



IBM Software Group

使用**RTC3.0**實行委外專案管理案例分析

Rational. software

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IBM, SWG, Rational

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軟體開發團隊的窘境

— Software Development Must Delive

- ✓ More business solutions
- ✓ More flexibility
- ✓ More quality
- ✓ More business value

-yet-

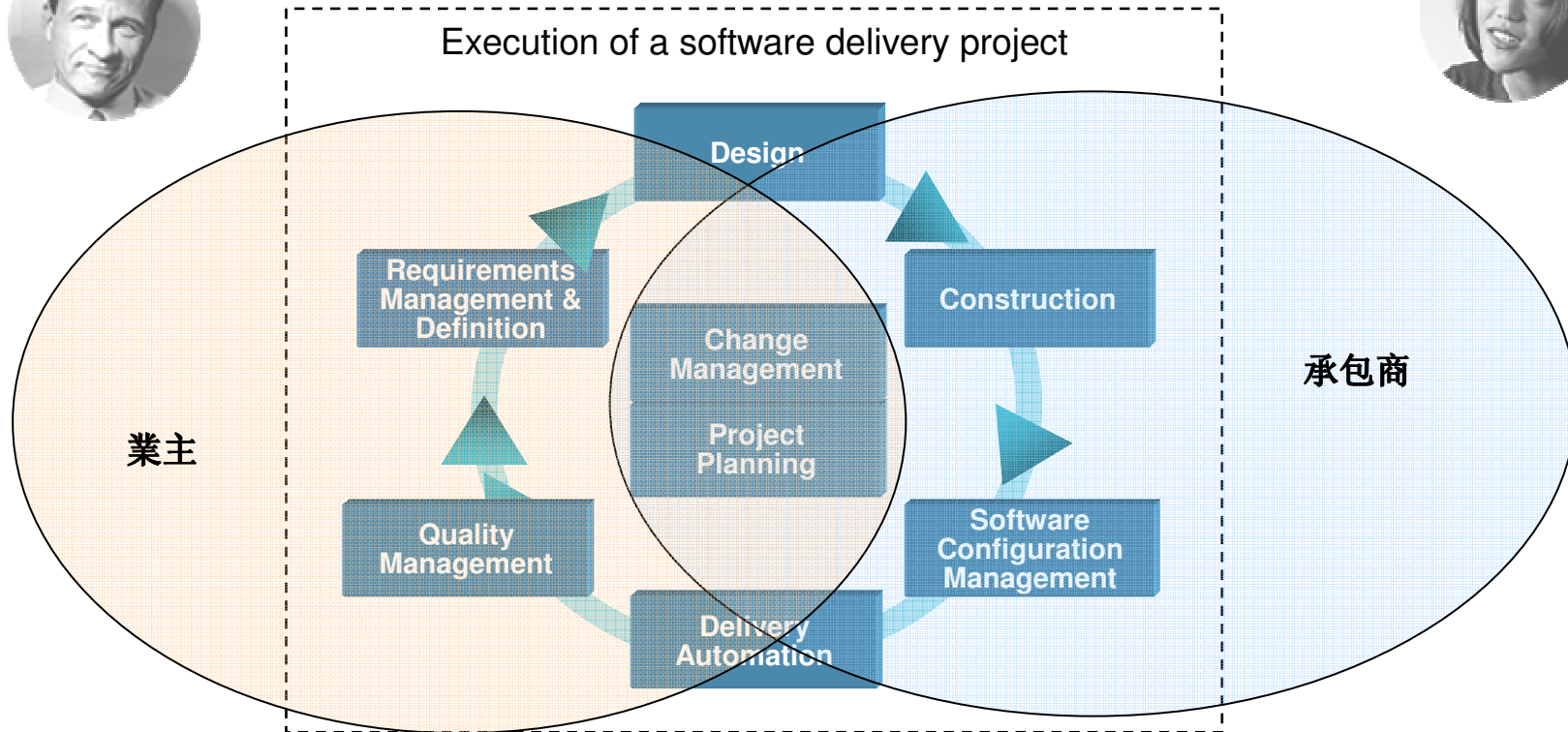
- ✓ Less risk
- ✓ Less costs
- ✓ Less or flat resources



有限的時間、開發人力下，**外包**成爲IT Manager 考量的選項之一。

但外包是否真能解決問題？還是製造更多問題？

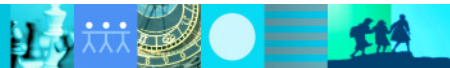
協同開發的角色分工



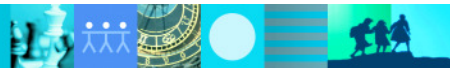
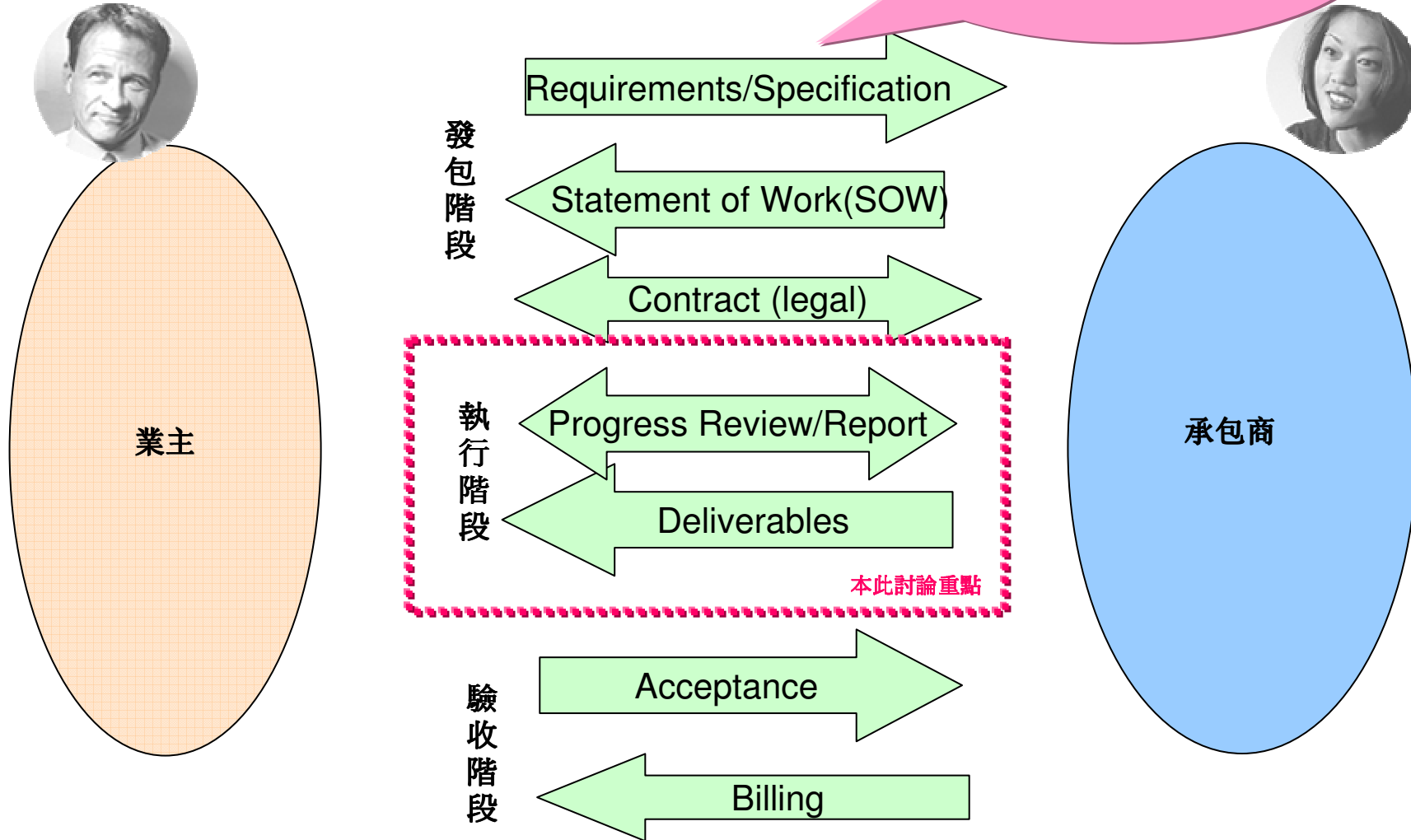
COLLABORATE
Achieve common goals by optimizing how people work together

