

# Lecture Notes in Computer Science

1897

Edited by G. Goos, J. Hartmanis, and J. van Leeuwen

*Berlin*  
*Heidelberg*  
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Jürg Gutknecht Wolfgang Weck (Eds.)

# Modular Programming Languages

Joint Modular Languages Conference, JMLC 2000  
Zurich, Switzerland, September 6-8, 2000  
Proceedings

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## Cataloging-in-Publication Data applied for

Die Deutsche Bibliothek - CIP-Einheitsaufnahme

Modular programming languages : proceedings / Joint Modular Languages  
Conference, JMLC 2000, Zurich, Switzerland, September 6 - 8, 2000.

Jürg Gutknecht ; Wolfgang Weck (ed.). - Berlin ; Heidelberg ; New York ;  
Barcelona ; Hong Kong ; London ; Milan ; Paris ; Singapore ; Tokyo :  
Springer, 2000

(Lecture notes in computer science ; Vol. 1897)  
ISBN 3-540-67958-8

CR Subject Classification (1998): D.3, D.2, D.1, D.4, F.3

ISSN 0302-9743

ISBN 3-540-67958-8 Springer-Verlag Berlin Heidelberg New York

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Springer-Verlag Berlin Heidelberg New York  
a member of BertelsmannSpringer Science+Business Media GmbH  
© Springer-Verlag Berlin Heidelberg 2000  
Printed in Germany

Typesetting: Camera-ready by author, data conversion by PTP-Berlin, Stefan Sossna  
Printed on acid-free paper SPIN: 10722581 06/3142 5 4 3 2 1 0

# Preface

The circle is closed. The *European Modula-2 Conference* was originally launched with the goal of increasing the popularity of Modula-2, a programming language created by Niklaus Wirth and his team at ETH Zürich as a successor of Pascal. For more than a decade, the conference has wandered through Europe, passing Bled, Slovenia, in 1987, Loughborough, UK, in 1990, Ulm, Germany, in 1994, and Linz, Austria, in 1997. Now, at the beginning of the new millennium, it is back at its roots in Zürich, Switzerland. While traveling through space and time, the conference has mutated. It has widened its scope and changed its name to *Joint Modular Languages Conference (JMLC)*. With an invariant focus, though, on modular software construction in teaching, research, and “out there” in industry.

This topic has never been more important than today, ironically not because of insufficient language support but, quite on the contrary, due to a truly confusing variety of modular concepts offered by modern languages: modules, packages, classes, and components, the newest and still controversial trend. “The recent notion of component is still very vaguely defined, so vaguely, in fact, that it almost seems advisable to ignore it.” (Wirth in his article “Records, Modules, Objects, Classes, Components” in honor of Hoare’s retirement in 1999). Clarification is needed.

The JMLC 2000 featured four distinguished speakers: Ole Lehrmann Madsen, Bertrand Meyer, Clemens Szyperski, and Niklaus Wirth and 20 presentations of high-quality papers from 9 countries, a careful selection from 54 papers initially submitted to the refereeing process. Perspectives comprised parallel and distributed computing, components, extensions and applications, compilers, and runtime environments. A tutorial prelude taught by international experts shed light on commercially available component systems, including COM, JavaBeans, CORBA, Component Pascal, and Eiffel, and a special Oberon event provided a forum for Oberon developers from industry and academia to present their latest creations.

I would like to thank Springer-Verlag for publishing these proceedings and Wolfgang Weck for his editorial assistance. My thanks also go to the program committee members and to the referees whose competence assured the quality of this conference. Last but not least I thank all the helpful people at ETH and in particular Eva Ruiz, Patrik Reali, Marco Sanvido, Michela Taufer, and André Fischer for their work and dedication.

# Organization

JMLC 2000 was organized by the *Institut für Computersysteme* at the Swiss Federal Institute of Technology (ETH) Zürich.

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