



13th International Real-Time Ada Workshop
IRTAW-13
17-19 April 2007
Woodstock Inn
Woodstock, Vermont
USA

TECHNICAL PROGRAM

Tuesday, 17 April

Session 1 (8:30 am – 12:00 noon): *Language Issues*

Session Chair: John Barnes

Rapporteur: Tullio Vardanega

Goals:

- Agree on proposed correction to EDF semantics
- Agree on resolution to requeue problem
- Review Ravenscar extensions for 2005 and consider extensions for distributed systems

Related Papers:

- *Correcting the EDF Protocol in Ada 2005*; A. Zerzelidis, A. Burns and A.J. Wellings
- *Integrating OOP and Tasking : The Missing Requeue*; A. Wellings, A. Burns
- *Building High-Integrity Distributed System with Ravenscar Restrictions*; S. Urueña, J. Zamorano

Session 2 (3:00 pm – 7:00 pm): *Programming Patterns and Libraries*

Session Chair: Michael González-Harbour

Rapporteur: Javier Gutierrez

Goals:

- Discuss vision(s) of architectural frameworks and coding patterns with Ada 2005
- Formulate proposals and roadmaps to facilitate adoption/secondary standards

Related Papers:

- *A Framework for Real-Time Utilities for Ada 2005*; A. Wellings, A. Burns
- *Programming Execution-Time Servers in Ada 2005*; A. Burns, A.J. Wellings
- *Ada 2005 Code Patterns for Metamodel-Based Code Generation*; J. Pulido, J.A. de la Puente, M. Bordin, T. Vardanega, J. Hugues



Wednesday, 18 April

Session 3 (8:30 am – 12:00 noon): *Implementation Experience with Ada 2005*

Session Chair: Alan Burns
Rapporteur: Andy Wellings

Goals:

- Discuss implementation experience with new real-time features
- Review support provided by new real-time features
- Review features proposed for but omitted from Ada 2005 (e.g., application-defined scheduling)

Related Papers:

- *Implementing the New Ada 2005 Real-Time Features on a Bare Board Kernel*; S. Urueña, J. Pulido, J. Redondo, J. Zamorano
- *Operating System Support for Execution Time Budgets for Thread Groups*; M. Aldea, M. González Harbour

Session 4 (3:00 pm – 7:00 pm): *Beyond Ada 2005*

Session Chair: Jorge Real
Rapporteur: Stephen Michell

Goals:

- Review Ada's support for shared memory multiprocessors and assess need for additional features
- Consider impact of multicores and assess need for additional support for data parallelism and NUMA architectures (e.g., transactional memory)

Related Papers:

- *Beyond Ada 2005: Allocating Tasks to Processors in SMP Systems*; A. Wellings, A. Burns
- *Suggestions for Stream Based Parallel Systems in Ada*; M. Ward, N. C. Audsley



Thursday, 19 April

Session 5 (8:30 am – 12:00 noon): *Ada and Other Standards*

Session Chair: Ben Brosgol
Rapporteur: Mario Aldea

Goals:

- Consider whether a new binding between Ada and POSIX is needed / desirable
- Look at current efforts to update POSIX and “Real-Time Java” in terms of impact on or “lessons learned” for Ada

Related Papers:

- *Interfacing Ada to Operating Systems*; S. Michell

Session 6 (12:00 noon – 12:30 pm): *Conclusions and Future Plans*

Session Chair: Juan de la Puente

