20170727
STATUS REPORT

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TOF Detector Preparation

Previous slide (05/18)

DAQ system

Laptop did not boot last week…

Dasan took the laptop to examine and recover on 05/10,
but they called that it suddenly worked.
And did not find any source of making a booting error.

It is working successfully, for sure about DAQRC program, and has no error.
Although there is no loss of data,
there is back-up of all DAQ data in external HDD.

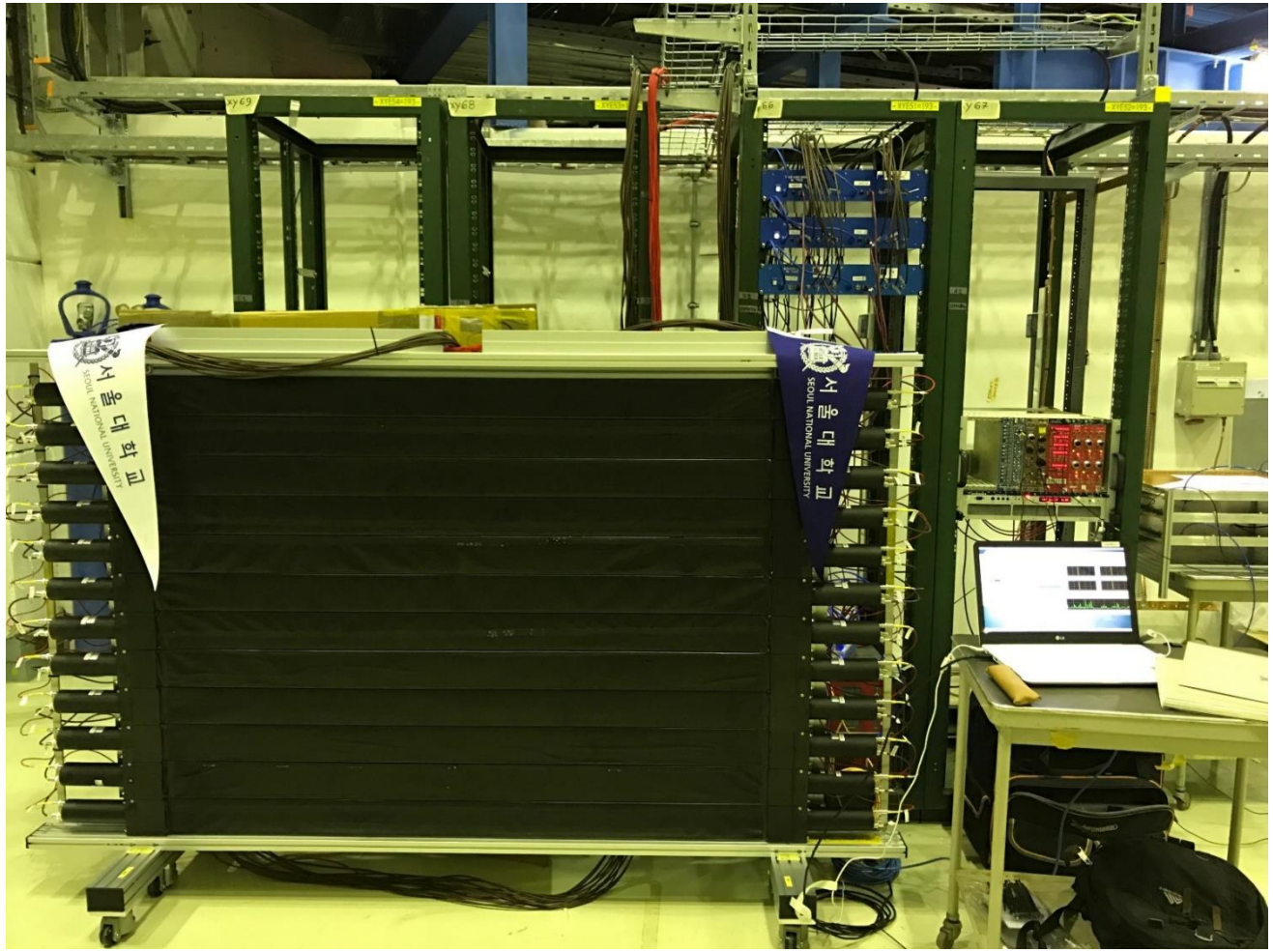
After purchasing USB – Ethernet adapter, for internal network,
Gain optimization will be started. (~ 2weeks)

TOF Status
: It has been installed and tested

Now we can use 12 counters.
But DAQPC has SAME booting problem from yesterday.

