



爱开发 重创新 更智慧

# Innovate2011

IBM Rational 软件创新论坛



# 笑傲江湖— 协作化生命周期管理的加速实现方案

赵静

IBM Rational 高级技术顾问



## 内容

- 当前您正在面临的问题？
- 未来您希望看到的场景！
- **IBM CLM**方案及其业务价值



IT 驱动 业务

# 当前您正在面临的问题—全局考虑，您看到周围的压力了吗？

## 压力一：业务压力

### 市场压力

- **93%**的业务执行官认为创新是排名第一的战略。
- **3X** 的差距存在于业务的需求和企业的交付能力之间。



Sources: 1. Forrester Report on Innovation Management Tools, 2008. 2. 2008 IBM CEO study.



### 实现要求

- **创新 (Innovation)**：引入新业务模式
  - ▶ 需求变更快于IT实现它们的速度，IT如何创新？
- **效率 (Efficiency)**：减少软件交付过程的冗余
  - ▶ 重新考虑软件交付流程，IT如何改进？
- **质量和上市速度**：寻找新的方法
  - ▶ 保证质量，加快面市速度，IT如何保证？



当前您正在面临的问题—全局考虑，您看到周围的压力了吗？  
 压力二：越来越复杂的业务系统



- ALM已经不仅仅是软件开发的事情
  - 连接第三方应用：SAP、ORACLE
  - 连接Systems
  - 收购的应用、外包的项目、遗留/自己开发的系统
  - 连接业界新技术，如SOA、Cloud



## 当前您正在面临的问题—您体会到ALM的价值了吗？

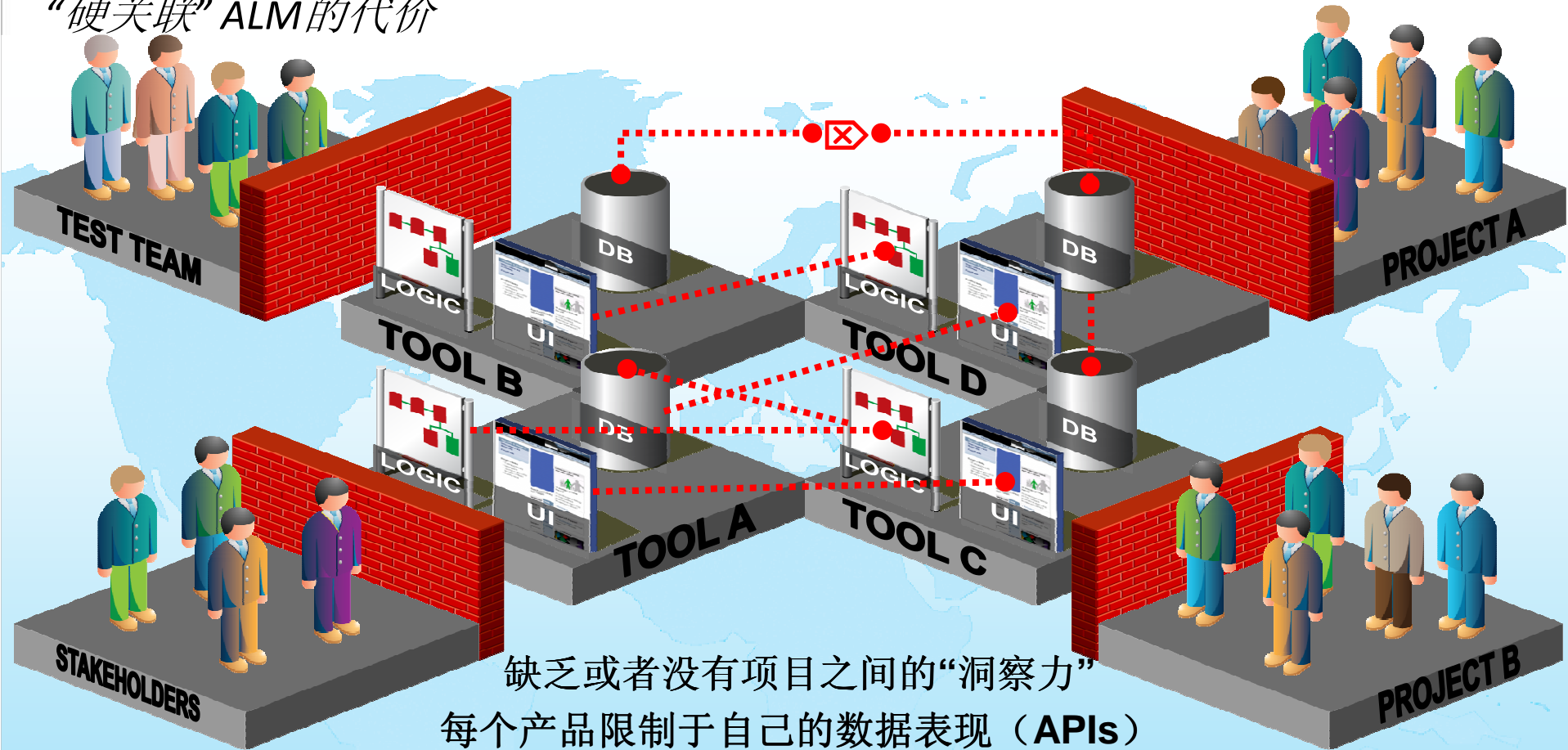
### “硬关联”的ALM

- ALM概念帮助很多企业进入了软件“工业化”时代，迈出了重要的第一步
  - 将软件开发的各个环节，如需求、建模、开发、构建、测试、配置和变更等活动先管理起来，并逐步完善使每个领域都日趋成熟
- 这不是ALM带来的价值
  - ALM真正给企业带来的价值，并不仅仅是每个环节能力的提高和改进，而是对于整个软件开发过程中所涉及的人员、工具、流程、信息的整合和协同
- 通过工具“硬”集成实现的ALM
  - 仅靠工具层面的集成来实现协同，只能带来有限的价值，企业可以享受到部分过程自动化、工件追踪关系、关联的报告，但却要付出相当大的由于“硬”关联而产生的代价



# 当前您正在面临的问题—您体会到ALM的价值了吗？

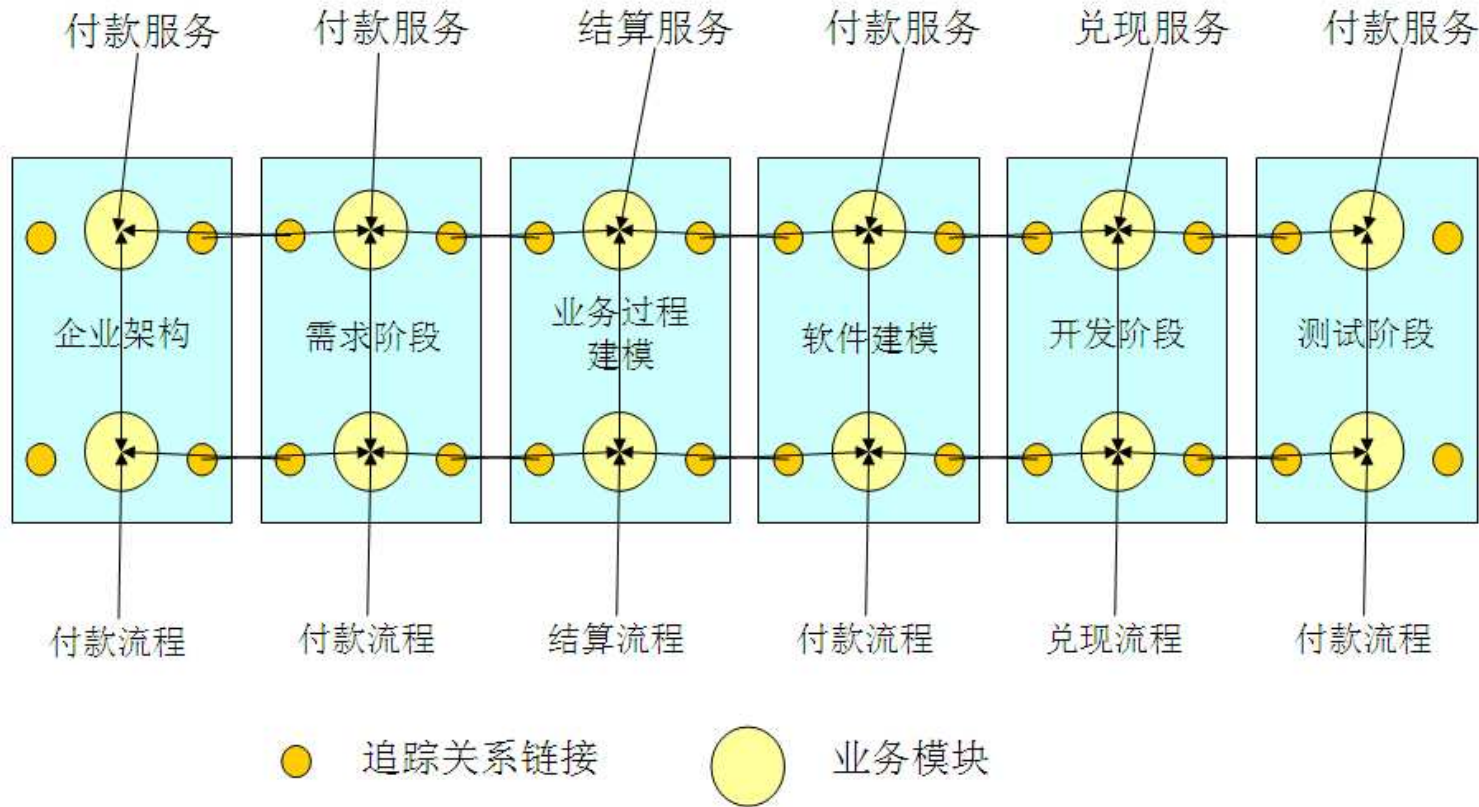
## “硬关联” ALM的代价



缺乏或者没有项目之间的“洞察力”  
 每个产品限制于自己的数据表现（APIs）  
 流程和业务过程很难集成并协同工作  
 维护成本和管理成本太高  
 不可避免的功能、地域、组织上的壁垒



## 当前您正在面临的问题—一个例子 “硬关联”的ALM



- 一个银行应用的开发过程，各种业务模块和服务流程在应用生命周期的各个环节都会被使用到；
- 必须依靠精心设计的工具集成保持每个链接、每个数据的有效传递；
- 任何一个微小的关联错误，都会打乱整个ALM的有效性。

