# PC Setup Manual

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**Abstract**

In this text, I will show you the overall introduction to writing the LaTeX. It contains many topics, including how to install and set up, comfortable writing environments, packages, etc. I hope it would be helpful when I exchange the PC or someone familiar with me has some trouble.

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# 1 PC settings

I will show you important settings when you get the new one in bullet points.

- Do the Updates, of course.
- Check the Wi-Fi settings.
- Install the following software:
  - Chrome
  - DeepL
  - Zoom
  - Tex Live
  - Python
  - VS Code
  - Zotero
  - Mathematica
  - Dropbox
  - Google Drive
  - Bing Wallpaper
- Set up the start up applications by the following procedure:
  1. Press both [Windows key] + [R key] at the same time, and enter '`shell:startup`'. Then Startup folder will open.
  2. Put the shortcut of the app file you want to register. If you cannot find the location of the app file, you should visit the start menu and do right-click on the app. Then you will access the app folder.
  3. You can also open files or links. You just put the shortcut into the folder.
- Uninstall One Drive[1] [2].
- Turn off the touchpad when you use the PC mouse.
- Set the Microsoft Edge as the default PDF viewer[3]:
  - Hide the bookmark bar.
  - Hide the taskbar from the settings.
- In the IME options, set spaces to half-width and do not update the conversion history.
- Turn off the Notifications.
- Sort out the Taskbar:
  - Command prompt
  - Control pannel
  - Task manger

[1] I think it will be useful if I could master it.

[2] Do not delete the One Drive folder in the User folder before transferring the important container such as the Desktop folder. If you cannot remove the One Drive folder, please try this web article.

[3] Although I have used *Adobe Reader* as the PDF viewer, I come to think the *Microsoft Edge* is far better than *Adobe*.

  - Visual Studio Code
  - Zotero
  - Mathematica (if you can get it)
  - Chrome
  - DeepL

  and settings are

  -

- Sort out the Desktop:
  - PC (or Windows Explorer)
  - User folder[4]
  - (Personal folder)
  - Trash can
  - Dropbox
  - Google Drive
  - Downloads
  - Documents
  - Pictures
  - Music
  - Videos
  - archives (Google Drive)
  - reading_list (Google Drive)
  - bibtex (Google Drive)[5]

  and settings are

  -

# 2 Softwares

## 2.1 Chrome

We should, anyway, install Chrome at first. We will come to use Chrome mainly to download files from the Internet.

- Download the extended application, Click&Clean and Zotero Connector, and display those applications and the Home Botton at the taskbar.[2.1]

[4] Searching the setting for Desktop icon and check 'Computer' and 'User's folder'. The option is in the Theme settings at the Private option.

[5] Change the icon from the property of the folder.


Figure 2.1: settings of the Click&Clean

## 2.2 Google Drive

Getting the exe file from here and running it. We would use Google Drive to share the documents mainly. For the initial settings, the location of folders is difficult to treat for LaTeX. Then, you should change the default location as follows:

1. Open the setting of Google Drive for Windows.
2. Check the "Mirroring the files" and specify the location of the file as `C:/Users/itsuki.miyane`. In general, you cannot access the folders by your account because of the permission. So, by entering the folder and opening the property, you have to change the access permission of the folder.

## 2.3 Python

## 2.4 others

- ffmpge (with AAC)
- yt-dlp
- TuneBrowser

# 3 LaTeX Setup manual

There are two steps, generally speaking, to introducing the LaTeXand its writing environment:

- Installing LaTeXvia Tex Live.
- Installing writing environments VS Code, Zotero, and setting up that software.

## 3.1 Installing LaTeX

This step is not difficult since the installer is already prepared. Go to this link and get the installer (install-tl-windows.exe). Then just running the exe file, we finished installing the LaTeX.

## 3.2 Set up for Zotero

I think it is better to set up Zotero completely before setting up the VS Code. The order is not a crucial problem but it is preferable to finish the easier one for the fast. To write this section, I refer to the following articles:

- 1: To generate the citation key of Japanese books or articles.
- 2: Brief introduction to synchronize the Zotero.
- 3: More precise introduction than above one.

Citing the above articles, I set up the Zotero in the best way as far as I come up with. I assume that you have already installed Chrome.

