

P.O.Box 8718, Beijing 100080, China	Journal of Software, May 2006,17(5):1232-1240
E-mail: jos@iscas.ac.cn	ISSN 1000-9825, CODEN RUXUEW, CN 11-2560/TP
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# 基于WCET分析的实时系统轨迹获取技术

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Received 2005-06-15; Accepted 2005-12-16

## Abstract

Timing behaviors are crucial for real-time systems. In order to weaken or even remove the timing impact of the inserted assertions during testing, a new monitoring schema is proposed, which has little time intrusiveness than the software monitoring and supports to test the system completely. Furthermore, a WCET (worst-case execution time) analysis based on time compensation method is presented, which corrects the recorded time of events based on the accurate execution time analysis of assertions.

Wang X, Ji ML, Wang J, Qi ZC. Trace acquirement technology of real-time systems based on WCET analysis. *Journal of Software*, 2006,17(5):1232-1240.

DOI: 10.1360/jos171232

<http://www.jos.org.cn/1000-9825/17/1232.htm>

## 摘要

时序约束是判断实时系统运行是否正确的重要规约. 为了减小测试时由于对系统进行插装而产生的对实时系统行为的影响, 提出了一种混合式监控方法. 它对系统的时间干扰比纯软件方式小, 并支持对系统的完全测试. 此外, 还提出一种基于WCET(worst-case execution time)分析技术的目标系统时间补偿方法, 在精确地计算插入断言对目标系统的时间影响基础上, 给出时间补偿..

基金项目: 本文为2005年中国计算机大会推荐优秀论文. Supported by the National Natural Science Foundation of China under Grant Nos.60233020, 90104007, 60303013 (国家自然科学基金); the National High-Tech Research and Development Plan of China under Grant No.2005AA113130 (国家高技术研究发展计划(863)); the Program for New Century Excellent Talents in University (新世纪优秀人才支持计划)

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