## 当前您正在面临的问题—您能快速的回答如下问题吗？

### 追踪关系的重要性

这次迭代实现了哪些需求？

我们能通过审计吗？

所有的需求都被测试过吗？

我们准备好了发布新版本吗？在这个版本中，解决了哪些缺陷？

高优先级的需求，它们的质量如何？

哪些缺陷是因为测试哪些需求而发现的？



我们能做哪些折中，保证这次版本按时发布？

这次构建的质量如何？

我怎样才能重新生成最新的版本？



什么发生了变更，需要我特别注意去测试？

我开发的工作是针对哪个需求？

上次构建发现的错误，被标识为缺陷了吗？

某个缺陷，在哪个构建中，什么环境下，还有未覆盖的测试？

大家都用不同的工具，怎么贯彻标准化？

构建过程中的瓶颈在哪里？

每个晚上的构建都发生了哪些变化？

我怎样才能加速构建？构建的时间是越来越长还是短？



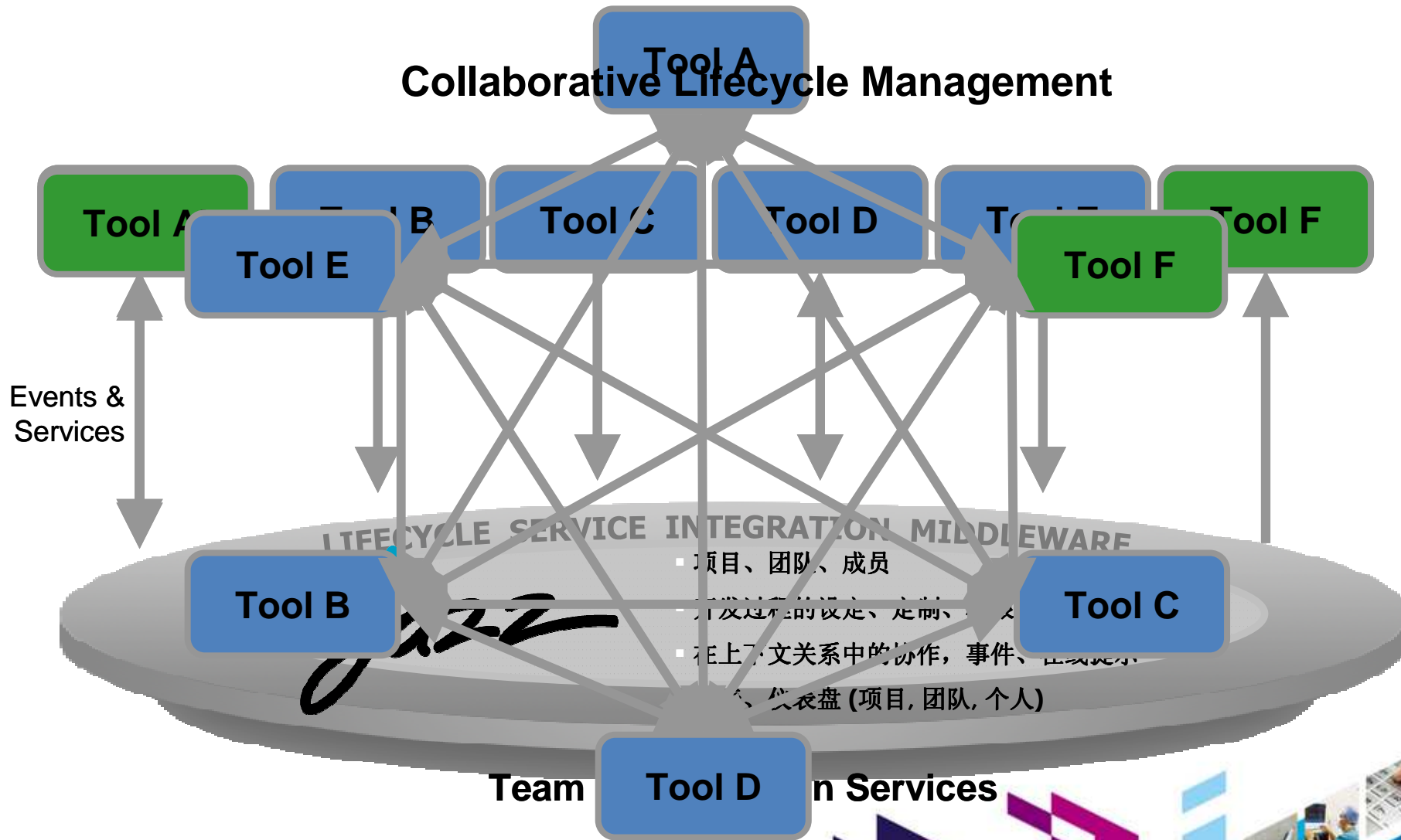
## 内容

- 当前您正在面临的问题?
- 未来您希望看到的场景!
- **IBM CLM**方案及其业务价值



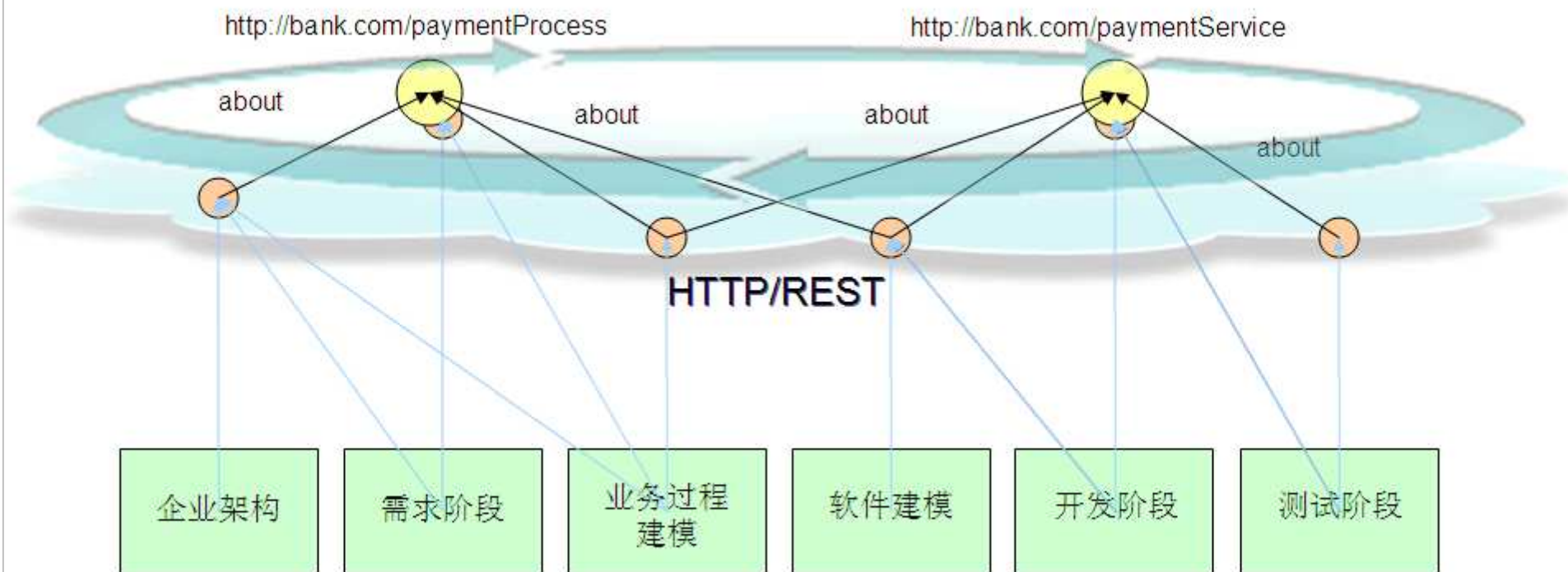
IT 驱动 业务

## 您希望看到的场景—工具集成和维护不再困难





## 您希望看到的场景—一个例子：追踪关系清晰明了



iz1

revist the question about ALM  
Ian Zimmermann, 2009-7-23

## 您希望看到的场景—协作化带来的好处 作为业务人员，您希望看到如下的覆盖分析吗？

查看所有工件

页大小： 20 ▾

▾ 不分组 ▾

<input type="checkbox"/>	标识	名称	Business Priority	Status	实现人	验证人
<input type="checkbox"/>	83	Dividend allocation by percentage	Must	Approved	72: Dividend Allocation by Percentage	18: Dividend Allocation by Percentage
<input type="checkbox"/>	57	Dividend processing payment is a one time transaction.	Must	Approved		
<input type="checkbox"/>	115	Donors will receive confirmation and receipt	Must	Approved	68: Donors will receive confirmation and receipt	14: Donors will receive confirmation and receipt
<input type="checkbox"/>	117	JKE Charity Coordinator will respond to request in the website triggering..	Must	Approved	71: JKE Charity Coordinator will respond to request in the website triggering	17: JKE Charity Coordinator responds to online request
<input type="checkbox"/>	32	Organization must identify how much money is desired	Must	Approved	60: Organization must identify how much money is desired	6: Organization must identify how much money is desired
<input type="checkbox"/>	112	Organizations can apply	Must	Approved	69: Organizations can Apply	15: Organizations can Apply
<input type="checkbox"/>	114	Organizations may apply with an initial request	Must	Approved	62: Organizations may apply with an initial request	8: Organizations may apply with an initial request
<input type="checkbox"/>	82	Customers can nominate an organization for the program	Should	Draft	64: Customers can Nominate an Organization	10: Customers can Nominate an Organization
<input type="checkbox"/>	70	Requests sent in form of hard copy mail	Should	Under Review	58: Requests sent in form of hard copy mail	4: Process hard copy requests
<input type="checkbox"/>	107	Donation by Amount	Should	Approved	67: Donation by amount	13: Donation amount limits
<input type="checkbox"/>	58	Donor Dividend Allocation Criteria	Should	Approved	70: Donor Dividend Allocation Criteria	16: Donor dividend allocation conforms to stated criteria
<input type="checkbox"/>	61	Donors Deposit Money in a Pooled Assistance	Should	Approved	56: Donors Deposit Money Into a Pooled	2: Donors Deposit Money Into a Pooled Assistance

iz2

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Ian Zimmermann, 2009-7-23



您希望看到的场景—协作化带来的好处  
 作为开发人员，您希望看到如下的关联分析吗？

Planned Items ?   Links   Snapshots   Dashboard   Notes

View As: Traceability + + + | + + + | Type to Filter (15 items filtered) + + + Add Work Item +

Actions	Summary	Implements Requirement	Tested By Test Case	Affected by Defect
	Requests sent in form of email	Requests sent in form of email	Process email requests	--
	Organization must identify how much	Organization must identify	Organization must identify	Links (2): 1, 2
	Organizations may apply with an initial	--	Organizations may apply	111: NPE in Frequen
	Customers can Nominate an Organization	Add Implements Requirement...	Customers can Nominate	--
	Organization must provide justification	Organization must provide	Organization must provide	--

iz3

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Ian Zimmermann, 2009-7-23

# 您希望看到的场景—协作化带来的好处

作为测试人员，您希望拥有如下的需求测试追踪性吗？

Rational Quality Manager Your Server Trial License expires in 10 days | tony | Log Out | Type to Search

