A Novel Approach to Test Data Selection in Regression Testing of Software

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Abstract

Regression testing is a significant, but one of the most unexplored area in software engineering. Regression testing also forms a major part of the software maintenance process. In this paper, we propose a new technique to select a subset of the existing pool of test data to rerun, so that the affected parts of the program can be tested. Our approach, takes the help of program dependence graph and incorporates graph coloring technique, and forward program slicing. The advantage of our algorithm is that it rightly identifies the affected parts of the modified program. Also there is a very wide scope for the process to be optimized further.

Reference

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