Value Added Test Automation Service To Aztecsoft

Case Study

Aztecsoft was developing a test automation suite for their client using QTP. In the process Aztecsoft found that the scripts were taking more time to execute. Also they were not confident of the Automation model being used. So Aztecsoft engaged Softsmith for providing value addition to their test automation model.

Client Overview:

Aztecsoft is a Global Software Engineering Services partner for both established and early stage software product companies. Aztecsoft provides Full Lifecycle Product Engineering, Independent Testing, Professional Services and Sustained Engineering Services.

Project Overview:

The Project was to prepare a test automation suite for the product* developed by Aztecsoft. The Product is a Web-based fulfillment system, providing flexibility, convenience, and speed with 24-hour Internet access. This unique interface helps accelerate time-to-productivity. The Product brings you the power of End Client's technology - anytime, anywhere. The Mission was to completely automate the regression test cases using QTP.

*Due to NDA with Aztecsoft, end-client's name, product architecture, product code, technology and size of the project are not revealed.

Engagement Model:

❖ **Finding out the root cause for slow execution of script and troubleshoot them for an immediate release.**

The main reason for slower script execution was improper object identification mechanism used by the client. This lead QTP to invoke smart identification. When smart identification is invoked the script execution would become slow as QTP has to match through a bunch of properties to identify the test object.

Softsmith reviewed the script and found the test objects that were causing the above said problem and replaced those with object description directly in the script. This reduced the time taken to resolve the object identification by QTP. Latter Softsmith team came up with proper object identification mechanism as permanent solution. This mechanism is used for further releases.

❖ **Show case an Effective Test automation model for the product.**

Aztecsoft also wanted to evaluate their test automation model. For this Aztecsoft asked Softsmith to show case an Industry standard test automation model based on our Industry Exposure. For this were given a set of test cases to automate. The following activities were done for showcasing a test automation model.

➢ Create a Framework for test automation.

➢ The Framework was designed in such a way that it was Reusable, Maintainable, Traceable and portable.

➢ The Framework includes a set of reusable functions for reporting and other utilities.

➢ The Framework also showcased the advantage of using descriptive programming for reusable actions.

Test scripts were generated using the above framework. A demo was given to Aztec test automation team. In this demo some recommendations were given to Aztec test automation team on how to tune their existing test automation framework. As a part of the assignment Softsmith implemented some features in the existing framework to make it more robust.

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❖ **Design Solutions for common Test Automation Problems faced by the client.**

The Client faced frequent problems with object identification. Mainly the client faced problem with identifying the active browser. For this Softsmith wrote a function that could capture the active browser of the application under test at runtime. This function was implemented by finding the "hwnd" property of the browser at runtime. Even the performance of the script execution improved as "hwnd" was used.

The client also faced a problem with dynamically changing WebTable Index. So a function was written by Softsmith that could find the index of the WebTable at runtime. This function just needs a part of the WebTable's text to be passed as a parameter.

In this way several other functions were written to handle Day to Day test automation problems.

❖ **Review the scripts and provide recommendations for improvement.**

Finally For a period of two weeks all the scripts developed by the Aztecsoft test automation team were reviewed by Softsmith team. This done to bring in best practices of scripting into the team.

Accomplishments

❖ The Base framework was tuned for a better performance.

❖ Provided solutions and mechanisms for dealing with common object identification problems.

❖ Brought in the practice of descriptive programming into the test automation team.

❖ Aztecsoft's test Automation team was now confident that they were proceeding in the right direction.

This is what Aztecsoft commented on softsmith's delivery:

Thanks very much for your involvement in this project at the crucial time. Appreciate all your efforts in bringing lot of sanity into automation work. Look forward to working with you again.

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