Admin | Preferences | Classic CD Test project

Requirements | Dashboards | Reports | **Traceability - Requir...**

**Traceability - Requirement, Test Plan, Test Case, TER, Defect**

Traceability report

Requirement	Test Plan	Test Case	TER	TER Result	Defect	Defect State
Add CD to Cart	Classic CD V3.1	Add CD to Cart	Add CD to Cart_windows 2003_DB 2	Failed	Failing Test Case "Add CD to Cart" when executing Test Execution Record "Add CD to Cart_windows 2003_DB 2"	New
Checkout	Classic CD V3.1	Checkout	Checkout_windows 2003_DB 2	Failed	Failing Test Case "Checkout" when executing Test Execution Record "Checkout_windows New 2003_DB 2"	
Order Status	Classic CD V3.1	Order Status	Order Status_windows 2003_Oracle.10g	Passed		
Remove CD from Cart	Classic CD V3.1	Remove CD from Cart	Remove CD from Cart_windows 2003_SQL server 2005	Failed	Failing Test Case "Remove CD from Cart" when executing Test Execution Record "Remove CD from Cart_windows 2003_SQL server ..." Failing Test Case "Remove CD from Cart" when executing Test Execution Record "Remove CD from Cart_windows 2003_SQL server ..."	New New

iz4

revist the question about ALM  
Ian Zimmermann, 2009-7-23



# 您希望看到的场景—协作化带来的好处

## 作为构建人员和测试人员，如何更好的进行协作？

The screenshot displays the IBM Rational Quality Manager (RQM) interface. At the top, it shows 'Tanuj's Dashboard' with a 'General' tab selected. A 'Completed' status box is highlighted with a red box and an arrow, showing details for a build: 'workshop.squawk.build (20100505-1201)'. Below this, a table lists build results:

Build	Label	Progress	Start Time	Duration
workshop.squawk.integration.build	B20080116-1351...	Completed	Wed, 16 Jan 2008 13:...	10 seconds
workshop.squawk.core.continuo...	B20080116-1350...	Completed	Wed, 16 Jan 2008 13:...	24 seconds
workshop.squawk.integration.build	B20080115-1638...	Completed	Tue, 15 Jan 2008 16:3...	11 seconds
workshop.squawk.core.continuo...	B20080115-1637...	Completed	Tue, 15 Jan 2008 16:3...	21 seconds

At the bottom right, a notification box states: 'Build finished successfully workshop.squawk.core.co ntinuous.build B20080116-1350-worksh op.squawk.core.continuo us.build'.

建

构建引擎 (Build Engine)  
 构建队列 (Build Queue)  
 构建定义 (Build Definition)

查询构建  
 结果列表

提醒

Build finished  
 successfully  
 workshop.squawk.core.co  
 ntinuous.build  
 B20080116-1350-worksh  
 op.squawk.core.continuo  
 us.build

# 您希望看到的场景—协作化带来的好处

作为系统管理员，您希望对所有项目和用户进行统一管理吗？

The screenshot displays the IBM Rational software interface. At the top, it shows the user 'zhaojing'. The main content area is titled '所有生命周期项目?' and includes a 'Members for J20项目' section. Below this, there are two lists of project members, each with a '显示项目成员...' link. The first list is for 'J20项目' and the second is for 'JKE Banking'. A table at the bottom lists project details. A red box highlights the 'Members for J20项目' section and the 'Members for JKE Banking' section. A red callout bubble with the text '看息' points to a small icon in the bottom right corner of the interface.

**Members for J20项目**

成员：显示项目成员...

- ▶ J20项目 (更改管理) 位于“Change and Configuration Management”的“/ccm”
- ▶ J20项目 (质量管理) 位于“Quality Management”的“/qm”
- ▶ J20项目 (需求) 位于“Requirements Management”的“/rm”

**Members for JKE Banking**

成员：显示项目成员...

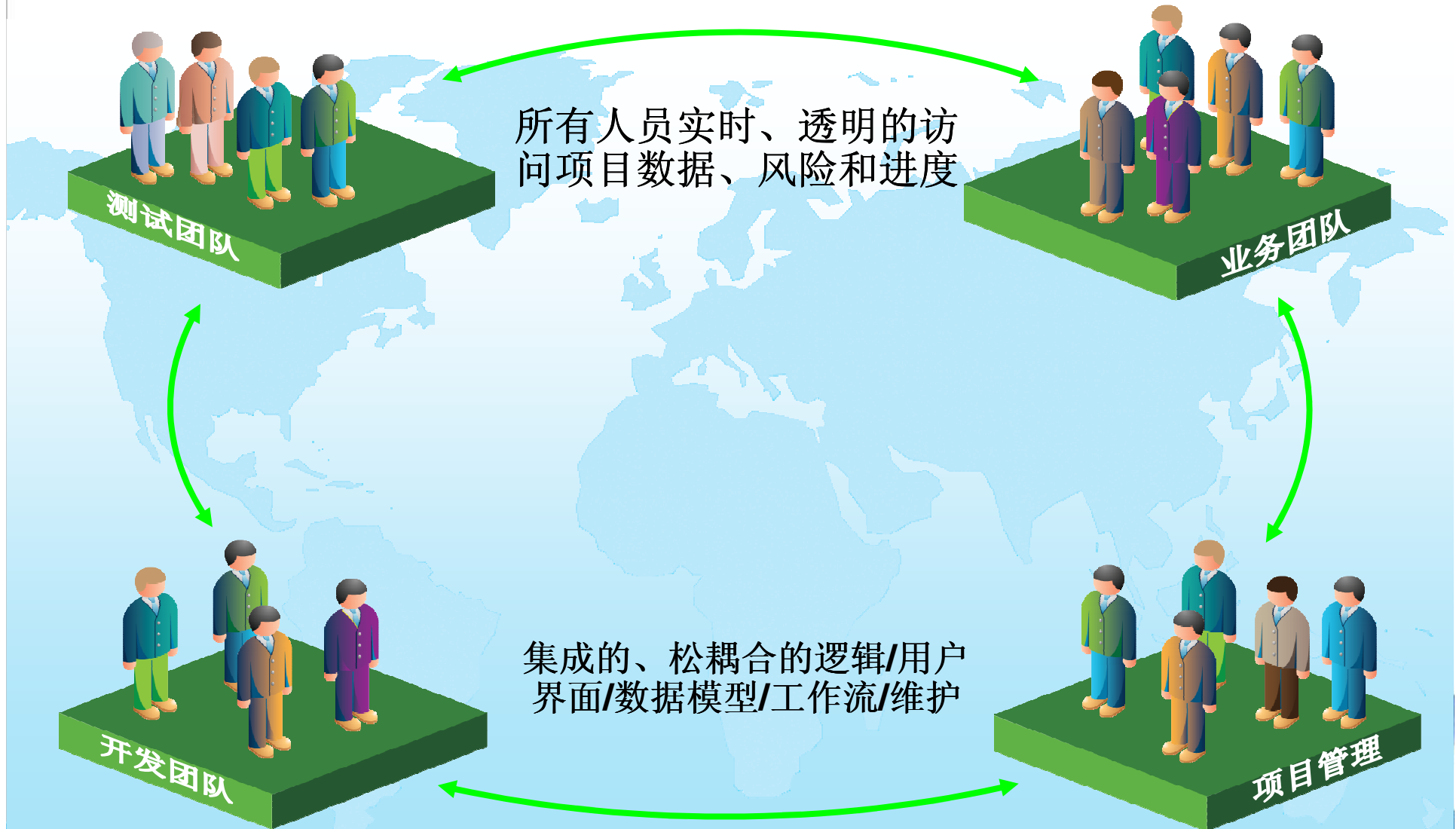
- ▶ JKE Banking (Change Management) 位于“Change and Configuration Management”的“/ccm”
- ▶ JKE Banking (Quality Management) 位于“Quality Management”的“/qm”
- ▶ JKE Banking (Requirements) 位于“Requirements Management”的“/rm”

Name	Container	Role	Default
AI	Artifact Container		
Bob			
Build			
Curtis			
Deb			
zhaojing			
fancy Member			
JKE Banking	quality management	R	default, test team member
JKE Business Recovery Matters	Requirements Management	R	Administrator, Author, default

iz5

revist the question about ALM  
Ian Zimmermann, 2009-7-23

## 您希望看到的场景—CLM



## 内容

- 当前您正在面临的问题？
- 未来您希望看到的场景！
- **IBM CLM**方案及其业务价值

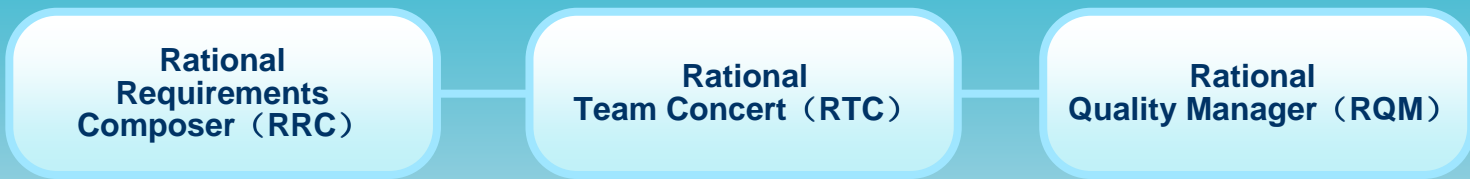


IT 驱动 业务

## IBM CLM方案



### IBM Rational solution for Collaborative Lifecycle Management





## CLM Solution 价值：部署简单

- 一个安装包，一次统一安装三个产品

IBM Installation Manager

### Install Packages

Select packages to install:

Installation Packages	Status
<ul style="list-style-type: none"> <li> <input type="checkbox"/> IBM® Rational® Requirements Composer Browser Add-Ons                             <ul style="list-style-type: none"> <li><input type="checkbox"/> Version 3.0.1 M13</li> </ul> </li> <li> <input checked="" type="checkbox"/> Jazz Team Server and CCM, QM, and RM Applications                             <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Version 3.0.1 M13</li> </ul> </li> </ul>	<p>Installed</p> <p>Installed</p> <p>Installed</p> <p>Will be installed</p>
<ul style="list-style-type: none"> <li> <input type="checkbox"/> Rational Team Concert - Build System Toolkit                             <ul style="list-style-type: none"> <li><input type="checkbox"/> Version 3.0.1 M13</li> </ul> </li> </ul>	<p>Installed</p> <p>Installed</p>
<ul style="list-style-type: none"> <li> <input type="checkbox"/> Rational Team Concert - ClearCase Synchronizer                             <ul style="list-style-type: none"> <li><input type="checkbox"/> Version 3.0.1 M13</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li> <input type="checkbox"/> Rational Team Concert - ClearQuest Synchronizer                             <ul style="list-style-type: none"> <li><input type="checkbox"/> Version 3.0.1 M13</li> </ul> </li> </ul>	



## CLM Solution 价值：部署简单

- 统一部署向导，一次部署三个产品
- 部署好后，底层的链接关系和生命周期报告都自动生成

**Jazz**  
TEAM SERVER & APPLICATION SETUP

Introduction

Welcome to the Jazz Team Server setup wizard! This setup wizard contains configuration steps for the applications you just installed. The first section will configure the Jazz Team Server. You'll be able to set up the database, configure email settings, configure the user registry, and register applications with this Jazz Team Server. During the "Register Applications" step, the wizard will detect the applications you have installed and allow you to register them. Upon registration, additional configuration steps for each application may be added to this wizard. Once you have completed all of the steps, you will see a "Summary" step which will provide you with an overview of the changes and some additional information to help you learn more about Jazz.

