

## Machines and computing environment for the L0Muon Trigger

The machines and directory available at the pit are the following.

### User

The common user to work is `piyvduval`

### Disks

All the L0MUON machines mount the same disk space.

The common home directory `/home/piyvduval` is shared by all our machines but is private to the L0MUON group.

The directory `/group/trg` is shared by all our machines and by the L0 trigger groups. It contains the directories:

- `/group/trg/L0TRIGGER_SHARED_DATA/BOARDS_ALL`  
used to keep the million events used by the server HIGHSTAT test.
- `/group/trg/L0TRIGGER_SHARED_DATA/CCPC_SLOTS_IDENTIFICATION/`  
in which all the CCPC register their slots and hardware identifications.

### Control room monitoring machines

The control room monitoring machine is a WINDOWS machine named LB015W.

To use X graphical interface from the other machines the X Exceed server should be started. The remote machine the display has to declared:

```
export DISPLAY=LB015W:0.0 (the alias disp is available under the piyvduval logging)
```

Any machine can be used in the Control room.

The redirection command has to be modify accordingly: `export DISPLAY=LB001W:0.0` for example.

### Main ECS server

The name of the machine is **tmudaq01**

It is the work place from where all tests, supervision and control activities are done.

It contains the following local directories that can't be accessed from the others machines:

- PVSS projects are in `/localdisk/pvss`
- CCPC mounted disks is in `/diskless/ccpc`

### CCPC Names and MAC addresses

- The names of the CCPC's for processor/controller boards are **tmutbQXX**  
where Q=[0 to 3] for Q1 to Q4 and XX=[0 to 11 for PB and 15 for CB]
- The name of the CCPC's for TELL1 boards are **tmutellqXX**  
where XX=[1, 2, 12, 3, 4, 34]

- The detailed association between CCPC name, MAC addresses and board identifier can be found here
- To obtain processing or controller boards names use remote command *Read\_BoardIdentification* with the toolbox

## Tell1

For the TELL1 configuration the following information are necessary:

- FORCE 10 switch target MAC address 00:01:e8:22:4b:bb
- TELL1 emitter IP addresses (for data) can be allocated in the range 192.169.4.0/24 (more details)
- TELL1 MAC addresses (for data) can be allocated in the range 00:CC:BB:04:00/24:00  
The last byte is set by the FPGA according to the sending port [0 to 3].

A-Side TELL1				
Q1	tmutellq01	Q1 processing boards	192.169.4.4	00:CC:BB:04:04:00 (data)
Q2	tmutellq02	Q2 processing boards	192.169.4.5	00:CC:BB:04:05:00 (data)
Q1Q2	tmutellq12	Q1 and Q2 controler boards	192.169.4.6	00:CC:BB:04:06:00 (data)

C-Side TELL1				
Q3	tmutellq03	Q3 processing boards	192.169.4.1	00:CC:BB:04:01:00 (data)
Q4	tmutellq04	Q4 processing boards	192.169.4.2	00:CC:BB:04:02:00 (data)
Q3Q4	tmutellq34	Q3 and Q4 controler boards	192.169.4.3	00:CC:BB:04:03:00 (data)

### Dedicated nodes to read back events in the pit

The name of the machine is **plus01**

### Dedicated nodes to run the "presenter" in the pit

The name of the machine is **hlt01**

### Gateway to external word

The name of the machine ares **gw01** or **gw02** from inside LHCb or **lb<sub>gw</sub>.cern.ch** from outside LHCb

It is possible to log in console mode to all machines by:

1. logging in the gateway
2. ssh on any other insider machines.

It is possible to do directly a secure copy `scp` from CPPM to/from the gateway to import or export file to/from the shared disk space.

### Miscellaneous machines

- **lbpcxp02** is a PC used to program/debug boards with jtag (Administrator LHCb1234)
- **tmujtag00** is the jtag switch server to switch jtag flows to the proper board.  
You can access with a browser at the location `http://tmujtag00`  
You can enter with `root` and `dbps`

-- PierreYvesDuval - 10 Oct 2007

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