

## Book Review

### *Formatting Information: A beginner's introduction to typesetting with $\LaTeX$* by Peter Flynn

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Many excellent books are available introducing  $\LaTeX$  to beginners. Some are freely available on the net like *The (Not So) Short Introduction to  $\LaTeX 2\epsilon$ :  $\LaTeX 2\epsilon$  in 131 Minutes* by Oetiker et al.<sup>1</sup> whereas some are nicely published like *A Guide to  $\LaTeX$*  by Kopka and Daly.<sup>2</sup> My favorite introduction is Peter Flynn's *Formatting Information*<sup>3</sup> which has more emphasis on the beginning user's overall set of problems (particularly in chapters 1, 2, and 10) than some books do.

In particular, many introductory books focus on  $\LaTeX$  and more or less ignore the rest of the beginner's development environment. This is understandable: Which of the many editors and other aspects of the user's development environment should a general  $\LaTeX$  introduction select?

While learning  $\LaTeX$  I had to struggle a lot, and I am sure many other beginners have similar problems. I was unaware of the various editors like emacs or vi with which one can easily handle typing, compiling and viewing the document without leaving the editor. Generic instructions along the lines of

Type your text in plain vanilla editor. Save it with .tex extension.  
Then run  $\LaTeX$  on it with `latex somefile` and you will get the output `somefile.dvi`. View it with a DVI viewer.

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<sup>1</sup><http://www.ctan.org/tex-archive/info/lshort>

<sup>2</sup>Helmut Kopka and Patrick W. Daly, *A Guide to  $\LaTeX$* , fourth edition, Addison-Wesley, 2004.

<sup>3</sup><http://www.tug.org/tex-archive/info/beginlatex/beginlatex-3.6.pdf>

were not sufficient for me. Half the struggle in the initial stages of learning L<sup>A</sup>T<sub>E</sub>X doesn't have much to do with L<sup>A</sup>T<sub>E</sub>X itself. If information on the user's overall development environment is not provided, it may leave the user confused and inclined to drop the idea of learning T<sub>E</sub>X or L<sup>A</sup>T<sub>E</sub>X.

It was through the postings to the Indian TUG that I learned about emacs and its AucTeX mode. I happened to see Peter Flynn's book, *Formatting Information: A beginner's introduction to typesetting with L<sup>A</sup>T<sub>E</sub>X*, in the year 2003 (version 3.2) and was attracted to its lucid style of presenting L<sup>A</sup>T<sub>E</sub>X to the beginners. It not only introduced the concepts of integrated development environments available for various platforms but also gave important information about installing new packages and fonts and modifying macros. Later *TUGBoat* dedicated its November 2003 issue for this book (version 3.4).<sup>4</sup>

The earlier name of Flynn's book was *Beginner's L<sup>A</sup>T<sub>E</sub>X*, and it started its journey as lecture notes for a 10 session L<sup>A</sup>T<sub>E</sub>X introductory course. The earliest edition I could obtain was version 2.2 (December, 2001) with 75 pages. As the years passed and at the request of readers, Peter Flynn added more content to the book. Recently I stumbled upon version 3.6 of this book which has grown to an awesome 275 pages.<sup>5</sup> The rest of this note applies to version 3.6.

The book is divided into 10 sessions or chapters. By reading and practicing the exercises given in it one can gain enough confidence to tackle L<sup>A</sup>T<sub>E</sub>X.

The first chapter contains discussion about various T<sub>E</sub>X distributions available, obtaining them and installation instructions for various platforms. (In earlier editions this chapter contained details about the various editors available, but in the present edition this information was moved to second chapter.)

The second chapter deals with creating the T<sub>E</sub>X documents, the concept of markup and the various popular editors that are available including LyX, T<sub>E</sub>Xshell, Winshell, T<sub>E</sub>XnicCenter, WinEdt and emacs along with screen shots. The concepts of typing the document and the various special characters are also discussed.

Document structure along with the concepts of `documentclass` and its options, various environments, commands for obtaining the Table of Contents, List of Tables, etc. are handled in Chapter 3. This chapter also contains information on methods of changing the abstract name, adding entries to table of contents, changing the spacing between paragraphs, and paragraph indentation.