NOTE: Once you start this wizard, you should continue until you have completed each step. Leaving the setup wizard without finishing each step may cause the Jazz Team Server or one or more of the applications to get into a bad state. Keep in mind, you will have an opportunity to come back to this setup wizard to modify the configuration once you have completed the setup.

To get started, click the "Next" button below.

Configure the Server → Register and Configure Applications → Finalize Steps and Get Started

## CLM Solution 价值：管理简单

- 统一管理ALM项目
- 可以使用多种模板

Rational Jazz Team Server (localhost:9443/jts)

生命周期项目管理 fancy

项目 成员 模板 样本

所有生命周期项目 >

fancy\_test 保存

模板：  
 语言环境：  
 描述：

模板：  
 质量专家、分析人员和开发者  
 质量专家、分析人员和开发者  
 质量专家和开发者 - 没有需求  
 质量专家和分析人员  
 分析人员和开发者  
 分析人员  
 质量专家 - 没有缺陷和需求  
 开发者  
 质量专家、分析人员和开发者 - 具有单独的质量管理任务和请求更改请求空的生命周期项目

工件容器

模板的工件容器 (3)

方法	工件容器	操作
创建：	fancy_test (需求) "Requirements Management" 的 /rm 中的项目区域 ↳ 将 需求 提供给 fancy_test (质量管理)	<span>链接到现有...</span>
创建：	fancy_test (更改管理) "Change and Configuration Management" 的 /ccm 中的项目区域 ↳ 将 实现请求 提供给 fancy_test (需求) ↳ 将 缺陷 提供给 fancy_test (质量管理) ↳ 将 质量管理任务 提供给 fancy_test (质量管理) ↳ 将 需求更改请求 提供给 fancy_test (需求)	<span>链接到现有...</span>
创建：	fancy_test (质量管理) "Quality Management" 的 /qm 中的项目区域	<span>链接到现有...</span>

敏捷需求模板  
 Scrum  
 质量管理缺省 V3 过程

## CLM Solution—Life Cycle 项目模板

所有生命周期项目模板?

导入模板 | 部署预定义的模板 |

名称	摘要	操作
质量专家、分析人员和开发者	此模板将设置用于进行质量管理、需求管理以及“更改和配置”管理的相关联项目区域。（质量管理中的）测试人员和（需求管理中的）分析人员的工作与（“更改和配置管理”中的）开发工作进行集成，并且将在“更改和配置管理”项目中跟踪质量管理任务和请求更改。可以将“更改和配置管理”项目区域配置为使用 Scrum、OpenUP 或“正式项目管理”过程模板。可以将“需求管理”项目区域配置为使用“基本”、“用例”、“敏捷需求”或“传统需求”项目模板。	
质量专家和开发者 - 没有需求	此模板将设置一个用于进行“更改和配置管理”以及测试管理的相关联项目区域。（质量管理中的）测试人员的工作与（“更改和配置管理”中的）开发工作进行集成，并且将在“更改和配置管理”项目中跟踪质量管理任务。可以将“更改和配置管理”项目区域配置为使用 Scrum、OpenUP 或“正式项目管理”过程模板。如果其他工具和集成将用于此能力，那么将不会设置需求的能力。	
质量专家和分析人员	此模板设置用于质量管理的需求管理的相关联项目区域。将在单独的项目区域中跟踪质量管理任务和请求更改。可以将“需求管理”项目区域配置为使用“基本”、“用例”、“敏捷需求”或“传统需求”项目模板。如果其他工具和集成将用于这些能力，那么将不会设置缺陷的能力。	
分析人员和开发者	此模板将设置用于进行需求管理以及进行“更改和配置”管理的相关联项目区域。（需求管理中的）分析人员的工作与（“更改和配置管理”中的）开发进行集成，并且将在“更改和配置管理”项目中跟踪需求更改请求。可以将“更改和配置管理”项目区域配置为使用 Scrum、OpenUP 或“正式项目管理”过程模板。可以将“需求管理”项目区域配置为使用“基本”、“用例”、“敏捷需求”或“传统需求”项目模板。	
分析人员	此模板将设置用于需求管理的相关联项目区域。将在单独的项目区域中跟踪需求更改请求。可以将“需求管理”项目区域配置为使用“基本”、“用例”、“敏捷需求”或“传统需求”项目模板。	
质量专家 - 没有缺陷和需求	此模板设置用于质量管理的相关联项目区域。将在单独的项目区域中跟踪质量管理任务。如果其他工具和集成将用于这些能力，那么将不会设置缺陷和需求的能力。	
开发者	此模板将设置用于进行“更改和配置”管理的项目区域。可以将“更改和配置管理”项目区域配置为使用 Scrum、OpenUP 或“正式项目管理”过程模板。	
质量专家、分析人员和开发者 - 具有单独的质量管理任务和请求更改请求	此模板将设置用于进行质量管理、需求管理以及“更改和配置”管理的项目区域。（质量管理中的）测试人员的工作和（需求管理中的）分析人员的工作与（“更改和配置管理”中的）开发团队无关。将在单独的项目区域中跟踪质量管理任务和请求更改。可以将“更改和配置管理”项目区域配置为使用 Scrum、OpenUP 或“正式项目管理”过程模板。可以将“需求管理”项目区域配置为使用“基本”、“用例”、“敏捷需求”或“传统需求”项目模板。	



## CLM Solution 价值：管理简单

- 管理员可以：
  - 在ALM中统一管理用户，包括新增、删除等
  - 编辑用户在ALM中的过程角色

Rational Jazz Team Server (clm.ibm.com:9443/jts)

**Lifecycle Project Administration** cp

Projects Members Templates Configurations Sample

Members for Project **Money that Matters Sample** [Add Member](#) [Save](#)

The members page provides an easy way to manage the members of a Lifecycle Project. From here, you can add, remove, and view the summary of each users row within your project and its set of capabilities.

Show All  Items Per Page Previous | 1 - 12 of 12 | Next

Name	User ID	CCM	QM	RM	Status	Actions
Al	al	✓	✓	✓	Ok	
Bob	bob	✓	✓	✓	Ok	
Build	build	✓			Ok	
cp	cp	✓	✓	✓	Ok	
Curtis	curtis			✓	Ok	

