



POLICY ADMINISTRATION SOLUTIONS

FAST FACTS

Company

AQS provides leading policy administration solutions for commercial property and casualty insurance carriers

Industry

Financial Services — Property Casualty Insurance

Geography

US

Challenges

- Drive consistency in source code management
- Automate change processes for very large sets of data files
- Eliminate inefficiencies in the software build process

Solution

- Borland® StarTeam®

Results

- Dramatically improved efficiency—from hours to minutes
- Elimination of costly human error from the software delivery lifecycle
- 30% reduction in rebuilds

AQS®, Inc.

EXECUTIVE SUMMARY

For 27 years, AQS has delivered an insurance policy administration system that helps carriers increase productivity, lower costs and improve profitability. AQS systems process billions of dollars of direct written premiums annually. AQS must continually update the information in its AQS/advantage™ suite of products in order to enable its customers to accurately rate commercial business for insurance coverage. Updates include data about new government regulations, where the customer is doing business, what kind of businesses the customer is rating for coverage and more. AQS has made extensive use of Borland® StarTeam® and the Borland StarTeam software development kit (SDK) to dramatically improve the efficiency of previously manual tasks associated with manipulating these large sets of data files. This has allowed AQS to eliminate inefficiencies in the software, reduce rebuilds by 30%, extend access to Borland StarTeam to a broader, less technical audience and to eliminate costly human error from the software delivery lifecycle.

COMPANY

For 27 years, AQS, Inc. has provided comprehensive policy administration solutions and services to commercial property and casualty carriers of all sizes. Its Web-centric AQS/advantage suite of products provides carriers with innovative policy administration solutions and services designed to improve speed to market, streamline and simplify business operations, cut costs and maximize return on investment. The suite includes AQS/advantage, a comprehensive commercial policy administration system (PAS) that includes all transactions, all lines of business and all fifty states. There is an integration solution, AQS/advantage Integrator, and a self-maintenance system, AQS/advantage Product Manager. The AQS/advantage suite also includes AQS' Professional Services.

CHALLENGES

Commercial property and casualty insurers seek innovative policy solutions that can help them to increase speed to market, reduce operations costs, improve business processes and facilitate compliance. For 27 years, AQS has delivered an insurance policy administration system built using leading-edge technology to meet these business challenges. AQS customers use the AQS/advantage system to process billions of dollars of direct written premiums annually. Its average client tenure is 16 years, and AQS has maintained strong relationships by listening to its customers, incorporating their feedback into its products, and most importantly, delivering on its promises. With growing demands for additions to its AQS/advantage suite of products, AQS knew it needed a more effective solution to handle its software change and configuration management requirements. It needed a solution that would help the development organization to:

Drive consistency in source code management

In 2000, AQS was beginning to migrate its innovative policy administration solutions from DOS to Windows. At that time, everyone in the development organization was using their own processes and procedures to accomplish tasks. The team attempted to standardize on a home-grown source control system, but it could not handle versioning. A few months later, the development team tried to replace its home-grown solution with Microsoft Visual SourceSafe, but immediately discovered that solution also had some limitations. In March 2001, AQS sought a comprehensive, robust and scalable software change and configuration management solution that would help drive consistency and mitigate errors in source code management as the company migrated applications from DOS to Windows and eventually to .NET.

Automate change processes for very large sets of data files

AQS must continually update the information in its AQS/advantage suite of products in order to enable its customers to accurately rate commercial businesses for insurance coverage. Updates to the AQS/advantage suite of products include data about government regulations, where the customer is doing business, what kind of businesses the customer is rating for coverage and more. For example, when a new ISO or state regulation such as the November 2002 Terrorism Risk Insurance Act (TRIA) is passed, AQS must apply this regulation to its product offering to allow accurate policy administration based on the regulation. The AQS development team leverages data files, which can be made up of approximately 30,000 to 200,000 individual files, in order to roll these updates and changes into production systems. These changes may roll into the base product or be made available only to specific clients.

Prior to investigating the use of a software change and configuration management tool, AQS managed the process of updating and releasing these data files manually and often used a networked share drive to facilitate the process. While AQS was still able to deliver a high level of quality and service to its customers, this manual process was inefficient, time-consuming and left room for errors.

Eliminate inefficiencies in the software build process

In addition to consistently updating ratings information through data files associated with the AQS/advantage suite of products, the AQS development team also releases new builds of the source code to customers on a regular basis. Prior to investigating the use of a software change and configuration management tool, this build process was also manual, which made it time-consuming and error prone. For example, errors associated with the build process would emerge in the testing process, which would then force testers to go back for new builds and start the testing process all over again. As a result, AQS might experience longer than necessary release cycles for new versions and maintenance releases of its products.

