**Workstation setup**

1. Install Linux Debian on the workstation

2. Instal cds-workstation, follow the guide from the setup of the cds

3. On the cds realtime PC install open ssh using

$ sudo apt update

$ sudo apt install openssh-server

4. on the workstation install openssh-client

$ sudo apt update

$sudo apt-get install openssh-client

5. on the workstation go to applications>settings>Advanced network configuration

Then

Ethernet> Wired connection1> IPv4 settings

Method: Manual

Addresses: add

Address: 192.168.1.1 netmask 24 gateway 192.168.1.1

Save

6. on the CDS PC go to applications>settings>Advanced network configuration

Then

Ethernet> Wired connection1> IPv4 settings

Method: Manual

Addresses : add

Address: 192.168.1.2 netmask 24 gateway 192.168.1.1

Save

7. form the workstation check if you have access to the CDS

$ ping 192.168.1.2

And from the CDS to workstation

$ ping 192.168.1.2

8. to enable wifi internet access at the same time with the local Ethernet access on the workstation

$ sudo ip route add 192.168.1.0/24 via 192.168.1.1 dev enp0s31f6

$ sudo ip route del default

Where enp0s31f6 is the name of the ethernet device, to check the name in your system use

$ ip link show

Now the workstation should have internet access via the wifi and LAN access to the CDS via the ethernet

9. check if you can ssh to cds

$ ssh [controls@192.168.1.2](mailto:controls@192.168.1.2)

10. mount the cds folder to the workstation using sshfs, this means we can see the files in the cds as local files on the workstation

If not installed

$ sudo apt update

$ sudo apt install sshfs

Then

$ sudo mkdir /opt/rtcds

$ sshfs -o allow\_other controls@192.168.1.2:/opt/rtcds /opt/rtcds

Check if the files form the cds can be seen on the workstation

$ cd /opt/rtcds

$ ls -l

11. run iop model on the cds and check the medm screen from the workstation

In the workstation

$ cd /opt/rtcds/uwa/u2/medm/u2iop

$ medm U2IOP\_GDS\_TP.adl

You should be able to see the screen and check the ADC/DAC

12. check ndscope, in the workstation

$ NDSSERVER=192.168.1.2:8088 ndscope

13. check foton, In the workstation

$ foton

Navigate to

opt/rtcds/uwa/u2/chans

select U2TST.txt (assuming youhave this model built in the cds and running, if not then build and run it before this step).

File> uncheck the readonly

Click on the first check box from selection panel

From design panel click on gain

Use unity gain

In the text box in the selection panel type unitgain

Save

Now open the filter medm sctreen

$ cd /opt/rtcds/uwa/u2/medm/u2tst

$ medm U2TST\_FM0.adl

Run and engage the first filter (FM1), it should light both leds in green.

14. to setup diaggui

On the cds front end

$ sudo nano /etc/hosts

Comment any line 127.0.0.1

Add the line

192.168.1.2 u2fe1

Where u2fe1 is the name of the front end computer

On the workstation call the diaggui using

$ NDSSERVER=192.168.1.2:8088 LIGO\_RT\_BCAST=192.168.1.2 diaggui -v