Show Member Details

## CLM Solution 价值：融入IBM ALM最佳实践

**Bob – Product Owner**



- 收集、定义需求；
- 关联需求和开发；
- 保证需求驱动开发；

**Scott, Deb – Developers**

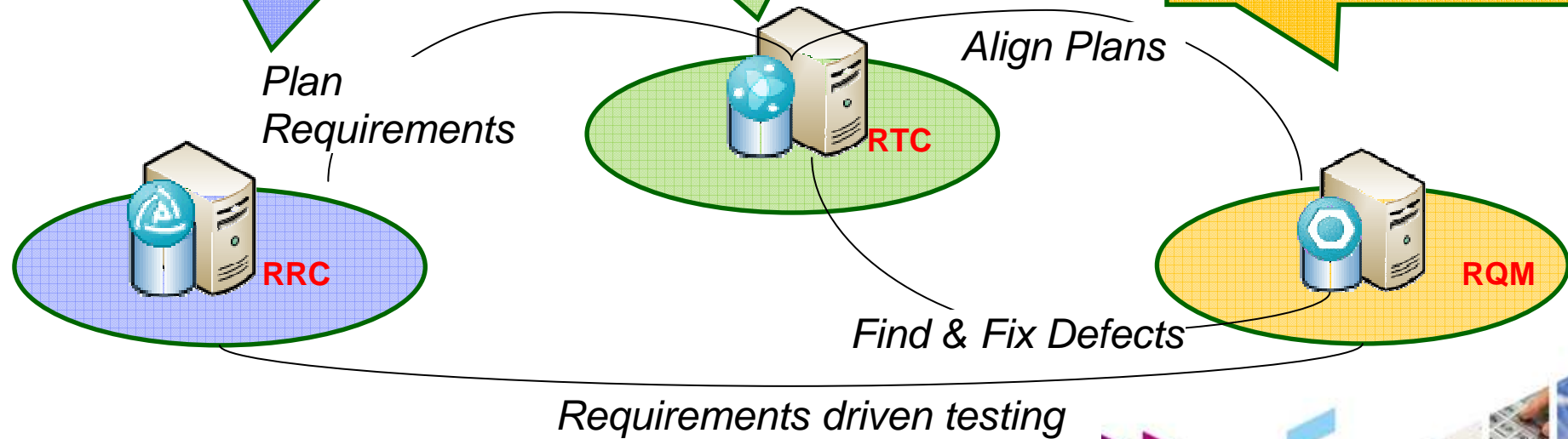


- 根据需求生成开发计划；
- 开发和交付变更；

**Tanuj – Tester**



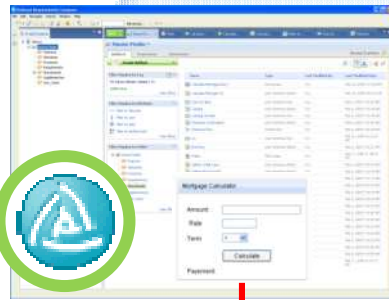
- 验证需求；
- 提交缺陷；
- 测试迭代；



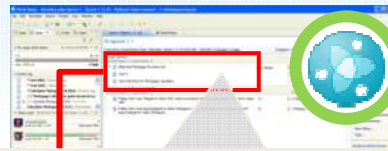


## 通过协作，促进业务融合并提高质量 需求关联促进开发透明化、测试明确化

业务人员  
RRC

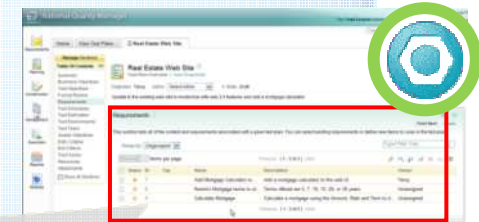


开发人员  
RTC



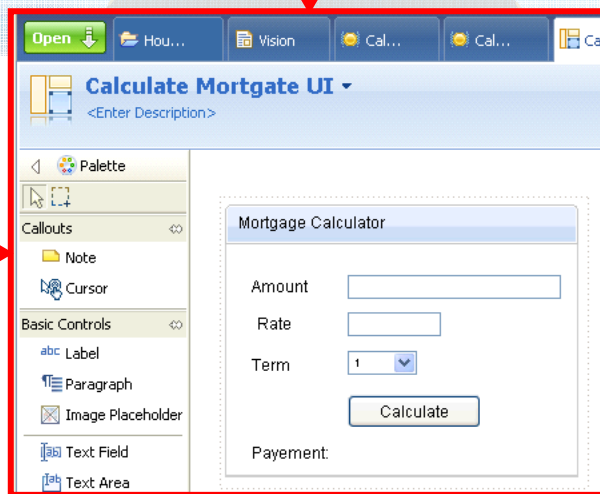
开发人员的工作任务直接可以关联到需求，开发透明化。

测试人员  
RQM



测试人员通过测试计划和测试用例关联到需求，测试目的明确化。

业务人员在RRC中，通过需求关联查看开发计划和测试计划，了解需求被实现和被测试的进展。



## 通过协作，促进业务融合并提高质量 缺陷关联加速解决时间



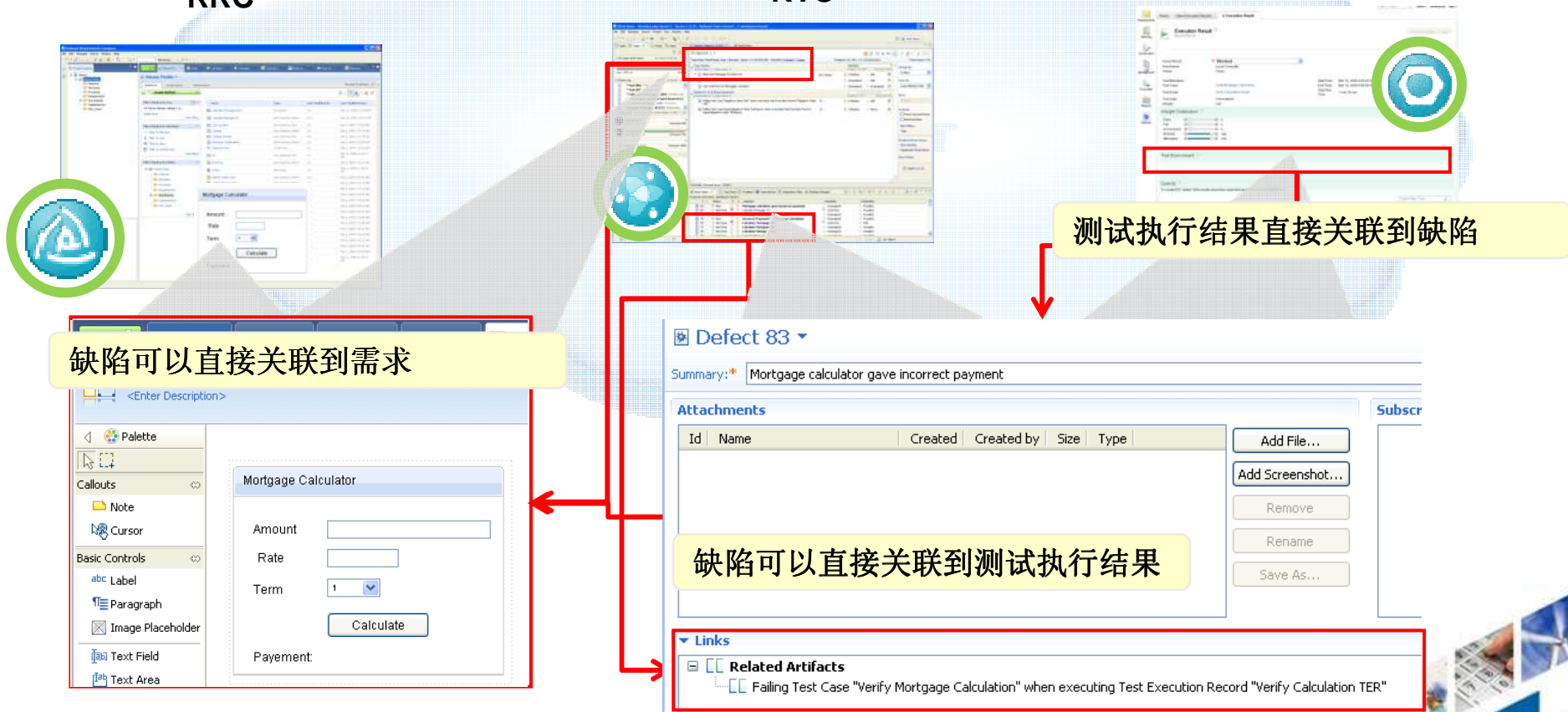
业务人员  
RRC



开发人员  
RTC



测试人员  
RQM



## CLM Solution价值：使用例子体现IBM最佳实践

Rational Jazz Team Server  
Lifecycle Project Administration  
Projects Members Templates **Sample** Configuration

### Welcome to the Money that Matters sample

#### Create sample project

This sample provides an in-flight perspective of the collaborations that occur on a typical Agile team. Walk through an iteration with the team as they deliver a new feature to support an important corporate initiative called Money that Matters. To learn more about the Money that Matters sample, check out the 'Find out more' section.

Please select the applications to install the sample in:

- Requirement Server (<https://wb.clm.com:9443/rm>)
- Quality Management (<https://wb.clm.com:9443/qm>)
- Change and Configuration Management (<https://wb.clm.com:9443/ccm>)

We strongly recommend that you deploy the sample project to a test server or your local host, not a production server.

**Create**

Rational Jazz Team Server  
Lifecycle Project Administration  
Projects Members Templates Sample Configuration

### Welcome to the Money that Matters sample

Please wait while we create the Money that Matters sample for you...

Sample creation in progress... (7% complete)

- ✓ Running pre-validation checks
- ➔ **Creating users** ...
  - Initializing cross application communication
  - Creating project area 'JKE Business Recovery Matters (Requirements)' in Requirement Server
  - Creating project area 'JKE Banking Development' in Change and Configuration

### Welcome to the Money that Matters sample

✓ You have successfully created the sample.

#### Select one of the following projects to explore:

- Quality Management** (<https://wb.clm.com:9443/qm>)
  - Explore JKE Banking project
  - Manage project
- Requirement Server** (<https://wb.clm.com:9443/rm>)
  - Explore JKE Banking project
  - Manage project
- Change and Configuration Management** (<https://wb.clm.com:9443/ccm>)
  - Explore JKE Banking project
  - Manage project



# CLM Solution 价值：使用例子体现IBM最佳实践

Change and Configuration Management (/ccm)

JKE Banking (Change Management)

Project Dashboards | Work Items | Plans | Source Control | Builds | Reports

All JKE Banking (Change Management) Dashboards >

JKE Banking (Change Management)

Overview | 1.0 Planning | 1.0 Development | **1.0 Testing** | 1.0 Requirements | 1.0 Reports

**Open Defects (18)**

- 82: Failing Test Case "Test braking system"
- 77: Failing Test Case "Allocate Dividends by Percentage"
- 76: Failing Test Case "Organization must provide justification for why funds are needed"
- 28: Login not working anymore
- 21: Some messages are not externalized
- 25: Logout is not working anymore
- 71: Failing Test Case "Allocate Dividends by Percentage"
- 22: Calculation error
- 20: Browser Exception
- 19: Widget Disposed Exception

Page 1 of 2

**Defects blocking Tests (3)**

- 77: Failing Test Case "Allocate Dividends by Percentage"
- 76: Failing Test Case "Organization must provide justification for why funds are needed"
- 28: Login not working anymore

**Defects ready for Testing (17)**

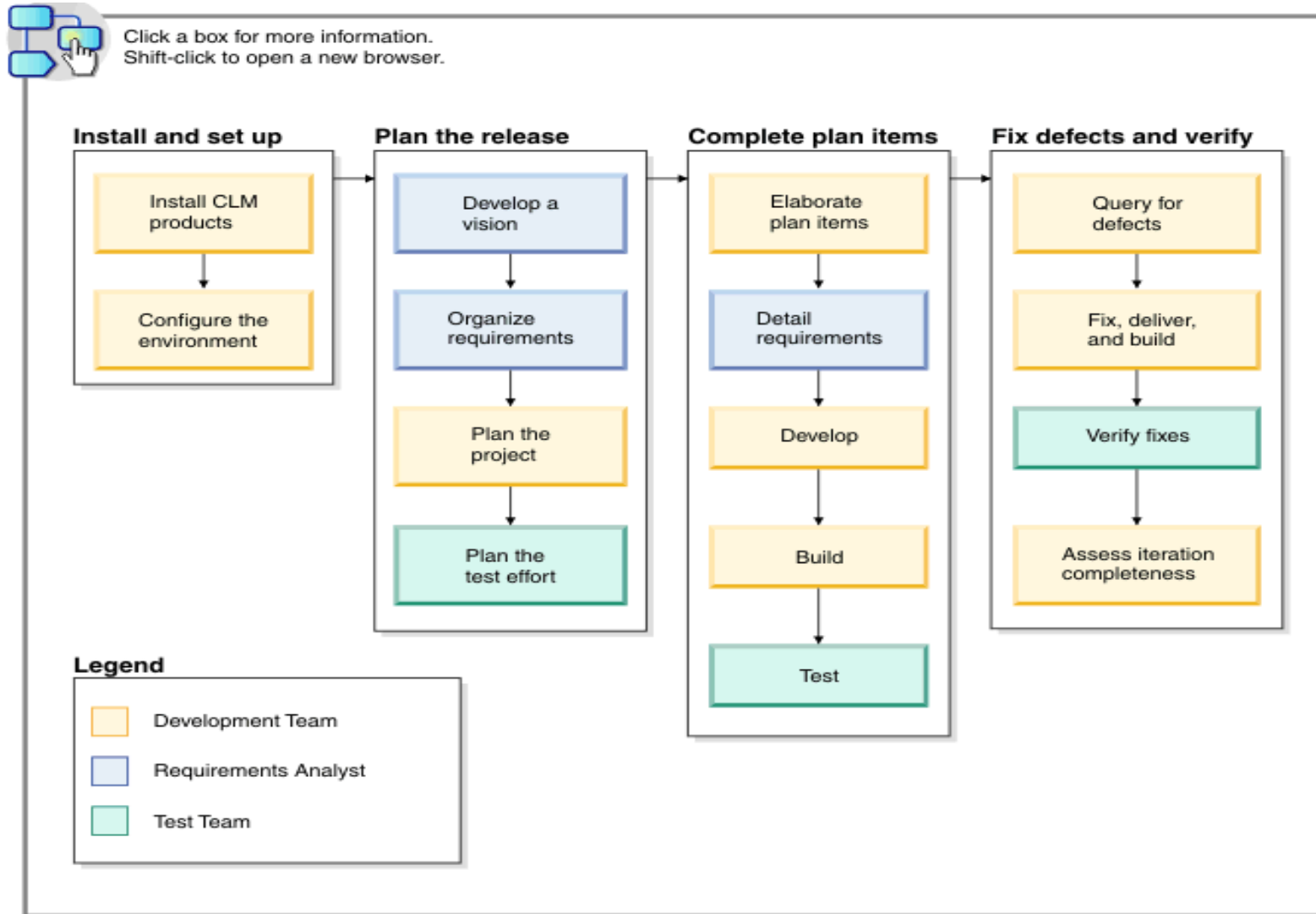
- 14: Unable to login (Read timed out)
- 24: Performance on first startup is bad
- 16: Password is not protected in login form
- 15: Login field is too small
- 23: Search is not finding this term
- 37: SWT Exception
- 35: Running out of SWT handles
- 36: Found this SWT Exception in the logs
- 27: Improve link colors
- 26: Some links are not working

Page 1 of 2

**Stories Ready for Testing (5)**

- 69: Dividend Allocation by Percentage
- 65: Donors will receive confirmation and receipt
- 62: Donors Chooses an Organization
- 60: Donors Can Choose to Support an Organization
- 54: Allocate Dividends by Percentage

## CLM Solution价值：包含场景导览





## CLM Solution价值：方便的信息追踪

The screenshot displays the IBM Rational Requirements Management (RM) interface. A central window titled "75: Dividend Allocation by Percentage" is open, showing details for a requirement. Below it, a table lists various requirements, with a hand cursor pointing to requirement 75. The table columns include ID, Name, Type, and Validated By.

