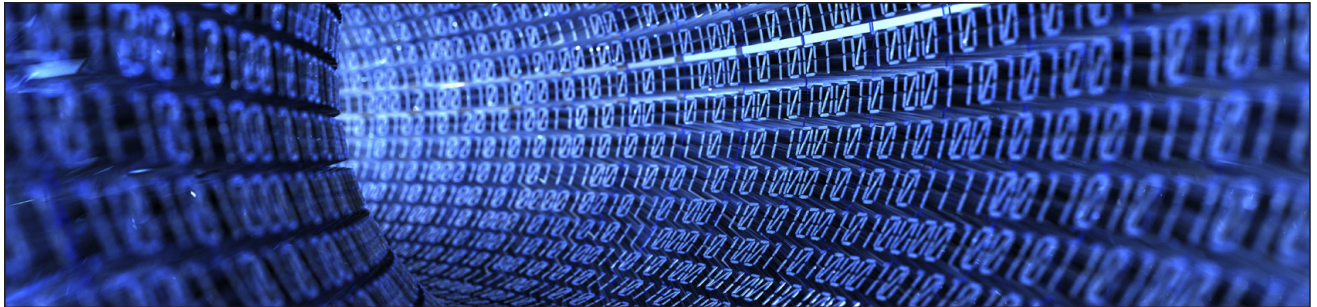


IBM® streamlines software development with Rational® products



Overview

■ The Challenge

The IBM Lotus Software Web Content Management (WCM) Division is an international team responsible for software development activities such as architecture, development, testing, documentation and support; spread across four continents, 3,500 classes and over 500,000 lines of code. The core WCM development team is based in Sydney, Australia, as part of the IBM Australia Development Laboratory (ADL). The ADL identified the need for a solution that provided the WCM development team with responsive and consistent communication, and supported continual process improvements across the team's multiple regions. With tight release schedules and a demand for high quality, the team required a system that could cater for extensive build and test automation.

■ The Solution

The global WCM development team, through the ADL, integrated IBM Rational software products, including ClearCase, ClearQuest and Functional Tester, to ensure the successful delivery of high quality software offerings.

ClearCase provided the WCM team with complete software configuration management and Rational ClearQuest and Functional Testing provided the team with a comprehensive quality and change management bundle for test management. The combination of these products has enabled the WCM team to adopt Agile development practices on a global scale. Agile development is a solution for any team wanting to regularly produce high quality software in a cost effective and timely manner. Teams can adopt and improve Agile strategies specifically to meet their needs and challenges.

As a result of the integration, the team now has the capacity to track issues, collaborate on code changes and automatically verify those changes across its multiple regional teams as well as streamlining its testing automation.

■ The Benefits

The Rational products ClearCase, ClearQuest and Functional Tester have been a key factor in the successful delivery of approximately 40 WCM software releases by the WCM development team since 2004. By leveraging Rational ClearCase and Rational Functional Tester the team is now able to verify product builds multiple times per day, with developers informed on issues, no matter where they are, within minutes rather than days. The WCM team has also witnessed higher productivity and better communication between its members, who work across multiple time zones. The success of the integration highlights the capabilities of IBM's Rational software product portfolio to streamline the development of Enterprise Software product offerings.





About IBM Lotus Software - Web Content Management (WCM) Development Division

The IBM Lotus Software WCM Development Division performs all product design, development, testing and project management for the WCM component of IBM's successful WebSphere Portal product. The WCM customer base has grown from just two to more than 2,800 since 2003. In addition to the core development team in Sydney, Australia, WCM development and test teams are also located in Boeblingen, Germany; Raleigh and Westford, USA; and Beijing, China. When deployed by an organisation, WCM provides non-technical staff with the ability to easily create and manage internet or intranet content. This allows organisations to accelerate internal business practices, saving both time and money. Additionally, WCM underpins Lotus Quickr, a Web 2.0 collaboration platform for end-users, providing wiki, blog and document management functionality.

Delivering greater value

The initial implementation of ClearQuest and Functional Tester provided the team with a baseline set of metrics from which the team continues to see measurable improvement in the quality of each new software release.

"We have witnessed an increase in the quality of the WCM product through automated testing, meaning that every two weeks we can release cumulative fix packs that have undergone an extensive regression cycle. This was not possible before we started using Rational Functional Tester." said Philip Chan, Senior Development Manager - IBM Lotus Web Content Management.

With automated testing featuring as a core component of the regression testing suite in Rational Functional Tester, the WCM team has witnessed a significant reduction in testing time and an improvement in the quality of the overall WCM product. "Functional Tester enables the team to run regression tests weekly instead of at the end of the development cycle, allowing them to spend more time working on new client product requirements." said Mr Chan.

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- Philip Chan, Senior Development Manager - IBM Lotus Web Content Manager.

Improving collaboration and communication

Prior to integrating Rational ClearQuest, the WCM team found it increasingly challenging to communicate and collaborate across multiple time zones. The implementation enabled multi-site configuration providing an on-demand and responsive experience in different locations with the rich client.

“Rational ClearQuest acts as a change management and communication tool for tracking progress on issues visible to the entire team, augmenting phone and email communication. The team also has the option of using the Web client when travelling,” said Mr Chan.

In addition, Rational ClearCase has enabled the team to conduct collaborative and responsive cross-site development. The administrative features of ClearCase facilitate integration into the larger product build system, which runs in the United States, completely automating the delivery, compilation, unit test, user interface testing and package cycle.



Ensuring Agile Development

The capabilities provided by the Rational products have all contributed to the WCM team’s successful adoption of Agile practices. Progress is measured using metrics extracted from Rational ClearQuest that facilitate the tracking of quality and defect trends across multiple releases, thus providing predictability, improved planning ability, and visibility across development activities.

“It is a testament to the product portfolio that IBM is developing its own enterprise products with its own tools. Successful Agile teams show impressive increases in team efficiency, lower development costs, faster time to market, better quality software, systems better suited to customer needs, and repeatable results. By supporting our Agile development practices, Rational tools enable us to deliver products that delight customers with rich features and high quality,” concluded Mr Chan.



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– Philip Chan, Senior Development Manager - IBM Lotus Web Content Manager.



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