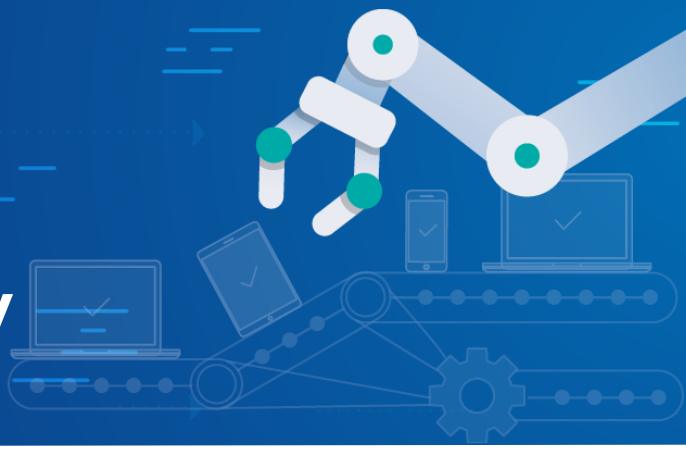
Test Automation

Keoghs Case Study

nFocus Testing

Test Automation

Keoghs Case Study



Background

Keoghs is one of the leading providers of claims related services to insurers, businesses and other suppliers to the insurance sector. They combine proven processes, technology and low-cost infrastructure with extensive legal and insurance market knowledge to create individual solutions for each of their clients.

The Keoghs IT Leadership team recognised Test Automation as an area that would support the organisation's adoption of Agile and bring immediate benefit to their software delivery. Their mature test team embarked on a journey towards automating their regression pack which was currently completed outside the sprint taking 20 working days to complete manually.

Having assessed the testing experience in house, internal knowledge of automation tooling, the time available within the team for automation whilst maintaining the current workload and the sheer size/complexity of the application, Keoghs decided to engage with a third-party automation expert. As Stephen Withington, Senior Test Analyst explains,

"After speaking to nFocus, we decided that they were the people to go to and we were not disappointed. With a wide range of testing knowledge in general, but from our specific point of view, in automation testing, we knew straight away that they were the company for us."

Stephen Withington, Senior Test Analyst, Keoghs:

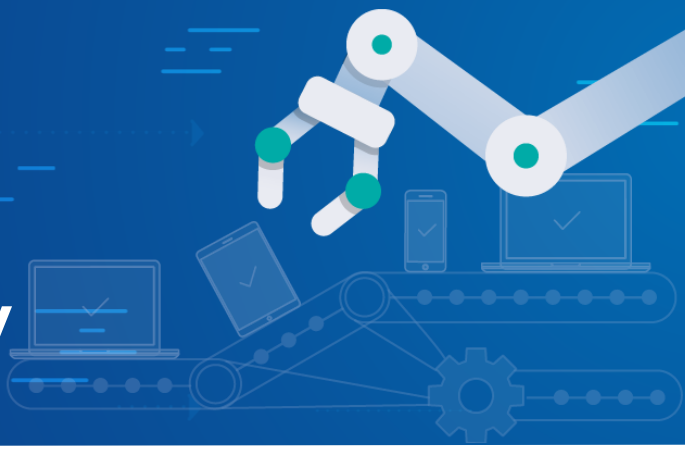
"In a three-month period, nFocus automated the regression testing of our complex business critical application. What was taking twenty working days to do manually can now be run overnight, everynight, enabling our Agile approach. By running the full regression suite nightly, we'll achieve the equivalent of over £900k of manual testing every year! What's more, nFocus' solution means our non-coding internal test team are easily able to execute, maintain and extend our automation suite".

The Solution

nFocus' brief was to automate Keoghs full regression pack in such a way that when complete, could be handed back to the internal test team to be run in full every night, but also be maintained and added to by the internal test team who had little coding experience. We began the project with an automation assessment to evaluate the current approach, manual tests, technology stack of the application under test, in-house skills, existing tooling and overall maturity. The output of the assessment was an approach to automate the regression pack to achieve the brief. nFocus' proposed solution utilised a framework approach using a simple spreadsheet like interface as a way of defining test scenarios which generates robust automation code (with self documentation that a manual tester could follow if needed) to drive an end execution tool, which in this case was Selenium. This approach would require technical investment up front to create the custom functions but once complete, would allow nontechnical testers to identify, create and write the tests.

