Preface

Software measurement is one of the key technologies employed to control and manage the software development process. Research avenues such as the applicability of metrics, the efficiency of measurement programs in industry, and the theoretical foundations (of software engineering?) have been investigated to evaluate and improve modern software development areas such as object-orientation, component-based develop-ment, multimedia systems design, reliable telecommunication systems etc.

In the tradition of our software measurement research communities, the German Computer Science Interest (GI) Group on Software Measurement and the Canadian Interest Group in Software Metrics (CIM) have attended to these concerns in recent years. Initially, research initiatives were directed at the definition of new methods of software measurement and the validation of these methods themselves. This was then followed by more and more investigation into practical applications of software measurement and key findings in this area of software engineering have been published in:

- Dumke/Zuse: Theory and Practice of Software Measurement, 1994

- Ebert/Dumke: Software-Metriken in der Praxis, 1996

- Lehner/Dumke/Abran: Software Metrics - Research and Practice in Software Measurement, 1997

- Dumke/Abran: Software Measurement - Current Trends in Research and Practice, 1999

We would also like to mention that the proceedings of the Lac Supérieur workshop have been made available on the web at www.lrgl.uqam.ca?

This new book includes the proceedings of the 10th Workshop on Software Measurement held in Berlin in October 2000. It is a collection of theoretical studies in the field of software measurement as well as experience reports on the application of software metrics in Canadian, Belgian, Chinese, Spanish, Italian, English, and German companies and universities.

Some of the papers and reports describe new kinds of measurements for object-oriented systems and further improvements to the Function Point method. Others address specific aspects in the software development (requirements engineering, customer satisfaction, and agents economy) and the improvement of the software process itself. Finally, the improvement of the software measurement process itself was investigated and new approaches were discussed.

The book will be of interest to software engineering researchers, as well as to practitioners in the areas of project management and quality improvement programs, for both software maintenance and software development in general.

The members of the program committee were:

Alain Abran, University of Quebec in Montreal, Canada

Manfred Bundschuh, DASMA, Germany

Jean-Marc Desharnais, CIM Montreal, Canada

Reiner Dumke, University of Magdeburg, Germany

Christof Ebert, Alcatel Antwerp, Belgium

Tracy Hall, University of Hertfordshire, UK

Franz Lehner, University of Regensburg, Germany

Claus Lewerentz, TU Cottbus, Germany

Rini van Solingen, IESE Kaiserslautern, Germany

Andreas Schmietendorf, T-Nova Berlin, Germany

Harry Sneed, SES Munich/Budapest, Hungary

Charles Symons, SMS, London, UK

Hans van Vliet, University of Amsterdam, The Netherlands

Horst Zuse, TU Berlin, Germany

We also extend our thanks to Mrs. Doerge for the preparation of the unified layout and Springer-Verlag for their helpful cooperation.

December 2000   Reiner R. Dumke
                                                                Alain Abran