AUTOMATE
Increase efficiency and predictability automating non-creative tasks

REPORT
Continuously improve by measuring and steering progress in real time

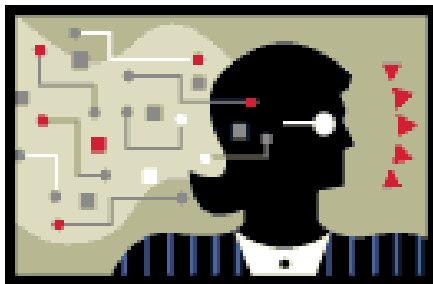


業主與承包商之間的作業流程



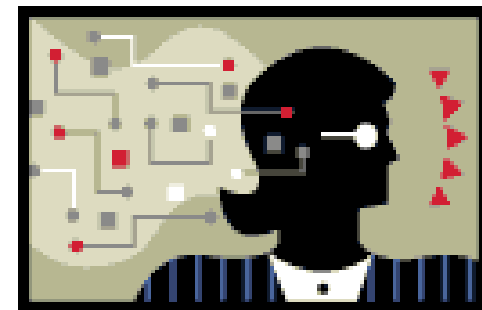
外包執行階段所面臨的議題 ---從業主的角度

- 如何保持核心競爭力，又能彈性運用外包資源？
- 如何掌握承包團隊的工作進度及交付品質？
- 如何知道承包人力是否合理評估，是否高估人力？
- 如何限制承包團隊的程式存取，如何整合外包團隊的程式交付？
- 現行核心團隊的工作流程已順暢運行，在融入承包團隊時，可否僅量減少改變？
- 建立外包工作管理平台時，如何避免冗長的導入時間，快速看到成果？
- 承包團隊處在遠地時，平台是否支援？



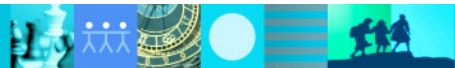
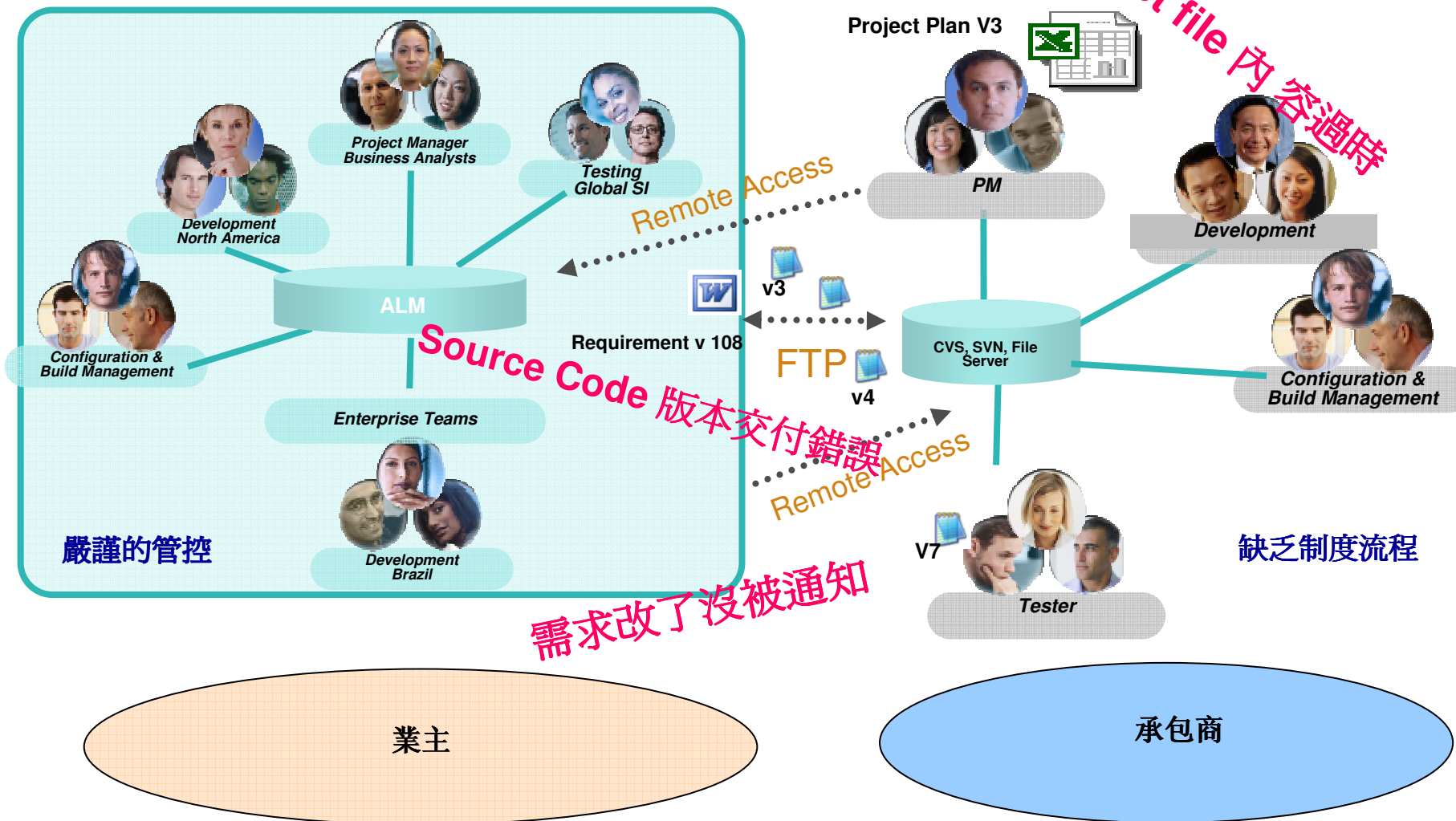
外包執行階段所面臨的議題 ---從**承包商**的角度

- 如何建立雙方認同的工作範圍、工作細項，以利控制專案成本？
- 如何掌握團隊的工作進度及交付品質？
- 如何知道承包人力是否合理評估，是否低估成本？
- 擁有自己的專案程式管控區，階段性測試完成之後再行交付。
- 開發管理平台是否容易上手，現有版控系統是否容易轉換？
- 導入平台時，如何避免冗長的導入時間，快速看到成果？
- 承包團隊處在遠地時，平台是否支援？



現行常見的外包開發合作模式

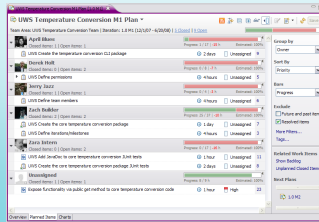
業主已建立開發流程，但外包人員不得使用，不受管控



Review: Rational Team Concert 主要功能

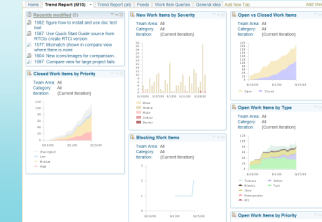
專案計劃

- 整合專案疊代計劃及執行管理
- 連結工時估算及專案里程碑
- 內建敏捷開發流程模版



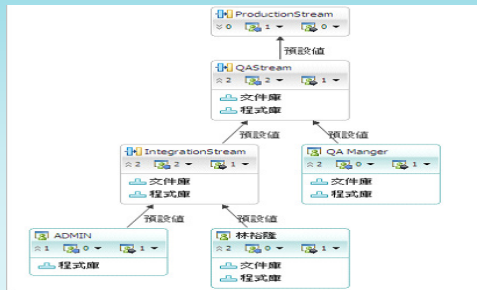
專案監控

- 可客製化的儀表板
- 即時的工作追跡資訊及報告
- 專案里程碑及工作狀態追蹤



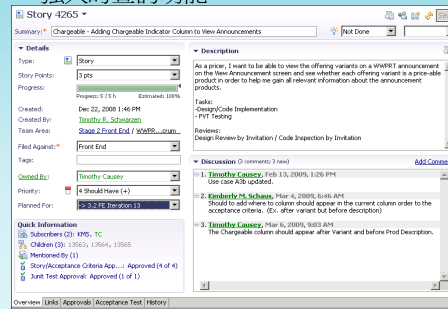
版本管控

- 整合的stream, Component, baselines 功能, 提供完整的版本(version) 追跡資訊
- 支援Server-based sandboxes



