

12. Troubleshooting

12.0 Unable to login TGC // allowed maximum instances exceeded

If the maximum number of allowed users exceeds a certain number then it can be clear all login sessions using the following steps.

Step 1: login to CMC machine.

```
> ssh -X cmcuser@192.168.70.2
```

Step 2: run the script to clear login session from AGN

```
> cd /home/cmcuser/bin
```

```
> ./remove_user_login.py AGN0          ### Removes users from Super user
```

```
> ./remove_user_login.py AGN1          ### Removes users from AGN1
```

```
> ./remove_user_login.py AGN2          ### Removes users from AGN2
```

```

> ./remove_user_login.py AGN3          ### Removes users from AGN3
> ./remove_user_login.py AGN4          ### Removes users from AGN4
> ./remove_user_login.py AGN5          ### Removes users from AGN5

```

Step 3: Now try to login TGC

12.1 Antenna LMC system showing “disconnect” status

Step 0:- First Check the status of LMC by running the ping_LMC.py script kept at the below location in cmsserver machine (192.168.70.2) as cmcuser

```

>ssh -X cmcuser@cmsserver(192.168.70.2
>cd utility_scripts/Ping_Python
>./python ping_LMC.py

```

Step 1 :- login to ngmnc(192.168.70.21) as lmcuser

```

> ssh -Y lmcuser@192.168.70.21 (ngmnc)
> password :****.***
> cd /usr/local/gmrtSys

```

Step 2 :- First fire the starter script using following command

```

>./lmc_strtr.sh c00,c01,e02...etc // comma separated list of antenna

```

Usage : ./lmc_strtr.sh or (antlmc,ceb,eant,want etc.)

Step 3 : Select List of Antenna using Master Control window using Test_Super_Operator Login(Operator Station 0)

TGC GUI → Select “Control” Menu → Select “Master Control” SubMenu →

Select “Antenna node” tab → Click on “List of Antenna ” to start/stop/restart

→ Click on button to issue → Command (also change mode)

Step 4 : To Monitor LMC Connecting status

TGC GUI → Select “View” Menu → Select “DashBoard” SubMenu →

Select “CMC Status” tab  Click on “AGN ”



The screenshot shows the Master Control interface with the following details:

- GMRT Status:** NOT OK (highlighted in orange)
- IST:** 22:43:24
- Buttons:** Park All, HALT-Emergency, HALT-Normal
- CMC Mode:** Manual Mode (highlighted in green)
- Change Mode:** Auto
- LMC-Antenna:** 34

Services Table:

<input type="checkbox"/>	Service	Status	Description	Date/Time
<input type="checkbox"/>	Alarm	OK	Alarm service	22:43:24
<input type="checkbox"/>	Archiver	NOT OK	The logger service	22:43:24
<input type="checkbox"/>	Batch	OK	The Scripting service	22:43:24

Node Instances Table:

<input type="checkbox"/>	Node	IP Address	Status	Mode
<input type="checkbox"/>	C00	192.168.31.2	OK	Remote
<input type="checkbox"/>	C01	192.168.32.2	OK	Remote
<input type="checkbox"/>	C02	192.168.33.2	OK	Remote
<input type="checkbox"/>	C03	192.168.34.2	OK	Remote
<input type="checkbox"/>	C04	192.168.35.2	OK	Remote
<input type="checkbox"/>	C05	192.168.36.2	OK	Remote
<input type="checkbox"/>	C06	192.168.37.2	OK	Remote
<input type="checkbox"/>	C08	192.168.38.2	NOT OK	Remote
<input type="checkbox"/>	C09	192.168.39.2	OK	Remote
<input type="checkbox"/>	C10	192.168.40.2	OK	Remote
<input type="checkbox"/>	C11	192.168.41.2	OK	Remote
<input type="checkbox"/>	C12	192.168.42.2	OK	Remote
<input type="checkbox"/>	C13	192.168.43.2	OK	Remote
<input type="checkbox"/>	C14	192.168.44.2	OK	Remote
<input type="checkbox"/>	C20	192.168.70.21	OK	Local
<input type="checkbox"/>	E02	192.168.45.2	OK	Remote
<input type="checkbox"/>	E03	192.168.46.2	OK	Remote
<input type="checkbox"/>	E04	192.168.47.2	OK	Remote
<input type="checkbox"/>	E05	192.168.48.2	OK	Remote

12.2 Antenna's not tracking to the Source.

First ensure that all Servo IO-DS are connected ?

