

Accelerating Customs and Freight Management Testing with Keysight Eggplant

How ASM Cut Regression Testing Time by 75% and Boosted Delivery Confidence with Keysight Eggplant

Organization

- Customs and freight software provider in the UK

Challenges

- Manual regression testing can miss scenarios due to human variability.
- Limited testing resources and delayed releases
- Testing cycles extended beyond sprint timelines

Solutions

- Introduced Keysight Eggplant for automated regression testing
- Built smoke test pack with 14–16 critical test scenarios
- Incrementally automated 5% of test cases per sprint
- Used OCR-based automation to handle desktop UI testing

Results

- 75% reduction in regression testing time (from 2–3 days to half a day)
- Faster release cadence with biweekly updates
- Improved test accuracy and eliminated human error
- Better tester utilization—shifted focus to exploratory and in-sprint testing
- Boosted developer confidence and customer satisfaction

Introduction

Agency Sector Management UK Limited (ASM) is a key player in customs and freight management software, serving logistics professionals across the UK. Their flagship product, Sequoia, is a Windows-based desktop application that facilitates complex customs and freight operations. With regulatory updates and industry demands evolving rapidly, ASM recognized the need to modernize their testing process to maintain quality while delivering new features faster.

We spoke with Priya Raghunatha, ASM's Quality Assurance Manager, about the journey from a heavily manual testing cycle to a streamlined, automated process powered by Keysight Eggplant.

Business Challenges

ASM faced a critical bottleneck in their quality assurance process. As Priya explained, *“Our regression testing was entirely manual. It took two testers two to three days to complete, and any delays — like holidays or sick leave — impacted delivery dates.”*

Additional challenges included:

- **Inconsistencies:** Manual testing offers flexibility and insight but can lead to missed scenarios due to human variability—areas where automation can provide valuable support.
- **Limited Resources:** A shortage of available testers often created bottlenecks, putting pressure on teams and directly impacting the ability to meet sprint timelines.
- **Delayed Delivery:** Testing frequently overran sprint deadlines, causing delays in final sign-off and pushing back release schedules.



Solution: Automating Sequoia Testing with Keysight Eggplant

To resolve these issues, ASM adopted Keysight Eggplant for its advanced OCR capabilities — an essential feature for their Windows desktop environment. This choice followed a successful proof of concept and technical analysis led by the automation testing team.

With Keysight Eggplant, ASM began by:

- Creating a smoke test pack with 14–16 key end-to-end regression scenarios.
- Starting automation in small, manageable increments—just 5% of test cases per sprint.
- Collaborating closely between manual and automation testers to validate each new script.

This measured approach ensured accuracy and team buy-in throughout the transition.

Results and Benefits

75% reduction in regression testing time

Regression testing now takes just half a day — a significant drop from the original two to three days.

Accelerated releases

With automation running nightly, feedback loops shortened, allowing the team to release updates every two weeks. Priya noted “The added automation has helped reinforce the team's efforts by providing consistent regression coverage, contributing to our ability to maintain a reliable bi-weekly release cycle.”

Better resource allocation

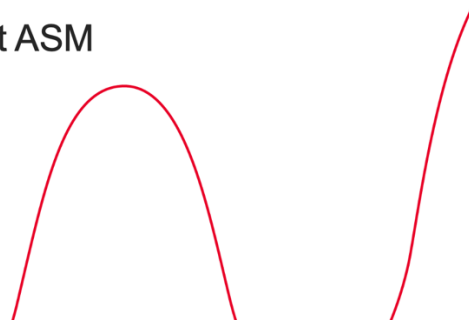
Manual testers now focus on in-sprint activities and exploratory testing, contributing more strategically to product quality.

Improved test accuracy

Automation has eliminated the risk of human error and ensured key flows are validated reliably every cycle.

“Automation hasn’t just improved how we work—it’s reshaped what we’re capable of delivering.”

Priya Raghunatha, QA Manager at ASM



Why Keysight Eggplant?

According to Priya, Keysight Eggplant’s OCR capabilities were essential for testing Sequoia’s Windows UI. The tool’s ability to interact with visual elements made it the ideal choice over traditional testing frameworks that rely on DOM or code-based access.

Looking Ahead

ASM plans to continue using Keysight Eggplant as Sequoia remains their primary product for the next four to five years. Simultaneously, there are aspirations to develop a web-based version, with Keysight Eggplant considered to play a key role in supporting its quality assurance.

Impact on Customers

The benefits of automation extend beyond ASM’s internal teams. Thanks to the regular two-week release cycle:

- Customers now receive timely bug fixes and updates, helping maintain a smooth and reliable user experience.
- The team consistently meets the two-week release cycle, thanks to focused collaboration and streamlined processes.
- High-priority issues are addressed swiftly and effectively, boosting user satisfaction and reinforcing trust in the product.

Conclusion

ASM's partnership with Keysight Eggplant has transformed its testing operations. By automating critical regression tests, the company has not only improved its internal efficiency but also strengthened its delivery pipeline and customer relationships.



Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.

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