ID	Name	Type	Validated By
5	Dividend allocation by percentage	Feature	7: Allocate dividends by amount and frequency
8	Dividend allocation by percentage	Feature	18: Dividend Allocation by Percentage
11	Customers can nominate an organization for the program	Feature	21: Customers can nominate an organization for the program 10: Customers can Nominate an Organization
12	Donor Dividend Allocation Criteria	Feature	16: Donor Dividend Allocation Criteria
<b>Satisfied by</b>			
23	Frequency of dividend transfer	Feature	1: Frequency of dividend transfer
<b>Satisfied by</b>			
5	Dividend processing payment is a one time transaction.	Feature	

**75: Dividend Allocation by Percentage** Details:

- Status:** Done
- Summary:** Dividend Allocation by Percentage
- Details:**
  - Type: Story
  - Filed Against: JKE/BRM
  - Story Points: 8 pts
  - Progress: [Progress bar]
  - Team Area: Business Recovery Matters / JKE Banking
  - Creation Date: September 1, 2010 10:18 AM
  - Created By: Bob
  - Tags: Deb
  - Owned By: Deb
  - Priority: High
  - Planned For: Sprint 1
  - Resolution Date: October 1, 2010 10:18 AM
  - Resolved By: Deb
- Quick Information:**
  - Subscribers (1): B
  - Children (1): 57
  - Implements Requirement (1): 1
  - Tested By Test Case (1): 1

## CLM Solution价值：方便的信息追踪

### Story 83

Summary: \* Donor Chooses Multiple Organizations

Overview Acceptance Links Approvals History

#### Attachments

Add File:  Browse...

No Attachments.

#### Links

Add: Children

##### Tested By Test Case

↳ 30: Allocate Dividends to multiple causes

##### Children

↳ 89: Analyze impact of this screen flow design

↳ 88: Update the story board to reflect multiple organizations

↳ 86: Update cobol

↳ 85: Implement user interface

↳ 87: Construct test case

##### Implements Requirement

↳ 117: Donor Chooses Multiple Organizations

### Bob's Dashboard

Analyst in Composer

General +

#### My Tasks

Type Filter Text

« Previous | 1 - 1 of 1 | Next »

ID	Summary	Artifact	State
88	Update the story board to reflect multiple organizations		New

« Previous | 1 - 1 of 1 | Next »

### Tanuj's Dashboard

Tester in Quality Manager

General +

#### My Tasks

Type Filter Text

« Previous | 1 - 1 of 1 | Next »

ID	Summary	Artifact	State
87	Construct test case		New

« Previous | 1 - 1 of 1 | Next »

## CLM Solution价值：追踪性可以提高质量和预测能力

JKE Banking (Change Management) JTSAdmin

Project Dashboards ▾ Work Items ▾ Plans ▾ Source Control ▾ Builds ▾ Reports ▾

Search Work Items

---

**BRM Sprint 2 (1.0) Plan** \* ? Auto-Save Save

26 items: 23 open, 3 closed | Ends in: 10 days

Plan Details Edit

Planned Items ? Links Snapshots Dashboard Notes

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

Actions	Summary	Implements Requirement	Tested By Test Case	Affected by Defect
存在问题	Donor Dividend Allocation Criteria	Donor Dividend Allocation Criteria	Donor dividend allocation conforms to st	-39: Failing Test C
	Frequency of dividend transfer	Frequency of dividend transfer	Verify dividend transfer frequency	--
不完整的	Requests sent in form of email	Requests sent in form of email	--	--
	Organization must identify how much money is de	--	--	--
完整的	Organizations may apply with an initial request	Organizations may apply with an initial request	Organizations may apply with an initial re	--
	Customers can Nominate an Organization	Customers can nominate an organization for th	Customers can Nominate an Organizati	--
	Organization must provide justification for why fun	Organization must provide justification for why f	Organization must provide justification fo	Links (2): 1, 2
	Organizations can Apply	Organizations can apply	--	--
	JKE Charity Coordinator will respond to request in	JKE Charity Coordinator will respond to request	JKE Charity Coordinator responds to onl	--

## CLM Solution 价值：大量开箱即用的ALM查询和报告

- 提供开箱即用的追踪性查询
- 提供基于BIRT的报告和文档模板；
- 提供基于Cognos的高级报告，方便用户定制

### Queries

#### Traceability in CALM - Requirement, Test Case, TER, TER Result, Defect

##### Parameters

Project Area: JKE Banking (Quality Management)  
 Test Plan: JKE Banking Release 1, JKE Banking Sprint 1, JKE Banking Sprint 2

##### Traceability - Requirement, Test Case, TER, TER Result, Defect

Requirement	Test Case	Test Plan of TER	TER	Execution Result	Defect	Defect State
Dividend allocation by percentage	Dividend Allocation by Percentage	JKE Banking Sprint 1	Dividend_Allocation_by_Percentage_Firefox_DB2_WAS_Linux	Passed		
			Dividend_Allocation_by_Percentage_Firefox_DB2_WAS_Windows	Passed		
			Dividend_Allocation_by_Percentage_InternetExplorer_DB2_WAS_Windows	Not Run		
		JKE Banking Sprint 2	Dividend_Allocation_by_Percentage_Firefox_DB2_WAS_Linux	Not Run		
			Dividend_Allocation_by_Percentage_Firefox_DB2_WAS_Windows	Passed		
			Dividend_Allocation_by_Percentage_InternetExplorer_DB2_WAS_Windows	Not Run		

##### About This Report

This report shows the traceability of Requirements that are associated with Test Cases, TER, current TER result, the summary and status of the defects filed on executing the TER. The requirements are from RDRP and defects are from RTC.

Plan Items with Tests not run (current iterati) Open work items in the current iteration associated with tests that not been executed



## CLM Solution 价值：真正的ALM仪表盘

The screenshot shows a web browser window titled "JKE Banking (Quality Management)". The browser's address bar shows a URL starting with "http://". The main content area displays the iGoogle search engine interface. A navigation menu at the top includes "Requirements", "Planning", "Construction", "Lab Management", "Builds", "Execution", "Reports", and "Defects".

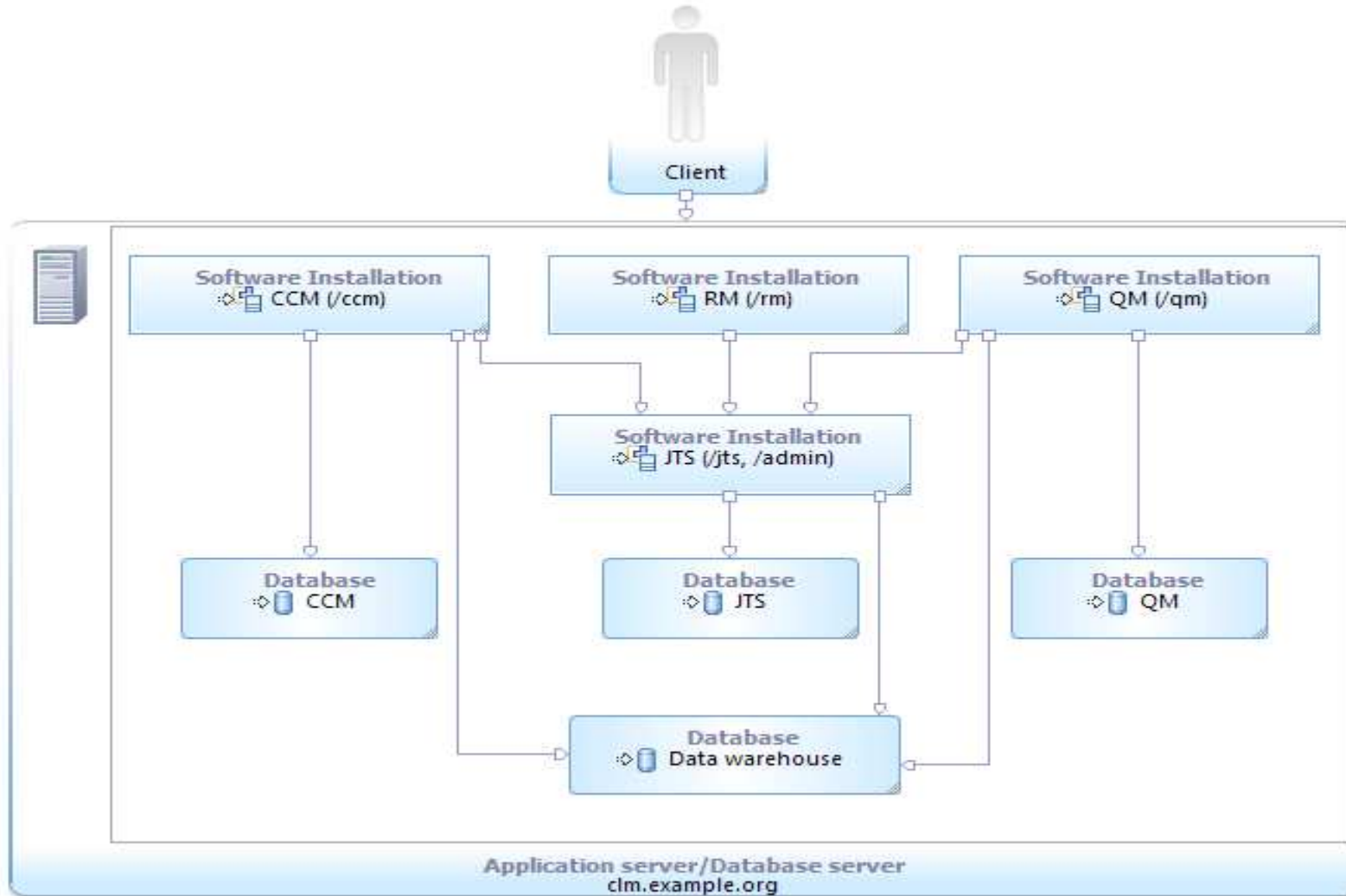
Several browser windows are open, highlighted with red boxes:

- All Open (Left):** A list of search results for "All Open". The results include:
  - 3: CompositeRunner.filter incorrect if child throws NoTestsRema
  - 4: BaseTestRunner.getTest() requires class to extend TestCase
  - 8: assertThat signature does not match Matcher
  - 9: assertThat fails with Class tests (documentation problem)
  - 10: Who's responsible to deploy in maven central repository?
  - 11: No download link to latest version
  - 12: timeout doesn't work properly for >=2 cases in junit4.3?
  - 13: Tests on protected methods fail
  - 18: distribution cookbook out of date
  - 23: suite() method should not matter for JUnit 4 tests
- Google Calendar (Middle):** A calendar view for June 2010. The date June 1st is highlighted. Below the calendar, the schedule for "Today (Tue, Jun 1)" and "Tomorrow (Wed, Jun 2)" is shown, including events like "Jazz Foundation Deep Dive" and "Jazz Foundation PMC".
- All Open (Right):** A second instance of the "All Open" search results window, showing the same list of search results as the first window.



