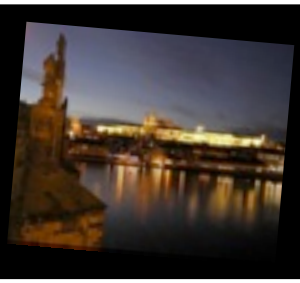
JTRES 2010

8th International Workshop on Java Technologies for Real-time and Embedded Systems

Charles University, Prague, 19-21 August 2010



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IMPORTANT DATES

Submission deadline: **June 7, 2010**
Notification: **July 5, 2010**
Camera-ready copy: **August 2, 2010**

OVERVIEW

Over 90 percent of all microprocessors are now used for real-time and embedded applications, and the behaviour of many of these applications is constrained by the physical world. High-level languages and middleware are needed to robustly and productively design, implement, compose, integrate, validate, and enforce real-time constraints along with conventional functional requirements and reusable components. It is essential that the production of real-time embedded systems can take advantage of languages, tools, and methods that enable higher software productivity. The Java programming language has become an attractive choice because of its safety, productivity, its relatively low maintenance costs, and the availability of well trained developers.

Although it features good software engineering characteristics, Java is unsuitable for developing real-time embedded systems, mainly due to under-specification of thread scheduling and the presence of garbage collection. These problems are addressed by the Real-Time Specification for Java. Interest in real-time Java in both the research community and industry has recently increased significantly, because of its challenges and its potential impact on the development of embedded and real-time applications. The goal of the workshop is to gather researchers working on real-time and embedded Java to identify the challenging problems that still need to be solved in order to assure the success of real-time Java as a technology.

Topics of interest to this workshop include, but are not limited to:

- New real-time programming paradigms and language features
- Industrial experience and practitioner reports
- Open source solutions for real-time Java
- Real-time design patterns and programming idioms
- High-integrity and safety critical system support
- Java-based real-time operating systems and processors
- Extensions to the RTSJ
- Virtual machines and execution environments
- Memory management and real-time garbage collection
- Compiler analysis and implementation techniques
- Scheduling frameworks, feasibility analysis, and timing analysis
- Multiprocessor and distributed real-time Java
- Reproduction Studies

Participants are expected to submit a paper of at most 10 pages (ACM Conference Format, i.e., two-columns, 10 point font). Accepted papers will be published in the ACM International Conference Proceedings Series via the ACM Digital Library and have to be presented by one author at the JTRES.