



6th International Conference on  
Reliable Software Technologies

## Ada-Europe'2001

Leuven, Belgium May 14-18, 2001

In 2001, the 6th International Conference on Reliable Software Technologies will take place in Leuven, Belgium, from May 14th to May 18th. The conference offers a technical program and exhibition, plus a series of tutorials and a workshop.

The conference provides an international forum for researchers, developers and users of reliable software technologies. Presentations and discussions cover applied and theoretical work currently conducted to support the development and maintenance of software systems.

The technical program includes keynote addresses, session papers by the international community with refereed contributions from many countries. The proceedings of the conference will be published in the Lecture Notes in Computer Science (LNCS) Series by Springer. An exhibition concurrent to the conference offers an opportunity to explore the latest developments by the commercial marketplace. The tutorials on Monday and Friday offer an excellent opportunity to obtain in-depth knowledge in important technologies in the field.

Leuven is one of Europe's ancient university towns with many old beautiful buildings. The town hall, the famous Beguinage (Begijnhof), the churches, cloisters and colleges stand silent witness to the rich history of Leuven and make it the interesting



place it is. Leuven is only 25 km (15 miles) away from Brussels, the capital of Belgium and the seat of the European Union. This year, K.U.Leuven university celebrates its 575th anniversary. The Conference will take place in the unique setting of the classicist buildings of Maria-Theresia College, situated in the historical centre of Leuven.

<http://www.ada-europe.org/conference2001.html>



KATHOLIEKE UNIVERSITEIT  
**LEUVEN**

## Preliminary Program

The information presented here is preliminary - please refer to the conference website for the latest details.

### Overview of the week

	Morning	Late Morning	After Lunch	Afternoon
<b>Monday May 14th</b> Tutorials & Workshop	Non-standard techniques in Ada - <i>Art Duncan, RPI, USA</i>			
	Practical experiences of safety-critical Ada technologies - <i>Peter Amey &amp; Rod Chapman, Praxis Critical Systems, UK</i>			
	Early reliability measurement and improvement - <i>Jeff Tian, SMU, USA</i>		An introduction to XML - <i>Gregory Neven, K.U.Leuven, Belgium</i>	
	Workshop on exception handling for a 21st century programming language			
<b>Tuesday May 15th</b> Sessions & Exhibition	Building formal models for software requirements <i>Axel van Lamsweerde, UCL, Belgium</i>	Program Analysis	Distributed Systems	Using Ada in interactive digital television systems <i>Pascal Heraud, CANAL+</i>
		Software Process	Vendor presentations	
<b>Wednesday May 16th</b> Sessions & Exhibition	Testing from formal specifications : a generic approach <i>Marie-Claude Gaudel, Université de Paris-Sud</i>	Real-Time Systems	Dependable Systems	APIs and Components
		Language and Patterns	Vendor presentations	Vendor presentations
<b>Thursday May 17th</b> Sessions & Exhibition	Logic versus Magic in critical systems <i>Peter Amey, Praxis Critical Systems, UK</i>	Real-Time Kernels	System Evolution	Can Java meet its real-time deadlines? <i>Brian Dobbing, Aonix Europe Ltd.</i>
		Standard Formats: UML & XML	Vendor presentations	
<b>Friday May 18th</b> Tutorials	From full concurrency to safe concurrency - <i>John Harbaugh, Boeing, USA</i>			
	Building distributed systems with Ada - <i>Samuel Tardieu, Laurent Pautet &amp; Thomas Quinot, ENST, France</i>			
	Implementing design patterns in sequential Ada - <i>Matthew Heaney, USA</i>		Architecture centered development and evolution of reliable real-time systems - <i>Bruce Lewis &amp; Ed Colbert, USA</i>	

### Exhibition

The exhibition opens in the mid morning break on Tuesday and runs until after the Thursday afternoon break. Each exhibitor will have at least one half hour presentation slot during the vendor track. The mid morning and mid afternoon breaks are one hour to give attendees ample opportunity to visit the exhibition.

At the time of writing five exhibitors - Aonix, ACT, TNI, Praxis Critical Systems and Irvine Compiler - have come forward and several others have expressed interest.

### Social Program

There are activities organised for four of the evenings starting with a welcome reception on Monday. Tuesday the City of Leuven have invited us all for a tour of the historic town hall followed by a reception. Wednesday there will be a guided walk through the historic Begijnhof followed by the conference banquet - be sure to book a ticket for this in your application. Thursday we have been invited to tour the Stella Artois brewery and sample a few of their world famous beers.

