

Leading Healthcare IT Provider Increases Test Coverage by 40%, Leading to On-Time On-Budget Product Release

Keane's keyword-driven test automation approach enables client to introduce hospitals to a fully integrated product suite designed to deliver safer, more efficient care.

Abstract

Stunted by fragment testing processes, this leading healthcare IT provider engaged Keane to automate 40% of its test cases in order to release a major clinical product suite to the market on time and on budget. Keane's keyword-driven automation approach met this goal and laid the groundwork for what would become the market's first open source test automation solution.

Challenge

Higher quality, lower costs, faster release cycles. These are musts for our client, which designs and installs IT systems for the healthcare industry.

Several strategic M&As helped this Fortune 500 company rapidly grow to become a leading clinical software provider to more than 70% of the US's largest hospitals. In the mid-2000s, it set out to release a fully integrated clinical solution that would enable hospitals to manage a variety of in-patient systems from a single-source product.

The practices used to test our client's array of software applications were fragmented. The client needed a consistent and highly mature testing process to release a fully integrated clinical solution to their customers within a year. In order to meet this aggressive release deadline and come in on budget, 40% of testing would have to be automated.

Keane's keyword-drive test automation approach enabled this healthcare IT provider to increase test coverage by 40%, reduce manual testing by 20%, and release a fully integrated clinical product suite that enables hospitals to deliver safer, more efficient patient care.

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Solution

Keane and the client designed a QA and testing program that would streamline and improve testing practices by assigning dedicated QA teams to each of the products within the clinical suite that would follow a common set of processes. To optimize the efficiency and cost-effectiveness of this QA and testing program, Keane designed the solution with 90% of the team offshore.

With nine products having to be tested, Keane chose a keyword-driven testing approach. Using keywords brings efficiency to testing by breaking test procedures into logical components that can be used repeatedly as new test scripts are created.

Keane modified the client's elaborate test cases that had been written for manual regression testing so that they could be automated using keywords and the Quick Test Pro automation tool.

After being trained on the functional aspects of the products being tested, Keane's automation experts were able to execute more than 7,000 automated test cases for our client's clinical applications suite.

Results

Keane's keyword-driven automation approach enabled this client to introduce hospitals in the US to a fully integrated

clinical product suite designed to help deliver safer, more efficient patient care.

In addition, the client was able to increase test coverage by 40% and reduced time-consuming manual testing by 20%. This efficiency increase enabled our client to release this flagship product suite on time and on budget. Moreover, the client was able to reinvest these savings into testing product enhancements.

Cracking the Code

With the success of this automation effort, Keane set out to raise the bar for keyword-driven test automation by creating a framework that's tool-independent. Open2Test is Keane's open source testing approach that eliminates the need to rewrite code and test functions for every new technology or testing tool, saving considerable time and money.

Open2Test's driver scripts have been written for all the major test automation tools on the market. So all testers need to do is create test scripts using these keywords, rather than writing and rewriting the same code over and over again.

In 2009, Open2Test earned Keane a spot as a leading innovator on the Information Week 500.

Keane's test automation success at this client laid the foundation for Open2Test – Keane's open source test automation solution, which earned Keane a place on the InformationWeek 500 list of top innovators.

About Keane

Keane, an NTT DATA Company, is an IT services firm headquartered in the US with more than 12,500 professionals worldwide. For 45 years, Keane has been an Application Services specialist with distinguished project management credentials. Today, we offer a flagship suite of Application Services, as well as Infrastructure and Business Process Outsourcing solutions delivered through onsite, nearshore, and offshore resources.

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