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<sup>4</sup><http://www.tug.org/TUGboat/Contents/contents23-2.html>

<sup>5</sup><http://www.tug.org/tex-archive/info/beginlatex/beginlatex-3.6.pdf>

Chapter 4 deals with typesetting, viewing and printing of the documents. Various error messages, their meaning and how to handle them are explained in this chapter.

The concept of adding on features using *packages*, downloading *packages* from CTAN and installing them are discussed in Chapter 5. The concepts of the T<sub>E</sub>X Directory System (TDS), various types of files used by T<sub>E</sub>X like *.sty*, *.cls*, *.fd*, *.mf* and where to place all these files are well illustrated. This chapter also lists various places where a user in need of help can find desired information, like T<sub>E</sub>X Users Group (TUG) and various mailing lists.

Chapter 6 discusses including graphics (figures and images) in the document, bulleted and numbered lists, tables, verbatim text, boxed matters, panels and side-bars.

Chapter 7 introduces the reader to typesetting quotations, footnotes, marginal notes, cross references, bibliographic references and the BIB<sub>T</sub><sub>E</sub>X. Creating bibliographic data bases for BIB<sub>T</sub><sub>E</sub>X and the freely available graphical interfaces to the BIB<sub>T</sub><sub>E</sub>X databases were also discussed. (Please note that there is a BibDB programme that is freely available for Windows and DOS platforms.) Creating multi-column documents, index and glossary were also discussed in this chapter.

Changing the layout of the document and using fonts in L<sup>A</sup>T<sub>E</sub>X documents is nicely handled in Chapter 8. The various fonts available in METAFONT and the freely available Adobe and X Consortium fonts along with the name of the family and the necessary packages, the various size changing commands, and changing the colour of the text were also illustrated. Installing METAFONT fonts and post-script fonts, creating font definition files are also discussed in this chapter.

One of the most powerful feature of L<sup>A</sup>T<sub>E</sub>X, programmability, is discussed in Chapter 9. Creating new commands, changing previously defined macros, creating macros with arguments are nicely introduced to the readers with examples.

The last chapter discusses the compatibility with other systems of typesetting like Quark XPress, Pagemaker, FrameMaker etc. The various commercial and shareware software available to convert L<sup>A</sup>T<sub>E</sub>X to other formats (MS Word, WordPerfect) and vice versa are also discussed. Because typically it is not possible to convert from one format to another format completely cleanly, the book only deals with how the pain can be decreased and not eliminated.

In addition to these ten chapters, the book has three Appendices dealing with configuring T<sub>E</sub>X search paths, how to become a member of the T<sub>E</sub>X Users Group

and its benefits, and the ASCII character set. A fourth appendix contains the GNU Free Documentation License under which author Flynn has generously made this book available.

To help the reader use the book, it has a detailed table of contents (down to the subsection level), another table listing the page numbers of exercises that show how to undertake 20 common tasks, another table listing the page numbers of several useful charts, and a fairly thorough index.

Since Flynn's book lacks deep discussion about typesetting mathematics and other matters of document formatting, I recommend its use in conjunction with the *L<sup>A</sup>T<sub>E</sub>X Tutorials*<sup>6</sup> and Herbert Voß's *Math mode*.<sup>7</sup> I greatly appreciate having these three books available in PDF format. I keep them on my computer's desktop and, whenever I am in doubt about something, I just open one of these books, read the appropriate discussion and use the code. Another advantage of these PDF books over the printed books is that the authors regularly modify and improve the content. (Another book which is undergoing regular update is Oetiker's *The (Not So) Short Introduction to L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>*.)

For my L<sup>A</sup>T<sub>E</sub>X courses I distributed the earlier version (version 3.4) of Flynn's book along with the *L<sup>A</sup>T<sub>E</sub>X Tutorials* from the Indian TUG Group. The books complement each other and the students easily begin to grasp L<sup>A</sup>T<sub>E</sub>X.

Overall I believe Peter Flynn's book is a must read for every L<sup>A</sup>T<sub>E</sub>X beginner, and we should thank Flynn for giving us such a fine introduction to the practical use of L<sup>A</sup>T<sub>E</sub>X.

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<sup>6</sup><http://www.tug.org/tutorials/tugindia/>

<sup>7</sup><http://www.tug.org/tex-archive/info/math/voss/mathmode/Mathmode.pdf>