Ancillary_DAQ

Ancillary DAQ

This section is meant to be a practical reference for running ancillary data taking during the shifts.

Pedestal run

1. working directory: /home/glast/DAQ-v3.00/CAENVMETest
2. on the console write: **PEDEmain**
3. insert when requested the number of events (suggested value 500)
4. on the "Buttons Canvas" press the button:"Open Canvas"
5. on the "Buttons Canvas" press the button."Start Pede"
6. on the console insert a brief comment to the run
7. when the run is enden press on the "Button Canvas" the button: "Stop"
8. if tou want to abort the run press "Ctrl-c" on the keyboard. (In this case the threshold mask for the zero.suppression acquisition will not be saved. You need to perform again a pedestal run)
9. the pedestal data will be saved in the direcotry:/home/glast/DAQ-v3.00/CAENVMETest/pede in ROOT format and in binary format,

1. a text file will be produced for a quick inspection of the pedstal and noise of all the channels

Acquisiton run not synchronized with the CU

1. working direcotory: /home/glast/DAQ-v3.00/CAENVMETest
2. on the console write: **ANCmain**

1. insert when reqeusted the number of events

1. on the "Button Canvas" press the button:"Open Canvas"

1. on the "Button Canvas" press the button."Start ACQ"

1. on the console insert a brief comment to the run

1. when the run is enden press on the "Button Canvas" press the button:"Stop"

1. if tou want to abort the run press "Ctrl-c" on the keyboard. (all the data excpet the last spill will be saved anyway)

1. the data will be saved in the direcotry:/home/glast/DAQ-v3.00/CAENVMETest/data in ROOT format and in binary format

Acquisiton run synchronized with the CU (for tagged photons)

1. working direcotory: /home/glast/DAQ-v3.00/CAENVMETest
2. **SET THE STROBE DELAY TO 500us** (move the Strobe delay knob on 1ms pos.)
3. on the console write: **ACQmain**
4. insert when reqeusted the number of events
5. on the "Button Canvas" press the button:"Open Canvas"
6. on the "Button Canvas" press the button."Start ACQ"
7. on the console insert a brief comment to the run
8. wait a Client from RunControl ("*Starting server socket on port 2345 -> waiting for a client...*")
9. on the console you will be prompted with: "*Press enter when RC is ready*"
10. when RunCOntrol is on PASSED status and the sweep event has been acquired you can press "enter" to start the syncronized acqusition
11. when the run is enden press on the "Button Canvas" the button: "Stop"
12. if tou want to abort the run press "Ctrl-c" on the keyboard. (all the data excpet the last spill will be saved anyway)
13. the data will be saved in the direcotry:/home/glast/DAQ-v3.00/CAENVMETest/data in ROOT format and in binary format.
14. the data will be onlime merged with the CU data.

Acquisiton run synchronized with the CU withou SSDs detecotrs (for full breemstrahlung)

1. working direcotory: /home/glast/DAQ-v3.00/CAENVMETest
2. **SET THE STROBE DELAY TO 50us** (move the Strobe delay knob on 100us pos.)

1. on the console write: **ACQNOSSDmain**
2. insert when reqeusted the number of events
3. on the "Button Canvas" press the button:"Open Canvas"
4. on the "Button Canvas" press the button."Start ACQ"
5. on the console insert a brief comment to the run
6. wait a Client from RunControl ("*Starting server socket on port 2345 -> waiting for a client...*")
7. on the console you will be prompted with: "*Press enter when RC is ready*"
8. when RunCOntrol is on PASSED status and the sweep event has been acquired you can press "enter" to start the syncronized acqusition
9. when the run is enden press on the "Button Canvas" the button: "Stop"
10. if tou want to abort the run press "Ctrl-c" on the keyboard. (all the data excpet the last spill will be saved anyway)
11. the data will be saved in the direcotry:/home/glast/DAQ-v3.00/CAENVMETest/data in ROOT format and in binary format.
12. the data will be onlime merged with the CU data.

