



Driving QA Excellence in Aviation

Avo Automation partners with a **leading GSI** to Drive Testing Efficiency with Intelligent No-Code Test Automation for a **Leading North American Airlines**

Abstract

A leading North American airline operating on a global scale was in need to overhaul its web application testing framework for improved productivity & efficiency. This initiative aimed to automate complex test processes, increase test coverage, and improve operational efficiency while reducing manual effort and defect leakage. The result was a dramatic boost in quality assurance performance across critical airline operations.

Overview

The client, a major player in the aviation sector, leverages a sophisticated **web-based operational platform designed to manage and optimize end-to-end airline functions such as flight planning, crew assignments, and resource management**. This platform integrates data and predictive analytics to deliver operational excellence, safety, and cost-efficiency. However, their legacy testing methods relied heavily on manual processes, causing bottlenecks in release cycles and limiting their ability to scale effectively.

Organization



Leading Aviation Company

Automation Type



Web Based Applications

Business Process



End-to-End Airline Operations

Challenges

The aviation client faced several major quality assurance and testing obstacles:



Manual Testing Dependency

All functional testing was performed manually, which significantly delayed product releases and consumed extensive human resources.



Limited Test Coverage

Inadequate coverage resulted in missed defects, raising the risk of issues surfacing in production environments.



Lack of Regression Automation

The absence of a standardized regression suite meant inconsistent test execution and reduced efficiency across releases.

Implementation

Avo Automation partnered with the GSI to approach a better QA strategy for the aviation client and deployed **Avo Assure**, an AI-powered, no-code test automation solution tailored to the client's complex requirements:



Rapid Onboarding

Within a week, over **20+ QA professionals** from IT services partner were quickly onboarded to solve client bottlenecks, thanks to Avo Assure's minimal learning curve.



Enterprise Platform Automation

Automated a range of functionalities within the operational platform using Avo Assure's low-code interface.



Customized Capabilities

Developed advanced automation workflows for unique interface elements such as Gantt charts, shadow DOM elements, drag-and-drop functions, offset clicks, and dynamic mat-objects.



Automated Regression

Built and executed robust regression cycles that supported faster feedback loops and consistent release validation.



End-to-End Testing

Covered a broad spectrum of business processes, enhancing system stability and customer experience.

Solutions

Avo's engagement offered a comprehensive and tailored approach:

No-Code Automation

Enabled rapid and scalable automation without deep technical overhead.



Complex Process Handling

The only solution that seamlessly automated complex visuals and interactions such as Gantt charts out of the box.



Cross-Functional Integration

Unified testing across various layers of the enterprise platform, ensuring high test fidelity.



Smart Regression Framework

Created reusable and modular test scripts that formed a reliable regression suite.



Metrics

The automation journey led to quantifiable improvements:

>80% Test Coverage

Achieved comprehensive test coverage across critical functionalities.

~70% Operational Efficiency

Significantly improved testing efficiency, reducing test execution time from **1600 hours** to **just 650 hours**.

~1400 Test Cases per Cycle

Consistently executed a large suite of test cases per regression cycle, enhancing platform stability.

3.5x Faster Execution

Automation accelerated test cycles by over **3.5 times** compared to manual testing.

~4000 Automated Test Cases

Delivered in under six months, covering all priority areas within scope.

~1000 Hours Saved

Cumulative time savings by eliminating repetitive manual test efforts.

Conclusion

This strategic collaboration between the North American Airline, Avo Automation, and the leading GSI resulted in a scalable, resilient, and intelligent QA framework that not only accelerated release cycles but also significantly enhanced the reliability of mission-critical systems. By leveraging the power of no-code automation through Avo Assure, the airline now operates with greater efficiency, reduced testing costs, and improved confidence in its digital ecosystem—setting a new benchmark for quality assurance in the aviation sector.



Avo Automation is an industry-leading test automation platform dedicated to revolutionizing how businesses approach software quality. Emerging from stealth mode in late 2020, we have focused on transforming the way organizations think about software quality. Our AI-driven, no-code platform delivers continuous quality assurance across key business processes and supports over 200 technologies. With efficient test data management and machine learning capabilities, our platform enables teams to enhance quality, conduct efficient data validation, and reduce time to market.

Avo's intuitive, next-gen platform empowers users from all backgrounds to actively test applications at every stage. Our seamless integration with DevOps pipelines pushes the boundaries of Continuous Delivery, improving cross-functional collaboration and achieving 4x productivity in quality assurance.

We aim to help our customers experience the future of test automation, harnessing the power of AI, simplicity, and efficiency.

Company URL: <https://avoautomation.ai/>

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