EMEC data will contain (in whatever format …) things like:

General:

miniRODS
gains
samples
FIFO pairs

For each event:

FIFO channel pattern
miniROD crate number
minROD board number
Capacitor number
ADC number
For each sample: 8*#gain words

EMEC readout cells (from ATL-AL-ES-0004)

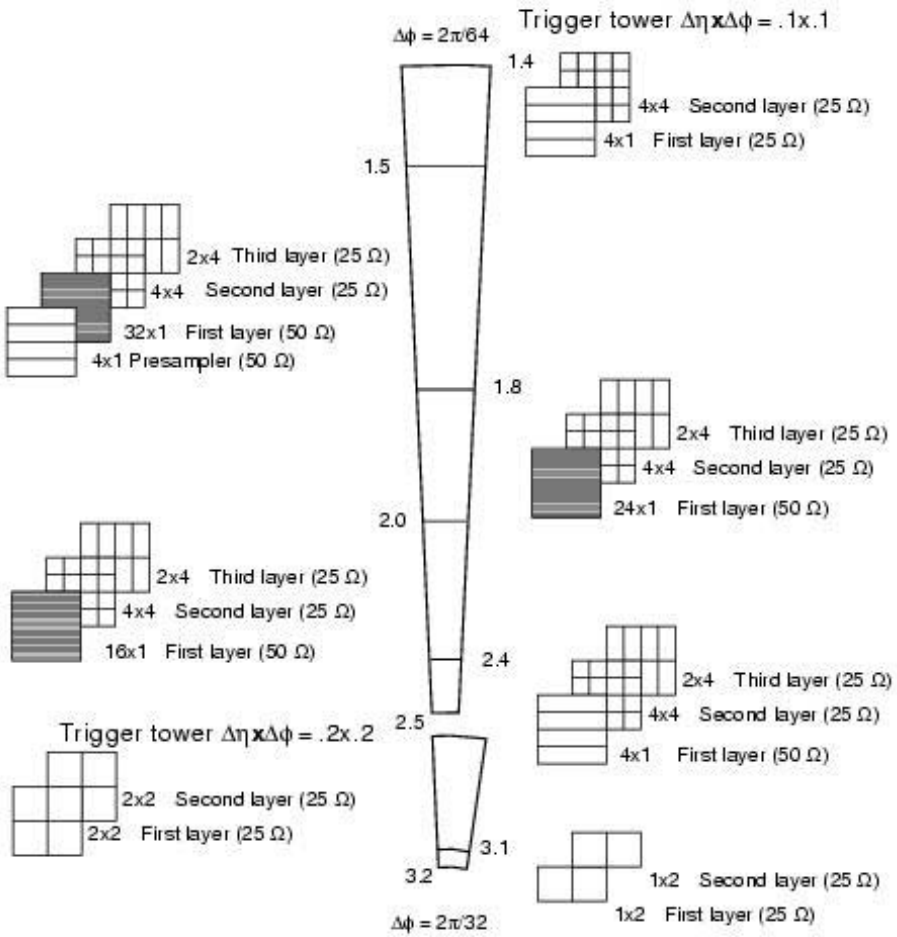


Figure 2 : Granularity of a trigger tower in the EM end-cap calorimeter. This pattern repeats itself in azimuth. Note the change of granularity above 2.5 in rapidity.

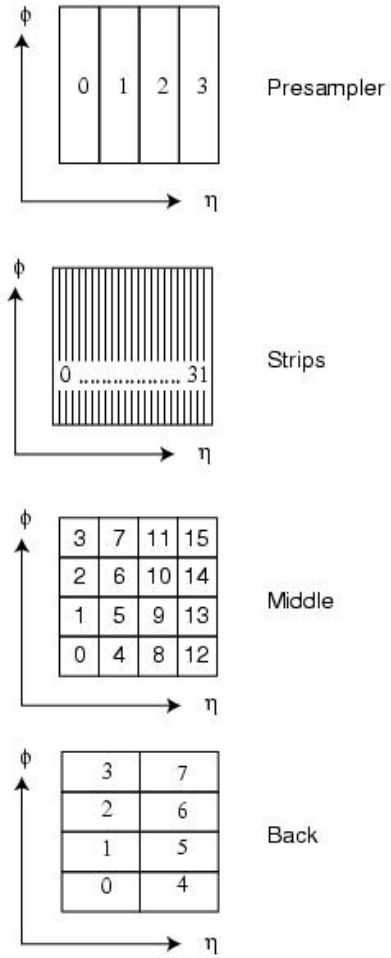
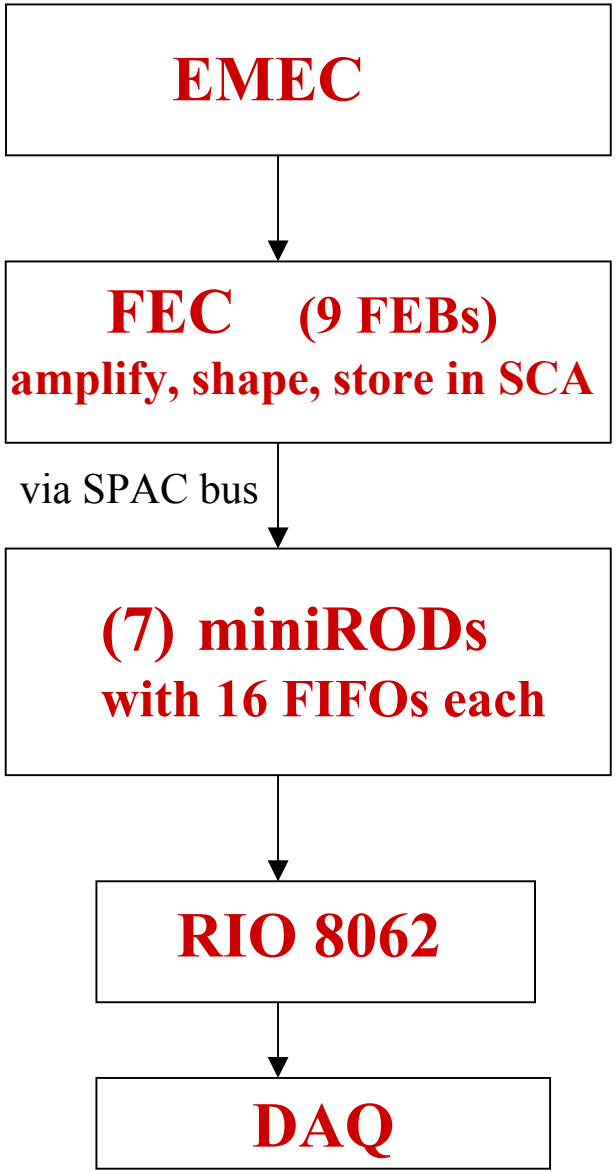


