

Installation Guides

Taper

April 20, 2017

Abstract

This document installs the necessary software and plugins for Vimtex on a Windows PC or a Mac. It uses a `vimrc` written by myself to free user from configuration. However, it does not explain the details of that `vimrc`.

Contents

1	List of software to be installed	1
2	Note for Mac users	2
3	Install Steps	2
4	Possible Problems	6
5	License	6

1 List of software to be installed

1. \TeX Live
 - Windows: \TeX Live 2016 (`textlive2016-20160523.iso`).
 - Mac: Mac \TeX
2. Vim
 - For Windows, use the latest 32bit gVim (v8.0.0540) here which has Lua support enabled.
 - For Mac, use the MacVim provided by Homebrew (see details below).
3. Git (v2.12.2 64bit for Windows, Mac is pre-installed with Git).
4. PDF Reader that work with vimtex: SumatraPDF (v3.1.2 64bit) for Windows and Skim for Mac.
5. Textstudio (v2.12.2).
6. Python (v2.7.13 32bit). Mac comes pre-installed with Python 2.7.
7. A decent pure text editor:

sec:list of software

- Windows: Notepad++ (v7.3.3), for its small size.
 - Mac: Sublime Text
8. Vundle (latest commit on GitHub Vundle), and many related plugins for Vim.

2 Note for Mac users

sec:Note for Mac users

In Mac (or more generally, on any Unix OS, including Linux OS):

- A `~` means your home folder, such as `MacintoshHD>Users>YourUserName`.
- All files and folders starting with `.` will be hidden. So for example, you might have trouble finding the `.vim` folder in your `~` folder. See this link for information about hidden files <http://www.macworld.co.uk/how-to/mac-software/how-show-hidden-files-library-folder-mac-3520878/>.

3 Install Steps

sec:Install Steps

1. T_EXLive.

Explanation: T_EXLive provides us with basic T_EXutilities and packages. Although it is big, the exhaustive packages it provides will be handy when we write L^AT_EX daily.

For Windows:

First mount the ISO file (double click in Windows 8 or later, use third-part software in Windows 7 or earlier). Then open the file `install-tl-windows.bat`, and install with all default settings (except that you may want to change the installation folder).

The installation will take a lot of time. Continue to the next steps while waiting for this T_EXLive installation to finish.

For Mac:

See this page: MacT_EX for information about it, since I don't have a Mac.

2. (Mac only) Install Homebrew, follow the instruction on that site, and you will find the life of a Mac user more enjoyable, especially when you are familiar with Linux.

Explanation: I will install MacVim using Homebrew.

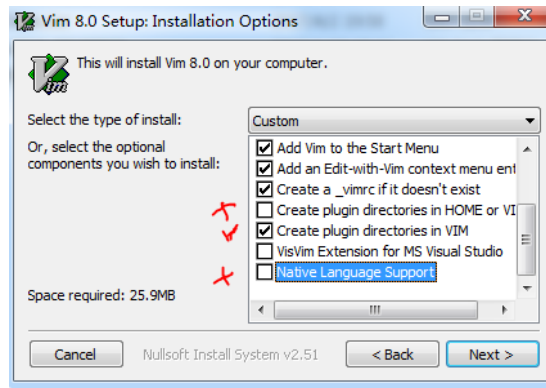
3. Install the Vim with Lua support.

Explanation: Vim will be our editor. And Lua will provide support for some plugins of Vim.

For Windows:

As mentioned, **DO NOT** install the version downloaded from the Vim project's website. Use the link here to download the version which has Lua support enabled. Install with default configuration, except that you will need to consider the following options:

In this figure:



I encourage you ¹ to disable `Create plugin directories in HOME or VIM`, and enable instead `Create plugin directories in VIM`. This make Vim put its plugin directory inside `VIM` folder (which is the folder where `VIM`) will be installed. Therefore, the Vim plugins would not mess up inside your `HOME` folder (which on Windows, people seldom touches upon), and Vim becomes more portable.

I also encourage you to disable `Native Language Support`, which force us to speak in English with Vim.

After installation, add Vim to system `PATH` variable, just like what you have done when installing `Java`.

For Mac: Type this into your terminal:

```
brew install macvim --with-lua --with-override-system-vim
```

(Now you understand how Homebrew makes your life better... Also, guess what those parameters do.)

4. (**Windows** only) Add Lua Support for Vim. Download Lua Binary. The version of Lua should be consistent with the Vim (gVim) you installed (same OS, same architecture), and those DLL with MingW support are not required ².

