

Customer Story: Building a Stronger Business with QA Wizard

by **Allan McNaughton**

Application service providers (ASPs) live or die by the quality of their offerings. The goal of 100% uptime and near defect-free software are more than just bullet points on a marketing presentation. They are the foundation upon which a successful ASP business is built.

The impact of releasing a poor-quality hosted software product is widespread. In the ASP model, a code push affects all customers of the service.

Oceanwide, a leading ASP for the cargo insurance industry, knew the stakes were high. A single latent bug in its Web-based cargo insurance solution had the potential to disrupt service to all customers. To avoid this potential catastrophe, Oceanwide conducted extensive and time-consuming manual testing of every software release.

Efficiency Improvements

The Oceanwide quality assurance team found keeping up with an aggressive release cycle increasingly difficult. “We validate a major software release every two to three months,” said Derek Wu, Director of Quality Assurance. “Furthermore, we also regression test minor releases and smoke test nightly builds. Manual testing had become quite taxing. To improve our efficiency, we needed a better way of doing things.”

Having reached the limits of manual testing, Oceanwide looked to an automated testing solution. “Our main concern was the steep learning curve common to automated testing tools. Given that we couldn’t afford to spend months getting up to speed, we were delighted to find QA Wizard. Our experience with QA Wizard has been very positive. The tool is powerful yet easy to use. It only took two weeks to become proficient with QA Wizard.

“Our goal was to automate at least 80% of the regression test suite. This seemed reasonable as a large portion of our code is mature enough to warrant automation. We first automated the nightly build smoke tests. The smoke tests check that systems core algorithms, such as the calculation of policy premiums, generate the right answers. It had become tedious to verify correctness of these routines every day.”

QA Wizard’s support for checkpoints, which compare the value of a specific attribute to an expected result, greatly simplified the automation of complex tests. “Setting up a checkpoint is simple with QA Wizard’s point-and-click interface—no laborious scripting required. And, if a checkpoint fails during the test, we know immediately there is a problem with the build or the underlying data that the algorithms rely on.”

Problem:

Oceanwide needed a more efficient way to keep up with an aggressive release schedule.

Solution

Implemented QA Wizard to automate the regression test suite.

Results

- QA team can now accomplish the equivalent of weeks of manual testing in a single night.
- Automated regression testing of all deployment environments allows team to find transient problems, such as server errors and timeouts, faster.
- Nightly bug reports emailed to development team have encouraged more thorough unit testing and improved product quality.

Widespread Impact

Oceanwide took a measured and deliberate approach to its automated testing project. “We started off automating the nightly build smoke tests. This gave us an immediate return on our efforts. In the past we could only give nightly builds a cursory

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scan for showstopper bugs. Now we really shake out the bugs with a more rigorous set of tests.”

Over time Oceanwide created a comprehensive library of automated tests. “We now accomplish the equivalent of weeks of manual testing in a single night. This results in the code being tested more thoroughly and frequently. I’m certain that product quality has improved because of this. Moreover, we now test all of the deployment environments—QA, pre-production, and production. This has allowed us to find transient problems, such as server errors and timeouts, before the customer sees them.

“While we knew QA Wizard would have a positive impact on the QA team, we didn’t know it would also have a similar impact on the developers. Since the automated tests catch bugs that may have gone unnoticed, they call attention to whoever checked in the buggy code. We e-mail test results to the developers each day—nobody wants to be in spotlight. The report shows which tests failed along with a screenshot of the failure. This has prompted developers to unit test their code more thoroughly.”

Sharing Success

Having experienced the substantial benefits of QA Wizard, Wu is ready to share the secrets of his success. “We are the first team within Oceanwide to make use of test automation. I’m going to make sure we are not the last,” Wu concluded. “I’m evangelizing QA Wizard throughout the company. Our experience shows that the modest cost of adopting QA Wizard pales in comparison to its benefits. It’s quite simple: test more thoroughly, test more often, and the result is better quality software.”

Lessons learned

- Power and ease of use are not mutually exclusive. Said Wu, “Automated testing tools don’t have to be complicated. QA Wizard combines power and ease of use in a single tool. We felt like experts after only two weeks.”
- Create an automated testing plan. “Think through what you want to accomplish. Start with opportunities where the benefits of automated testing can be readily seen. It’ll get everyone really excited about what’s possible.”
- Test more intelligently. “Although there are still only 24 hours in a day, automated testing allows you to make more intelligent use of the time. With the hours it frees up we create more rigorous test plans and better prepare for future releases.”

About the Author

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