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Software Process: Principles, Methodology, and Technology

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Foreword

Jean Claude Derniame[1]

Software process technology is an emerging and strategic area that has already reached a reasonable degree of maturity, delivering products and significant industrial experiences. This technology aims at supporting the software production process by providing the means to model, analyse, improve, measure, and whenever it is reasonable and convenient, to automate software production activities. In recent years, this technology has proved to be effective in the support of many business activities not directly related to software production, but relying heavily on the concept of process (i.e. all the applications traditionally associated with workflow management). This book concentrates on the core technology of software processes, its principles and concepts as well as the technical aspect of software process support.

The contributions to this book are the collective work of the Promoter 2 European Working Group. This grouping of 13 academic and 3 industrial partners is the successor of Promoter, a working group responsible for creating a European software process community. Promoter 2 aims at exploiting this emerging community to collectively develop remaining open issues, to coordinate activities and to assist in the dissemination of results. The title "Software Process Modelling and Technology" [Fink94] was produced during Promoter 1. Being "project based", it presented the main findings and proposals of the different projects then being undertaken by the partners. The present book is more ambitious for two reasons: it is "principles oriented" and it is intended to reflect our common understanding of the key concepts.

In order to produce it, we have adopted, from the beginning, an explicit "book writing" process and we have also described it with one of the available formalisms. This is used as an example in Appendix C to illustrate the discourse and to defend the thesis that software process technology can be exploited in other related domains. Each chapter has specific editors and contributors, and contributions have been discussed and amended before being integrated. The global editing has been decomposed into two facets, with the syntactic and semantic editing undertaken by Ali Kaba and myself, and a complete revision to transform our "Esprit English" into one more correct, with thanks to the IPG at Manchester for their enormous contribution.

Nancy, France December 1998

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1. Coordinator of the Promoter and Promoter 2 Working Groups. Promoter is a research working group funded by the ESPRIT programme under reference WG 21 185. The members can be reached at `promoter@loria.fr`.

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