



VR gaming platform sees 80% reduction in testing efforts; 500+ test scripts developed for test automation pipeline and fault-proof validation and certification

Client Overview

A leading consumer electronics manufacturing company which develops computer electronics, smartphones and high-end VR systems.

The Virtual Reality device and software platforms are developed with Unity and Unreal game engines with supporting applications for end customers. Headquartered in the US, the organization leads the VR gaming landscape with competitive immersive experiences content.

Client Need

The client organization needed extensive Quality Engineering support in their VR engine and platform development processes.

The application under testing was based on a Chromium Embedded Framework (CEF) and WPF desktop. This posed difficulties in locating the UI elements and images by the Coded UI's 'Object Spy' in the web app.

The VR experience engines and applications were being built to suit different users and their go-to electronic devices and respective operating systems. Hence, compatibility tests were to be run parallelly on various gaming machines with different GPU, CPU and Operating System (OS) variants. Coincidentally, this meant that there should be customizable test reports generated by the Code UI load test for the different machines.

What we did

Keeping in mind the various system requirements for the VR engine and application, our team created a state-of-the-art testing lab with up to fifty system configurations and different hardware and OS combinations.

Our experience in test automation helped us to design and develop test automation frameworks using Coded UI and TestStack White. The test automation framework had the following capabilities:



Identify and perform actions on UI elements



Accelerate the testing cycle with reusable components



Add the automation IDs in the XAML file of the application source code



Integrate SikuliX to automate the scenarios that needed image-based recognition

The testing scripts that our team developed for the manufacturer covers all the major business scenarios, UI validations and Integration workflows between different web and desktop components.

We also developed and consolidated HTML test reports after parallel executions of tests run on multiple machines.

What the client gained

The automated testing framework we developed for the client along with the test scripts that were integrated into the workflow accelerated the testing cycle, which resulted in:



Reduced testing efforts up to 80%



500+ test scripts in the test automation pipeline



Early detection of defects specific to a platform and browsers

The tests were developed in such a way that it covered a wide array of gaming machines and experience engines. Additionally, we underwent a fault-proof validation and certification process for the testing platform.

Tools

iHarmony

Innominds in-house
automation framework

Coded UI

TestStack White

Test Rail

JIRA

About Innominds

Innominds is an AI-first, platform-led digital transformation and full cycle product engineering services company headquartered in San Jose, CA. Innominds powers the Digital Next initiatives of global enterprises, software product companies, OEMs and ODMs with integrated expertise in devices and embedded engineering, software apps and product engineering, analytics and data engineering, quality engineering, and cloud and devops, security. It works with ISVs to build next-generation products, SaaSify, transform total experience, and add cognitive analytics to applications.