The 7th IEEE International Symposium on Object-oriented Real-time distributed Computing
May 12-14, 2004
Vienna, Austria
http://www.vmars.tuwien.ac.at/isorc2004

PRELIMINARY PROGRAM

May 11, 2004 (19:30 - 21:30)

19:30 - 21:30: Welcome Reception and Registration (TU Vienna, Festsaal)

May 12, 2004 (08:00 - 18:00)

08:00 - 08:20: Registration

08:20 - 08:30: Opening

08:30 - 9:30: Session 1: Keynote (Festsaal)
Session chair: Jan Gustafsson

"Composition of Component Services in Embedded Systems"
Hermann Kopetz

9:30 - 10:00: Break

10:00 - 12:00: Session 2: Industrial Track (Festsaal)
Session chair: Scott Moody

"Applying RT-CORBA in Nuclear Power Plant Simulator"
Manuel Diaz, Daniel Garrido

"Project Golden Gate: Towards Real-Time Java in Space Missions"
Daniel Dvorak, Greg Bollella, Tim Canham, Vanessa Carson Virgil Champlin, Brian Giovannoni, Mark Indictor, Kenny Meyer, Alex Murray, Kirk Reinholtz

"A Hard Look at Hard Real-Time Garbage Collection"
David Detlefs

"The Impact of Realtime Garbage Collection on Realtime Java Programming"
Fridtjof Siebert
12:00 - 13:20: Break

13:20 - 15:00: Session 3: Panel I (Festsaal)
"Challenges to Software Developers in Times of the Fast Growth of Cheap Software Labor Markets"
Moderator: Peter Puschner

Panelists:
Reinhard Göbl, Austrian Ministry of Transport, Innovation and Technology
Alkis Konstantellos, Commission of the European Communities
Krithi Ramamritham, Indian Institute of Technology Bombay, India

15:00 - 15:30: Break

15:30 - 17:10: Session 4A (parallel to 4B): UML-based Methods (Festsaal)
Session chair: Moon Hae Kim

"A UML-Based Methodology for the System Design of a Wireless LAN Prototype"
C. Drosos, D. Metafas, G. Papadopoulos

"Performance modeling and validation of a software system in a RT-UML-based simulative environment"
Vittorio Cortellessa, Maurizio Gentile

(Short Paper)
"UML Based Design of Time Triggered Systems"
I.Majzik, G.Pinter, P.T.Kovacs

(Short Paper)
"A UML-based concept for high concurrency: the Real-Time Object"
Sebastien Gerard, Chokri Mraidha, Francois Terrier

15:30 - 18:00: Session 4B (parallel to 4A): Real-Time Java (Böcklsaal)
Session chair: Bernd Kleinjohann

"Real-Time Specification for Java: Current Status and Future Work"
Peter Dibble, Andy Wellings

"Cost Enforcement and Deadline Monitoring in the Real-Time Specification for Java"
Andy Wellings, Greg Bollella, Peter Dibble, David Holmes

"Dynamic Real-Time Reconfiguration on a Multithreaded Java-Microcontroller"
Matthias Pfeffer, Theo Ungerer

"Restrictions of Java for Embedded Real-Time Systems"
Martin Schoeberl

"Real-Time Java Scoped Memory Design Patterns and Semantics"
F. Pizlo, J.M.Fox, D.Holmes, J.Vitek

20:00: Conference Dinner

May 13, 2004 (08:30 - 17:10)

08:30 - 10:00: Session 5: Special Invited Presentations on Systems Modeling (Festsaal)
Session chair: Franz Rammig

"Modelling Dependable Systems: What can Model Driven Development Contribute and What Likely Not?"
Tiziana Margaria

"Model-Based Design of Embedded Systems"
Tim Schattkowsky, Wolfgang Mueller

"Memory Models for the Formal Verification of Assembler Code Using Bounded Model Checking"
Wolfgang Ecker, Volkan Esen, Thomas Steininger

10:00 - 10:30: Break

10:30 - 12:30: Session 6A (parallel to 6B): Middleware (Festsaal)
Session chair: Binoy Ravindran

"Building Smart Appliance Integration Middleware on The OSGi Framework"
Hiroo Ishikawa, Yuuki Ogata, Kazuto Adachi, Tatsuo Nakajima

"OSA+ Real-Time Middleware. Results and Perspectives"
F.Picioroaga, A.Bechina, U.Brinkschulte, E.Schneider

"Etherware - Domainware for Wireless Control Networks"
Girish Baliga, Scott Graham, Lui Sha, P.R.Kumar