1. Login to the Zotero account first.
2. Download Better BibTeX (BBT) from here. After downloading the XPI file, follow the instruction to install the BBT.
3. Download the Zotfile plugin from here and install it in the same way.
4. Move to the preference settings and set it up in the same way as the figure 3.1[6].
5. Note that when you import a bib file, export from *BBT* settings.

That's all about Zotero!

### Edit on December 10, 2023

We should add the additional options.

- Disable auto-produced tags.
- Ignore fields (Export-¿Fields-¿Fields to omit from export: file,abstract,month)

## 3.3 Set up for VS Code

It is useful to use VS Code to write tex texts.

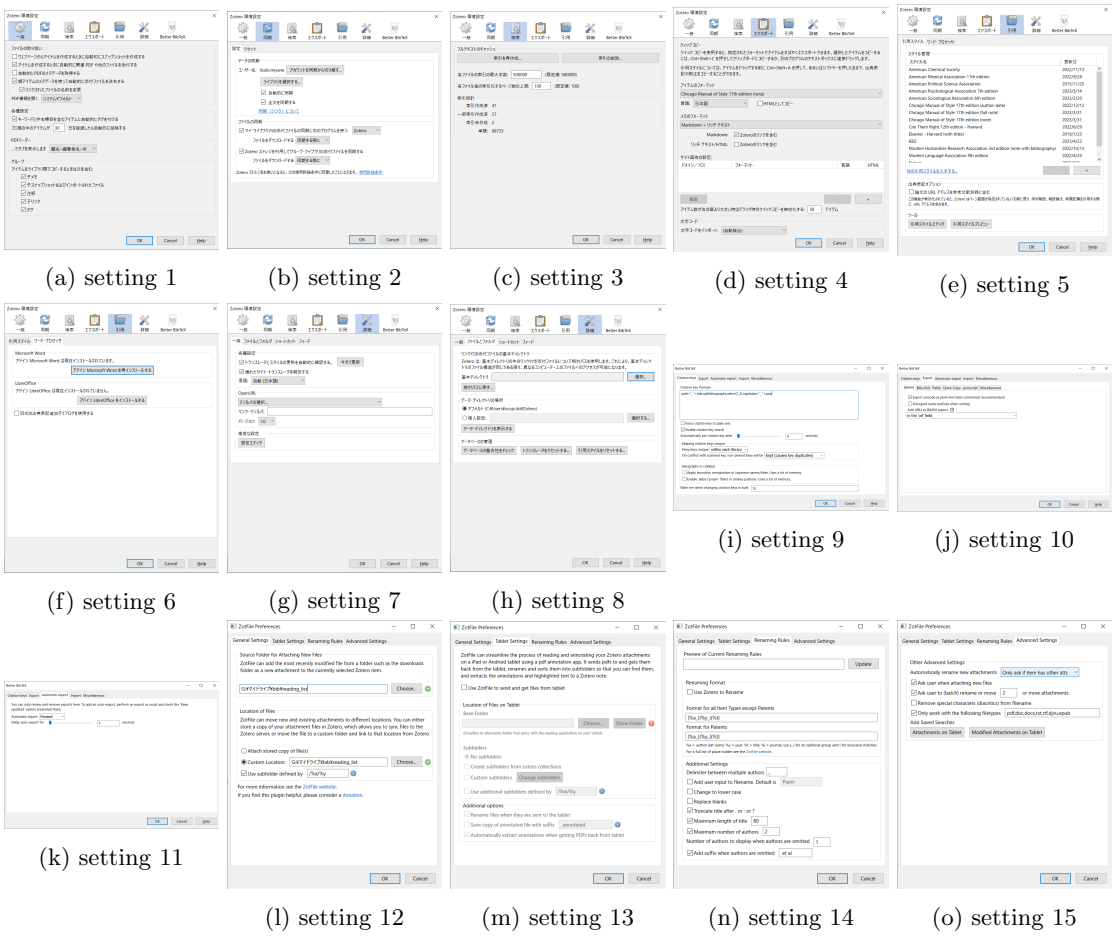
1. To synchronize VS Code settings, you just log in to the Microsoft account.
2. Turn on the Grammarly. I cited here.

List of shortcuts:

- Command Palet: `[Ctrl]+[Shift]+[P]`
- Settings: `[Ctrl]+[,]`
  Click the above button, you can open the settings.json.

