XWIKI SAS
STREAMLINES WEB DEVELOPMENT WITH GROOVY DYNAMIC LANGUAGE

XWIKI SAS

RESULTS

Groovy delivers the following business results to XWiki:

- Accelerated Development – from weeks or months down to a day for proof of concept
- Responsiveness to Customer Requests
- Competitive Advantage
- Reduced Development Costs
- Simpler Design with Superior Quality
- Easier Maintenance

TESTIMONIAL

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XWiki SAS

XWiki SAS is a start-up based in Paris, supported by more than 30 collaborators around the world. The goal of the company is to develop collaborative open source solutions that allow users to work together using wikis, applications that enable users to collaboratively create and edit web pages via Web browsers. Thousands of enterprises use XWiki products, including AFP (French News Agency), Curriki, EADS (aerospace and defence corporation), Illinois Casualty Company (insurance company) or IWA (International World Association) and a range of organizations across the globe.

XWiki SAS is a commercial company building an offer on top of the open source XWiki project, which provides a generic platform for developing collaborative applications using the wiki paradigm, and building products on top of it. XWiki SAS also offers development and consulting services, technical and developer support, training and hosting. XWiki SAS will start offering its products as a Cloud solution in the first half of 2011.

Application

XWiki is an advanced, professional-level application wiki which is used to create collaborative web applications – including structured data and scripting – using the wiki paradigm. This is a second generation wiki offering the ability to install and develop small applications inside wiki pages. The XWiki Platform is written in Java and uses an underlying relational database management system.

Challenge

XWiki is an open source application, but it is also the foundation for other products and projects. When the company, XWiki SAS, adds functionality to the XWiki Platform, this provides an advantage to all users of XWiki, and that includes the internal development team at XWiki SAS, working on the next generation of projects and products built on top of XWiki.

XWiki SAS faced a challenge with two capabilities the company wanted to add to the XWiki Platform. First, XWiki SAS wanted to provide users with the ability to write high-level scripts to perform administrative tasks. For example, scripting could be used to easily rename a set of wiki pages following certain rules, or to import large amounts of data from spreadsheets.

Second, XWiki SAS wanted to provide users with the ability to add new functionality to the wiki syntax by developing macros to automate tasks.

Although the XWiki Platform is written in Java, this was not a practical solution for scripting and ad-hoc, customizable macros. XWiki application developers needed a simpler language to use within XWiki, to streamline development of new functionality. "We wanted to offer an editable runtime," explains Jérôme Velociter, Software Engineer at XWiki SAS, XWiki developer, and a committer on the XWiki project. "We wanted to have a way to execute scripts and code without having to restart the platform, without having to deploy it on a server. We could not do that in Java, because when we write Java code, we have to compile it and deploy it on a server."

The goal of XWiki SAS was to simplify certain development tasks and allow users to easily add new functionality within XWiki. This would be done by providing users with the ability to edit a web page by typing the code inside that page, saving it as a document, and executing it – and never having to compile or deploy during that process.

Solution

For executing scripts and code within XWiki, the company historically selected Groovy, a dynamic language for the Java Virtual Machine that offers a flexible Java-like syntax that developers can learn in a matter of hours. XWiki allows its users, who include the XWiki SAS development team, to write scripts and macros in Groovy inside XWiki pages. Groovy is supported by SpringSource, the leader in Java application infrastructure and management. Groovy has been integrated and exploited in XWiki since the very early days of XWiki and Groovy, back in 2005. "We use Groovy when we need to perform advanced scripting tasks inside the wiki," says Velociter. "For example, we use Groovy when we need to take advantage of an external software library that we attach to a wiki page, or to perform complex calculations or operations inside the wiki. Groovy enables us and other XWiki users to write, edit and execute advanced scripts and macros on a wiki page, without having to compile anything or deploy on the server," he adds. "Groovy has proved to be a very powerful way to do that."

Benefits

GROOVY DELIVERS THE FOLLOWING BUSINESS RESULTS TO XWIKI:

Accelerated Development
"Groovy makes it simpler and faster to add new features to the wiki and create applications on top of XWiki," Velociter confirms. "The advantage XWiki, as a company, gains from Groovy is that we can develop features and make changes quickly. We can create a proof of concept for an application in a day and develop a working application in a week using Groovy, and we can do that directly on XWiki. In Java, the process would take longer. It could take weeks or even months."

Responsiveness to Customer Requests
In addition to developing the XWiki open source project, the company XWiki SAS also sells software to customers, and services such as development. The XWiki SAS development team often utilizes Groovy within the XWiki platform to meet customer requests.

"Our customers ask for new features that are not part of the XWiki Platform itself," explains Velociter. "As a company, we develop those features for them. In that process, Groovy allows us to deliver a proof of concept to our customers very quickly, and complete the project much faster."

The XWiki SAS development team can write scripts directly in XWiki without having to restart XWiki or access servers to deploy. "That is very helpful because we can develop and deploy new features live on the web," Velociter adds. "When we continue to develop the XWiki platform, we develop advantages to improve the performance for ourselves as developers. We look for ways to develop faster, better, and in a cleaner way. Groovy helps us meet that objective. The Wiki macros built using Groovy are an example of a capability we added to XWiki for ourselves, to improve the way we are building applications at XWiki SAS."

Competitive Advantage & More Features
"Groovy makes our company more competitive, because not every company has the capability to deliver functionality as quickly as we are able to," Velociter confirms. "Groovy definitely provides value for us as a service provider." Groovy also enables both XWiki SAS developers and users of XWiki to add functionality that would not otherwise be simple to develop.

Reduced Development Costs
According to Velociter, one of the objectives of XWiki is to be like MS Excel, but for the Web. The company aims to enable people and corporations to develop applications they would not have done otherwise, because it would take too much resources, time and effort. "We want to enable people to create simple applications online at a very low cost, like people used to do on the desktop with MS Excel," says Velociter.

Increased Popularity of Open Source Application
"Including Groovy in XWiki makes the application more popular for open source users," Velociter notes. "There is a synergy by combining XWiki and Groovy. Developers that know and like the Groovy programming language are now even more interested in exploring XWiki. Groovy definitely helps extend our XWiki community."

Simpler Design with Superior Quality
Velociter points out that scripts and macros written in Groovy are much simpler than java applications, containing significantly less code. For example, some macros written for XWiki contain only 5 or 10 lines of code. Less code and a simpler design, enabled by Groovy, translates into fewer bugs and improved application quality.

About SpringSource

SpringSource, a division of VMware, Inc., builds Java infrastructure software which eliminates the complexity of enterprise Java. SpringSource created Spring, the de facto standard platform to build, run and manage enterprise Java applications. SpringSource also employs the leading committers for ApacheTomcat and is the leading Tomcat support provider Nearly half of the Global 2000, including many world's leading retail, financial services, manufacturing, healthcare, technology and public sector clients are SpringSource customers. For more information please visit springsource.com.

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