- If Servo is disconnected:-login to servo pc104 using root@192.168.x.3 machine.

```
>cd deviceClient0.5/
```

```
>sh ./stop_client.sh
```

&

```
> sh ./start_client.sh
```

- If Servo is communicating:- Check whether it is in manual mode?
- Try Restarting BATH programme of Non tracking LMC.

For Example:



```
lmcuser@c01:/opt/tangoworkspace/ControlNode/Utility/starterDsScripts$ ./BATCH
```


Note : At present **array_status** give last status, if servo/LMC is not communicating.


(i) Check servo of that LMC is up.


(ii) Give command "dsrestart BATCH" to LMCsys in expert console.

12.3 How to Restart GSB or GWB dataserer ds if **corrconfig** fails

To TGC GUI  Select "Control" Menu  Select "Expert Console" Submenu

"Digital Backend" tab  Select "GSB or GWB" radio button  Select "CLMCSys"

"GWBSys" Sub system  Select "dsrestart" Cmd with its argument as "dataserver"

Click "Execute" Button  Select "dsrestart" Cmd with its argument as "dataserver"

12.4 Correlator DS shows Disconnected Status.

Note : Disconnected status means the 'Client' program is not communicating to the Sub-system Tango device-server.

To Start Simulated DS clients login to the GSB LMC and GWB LMC. First Make sure that GSB, GWB All IOs are communicating (OK status in dashboard) If Disconnected Then only start it.

a) GSB

```
> ssh -X gsbuser@gsbm1
```

```
> ****.***
```

```
> cd /home/gsbuser/lmcuser/bin
```

```
> launch.sh          * No argument = will start both corrc11 and collect.
```

or

> *launch.sh corrtl1* (this starts collect client on gsbm1 machine)

&

> *launch.sh collect* (this starts collect client on gsbm4 machine)

b) GSB (BEAM Clients)

> *ssh gsbuser@gsbm1:/mnt/code/gsbuser/lmcuser//bin/launch.sh <node1>
<node2> e.g. 33 34 or 47 48*

c) GWB

> *ssh gpuuser@gwbh6:/home/gpuuser/lmcuser/bin/launch.sh corrtl1*

> *ssh gpuuser@gwbh6:/home/gpuuser/lmcuser/bin/launch.sh collect*

> *gpuuser@gwbh6:/home/gpuuser/lmcuser/bin/launch.sh*

<no argument both deviceclient starts>

d) GWB (BEAM Clients)

> *gpuuser@gwbh6 : /home/gpuuser/lmcuser/bin/beamlaunch.sh*

12.5 Key Points to Remember

Make sure that no previous console-GUI running of GSB/GWB.

1. Sockcmd is not required.
2. Give Corr config commands whenever you open a new GUI.
3. Project code Limit is strictly Seven Character's only.
4. Project code characters should be **CAPITAL LETTERS** only.
5. ~~Project code Handling for two corr/subarray at a time - is in progress, command can be issued Sequentially.~~
6. USB band is always taken for the band-mask
7. In OperationControl->DataControl window addsource, setsource need for the subarray.
8. For Default catalog no need to give addsource.
9. Set Optical fiber Attenuations using SIGCON System only. time being, do not use OFC.

12.6 Present Constraints

12.7 Power ON Miltech PC Remotely & Reset OFC

Step 1: Open respective antennae Rabbit MCM IP (192.168.xx.4) on any browser.

