Certain Investigations on Testing Tools for Regressing Testing

Dr M. Prasanna[1], Dr M. Iyapparaja[2], Dr. Dhenesh V Subramanian[3]

[1,2] Associate Professor, SITE, VIT University, Vellore, India
[3]Lecturer, School of Computing, Information and Mathematical Sciences, University of South Pacific, Fiji

Abstract— *Regression testing plays a vital role in removing the bugs that found during the testing process. Test cases have to be executed carefully and iteratively to prove that the bugs have been taken out of the system. Regression testing tools saves considerable amount of time and avoids human errors when it is performed continuously for a longer duration. This paper gives insight about the latest regression testing tools that assists the tester in testing applications.*
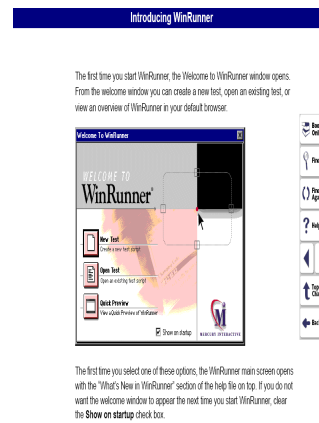
Keywords: Software Engineering, Regressing testing, Testing Tools, software testing

1. Introduction

Testing is a process of identify and fixing the bugs as quick as possible. Careful design of test cases ensures the quality of software that is manufactured by mature organizations. Test cases will be designed based on black box techniques and many testing strategies have to be applied to thoroughly test the application. In most of the cases, test cases are designed manually by efficient test leaders and it is given to the testers or to the testing tools for identifying the bugs. With the help of these test cases, testers will be able to find logical bugs and it has to be communicated to the development division for fixing it.

After careful analysis, the development team will fix the bug and they will do the reworking process to remove the bugs that has been found out by the testing team. Regression testing comes into existence, after the development team gives the modified code to the testing division to ensure that the bugs are removed from the system. They will perform an initial smoke test. Then they will understand the criteria for selecting the test cases and prioritization.   Test case are fed to the regression tool to perform testing and results will be captured and finally they will complete the regression life cycle.
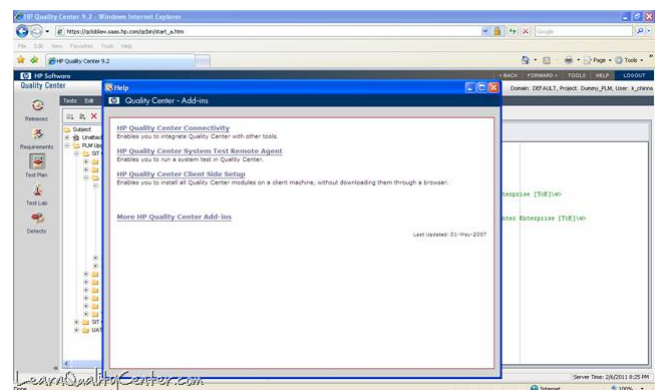
2. Regression Testing tools

Winrunner is very useful testing tool to check the User interface components that are present on the application. It has recording facility and playback options. You could capture the end user activities and you can easily identify the problems and you can fix it. It is very easy to use and very friendly in assisting the testers in completing the task on time.
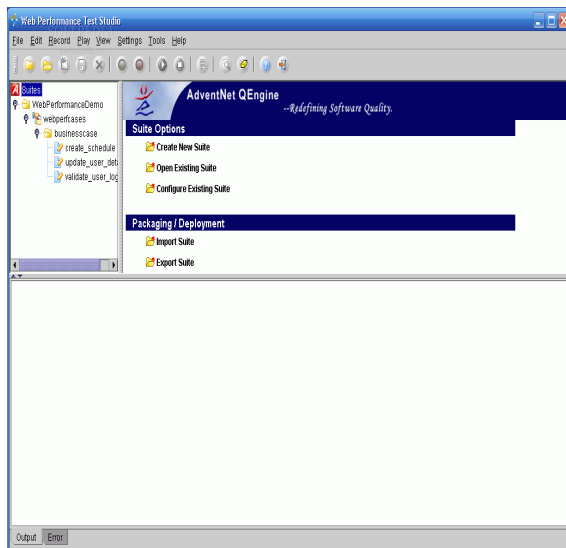
2.1 Quick test professional

