Document Processing Flow Using Pandoc and TeX

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1 Set up the Pandoc+TeX environment

1.1 For Mac OS X

Firstly, please install **pandoc** package from Homebrew. If you haven' t installed brew on your Mac, please give it a try.

```
$ brew install pandoc
```

Standalone pandoc package is available on https://github.com/jgm/pandoc/releases.

Secondaly, install **MacTeX** via Homebrew Cask. Yes, cask is highly recommended for Mac users too. Please be patient as it takes time to download the 2.3GB installation file.

```
$ brew cask install mactex
```

Don' t forget to add `texbin` into `$PATH`:

```
$ echo 'export PATH=$PATH:/usr/texbin' >> ~/.bash_profile
```

Standalone MacTeX package is available on https://www.tug.org/mactex/.

After that, install the necessary fonts by double click the font files. Font files "TeX Gyre Termes" can be retrieved from http://www.gust.org.pl/projects/e-foundry/tex-gyre/termes. Please make sure you have authorized files for the Adobe Chinese fonts: `AdobStongStd`, `AdobHeitiStd`, `AdobeFangsongStd`and `AdobKaitiStd`.

Finally, install `zhfonts` module for the ConTeXt engine.

```
$ cd ~/Library/
$ mkdir -p texmf/tex/context/third
$ cd !$
$ git clone https://github.com/liyanrui/zhfonts.git
$ luatools --generate
$ mtxrun --script fonts --reload
$ mtxrun --script fonts --list --pattern=\* --all
```

Now you should be able to build the HPC sample documents.

1.2 For GNU/Linux

Firstly, please download TexLive 2014 installer from http://mirror.ctan.org/systems/texlive/tlnet/install-tl-unx.tar.gz.

Secondly, run the installer. TeXLive can be installed into your $HOME, or into a global directory like `/usr/local` which requires root privilege.

```
$ cd /your/download/directory
$ sudo ./install-tl
  [... messages omitted ...]
  Enter command: i
  [... when done, see below for post-install ...]
```

When you see `Welcome to TeX Live!` , congratulations, you have successfully installed texlive2014. The following environment variables need to be added into `~/.bash_profile`:

```
# ~/.bash_profile
export PATH=/usr/local/texlive/2014/bin/x86_64-linux:$PATH
```

If you need user manual, add the followings too:

```
# ~/.bash_profile
export MANPATH=/usr/local/texlive/2014/texmf-dist/doc/man:$MANPATH
export INFOPATH=/usr/local/texlive/2014/texmf-dist/doc/info:$INFOPATH
```

In order to build the documents with Chinese characters, you need to add the four Adobe Chinese fonts:

```
$ mkdir -p ~/texmf/fonts
$ cp YOUR_FONTS.TTF_OTF ~/texmf/fonts
```

After that, please install Pandoc from package manager.

```
$ sudo apt-get install pandoc
$ mtxrun --script fonts --reload
```

Standalone pandoc package is available on **https://github.com/jgm/pandoc/releases**.

Then install the `zhfonts` module for ConTeXt:

```
$ mkdir -p ~/texmf/tex/context/third
$ cd ~/texmf/tex/context/third
$ git clone https://github.com/liyanrui/zhfonts.git
$ luatools --generate
```

Now, we can generate wiki and pdf file using Texlive and pandoc.

1.3 For Microsoft Windows

At the very beginning, Windows users are required to install **Cygwin** to make the Linux tools take effect. Pleas check the following tools during installation:

- Base:sed
- Devel: make
- Base: openssl
- Net: openssl
- Devel: git, git-completion.
- Editors: vim, vim-common

After installation, a shortcut of Cygwin will be added on your Desktop.

Firstly, install **pandoc** from its binary release on `https://github.com/jgm/pandoc/releases`.

Secondly, install **TeXLive** 2014 by running `install-tl-windows.bat` in the ISO image. Commands of Tex Live will be automatically added to your PATH.

Then install extra fonts required by the HPC template. Download fonts `AdobStongStd`, `AdobHeitiStd`, `AdobeFangsongStd`and `AdobKaitiStd`, then copy them into `X:\Windows\Fonts`.

After that, install `zhfonts` for the context engine.

1. Get zhfonts from its **github page**.

2. Copy the folder zhfonts into `texlive\2014\texmf-dist\tex\context\third`.

3. Make `zhfonts` to take effect, then reload the font cache. The following commands should be typed in Cygwin window:

```
luatools --generate
mtxrun --script fonts --reload
```

Open Cygwin and now you should be able to use git and build the HPC sample documents.

2 Build the sample document `sample.mkd`

The document processing flow depends on some style files. It is recommended to clone the whole `hpc-public-docs` project:

```
$ git clone https://github.com/sjtuhpcc/hpc-public-docs.git
```

Then compile `sample.mkd` into PDF, wiki, Micosoft Docx formats. Generated files can be found in `pdf`, `wiki`, and `docx` separately.

```
$ make sample.pdf sample.wiki sample.docx
```

3 Reference

- “gist: Configure ConTeXt environment after installing TeX” https://gist.github.com/weijianwen/4a3794946982f4cc0b31
- “TeXLive on Windows” https://www.tug.org/texlive/windows.html
- “zhfonts模块的用法” http://garfileo.is-programmer.com/posts/23740