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Jyrki Kontio  Reidar Conradi (Eds.)

# Software Quality – ECSQ 2002

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Volume Editors

Jyrki Kontio
Nokia Research Center, Nokia Group
P. O. Box 407, 00045 Nokia Group, Finland
E-mail: jyrki.kontio@nokia.com

Reidar Conradi
Norwegian University of Science and Technology (NTNU)
Department of Computer and Information Science (IDI)
Gloeshaugen, 7491 Trondheim, Norway
E-mail: conradi@idi.ntnu.no

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# Preface

Software professionals and companies live in a new world today. Increasingly complex systems need to be built faster and cheaper. While many of the established approaches in software quality are still valid, the software quality community is going through a paradigm shift that requires a re-assessment of our current method and tool portfolio, as well as creating new and more effective solutions.

We have selected two themes for this conference to highlight this paradigm shift. Our first theme, "*production of attractive and reliable software at Internet speed*" sums up the dilemma many software organisations face. In order to be competitive, software should contain advanced features and run reliably – yet it should be developed quickly and cost effectively for the right market window. Finding the right balance between these objectives is a critical question that will determine business success in the years to come.

Our second theme, "*production of software with a dynamic partnership network*" highlights the current trend of using partnerships and subcontractors as integral players in the software development process. Partnerships sometimes need to be created quickly to respond to a market opportunity, yet the costs and speed of cooperation must be competitive. Different companies have different processes, quality tools and cultures, yet they should cooperate seamlessly for the best result.

The $7^{th}$ European Conference on Software Quality – Quality Connection – addresses these challenges as the papers in these proceedings show. We received a total of 78 technical and experience-based papers and two to three referees reviewed each paper. The papers were selected based on how well they satisfied six evaluation criteria: relevance to the conference themes; novelty of contribution; industrial significance; empirical validation; positioning with other work; and writing style and correctness. After a rigorous review process, 31 papers were accepted and are printed in these conference proceedings. These papers provide a solid technical foundation for the conference and offer novel contributions to the community. In addition, the proceedings include keynote and invited papers that provide timely perspectives in this transition.

In addition to the material included in the proceedings, the programme committee selected noteworthy contributions to be presented at the Quality Forum during the conference. These contributions are published by the conference organiser as *Quality Connection - $7^{th}$ European Conference on Software Quality 2002 - Conference Notes* (ISBN 952-5136-24-8). These contributions present interesting new issues and ideas, as well as practical experiences, on key approaches in achieving software quality.

One of our targets was to establish this conference as the main European forum for providing and sharing the latest and most reliable information on software quality. Thus, we aimed at improving the scientific quality of the accepted

papers, while maintaining the practical orientation of the conference. Having completed the review process, we feel that this objective has been reached.

The greatest thanks belong to the authors who have conducted the research and are willing to share their results and insights. In addition, the programme committee did a very thorough and objective job in reviewing and discussing each paper and by providing detailed feedback to the authors.

This conference series is supervised by the European Organization for Quality and its Software Group, currently chaired by Mr. Finn Svendsen. We are grateful to them for providing this forum for these contributions. The General Chair of the conference, professor H. Dieter Rombach, has also been an excellent source of advice and guidance in making this conference happen. We would also express our gratitude to Center for Excellence Finland, and especially to the General Secretary of the conference, Ms. Maija Uusisuo, who has done an excellent job in hosting and organising the conference.

These proceedings are published as the conference takes place. At the same time, the software quality community is entering an era of new challenges. The selected presentations give indications of what the new software quality paradigm will look like. We would like to welcome you and your partners to peruse and apply the knowledge and insight contained in these papers to develop attractive and reliable software even faster.

Helsinki and Trondheim, March 15, 2002

Dr. Jyrki Kontio & Prof. Reidar Conradi
ECSQ2002 Programme Committee Co-Chairs

# Organisation

The $7^{th}$ European Conference on Software Quality (ECSQ2002) is organised by the Center for Excellence Finland in co-operation with the European Organization for Quality – Software Group (EOQ-SG).

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