

Gallio-Automation Platform with MbUnit- C#-Selenium

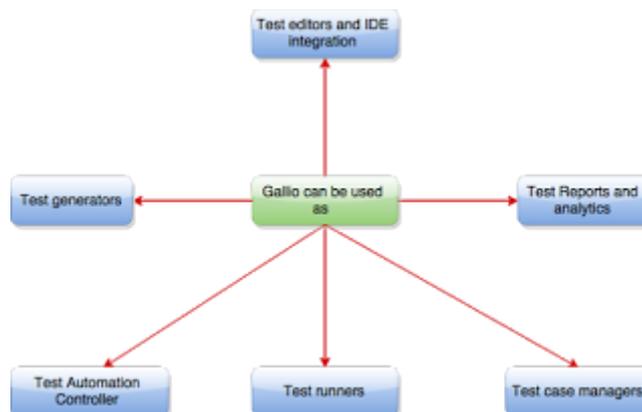
AGENDA OF THE DOCUMENT: INTRODUCTION OF GALLIO –AN OPEN SOURCE PLATFORM FOR .NET, WHICH PROVIDES RUN-TIME SERVICES AND TOOLS.

What is Gallio?

The Gallio Automation Platform is an open, extensible, and neutral system for .NET that provides a common object model, run-time services and tools (such as test runners) that may be leveraged by any number of test frameworks.

Features and use of Gallio

- **Tools Support**
- Frameworks supported by Gallio. MbUnit, NUnit, MSTest, NBehave, XUnit
- Different Gallio Runners. GUI (Icarus), Command-line (Echo) etc.
- Gallio can be used for the multiple purposes:



Why to use Gallio for Automation Testing with Selenium C#.

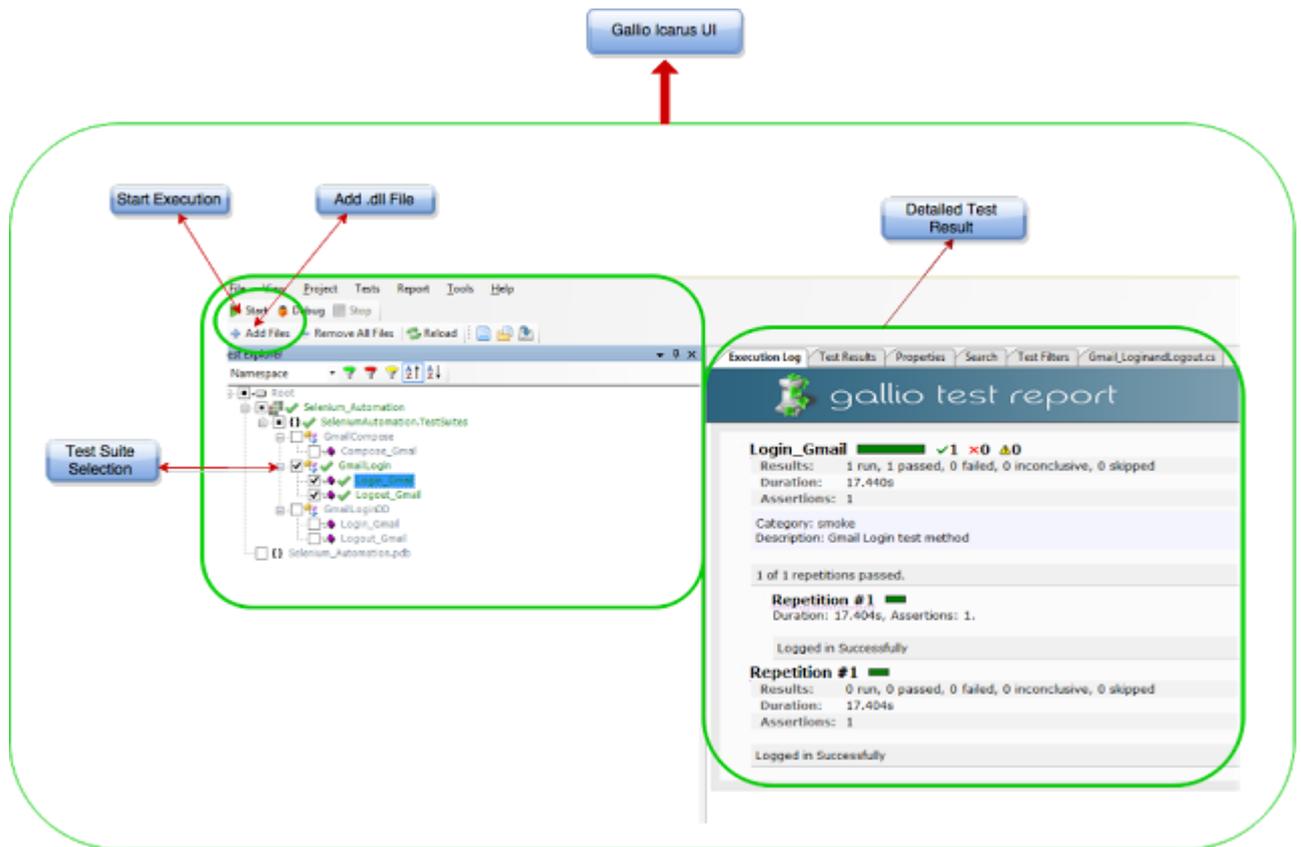
To control and manipulate the Test execution approach. To run the Selenium C# code we need to compile the full project and get the .dll file and we need to use that generated .dll file as a input to any Test Runner (framework) to execute the automation script, and Gallio serves the purpose in robust manner with multiple approaches, like.

