

A Hello, World! for L^AT_EX (and reference)

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September 18, 2021

Abstract

A basic document highlighting key L^AT_EX features and walking through setup using VSCode (because it's simply better). The tested OS is **Ubuntu 20.04**, and **Windows**.

Most of this document is created from the following sources (can be used as reference)

1. Overleaf: Learn LaTeX in 30 minutes

Contents

| | | |
|----------|--|----------|
| 1 | Installing everything | 1 |
| 1.1 | Prerequisites | 1 |
| 1.2 | Setup | 2 |
| 1.3 | Alternatives | 2 |
| 2 | Basic L^AT_EX | 2 |
| 2.1 | Some Graphics | 2 |

1 Installing everything

1.1 Prerequisites

You must have the following installed

- VSCode: The best editor for typing
- Ubuntu 20.04: Ubuntu (or any Debian based distro) makes it easy to install things (only commands).
- This has also been tested on Windows 10, but with a few modifications.

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1.2 System setup

TeX Live on Ubuntu

TeX Live is a software suite that bundles all L^AT_EX related work in a single package that can be installed. On *Ubuntu* (or any *Debian* distribution), you can check running `sudo apt install texlive-full`, which will install everything. If this doesn't work, you can try installing directly through CTAN (Comprehensive T_EX Archive Network) and get installation instructions from [here](#).

TeX Live is simply the best distribution that packages a lot of important things for L^AT_EX. You can find others from [here](#).

Another helpful package used for *linting* L^AT_EX is chktex. This comes bundled in *TeX Live*.

MiKTeX on Windows 10

On Windows, it's better to use MiKTeX to handle L^AT_EX packages. Install it from [here](#). After installing it for the local user, add the path to the PATH environment variable.

Post installing MiKTeX, since it is a minimal distribution, you have to install a few packages. First, install perl through strawberryperl for Windows. Second, install `latexmk` on MiKTeX (through **MiKTeX Console**). This will allow generation / making of L^AT_EX documents. You can also check if **ChkTeX** is installed (through powershell).

VSCode

We'll be using the LaTeX Workshop VSCode extension to use L^AT_EX with VS-Code. You can also find this extension on [GitHub](#).

1.3 Alternatives

Instead of all this, some alternatives are presented here

- Use overleaf to store everything online and not bother installing a thing on local system

2 Basic L^AT_EX

In this section, basic L^AT_EX syntax is explored. Here is some **bold**, *italics* and underline text. However, it's best to use *emphasis* to highlight text (adapted to context). Make sure that the preamble is properly described before the `\begin{document}` line (following which, the main document begins).

2.1 Some Graphics

To include external graphics, use the `graphicx` package.