



Call for Contributions

Components for Embedded and Real-time Systems, Minitrack at HICSS 40

January 3-6, 2007 at Hilton Waikoloa Village, Big Island, Hawaii

<http://www.cse.unsw.edu.au/~yliu/hicss40/>

Component-based development is a software engineering paradigm that brings new opportunities and challenges for developing embedded and real-time systems. A component architecture eases software development by providing a more structured software engineering approach. It is also compatible with model-driven development methods enabling related software engineering advances to be applied to the embedded systems domain. Embedded systems, on the other hand, impose considerable resource restrictions and have strict performance and reliability requirements, all of which create challenges in applying component technologies to embedded and real-time systems.

This minitrack will bring together researchers and practitioners in component-based software engineering for embedded and real-time systems. It will cover the latest methods, techniques, and tools for developing embedded and real-time software systems using advanced component models and technologies.

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Topic of Interests

The topics of the mini track will include but not limited to:

- Component architectures and models
- Component-based product lines for embedded applications
- Non-functional properties, such as timeliness, reliability, safety, performance, fault-tolerance, and power consumption
- Evaluation and analysis of non-functional properties and requirements
- Real-time issues of component-based software engineering
- Analysis methods for temporal predictability and determinism
- Testing and debugging of component-based embedded applications
- Component-oriented software re-engineering of embedded systems
- Design patterns and architectural styles
- Modeling and model driven development of components
- Component models for security and adaptivity
- Case studies and experience reports describing use of
- Component-based software engineering for developing embedded systems

Important Dates

Abstract Submission: May 20, 2006

Paper Submission: June 15, 2006

Notification of Acceptance: August 15, 2006

Camera-ready : September 15, 2006

Submission

Authors may contact the minitrack co-chairs for expression of interests and content appropriateness at any time. All papers must contain original material, not previously published or submitted for publication.

Formatting guidelines and submission instructions will be found on HICSS 40 web site (http://www.hicss.hawaii.edu/hicss_40/apahome40.htm) after April 15th, 2006.