

EUROPEAN PATENT OFFICE

Cuts Time-to-Market, Maintenance and Cost with Groovy Dynamic Language

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Europäisches
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European
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des brevets

SPRINGSOURCE RESULTS

Groovy delivers the following business results to the EPO:

- Accelerated Development – 2X Faster
- Operational Continuity
- Improved Communication with Business User
- Easier Maintenance – 2X Faster
- Superior Application Quality
- Fast Developer Ramp Up
- Lower Cost Resources – Reduced by 40%

APPLICATION OVERVIEW

The EPO developed the Data Flow Platform to automate and optimize the sharing of patent information with 100 other patent offices around the world.

TESTIMONIAL

“Groovy has allowed us to reduce the cost of our development resources by half. Previously, we used to have 8 developers assigned to these tasks, but now our team has 5 developers.”

“On the maintenance side, we move twice as fast with Groovy, compared to our previous platform. When you read a script written in our Groovy DFL, you don’t have all the Java syntax, you go straight to the point, making it easily maintainable.”

“When there was a major change to a data flow, it used to take a month at least...But in Groovy it only takes two weeks.”

European Patent Office

The European Patent Office (EPO) is the patent granting authority of Europe, founded on the European Patent Convention, an agreement between 36 countries. EPO’s main responsibility is to examine patent applications and grant European patents, processing more than 140,000 patent applications per year.

Application

EPO’s Data Resources Department is responsible for collecting patent-related data, which involves interfacing with about 100 patent offices all over the world. EPO Data Resources wanted to develop the Data Flow Platform, an enterprise application to streamline operations for all the data collection processes. In addition, EPO planned to develop a Data Flow Language (DFL, a Groovy domain specific language) to leverage similarities in the processes for communicating with each individual country’s patent office, and transform them into a single, universal process.

Challenge

All the processes for communicating with other patent offices were developed on an ad hoc basis over the EPO’s 32 year history, using mainframe technologies, mainly COBOL. In addition, EPO developers created pre-processing technologies using different scripting languages.

“We wanted to get rid of all that and have something more streamlined on a single platform using one set of technologies,” explains Philippe Delebarre, Data Flow Platform Manager for EPO. “On the legacy platform, every time we started with a new country, we had to start from scratch and create a new set of COBOL programs. This became more and more difficult to maintain. Everything was in the heads of a few developers. If the developer who had written a particular program or script was not in that day, we could not maintain that application.”

As an alternative, the EPO evaluated solutions specifically designed for extraction, transformation and load (ETL) but none of these tools could simplify the processes adequately. The Office wanted to extract the data flow aspects and make them accessible to the business users.

The EPO also faced a challenge in finding developer resources for COBOL and the mainframe development environment. The ETL tools would not solve this problem either because most developers do not have training in the use of these applications.

Solution

EPO Data Resources decided to build the Data Flow Platform in 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. The EPO also created a Data Flow Language that they could use to streamline all their processes for exchanging data with other patent offices. Groovy is supported by SpringSource, the leader in Java application infrastructure and management.

Benefits

GROOVY DELIVERS THE FOLLOWING BUSINESS RESULTS TO THE EPO:

Accelerated Development

“One of the biggest advantages of Groovy is that it speeds up the time to production,” says Raffaele Cigni, Groovy expert and Data Flow Engineer on the platform. “The time to market on a new feature is much faster than before.”

“When there was a major change to a data flow, it used to take a month at least, on the mainframe,” Delebarre concurs. “But in Groovy it only takes two weeks.”

Previously, the development process was slowed by communication limitations between the developer and the business user. Groovy makes it easy to concentrate on the business objectives rather than the technical components, so now the developer and the business user can create new functionality together in a streamlined process. Groovy also helps during the test cycle. Clearer and more relevant test cases are written during the development phase.

Operational Continuity

Whenever there is a change to a process for a particular country, the EPO must quickly update the system, otherwise the examiners may be unable to access the data needed to make critical decisions on patent applications. Groovy has enabled the EPO to add these new features fast and at a reasonable cost so the organization can keep the patent examination and granting process up and running.

Improved Communication with the Business User

“When developing in COBOL, pure Java or an ETL platform, it is easy to lose the business user because it is more technical and complicated,” Delebarre says. “The beauty of Groovy is that we can hide all the technical parts and concentrate on our business. With Groovy, the developer and business user can sit together and develop the processes, and they both can understand what is on the screen. We are becoming agile.”

Easier Maintenance

“On the maintenance side, we move twice as fast with Groovy, compared to our previous platform,” Delebarre confirms. “When you read a script written in our Groovy DFL, you don’t have all the Java syntax, you go straight to the point, making it easily maintainable. Reading a DFL script is like reading process steps in clear text.”

Superior Application Quality

Groovy supports the EPO’s use of test-driven development, and the developers can write test cases more quickly, which means more of the application is tested. With less bugs, the cost of maintenance is reduced substantially.

Fast Developer Ramp Up

According to Delebarre, new developers can ramp up much more quickly on Groovy than the mainframe technologies, such as COBOL, or even the alternative ETL platforms they had evaluated. Anyone with Java experience can easily understand Groovy and become productive rapidly.

Lower Cost Resources

“Groovy has allowed us to reduce the cost of our development resources by half,” says Delebarre. “Previously, we used to have eight developers assigned to these tasks, but now our team has five developers. And we expect that as more data flows are migrated onto the new platform we will leverage this technology even more.”

“If we used a commercial ETL product, it would be difficult to find resources on the market, and they tend to be very expensive,” he adds. “Likewise, it is very difficult to find COBOL developers at a reasonable price. On the other hand, any Java developer with enough experience can move to Groovy quite easily, and this reduces our manpower cost.”

About SpringSource

SpringSource, a division of VMware, Inc., (NYSE: VMW) and the leader in Java application infrastructure and management, provides a complete suite of software products that accelerate the entire build, run, manage enterprise Java application lifecycle. SpringSource employs the open source leaders who created and drive innovation for Spring, the de facto standard programming model for enterprise Java applications. SpringSource also employs the Java and Web thought leaders within the Apache Tomcat, Apache HTTP Server, Hyperic, Groovy and Grails open source communities. Nearly half of the Global 2000, including many of the world’s leading retail, financial services, manufacturing, healthcare, technology and public sector clients are SpringSource customers. For more information visit: www.springsource.com.



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