

Little excuse not to realise test automation's full potential

Business Process Testing
30 July 2008
Yann Gloaguen



Abstract

Inadequate automated software testing costs businesses a significant amount of money. In the current economic climate it is vital to realise the full potential of all investments, including test automation. With the emergence of Business Process Testing on the automation landscape, there is little excuse not to.

The purpose of this first article on Business Process Testing is to raise awareness towards this cutting edge automated testing methodology.

Business Process Testing – Shaking the ground of test automation

According to recent market research¹, 68 per cent of UK organisations strongly believe that automation could deliver real return on investment. There certainly appears to be a growing acceptance of automated tools and the trend is expected to continue as companies recognise the cost and time savings that automation affords. However, many test automation efforts fail to deliver the expected savings in costs and time, and this is often due to the lack of expertise of the testers.

Test automation solutions implementations have often been challenged by the mandatory business/technical dual competence required from test automation specialists. Lack of business and/or technical knowledge for test design and/or test-scripting often meant that automated testing projects failed in their objectives. Test scripts offering poor coverage or proving difficult to maintain along with test tools could end up as 'shelfware'. To overcome this, testers had to have experience in both test design and test-scripting. Although many organisations have staff testing training in-house, this could not be a substitute for years of subject matter experience and independence in testing. This lack of objectivity and independence may have in fact gone some way in contributing to the failure of previous projects to realise automation's full potential.

Automated test assets maintenance is often – and should always - be crucial to test teams. Even though their primary skills may not be within test automation tools, they must be able to execute, maintain and extend the automated test suite post implementation for maximising the solution's returns. Business

¹ 2008 market research commissioned by SQS and conducted by independent research company PAC.

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Process Testing methodology's primary focus and aim lay within enabling optimum quality and costs returns.

Business Process Testing (BPT), which has evolved in recent years from a basic, restricted and convoluted MSExcel based solution to a full blown Solution, has now received widespread acceptance in the US, and is set to become increasingly popular throughout Europe. This new methodology acknowledges that for optimum test coverage, testing should be done by application subject matter experts who are in most cases, manual testers. Although they have invaluable business knowledge, they often lack the necessary technical IT skills to run automation processes. As a result, many companies recognise that there is a gap between what can be tested, using manual testers, and what could be tested if manual testers were enabled with test automation skills. In order to get the optimum result, both sets of knowledge; business and technical, must be harnessed.

Business Process Testing now truly bridges this gap and provides the software testing market with a solution that has a strong business case. Automated testing is made much easier as the focus is placed on defining business flows and the business functions within applications, which utilises the former manual testers' existing business knowledge. Away from tortuous constrained MSExcel spreadsheets, endless file system folder structures and "driver scripts", all that is required to automate testing is an understanding of what needs to be tested, which words correspond to which activities and common sense to sequence these in the correct order. As well as making automated testing easier for former manual testers, it is also less risky for the company as it does not rely on the expertise of one person to operate. As business process testing aims to make test automation easy and non technical, if a member of staff responsible for operating it leaves, the task can be quickly picked up by someone else. This allows the process to continue regardless of staff turnover.

Business Process Testing not only enables optimum returns, mitigating risks inherent to classic test automation solutions, but also has the capacity to parallel-support applications' development.

Testing early in project life cycles is widely recognised as a Nirvana. Where static testing, e.g. requirements testing, is often deployed, regression testing development drops is rarely realised. Testing usually focuses on new functionalities deployed through drops, not their impact on existing functionalities. Thorough testing, early in project life cycles, requires automated test assets to be developed in parallel to the application, allowing for applications to be regression tested early after each code drop.

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Early continuous test automation was, up until Business Process Testing, left to “Agile” testing, where “JUnit”, “NUnit” and other “Fitness” technical test harnesses and tools ruled. Business Process Testing ends such era, allowing for responsive test assets creation. Its only dependency is an agreed front-end; no functionalities behind the graphical user interface (GUI) are required for starting to create automated test assets. This test automation ground-breaking aspect to Business Process Testing allows test teams to build an entire business logic layer to the test solution, defining “Business Process Tests”, “Business Components” and “keywords” early, before the functionality to be tested even exists in the test environment.

Business Process Testing is a revolutionary test automation concept. It mitigates conventional test automation solution's risks, and enables creating and executing automated test assets early in projects life cycles. Can it be considered as “the” test automation silver bullet? No. As for all test automation solutions implementations, discrete framework's aspects must be considered and characterised accordingly to the automation solution business and technical requirements. Business Process Testing will best serve strategic test automation implementations, should be left to experts to gauge and deploy and to former manual testers to operate, making it realise its full potential.

In my next article, I will discuss “Accelerators” for Business Process Testing. Most accelerate sales processes, slow down implementations and put returns at risk. What makes a good accelerator?

About the Author

Yann Gloaguen is a seven-years industry practitioner, the last two spent with SQS, the previous four with Mercury/HP. Regular speaker at testing conferences, he has been involved in testing from requirements definition to implementation as a technical, pre-sales consultant, and manager. He currently heads the test automation practice at SQS.



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