Abstract:

For automation testing, there will have more than thousands of test cases. In regression phase, each round run all the huge number of test cases may take a long time. If these cases could be executed in many machines will reduce the running time to an accepted range. But running cases in same time may cause resource confliction, and adding synchronization code to existed code may a time consuming and error prone work. Is there an easy way to scale out these test cases to parallel execution without resource confliction? The paper will describe how to scale out your test cases in an easy way.

1. Introduction

When testing automation test cases, there is always pain to handle tremendous cases in short time: if all test cases run sequentially in separated environments, that will takes more time to complete testing than expected ,but if cases are parallel running, that will require extra effort to synchronize the critical resource requests between the test cases.

How to synchronize the resource request in automation test cases? For the test cases are running on different machines, so it is intuitional to have a server to synchronize the requests. The server side implementation could simple and straightforward, but the difficult part is the client code, for the following reasons:

* The existed test cases are designed without consider the parallel execution cases.
* The testing environment may change frequently.
* Adding the synchronize code in test cases needs extra effect for QA.
* There will heterogeneous test cases, for example, test case A will require resource 1,2,3 in different phases , but test case B will only require resource 2 in specified .

Is there a panacea to serve all test cases? Yes, the paper will introduce the method which will easily transfer the single-process test cases to multi-processes test cases.