Abstract

Program slicing is one of the techniques of program analysis that allows an analyst to automatically extract portions of programs relevant to the program being analyzed. It is an alternative approach to develop reusable components from existing software. It is a very important part of software development and maintenance. It is used in a number of applications such as program analysis, program debugging, reverse engineering, software testing, software maintenance, program understanding etc. In 1984, Weiser has introduced the concept of slicing. Earlier, static slices were used but now mainly dynamic slices are being used which further reduces the program size. In static slicing, only statically available information is used for computing slices whereas in dynamic slicing it includes all statements that affect the value of the variable occurrence for the given program inputs, not all statements that did affect its value. In this paper we have proposed a new method for computing dynamic slicing.

References


Index Terms

Computer Science

Algorithms
Keywords

Control flow graph  program dependence graph  dynamic slicing criteria
executable dynamic slicing

non-executable dynamic slicing

dynamic dependence graph

execution history