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GBST | Financial Services Technology

GBST replaces script-based testing approach to accelerate testing

How GBST Accelerated Testing—with Automation and Shift-Left Approach

GBST is an Australia-based provider of custom technology solutions for the global financial service sector. They are highly focused on enhancing the digital customer experience to reduce servicing costs while delivering the engaging experiences that today's consumers expect. After the company increased strategic R&D investment to support a bold digital transformation program, development rapidly levelled up.

However, manual testing was too slow, and they had already tried to adopt test automation with a legacy script-based test automation solution. Test suites implemented with script-based technologies and test automation frameworks were either too fragile—or too time-consuming and expensive—to maintain. They tried both data-driven and keyword-based test automation frameworks, but neither approach met their needs. Manual testing seemed to be their only option, but manual regression testing had become a major challenge with detrimental impact to speed, cost and time to market.

To accelerate testing with their existing team, they needed tests that could be created and maintained by staff without any prior knowledge of the underlying architecture, design or scripting language used. Given the company's commitment to delivering innovative software at lightning speed, there was simply no time to learn scripting, review an overwhelming number of false positives after each test run, and update the brittle scripts to expose real problems while ignoring trivial changes.

At a **glance**

Goal

Accelerate testing to support a bold digital transformation program.

Strategy

Shift from costly and time-consuming test automation frameworks to Tricentis scriptless test automation. This enables test analysts, business analysts, and test automation specialists alike to automate testing for the wide range of technologies involved in their core business transactions.

Outcomes

- Covered top risks in < 6 months
- 80% faster test cycles
- Boosted team morale
- "Shift left" for earlier defect detection
- Significant decrease in production defects
- Increased confidence in releases decisions

To modernize their testing for the new pace of development, GBST quality leaders decided to look for a new test automation approach that was reliable, robust, maintainable, and scalable—as well as cost-effective., maintainable, and scalable—as well as cost-effective.

A Sustainable Solution for Test Automation

After a comprehensive proof of concept phase that covered hands-on evaluation of four shortlisted test automation solutions, GBST selected Tricentis Tosca as the test automation solution. Tricentis Tosca's model-based test automation approach was the deciding factor in this selection process. Model-based test automation is the "secret sauce" behind Tricentis Tosca's ease of use and maintainability, eliminating the need for costly and time-consuming test automation frameworks.

Unlike other test automation solutions, Tricentis Tosca can be used by test analysts, business analysts, and test automation specialists alike. This is a paradigm shift from traditional test automation tools, where test automation is beyond the reach of manual business testers. Additionally, Tricentis Tosca's support for testing a wide range of enterprise applications and technologies was another key factor in the tool selection process.

From Manual Testing to Automated Testing During CI

GBST's testing transformation was initially focused on replacing slow and costly manual testing with automated regression testing. To align with their growing Agile software development initiative, they also prioritized integrating this automated testing within their Continuous Integration processes.

A dedicated test automation team was established and tasked with automating the core regression suite for GBST products. After the initial training, test analysts worked closely with subject matter experts and experienced test practitioners in test case design and model-based test automation. An incremental approach was adopted to test automation—leveraging Tricentis' risk-based testing approach to focus on top business and technological risks first.

BDD and Open Source Testing Integration

An important part of GBST's strategic Agile adoption was to "Shift Left" testing using BDD (Behavior Driven Development). With this "Shift Left" testing approach, project teams work in close collaboration to find and fix bugs early, implementing increased automation at all levels.

For GBST, this involves:

- Progression automation, where automated test scripts are written in parallel to the development code.
- Test automation being fully integrated into the agile teams—not an activity that is one sprint (or likely more) behind the development sprint.
- Making quality a team responsibility (not just testers' responsibility), with Product, Development and Testing teams contributing to test automation.

To support this initiative with both functional and non-functional test automation across various layers and application stacks, GBST's test automation toolset evolved and expanded to include a wide range of open source tools in addition to Tricentis Tosca. They integrated these tools with Tricentis Tosca to establish an end-to-end test automation solution for GBST's Digital Transformation projects. For example, the test suites created with open source tools (such as Selenium) seamlessly integrate into the Composer BackOffice test suites in Tricentis Tosca in order to complete the end-to-end test flows and verification.

Results: Faster Testing, Fewer Defects, and Increased Confidence

In less than 6 months, the dedicated automation team implemented the regression tests that covered their highest risks. Over the past several years, they have extended this test suite to reduce their dependency on manual regression testing. Efficiency has increased tremendously: executing the core regression test suite requires 80% less time and effort.

Test automation is now within the reach of business testers; they don't need an extensive programming background in order to control their own test automation. This has boosted morale as well as increased testing efficiency, speed, and accuracy.

The quality of the digital customer experience has improved as well. Defects are now being detected earlier, which is when they are easier, faster, and less costly to fix. Since GBST implemented test automation, great strides have been made in ensuring that rapid releases enhance the user experience without disrupting existing functionality.

There has also been a reduction in the number of confirmed production defects. This reduction is significant, especially given that the number of clients has doubled over the years, and a considerable amount of new functionality has been introduced in the product. GBST is now confident that their applications are released with high quality on a consistent basis.

Test Cases
7072

Test Steps
678,171

Verification Points
86,453

About Tricentis

With the industry's #1 Continuous Testing platform, Tricentis is recognized for reinventing software testing for DevOps. Through risk-based testing, scriptless end-to-end test automation, and the industry's most extensive technology support, Tricentis breaks through the barriers experienced with conventional software testing methods. Our innovative technologies simplify testing for even the most complex enterprise applications—transforming testing from a roadblock to a catalyst for innovation.

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Continuous Testing