Rational software

Macaw Thrives in the Internet Fast Lane with Rational Process Workbench

Macaw was in a very tough position. It knew that in the fast lane of sophisticated Internet technologies, there are two kinds of players: The fast and the dead. In order to survive, it needed to remain competitive on the leading edge of Internet technology. With information technology services for e-commerce, intranet, and application service providers (ASPs), Macaw was relying upon its ability to create high technology software to maintain its competitive advantage in the Dutch marketplace for B2B Internet services.

After performing a customer survey and an overall process improvement initiative, Macaw realized that it had a few weaknesses. While its core competencies of software design, testing and implementation were considered to be exceptional, Macaw recognized the need to improve the "front end" of its development process. According to Tseard Hoekstra (Process Engineer) of Macaw, "Design, testing and implementation of software was not a problem for us. Managing the process was a problem. Building the right software and properly eliciting requirements were the areas that needed to be improved." Macaw needed to improve its processes in the requirements and project management disciplines in order to better meet its customer's needs.

In order to satisfy this need, Macaw turned to Rational Software for development tools. As part of the Rational Suite®, Macaw found tremendous value in the Rational Unified Process or RUP® and Rational Process Workbench as means of improving its development process and as a way of developing software that better fit the needs of its customers.

Team Tools

With approximately 100 employees across all of the traditional software development disciplines, Macaw needed a set of tools that could integrate into the lives and the desktops of each of its practitioners. Furthermore, the members of its development team had to be coordinated in their efforts. In short, it needed an end-to-end process which would harmonize the requirements, analysis and design disciplines with its implementation, test and deployment disciplines.

In October 2000, Macaw selected the Rational Unified Process as the exclusive software development process for its teams. Like many organizations, Macaw did not try to implement the entire knowledge base of RUP in a single project. Instead, it chose to implement the disciplines that it needed the most. As a result, it first implemented the requirements management and project management disciplines. After achieving noticeable success on projects with these disciplines, Macaw then implemented the analysis and design disciplines.

Customizing the Rational Unified Process

In the process of embracing RUP as its own development process, Macaw discovered something that hundreds of organizations have learned: It found that it needed to make modifications to the standard Rational Unified Process in order to reflect its own needs and internal procedures. According to Hoekstra, "We have tailored many of the other regular RUP workflows. What we want to do in the future is to be able to keep those changes to RUP across future versions without too much rework"

For this customization, Macaw utilized Rational Project Workbench (RPW). In five weeks, Macaw installed, configured and fully customized the Rational Process Workbench software for its own processes. "RUP has helped us in creating a knowledge base and RPW has enabled us to tailor that knowledge base for our organization," according to Hoekstra.

IBM

Macaw derived two primary benefits from the adoption of Rational Process Workbench. The first was the customization of RUP. Rational Process Workbench allows RUP users to modify its content and customize it to their organization's specific needs so that only the desired activities, artifacts and roles are displayed. The second main benefit that Macaw derived from RPW, according to Hoekstra, was the maintainability of the knowledge base. RPW allows new RUP content that is issued periodically to be integrated into the customized knowledge base with much less effort than if using RUP alone.

It is this level of synchronization that impressed Hoekstra and led to his adoption of the product. "The biggest improvement is that it keeps everything coherent and in sync. It can be very difficult to maintain references and the integrity in a customized version of RUP without Rational Process Workbench."

Taking It to the Next Level

Rational Unified Process is a tool that is designed to be used as a software development process framework. As such, it cannot realistically contain 100% of the content necessary for all development technologies nor is it a uniform process that can be used in the same manner by all development organizations, big and small. Development organizations that have a need to modify RUP should consider Rational Process Workbench. RPW was created by Rational in order to bridge the gap between an off-the-shelf development process like RUP and the specific needs of a highly customized development organization.

In Macaw's situation, the main customization of RUP was a workflow specifically for their own, proprietary visual design process which they have named "visual and experience design". According to Hoekstra, "visual and experience design is all about design combined with usability." By incorporating this content into RUP, Macaw could customize the RUP content for their own particular needs. "The main thing we use RPW for is to model the visual and experience design workflow we have defined ourselves. That is a living thing that has to be maintained and will evolve because it captures our best practices up to this moment."

The only constant in the software industry is change! Because their own workflows will ultimately change alongside of the industry's best practices, process engineers like those at Macaw, must have a tool that provides the flexibility of reacting to these changes. As a result, they use Rational Process Workbench to marry the industry's best practices with their own set of proprietary processes.

The result has been nothing short of transformational. Macaw has moved from a company that has focused strictly on technical issues related to software production to a company that is now focused on the qualitative aspects of customer needs. "The greatest advantage is the improved ability to manage the expectations of the customer. We can better predict the time it will take, the budget it will take and the product they will get, so that they will be a happier customer." While it is too early for Macaw to fully and accurately assess the ROI of the investment in Rational Process Workbench, Hoekstra estimates that "Rational Process Workbench will probably pay itself back with future versions of RUP. That is the reason we chose to use RPW because it enhances maintainability and that is where the cost savings are going to be."

Macaw is anxiously awaiting the newest tools coming from Rational Software in the V2002 release. The enhancements to Rational Process workbench will allow Macaw to create and package their own process "plug-ins" to RUP even easier than before. With these tools, Macaw will also be able to configure and customize the Rational Unified Process with these plug-ins using the RUP Builder tool in RUP. Finally, Macaw will be able to publish and share their own process plug-ins with the rest of the Rational community as part of the RUP Exchange on the Rational Developer Network. "The enhancements to our existing Rational toolset will further augment our ability to build, deploy and publish our visual and experience design process" according to Hoekstra. "The Rational Process Workbench combined with RUP Builder and the RUP Exchange on the Rational Developer Network, will put Macaw in a pioneering position as a leader in the field of visual and experience design. We're very excited about these new tools from Rational and the strengths that they provide to Macaw from a competitive standpoint."

About Rational

Rational provides a software development platform that improves the speed, quality, and predictability of software projects. This integrated, full life-cycle solution combines software engineering best practices, market-leading tools, and professional services. Ninety-six of the Fortune 100 rely on Rational tools and services to build better software, faster. This open platform is extended by partners who provide more than 500 complementary products and services.