The QTP testing tools helps an organisation to automate the testing activities. It uses the visual basic

scripting for the test automation process. This is the most popular tool that is extensively used by majority of the IT industries to perform regression testing. Test cases are given as input and it will compare the expected result with actual result and it will say whether the testcase is passed or failed. By analysing the summary report, we can identify the flaws that exists on the application to be tested.
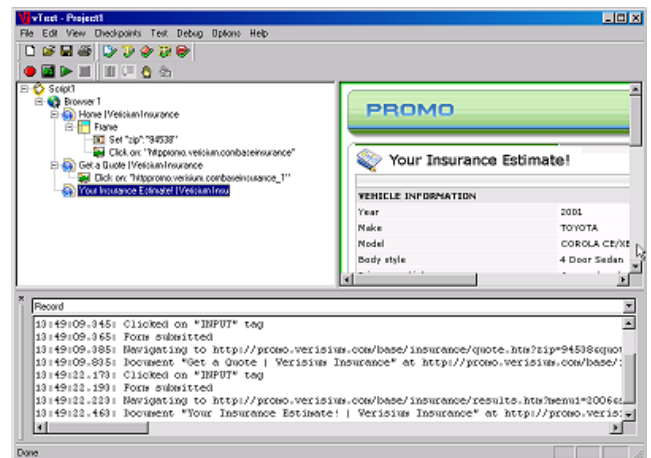
2.2 AdventNetQEngine

It is also a most popular testing tool for the test automation process. It can be used in test distributed environment. Multi platform support in enabled in this tool.Compatability testing and database testing can be done using this tool. It has this useful feature to test your application in diversified browsers and it could monitor the performance of your application in different browsers and the results will be very useful from performance testing point of view.
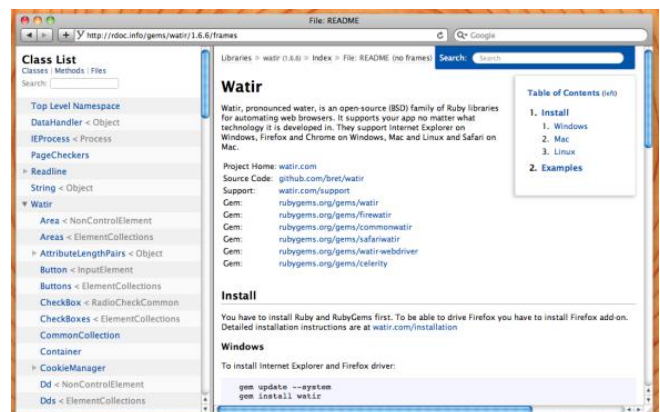
2.3 vTest

vTest testing tool could be used for automation and regression testing. It has lot of features which supports the tester communicate in quickly completing the testing activities. It has record, verify, playback and reporting capabilities. By reading the test summary report, the bugs can be communicated to the development team for quick correction and modification. The test cases will be re-executed once again by the testing team to prove that the software is bug free before it is being given to the customer for usage.

2.4 Watir

It is web based testing tool that could be considered for the test automation process. It is a very useful tool to perform Graphical User Interface Testing. It has full featured modern scripting language and it supports multiple browsers on different platforms. It is powerful and easy to use and it is most preferred testing tool by the test engineers.

2.5 Selenium

Before It is portable software testing framework for testing web applications. Writing test scripts is a easy task. It supports numerous domain-specific languages like c#, Groovy, Java, PERL, PHP, Python, Ruby and Scala. It can be deployed in windows and linux operating systems. Many IT companies use selenium for regression testing activities.

3. Discussion

Regression testing is an important activity that determines the quality of software that is being delivered to the customer. It saves lot of time from testers perspective and testing process could be completed in a short span of time. Regression testing tools play a major role in test automation process and avoids human errors when certain tasks are repeatedly performed by testers manually.

References

[1] SrinivisanDesikan, Gopalaswamy Ramesh, "Software Testing Principles and Practices", Pearson publication, 2012.

[2] http://sqa.fyicenter.com/winrunner_tutorial/16_How_to_Start_WinRunner.html

[3] http://catchbug.blogspot.in/2013/02/qc-converting-manual-test-case-into-qtp.html

[4] http://i1-win.softpedia-static.com/screenshots/AdventNet-QEngine_3.png

[5] http://screenshots.en.sftcdn.net/en/scrn/54000/54131/vtest-3.jpg

[6] https://watir.com/tag/rdoc/

[7] https://blog.mayflower.de/133-Practical-Testing-PHP-Applications-with-Selenium.html