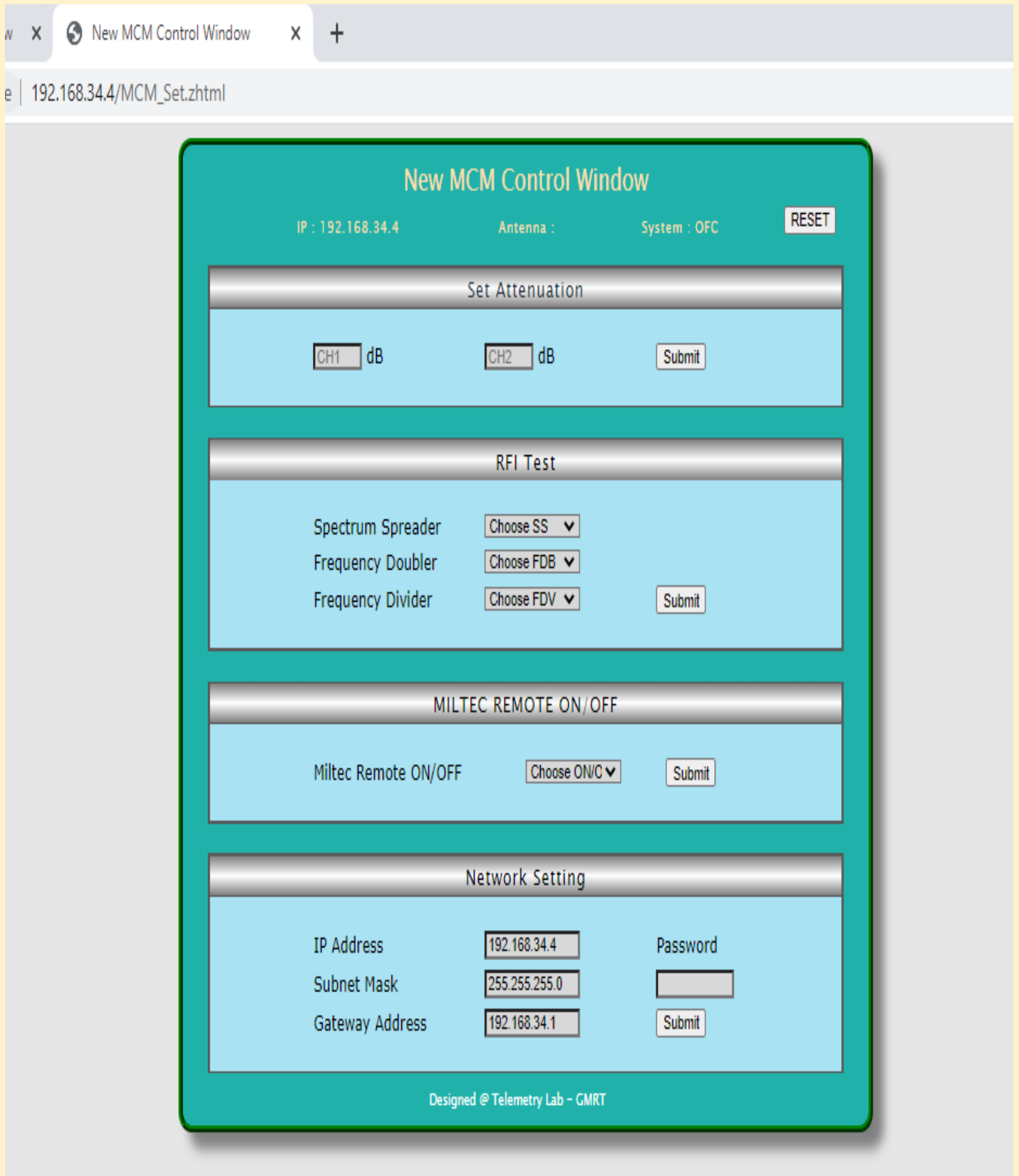


For C03 antenna , Open 192.168.34.4 IP in browser.It will show you below New MCM Monitoring Window page.

