

WHITE PAPER

Achieving ROI with Rational ClearCase and Rational ClearQuest

Sponsored by: Rational Software

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January 2003

COMPANY OVERVIEW AND BUSINESS

ENVIRONMENT

Convera specializes in providing mission-critical enterprise search, retrieval, and categorization solutions that enable organizations to quickly and accurately manage all their digital assets, allowing valuable information to be shared both internally and externally.

With 20 years experience in search and retrieval technology, Convera provides highly scalable, fast, accurate, and secure search across more than 200 forms of text, video, image, and audio information, in more than 45 languages. While Convera's software products can be used in virtually any industry, the segments receiving the most focus at this time are government, life sciences, financial, technology, and media and entertainment.

CURRENT IT ENVIRONMENT

Two and a half years ago, organizational and management changes brought about a new focus within Convera regarding development procedures. It was believed that Convera needed better configuration management, as well as improved procedures for managing the overall development build and release processes, to compete effectively. Given previous experience with Rational Software and the knowledge that Rational is a leader in the software tools market, a decision was made to bring in Rational ClearCase and Rational ClearQuest to help Convera achieve its goals. Currently, use of Rational ClearCase and Rational ClearQuest is required at the Columbia, Maryland, development organization and Carlsbad, California, offices.

EMERGING NEEDS AND ROLES OF RATIONAL CLEARCASE AND RATIONAL CLEARQUEST

Prior to investing in Rational ClearCase and Rational ClearQuest, Convera was using a combination of tools to meet its software configuration needs. While these tools met rudimentary requirements, they did not offer the depth of capabilities and control over source that was desired by Convera, such as dynamic views. The development, build, and release processes were also not tightly administered and the tools used were not integrated. Requirements were manually collected and fed into a database, but there was limited access and reporting capabilities and no connection to defect tracking.

To ensure a smooth transition to Rational ClearCase and Rational ClearQuest, Convera hired a person with Rational experience to manage the migration. Convera chose to enact the switchover at the end of a project cycle approximately 1.5 years ago, which provided ample time for development personnel to prepare for the change. The migration was successful and relatively easy. The only problems experienced related to the integration between Rational ClearCase and Rational ClearQuest.

While Rational documentation and support for these products individually is strong, it was weak with regard to the integration of the two products. Still, Convera has achieved its primary software configuration and defect tracking goals. Rational ClearCase has provided Convera greater control over its source code with better check-in and check-out features, limiting access without appropriate approvals and offering better control of the build and release processes. Moreover, Rational ClearCase has delivered time savings through quicker check-out of code required and fewer release problems. From a Rational ClearQuest perspective, Convera gained valuable reporting capabilities as well as control over the defect tracking process and gained the ability to map defects to source code through software change requests (SCRs).

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ROI ANALYSIS

Net quantifiable benefits (NQB). Rational ClearCase enabled Convera to streamline and increase control within its source code check-in and check-out processes, resulting in a net benefit of more than \$126,000. Through the Rational ClearCase and Rational ClearQuest integration, Convera benefited from better process management throughout the entire development, build, and release processes. Convera achieved its goals and a net benefit of more than \$22,000 over the ROI time horizon by reducing time spent on process management and reporting. Overall, the NQB achieved through the use and integration of Rational ClearCase and Rational ClearQuest totaled more than \$148,000.

Net quantifiable costs (NQC). The NQC to Convera, over the two- year ROI time horizon, for software licensing for Rational ClearCase and Rational ClearQuest amounted to just more than \$43,000. In addition, ongoing maintenance costs associated with Rational ClearCase and Rational ClearQuest brought the overall net cost to nearly \$66,000. The investment costs for Rational Suite are not reflected because the initial implementation took place prior to the ROI time frame examined in this study.

Return on investment (ROI). The ROI recognized for Rational ClearCase and Rational ClearQuest by Convera is 226%, which means each \$1.00 invested sees a return of \$2.26. This satisfactory ROI demonstrates that Convera is already recovering its costs in the form of operational benefits.

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In 2003 it is anticipated that the ROI will increase to more than 650% as license costs will have been fully amortized in 2002 (assuming that other benefits and costs remain stable).

BENEFITS ASSOCIATED WITH USING RATIONAL CLEARCASE AND RATIONAL CLEARQUEST

By using Rational ClearCase and Rational ClearQuest, Convera can:

- Save developer time because all source code need not be checked out each working session
- Gain traceability of who contributes what source code to software releases
- Restrict what is checked in and out, thereby smoothing the release process
- See what code is related to what fix in Rational ClearQuest, thanks to the Rational ClearCase and Rational ClearQuest integration
- Improve management and processes within the development lifecycle

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