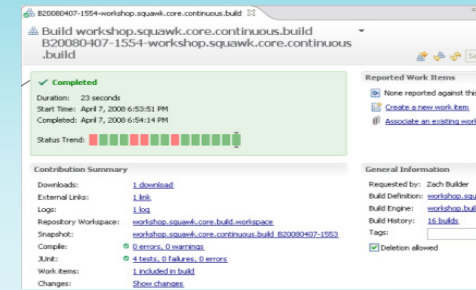
表單及流程管理

- 內建 缺陷單, 新需求功能單, 工作單及客製表單, 及連結, 簽核, 稽核記錄
- 強大的查詢功能



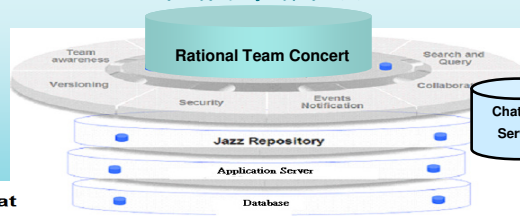
建置管理

- 週成記錄可與工作表單、變更記錄追跡
- 支援本端及遠端編譯

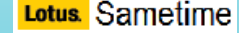
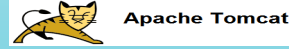


- 單一基礎平台支援全生命週期開發
- 世界級的專案開發組織架構, 成員快速上手
- 依角色身分的權責管理, 依專案規模、性質選擇專案流程模板

Jazz 團隊伺服器

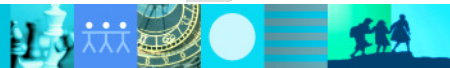
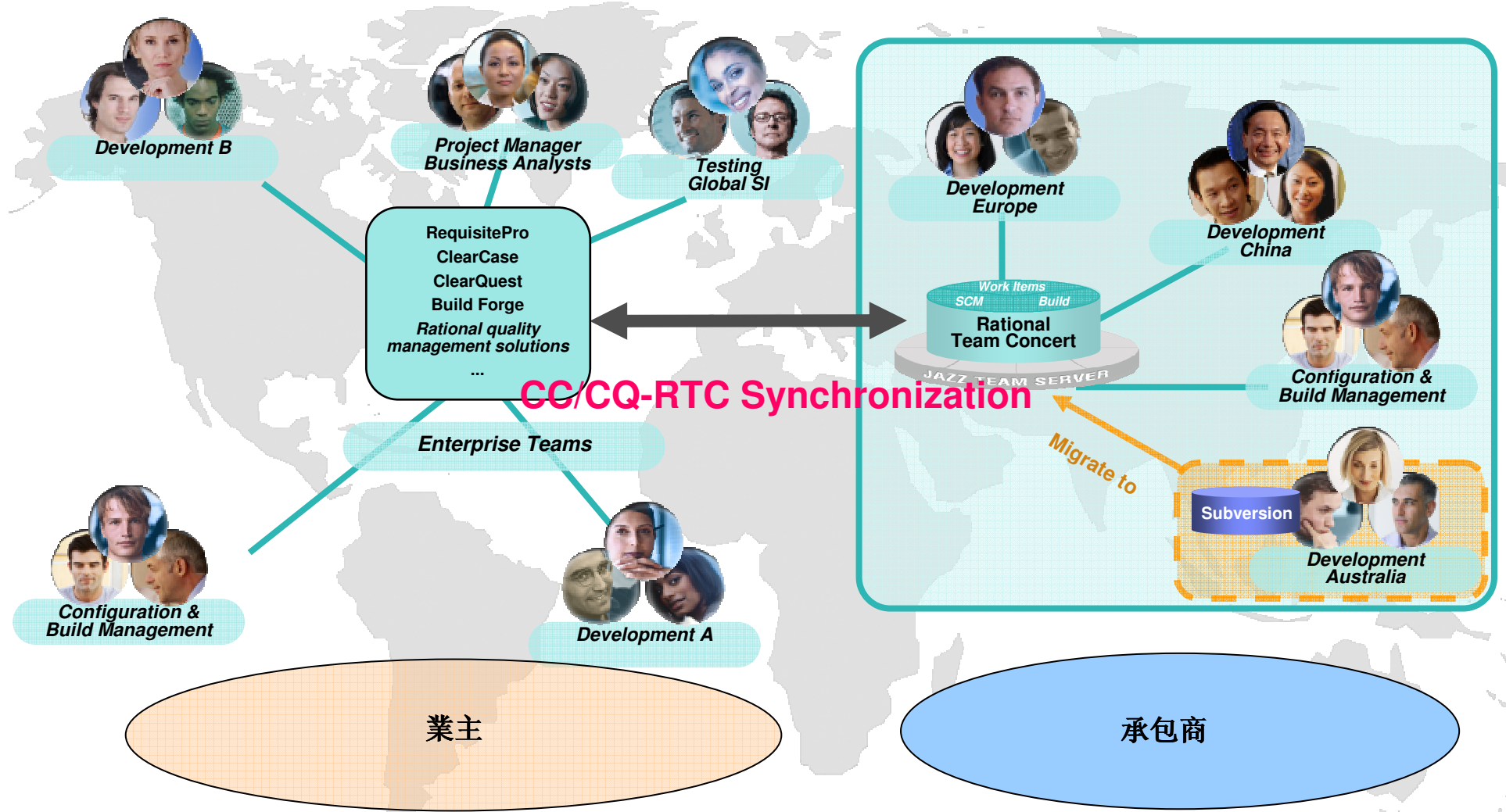


- Team advisor 功能, 可定義專案流程規則, 持續改善專案交付品質
- 可定義專案流程並強制流程落實
- 以工作產出為基礎的協同合作, 即時顯示成員的狀況及進行中的工作



