

# Automated Testing

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As part of the Cal eStore application quality check and validation process, we have performed automated functional testing covering positive and negative scenarios. Selenium was the primary tool of choice for implementing Test Automation.

Functional Test Automation is essential for achieving higher test coverage and improved test execution. Productivity on any project has its own challenges that are derived from, but not limited to, the following:

- The type of application (Web based)
- The technology used to develop the application (Java)
- The platform used to host the application (Windows)
- The complexity of the business functionality and its User interface design

Cal eStore testing was carried out on multiple browsers through automation where the testing team updated the “Browser Name” tag with the values corresponding to different browsers, such as the following:

- Internet Explorer
- Mozilla Firefox
- Chrome

The following are the Common functions for automation we have implemented for Cal eStore.

Function Name	Information on Usage
readConfigurationFile	Used to read the configuration file from the specified location
enValueInEditField	Used to enter web element values in specified locations in Edit or Text fields of a GUI
clickElement	Used on components that support the Click operation (push buttons, links, and images). Performs a click operation on the specified web element
selectChkBox	Used to select or deselect a check box for specified web element
selectRadButton	Used to select a radio button
selectItemFromListBoxByValue	Used to select a specified value from a list of values in a drop-down list box
waitForElementVisibility	Used to wait the application until the element is visible in the page
captureScreenShot	Used to Capture the screenshot of the entire screen
closeBrowsers	Used to close the browser that is being tested

The following are functions used in Keyword driven approach only

Function Name	Information on usage
enValueInEditField	Used to enter string values in specified object location in Edit or Text fields of a GUI.
clickElement	Used on components that support the Click operation (push buttons, links, and images). Performs a click operation on the specified object.
selectChkBox	Used to select or deselect a check box for specified object.
selectItemFromListBoxByText	Used to select a specified value from a list of values in a drop-down list box by text.
waitForElementInvisibility	Used to wait the application until the element is masked in the page
captureObjectLevelScreenShot	Used to Capture the screenshot of the specified object.

### Test Documentation

The execution screen captures and a video from the prototype development are linked in the README file.