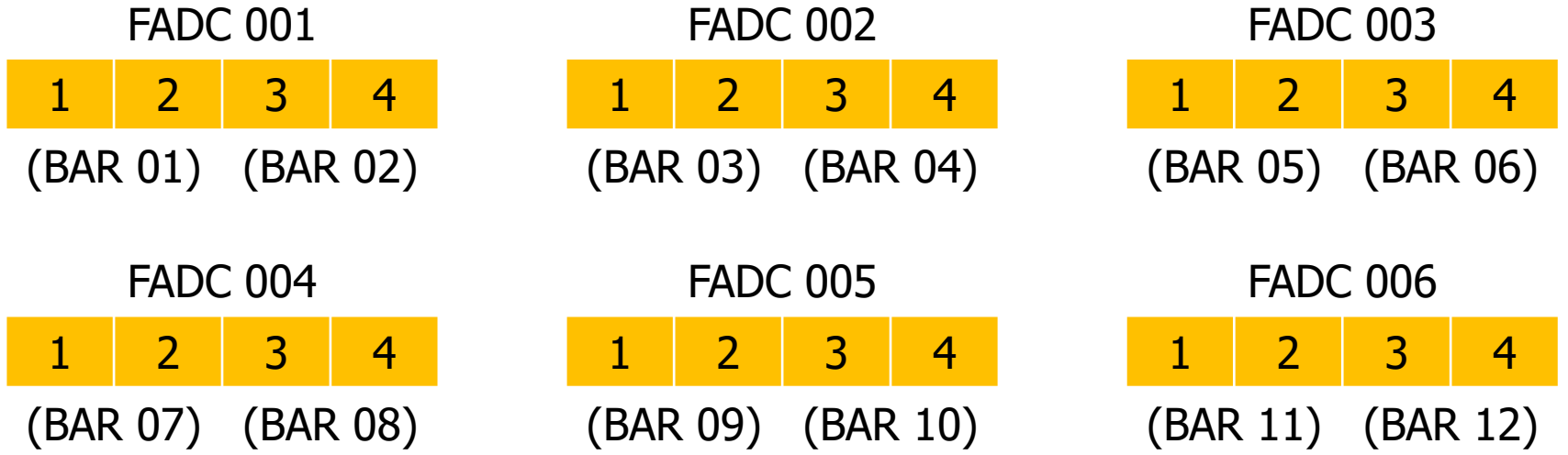
Cosmic ray test

1. 6bar test(last week)
2. 12bar test
   - Gain adjustment
     - mthr=8
   - Gain check
     - mthr=8
   - Event rate – threshold
     - mthr=4, 8, 24
   - Time resolution



TOF Status
12bar test

Module set :



