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Second Edition
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We dedicate this book to the memory of Michael Downes (1958–2003), a great friend and wonderful colleague on the \LaTeX{} Team. His thoughtful contributions to our work and our lives are diverse and profound. Moreover, he brightens the lives of countless grateful \LaTeX{} users through the wisdom built into his support for all aspects of mathematical typesetting—very many *masterpieces of the publishing art* will stand for ever as superb memorials to his quiet but deep insights.
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Preface

A full decade has passed since the publication of the first edition of The \LaTeX\ Companion—a decade during which some people prophesied the demise of \TeX\ and \LaTeX\ and predicted that other software would take over the world. There have been a great many changes indeed, but neither prediction has come to pass: \TeX\ has not vanished and the interest in \LaTeX\ has not declined, although the approach to both has gradually changed over time.

When we wrote the Companion in 1993 [55], we intended to describe what is usefully available in the \LaTeX\ world (though ultimately we ended up describing what was available at CERN in those days). As an unintentional side effect, the first edition defined for most readers what should be available in a then-modern \LaTeX\ distribution. Fortunately, most of the choices we made at that time proved to be reasonable, and the majority (albeit not all) of the packages described in the first edition are still in common use today. Thus, even though “the book shows its age, it still remains a solid reference in most parts”, as one reviewer put it recently.

Nevertheless, much has changed and a lot of new and exciting functionality has been added to \LaTeX\ during the last decade. As a result, while revising the book we ended up rewriting 90% of the original content and adding about 600 additional pages describing impressive new developments.

What you are holding now is essentially a new book—a book that we hope preserves the positive aspects of the first edition even as it greatly enhances them, while at the same time avoiding the mistakes we made back then, both in content and presentation (though doubtless we made some others). For this book we used the CTAN archives as a basis and also went through the \texttt{comp.text.tex} news group archives to identify the most pressing questions and queries.
In addition to highlighting a good selection of the contributed packages available on the CTAN archives, the book describes many aspects of the basic \LaTeX{} system that are not fully covered in the \textit{\LaTeX{} Manual}, Leslie Lamport’s \textit{\LaTeX{}: A Document Preparation System} [104]. Note, however, that our book is not a replacement for the \textit{\LaTeX{} Manual} but rather a companion to it: a reader of our book is assumed to have read at least the first part of that book (or a comparable introductory work, such as the \textit{Guide to \LaTeX{}} [101]) and to have some practical experience with producing \LaTeX{} documents.

The second edition has seen a major change in the authorship; Frank took over as principal author (so he is to blame for all the faults in this book) and several members of the \LaTeX{}3 project team joined in the book’s preparation, enriching it with their knowledge and experience in individual subject areas.

The preparation of the book was overshadowed by the sudden death of our good friend, colleague, and prospective co-author Michael Downes, whose great contributions to \LaTeX{}, and \textit{AMS-\LaTeX{}} in particular, are well known to many people. We dedicate this book to him and his memory.

Thanks to a great guy!

We first of all wish to thank Peter Gordon, our editor at Addison-Wesley, who not only made this book possible, but through his constant encouragement also kept us on the right track (just a few years late). When we finally went into production, Elizabeth Ryan was unfailingly patient with our idiosyncrasies and steered us safely to completion.

We are especially indebted to Barbara Beeton, David Rhead, Lars Hellström, and Walter Schmidt for their careful reading of individual parts of the manuscript. Their numerous comments, suggestions, corrections, and hints have substantially improved the quality of the text.

Our very special thanks go to our contributing authors Christine Detig and Joachim Schrod for their invaluable help with Chapter 11 on index preparation.

Those who keep their ears to the ground for activities in the \LaTeX{} world may have noticed an increased number of new releases of several well-established packages in 2002 and 2003. Some of these releases were triggered by our questions and comments to the package authors as we were preparing the manuscript for this second edition. Almost all package authors responded favorably to our requests for updates, changes, and clarifications, and all spent a considerable amount of time helping us with our task. We would particularly like to thank Jens Berger (jurabib), Axel Sommerfeldt (caption), Steven Cochran (subfig), Melchior Franz (soul, euro), and Carsten Heinz (listings) who had to deal with the bulk of the nearly 6000 e-mail messages that have been exchanged with various package authors.

Hearty thanks for similar reasons go to Alexander Rozhenko (manyfoot), Bernd Schandl (paralist), David Kastrup (perpage), Donald Arseneau (cite, relsize, threeparttable, url), Fabrice Popineau (\TeX{} Live CD), Frank Bennett, Jr. (camel), Gerd Neugebauer (bibtool), Harald Harders (subfloat), Hideo Umeki.
(geometry), Hubert Gäßlein (sidecap,pict2e), Javier Bezos (titlesec, titletoc), Jean-Pierre Drucbert (minitoc), Jeffrey Goldberg (endfloat, lastpage), John Lavagnino (endnotes), Markus Kohm (typearea), Martin Schröder (ragged2e), Matthias Eckermann (parallel), Michael Covington (upquote), Michel Bovani (fourier), Patrick Daly (custom-bib, natbib), Peter Heslin (ellipsis), Peter Wilson (layouts), Piet van Oostrum (extramarks,fancyhdr), Rei Fukui (tipa), Robin Fairbairns (footmisc), Rolf Niepraschk (sidecap,pict2e), Stephan Böttcher (lineno), Thomas Esser (te\TeX distribution), Thomas Henlich (marvosym), Thorsten Hansen (bibunits), and Walter Schmidt (fix-cm, PSNFSS). Our apologies if we missed someone.

We gratefully recognize all of our many colleagues in the \LaTeX world who developed the packages—not only those described here, but also the hundreds of others—that aim to help users meet the typesetting requirements for their documents. Without the continuous efforts of these enthusiasts, \LaTeX would not be the magnificent and flexible tool it is today.

We would also like to thank Blenda Horn from Y&Y and Michael Vulis from MicroPress for supplying the fonts used to typeset the pages of this book.

The picture of Chris Rowley, taken after a good lunch at Kai Tek airport, Hong Kong, appears courtesy of Wai Wong. The picture of Michael Downes, taken at the \TeX 2000 conference, Oxford, appears courtesy of Alan Wetmore.

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We would like to thank our families and friends for the support given during the preparation of this book—though this may sound like an alibi sentence to many, it never felt truer than with this book.

Chris would like to thank the Open University, United Kingdom, for supporting his work on \LaTeX and the School of Computer Science and Engineering, University of New South Wales, for providing a most pleasant environment in which to complete his work on this book.

Frank Mittelbach
Michel Goossens
Johannes Braams
David Carlisle
Chris Rowley

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