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博士论坛

若干编译优化技术的工程实现

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摘要 嵌入式系统对功耗、实时性等的苛刻要求，使得嵌入式处理器常采用不规则体系结构特征提供硬件支持。充分发挥嵌入式处理器的功能，需要复杂的编译优化技术。本文介绍MachineSUIF编译框架，并具体给出若干图着色寄存器分配算法在此框架下的工程实现和实验结果，说明了灵活可扩展的编译框架是快速开发复杂的嵌入式环境编译技术的重要基础。

关键词

分类号

The Implementation Instances of Several Compilation Optimzations

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Abstract

Embedded processors always provide hardware support by irregular architectural features, due to the rigorous requirements of embedded systems at power and real-time, etc. Complex compilation optimizations are needed in order to make embedded processors function efficiently. This paper introduces MachineSUIF, a compilation research infrastructure, in which the implementation instances of several graph-coloring register allocation algorithms and their experimental results. It is emphasized that a flexible and extensible research infrastructure is the important basis for developing complex compilation optimizations rapidly in embedded domain.

Key words

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