Configuration : coincidence = 1x2x3x4 for each FADC

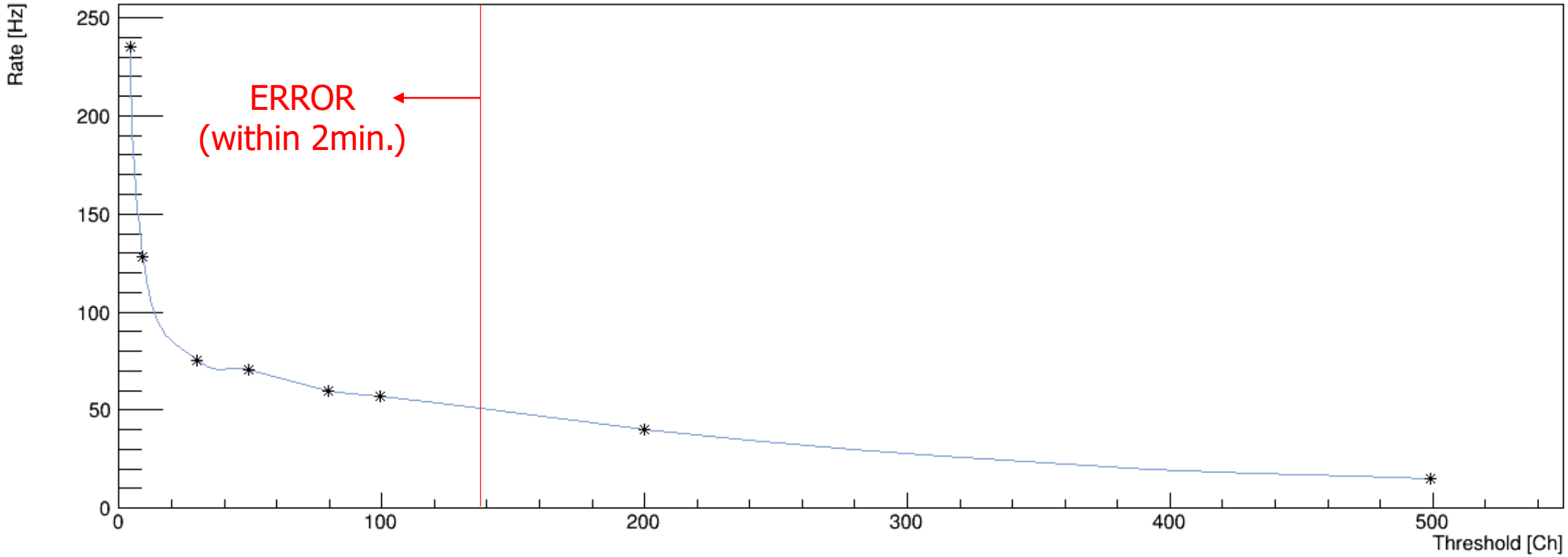
mthr=4/8/24

th=100[ch]

delay = 0

TOF Status
12bartest – (Event rate) vs (Threshold) #170~194

Coinc. = 1x2x3x4 for All FADCs
mthr=4

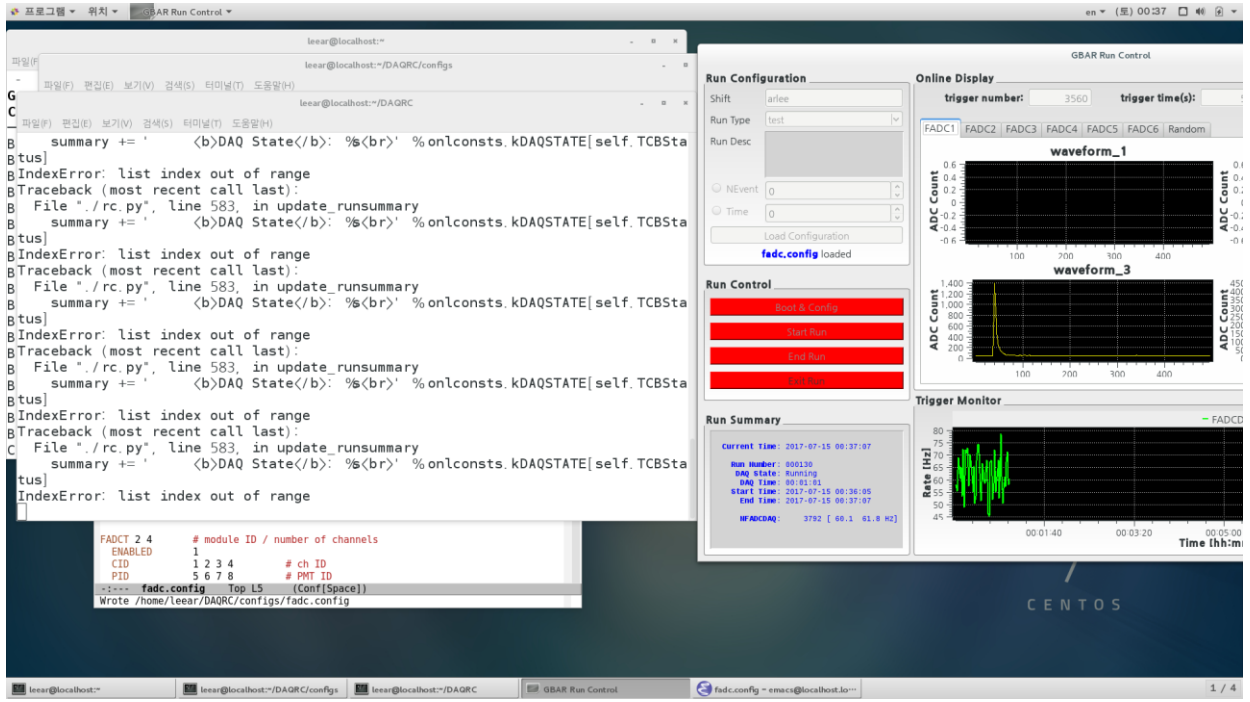


TOF Status
DAQ notice – high rate error

Previous slide (07/20)

Module set : 1 2 3 4 (FADC 001)
Configuration
- coincidence = 1x2+3x4
- mthr = 2

(- default deadtime = 0 [ns])



∴ After 3560 trigger,
DAQRC was stopped by error

∴ If two triggers are too close, a signal of a module cannot be saved → ERROR!
Dead time should be set during high rate experiments.