In case of shut down of "wkxglast1" (Ancillary ACQ PC)

1. login as superuser
2. go into the following directory: /usr/local/CAENVME-Rev2.4/Linux/driver/v2718
3. on the console write: **./a2818_load.2.6**
4. logout as superuser

Directory structure

1. main directory: /home/glast/DAQ-v3.00

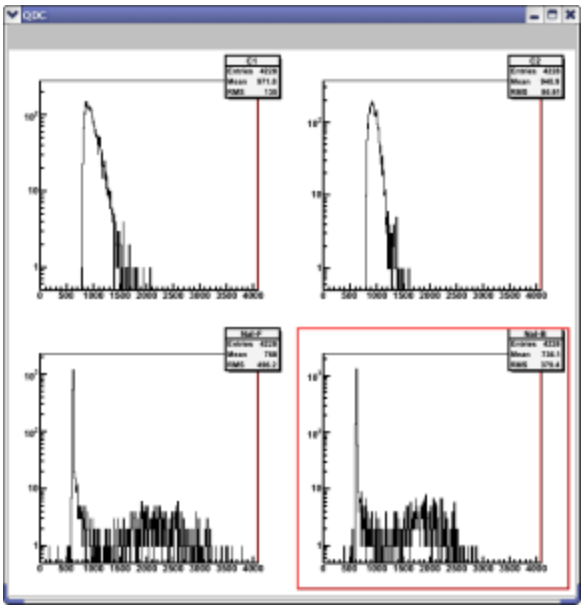
1. function direcorties: /home/glast/DAQ-v3.00/ACQFUNC - /home/glast/DAQ-v3.00/ancDAQ

1. main programs directory: /home/glast/DAQ-v3.00/CAENVMETest

1. data directory: /home/glast/DAQ-v3.00/CAENVMETest/data

1. pedestal directory: /home/glast/DAQ-v3.00/CAENVMETest/pede

Canvas



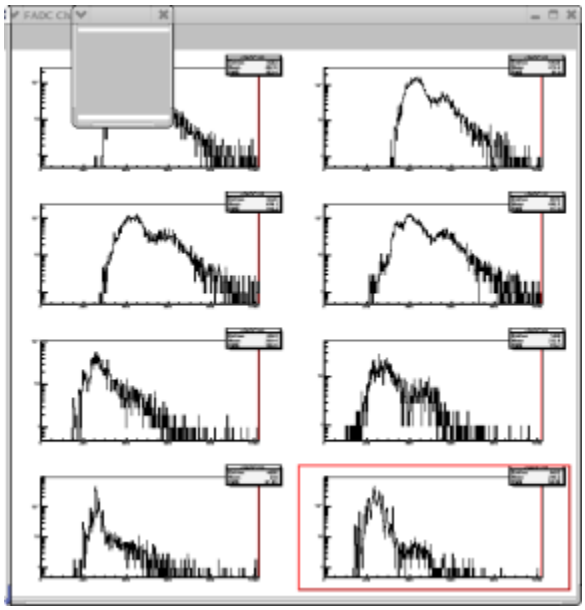
In this canvas are shown the raw data of 4 QDC ch

1) Cherenkov 1

2) Cherenkov 2

3) NaI Front Section

4) NaI Back Section



In this canvas are shown the charge raw data of the 4 SSDs modules
1-2 SSD0 Vertical - Horizontal

3-4 SSD1 Vertical - Horizontal

5-6 SSD2 Horizontal - Vertical

7-8 SSD3 Horizontal - Vertical

In this canvas are shown the hit maps of the 4 SSDs modules
1-2 SSD0 Vertical - Horizontal
3-4 SSD1 Vertical - Horizontal

5-6 SSD2 Horizontal - Vertical (the vertical plot is inverted up-down)

7-8 SSD3 Horizontal - Vertical (the vertical plot is inverted up-down)