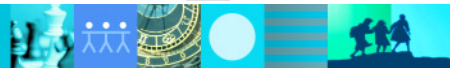
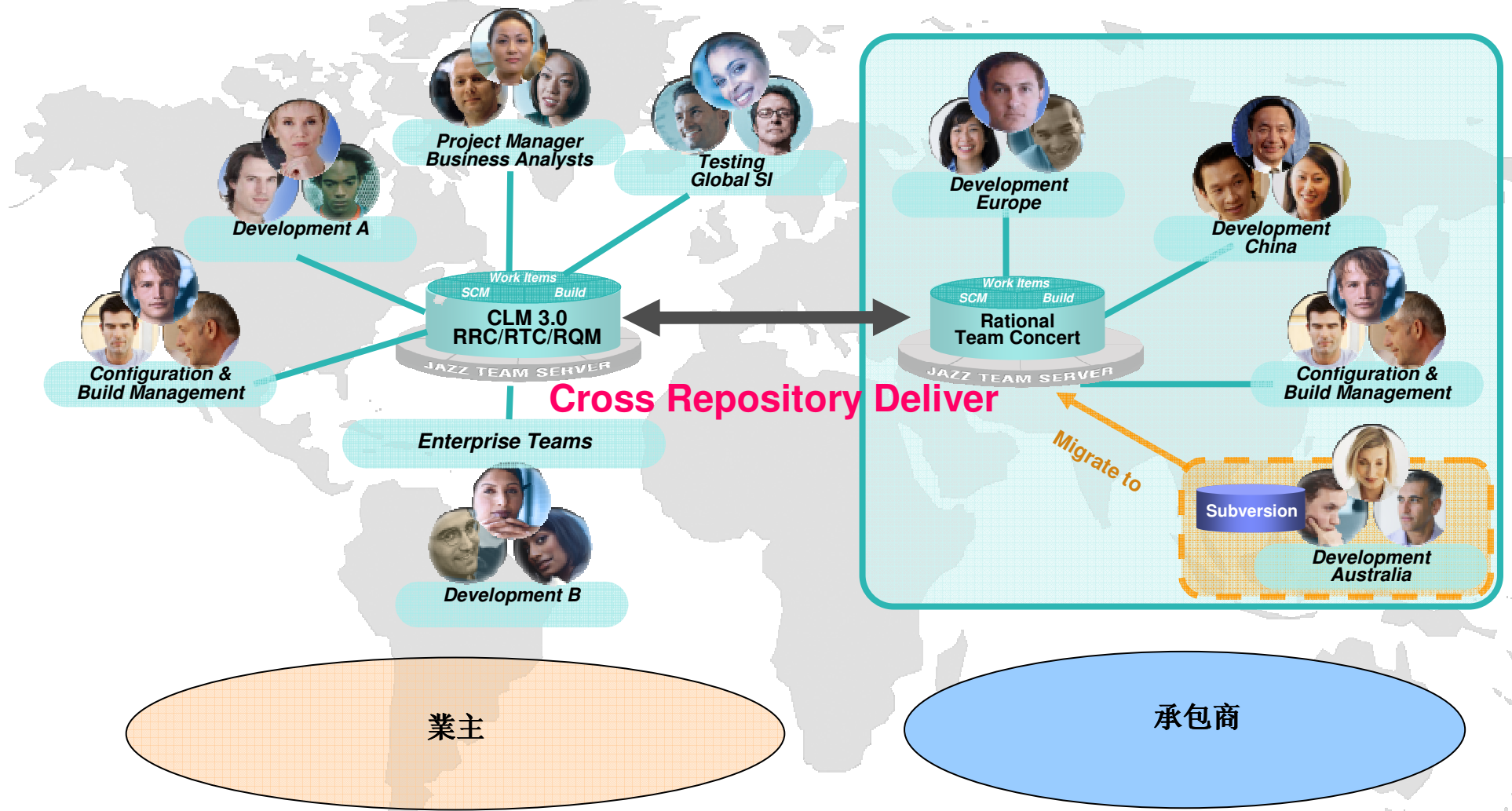
Solution 1: CC/CQ-RTC 整合平台

承包商導入RTC 平台，並建立自動化交付機制



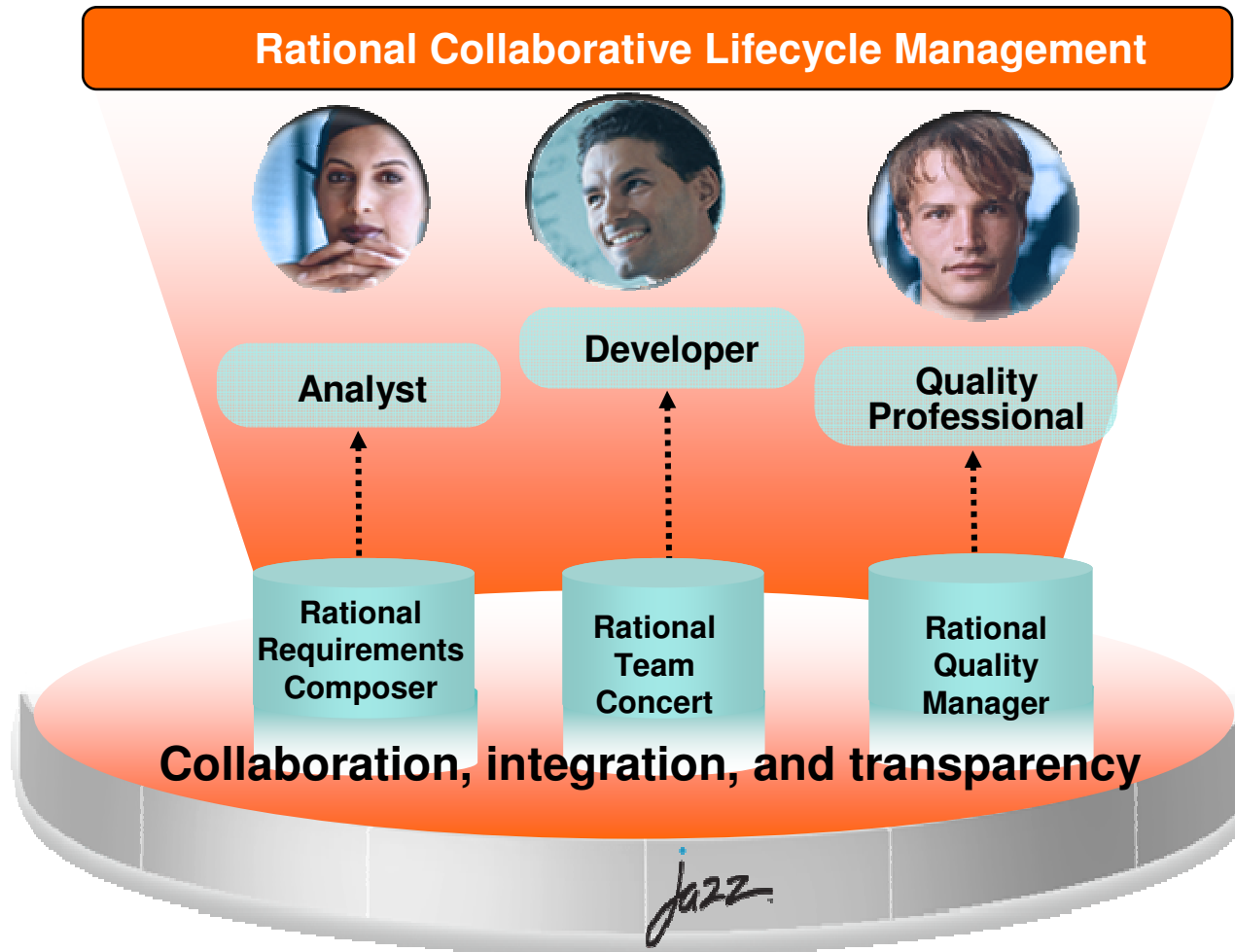
Solution 2 : RTC 3.0 分散式SCM平台

業主導入RRC/RTC/RQM、承包商導入RTC



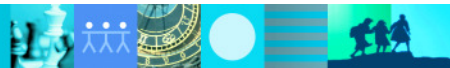
Collaborative Lifecycle Management 3.0

Deliver greater value through integration



- ✓ Reduce Cost
- ✓ Reduce Time to Delivery
- ✓ Increase Value
- ✓ Improve Quality
- ✓ Improve Predictability