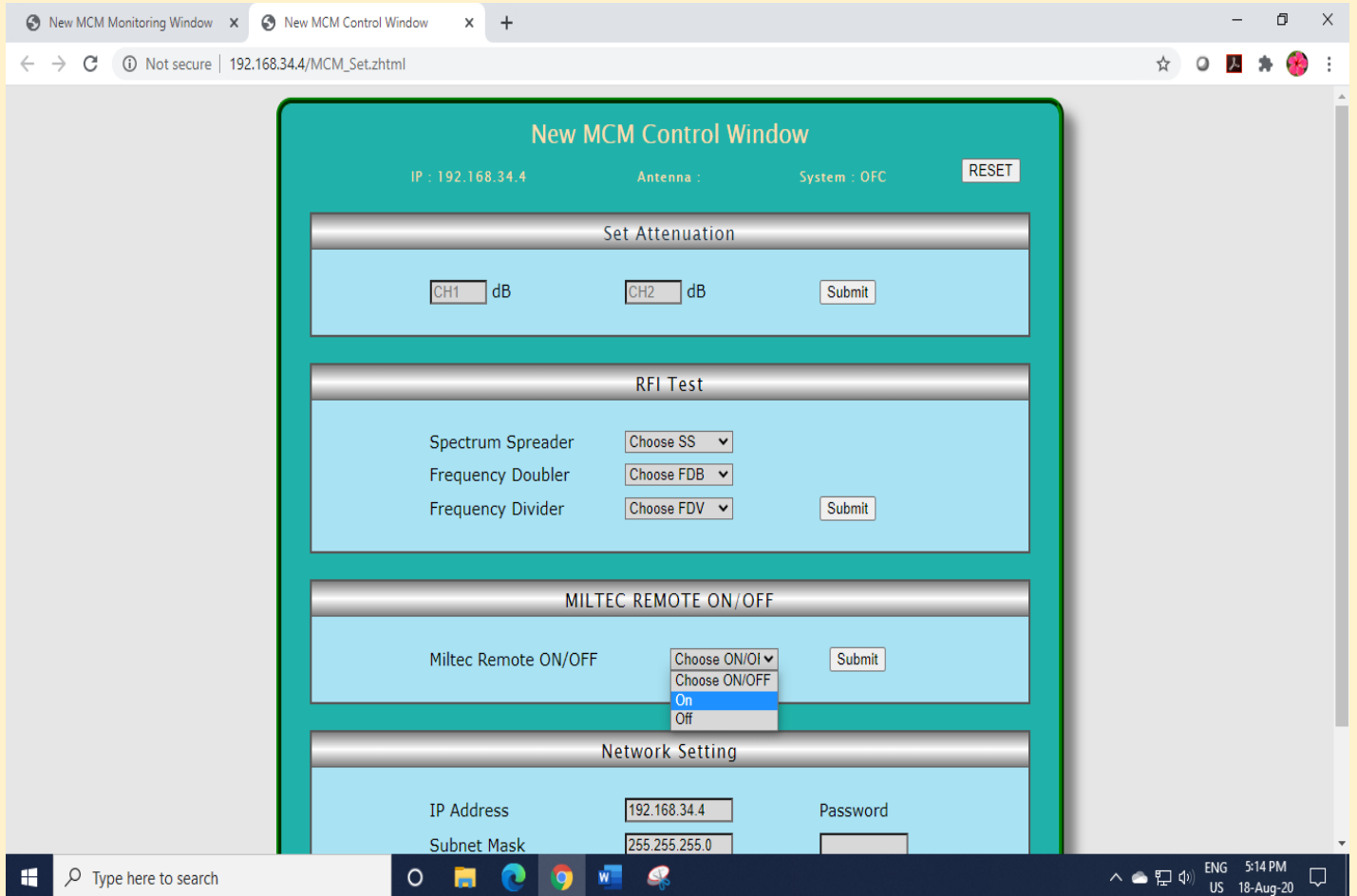
Step 2: Click on the button **“Click Here to set New MCM”**.