(a) Running all suites as a whole binding.

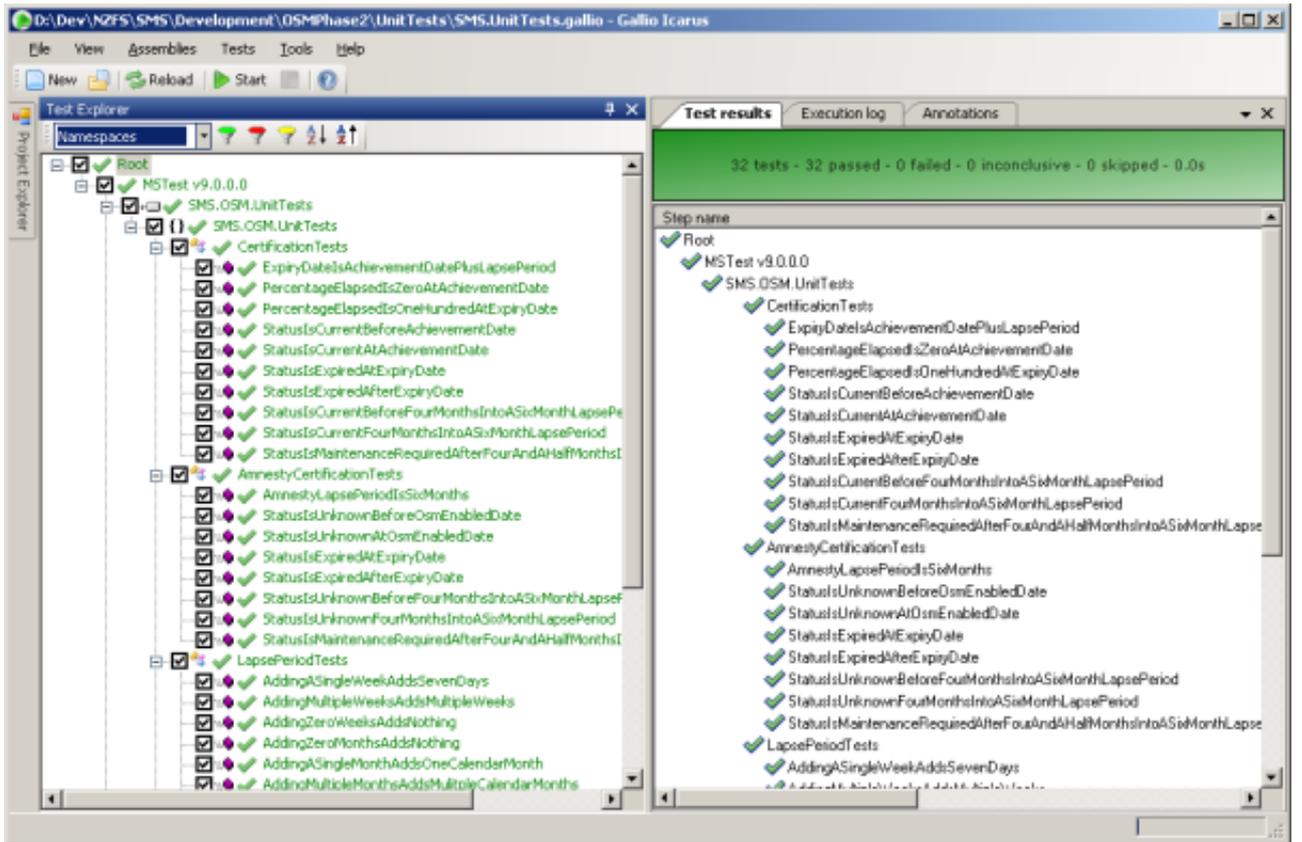
- (i) Whole automation Project can be run as a whole by using “Gallio Echo” Runner tool with .dll file as input to it. Detailed Reports are generated after the execution of whole Automation project with XML and HTML format.