SOLUTION

AQS set out to replace its existing Microsoft® Visual SourceSafe solution, which the development team was outgrowing, with a powerful new software change and configuration management solution that would increase the efficiency and accuracy of the AQS software delivery lifecycle. After careful consideration, AQS selected Borland® StarTeam® over IBM® Rational's ClearCase and Serena™'s PVCS products as its preferred solution.

“We believed Borland StarTeam could support our development efforts because it was a robust solution, reasonably priced, easy to install and didn't require extensive technical

support to set up and use. In addition, the sales team was extremely knowledgeable,” said Scott Duckworth, senior developer at AQS, Inc.

Today, AQS makes extensive use of the Borland StarTeam software development kit (SDK). The SDK enables AQS to extend Borland StarTeam access to a broader, less technical audience and allows AQS senior development staff to write powerful utilities that increase the automation the system can provide to the software delivery process.

Initially, AQS did not believe that its business analysts would be able to leverage Borland StarTeam because this group did not have technical skill sets. However, the SDK enabled Duckworth to essentially write a new interface to Borland StarTeam which now serves as a front end for the analysts.

“The new interface directs our business analysts to follow a standard workflow that enables them to share, modify and edit files within our data files,” explained Duckworth. “Prior to using the new interface that I wrote using the SDK, they ran batch files and DOS utilities to edit and copy the data files. In fact, sometimes they would edit large numbers of files at a time, which greatly increased the risk of error. Using the new interface to enforce a workflow and allow our business analysts to manipulate the files directly in Borland StarTeam established consistency, which saves us all days of work.”

In addition to writing new interfaces that enable different audiences to access Borland StarTeam, AQS uses the SDK to write utilities that automate the build process. For example, by adding custom fields that identify build components uniquely, the build process can now run automatically, even when builds are for specific customers with unique code. The utility can identify which files belong to one another and to a certain build, and automatically build the files. This ensures builds are no longer manually assembled, which eliminates any chance of accidentally forgetting to include a file in a build or mixing up a build for a specific customer.

Most recently, Duckworth leveraged the Borland StarTeam SDK to build a reconciliation process program that he expects will greatly benefit the business. Using the program, a business analyst can now pick a client and a software release and simply walk through a series of tabs to generate a report that allows the analyst to see exactly what would be going into the next build. In practice, the build preview is a way to audit the build without actually doing the build. This automated reconciliation process ensures that when builds go to testing, they are viable candidates, so AQS testers can focus on finding bugs in the code, not missing or incorrect files.

In addition to the build team, AQS's database team is now leveraging Borland StarTeam to manage SQL scripts, which were previously stored on a shared network drive.

RESULTS

Using Borland StarTeam and the Borland StarTeam SDK, AQS has automated its software change and configuration management processes and improved the efficiency of its development team.

Dramatically improved efficiency—from hours to minutes

Prior to implementing Borland StarTeam, tasks associated with manipulating data files were simply tedious. For example, if an AQS employee wanted to do a quote for a customer, that employee would need to open and sift through approximately 100 individual files to pull the necessary information. This manual task could take up to eight hours of time and still be incomplete. “Now with Borland StarTeam and the SDK, I can write a utility that automates the process, reducing the time a task such as our quote process takes—from hours to minutes—a dramatic improvement in efficiency,” explained Duckworth.

Elimination of costly human error from the software delivery lifecycle

For AQS development, the Borland StarTeam repository currently stores more than three million data files for both the base product and specific clients, which translates into approximately 27 GBs of data. “The sheer volume of files and clients that we manage with this system is astounding,” said Duckworth. “Managing this volume of data without an automated system would be very risky.”

Additionally, because of the powerful version control and change management capabilities in Borland StarTeam, AQS can be sure that it is protecting its customers' investments in the AQS suite. If a customer ever needs to roll back to a previous release because of a system failure or upgrade delay, AQS can rebuild a release at any given time, from any point in time.

According to Duckworth, “Borland StarTeam and the utilities written using the SDK completely automate our build process, which removes costly human error and eliminates bottlenecks.”

30% reduction in rebuilds

Although the reconciliation process program is still rolling out, since AQS began previewing builds, it has seen a 30% reduction in rebuilds. “This supports a more efficient testing process and reduces overall release cycle time,” concluded Duckworth.

Borland is the leading vendor of Open Application Lifecycle Management (ALM) solutions - open to customers' processes, tools and platforms - providing the flexibility to manage, measure and improve the software delivery process.