

Add File: Browse...

No Attachments.

Links

Add: Children ▾

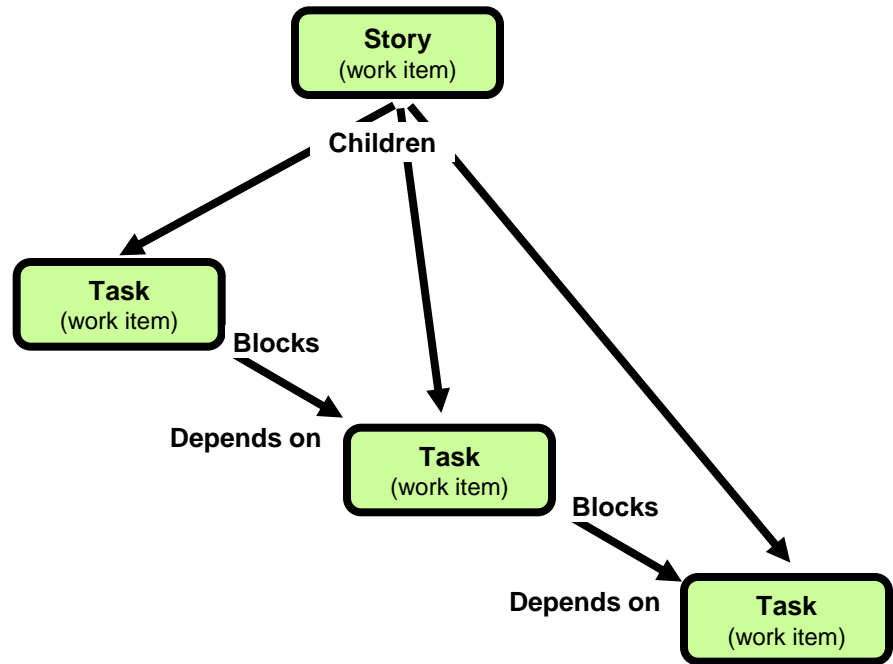
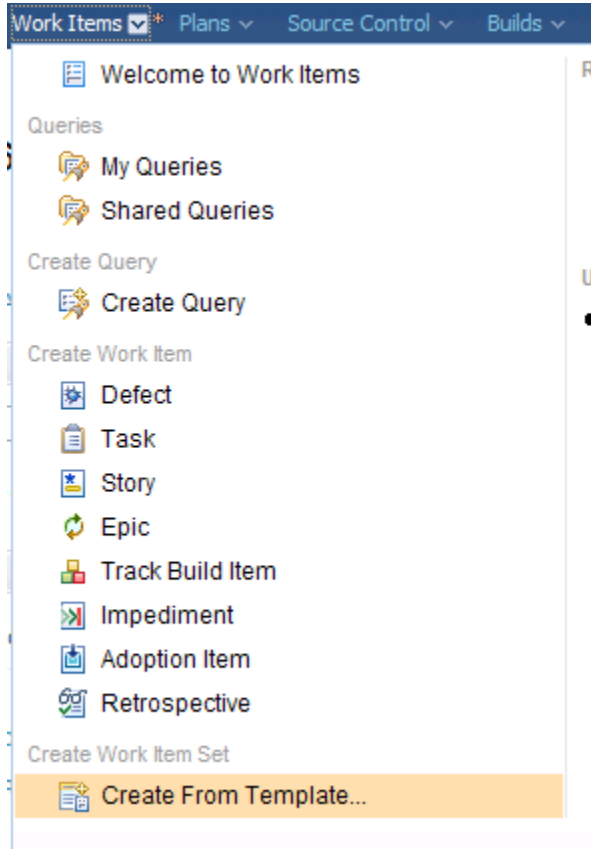
- Children
- ↳ [468: complete feature description](#)
- ↳ [469: estimate the story](#)
- ↳ [470: plan test cases](#)
- ↳ [471: update calculations module with dividends formula](#)

Subscribers Add...

Curtis



实现：重复性任务的工作项模板



测试你的团队持续改进能力

你的团队能...

- 使用内置的传统与敏捷的工作流模板?
- 变更流程作为 持续反馈的一部分?
- 允许团队确定严格或者松散规范?
- 能够改进贯穿整个项目生命周期的开发过程，从而帮助项目初始阶段的创新以及项目收尾阶段的稳定性?



Agenda

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



有效的生命周期管理的标准: ALM 要素

1. 实时规划
2. 全生命周期的追踪
3. 基于上下文的协作
4. 智能化开发
5. 持续改进



QUESTIONS



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