



Client:

Our client specializes in delivering software for various verticals like “Health Care”, “FMCG”, “Supply Chain”, “E-Publishing”, etc. They are a leading strategic advisor assisting global companies to achieve cost reduction with improved quality through offshore outsourcing.



Business Needs:

The client had developed an e-commerce application which facilitates the online financial transactions of buying and selling, the services and the products offered by the site. As the business has to be improved to cater the needs of various customers more and more services have to be added to the present application.

These ongoing changes/enhancements required continuous testing from client, which consumes significant amount of time and effort.

So the client was looking at a test partner to:

- Automate the regression testing for the application to reduce the time and cost incurred through manual testing
- Use an Automation framework which provides reusability and eases maintenance issues of traditional automation approach
- Maintenance of the test assets like test scripts and repositories
- Integrate the test management tools to improve scheduling capability to run test scripts in various environments
- Offshore the test automation activities for improved cost benefit.
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Approach and Solution:

The test team used Tekstrom’s Advanced Test Automation Framework. This framework methodology adopted for generating WinRunner scripts was based on functional decomposition combined with data driven approach. This methodology involved creating reusable user defined libraries, test data, recovery scenarios, etc. Test execution was managed and controlled with TestDirector.

The major challenges faced are as follows.

Challenge: Handling dynamic runtime objects

There were certain instances in the application, where the cell data objects were dynamically generated. The same could not be handled by the standard recorded scripts.

Solution:

The recorded test scripts needed to be customized by employing the “Descriptive Programming Technique” so that they can handle the operations on these dynamically created objects.

Challenge: Third party software Integration

Every purchase in the application triggers an email notification with the confirmation code. The task was to verify the confirmation code in the e-mail with the code generated during the registration.

Solution:

A separate utility was tailored which would fetch the confirmation code from the email and verify.

Challenge: Dynamic selection of test data

The session of a particular login expires whenever another user tries to login with the same user name. As a result of this procedure of session maintenance the testers who are all using this user information are disconnected and need to login again to continue with the tests.

Solution:

A function was designed which would dynamically allocate the available user name.

Case Study – Software Test Automation



Business Benefits:

The client got a highly maintainable test suite and reduced the turnaround time for regression test execution. The client also reaped the cost and time benefits due to test automation.



Tools and Technologies:

Platform	: Windows XP
Technology	: PHP, Java Script
Database	: My SQL
Tool	: WinRunner 8.2 with Web Add-in, TestDirector 8.0