Test Automation

Keoghs Case Study



This approach mapped onto the product knowledge and skills of the internal team without requiring them to learn a programming language. Following the engagement, it was proposed a single member of the development team would be trained to support future technical support removing reliance on nFocus, whilst knowing nFocus could be called upon at a moment's notice should they need it.

The proposed approach was proven with a Proof of Concept demonstrating what could be done against a small number of business-critical tests. This gave us an idea of feasibility, timescales needed to automate the manual test suite, identified issues and potential blockers. With this success, the nFocus team began automating the regression pack. As Stephen explains,

"The nFocus team rapidly picked up the knowledge of our complex systems by digesting our existing manual regression test cases. Whilst keeping a constantly open line of communication, their team translated all of our existing manual regression test cases into automated test cases providing the test coverage we required."

We decided to burn down on the test cases in an Agile fashion, refactoring as we went. The end framework emerged from these refactorings and allowed us to continually check that we were delivering what the client wanted and could learn as we went. This happened with weekly feedback sessions.

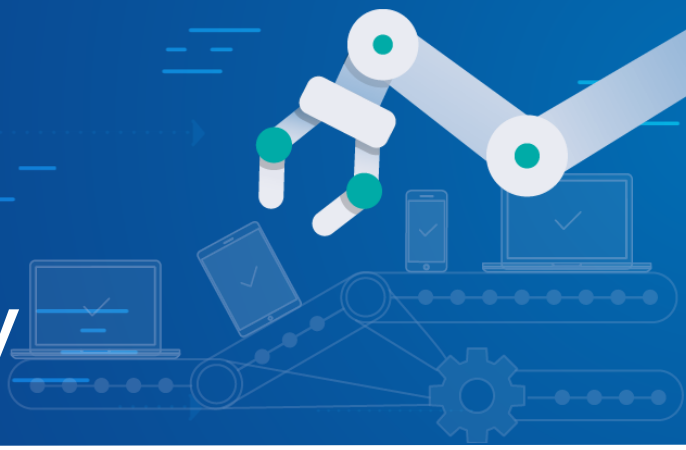
The Results

In a three-month period, nFocus completed a test automation assessment, developed a solution which would achieve the brief set by the client, proved the solutions with a Proof of Concept, automated the full regression pack, and then handed over the test suite to the client with training that would enable them to execute, maintain, and extend themselves going forwards.

The approach successfully utilised object maps to identify each object which allowed reuse across tests and also could use CSS or Xpath to identify the objects in a more robust way. This mitigated the risk of the IDs being changed and breaking the tests. In the rare situation where IDs did change then the object only needed to be updated in one central place. The results of the automated tests were presented in a meaningful way within the test management tool of choice. We created test plans, which organised the tests into logical groupings. Once the tests had been compiled, it was possible for those tests to be imported into the test management tool in these groupings. From where, tests automatically executed overnight, on a schedule, using an agent on a client machine with the results being automatically registered against the test cases in the test plan. Charts and graphs were created from the test plan and added to a dashboard with current progress of creation, trends of the overnight run, execution status, the current execution status of the whole test plan and the smaller build verification test pack. Stephen explains,

Test Automation

Keoghs Case Study



"This work has increased our skills base within the test team immeasurably and has hugely improved the time it takes to turnaround and release a new version of software. Our team are now fully up to speed, creating, updating and executing tests to increase our regression test suite. Since the nFocus handover, we have executed the full automation test suite every night, without fail! I wouldn't hesitate to go to nFocus again in the future and would absolutely recommend them to others in need of automation testing knowledge and wider software testing knowledge in general."

Why not take advantage of our Test Automation assessment which can help you to identify and achieve:

- Automation for Continuous Delivery and DevOps
- Reduced time in iteration or sprint
- Increased Test Automation ROI

Need some help?

To discuss your specific needs, get in touch with our friendly and knowledgable specialists today:

0370 242 6235

info@nfocus.co.uk

www.nfocus.co.uk