After downloading, extra the compressed file and copy the file `lua53.dll`

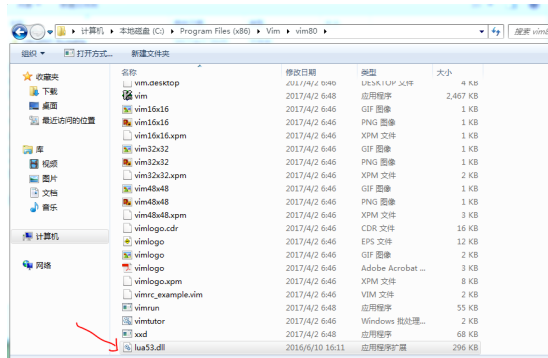
³ and move it to `FolderWhereVimIsInstalled>vim80` ⁴ like this:

¹And if you do not follow my suggestion, you might need extra modification to my `vimrc` file.

²Actually I never tested those with MingW support. Therefore, I do not recommend trying them.

³the number 53 for version may be different in your case. But it is the DLL file that we cared about.

⁴The number 80 is the version number of vim.



5. (Windows only) Install Git, with mostly default option, except that you should change the default installation folder to somewhere you like.

Explanation: Git will be used to download Vim plugins from GitHub.

6. Install a good PDF viewer.

For Windows:

Install SumatraPDF viewer, which is the only viewer that can cooperate with `vimtex` plugin and support re-rendering of PDF once a change is made to the PDF file. Add SumatraPDF to your system's PATH variable.

Configuration of SumatraPDF:

Set the the `inverse search command-line` to this value:

```
gvim --remote-silent +%l "%f"
```

For Mac:

Install Skim, a pdf reader that works with vimtex. It is available here: Skim. After Installation, set, in its preference, the sync option to MacVim:

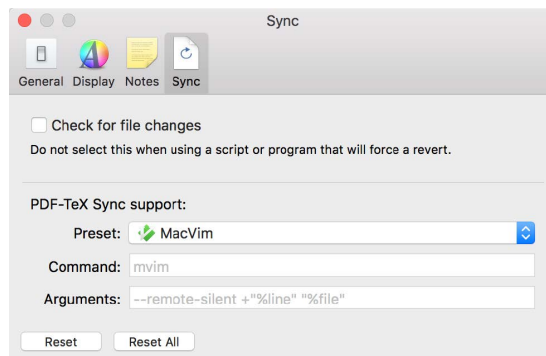


Figure 1: Configure the Skim to select MacVim

7. (For both **Mac** and **Windows**) Install **T_EX Studio**, with default configuration, to folder where you prefer.

Explanation: T_EX Studio provides very useful list of commands, reference tables for editing L^AT_EX.

8. (For **Windows** only) Install **Python** with mostly default configuration. Note that you should add **Python** to the system **PATH** variable too:



9. Install a handy but advanced (better than Notepad) text editor. One Windows, I prefer Notepad++ for its small file size. On Mac, I think Sublime Text is a better one.
10. Set up Vim configuration, and some Vim plugins. Vundle is the first and most important Vim plugin that manages other plugins (a plugin that manages plugins). Installation is straight forward.

- (a) Clone Vundle with git to somewhere you like:

On Windows:

```
git clone https://github.com/VundleVim/Vundle.vim.git
```

Then move the downloaded folder to **VimInstallationFolder>vimfiles>bundle>Vundle.vim** (create new empty folder is required).

On Mac, you could simply type this:

```
git clone https://github.com/VundleVim/Vundle.vim.git ~/.vim/bundle/ Vundle.vim
```

- (b) Get Vim configuration file.

For Windows:

Copy my configuration text to file **.vimrc**, which can be found in the folder **whereVimisinstalled**. My configuration text can be found here: My GitHub Link.

For Mac:

Download the Mac version and copy it to **.\.vimrc**.

- (c) Modify some part of my configuration to suit your computer setup:
 - Adjust your color scheme on this line:
`colorscheme Atelier_SulphurpoolDark`
 - (For **Windows** only) Let Vim find python properly. You will find a line starts with `let $PYTHONPATH=`, followed by some path, and you should change all of them to the correct path to locate the python files you installed.
 - Choice a proper font. Search for: `if has('gui_running')` in my vimrc file, and adjust it to meet your needs.
- (d) Restart Vim to make the new Vim configuration take effect. It turns out that on Mac, you just have to close Macvim, and it will restart automatically again, unless you right click and say quit from the task bar.
- (e) Then do `:PluginList` and then `:PluginInstall` in Vim, and restart Macvim.

4 Possible Problems

`sec:Possible Problems`

If you ever did Chinese latex, you will need `xelatex` engine, and to tell `latexmk` (used by `vimtex` to make latex into pdf) use `xelatex`. Then you should create a file named `.latexmkrc` in the same directory as your latex file, and put the following content into that file:

```
$pdflatex=q/xelatex -synctex=1 %0 %S/
```

5 License

The entire content of this work (including the source code for TeX files and the generated PDF documents) by Hongxiang Chen (nicknamed we.taper, or just Taper) is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. Permissions beyond the scope of this license may be available at [My Email Address(Click)].