

## Manual of Frontera

You have local computer(Local machine)

On terminal

→ \$ front (followed by password and authentication)  
#takes you on frontera/home109804/ramchandra58088

Now you have frontera computer i.e. Remote Machine

#make a directory on Remote machine

→ \$ mkdir sk01

#Now copy the sk01.zip file to frontera sk01 directory

On local Machine

\$ scp sk01.zip ramchandra58088@frontera.tacc.utexas.edu:/home1/09804/ramchandra58088/sk01/

### On Remote Machine

#Here you need to use your ID and check your home directory with

\$ pwd #check current directory i.e. where are you

\$ cd sk01

\$ lt #gives list on cd #shows sk01.unzip files

unzip sk01.zip # unzipping it gives another sk01 folder

lt #list out all unzip files

rm -rf \_\_MACOSX # remove its file and folder at a time

→ cd sk01 # get in sk01

→ mv \* ../ # moves all files after getting out from it to the new sk01

→ cd .. # just get out

→ \$ rm -rf sk01 # remove all files and folder of sk01

\$ vi comp #open comp

#add two lines at the top (I am confusing we just make 2 lines space at top or something other)

→ \*on Frontera( copy paste the compiler command line)

\$ mpif90 -r8 -O2 -o xskh03 sk03main.f # file gets compile and make executable file)

lt #(list all the items)

moving files  
to Home sk01  
→ and  
removing  
the dummy sk01

~~U~~#xsk03main (executable) is created

#modify sk03.job

vi sk03.job # open the job file

#at temporary disk (adding temporary disk for large files)

tmp

mkdir sk03 #making sk03 as temporary directory

#for diagnostics

#diag.zip need to move to Frontera sk01

scp ramchandra58088@frontera...../sk01 it must be in sk01

unzip diag.zip #unzipping this file need to repeat the same process of removing unnecessary files

cd diag #into diag

mv comp pl3Dsk01Rs.f pl3Dsk01Rs.job ../. #move job file to sk01

mv compD vjxBlineLLnew.job vjxBlineLLnew.f .././sk01 #move the files in sk01

rmdir diag #remove directory diag

Get data for diagnostics

vi pl3DskRs.job # open job file  
check your directory, user is etc.

vi plot3Dsk01Rs.f (new program is edited) open .f file

#comment out line 153 and 176

c open(unit=2, file='nsth', status='old')

c go to 2578 (seen on a screen)

ifort -o xplot3Dsk01Rs -mcmodel=large -shared-intel plot3Dsk01Rs.f #compile the file)

sb pl3DskRs.job #job submitted)

login1.frontera(1019)\$ lq

| JOBID   | PARTITION | NAME     | USER     | ST | TIME | NODES | NODELIST(REASON) |
|---------|-----------|----------|----------|----|------|-------|------------------|
| 5864409 | nvdimm    | plcw3D01 | tg457304 | R  | 0:01 | 1     | c100-005         |

#How to create dsk01 directory in home directory

-scp dsk01.zip to Frontera to sk01

-unzip dsk01.zip

-cd .. just get out

-mkdir dsk01 # This gives you directory in frontera home along with sk01 Now you have two directory in frontera home i.e sk01 and dsk01)

cd sk01 #get in sk01

cd dsk01 #get in dsk01

lt #list all items

#move all files to dsk01

mv \* ../../dsk01 #( mv move \*-all, ../getout from dsk01(dummy) again ../getout from sk01 and /dsk01 get into dsk01)

-cd .. #just get out from dsk01 and remove dsk01

-rmdir dsk01

#on temporary disk on sk03n

-tmp #get in temporary disk

-lt #list temporary disk item

-cd sk03n #get in

lt io\* le\* \*fie\* ken\* (list particular item, you can just do lt \*.job, lt\*.f etc)

you can find 25 set of these data

mkdir dsk03n #adding another directory those tmp are for storing large data)

#move these data to dsk03n

on sk03n

-mv io\* le\* \*fie\* ken\* ../dsk03n (#move, set of data,.../ getting out from sk03n this moves these data to dsk03n)

on homepage sk01(back to sk01 frontera home)

-cd

-cd dsk01

on Frontera (dsk01)

-vi compD

copy the line below

ifort -mcmmodel=medium -o x visJxBlineLLnew -O3 visJxBlineLLnew.f -L\$TACC\_N  
CARG\_LIB -Incarg -Incarg\_gks -Incarg\_c -lX11 -lXext -lgfortran -lcairo -lfreetype

vi vJxBlineLLnew.job

(modify with your directory and user id) #pen this job file (might be my mistake to write the

sb vJxBlineLLnew.job #submitted the job file

```
vi vJxBlineLLnew.job
```

(modify with your directory and user id) #pen this job file (might be my mistake to write the directory path)

```
sb vJxBlineLLnew.job #submitted the job file
```

```
on dsk03n
```

```
-tmp
```

```
-cd dsk03n
```

```
-lt (to make sure visit data)
```

```
mv visitdata vJxBILn03n20.vtk #changing visitdata to .vtk file)
```

```
scp ramchandra58088@frontera.tacc.utexas.edu:/scratch1/09804/ramchandra58088/  
dsk03n/vJxBILn03n20.vtk.
```

```
open file vJxBILn03n20.vtk with VisIt
```

```
plot Jx_current
```

I think you need to do so with me for the first time. Doing so with Note for VisIt is not easy.  
I needed to remember how to use VisIt for this time.