

Getting Started with L^AT_EX

L^AT_EX (L^AT_Ech) is a freely-available typesetting system—the application used to produce *Symbolic Logic*. It is overkill when all you want is a short memo, but increasingly attractive for longer projects and when you want beautiful text. L^AT_EX is especially useful for technical contexts including math and logic. I am not a technical advisor! Still, if you are interested in L^AT_EX, here is something that might get you started:

On either a PC or Mac install the [MiKTeX system](#). If you are installing on Apple (or PC), you can work within TeXworks that comes with the L^AT_EX distribution. On PC I prefer [WinShell](#) (you may have to pause an ad-blocker to reach the site). L^AT_EX will produce .pdf documents. TeXworks includes its own .pdf viewer. On a PC with WinShell, the free Adobe PDF reader is fine; however, I prefer [SumatraPDF](#). Once this is installed, in WinShell you need to go to Options\ProgramCalls\PDFView and replace the Adobe path with the path to SumatraPDF.exe: `c:\program files (x86)\...`. The Adobe PDF reader seems to lock the file so that a new compile won't work unless the previous PDF is closed. SumatraPDF doesn't do this, and a new compile will open to the very spot on which you are working.

To get started, put `preamble.tex` and `test.tex` in a directory of their own (as some additional files will be created upon compile). Call `test.tex` into TeXworks or WinShell. On WinShell, be sure “current document” is the active file (indicated in bold on the left). You can compile it by pressing the green arrow in TeXworks or the PDF button (with two down arrows above it) in WinShell. This should result in some activity, resulting in a number of warning messages. Then compile again. (The warning messages are because `test.tex` includes a derivation that sets its line numbers by a counter—L^AT_EX requires two compiles for a counter, once to find the anchor and another to update the file.) The second compile should result in the message “0 errors, 0 warnings...”. In WinShell press the PDF button with the magnifying glass to view the result. This will call the result into the PDF reader.

A basic L^AT_EX document starts with some setup commands and then has the printable portion of your document between `\begin{document}` and `\end{document}`. It is good form to keep most of your setup commands in a common `preamble.tex` file which you can use for different documents. So your file looks like,

```
\documentclass[11pt,article,oneside]{memoir}
\input{preamble}

[other setup commands]

\begin{document}

Bla, bla, bla

\end{document}
```

Always start with a `\documentclass`; there are different options and classes—this is what I use for a one-sided paper. The `test.tex` file includes some typing that might appear in a simple paper, along with a derivation (you can switch to and from double-spacing by `\DoubleSpacing` and `\SingleSpacing`). The derivation is explained in [Typing Derivations in LaTeX](#).

This might give you a sample of what \LaTeX can do. You can get all sorts of \LaTeX help on the web. However, if you decide to go forward with \LaTeX , [Guide to \$\text{\LaTeX}\$](#) is a good place to start. There are a number of good resources at Peter Smith's [LaTeX for Logicians](#).