

Book Review

Book review: *T_EX Reference Manual*

Stephen Moye

David Bausum, *T_EX Reference Manual*. Kluwer Academic Publishers, Boston, Dordrecht and London, 2002, ISBN 0-7923-7673-0. \$100.

A new T_EX book!

The arrival on the scene of a new book about T_EX is always an occasion for great joy. I'm only too happy to have another reference that causes me to look at a problem in a new way.

Teaching by example

A useful approach. Bausum's book is particularly useful in that it covers T_EX's primitives. It is therefore of use to anyone who uses any flavor of T_EX. The author asks early on, "Why is T_EX so hard to learn?" He asserts that the reason is twofold: It is a large programming language with 325 primitives, and parts of T_EX are not intuitive. The purpose of the book, I take it, is to address these issues and to make the learning process more efficient.

The author begins by separating T_EX primitives into nineteen "families" such as *The Box Family*, *The Font Family*, *The Paragraph Family* and *The Tables Family*. This is a useful approach for those starting out because it brings a greater sense of structure to the primitives other than their relevance to vertical and horizontal mode.

The next section — the bulk of the book, about 310 pages — is given over to an annotated listing of T_EX primitives, complete with extensive cross references to *The T_EXbook* and examples for virtually every entry. At the head of each entry is a kind of graphical/shorthand overview of the primitive — be sure that you review the first two pages of this section (pp. 25–26) so that you know how to interpret this. The book concludes with three appendices, "Typesetting Verbatim Material", "Working with PostScript Fonts" and "Typesetting Material in Two columns".

Generally speaking the content is very good. I like lots of examples about how things work — to learn by doing. Each of the T_EX primitives is covered in three parts: a description of what the primitive does; examples of how it can be used, accompanied by the output of the examples where appropriate; and finally a commentary to clarify issues that may have been raised by the examples. It

is clear that the *T_EX Reference Manual* is not meant to stand on its own. You will want to have a copy of Knuth's *The T_EXbook* close at hand. Bausum also makes occasional reference to some other of Knuth's books if he thinks the material there explains a given issue better, so you will have to have access to them as well.

Occasionally there is a less-than-ideal turn of phrase. On page 220, Bausum says: "Normally, an output routine has no idea where it is in a document." Hmmm... Yes and no: The output routine may not know *exactly* where it is on a given page, but it does know enough to form a decision as to how much of the page it has to fill, and which page it is on — a useful piece of information for formatting that requires different things on even as opposed to odd pages. Still, these failings are generally minor, and, to do the author credit, the appropriate pages in Knuth's books are copiously referenced if there is any question.

One modest grievance I have centers on the clock that adorns the beginning of the discussion of each primitive. The macro for producing it (`\mkclockA`) is not listed in the index. It is only defined in the course of an example centering on the primitive `\special`. So obvious a formatting feature should have been better documented, nor is the PostScript file (`clock.ps`) given. I believe strongly that books about typography should completely elucidate the details of their own creation.

When bad things happen to good books

Given Knuth's exhortation, "Go forth now and create *masterpieces of the publishing art*,"¹ there are some less than masterful touches in evidence here.

Fonts. The choice of font, Caslon 224, is less than happy in my opinion. First, it is a very idiosyncratic version of Caslon. Second, there are the ligatures. Given the discussion of fonts in Appendix B, I am surprised that no ligatures are in evidence here beyond the usual `fi` and `fl` particularly in view of the fact that the unligatured `ff`, `ffi` and `ffl` are notably odd looking. But then, there is no "expert set" available for Caslon 224 which would have provided the missing ligatures. Surely, Adobe Caslon or Berthold Caslon (both of which have expert sets) would have provided more attractive type.

To T_EX or not to TeX. And then there is the matter of the logotype: T_EX. The author feels that what he calls the "familiar form" (TeX) is less distracting than the formal form (T_EX). Oddly,

¹ *The T_EXbook*, page 303

the formal form is used in the Preface, while the familiar form is used in the rest of the book. First, I think that anyone who is serious about learning \TeX had best get used to the formal form in very short order. Indeed, I can think of no serious work about \TeX —and typeset using \TeX —that does not use the formal form. The use of the familiar form makes the book look as if it were composed using Quark *XPress* rather than \TeX . Using ‘ \TeX ’ is just the right thing to do. Second, reverting to a familiar form is no excuse for doing the formal form badly. The half-title, title and back cover have some very unlovely interpretations of the formal form.

Printing. The print quality is less than wonderful. The book was apparently mastered on some sort of laser printer of modest resolution. The resulting hard copy was used to make printing materials in such a way that the type occasionally comes close to breaking up: serifs are degraded, thin strokes tending almost to disappear.

The price tag. I feel compelled to venture the opinion, given the less-than-stellar production values evidenced in this book, that \$100 for it seems excessive—there isn’t even a CD with the macros and examples shown in the book. There is absolutely no doubt in my mind that this is a fine \$30–\$50 book, but \$100 renders it considerably less attractive to a prospective purchaser than it could, and should be.

The bottom line

This is a good reference for people who have a bit of plain \TeX under their belts, as the examples mix primitives and plain rather freely. If you can find this book for a reasonable price, buy it because it is a useful and informative book. Despite some failings—some superficial, some not—it is worth having in your reference library, particularly if you use plain \TeX , or have to delve into \TeX ’s innards for any reason.

◇ Stephen Moyer
American Mathematical Society
201 Charles Street
Providence, RI 02904
sgm@ams.org