Installing A→Z+T

TL;DR

You need Python 3+ and *one* dependency (PyAudio) to run A→Z+T. Download this repository (https://github.com/kent-rasmussen/azt), and run `main.py`. If this is enough information for you, great; if not, please read this whole document.

Error Tracking

If you have *any* trouble with anything on this page, please copy all error messages and paste them into an Email to me and/or Google.

If you click on an icon and get a flash and nothing more, you may need to run python from a command terminal (`win+R` then type 'cmd' in Windows) to see what errors are keeping it from running.

Download A→Z+T

To get the program, either

- run `git clone https://github.com/kent-rasmussen/azt.git` (in terminal)
  - You may need to install Git (e.g. here or here) first, or
- click on the green `code` button on the main page for download options.

If you download an archive (e.g., zip file), extract it so you have a folder of files. Either way, put it somewhere sensible, so you can find it later. If you use `git clone`, you can update in the future with `git pull`, and just download the changes since you last updated.

Python

If you need to install Python (you may already have it), you can find it here.

- If you have more than one version of python installed (e.g. 2.7 and 3.6.8), be sure to know how to run version 3 for this program (may be called `python` or `python3`).

Installation on Microsoft Windows

- **Be sure to check "add to PATH"** (or whatever options are appropriate), so Windows knows where Python is installed. If you miss this step, A→Z+T will not work.

For some reason, I have had trouble getting pyaudio installed on Windows machines with most recent versions of Python (3.9). You may have better mileage than I. In any case, I have found that it works smoothly to download and install Python 3.6.8 (e.g., from here).

Dependencies

- PyAudio: to install, run `python -m pip install pyaudio` in a terminal (e.g., ▫ `win`+`R` then type 'cmd' in Windows).
  - On Windows, if the above gives you problems, it may work to do the following:
    - `python -m pip install pipwin`
    - `pipwin install pyaudio`
  - On Linux (and Mac?), `pyaudio` may in turn have a dependency of `portaudio19-dev`, which you should install with your package manager (e.g., `sudo apt-get install portaudio19-dev`).

Optional dependency: PIL/Pillow

This install allows for visual rendering of tone glyphs that aren't currently working in tkinter:
`python -m pip install --upgrade pip` (if your pip hasn't been upgraded recently)
`python -m pip install --upgrade Pillow`
If you have any problem installing this, it is not a problem for using AZT —you will simply see tone marks badly ligatured, like (˧ ˧ ˨ ˨ ˥ ˩ ˧) instead of like (˥˧ ˨˧ ˩˥˩).

Optional dependency: XeLaTeX

A→Z+T will eventually try to produce the first draft of reports directly to PDF. In order for this to work, you must have XeLaTeX installed:

- Debian/Ubuntu Linux: `sudo apt-get install texlive-xetex`
- MS Windows: There are many ways to do this, e.g.,
  - https://www.latex-project.org/get/
  - Google "XeLaTeX Windows"

XLingPaper and the XMLmind XML Editor (XXE)

To make full use of A→Z+T's report output, I strongly advise you to be ready to use XLingPaper, if you are not already. It can be downloaded here; this page also includes information on downloading the XMLmind XML Editor (XXE), which is critical to most uses of XLingPaper.

To run AZT

Assuming your system is configured correctly, just run `main.py`. Depending on your system, that may be just a click on the file (or a link to it on your desktop or wherever), or you may need to type that into a terminal. Your operating system should know to open `main.py` with python, but you can also explicitly tell it to with `python main.py`.

For usage information, see USAGE