

Table of Contents

Invited Papers

Building Formal Requirements Models for Reliable Software	1
<i>Axel van Lamsweerde</i>	
Using Ada in Interactive Digital Television Systems	21
<i>Pascal Héraud, Thierry Lelégard</i>	
Testing from Formal Specifications, a Generic Approach	35
<i>Marie-Claude Gaudel</i>	
Logic versus Magic in Critical Systems	49
<i>Peter Amey</i>	
Can Java™ Meet Its Real-Time Deadlines?	68
<i>Benjamin Brosgol, Brian Dobbing</i>	

Program Analysis

Parameter-Induced Aliasing in Ada	88
<i>Wolfgang Gellerich, Erhard Plödereder</i>	
Slicing Tagged Objects in Ada	100
<i>Zhengqiang Chen, Baowen Xu, Hongji Yang</i>	
OASIS - An ASIS Secondary Library for Analyzing Object-Oriented Ada Code	113
<i>Alexei Kuchumov, Sergey Rybin, Alfred Strohmeier</i>	

Distributed Systems

Building Modern Distributed Systems	123
<i>Laurent Pautet, Thomas Quinot, Samuel Tardieu</i>	
Reliable Communication in Distributed Computer-Controlled Systems	136
<i>Luís Miguel Pinho, Francisco Vasques</i>	
Building Robust Applications by Reusing Non-robust Legacy Software	148
<i>Francisco Guerra Santana, Javier Miranda González, José Miguel Santos Espino, José Carlos Rodríguez Calero</i>	

Real-Time Systems

New Developments in Ada 95 Run-Time Profile Definitions and Language Refinements	160
<i>Joyce L. Tokar</i>	
Complex Task Implementation in Ada	167
<i>Alfons Crespo, Patricia Balbastre, Silvia Terrasa</i>	
Implementing a Flexible Scheduler in Ada	179
<i>Guillem Bernat, Alan Burns</i>	

Language and Patterns

Expression Templates in Ada	191
<i>Alexandre Duret-Lutz</i>	
A Design Pattern for State Machines and Concurrent Activities	203
<i>Bo I. Sandén</i>	
Component Libraries and Language Features	215
<i>Ehud Lamm</i>	

Dependable Systems

Using the SPARK Toolset for Showing the Absence of Run-Time Errors in Safety-Critical Software	229
<i>Darren Foulger, Steve King</i>	
Scenario-Based System Assessment	241
<i>Silke Kuball</i>	
Test Suite Reduction and Fault Detecting Effectiveness: An Empirical Evaluation	253
<i>Tsong Y. Chen, Man F. Lau</i>	

APIs and Components

JEWL: A GUI Library for Educational Use	266
<i>John English</i>	
Object-Oriented Stable Storage Based on Mirroring	278
<i>Xavier Caron, Jörg Kienzle, Alfred Strohmeier</i>	
Transaction Support for Ada	290
<i>Jörg Kienzle, Ricardo Jiménez-Peris, Alexander Romanovsky, Marta Patiño Martínez</i>	

Real-Time Kernels

MaRTE OS: An Ada Kernel for Real-Time Embedded Applications	305
<i>Mario Aldea Rivas, Michael González Harbour</i>	
Implementing Ada.Real_Time.Clock and Absolute Delays in Real-Time Kernels	317
<i>Juan Zamorano, José F. Ruiz, Juan Antonio de la Puente</i>	
Defining New Non-preemptive Dispatching and Locking Policies for Ada . .	328
<i>Alan Burns</i>	

Standard Formats: UML & XML

Modelling Communication Interfaces with COMIX	337
<i>Frank Oppenheimer, Dongming Zhang, Wolfgang Nebel</i>	
Safe Web Forms and XML Processing with Ada	349
<i>Mário Amado Alves</i>	
Mapping UML to Ada	359
<i>Bill Taylor, Einar W. Karlsen</i>	

System Evolution

Ship System 2000, a Stable Architecture under Continuous Evolution	371
<i>Björn Källberg, Rei Strähle</i>	
Migrating Large Applications from Ada83 to Ada95	380
<i>Philippe Waroquiers, Stef Van Vlierberghe, Dirk Craeynest, Andrew Hately, Erik Duvinage</i>	
An Application Case for Ravenscar Technology: Porting OBOSS to GNAT/ORK	392
<i>Tullio Vardanega, Rodrigo García, Juan Antonio de la Puente</i>	
Author Index	405

Reliable Software Technologies - Ada-Europe 2001
6th Ada-Europe International Conference on Reliable
Software Technologies Leuven, Belgium, May 14-18,
2001 Proceedings
Craeynest, D.; Strohmeier, A. (Eds.)
2001, XVI, 412 p., Softcover
ISBN: 978-3-540-42123-8