How to setup your machine: ready to use for SPRNT

1. ./configure in SPRNT directory

2. install everything you need indicated as *checking /**compiler**/ …. no*

- *note:g77 may not be available though it says no. gfotran may function as g77 so you can skip and go to the next steps.*

3. Install Zlib (zlib-1.2.8)

- *zlib and hdf5 should be installed in the same folder. Go to the directory where zlib is located,*

```
$ ./configure —prefix=/home/ed/local
$ make check install
```

4. install HDF5 (hdf5-1.8.14)

- *Go to the directory where HDF5 is located,*

Document is available : https://www.hdfgroup.org/ftp/HDF5/releases/hdf5-1.8.15-patch1/src/unpacked/release_docs/INSTALL

Download link available : https://www.hdfgroup.org/downloads/index.html

```
$ ./configure --with-zlib=/home/ed/local —prefix=/home/ed/local
$ make check install
```

It may take more than 10 min!

5. **Install NetCDF4 (netcdf-4.4.0-rc2)**

- *Go to the directory where NetCDF4 is located,*

```
$ CPPFLAGS=-I/home/ed/local/include LDFLAGS=-L/home/ed/local/lib ./configure —
prefix=/home/ed/local
$ make check install
```

~~6. Install curl~~

~~sudo apt-get install curl~~

7. Install UMFPACK

- *preprocess needed*
  - ✗ *lapack installation: sudo apt-get install libblas-dev liblapack-dev*
  - ✗ *numpy and openblas installation: check this website*
    https://hunseblog.wordpress.com/2014/09/15/installing-numpy-and-openblas

- *Download link available : http://faculty.cse.tamu.edu/davis/suitesparse.html*
  Go to the directory where UMFPACK is located,

$ make
$sudo make install

after unpackaging, copy and paste the folder to both SPRNT/Thirdparty/CMLIB and
SPRNT/Thirdparty/UF

8. Install SPRNT

./configure
make dep
make
make installation

~~2.1 you may encounter a problem installing **g77**~~

~~installing **yum** : sudo apt-get install yum~~

~~installing **yum-utils** : sudo apt-get install yum-utils~~

~~installing **gcc-gfortran** : yum install gcc-gfortran~~

~~enable repos : yum-config-manager --enable~~

~~sudo apt-get install libstdc++.i686~~