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Object Technologies for Advanced Software

Second JSSST International Symposium
ISOTAS'96

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Preface

In recent years, object technologies have been attracting ever increasing attention in various areas of research and development for advanced software:

- Object-Oriented Programming (OOP) reduces the complexity of large-scale software development through inheritance, encapsulation, class libraries and/or class framework. Also, OOP serves as a basis for new generations of programming languages in concurrent and reflective computing, etc. It also has a strong affinity to so-called autonomous 'agent-oriented programming'.
- Object-Oriented Databases (OODB) have been proposed as a model for next generation database systems, which are expected to overcome the limitations of conventional data models. Currently OODB are used in a wide variety of important application areas such as engineering and multimedia information systems, where the fusion of OOP and OODB shows great promise in providing much more effective architecture for advanced database systems.
- Object-Oriented Software Engineering (OOSE) promises to present solutions to numerous difficulties faced by software engineers today. Examples include: OO requirement analysis, OO formal specifications, OO design, OO software databases, etc.

The diversity of these areas suggests that there are underlying, fundamental principles common to wide range of software development activities. Following up on the success of the first International Symposium on Object Technologies for Advanced Software (ISOTAS'93, the proceedings published as Springer LNCS #742), the second ISOTAS'96 focuses again on the object technologies to shed light on such principles, by bringing together the leading researchers in the areas of OOP, OODB, and OOSE.

The demography of submissions spanned the globe—Europe, North and South America, Asia, and Africa. In fact, submissions from abroad overwhelmed the domestic submissions in number, indicating that we have true international support from the OO research community. The competition was quite fierce—there were 57 papers submitted, from which the program committee selected only 14 during the program committee meeting held in Tokyo, in late September of 1995. Almost all the papers were reviewed by at least 5 expert reviewers of the program committee, and extensively discussed during the program committee meeting. When the committee members could not attend or there were disagreements in the reviews, e-mail discussions were held prior to the meeting so that differences and controversies could

be properly identified or even resolved prior to the meeting. As a result of such a rigorous procedure, there were a number of papers that had support from some members of the program committee, but ended up not being accepted due to the agreement reached by the discussions. Nevertheless, we are confident that we have been able to put together an attractive technical program, consisting of 14 refereed papers and 5 invited speakers.

We would like to express our highest appreciation for the researchers who have submitted papers from all around the world to ISOTAS'96. The invited speakers and tutorial lecturers contributed greatly towards disseminating the state of the art of object technology to the community at large, and we would like to express great praise for their generous commitments. Also, all the members of the program committee who have devoted their expertise, time, and effort to reviewing the submitted papers, conducting e-mail discussions, and finalizing the decisions during the program committee meeting, deserve their due credit. Hard and long hours of work by the organizing committee also made ISOTAS'96 possible, and we fully acknowledge their efforts. We sincerely hope that ISOTAS'96 can contribute towards deepening the understanding of object technologies and establishing a solid framework for future advanced software development.

Kokichi Futatsugi and Satoshi Matsuoka

January, 1996

Organization

ISOTAS'96 is organized and sponsored by the Japan Society of Software Science and Technology (JSSST) and the Japan Advanced Institute of Science and Technology (JAIST, Kanazawa, Japan), in cooperation with ACM SIGPLAN, ACM SIGSOFT, IEICE, and IPSJ.

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 The Institute of Electronics, Information and Communication Engineers (IEICE)
 The Information Processing Society of Japan (IPSJ)

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