"Techniques for Middleware Implementation of the PSTR Scheme for Real-Time Object Replication"
K.H (Kane) Kim, Jeff J.Q. Liu

10:30 - 12:30: Session 6B (parallel to 6A): Design Methods (Böcklsaal)
Session chair: Peter Puschner

"Modeling Distributed Embedded Applications using an Interface File System"
Wilfried Elmenreich, Stefan Pitzek, Martin Schlager

"Time Sensitive Architectures: a Reflective Approach"
Daniela Micucci, Sergio Ruocco, Francesco Tisato, Andrea Trentini

"Towards an Implementation Model for FB-based Reconfigurable Distributed Control Applications"
K.Thramboulidis, G.Doukas, A.Frantzis

"Expressing Real-Time Requirements on Object Interactions"
Michael Mock

12:30 - 13:50: Break

13:50 - 15:20: Session 7: Distributed Database and Web Services (Festsaal)
Session chair: Jung-Guk Kim

"Hybrid Concurrency Control Protocol for Multimedia Objects"
Keisuke Hasumi, Tomoya Enokido, Makoto Takizawa

"A Java Platform to Control Real-Time Transactions Overload"
Jean-Paul Etienne, Samia Saad-Bouzefrane

"Multi-Party Authentication for Web Services: Protocols, Implementation and Evaluation"
Dacheng Zhang, Jie Xu

15:20 - 15:40: Break

15:40 - 17:10: Session 8: Testing and Verification (Festsaal)
Session chair: Raimund Kirner
"Function Test Environment for Embedded Driver Components"
Stefan Pitzek, Peter Puschner

(Short Paper)
"High-Level Simulation of Embedded Systems: Experience from the FIT Project"
Premysl Brada, Petr Grillinger, Stanislav Racek

(Short Paper)
"Feasibility testing of Specification PEARL designs"
Roman Gumzej, Matjaz Colnaric, Wolfgang A. Halang

(Short Paper)
"Verifying compositional designs for scenario based timing specifications"
Li Xuandong, Zhao Jianhua, Gong Jiayu, Yaoxin Shi, Zheng Guoliang

19:30: Mayor’s Reception at the City Hall

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May 14, 2004 (08:30 - 16:30)

08:30 - 10:30: Session 9: Panel II (Festsaal)
"Major Push Needed in Real-Time Distributed Computing Research"
Moderator: Insup Lee

Panelists/Position Statements:
Franz Rammig, University of Paderborn/C-lab, Germany
"Autonomic Distributed Real-Time Systems: Challenges and Solutions"
Bran Selic, IBM Rational Software, Canada
"Some Unresolved Problems in Real-Time Design"
E. Douglas Jensen, MITRE, USA
"Timeliness in Mesosynchronous Distributed Real-Time Systems"

10:30 - 10:50: Break

10:50 - 12:10: Session 10: Distributed Real-Time Systems (Festsaal)
Session chair: Kane Kim

"Fast Software Component Migration for Application Survivability in Distributed Real-Time Systems"
Byung Kyu Choi, Sangig Rho, Riccardo Bettati

"On Utility Accrual Real-Time Channel Establishment in Multi-hop Networks"
Karthik Channakeshava, Binoy Ravindran

(Short Paper)
"A CORBA Based Architecture for Distributed Embedded Systems Using the RTLinux- GPL Platform"
Sergio Perez, Joan Vila, Jose A. Alegre, Josep V. Sala

12:10 - 13:30: Break

13:30 - 14:20: Session 11: Separation of Concerns (Festsaal)
Session chair: Michael Mock

Shiu Lun Tsang, Siobhan Clarke, Elisa Baniassad

(Short paper)
"Separating Essentials from Incidentals: An Execution Architecture for Real-Time Control Systems"
14:20 - 15:10: Session 12: Scheduling (Festsaal)
Session chair: Uwe Brinkschulte

"Utility Accrual Scheduling Under Joint Utility and Resource Constraints"
Haisang Wu, Binoy Ravindran, E. Douglas Jensen

(Short Paper)
"A Component-based Scheduling Architecture for the Enterprise Domain"
Vassileios Tsetsos, Odysseas Sekkas, Ioannis Priggouris, Stathes Hadjiefthymiades

15:10 - 15:30: Break

15.30 - 16.10: Session 13: Memory Management (Festsaal)
Session chair: Robert G. Pettit

(Short Paper)
"Illegal References in a Real-Time Java Concurrent Environment"
M. Teresa Higuera-Toledano

(Short Paper)
"A Real-time Isolate Specification for Ravenscar-Java"
Hao Cai, Andy Wellings

16:10 - 16.30: Closing