

A gentle learning curve for L^AT_EX

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Abstract Is there an easy way to get started in L^AT_EX? I suggest that there is.

1 Introduction

It was an inauspicious beginning. It was the year 1990, and I was in Kyoto, having just visited the Rock Garden at Ryoanji, when the $\mathcal{A}\mathcal{M}\mathcal{S}$ announced $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX, a marriage of classic L^AT_EX with $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX. After the installation, the $\mathcal{A}\mathcal{M}\mathcal{S}$ advised, you should (re)read a L^AT_EX manual and an $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX manual—of course, what you read in these manuals cannot be tried out in $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX, because it is not L^AT_EX, nor is it $\mathcal{A}\mathcal{M}\mathcal{S}$ -T_EX—and then read the new manual that informs you how $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX differs from its two predecessors.

Not gentle.

The situation is not always this bad, but T_EX and L^AT_EX have long been cursed by their “steep learning curves”. M. Doob’s valiant effort [1] notwithstanding, T_EX really is difficult to learn. Of course, today, you may not even want to do that, because everybody uses L^AT_EX. Math journals, as a rule, do not even take submissions in T_EX. And L^AT_EX is more user friendly ...

But is it user friendly enough?

2 How to get started?

The gentlest learning curve for L^AT_EX—and for most anything—is to have a knowledgeable friend, who sits down with you and gets you started, and who is available most any time to help you out.

Of course, few of us have such friends with so much free time to share. How do people learn other applications with steep learning curves, such as Adobe Photoshop?

There are basically two good ways to learn Adobe Photoshop.

1. Buy a really good book. The best books will also give you a bunch of photos to edit, so you can follow the examples in the book on your own computer. The book should proceed with a clearly stated sequence of rules, what to do in which situations.

2. Subscribe to (or buy) videotaped lectures. One of the best known source of such video presentations is lynda.com, offering 462 online courses (they have 34 on digital photography alone—one is about 30 hours long!). The lectures are streamed to your computer. This is an excellent approach with one big problem. Later on, you halfway remember a tip—how to handle a certain situation—but how do you find it? No written material is offered, no index of topics is provided.

3 A first step

I would like to suggest that there is a gentle learning curve for L^AT_EX, and you can find it at

http://www.ctan.org/tex-archive/info/Math_into_LaTeX-4/

Click on download for `mil4-video-presentations.zip` and you get a folder

`mil4-video-presentations`

containing nine video presentations. The first presentation helps you get the sample files you will work with and two pdf files:

`ShortCourse.pdf` and `SymbolTables.pdf`

Eight lectures introduce the basic L^AT_EX topics: *Typing text*; *Typing math* (four lectures); *Articles* (two lectures); *Final comments*.

At the end of each lecture, the relevant part of the *Short Course* (in the file `ShortCourse.pdf`) is referenced, where you can read the same material (and some more). And the *Short Course* has a very detailed index. Since it is a pdf file, it is also searchable!

You should keep `SymbolTables.pdf` handy. It contains the names of all L^AT_EX commands for math and text symbols.

I think that based on the lectures and the *Short Course*, you should be 90%

ready to write your first paper. The remaining 10% depends on your field of speciality and the complexity of your writing. The *Short Course* gives you all the references you need to cover the remaining 10% in [2].

4 The tricks of the trade

It is easy to see how to make, in general, the learning curve more gentle.

1. Have a short version of the manual. This should cover only the most important commands. Small in number but collectively powerful enough to satisfy the needs of most common uses.
2. Introduce these commands with simple examples, not rules. Provide enough examples that using these commands becomes basically copy and paste.
3. Create a video presentation discussing your topic, in general, and these commands, in particular.
4. Provide a set of sample files covering the examples you need. Use these sample files in the video presentation.

5 Disclaimer

I realize that making video presentations is a profession, and I am an amateur with very limited experience. I have no professional software (I use iShowU <http://store.shinywhitebox.com> which I bought for \$20). Nevertheless, I hope others will learn from my mistakes and will make video presentations and pdf manuals for L^AT_EX, L^AT_EX implementations, and L^AT_EX packages.

We can do better!

References

- [1] M. Doob, A Gentle Introduction to T_EX. 1993.
<http://www.ctan.org/tex-archive/info/gentle/>

- [2] G. Grätzer, *More Math into L^AT_EX*. Springer-Verlag, New York, 2007. xxxiv+619 pp.
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