Step 3: After clicking on this button below New MCM Control window Page will open.



Step 4: Select ON Command from Drop Down Menu to Remotely ON Miltec Machine.



Step 5: Click on the Submit button.

12.8 All Miltech PCs Power ON-OFF

Following Shell Script is available to to power on and off Antenna Base Miltech PCs through ofcsnt Rabbit-Card.

Step 1: login to CMC machine.

```
> ssh -X cmcuser@192.168.70.2
```

Step 2: Run the script to Miltech PC ON

```
> ~/bin/PCON.sh
```

Step 3: Run the script to Miltech PC OFF

```
> ~/bin/PCOFF.sh
```

**** Start LMC Software if not Running :-**

```
cmcuser@cmserver(192.168.70.2):/opt/tangoworkspace/ControlNode/Utility/launch.sh
```


**** Stop LMC Software if not Running :-**

```
cmcuser@cmsserver(192.168.70.2):/opt/tangoworkspace/ControlNode/Utility/gui.sh
```

12.9 if GWB ACQ getting Kill in (multi-subarray)

Sometimes acq-kill problems occur, although this problem is associated with allowed I/O budget, and modifications to multi-subarray functionality.

Before starting Multi sub array observation issue copy ms cmd.

```
> observer@shivneri:~/home/observer/bin/copy_ms2_sw.pl
```

to Restore back :-

```
> observer@shivneri:~/home/observer/bin/restore_def_sw.pl
```

12.10 If only GWB Halted

If only GWB o gets halted (or only one correlator halted) then initialize only one correlator, and re-associate the project code of "BOTH" and issue a fresh halt command.

12.11 Power fail and LMCs allocation and deallocation

Many times LMCs goes and come back, antenna allocation/deallocation to the AGN node (Operator Workstation) happens automatically, but this reallocation happens only when data acquisition scan is stopped. Therefore, whenever LMCs go and come back due to power-failure, please re-allocate that antenna manually whenever datascan gets stopped.

12.12 AGN hung Problem

Whenever, suddenly antenna based PC is not communicating (i.e. LMC is down) due to the electrical power failure or network problem, an audio alarm will be raised about "<Antenna> LMC down". Around this time, you will notice that the GUI is running very slowly, or got stuck (in this case, you can not login to the other GUI).

Restart the AGN by typing 'restartagn <1-5>' in the linux commad-terminal

Step 1: login to CMC machine.

```
> ssh -X cmcuser@192.168.70.2
```

Step 2: Restart the AGN

```
>restartagn 1
```

or

```
> restartagn 2
```

Note :

1. Above command will restart the given AGN<1-5>, it takes ~1 min to restart. After that login to the GUI to verify everything is ok or not.
2. You do not need to restart the correlator, only re-start the observing script if it was running previously.

12.13 Authorisation error

If GSB/GWB gives authorisation error, just re-allocate ownership again to the given 'Operator station <id>' from the master-control by using 'manage_pool'.

12.14 Cmcserver / GUI slow

'cmc' is slow due to 'mysqld' process taking continuously more cpu time, then kill OLD/stale GUI processes ('mainwindow.py').

```
>cmcuser@cmserver:~$ /home/cmcuser/bin/kill_allGUI.sh
```

13. Annexure

A. Command File Templates

a) Single Sub-array TGC Command file

```
#!/usr/bin/python
# import required libraries for TGC
# Do not remove following line
# For single subar observation default subar is 0

from tgcall import *

# user code starts here
# Any valid python syntax can be used
import time

# addlist
add_user_catalog('/home/cmcuser/prjcode_src_list.csv','type1')
use_catalog('prjcode_src_list','type1')
```