

Preface

This book presents some of the results of a long-term research project on business process modelling, performed by the members of the High-Level Modelling (HLM) team in the Vertical Model Integration (VMI) project run by the Software Competence Center Hagenberg (SCCH), Austria. Additional contributions were made by the joint research project, Preserving Semantics During Refinement of Business Processes (PreSem), of the SCCH and the Institute for Application Oriented Knowledge Processing (FAW) of the Johannes Kepler University of Linz (JKU).

These research projects were initiated to systematically work up experiences made during large-scale business application development projects. These projects also carry an impetus to increase the use of rigorous methods in everyday software engineering in order to increase product quality. Thereby we are investing research efforts into rendering certain aspects of formal methods better usable without the need of special education and, in particular, rendering formal specifications generally understandable.

This book primarily addresses researchers in the field of business process modelling. However, we also hope to contribute useful input to developers of modelling tools.

We owe special thanks to the chief promoter of the use of abstract state machines (ASMs) in software engineering and chief developer of the respective ASM method, Professor Egon Börger, who has also provided a basis for our work on BPMN in two publications with Professor Bernhard Thalheim [23] and with Ove Sörensen [20]. Professor Börger spent considerable time with us discussing an earlier version of the semantic model presented in this book. Also Ove Sörensen gave us valuable input, in particular (but not only) with respect to refinement towards a workflow interpreter.

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