



Persistent



Case Study

Developing a QE Automation Solution for a Global Contract Research Organization (CRO)

The client is a global biopharmaceutical solutions company, serving customers in the pharmaceutical, biotechnology and medical device industries.

Biopharmaceutical Solutions

The Challenge

Develop an automated solution for functional, API and performance testing, and supported data-driven testing.

The Solution

The client is an American multinational biopharmaceutical solutions company, serving customers in the pharmaceutical, biotechnology and medical device industries. Through its Contract Research Organization (CRO) it offers integrated product development solutions from early- to late-stage clinical trials, to complete commercialization of biopharmaceutical products. The client had 45 testers manually writing and maintaining test

cases across 20 different applications (Web Apps, Spotfire, Salesforce, etc.), as well as running manual regression tests. These testers used JIRA / Zephyr to maintain test cases with workflow approvals and traceability — again, manually.

This process created a huge dependency on the 45 testers to perform all testing — and because the process was entirely manual, a huge amount of time was

required to run test cases and document the results on JIRA. Further, the client encountered real challenges in the “trainability” of these manual QE processes, which hindered them from adding more team members.

Persistent was asked to develop an automated solution for functional testing which also covered API and

performance testing, and supported data-driven testing. The solution would need to maintain a full audit trail for all test cases, while reducing the maintenance of test cases for every code change or performing visual testing for changes to the user interface.

The Outcome

Using ExtenSURE — a framework with multiple Next-Gen tools — Persistent showcased a sandbox within the client’s own environment, populated with client-provided application and test cases.

The ExtenSURE sandbox accelerated development with Functionize and Zephyr, and integrated analysis from Azure HD Insights for data validation, via a Spotfire dashboard. An out-of-scope security assessment was also performed for the client.

Persistent demonstrated a Functionize SaaS solution by building the relevant use cases using our own environment (Power BI, JIRA, Web App, Azure

Cloud, Azure DevOps). Next, we developed an end-to-end proof of concept in the client’s environment, using their applications and test cases. This solution addressed all the high priority requirements from client, enabling a full cycle demo to relevant business users.

Further, we provided a security assessment clearance for both the Functionize SaaS platform and Persistent delivery.

As a result of employing the ExtenSURE framework, the client was able to reduce regression cycle time by 80% and regression effort by close to 70%.

ExtenSURE

Functionize SaaS Platform

JIRA Server

Zephyr Squad

Azure HD Insights

About Persistent

We are a trusted Digital Engineering and Enterprise Modernization partner, combining deep technical expertise and industry experience to help our clients anticipate what’s next. Our offerings and proven solutions create a unique competitive advantage for our clients by giving them the power to see beyond and rise above. We work with many industry-leading organizations world-wide including 14 of the 30 most innovative US companies, 80% of the largest banks in the US and India, and numerous innovators across the healthcare ecosystem. Our company fosters a values-driven and people-centric work environment. Our strength of over 22,500+ employees is spread over 18 different countries across the globe.

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