Setting Up Pandoc and Publishing the Website

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Abstract

This will show you how to setup pandoc on macOS so you can generate the documentation. Pandoc has its own flavor of Markdown which extends basic Markdown to easily enable greatly needed additions like LaTeX, being able to size images, and add footers/headers.

Setup

Homebrew[1]

We will use `homebrew` to install the software:

```
brew update
brew install pandoc
brew install caskroom/cask/basictex
```

Now `basictex` installs 90 MB of basic latex software. If you want or need more, you can try install `mactex`, however, it is about 2.9 GB of data and takes a while to install. Once `basictex` is installed, you need to add it to your path:

```
export PATH=$PATH:/Library/TeX/texbin
```

Also, run:

```
tlmgr install collection-fontsrecommended
```

Pandoc[2]

Now `pandoc` has its own flavor of Markdown[3] that accepts latex equations and other formatting directives not usually found in Markdown. Some things I like about it are:

- Set image size by appending `{width=x height=y}` to the end of an image command
  - Example: `![Caption text](path/to/image){width=50%}`
- Latex equation commands
  - `\begin{eqnarray} ... \end{eqnarray}`
  - In line equations: `$\theta$`

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[1]https://brew.sh/
[2]http://pandoc.org/
[3]http://pandoc.org/MANUAL.html#pandocs-markdown

    – `\newcommand ...`

All most all of the pdfs are built using:

```
pandoc filename.md -V geometry:margin=1in -N -s  -o filename.pdf
```

where:

- `-V geometry:margin=1in` sets a 1 in margin all the way around
- `-N` puts numbers on the paragraphs
- `-s` makes the document a stand alone document, so it adds things like page numbers
- `-o filename.pdf` tells pandoc to output a pdf using `pdflatex` on macOS

Windoze Setup

Windows 10

Zip

Install 7-Zip from the website. This has a command line ability. Now setup your bash environment with:

```
alias zip="/c/Program\ Files/7-Zip/7z.exe a"
export PATH=$PATH:"/c/Program Files/7-Zip"
```

So the nice thing here is, when you call `zip -r files.zip folder` in your linux/unix bash script, here on Windoze, the command will call `7z` and have it act just like `zip` on linux/unix.

Pandoc

Install from pandoc website. You will also have to install MiKTeX, but the directions are on the pandoc install website too. MiKTeX installs the software necessary to To set up the environment do:

```
export PATH=$PATH:"/c/Users/Kevin.Walchko/AppData/Local/Programs/MiKTeX 2.9/miktex/bin/x64"
```

Github

Automatic Generation

Using Travis-CI, travis can automagically build the website every time you push code. Here are some details:

- Setup the `.travis.yml`, like it is in the root directory
- Generate a Personal Access Token on github
- Add it to your travis account settings by setting environment variable called GITHUB_TOKEN with a value of the personal access token (lots of numbers)

Manual Generation

Not sure the automatic is really required. You can disable it in the `.travis.yml` file and then run the following from the `website` directory:

- `./build.py` which builds the entire website and stores it in `www`
- `./deploy.py` which pushes everything in `www` to the repo `gh-pages` branch of the website

Robots are cool!