TOF Status
12bartest – (Event rate) vs (Threshold) #170~194

Coinc. = 1x2+3x4 for All FADCs
mthr=8
, which means giving a trigger when any 4 bar(8ch) have a signal.

th=80[ch]	9.3Hz	ERROR (within 2min.)
th=100[ch]	8Hz	
th=200[ch]	7Hz	

TOF Status
12bartest – (Event rate) vs (Threshold) #170~194

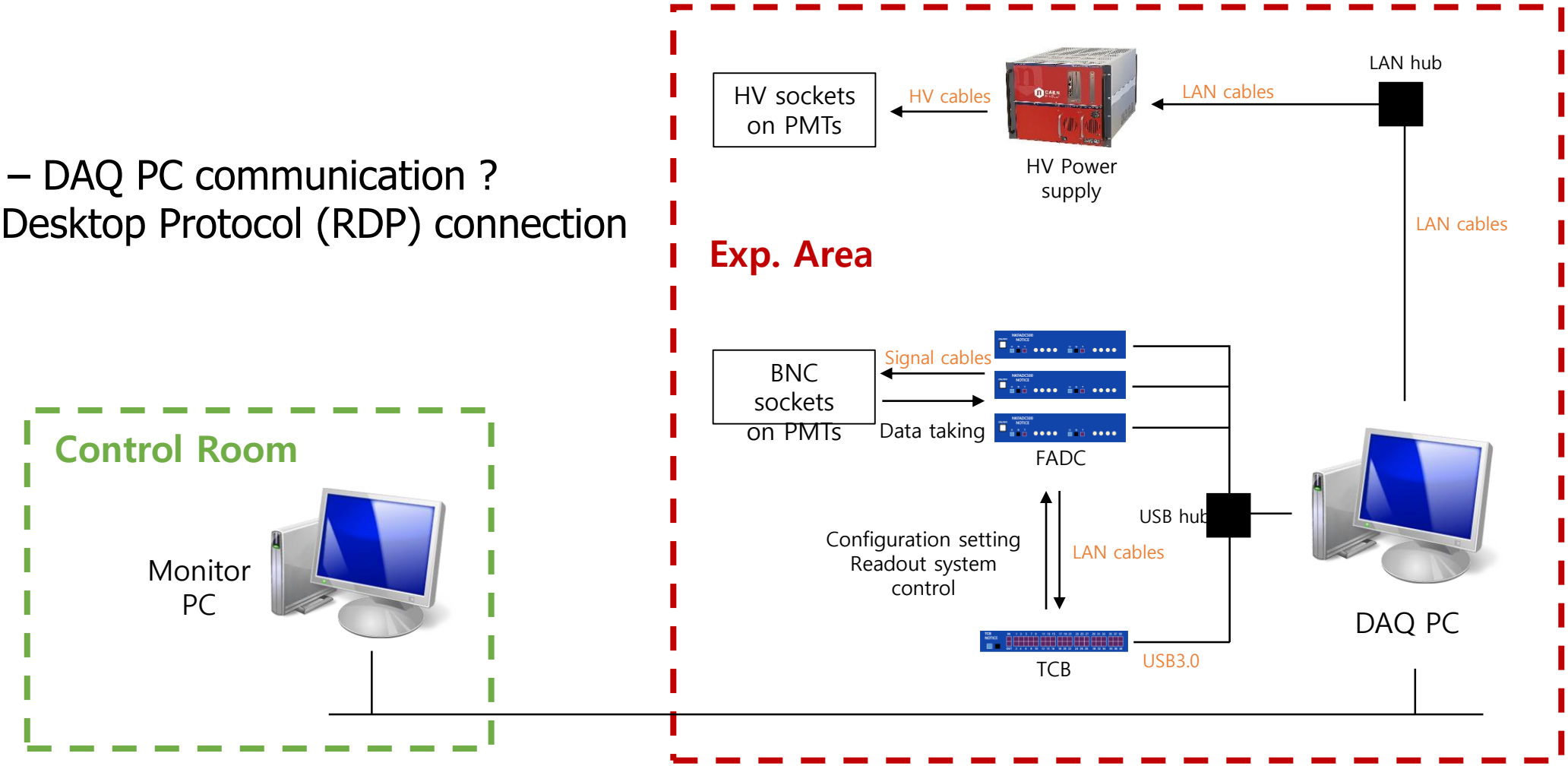
Coinc. = 1x2x3x4 for All FADCs
mthr=24
, which means giving a trigger when all bar have a signal.