承包商使用RTC 3.0 的案例說明

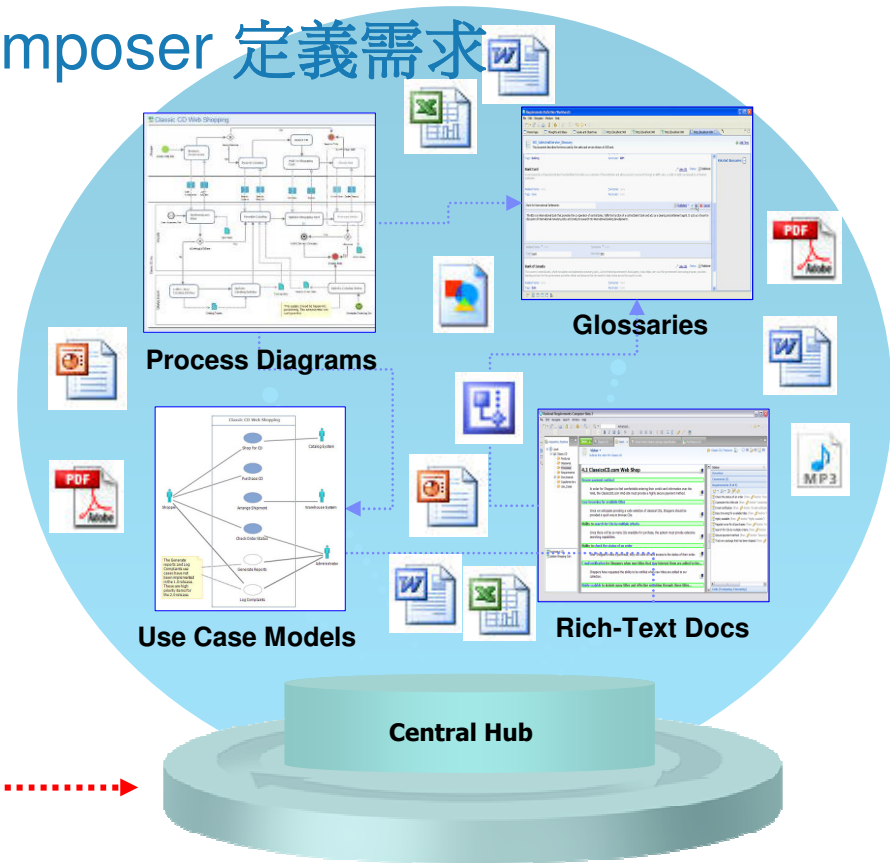
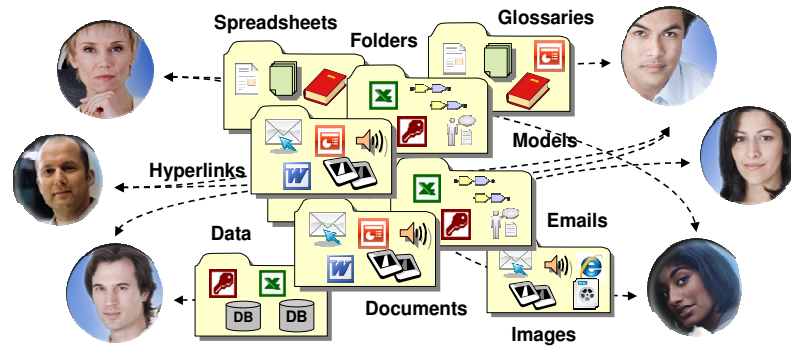


需求階段



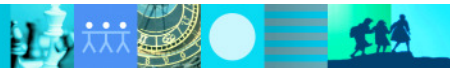
業主:

使用 Rational Requirements Composer 定義需求



- **Engage stakeholders** early and often to converge on the “right” requirements faster
- Improve agility and align project activities with customer value
- **Reduce rework and get to market faster**

“The vast array of options linking artifacts sensibly with one another [in RRC] give it a definite benefit over using older, document-based approach to defining requirements ... This product is clearly a step up from our current methodology.”
 - Randy Haven, IBM Global Business Services



執行階段



業主:

將雙方成員及專案計劃時程 鍵入專案區域

The screenshot displays the '專案區域' (Project Area) for project 'C9981_PRJ'. The interface is divided into several sections:

- 詳細資料 (Detailed Information):** Includes fields for '摘要' (Summary) with the text '外包管理測試' and '說明' (Description).
- 成員 (Members):** A table listing team members and their roles.

| 名稱 | 程序角色 |
|-------------------|----------|
| Outsource Manager | Scrum 主體 |
| outsorce001 | 團隊成員 |
| outsorce002 | 團隊成員 |
| outsorce003 | 團隊成員 |
| outsorce004 | 團隊成員 |
| rtcusr | Scrum 主體 |
- 程序說明 (Program Description):** Contains the text: 'Scrum Scrum 的程序範本。Scrum 是以靈活方式來管理專案的通用方式。' (Scrum Scrum is a program template. Scrum is a general way to manage projects flexibly.)
- 時間表 (Schedule):** Shows a Gantt chart for '主要開發 [專案時間表]' (Main Development [Project Schedule]). The chart includes:
 - 版本 1.0 [2009/5/13 - 2009/6/22]
 - R1.0 Iteration 1 [2011/1/3 - 2011/5/13]
 - R1.0 Iteration 2 [2011/7/1 - 2011/12/31]
 - 待辦事項 (To Do)

At the bottom, there is a navigation bar with options: 概觀 | 鏈結 | 程序配置 | 程序配置來源 | 存取控制 | 工作項目種類 | 版本.

Alternative: 由承包商鍵入，業主核可

業主:

建立雙方工作的WBS

版本待辦事項 [版本 1.0]

擁有者: C9981_PRJ | 疊代: 版本 1.0 (2009/5/13 - 2009/6/22) | 3 個關閉 | 5 個開啟

進度: 2 / 10 pts | 預估: 100%

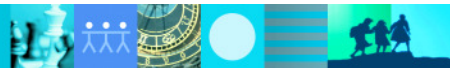
版本 1.0
已關閉的項目: 3 | 已開啟的項目: 5

R1.0 Iteration 1
已關閉的項目: 3 | 已開啟的項目: 5

Markus Kent
Closed Items: 4 | Open Items: 21

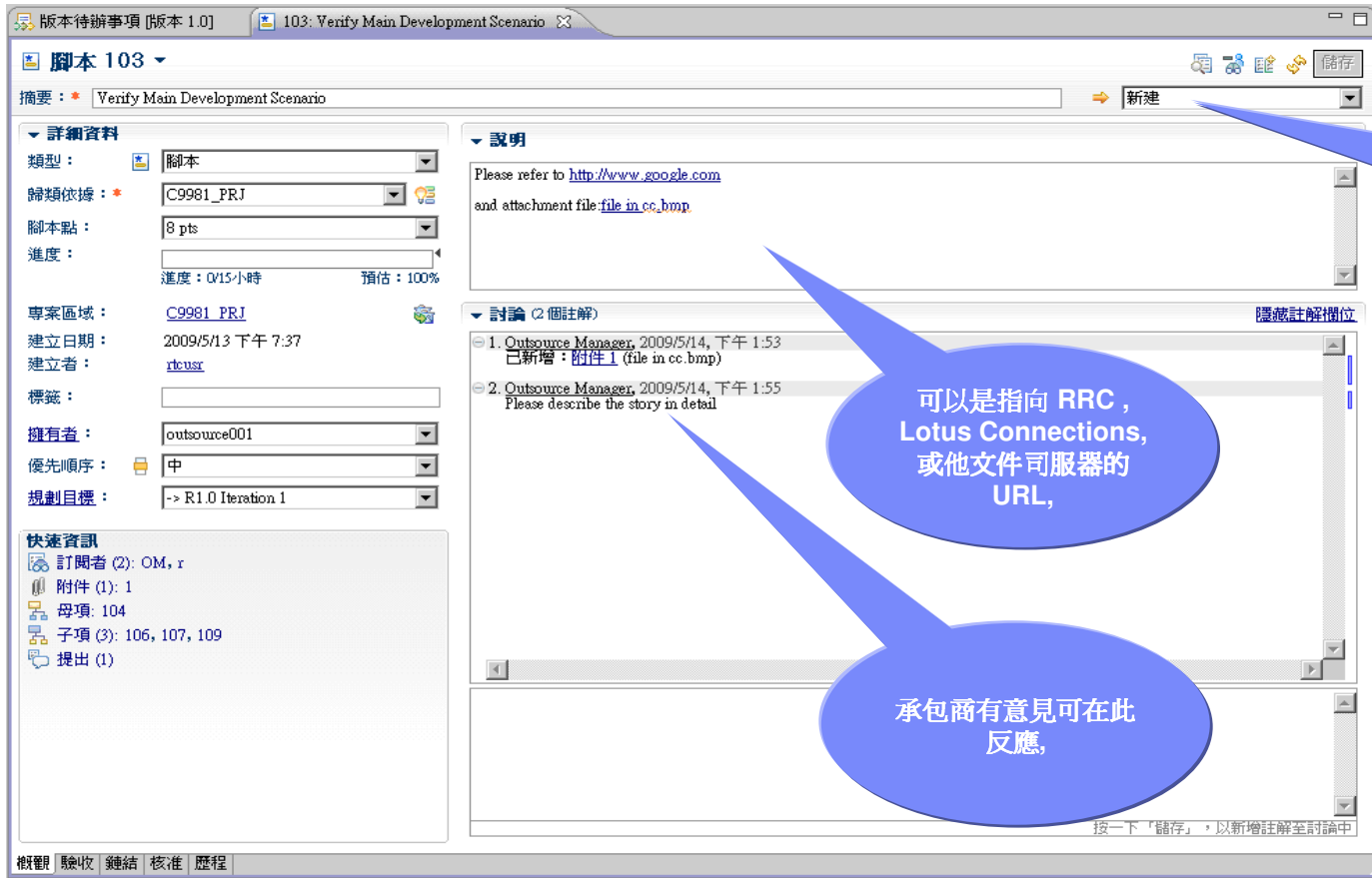
| Actions | Summary | Estimate | 7/4/10 | | | | | 7/11/10 | | | |
|---------|-----------|------------|--------|---|---|---|---|---------|---|---|--|
| | | | S | M | T | W | T | F | S | M | |
| ▼ | A Story | -- | | | | | | | | | |
| | 2 | 2 days | | | | | | | | | |
| | Task #1 | 4 hours | | | | | | | | | |
| | Task #2 | 2 hours | | | | | | | | | |
| | Task #3 | 4 hours | | | | | | | | | |
| | Task #4 | 1 day | | | | | | | | | |
| | Task #5 | 2 hours | | | | | | | | | |
| | Task #6 | 30 minutes | | | | | | | | | |
| | Defect #1 | 4 hours | | | | | | | | | |
| | Defect #2 | 2 hours | | | | | | | | | |

