Evaluation of Flow Graph and Dependence Graphs for Program Representation

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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

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Index Terms

Computer Science Software Engineering

Keywords

Control flow graph  program dependence graph  system dependence graph