

What I Wish I Had ... When I Was A Lad

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Abstract A person trying to ramp up with TeX and LaTeX today has access to many resources. This is what I would tell that person to get to know.

You were lucky. We lived for three months
in a paper bag in a septic tank.

Monty Python's *Four Yorkshiremen* sketch

When I started TeX-ing, things were right tough. I got my distribution in twenty-four separate emails. I stuck them together to run a decode program to convert to a file to drop to the disk to make the executables. And, there was no shelf of books to consult, no pile of tutorials to peruse, no Internet group with fancy-pants search capabilities.

But it built character, it made you hard ... or nuts, or something—why the heck did I ever continue? Ah yes, I continued because of the output, which of course was wonderful.

No, the old days were the bad old days. Today there are many resources for someone who is trying to begin working with TeX and LaTeX. So many, in fact, that a person can be unsure of which to use.

This is my guide to which books to check out, documentation files to print, and software packages to know about. It is meant for, say, a student or administrative assistant who has work to do and finds that they need to get it done with TeX.

I'm a Linux person so I can't give advice for Macs or Windows, I unfortunately am comfortable in no language other than English, and I've read only the books I've read so I can only recommend from a limited set. So I admit that my opinions are biased. But what can you do with opinions besides impose them on others?

1 Carrying on

I know that I am going to regret, in this age of Internet search engines, writing an article that will appear online containing both terms “ \LaTeX ” and “Carrying on” but I mean this in the way that it is used in the \LaTeX manual: here’s the information.

1.1 Books and journals

Someone starting out should use \LaTeX . I keep these two books in reach.

- *\LaTeX : a Document Preparation system (2nd ed)*¹ by Lamport is the manual by the software’s author. It is well-written, if perhaps spare.
- *The \LaTeX Companion*² by Mittelbach, et. al., is a monumental effort that summarizes most of the important packages and techniques.

Also widely recommended for its how-to material is *A Guide to \LaTeX* ³ by Kopka and Daly. I like to have access to Knuth’s *TEXbook*⁴ and to *TEX By Topic*⁵ by Eijkhout (available online). However, I don’t use these often; for instance, Knuth’s book is across campus in the library.

I read two journals. The journal of the \TeX Users Group is *TUGboat*.⁶ Getting this is one of the major benefits of joining TUG (many languages and areas have their own [user group](#);⁷ consider joining both for the publications and for the meetings). The online journal *The Prac \TeX Journal*⁸ is a recent entry but perfect for someone feeling their way around the landscape.

1.2 Shorter writings

Suck these down off the Internet, print them out, and three-hole punch them.

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1. ISBN-13: 978-0-201-52983-8
 2. ISBN-13: 978-0-201-36299-2
 3. ISBN-13: 978-0-321-17385-0
 4. ISBN-13: 978-0-201-13448-3
 5. <http://www.eijkhout.net/tbt/>
 6. <http://www.tug.org/TUGboat/>
 7. <http://www.tug.org/usergroups.html>
 8. <http://www.tug.org/pracjournal/>

- The most-often recommended tutorial is *The Not-So Short Guide to L^AT_EX2_ε*.⁹
- The American Math Society’s material is documented in the *AMS Math Guide*.¹⁰
- I look for symbols that I don’t even know the name of in the *Comprehensive List of Symbols*.¹¹
- To understand how to incorporate and place graphics I refer to *Using Imported Graphics in L^AT_EX and pdfL^AT_EX*.¹²
- Sometimes the best way to learn what to do is to be smacked for doing something that you shouldn’t. If you know that you have bad habits, or if you need to find out that you have them, then *l2tabu*¹³ will tell you what is taboo.

1.3 Web pages

Many web pages offer help with T_EX and L^AT_EX. One that I cannot live without is Robin Fairbairn’s *English FAQ*.¹⁴ The other is the *TUG web resources page*.¹⁵

Even with those two, I sometimes just google for an answer. The advice that I get is typically useful, although it can be outdated.

1.4 Discussion

Internet talk about T_EX and L^AT_EX has been going on for ... as long as there has been an Internet. I scan the Usenet group `comp.text.tex`¹⁶ for ideas and help; you can also search this group.