檢視 | 規劃的項目 | 圖表



業主: 承包商:

將需求細部內容鍵入RTC 系統，由承包商確認



承包商接受此需求時，將狀態推向已接受

可以是指向 RRC, Lotus Connections, 或其他文件服务器的 URL,

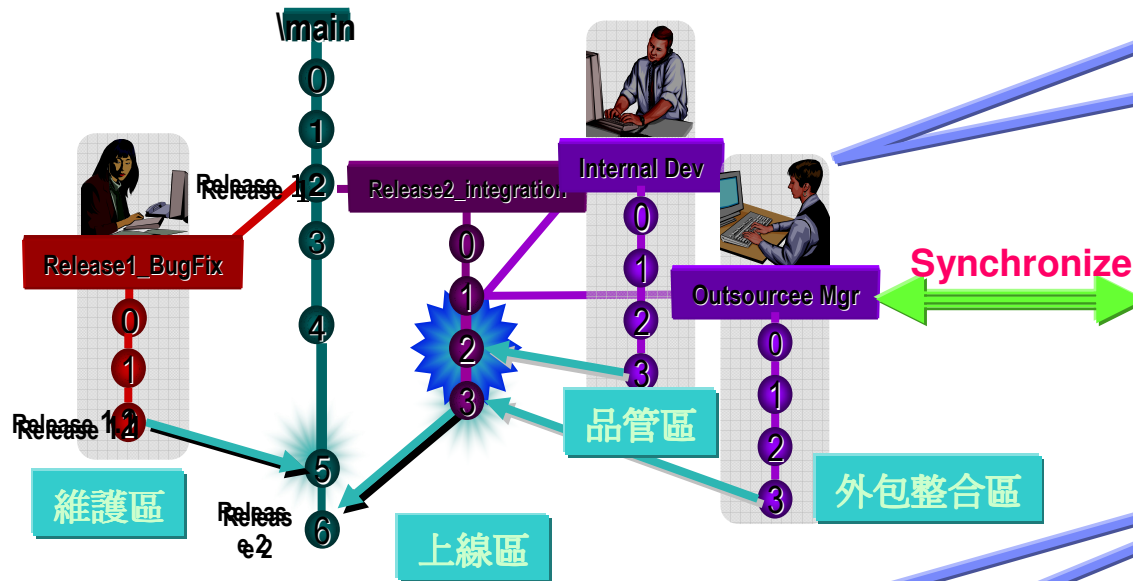
承包商有意見可在此反應,



業主: 承包商:

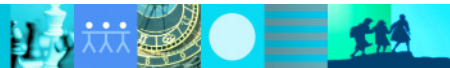
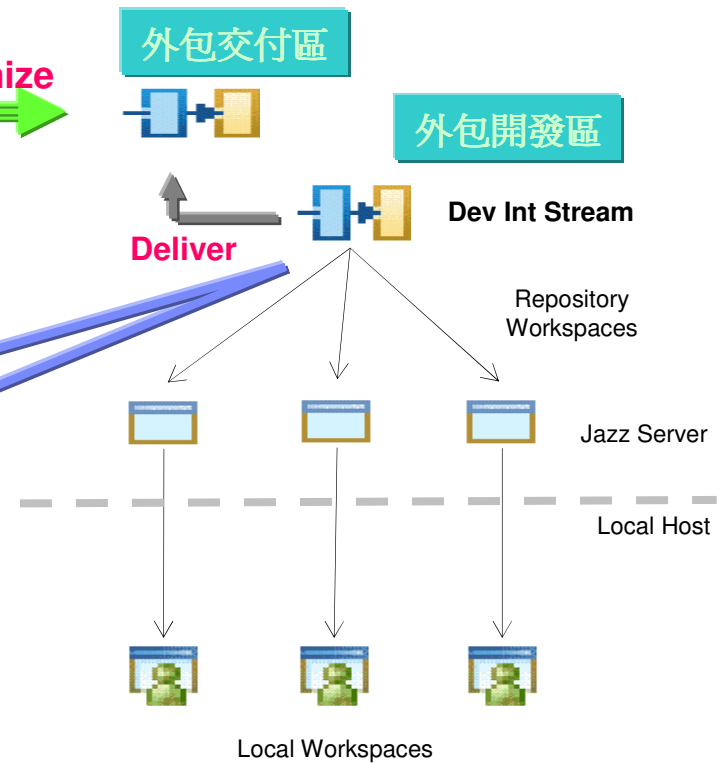
建立整合交付串流

透過串流 (Stream) 整合團隊交付



業主 指派一名人管理外包作業，其餘開發人員作業模式不變。

承包商人員使用RTC 進管交付程式，進度一覽無遺。



承包商:

開發人員-- 查看待辦工作事項

The screenshot displays the Rational Team Concert (RTC) interface. On the left, a tree view shows the project structure for 'C9981_PRJ'. The main area shows details for a task named '腳本 103' (Script 103). The task details include:

- 類型: 腳本
- 歸類依據: C9981_PRJ
- 腳本點: 8 pts
- 進度: 速度: 0.15小時, 預估: 100%
- 專案區域: C9981_PRJ
- 建立日期: 2009/5/13 下午 7:37
- 建立者: rtusr
- 標籤: (empty)
- 擁有者: outsource001
- 優先順序: 中
- 規劃目標: -> R1.0 Iteration 1

Below the details is a '快速資訊' (Quick Info) section with '訂閱者 (2): OM, r' and '附件 (1): 1'. At the bottom, a table lists tasks:

| ID | 狀態 | P | S | 摘要 | 擁有者 | 建立者 |
|-----|----|---|---|--|-------------|-------|
| 107 | 新建 | | | Test Update Code in CC then Request Synchronization | outsorce001 | rtusr |
| 106 | 新建 | | | Test Update file in RTC then request Synchronization | outsorce001 | rtusr |
| 103 | 新建 | | | Verify Main Development Scenario | outsorce001 | rtusr |

