Foundations of Component-Based Systems Workshop

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Preface

This is the proceedings of the first workshop on *Foundations of Component-Based Systems*, September 26, 1997, held in Zurich, Switzerland. The workshop is affiliated with the *European Software Engineering Conference, ESEC 97*, and the *Fifth ACM SIGSOFT Symposium on the Foundations of Software Engineering, FSE 97*.

Papers in this proceedings are position papers, and are included here based on the reviews of the program committee. Our sincere thanks are due to the following individuals for their detailed and timely reviews:

Gary T. Leavens	Iowa State University, USA
Robyn Lutz	Iowa State University and NASA Jet Propulsion Laboratory, USA
Helen Gill	Defense Advanced Research Projects Agency, USA
Oscar Nierstrasz	University of Berne, Switzerland
Murali Sitaraman	West Virginia University, USA
Bruce W. Weide	The Ohio State University, USA

The objective of the workshop is to explore how formal (mathematical) techniques can be or should be used to establish a suitable foundation for component-based software engineering. It brings together

- researchers and practitioners in component-based software engineering who are interested in better theoretical foundations, and
- researchers and practitioners in formal methods who are interested in bridging the gap between principles and practice.

Our goal is to help make research in both areas more productive. For example, researchers in formal methods have only recently begun to study: object-oriented design, specification, verification, and architectural issues for component-based systems, but other issues are also important in the practice of component-based systems, such as: parameterization and inheritance, performance (time and space), reuse, software composition, and reducing evolution and maintenance costs. We hope to understand both the problems and how formal techniques may be useful in the solving them. The meeting is expected to result in: an outline of collaborative research topics and a list of areas for further exploration. This proceedings will also be available from our web site, at the following URL.

`http://www.cs.wvu.edu/~resolve/FoCBS/`

Following the workshop, we hope to explore other avenues for possible publication as well.

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