

Preface

Business processes are among today's hottest topics in the science and practice of information systems. Their management comprises design and engineering efforts but also activities later in the life-cycle (e.g., business process reengineering, continuous process improvement, exception handling, and change management). Recent publications on business process management consider the entire spectrum from theoretical aspects, conceptual models and application scenarios, down to implementation issues.

The editors of this book have organized a number of scientific events in recent years, partly together with other colleagues, where business process management played a central role. Amazed at the variety, novelty, and quality of contributions we decided to share this knowledge with a wider audience. In addition, we invited other well-known scientists from the field to contribute their respective view to the state-of-the-art in business process management. We are very happy and proud that our efforts have resulted in the compilation of articles in your hand.

We are convinced that the material in this book is of great interest and value for researchers in many different areas and also for practitioners, as the authors come from different fields inside computer science or economics and industry. Since the topic is interdisciplinary in nature, it can only be captured by taking many different views into account. The structure of this book does not reflect the respective authors' backgrounds but concentrates on the three core issues in Business Process Management: design, analysis, and application:

I Design of Business Processes

The papers of this part review modeling techniques and give concrete guidelines for modeling business processes and their organizational context.

II Formalisms and Analysis

This part of the book discusses formal approaches to business process management, analysis techniques for validation, verification, and performance consideration, and the problems associated to dynamic change.

III Systems and Applications

The final part of the book focuses on IT aspects and the application of techniques for business process management in practice. It describes practical experiences, tool evaluations, and the application of new technologies in various application domains.

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For most contributions to this book, prior versions or abstracts appeared in one of the following proceeding volumes:

van der Aalst, W.M.P., G. De Michelis and C.A. Ellis (eds.): *Workflow Management: Net-based Concepts, Models, Techniques, and Tools (WFM '98)*. Workshop at the 19th International Conference on Application and Theory of Petri Nets (Lisbon, 22.6.1998)

Desel, J., A. Oberweis, W. Reisig and G. Rozenberg (eds.): *Petri Nets and Business Process Management* (Seminar at Schloss Dagstuhl 5.7.1998 - 10.7.1998). Dagstuhl-Seminar-Report No. 217

Paul, H. and I. Maucher (eds.): *Integration von Mensch, Organisation und Technik: eine partielle Bilanz*. EMISA-Fachgruppentreffen 1998 (Gelsenkirchen, 7.10.1998 - 9.10.1998). Graue Reihe des Instituts Arbeit und Technik No. 1998-04

van der Aalst, W.M.P., J. Desel and R. Kaschek (eds.): *Software Architectures for Business Process Management*. Workshop at the 11th International Conference on Advanced Information Systems Engineering (CAiSE '99) (Heidelberg, 14.6.1999 - 15.6.1999). Institut für Angewandte Informatik und Formale Beschreibungsverfahren, Universität Karlsruhe, Forschungsbericht No. 390