

PERFORMANCE TESTING

No matter what the system does, how it's written or what platform it's running on, IPCS Group, an independent testing organization of software applications and systems provides automating all the aspects of software performance testing and profiling: load simulation, external and internal performance measurements, performance monitoring, etc. Automating load testing of distributed software systems provides an extensible, scalable, and easy-to-use foundation on which you can build a comprehensive and cost-effective performance load testing tailored to your application and system under test and allows a comprehensive assessment of functional, performance and scalability of distributed software systems.

The problem

Performance testing is practically impossible without automation, and today's software market offers many commercial off-the-shelf solutions for automated performance testing. However, for many software development projects those products or services may not be applicable instantly, out-of-the-box. In fact, for some projects they may be practically inapplicable at all. The most typical examples of such situations are:

- Performance testing is to be conducted using a proprietary protocol or application programming interface (API). This also includes situations when the protocol or API to be used for testing is standardized but is not utilized by industries widely enough to deserve out-of-the-box support from commercially available performance testing solutions.
- Performance testing must support a more complex communications than traditional one-way client/server ones. The software system to be tested may not only work as a server (in which case performance testing usually involves only simulation of many clients communicating with the system), but may also operate as a client of some other, "external" software systems (which means that performance testing must involve simulation of those "external servers" too).
- Performance requirements for the system are so high that existing test tools can not provide adequate level of load and, at the same time, sufficient comprehensiveness of the collected results (performance measurements and functional checks). Even when the problem can be solved technically, consideration of other factors (particularly, calculation of the total cost of the testing effort) may make the solution impractical.

In the situations like these, the choice seems to be limited by two options only: (1) to acquire one of the more advanced commercially available performance testing products and to try to customize it to the project's specifics; or (2) to build the proprietary performance test automation solution from the ground up.

Both these options have substantial costs (and therefore risks) associated with them. Unless the project team already possesses enough knowledge about current market of advanced (and expensive!) performance test automation tools, the first option is likely to require significant investment into research of that market (to make the final choice correctly). Additionally, both options are likely to involve some substantial programming effort.

So what can you do, if you do not have enough resources for either of those options? The answer is: you should consider the third option – outsourcing the test tool and services to IPCS Group.

The solution

In a nutshell, our offering is simple: we are independent application and system testers and bridge the gap between specifics of your performance testing process and best-of-breed performance test automation solutions at very affordable costs.

Using our expertise in the area of performance test automation, we do the following:

- We start from analysis of your requirements toward automation of performance testing. Those requirements may include (but are not limited to) the following specifications:
 - custom protocols or APIs to be used during performance testing;
 - custom data to be collected and recorded during performance testing;
 - custom performance metrics to be calculated based on recorded test results;
 - desired parameters for the test tool (such parameters could be used by your testers to customize the test tool's behaviour on the test-by-test basis);

Optimizing IT Performance

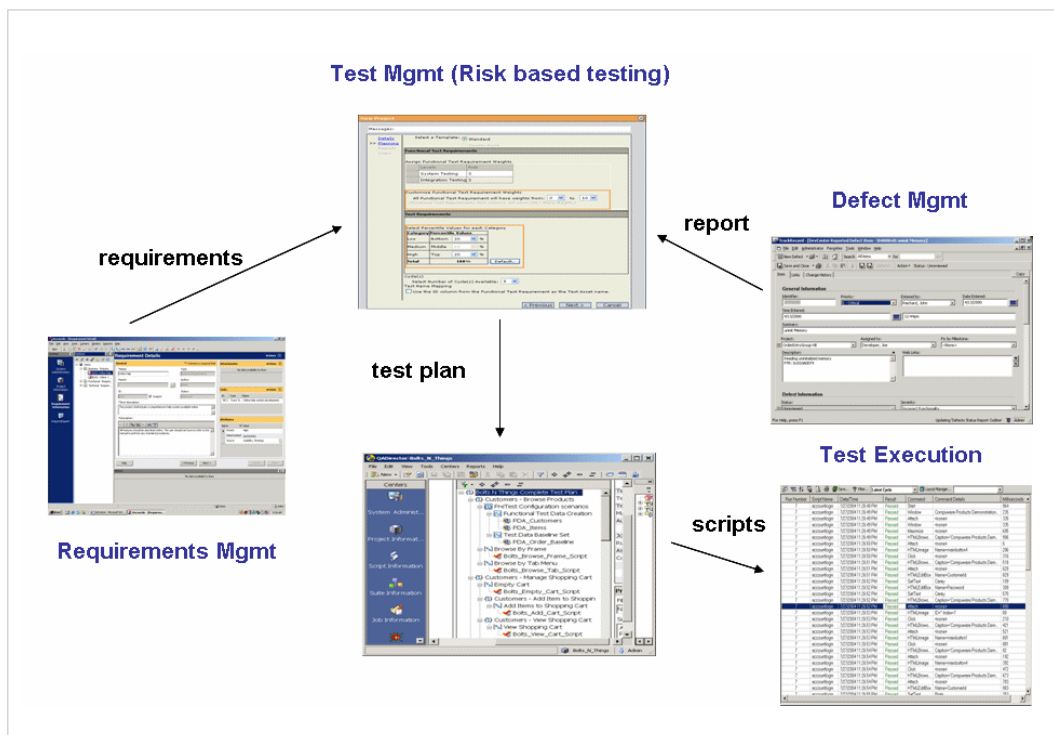
- risk-based performance testing that allows us to concentrate on all the important performance issues in the shortest possible time, while non-essential issues are dealt with at a later time.
- Quality assurance best practises to ensure that all documentation (functional and performance test plans, Change management, etc) are up-to-date.

Based on these requirements, and taking into account other important project's constraints (particularly, the project's timeline and budget) we design and implement the actual performance test automation. If necessary, we document that design and implementation according to your documentation standards.

- Finally, should you want to own the test tools yourself, we provide all necessary training for your testers who will be using the test tool to design, implement, and execute actual tests.

The benefits

Outsourcing your testing efforts and needs to us, you do not have to distract your programmers from their primary duties: the programmers could keep focusing on design and implementation of the product, while we design, execute, and analyze tests.



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