A Code Profiling using Statistical Testing in StART

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An exhausted testing is one of the testing strategy that need more time taken due to test the whole test cases in the Software Under Test. Many techniques have been proposed to avoid this situation because the size of the Software Under Test is vary and need to have good testing strategy performance. One of the techniques is Adaptive Random Testing (ART). The ART is one of the enhanced random testing. Due to ART performance is better than pure random testing, it becomes motivation to implement the ART in Aspect Oriented Program (AOP). The ART and random testing are similar in which is selection the first test case with random manner. But, ART add another one characteristic which is the evenness test in domain area. Due to similar for first test case, we proposed a new strategy called StART. In StART, we use statistical testing technique to get the information before we test. This process we named it as code profiling. This code profiling helps in selection first test case in this technique. The result from this phase shows the area that we need to select for test activity.

Keywords: Code Profiling, StART, Statistical Testing, Aspect Oriented Program, selection test cases.