## Paper Presentation Sessions

<b>Program Analysis</b> Tuesday May 15th 11:00 to 12:30	Parameter-induced aliasing in Ada - <i>Wolfgang Gellerich &amp; Erhard Ploedereder</i>
	Slicing tagged objects in Ada - <i>Z. Chen, B. Xu &amp; H. Yang</i>
	OASIS - an ASIS secondary library for analyzing object-oriented Ada code - <i>Alexei Kuchumov, Sergey Rybin &amp; Alfred Strohmeier</i>
<b>Software Process</b> Tuesday May 15th 11:00 to 12:30	Why we have problems producing quality software: When the product and process become confused - <i>David A. Cook &amp; Les Dupaix</i>
	The importance of agreed software quality metrics - <i>Jens Pas</i>
<b>Distributed Systems</b> Tuesday May 15th 14:00 to 15:30	Building modern distributed systems - <i>Laurent Pautet &amp; Samuel Tardieu</i>
	A toolkit for reliable communication in distributed computer-controlled systems - <i>Luis Miguel Pinho &amp; Francisco Vasques</i>
	Building robust applications by reusing non-proprietary software - <i>F. Guerra, J. Miranda &amp; J. Calero</i>
<b>Real - Time Systems</b> Wednesday May 16th 11:00 to 12:30	New developments in Ada runtime profile definition and language refinements - <i>Joyce L Tokar</i>
	Complex Task Implementation in Ada - <i>Alfons Crespo, Patricia Balbastre &amp; Silvia Terrasa</i>
	Implementing a flexible scheduler in Ada - <i>Guillem Bernat &amp; Alan Burns</i>
<b>Language and Patterns</b> Wednesday May 16th 11:00 to 12:30	Expression templates in Ada - <i>Alexandre Duret-Lutz</i>
	A design pattern for state machines and concurrent activities - <i>Bo Sanden</i>
	Component libraries and language features - <i>Ehud Lamm</i>
<b>Dependable Systems</b> Wednesday May 16th 14:00 to 15:30	Experience report: using the SPARK toolset for showing the absence of run-time errors in safety-critical software - <i>Darren Foulger &amp; Steve King</i>
	Scenario-based system assessment - <i>Silke Kuball et al</i>
	Test suite reduction and fault detection effectiveness: an empirical evaluation - <i>T.Y. Chen and M.F. Lau</i>
<b>APIs and Components</b> Wednesday May 16th 16:30 to 18:00	JEWL: a GUI library for educational use - <i>John English</i>
	Object-oriented stable storage based on mirroring - <i>Xavier Caron, Jörg Kienzle &amp; Alfred Strohmeier</i>
	Transaction support for Ada - <i>Jörg Kienzle, Ricardo Jiménez Peris, Alexander Romanovsky &amp; M. Patiño Martínez</i>
<b>Real - Time Kernels</b> Thursday May 17th 11:00 to 12:30	MaRTE OS: an Ada kernel for real-time embedded applications - <i>Mario Aldea Rivas &amp; Michael González Harbour</i>
	Implementing Ada.Real_Time.Clock and absolute delays in real time kernels - <i>Juan Zamorano, Jose F. Ruiz &amp; Juan A. de la Puente</i>
	Defining new non-preemptive dispatching and locking policies for Ada - <i>Alan Burns</i>
<b>Standard Formats: UML &amp; XML</b> Thursday May 17th 11:00 to 12:30	Modelling communication interfaces with ComiX - <i>Frank Oppenheimer, Dongming Zhang &amp; Wolfgang Nebel</i>
	Safe web forms and XML processing with Ada - <i>Mário Amado Alves</i>
	Mapping UML to Ada - <i>Bill Taylor &amp; Einar W Karlsen</i>
<b>System Evolution</b> Thursday May 17th 14:00 to 15:30	Ship System 2000, a stable architecture under continuous evolution - <i>Björn Källberg, Rei Strähle</i>
	Migrating large applications from Ada83 to Ada95 - <i>Philippe Waroquiers, et al.</i>
	An application case for the Ravenscar Profile: Porting OBOSS to GNAT/ORK - <i>Rodrigo García, García Tullio Vardanega &amp; Juan Antonio de la Puente</i>

### Conference Chair

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In  
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with



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The organizers thank the exhibitors (preliminary list)



and the supporters of the conference (preliminary list)



The city of  
Leuven

For full details of the conference - information regarding sponsoring, exhibiting and registering - please see the conference web site, or contact

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