Real-time and Embedded Systems Workshop
Arlington, VA   USA   -   July 11-14, 2005

Presentation Slide Index

MONDAY – July 11, 2005

TUTORIAL TRACKS

00-T1  Real-time CORBA
Kevin Buesing, Mentoring Engineer, Objective Interface Systems

00-T2  Building and Implementing Concurrent Specifications
Cortland Starrett, Engineering Manager & Stephen Mellor, Chief Scientist, Mentor Graphics

00-T3-1  Using the Lightweight CORBA Component Model to Develop Distributed Real-time and Embedded Applications (Part 1)
Douglas C. Schmidt, Professor of Computer Science, Vanderbilt University
Frank Pilhofer, Member of Technical Staff, Mercury Computer Systems

00-T4  MDA in Eclipse for Embedded and High Performance Systems
Presenter: Peter J. Fontana, President, Pathfinder Solutions

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TUESDAY - July 12, 2005

TUTORIAL TRACKS

00-T3-2  Using the Lightweight CORBA Component Model to Develop Distributed Real-time and Embedded Applications (Part 2)

00-T5  Data Distribution Service
Victor Giddings, Senior Scientist, Objective Interface Systems, Inc.

1300 – 1530  Session 1: Design Techniques for Real-time and Embedded Applications

01-1  Model-Driven QoS Provisioning Techniques for CCM DRE Systems
Stoyan Paunov, Gan Deng, Douglas C. Schmidt, and Anirudha Gokhale, Vanderbilt University

01-2  Applying MDD, Generative Programming and Agile Software Techniques to the SDR Domain
Bruce Trask, Architect, PrismTech

01-3  A Performance Modeling and Simulation Approach to Software Defined Radio
Shawkang Wu, Ph.D., Scientist & Long Ho, Senior Software Engineer, The Boeing Company

01-4  Leveraging Agile Software Design Techniques in the Implementation of SDRs
Vincent Rivas, MTS & Joseph N Frisina, Manager-Advanced Software Dev., BAE Systems
1600 – 1800  **Session 2: High Assurance**

02-1  **High Assurance CORBA and DDS Profiles**  
Victor Giddings, Senior Scientist, Objective Interface Systems, Inc.

02-2  **Multiple Independent Levels of Safety and Security: High Assurance Architecture**  
Gordon Uchenick, Mentor/Principal Engineer, Objective Interface Systems, Inc.

02-3  **Living Realistically with Nondeterminism in Fault-Tolerant Middleware**  
Joseph G. Slember and Priya Narasimhan, Carnegie Mellon University

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**WEDNESDAY, July 13, 2005**

0900 - 1200  **Session 3: Experiences with COTS Implementations of the Data Distribution Service (DDS)**

03-1  **CORBA / DDS - Competing or Complementary Technologies?**  
Ramzi Karoui, EMEA Technical Supervisor, PrismTech

03-2  **OMG-DDS "Exploiting The Potential"**  
Hans van’t Hag, Product Manager Middleware, Thales Naval Netherlands

03-3  **Open Architecture Computing Environment: DDS Middleware Benchmarking**  
Bruce McCormick, Engineer, EG&G Inc. &  
Leslie Madden, Technical Lead Scientist, Naval Surface Warfare Center Dahlgren Division

03-4  **Data Consistency with the SPLICE Middleware**  
Leslie Madden Technical Lead Scientist & Chad Offenbacker, Scientist,  
Naval Surface Warfare Center Dahlgren Division

1400 – 1600  **Session 4: Real-time Java: The New World of RTSJ**

04-1  **Experience Migrating a Representative Naval Combat Systems Application to RT Java**  
Tim Childress, Scientist & Barbara Doyal, Lead Scientist,  
Naval Surface Warfare Center Dahlgren Division

04-2  **Experiences in Developing a Real-Time Java Object Request Broker**  
John Russell, Product Manager, PrismTech

04-3  **Recommendations for a CORBA Language Mapping for RTSJ**  
Victor Giddings, Senior Scientist, Objective Interface Systems

1630 – 1800  **Panel: Real-time Java**
THURSDAY, July 14, 2005

0900 - 1215  **Session 5: Real-time Middleware**

05-1  **The COMPARE Project: Component-based Approach for Real-time & Embedded Systems**
The COMPARE Consortium - Presenter: Vincent Seignole, Engineer, THALES

05-2  **A QoS-aware Deployment & Configuration Engine for Component-Based DRE Systems**
Gan Deng, Jaiganesh Balasubramanian, Arvind Krishna, William R. Otte, Krishnakumar Balasubramanian, Anirudha Gokhale, and Douglas Schmidt, ISIS, Vanderbilt University & Nanbor Wang, Tech-X Corp

05-3  **Simplifying the Development of QoS-aware EJB Applications via Model-Integrated Computing**
Jules White, Douglas Schmidt and Aniruddha Gokhale, Department of EECS, Vanderbilt University

05-4  **Techniques for Dynamic Swapping in the Lightweight CORBA Component Model**
Jaiganesh Balasubramanian, Gan Deng, Balachandran Natarajan, Aniruddha Gokhale, and Douglas Schmidt, Department of EECS, Vanderbilt University

Nishanth Shankaran, Xenofon Koutsoukos, Douglas C. Schmidt, & Aniruddha Gokhale, EECS Dept., Vanderbilt University

1315 - 1435  **Session 6: Middleware for Specialized Devices**

06-1  **Using CORBA on DSPs, FPGAs & Microcontrollers - Synthesizing an Ubiquitous SCA Machine in Soft-Radio Devices**
Andrew Foster, Product Manager, PrismTech

06-2  **Middleware for DSPs and FPGAs**
Bill Beckwith, CEO/CTO, Objective Interface Systems

1450 - 1620  **Session 7: Protocols**

07-1  **Practical Experiences Using the OMG's Extensible Transport Framework (ETF) Under a Real-Time CORBA ORB to Implement QoS Sensitive Custom Transports**
Andrew Foster, Product Manager, PrismTech

07-2  **The Time Triggered (TT) Ethernet**
Astrit Ademaj, Hermann Kopetz, Petr Grillinger & Klaus Stainhammer, Vienna University of Technology