

## Commands/Steps/Links to make GNU Radio codes run:

- 1) Log in using terminal: **ssh [username@console.sb\(sandbox#\).orbit-lab.org](mailto:username@console.sb(sandbox#).orbit-lab.org)**  
(e.g `hakimergaibi@console.sb3.orbit-lab.org`)
- 2) Enter your password
- 3) Check status of nodes : **omf-5.2 stat**
- 4) a) To turn on all the nodes : **omf-5.2 tell on all** ( for specific node : **omf-5.2 tell on [1,1]**)  
b) To turn Off all the nodes : **omf-5.2 tell offh all** ( or specific node : **omf-5.2 tell offh [1,1]**)
- 5) Load image :  
**omf-5.2 load all gnuradio.ndz**
- 6) To access specific node : **ssh root@node1-1** (if you cannot access double check for status to make sure node is on!)  
To check what are the files on specific node enter : **ls** (after accessing the node)
- 7) To upload or get files to your console follow the following steps :**
  - a) Open a new terminal
  - b) Enter : **sftp [username@console.sb\(sandbox#\).orbit-lab.org](mailto:username@console.sb(sandbox#).orbit-lab.org)**
  - c) **ls** ( to view the files that are already there in your console)
  - d) **get filename.ext** (to get file from console to your home directory) or **put filename.extension** (to put/upload file from home directory to console)
- 8) important ! To upload a file to a specific node :**
  - a) Follow steps above ( number 7 )
  - b) log out of the: `root@node1-1` or `1-2` ( go to `...@console`) and enter the following code : **scp filename.ext** (e.g `...-rx.py`) **root@node1-1:.** (no space!) (to check if the file moved to the node : **ssh root@node1-1** and enter **ls**) (this solves the uploading of files to the nodes!)
    - . To upload the file from node1-1 to a specific folder or location use scp command as following : **scp filename.ext location** (e.g : **scp [rxfile.py](#) gnuradio-3.3.0/gnuradio-examples/python/digital** )
    - . To make sure the file is moved to the new location : ssh into the node and enter : **cd gnuradio-3.3.0/gnuradio-examples/python/digital** then enter : **ls** (to see list of files that are present)
    - . To have a permission to play with the file(run it) use the following command :  
**chmod +x filename.ext** (the color of the file name changes from black to green, green is good!)

. To remove a file from a location use the following command :

```
rm filename.ext
```

. To access another node from another terminal :

```
ssh username@console.sb(sb#).orbit-lab.org
```

Enter password

In the existing terminal enter the following command inside the node :

```
ifconfig eth2 up
```

Go back to the new opened terminal and ssh the new node : (e.g **ssh**

```
root@node1-2)
```

**9 )To run Benchmark examples :**

steps to run [rx.py](#) [tx.py](#) program :

```
ssh root@node1-1
```

```
ifconfig eth2 up
```

```
cd gnuradio-3.3.0
```

```
cd gnuradio-examples
```

```
cd python
```

```
cd digital
```

```
./benchmark-rx.py -f 5G -e eth2 -r 500K
```

-> Open a new terminal and **ssh root@node1-2** and enter same code above(+)plus

```
./benchmark-tx.py -f 5G -e eth2 -r 500K ( run receiver first then transmitter)
```

*Note:* (-f -e -r are commands to specify values of parameters e.g -f to specify frequency -r to specify bitrate)

to see what parameters you can specify enter **./benchmark-tx.py -h** (-h is help)

*Last time updated : 06/24/2011 at 3.44 pm by Abdelhakim Ergaibi*