Symbolic Analysis
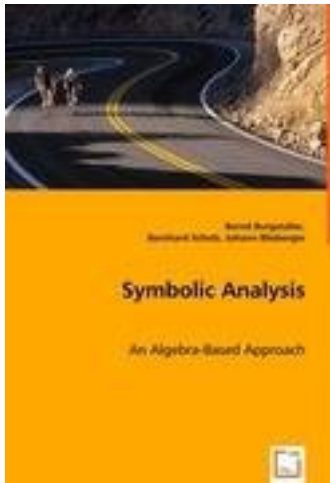
Symbolic Analysis_下载链接1_

著者:Blieberger, Johann

出版者:

出版时间:

装帧:

isbn:9783836481427

Static program analysis aims to determine the dynamic behavior of programs without actually executing them. Symbolic analysis is an advanced static program analysis technique that has been successfully applied to memory leak detection, compilation of parallel programs, detection of superfluous bound checks, variable aliases and task deadlocks, and to worst-case execution time analysis. The symbolic analysis information is invaluable for optimizing compilers, code generators, program verification, testing and debugging. In this book we take a novel algebra-based approach to the symbolic analysis of imperative programming languages. Our approach employs path expression algebra to compute the complete control and data flow analysis information valid at a given program point. This information is then provided for subsequent domain-specific analyses. Our approach derives solutions for arbitrary (even intra-loop) nodes of reducible and irreducible control flow graphs. We prove the correctness of our analysis method. Experimental results show that the problem sizes arising from real-world applications such as the SPEC95 benchmark suite are tractable for our symbolic analysis method.

作者介绍:

目录:

[Symbolic Analysis_下载链接1_](#)

标签

游戏

compiler

评论

[Symbolic Analysis_下载链接1_](#)

书评

[Symbolic Analysis_下载链接1_](#)

作者介绍:

目录:

[Symbolic Analysis_下载链接1_](#)