9. <http://www.ctan.org/tex-archive/info/lshort/>
 10. <http://www.ctan.org/tex-archive/macros/latex/required/amslatex/>
 11. <http://www.ctan.org/tex-archive/info/symbols/comprehensive/>
 12. <http://www.ctan.org/tex-archive/info/epslatex/>
 13. <http://www.ctan.org/tex-archive/info/l2tabu>
 14. <http://www.tex.ac.uk/cgi-bin/texfaq2html?introduction=yes>
 15. <http://tug.org/interest.html>
 16. <http://groups.google.com/group/comp.text.tex?hl=en>

1.5 CTAN

The [Comprehensive T_EX Archive Network](http://www.ctan.org/)¹⁷ is our community's archive. You can [search](http://www.ctan.org/search.html),¹⁸ or [browse the tree](http://www.ctan.org/tex-archive/),¹⁹ including the [L^AT_EX subtree](http://www.ctan.org/tex-archive/macros/latex/).²⁰ We (I run one of the three core CTAN nodes) hold about 5000 packages of T_EX-related materials.

1.6 Supporting tools

There are many tools that help you work with L^AT_EX. To type L^AT_EX input I use GNU Emacs with the [AUCT_EX](http://www.gnu.org/software/auctex/)²¹ macro package. I output everything to PDF so I view it with *Acrobat Reader*²² or *xpdf*,²³ (which lets me easily refresh the view and comes up faster on a slow connection but sometimes shows my document slightly differently than does the other).

I don't use bibliography tools but the standard is [BibT_EX](http://en.wikipedia.org/wiki/BibTeX).²⁴

1.7 Add-on L^AT_EX packages

There are many packages to enhance L^AT_EX, but these are the ones I find essential. They are all available from CTAN but check first to see whether one that interests you is already in your distribution, because they are all popular.

- Make the most of the mathematical capabilities of T_EX and L^AT_EX with the [AMS L^AT_EX](http://www.ams.org/tex/amslatex.html)²⁵ package.
- Page layout is tricky. Adjust the size and orientation of your page with *geometry*.²⁶ Get control over headers and footers with *fancyhdr*.²⁷

17. <http://www.ctan.org/>

18. <http://www.ctan.org/search.html>

19. <http://www.ctan.org/tex-archive/>

20. <http://www.ctan.org/tex-archive/macros/latex/>

21. <http://www.gnu.org/software/auctex/>

22. <http://www.adobe.com/products/acrobat/readermain.html>

23. <http://www.foolabs.com/xpdf/>

24. <http://en.wikipedia.org/wiki/BibTeX>

25. <http://www.ams.org/tex/amslatex.html>

26. <http://www.ctan.org/tex-archive/macros/latex/contrib/geometry/>

27. <http://www.ctan.org/tex-archive/macros/latex/contrib/fancyhdr/>

- Import graphics into a LaTeX document with the *graphicx*²⁸ package. This package includes the *color* material. If there is something more that you want to do in color than this package seems to provide then use *xcolor*.²⁹
- Make an index with *makeidx*.³⁰
- The *verbatim*³¹ package has a number of useful environments, including a comment environment to omit parts of the document. For computer code, the *listings*³² package is the right tool.
- I like footnotes numbered per-page so I use *footmisc*.³³
- The *hyperref*³⁴ package gives you hyper-document features, for instance making the elements in the table of contents into links to the page on which that document part begins.
- Typeset web addresses with *url*,³⁵ which is also great for computer file names and works sensibly with *hyperref*.
- *Beamer*³⁶ gives me fine presentations slides.

2 Signing off

There are many more resources around than there used to be, thank goodness. The ones here are what I would mention to someone who is only trying to use T_EX and L^AT_EX to get their work out the door.

These are my opinions only. If you don't like them — if for instance you think footnotes numbered per-page should be a capital offense — then you can go live in a paper bag!

28. <http://tug.ctan.org/tex-archive/macros/latex/required/graphics/>

29. <http://www.ctan.org/tex-archive/macros/latex/contrib/xcolor/>

30. <http://tug.ctan.org/tex-archive/macros/latex/base/>

31. <http://www.ctan.org/tex-archive/macros/latex/required/tools/>

32. <http://www.ctan.org/tex-archive/macros/latex/contrib/listings/>

33. <http://www.ctan.org/tex-archive/macros/latex/contrib/footmisc/>

34. <http://www.tug.org/applications/hyperref/>

35. <http://tug.ctan.org/tex-archive/macros/latex/contrib/misc/url.sty>

36. <http://latex-beamer.sourceforge.net/>