[6] *Citation key formula* is as follows:

```
auth+"_"+title.splitIdeographs.select(1,2).capitalize+"_"+year
```



(a) setting 1 (b) setting 2 (c) setting 3 (d) setting 4 (e) setting 5

(f) setting 6 (g) setting 7 (h) setting 8 (i) setting 9 (j) setting 10

(k) setting 11 (l) setting 12 (m) setting 13 (n) setting 14 (o) setting 15

Figure 3.1: Setting of Zotero

### 3.3.1 settings.json

Now, I told you the bad news. It is that I cannot prepare the complete settings.json which allows us to compile any tex files automatically. I mean we should adjust the json file to the compile method each time. It is avoidable by using the latexmk but I think this way is faster than the way latexmk as a result, and this way is also fun for me. Here, I listed up some examples of the settings:

- pdflatex

  In English, pdflatex seems to be very familiar to researchers. You should remember that compile twice when you use hyperref. So, the recipe becomes

  ```
  "pdflatex",
  "pdflatex", .
  ```

  It's not complex. If you want to use bibtex or mendex, you should compile the tex file once and execute the command that you want. After that, compile pdflatex twice. That recipe becomes

  ```
  "pdflatex",
  "bibtex",
  "mendex",
  "pdflatex",
  "pdflatex", .
  ```

- upLaTex

  There exists, of course, unavoidable situations I have to write in Japanese. Use upLaTex in such a situation. Unlike pdflatex I mentioned above, upLaTex generates a dvi file. So, there is more extra step, dvipdfmx. Here is a full compilation:

  ```
  "upLaTex",
  "bibtex",
  "mendex",
  "upLaTex",
  "upLaTex",
  "upLaTex", .
  ```

They are examples of the contents of the json file. Editing the recipe of the json file flexibly, enjoy the TEX life!

#### 3.3.2 citation

Here are references:

- This is the complete setting guide. After you just follow this instruction, your LATEX life becomes far better!
- This is the supplemental but very useful. You should read this article when you are free at least once.

#### 3.3.3 Font family

After downloading the Japanese language package, you should install the Font from here.

#### 3.3.4 GitHub Pages

Reference is here.
(I will update GitHub Pages...)

# 4 In writing LATEX

## 4.1 packages

- article or jsarticle: in English or Japanese
- silence: ignore the Warnings
- amssymb, amsfonts, amsthm, mathtools: math
- physics, braket, bm: physics
- tcolorbox→ to surround the paragraph
- `TEXstring` → using the mathematical symbols at the section title even if you use the `hyperref`

## 4.2 WSL

I heard I will be able to compile far faster in virtualized environments and I wanted to try to construct it. Let me show the procedure:

1. Start command prompt and enter "`start powershell`" to open the Powershell.
2. Install WSL by entering "`wsl --install`", just do this.
3. Restart PC and start Ubuntu from the start menu.
   You will be asked the username and password. I have set as followings:
   - username: imiya ,
   - password: miyA2000 .

   After finishing setups, update the Ubuntu by `$ sudo apt -y update`. (You will be asked password again.)
4. Install TexLive to Ubuntu. Enter `$ sudo apt-get install texlive-full` and start installing. It may take tens of minutes, so I want to beg your patience.
5. If there are something wrong about fonts, run
   `$ sudo kanji-config-updmap-sys haranoaji` to set japanese default fonts.
6. Run `$ sudo apt install evince poppler-data` to install the external PDF viewer.
7. Register the bst files by following procedure:
   - Move to `/usr/share/texlive/texmf-dist/bibtex/bst/base`. (I think any location is fine as long as it is under the bibtex directory.)
   - Put the `ytphys.bst`.
   - Run `mktexlsr` with `sudo`.

(I mainly referred this web article.)

## 4.3 bst files

BST files define the appearance of the output you cited. If you get the BST file you prefer, go to the directory `(C:/)texlive/texmf-local/bibtex/bst/local` and put there the files. After copying the files, make sure to run the command `mktexlsr` to load the BST file in the computer. If you complete the settings about Zotero, you can cite the reference as [1, AGT]. I have also appended an index.

## 4.4 Tips

- If hyperref refers to the wrong parts, review the numbering rules at the preamble.

# References

[1] L. F. Alday, D. Gaiotto, and Y. Tachikawa, *Liouville Correlation Functions from Four-dimensional Gauge Theories,* 2010. Lett Math Phys **91** (2010) 167–197. arXiv:0906.3219 [hep-th].

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