開發人員查看待辦事項及詳細內容



承包商:

承包商開發人員： 修改及內部交付程式

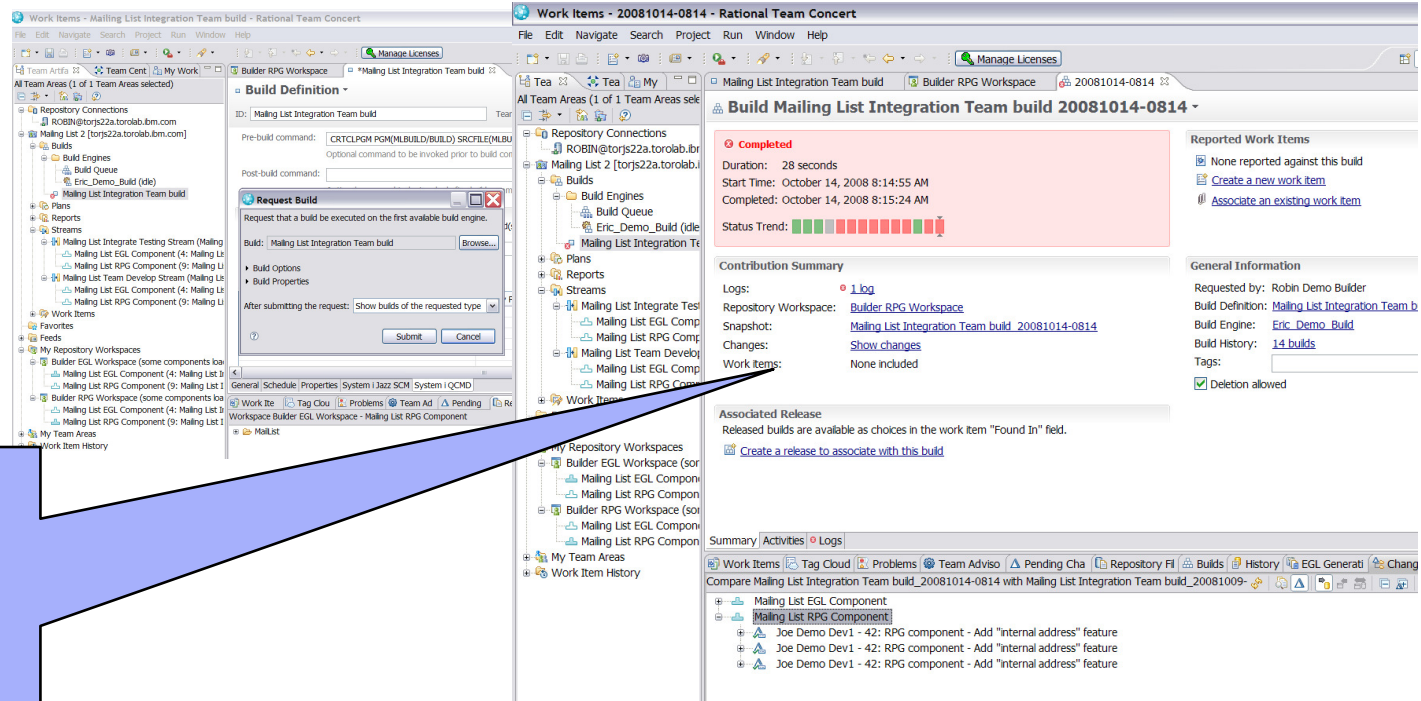
The screenshot shows the Rational Team Concert IDE interface. On the left, a '專案瀏覽器' (Project Explorer) shows a project structure with folders like 'display', 'graphics', 'idp', 'include', and 'src'. Under 'src', there is a file named 'adc.c'. A blue callout bubble points to this file with the text '開發人員選擇檔案進行編輯' (Developer selects file for editing).

In the center, a '記事本' (Notepad) window displays the content of 'adc.c'. The text includes metadata such as 'Filename: adc.c', 'Project: Maui_Software', and 'Description: This Module defines the auxiliary ADC driver and adaption layer.' A blue callout bubble points to the description field with the text '修改完畢進進交付，注意程式與表單可勾稽' (After modification, proceed to delivery, note that the program and form can be checked).

On the right, a '摘錄的變更' (Checked Out Changes) window shows a list of changes. A context menu is open over this window, listing various actions like '交付' (Check Out), '暫停' (Pause), '捨棄' (Discard), '反轉' (Reverse), '完成' (Finish), and '新建' (New). The '交付' option is highlighted with a blue callout bubble.

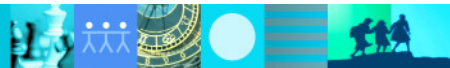
承包商:

承包商建構人員 交付給業主之前，執行建置作業



建置記錄 含:

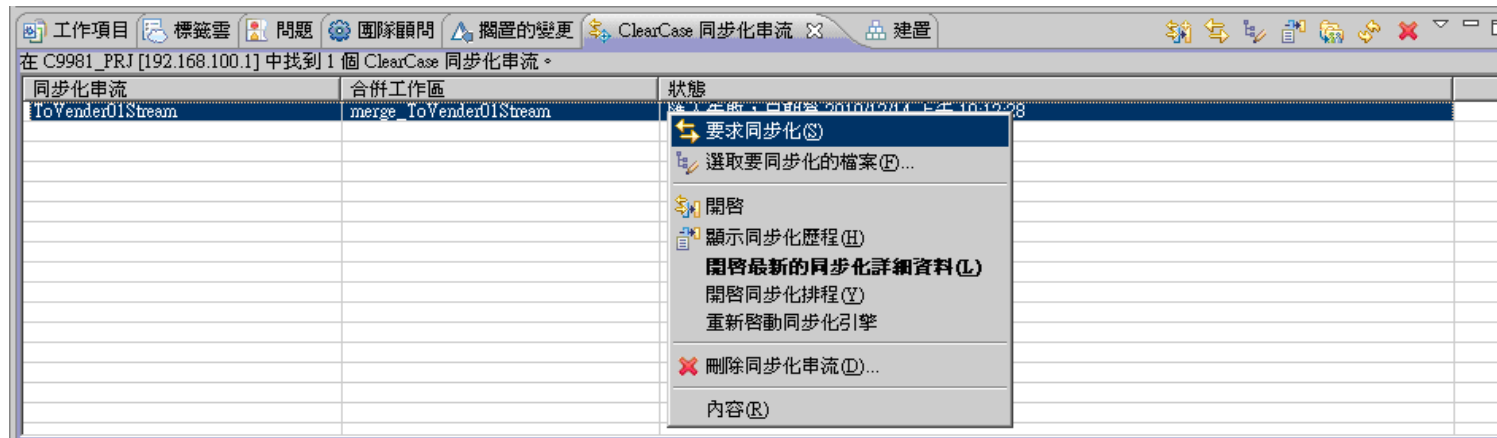
- 執行結果輸出
- 程式源工作區及版本
- 變更程式集
- 工作單清單
- 編譯結果下載



