

Test Automation Jump Start at Aurigo Technologies

Aurigo Technologies was developing a product for construction project management. The product was so huge that the regression test cycle was taking too long time. Softsmith was engaged to jump start the test automation which would shrink the regression test life cycle.

Client Overview:

Aurigo is a leading software product company providing land management, project estimation, contract management and facility management solutions for the Infrastructure, construction and real estate verticals the world over. Aurigo's customers include infrastructure owners, state and local government agencies, construction management firms, PMC firms, real estate firms and general contractors worldwide.

Project Overview:

Aurigo AMP3 is a revolutionary web based product with advanced features that automates multiple phases of construction projects. The solution helps construction companies to increase profits and enhance their current business integration systems. With Aurigo AMP3 you get a comprehensive set of construction management tools that helps each member of the construction team manage and automate the critical processes of estimation, contract management and field inspection using web, mobile and GPS technologies.

Case Study

Engagement Model:

❖ Designing a test automation framework for test automation of AMP3

The application was a dynamically changing web application. The biggest challenge in designing the framework was to achieve reusability, maintainability, traceability and portability. The framework thus developed should have features for reporting , scheduling the test runs and should have the ability to handle the dynamically changing web content.

A framework was developed with the following features.

- A set of reusable VB Script functions for reporting, unique data generation, date calculations and other utility functions.
- A Set of reusable actions for frequently used business actions. Reusable actions also include the prerequisites for the test cases.
- An initialization script was created which initializes the reporting engine and creates a data set required for running the Automation test cycle.
- A set of recovery scenarios to handle any unexpected behavior in the application or in the test environment.

❖ Test Automation Process.

Initially all the test cases for test automation were identified. These test cases were then refined so that they became more accurate and meaning for automation. The prerequisites for these test cases were identified and reusable actions were created for the same.

- A proper Object identification mechanism was created.
- The same object Identification mechanism was used by all the automation test engineers.
- Descriptive programming was used when there were problems with recording.
- Once the Business scenarios were recorded, the script were appended with reusable actions if any, Proper validations were written based upon the test case and reporting statements were added.

- For intermediate validations log statement were generated.
- Proper commenting mechanism was implemented.
- All Private functions were defined at the end of the script.
- All the issued were resolved by the Softsmith team.

Issues Faced:

The application was developed using infragistic controls. Because of this QTP was not able to identify the objects in the application. In order to resolve it a generic web page function was written to retrieve the objects from the page and then actions were performed on those objects. There were several objects in the application that were not recognized because of infragistic controls. So several functions were written to over come these object identification issues.

Accomplishments:

- A base frame work was built.
- A very rigid test automation process was brought into the team.
- Aurigo's testing team was taught to use the tool effectively.
- The regression test cycle time was reduced by around 70%
- The end client was happy as the scripts also reduced the Acceptance testing time at user site.