Sigpyproc Install Memo
(Including MAC OS and linux)

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From :

https://github.com/ewanbarr/sigpyproc

Liability library:

    * numpy
    * ctypes

    * FFTW3

    * OpenMP

Numpy:

sudo apt-get install python-numpy

In general numpy and ctypes are including in the OS.

FFTW:
http://www.fftw.org/

(I use FFTW 3.3.6)

tar -xvzf fftw-3.3.6-pl2.tar.gz

sh bootstrap.sh
./configure —enable-float --enable-shared
make
make install (might required sudo)

OpenMP:

Linux:
OpenMP is already in mpich:
sudo apt-get install mpich

Mac:

As the clang-c is different with gcc in ubuntu, we need install gcc with brew:
brew installation:

/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"

Change the gcc compiler to new gcc:
Then brew install gcc –without-multilib

```
rm /usr/bin/gcc
   rm /usr/bin/g++
   rm /usr/bin/c++
   rm /usr/bin/cpp
   rm /usr/bin/cc
```

ln -s /usr/local/Cellar/gcc/6.3.0_1/bin/gcc-6   /usr/bin/gcc
ln -s /usr/local/Cellar/gcc/6.3.0_1/bin/g++-6   /usr/bin/g++
ln -s /usr/local/Cellar/gcc/6.3.0_1/bin/cpp-6   /usr/bin/cpp
ln -s /usr/local/Cellar/gcc/6.3.0_1/bin/c++-6   /usr/bin/c++
ln -s /usr/local/Cellar/gcc/6.3.0_1/bin/cc-6   /usr/bin/cc

We have change the defaulted compiler by our download~

Now We're going to sigpyproc Source directory:
sudo python setup.py install

Mac:

Be careful about the difference between Clang-gcc and gcc in Ubuntu.
We need modified the Makefile in c_src/
just delete the whole -Wl, --no-as-needed comand:
:%s/-Wl,--no-as-needed/

Linux :
no need to change

Then go to upper directory :
sudo python setup.py install

Environment configure:

After that, we have already installed the sigpyproc.
Last thing is to make a configure in ~/.bashrc or ~/.bash_profile

export LD_LIBRARY_PATH="$LD_LIBRARY_PATH:/home/nch/sigpyproc/lib/c/"
export PYTHONPATH="$PYTHONPATH:/home/nch/sigpyproc/"

Then we might be able to import library from sigpyproc:

from sigpyproc.Readers import FilReader
…

END