

## Leveraging Intelligent Test Automation to Accelerate Digital Transformation

“ Ultronauts team was able to understand the application, rationalize the test cases and automate intelligently, writing high quality code in a strategic way. It is a refreshing change and such a pleasure to work with Ultronauts.”

**App Owner and Subject Matter Expert**

**11,000**  
TEST CASES

**90%**  
OF TEST CASES  
COMPRESSED

**30** MINUTES  
TO RUN REGRESSION

### SITUATION

Client is a Fortune 500 financial services firm in the midst of a massive transformation effort, which included an enterprise wide initiative to automate tests for several thousand applications across multiple lines of business. The sheer volume of applications and manual test cases meant that simply automating all the manual test cases was not viable. Because each application’s tests had to be automated and deployed in days rather than months, a more efficient approach was needed.

### ENGAGEMENT

Ultronauts deployed several agile, rapid response teams, each with 2 or 3 quality engineers with expertise in API and UI test automation, to help accelerate the Client’s test automation efforts. They focused on high visibility applications where external failures would result in significant direct and indirect costs.

One of these applications was a customer-facing fund management solution with over 11,000 manual test cases. Each test run required a sizable effort from offshore manual testers, and spending weeks on a single regression was not uncommon.

An Ultronauts rapid response team of 3 quality engineers was engaged to fully automate the app, with a looming deadline to achieve continuous testing. The team applied Ultronauts’ Intelligent Automation principles to plan an optimal strategy, including:

- Optimizing the work by deeply understanding the application up front before diving into test automation
- Using mathematical techniques to compress the number of tests to be automated while maintaining maximum coverage
- Minimizing future technical debt by applying best practices, including coding for reusability and driving UI tests down to the API wherever possible
- Strictly adhering to the client’s internal frameworks and standards

### RESULTS IN 3 SPRINTS, THE ULTRANAUTS TEAM:

- **Collapsed** over 11,000 manual test cases to just under 1,000 automated tests, significantly reducing the investment required to automate
- **Reduced** test runtime from several weeks to under 30 minutes, making migration to a continuous delivery model possible

- **Eliminated** the need for regular, expensive manual test runs, thereby driving significant cost savings

In just the first three months of the engagement, Ultronauts has helped the Client automate over a dozen applications and achieve several million dollars in cost savings