th=5[ch]	0.5Hz
th=100[ch]	0.2Hz

TOF Status
Network registration

Previous slide (07/20)

Monitor PC – DAQ PC communication ?
⇒ Remote Desktop Protocol (RDP) connection



TOF Status
Network registration

GBAR Network has been connected and now we can use it.
To use GBAR Network, one should register a PC to IT support department.
Temporarily, my personal Windows 10 Laptop is being registered.

< DAQ PC >

name	TOFPC001
outlet	0193-S:0205/02
IPv4	10.11.44.128

< Monitor PC (Temp.) >

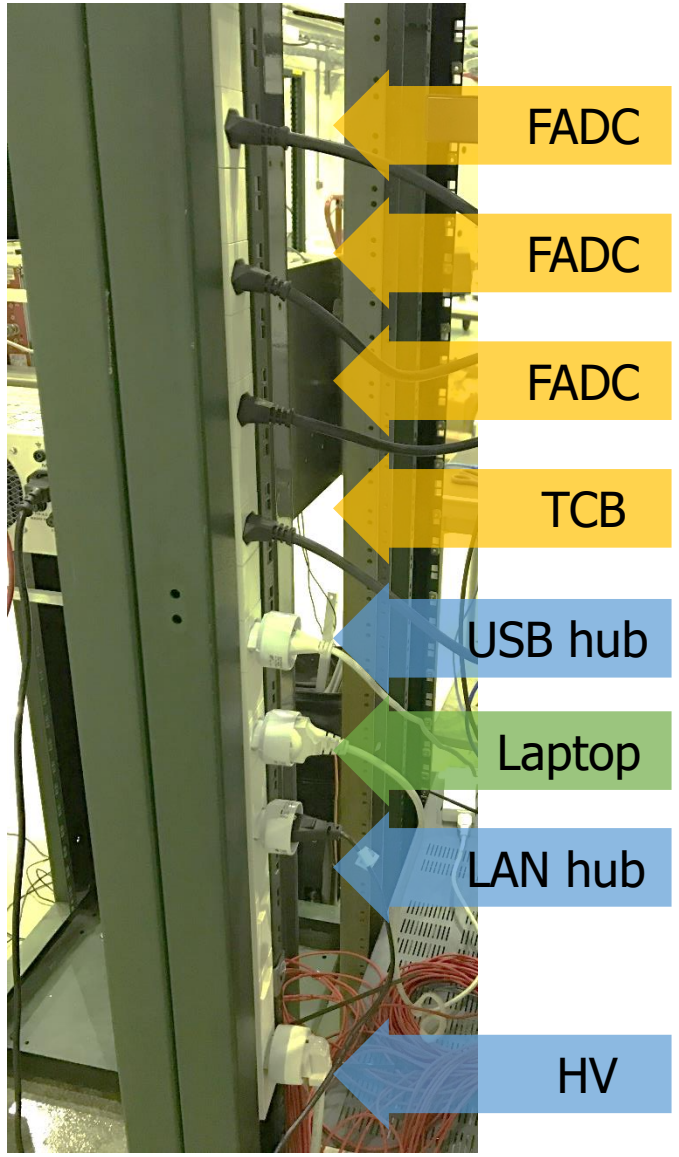
name	GBARCRPC020
outlet	0093 2-0021
IPv4	10.11.44.129

A connection between DAQ – Monitor PC is already confirmed.
For Remote Desktop Protocol connection, x-win32 is considered(recommended by CERN).

CERN Status

1. Now we can use a power strip on a rack.
   Total 10 outlets = 8 used + 2 left
   - 3 for FADCs,
   - 1 for TCB,
   - 2 for hubs (USB/LAN)
   - 1 for DAQPC
   - 1 for HV modules

For now, it's enough, but later, we need more.
- 8 more FADCs
- 1 more for Desktop-Monitor



CERN Status

1. Now we can use a power strip on a rack.

2. After all test is done, including MMC-TOF,
   we can move our detector to ASACUSA zone for antiproton beam. (Dip)