## CLM Solution 价值：灵活的部署方式

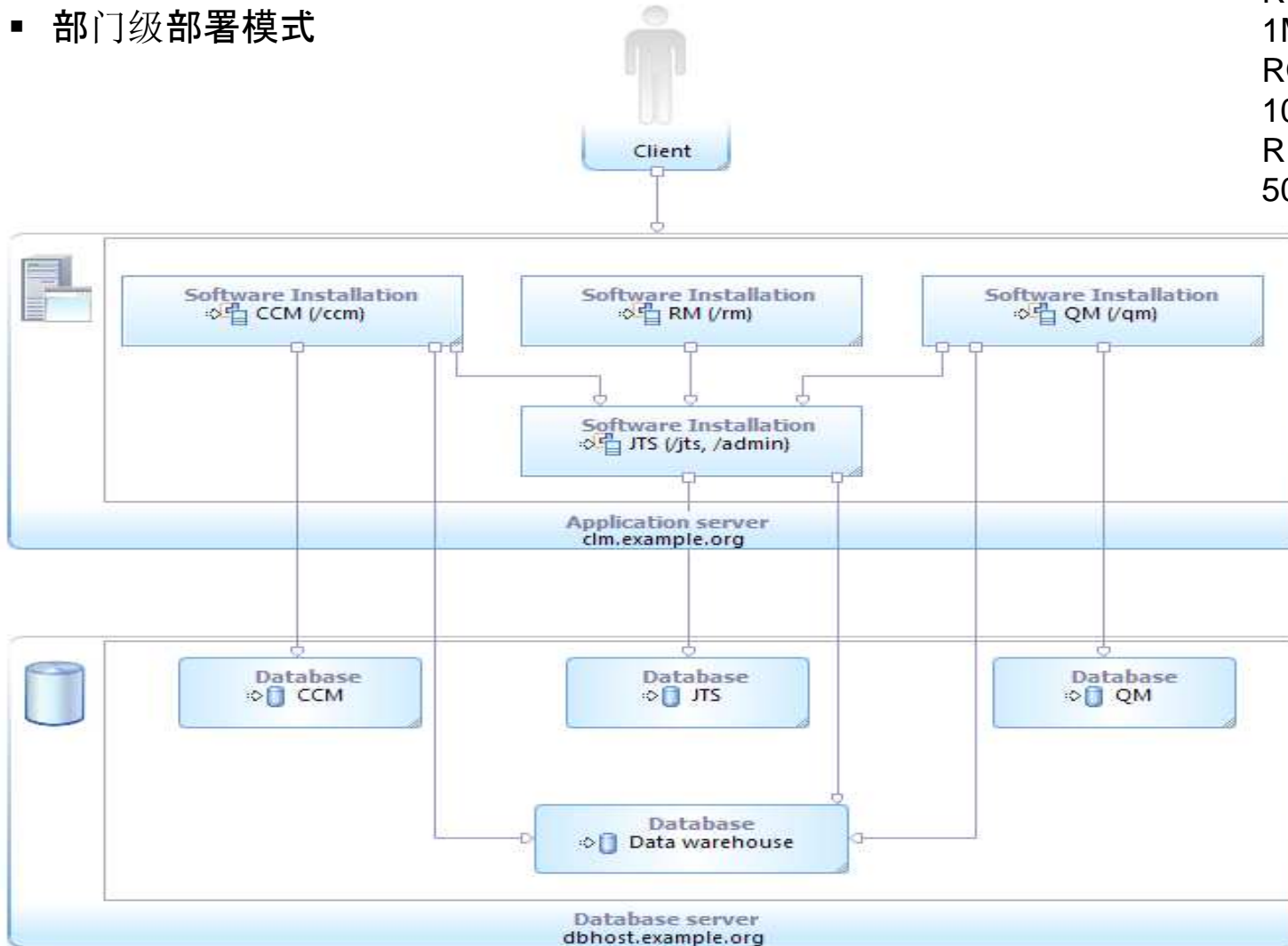
- 小团队的部署模式



## CLM Solution 价值：灵活的部署方式

- 部门级部署模式

支持数据量：  
 RTC with 400 Users and 1M artifacts (60GB)  
 RQM with 50 users and 100K artifacts (3GB)  
 RRC with 50 users and 50K artifacts



## CLM Solution 价值：灵活的部署方式

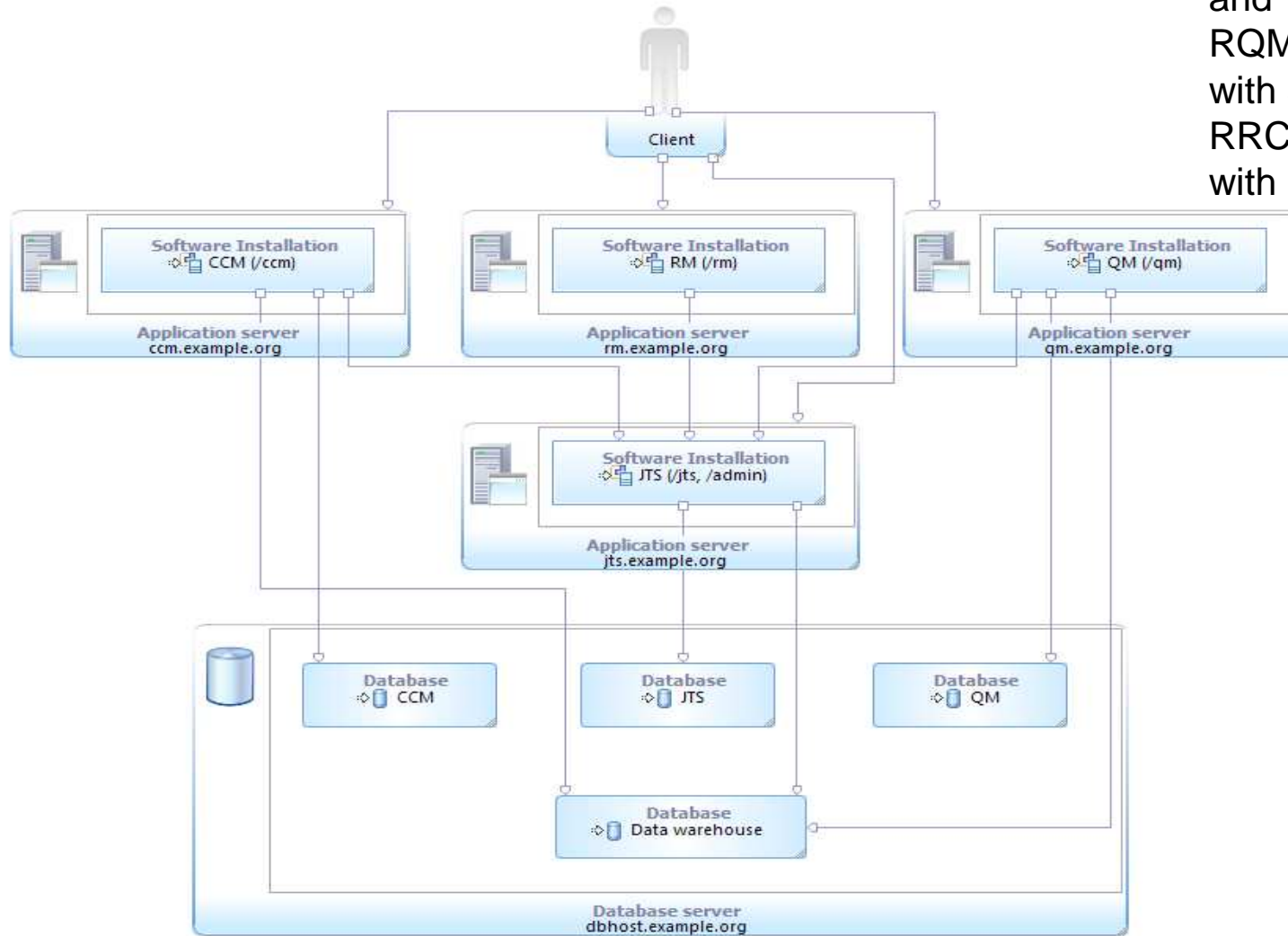
- 中到大团队部署模式

支持数据量：

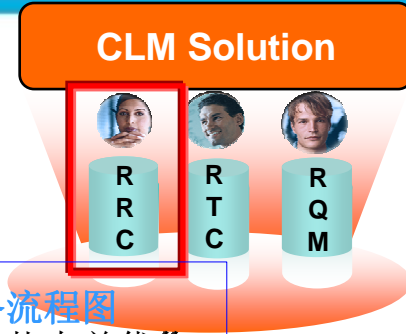
RTC will support 700 users and 1M artifacts (60GB).

RQM will support 500 users with 500K artifacts (15GB).

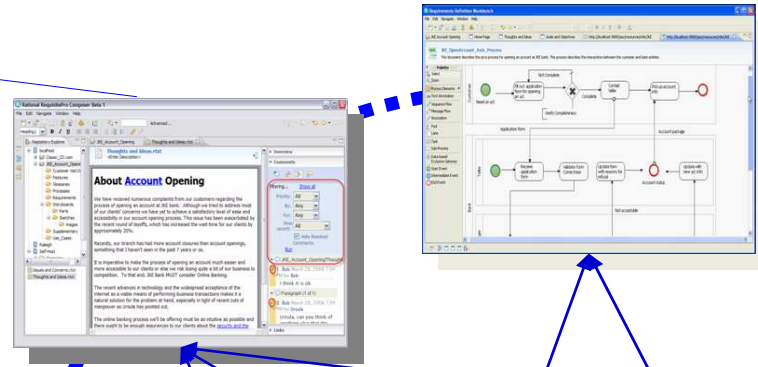
RRC will support 100 users with 100K artifacts.