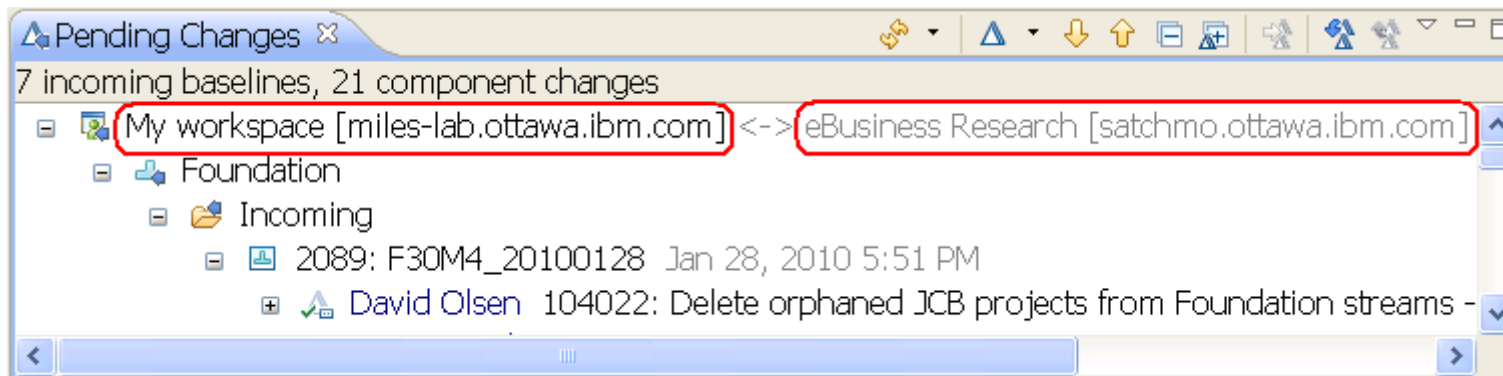
承包商:

承包商交付： Request Synchronization

Solution 1: RTC – CC



Solution 2: RTC – RTC



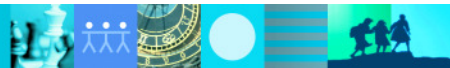
承包商: 業主:

當業主及承包商同時改Code RTC 可處理 Conflict and Merge

衝突自動偵測:



合併解決:



測試階段



業主:

利用RQM 進行品質測試及缺陷回報

--Defect collaboration reduces cost

- ✓ 4-clicks to submit a defect with all of the information needed to reproduce the defect
- ✓ Test execution is recorded and linked to test case
- ✓ Test execution be linked to build
- ✓ Defects are linked to Test Executions
- ✓ Developer can navigate the links

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: 1: Frequency of dividend transfer
Test Case: Allocate Dividends to a Single Cause
Test Script: Unassigned
Build: Unassigned
Weight: 1

Start: [blank]
End: [blank]
Total: [blank]

Defects

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

Testers execute tests and submit defects to RTC

76: Failing Test Case "Frequency of dividend transfer"

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

Details

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

Quick Information

- Subscribers (1): c
- Affects Test Execution (1): 1
- 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 navigate test links on a defect

Defect 76

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

Overview | Links | Approvals | History

Attachments

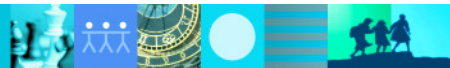
Add File: [input] Browse...

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



專案監控



業主:

透過Dashboard 即時了解專案進度

The dashboard provides a comprehensive overview of project progress through several key components:

- Navigation:** Home, Trend Report (M10), Trend Report (all), Feeds, Work Item Queries, General idea, Add New Tab, Add Viewlet.
- Recently modified (5):**
 - 1592: figure how to install and use doc test tool
 - 1587: Use Quick Start Guide source from RTC to create RTCi version
 - 1577: Mismatch shown in compare view where there is none
 - 1604: New icons/images for comparison...
 - 1597: Compare view for large project fails
- New Work Items by Severity:** Bar chart showing work items categorized by severity (Minor, Normal, Major, Critical, Blocker) over time.
- Open vs Closed Work Items:** Stacked area chart showing the number of open and closed work items over time.
- Closed Work Items by Priority:** Stacked area chart showing closed work items categorized by priority (Unassigned, Low, Medium, High) over time.
- Blocking Work Items:** Line chart showing the count of blocking work items over time.
- Open Work Items by Type:** Stacked area chart showing open work items categorized by type (Testcase, Defect, Minutes, Story, Retrospective, RFS, Task) over time.
- Open Work Items by Priority:** Stacked area chart showing open work items categorized by priority over time.

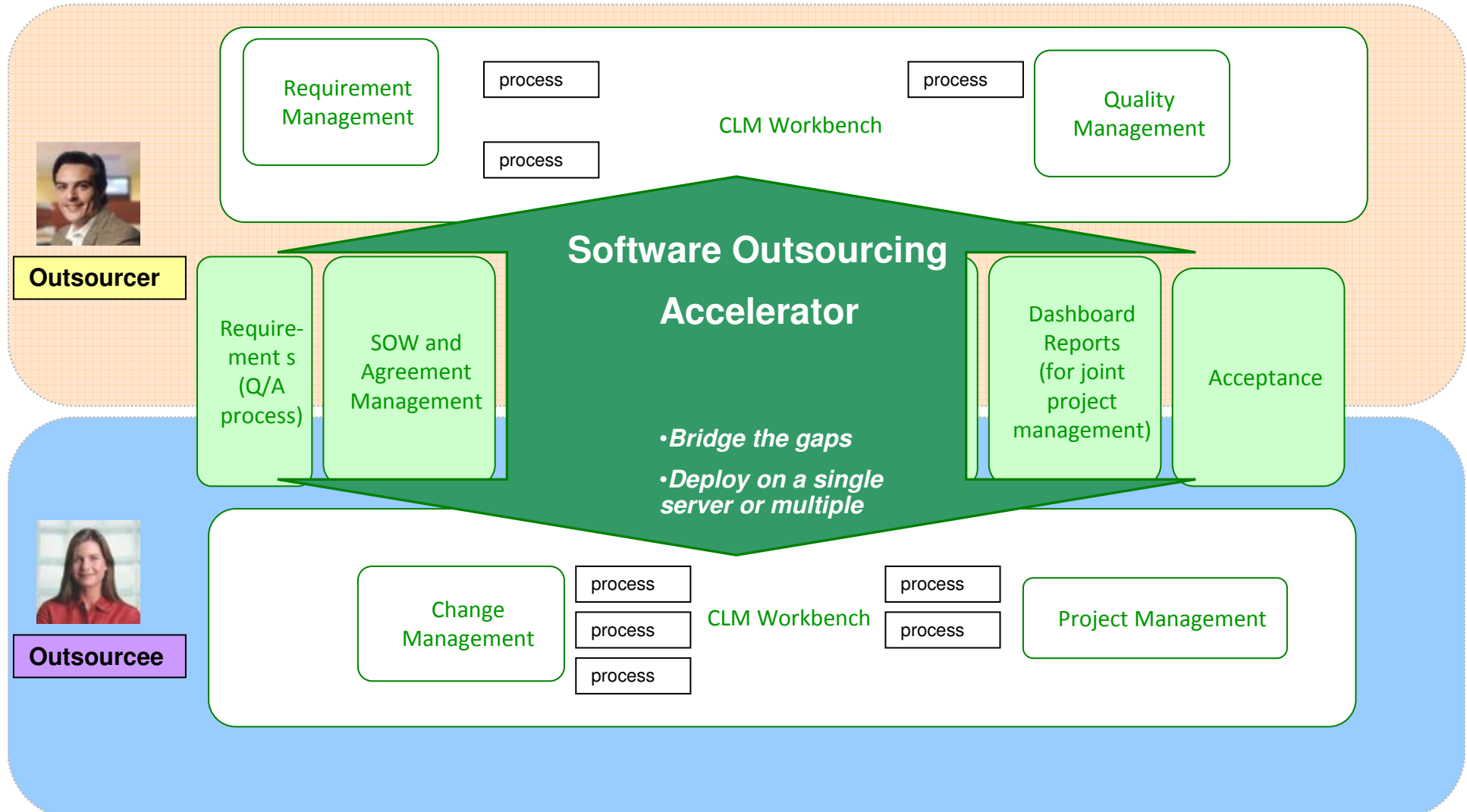
Additional features include a sidebar for dashboard management (Recently Viewed, My Dashboards, Shared Dashboards) and a bottom navigation bar (Overview, Planned Items, Charts).

End to End Outsourcing Process Template Coming Soon !!



Outsourcing Accelerator

Consolidate internal processes and focus on joint management via a single process





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