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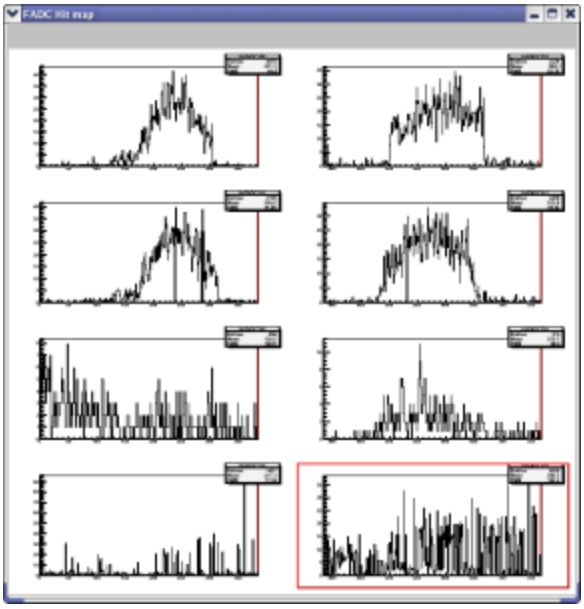
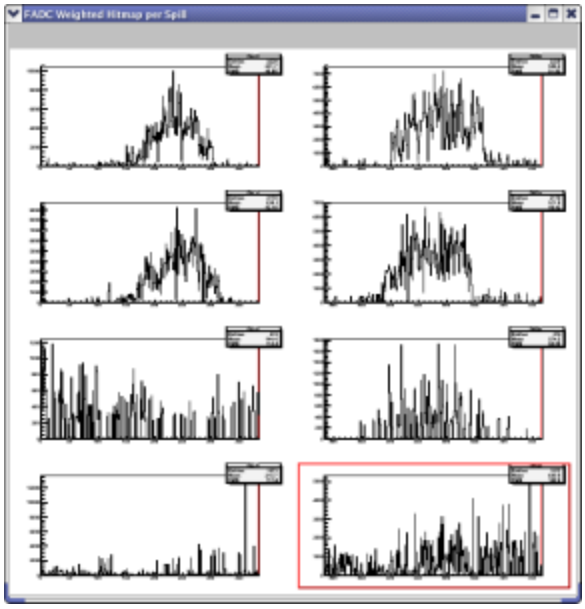
In this canvas are shown the hit maps whighted with the charge of the 4 SSDs modules
The plot is refrashed at each spill
1-2 SSD0 Vertical - Horizontal

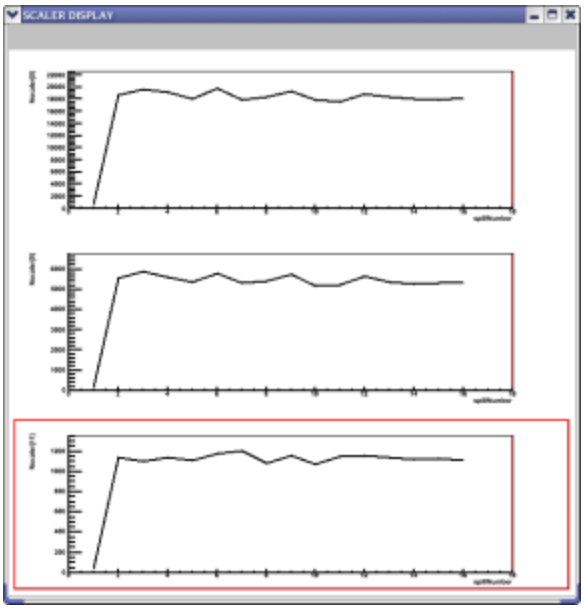




3-4 SSD1 Vertical - Horizontal

5-6 SSD2 Horizontal - Vertical (the vertical plot is inverted up-down)

7-8 SSD3 Horizontal - Vertical (the vertical plot is inverted up-down)

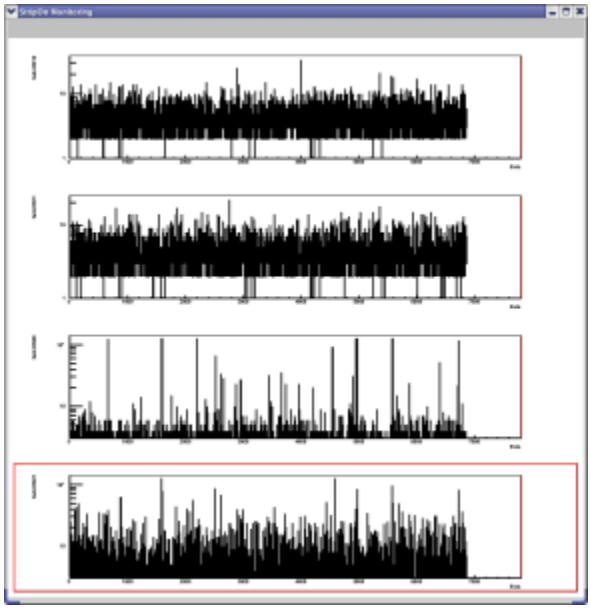


In this canvas are shown the scaler counts for 3 relevant ch.

1) S0 counts per cycle (to monitor all beam intensity)

2) S0*C1*C2 counts per cycle (to monitor the elctron content of the beam)

3) HW Triggers per cycle (to monitor the acqusition rate)



In this canvas are shown the number of strips over threshold for each SSDs (to monitor the pedestal drfit of SSDs)

1) SSD0

2) SSD1

3) SSD2

4) SSD3

If this number is greater then 128 or it si 0 for a long period (more then a couple of cycles) you shuold stop the run, perform a new pedestal run and start the run again