Integrity / IBM Rational® ClearCase® Integration

THIS DATASHEET DESCRIBES AN INTEGRITY INTEGRATION THAT BRINGS TOGETHER THE POWERFUL AND HIGHLY FLEXIBLE PROCESS AND WORKFLOW, REQUIREMENTS, TEST, CHANGE AND DEFECT MANAGEMENT CAPABILITIES OF INTEGRITY, A PTC PRODUCT, WITH IBM RATIONAL® CLEARCASE® FOR SOFTWARE CONFIGURATION MANAGEMENT AND VERSIONING.

Challenges

As a development organization seeking to improve controls, increase software quality and better their team productivity and efficiency, you need to implement and automate processes governing the application lifecycle. You are challenged with:

- Implementing standardized processes across an organization where "one size does not fit all"
- Ensuring that the processes running the business are documented, consistent, automated and repeatable, providing a full audit trail of change activity over time
- Achieving greater quality and reproducibility of business-critical software applications
- Improving collaboration across development teams and their QA and business analyst counterparts and with offshore and outsourced teams
- Team adoption and acceptance of process controls

You are a global development organization seeking to deliver software faster, better, cheaper and with higher levels of productivity.

You use IBM Rational ClearCase for software configuration management but desire a single solution for change, defect, requirements and test management abilities and automation of process across the lifecycle.

The Solution

Integrity delivers a solution that enables development teams to raise their productivity level, better collaborate with offshore partners and with other team members through advanced and highly flexible process management capabilities. Now integrated into the ClearCase SCM environment, Integrity enables ClearCase developers to tap into a continuous and integrated process connecting each stage in the development lifecycle and all associated activities, providing a single point of control across all major enterprise platforms including Windows, UNIX, Linux, iSeries and zSeries platforms.

The Integration

The integration between Integrity and ClearCase provides ClearCase development shops the ability to implement highly flexible and powerful workflows to automate the development process. The Integrity integration can be used with base ClearCase or ClearCase with UCM.

Development best practices are enforced by ensuring all development changes are linked to an approved development task, work item or issue.

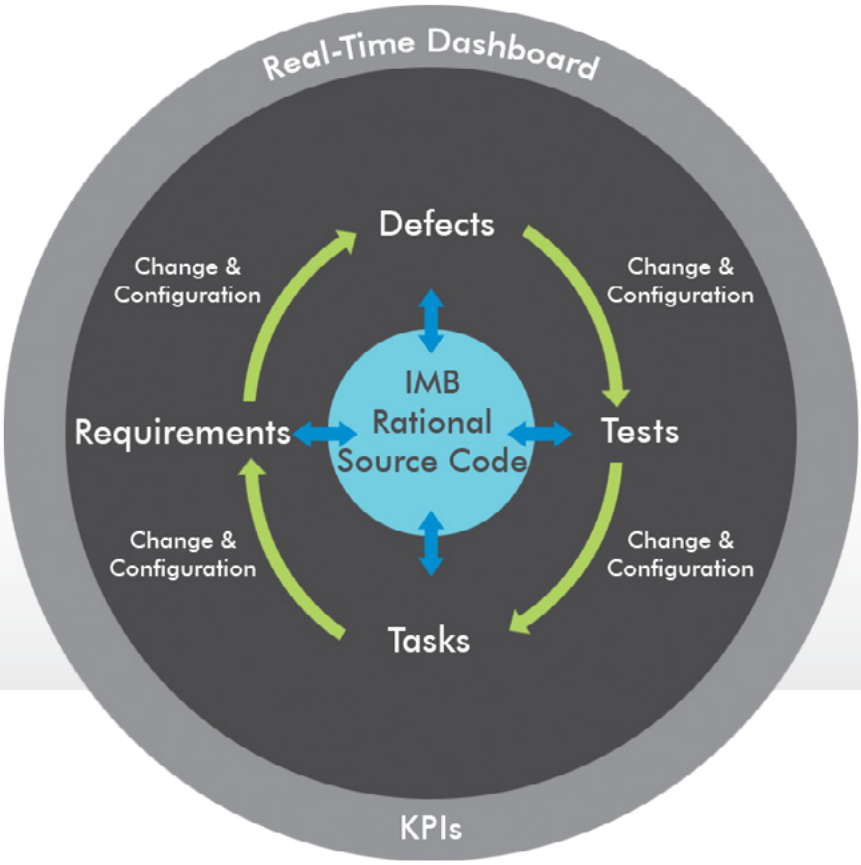
On check-out, a developer selects from an approved list of issues they have been assigned to work on. As elements are changed within ClearCase metadata on the element, VOB and branch is captured and stored within a "Change Package" on the Integrity item they are working on. ClearCase history contains information on the Integrity Change Package providing a bi-directional link and clear audit trail between the systems.

Features and Benefits

A Single Solution - Moving Beyond Process and Workflow to Requirements Management, Test Management & More

Whether you're using Integrity for SCM or using other offerings like ClearCase or Perforce linking software code artifacts and efforts to the rest of the lifecycle is critical to the collaboration, communication and change aspects of software development projects. With Integrity you get visibility, traceability, productivity and control across the entire application lifecycle regardless of what SCM tool is versioning the code.

