

# AQS, Inc.

AQS, Inc. needed to drive consistency in source code management, automate change processes for very large sets of data files and eliminate inefficiencies in its software build process. The company saw major software delivery lifecycle improvements with Micro Focus® StarTeam®.



### Overview

AQS, Inc. has a long pedigree in providing comprehensive policy administration solutions and services to commercial property and casualty carriers of all sizes. Its web-centric suite of products provides carriers with innovative policy administration solutions and services that improve time to market, streamline and simplify business operations, cut costs, and maximize return on investment. The company's offering includes a comprehensive commercial policy administration system (PAS) that includes all transactions, all lines of business and all fifty states, along with an integration solution, a self-maintenance system and Professional Services.

### Challenge

Commercial property and casualty insurers seek innovative policy solutions that help

increase speed to market, reduce operations costs, improve business processes and facilitate compliance. For many years AQS has delivered an insurance policy administration system built using leading-edge technology to meet these 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, the company required a more effective solution to handle its software change and configuration management requirements. Specifically, it needed a solution that would help the development organization to:

### DRIVE CONSISTENCY IN SOURCE CODE MANAGEMENT

When AQS started to migrate its innovative policy administration solutions from DOS to Windows, it became clear that 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 comprehensive, robust and scalable software change

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### SCOTT DUCKWORTH

Senior Developer  
AQS, Inc.



### At a Glance:

#### ■ Industry

Computer Services

#### ■ Location

United States

#### ■ Challenge

The company required a more effective solution to handle its software change and configuration management requirements.

#### ■ Solution

Use StarTeam to automate software change and configuration management processes and improve the efficiency of the development team.

#### ■ Results

- + Dramatically improved efficiency—from hours to minutes
- + Eliminated costly human error from the software delivery lifecycle
- + Reduced rebuild by 30 percent

and configuration management solution was required, one 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**

The information in AQS/advantage has to be continually updated so that customers can accurately rate commercial businesses for insurance coverage. Updates include data about government regulations, where the customer is doing business, what kind of businesses the customer is rating for coverage and more. The AQS development team leverages large 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.

AQS had previously managed the process of updating and releasing these data files manually and often used a networked share drive to facilitate the process. While AQS continued to deliver a high level of quality and service to its customers, the 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, 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, and was time-consuming and error prone. 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 solution with a powerful new software change and configuration management solution that would increase the efficiency and accuracy of the AQS software delivery lifecycle—selecting StarTeam after intense market investigation.

“We believed 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,” says Scott Duckworth, senior developer at AQS, Inc.

Today, AQS makes extensive use of the StarTeam software development kit, which helps extend 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 doubted that its business analysts had the technical skills to leverage StarTeam. The software development kit meant that Duckworth could essentially write a specific interface to serve 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,” explains Duckworth.

“Prior to using the new interface, 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 StarTeam established consistency, which saves us all days of work.”

AQS also uses the software development kit 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. So builds are no longer manually assembled, eliminating 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 StarTeam software development kit to build a reconciliation process program that enables a business analyst to 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: essentially a build preview for auditing the build, which ensures that when builds go to testing they are viable candidates, so 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 StarTeam to manage SQL scripts, which were previously stored on a shared network drive.

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Using StarTeam has enabled AQS to automate its software change and configuration management processes and improve the efficiency of its development team.

## Results

### **DRAMATICALLY IMPROVED EFFICIENCY—FROM HOURS TO MINUTES**

Prior to implementing 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. “With StarTeam, 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,” explains Duckworth.

### **ELIMINATION OF COSTLY HUMAN ERROR FROM THE SOFTWARE DELIVERY LIFECYCLE**

For AQS development, the 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,” says 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 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, “StarTeam and the utilities written using the software development kit completely automate our build process, which removes costly human error and eliminates bottlenecks.”

### **30 PERCENT REDUCTION IN REBUILDS**

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

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