

Book review

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Abstract

Two new books are discussed: Practical SGML from Eric Herwijnen, and ‘math into T_EX, a simple introduction to $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX’ from George Grätzer.

Practical SGML

Eric van Herwijnen. Kluwer 1994, 284 pages (including indexes). To be published.

In my review of the first edition of *Practical SGML* by Eric van Herwijnen (TUGboat 13, #2), I praised it as ‘one of the best books on SGML currently available.’ It still is one of the few books on practical application of SGML, by someone who has used SGML in practice rather extensively. The new edition has undergone significant changes with respect to the previous one. Unfortunately, they are not all changes for the good: the book still contains a lot of practical information – more than the first edition – but is not a *better book*.

As a reference work the quality of the book has certainly improved. More material has been added, and the book has been largely re-structured. The previous edition consisted of three parts, *Getting started with SGML*, *Advanced SGML* and *SGML implementations*. The new edition has more chapters, grouped together in four parts, *Getting started*, *Writing a DTD*, *Customizing SGML* and *Special applications*. Especially the second part, about how to write a dtd (document type definition), has improved a lot, with chapters on document analysis, structure diagrams, and the various declarations one can find in a dtd. Part III, about customizing SGML, describes the SGML declaration, and SGML features such as minimization, marked section and short references. It also describes the problems that can arise with ambiguous definitions, and gives advice about how to avoid ambiguities. Under the heading of ‘Special applications’ (part IV) Mr. van Herwijnen discusses SGML and EDI, SGML and mathematics, and SGML and graphics. He also explains the relation between SGML and other ISO standards, such as, e.g., DSSSL and SPDL. In all the examples in the book the public-domain `sgmls` parser is used, which makes it possible for most readers to try the examples for themselves.

On the negative side however: so much material is now contained in the book, especially in the form of figures and tables, that the book, in my opinion, is not a *pleasant-to-read* introduction to SGML anymore. Another thing which I find rather distressing, at least in the pre-publication copy the author kindly sent me, is the design: the book uses too

many fonts, in sometimes unharmonious combinations, the distribution of vertical space is uneven, and the placement of tables and figures leaves a lot to be desired. A possible explanation could be that this new edition of *Practical SGML* was prepared using SGML, and was formatted using Adept 5.0 from ArborText Inc. Obviously, designing a book that is comfortable to read is not the same as writing a ‘FOSI’, an output specification for ArborText’s Adept product. I hope that the publisher will work hard on improving the layout of the book, but I have my doubts.

Of course, this says nothing about the applicability of SGML to book production, but only about the quality of available SGML tools, or the expertise of the people using these tools. That computers *are* capable of producing more readable and more attractive books is shown by a book co-authored by one of Mr. van Herwijnen’s colleagues at CERN, namely *A L^AT_EX Companion*, by Michel Goossens, Alexander Samarin and Frank Mittelbach. But then, of course, that book was made with L^AT_EX!

Math into T_EX, A simple introduction to $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX

George Grätzer. Birkhäuser 1993, 294 pages (including indexes), ISBN 0-8176-3637-4. (Includes diskette).

Even though document-preparation packages of the *wysi-wyg* type become better and better every year, the majority of mathematicians, computer scientists and physicists still use T_EX, in any of its many flavours. In 1982 the American Mathematical Society released $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX, which has certainly contributed to the popularity of T_EX in mathematician’s circles. Around 1990, the macros of $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX were made available for the expanding community of L^AT_EX users in the form of $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX. And now, finally, there is a book that describes this useful but complex extension to L^AT_EX for beginners.

George Grätzer teaches mathematics at the University of Manitoba (Canada), and has tried to write a book ‘from a user’s point of view’. His book consists of three parts. In part I, *A short course*, he explains how to install $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX on a IBM-compatible pc under DOS, and on an Apple Macintosh, and then explains the basics of $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX. In part II, *A leisurely course*, he goes back to

the fundamentals of typing text and formulas in $\text{T}_{\text{E}}\text{X}$, and then explains all a mathematician, or engineer or scientist, needs to know about $\mathcal{A}\mathcal{M}\mathcal{S}\text{-L}_{\text{A}}\text{T}_{\text{E}}\text{X}$. Finally, part III is about customizing.

Math into $\text{T}_{\text{E}}\text{X}$ was written with the basic idea behind the design of $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$ nestled firmly in the mind of the author. Mr. Grätzer emphasizes proper usage of $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$ while writing papers and books. His approach is didactically very good, he takes his time explaining things, and gives enough examples. *Math into $\text{T}_{\text{E}}\text{X}$* is not a book about $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$ itself, so the author does not cover all of $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$. Nevertheless, he treats tables (briefly) and $\text{Bib}_{\text{T}_{\text{E}}\text{X}}$, which makes the book a useful introductory text as well as a handy reference for

authors who do not want to know more about $\text{T}_{\text{E}}\text{X}$ and its flavours than is necessary for writing a research paper.

Even though many people, including several well versed in $\text{T}_{\text{E}}\text{X}$ and $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$, read draft versions of *Math into $\text{T}_{\text{E}}\text{X}$* , the book contains a lot of errors. One of the more interesting ones is this one: in section 3-4.8, on hyphenation, the author gives the following example

```
\hyphenation{data-base Birkh-h\"auser}
```

I often wish that $\text{T}_{\text{E}}\text{X}$ could do tricks like this, but alas!

These errors will be removed in a second, revised edition I assume (if enough people buy the book), and then I can say in all truth that *Math into $\text{T}_{\text{E}}\text{X}$* is a welcome addition to the growing collection of books about $\text{T}_{\text{E}}\text{X}$ and related topics.