- Process automation and workflow management with Integrity ensures repeatability, reliability and traceability across your organization thereby reducing costs and improving efficiency and productivity. Whether your organization is trying to meet strict CMMI, SPICE or ISO compliance requirements, is following a traditional development approach or is looking to adopt Agile methodologies, Integrity is unique in its ability to support and enforce any process, no matter how relaxed or rigid.
- With the requirements capabilities of Integrity, software requirements can be captured and validated, then linked to downstream development and testing activities and managed to completion through a unified process across the application lifecycle. Fostering collaboration between business users generating requirements, the developers and testers, Integrity keeps all stakeholders informed of changes to requirements throughout the development process.
- Using the test management capabilities of Integrity, break down the walls between business analysts, development and QA, liberating teams from their silos to collaborate more fully, and with greater ease. Capabilities to manage test cases persistently enable the reuse of valuable test assets release over release and from product to product and capture, manage and communicate results as they happen.



Atomic level integration between source code and all related artifacts provides complete traceability

The visibility provided by Integrity allows development and project managers in an environment to answer questions such as:

- Who reported this defect, the developer fixing it needs more information?
- What elements were added, changed or dropped to implement this requirement?
- For this project, which development tasks are complete, in progress or have not been started?
- What test cases will need to be created, modified or simply re-executed based on this software change?
- Will we be able to prove to the auditors that our development processes are followed and that all changes are linked to an approved task?

Integrity provides the tracability between all development changes in ClearCase to the project, requirement, defect or support incident that drove them. In addition, cross platform development changes can be coordinated and controlled via a single change management system, Integrity.

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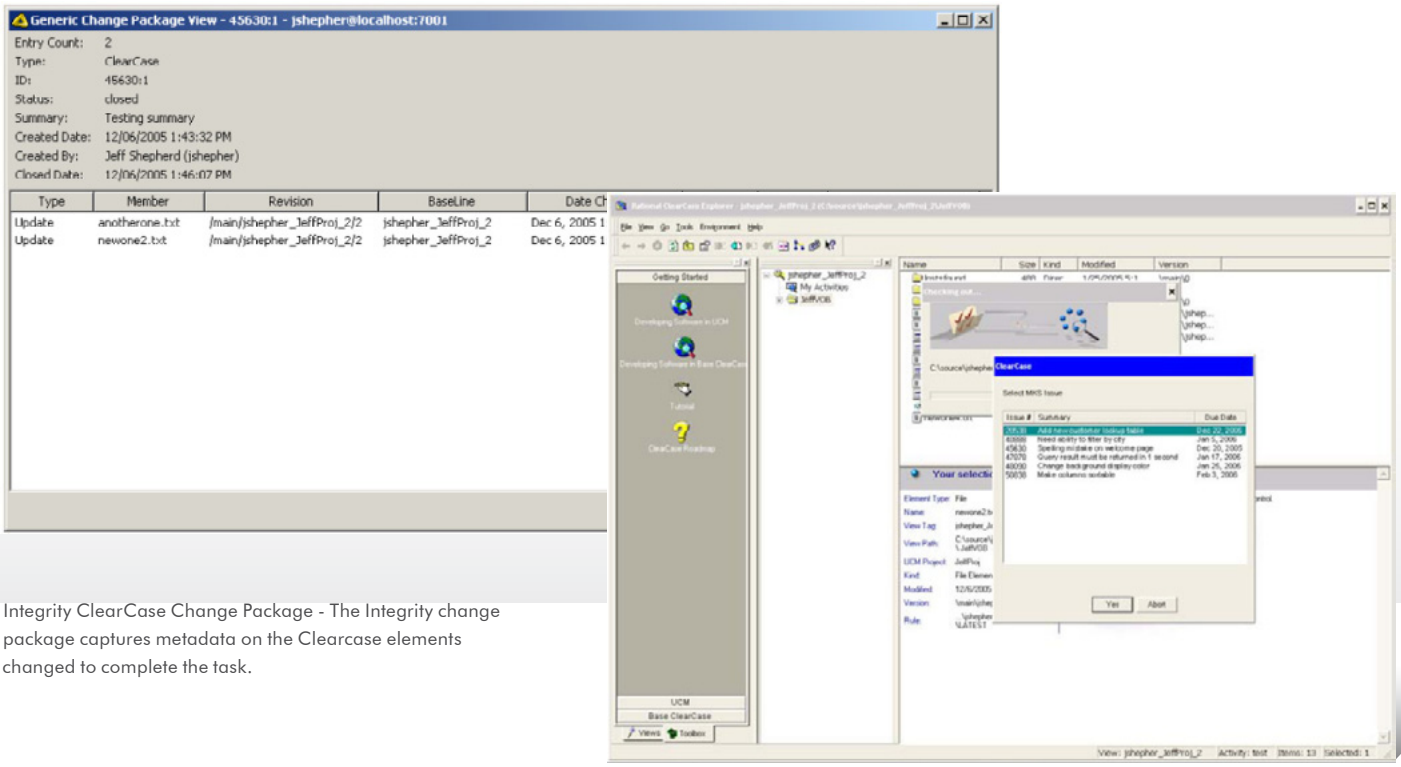

Integrity ClearCase Change Package - The Integrity change package captures metadata on the Clearcase elements changed to complete the task.