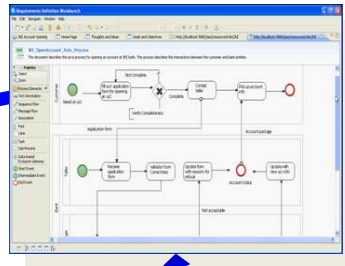
## CLM加速实现包，增强ALM中各个领域的能力 RRC应用多种技术来控制、追踪和管理需求



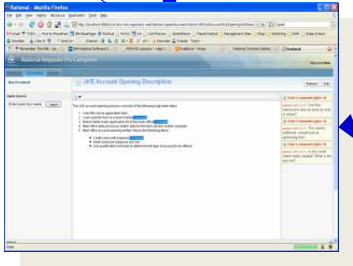
使用富文本，图片和超链接来捕获和结构化纷繁的信息



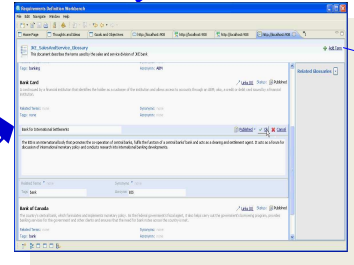
使用业务流程图捕获当前状态并优化流程



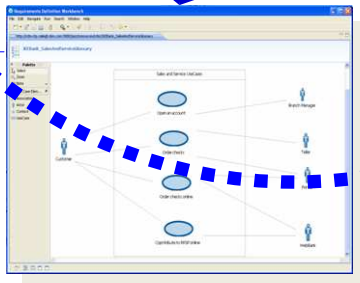
通过Wiki 进行实时协作，包括讨论评审，使业务人员和开发团队快速达成一致



使用动态术语表排除模糊业务和技术术语



使用用例模型细化并提炼功能需求



使用草图、故事板和原型从用户体验的角度基于业务流程的可视化的UI界面流





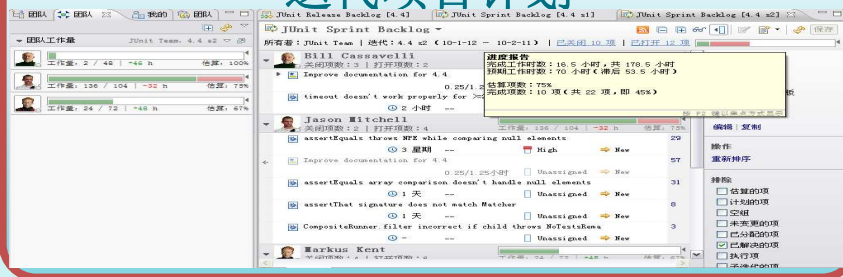
## CLM加速实现包，增强ALM中各个领域的的能力

- **RTC**是一个实时的协作式软件开发平台，目标是提升软件开发团队的协作能力、创新能力和生产率

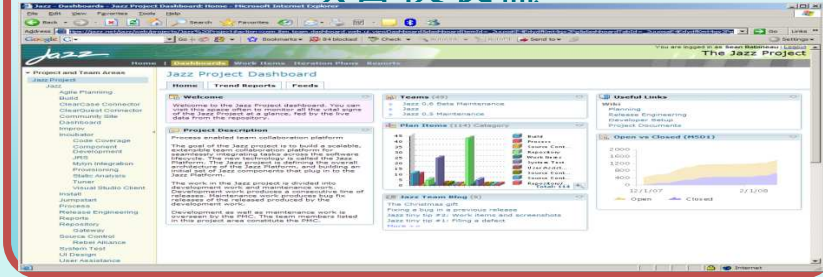
### CLM Solution



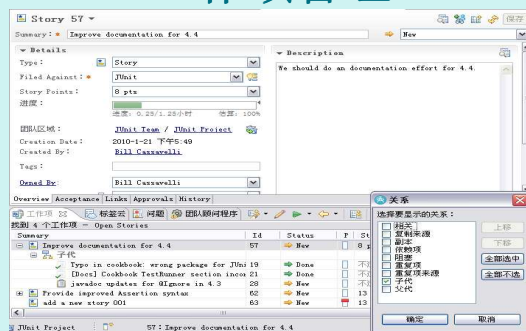
### 迭代项目计划



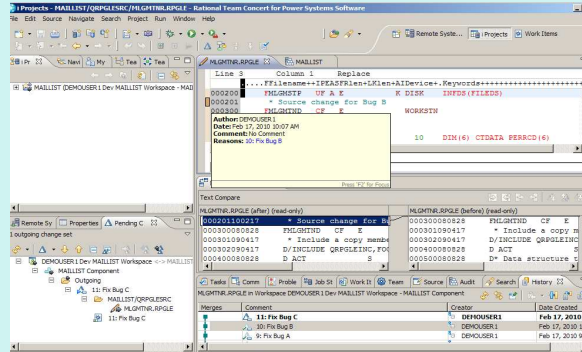
### 项目仪表盘



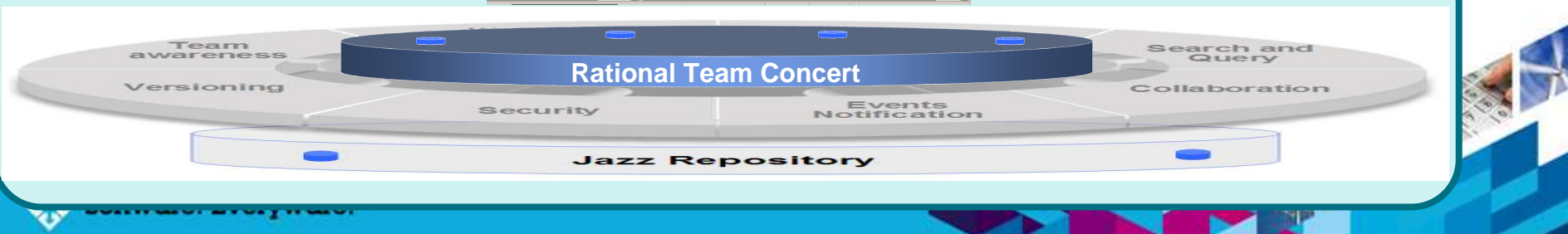
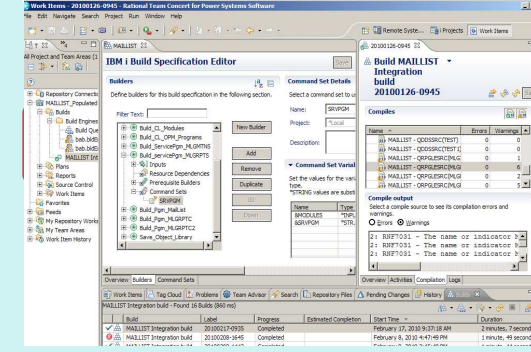
### 工作项管理



### 软件版本管理



### 软件构建管理





## CLM加速实现包，增强ALM中各个领域的的能力

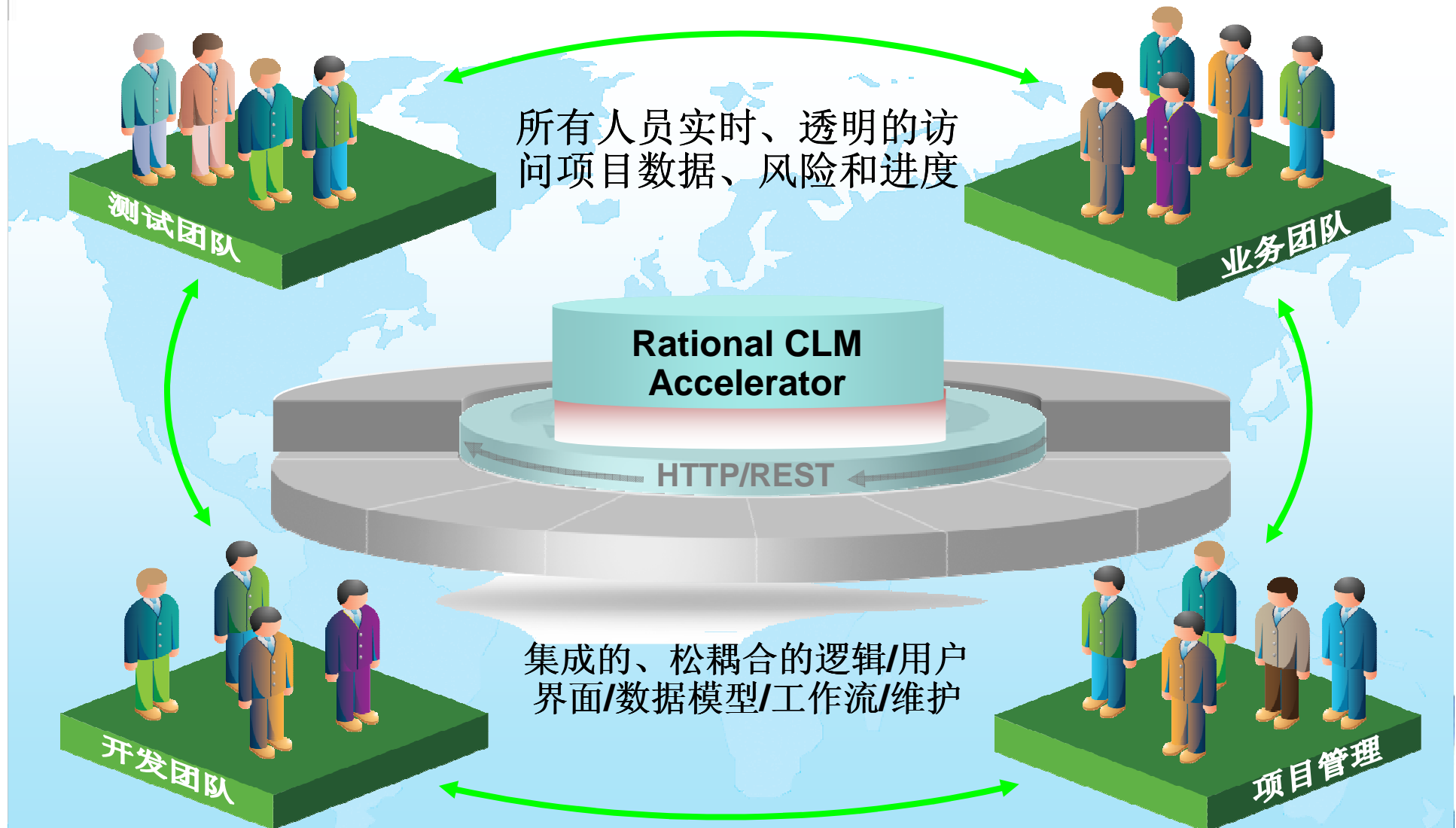
- **RQM**是一个全面的质量管理平台，目标是为质量管理团队提供统一流程而又按角色分工的集成平台。



## CLM Solution—基于Jazz平台



## IBM CLM加速实现包



# Questions



