Abstract

The architectural advancements in desktop computing have made embedded devices in real
time applications to adopt multi core architectures. Constrained power availability but ever
increasing performance requirements are the main reason for this migration. Failure to allocate
tasks to specific cores would result in some tasks running while other tasks in other cores
remaining idle. The efficiency of the entire system would decrease and the tasks with higher
priority could cause bottlenecks. In this work, we propose a model which could analyze, split
and allocate the tasks to cores. The results of the proposed model for a real time automobile
application were observed to be effective on multi core architecture.

**Index Terms**

Computer Science

Information Science

**Keywords**

Cores  Symbolic Model Verifier  Scheduler.