

Preface

The idea for this book arose from a series of lectures on modern programming paradigms, feature-oriented programming, and software product lines that are continuously held at the Universities of Magdeburg, Marburg, Passau, Texas at Austin, and others. Our collaboration reaches back to 2006, when Sven and Christian visited Don's group in Austin. Don's lecture on feature-oriented programming was inspiration for the lecture series set up in 2007 at the Universities of Magdeburg and Passau, which is the basis for this book. In a joint effort, we developed and continuously refined the teaching material for the lectures since then, until the present day.

Our interest in this topic was always the developer's perspective of discussing implementation techniques that are suitable for constructing variable software. We would have preferred to use a textbook for our lectures from the shelf, but existing product-line textbooks said precious little on implementation techniques. Eventually, in 2011, the material was stable, such that the natural next step was to write a proper text on this topic, meant not only for our students, but for all students of computer science and related fields as well as researchers and practitioners interested in software product lines.

Writing a textbook is an enormous endeavor, and this book would not have been possible without the help of our colleagues, students, friends, and families. In particular, we thank Martin Kuhleemann, Jörg Liebig, Norbert Siegmund, and Thomas Thüm, who used and improved the teaching material that was the basis for this book. Furthermore, we thank David Broneske for his support in producing proper graphics for this book, Jörg Liebig, Sandro Schulze, Norbert Siegmund, and Thomas Thüm for feedback on selected chapters and the exercises proposed in the book, as well as pure-systems, Janet Siegmund, and Thomas Thüm for providing screenshots of the tools pure::variants, FeatureCommander, and FeatureIDE.

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Concepts and Implementation

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