WRF requires some pre-installed libraries such as NETCDF, JASPER, ZLIB, LIBPNG.

Installation procedure:

- 1. ./configure --prefix=/path/to/folder/where/to/be/installed
- 2. make
- 3. make install
- 4. make check

Then, set up all these following library paths in your source files (either .cshrc or .bashrc according to your working Shell (C shell or B shell)

For C shell:

setenv NETCDF /usr/local/netcdf (if the netcdf library is at some other location in your machine, change the path to that).

```
setenv ZLIB /usr/local/lib
setenv JASPERLIB /usr/local/lib
setenv JASPERINC /usr/local/include
setenv WRF_DA_CORE 1 (To install WRFVAR CODE)
setenv WRF_EM_CORE 1 (To install WRF-ARW CODE)
```

B SHELL:

```
export NETCDF=/usr/local/netcdf
export ZLIB=/usr/local/lib
export JASPERLIB=/usr/local/lib
export JASPERINC=/usr/local/include
#setenv WRF_DA_CORE 1
setenv WRF_EM_CORE 1
```

After setting all these setting

```
Unzip and untar the Downloaded the WRF latest version (Version 3.6.1 at present)

WRFV3.6.1.TAR.gz
gunzip WRFV3.1.2.TAR.gz
tar xvf WRFV3.1.2.TAR

After gunzip and untar, you should see a directory WRFV3/

cd WRFV3

./configure
```

then you need choose some of these options like your compilers, etc.

Then you will get one configure.wrf file vi configure.wrf and please check for netcdf and above mentioned library paths, whether they are correct or not.

If they are correct,

Then go for installation by typing

```
./compile em real
```

After successful compilation, You can get executables in /WRFV3/main directory.

ndown.exe real.exe wrf.exe

tc.exe

ideal.exe wrf.exe

All these executables are also linked automatically to /WRFV3/run

/WRFV3/test/em real directories

You can run the model in any of these directories.

Compilation of WPS:

After successful compilation of WRFV3 model only, one should go for installing the WPS code.

Unzip and untar the latest version WPSV3.2.1 code

Cd WPS

./configure

Like before, u need to choose the configure options like compiler etc Then it will create one file as configure.wps vi configure.wps

Give the attention to these paths

```
COMPRESSION LIBS = -L/usr/local/lib \
```

-ljasper -lpng12 -lpng -lz

COMPRESSION_INC = -I/usr/local/include

NCARG LIBS = -L/usr/local/ncarg64/lib -lncarg -lncarg gks -lncarg c \

-L/usr/lpp/X11/lib/R6 -lX11

.

.

.Go down,

WRF_DIR = give the path for WRFV3 directory

COMPRESSION LIBS = -L/usr/local/lib -L/opt/freeware/lib -ljasper -lpng -lz

COMPRESSION_INC = -I/usr/local/include -I/usr/local/include -I/usr/local/include/jasper

NCARG LIBS =

NCARG_LIBS2 = -L/usr/local/ncarg64/lib -lncarg -lncarg_gks -lncarg_c \

-L/usr/lpp/X11/lib/R6 -lX11

After setting all these paths correct,

Go for installation by typing

./compile

You will get three executables: geogrid.exe ungrib.exe metgrid.exe

Compilation of WRFVAR: This is not required for this session, this is for your information only

setenv WRF_DA_CORE 1 (To install WRFVAR CODE, and keep # symbol for WRF_EM_CORE 1)

Untar and Unzip the downloaded WRFVAR package And go into that directory(cd wrfda)

./configure wrfda

Like before choose the same configure options

And type ./compile all_wrfvar to install WRFVAR package.

After successful compilation, you will get 41 executables including wrfvar.exe and obproce.exe