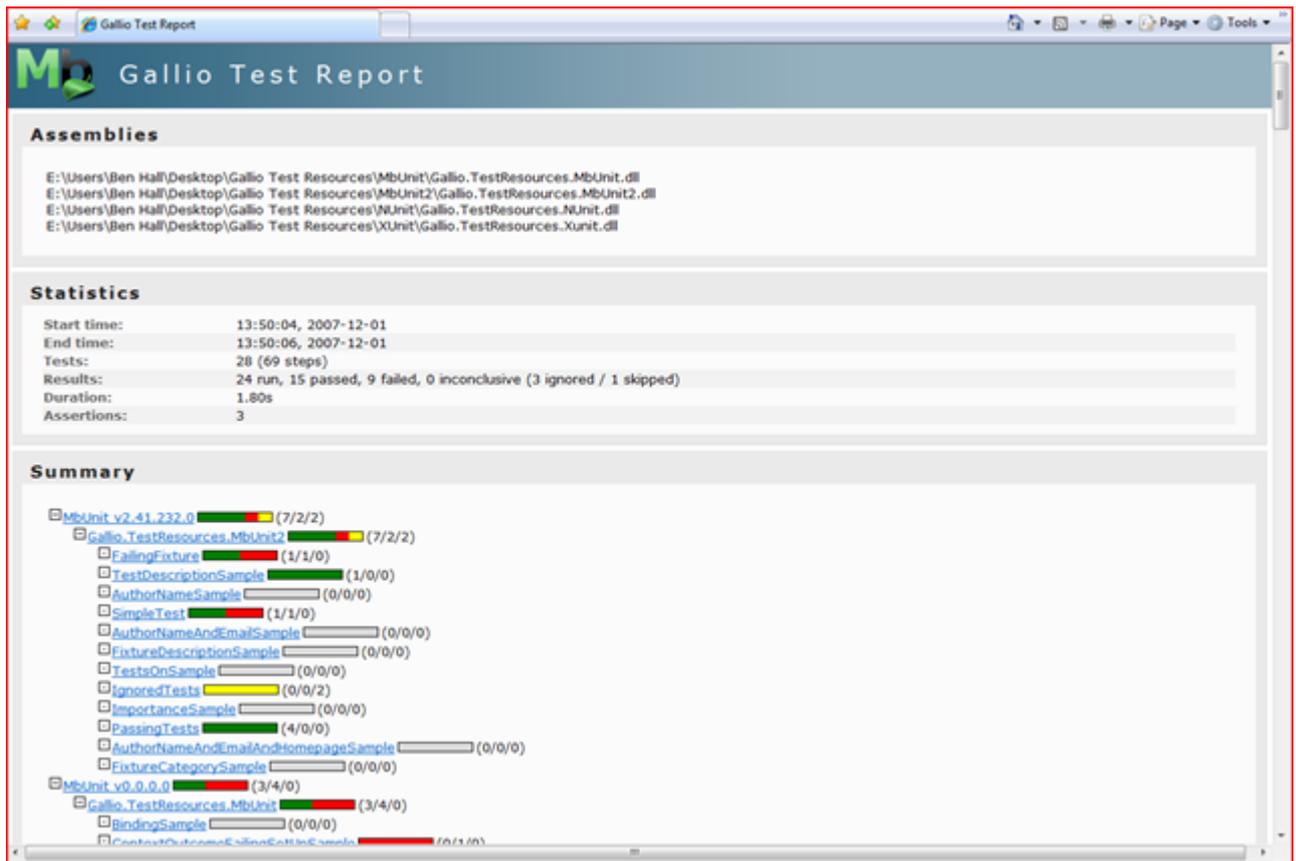
(b) Execution of All or Few selected Test Suites and Test cases.

- (i) We can perform selection of Test Suites and Test cases from whole Test Automation suites and execute them. This can be achieved by using “Gallio Icarus” Runner tool which is basically an UI, the generated .dll file has to be added through the UI “Add Files” option to use the Compiled project’s Test Case and, we can select all or few test suites and test cases from the UI tree format to execute. Please refer the below screenshot for the Gallio Icarus UI with Test Report.



- (i) Detailed Reports are generated and visible from the UI (in Execution Log tab) itself and we can see the report after the execution of test case, we don't need to wait until the Whole suite execution.
- (b) Gallio can be integrated with Build Tool like NAnt to build the full automation process.
- (c) Gallio can be integrated with CI tool like Jenkins.





What is MbUnit?

The MbUnit is an extensible unit testing framework for the .Net Framework. MbUnit is a part of the Gallio bundle. It provides below rich features apart from the other generic features which is available for any other unit test framework for .Net Framework:

1. We can perform Parallel Testing with MbUnit for C# Selenium with multiple instances of the browser.
2. MbUnit Supports Retry option which is basically automatic triggering of failed test cases for the next time.