Abstract

Graphical methods offer the structural icon of the system that facilitates testing the logical progress of the program. A control flow graph describes the sequence in which the instructions of a program will get executed. PDG represents a program as a graph where statements and predicate expressions can be characterized by the nodes. The System Dependence Graph (SDG) is an extension of the Program Dependence Graph (PDG) and represents a program that consists of multiple procedures and involves procedural calls. An assessment of flow graphs & dependence graphs can be performed on the basis of properties like control dependence, data dependence, transitive dependence, flow sensitivity, parameter passing etc.

References

Evaluation of Flow Graph and Dependence Graphs for Program Representation

- TONG Chun Yin under the supervision of Dr. LO Eric Chi Lik and Mr. LUK Ming Hay, "Java System Dependence graph API", Department of computing, The Hong Kong polytechnic University, 2010, Available at: http://www. comp. polyu. edu. hk/~csllo/teaching/SDGAPI (accessed 25/4/2012).
- D. P. Mohapatra, R. Mall, and R. Kumar, "A node marking dynamic slicing


Index Terms

Computer Science Software Engineering

Keywords

Control flow graph program dependence graph system dependence graph