Figure 11 : Cell numbering inside of a trigger tower.



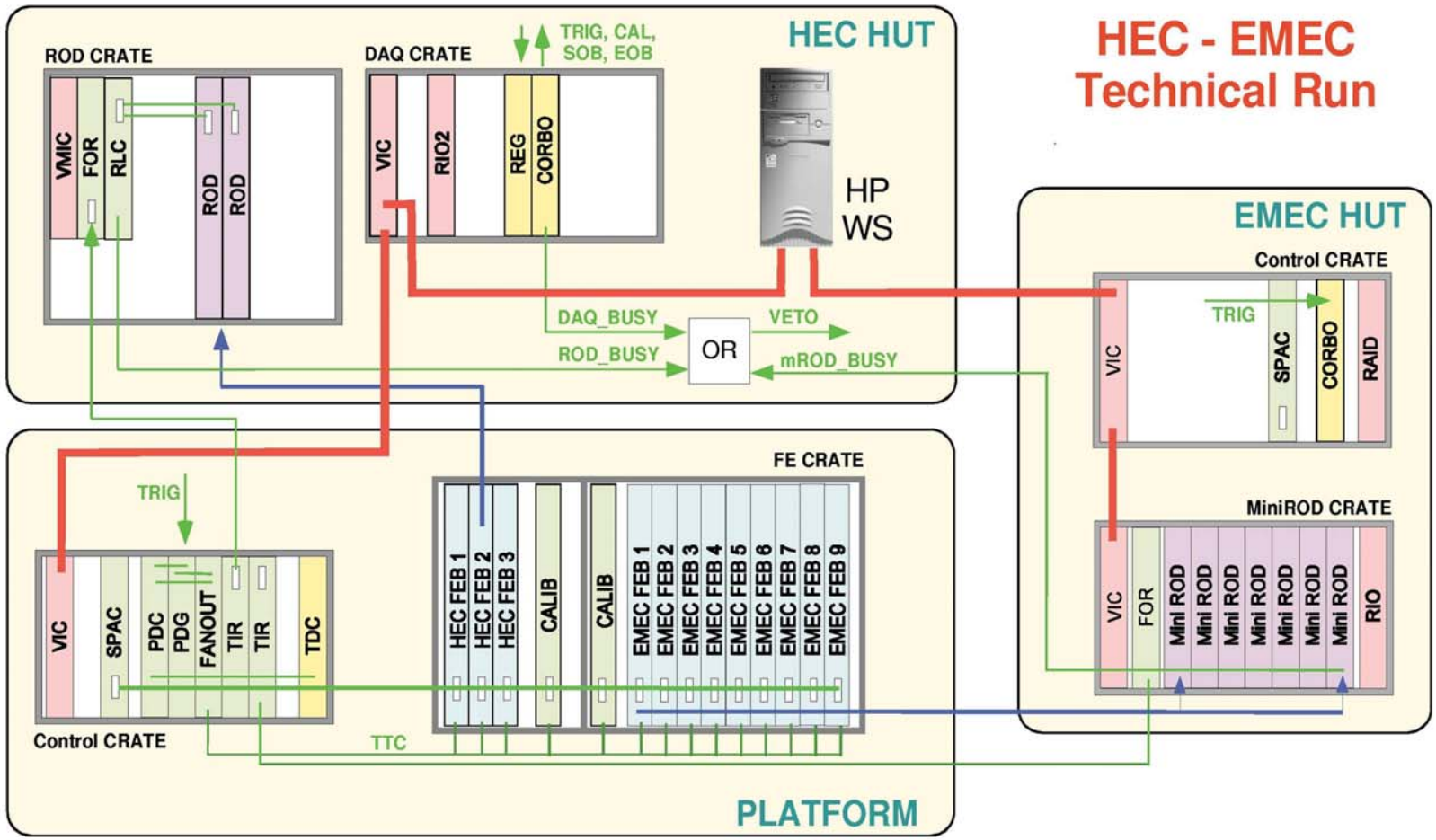
Up to 4 “Layers” : PS, Front, Middle, Back

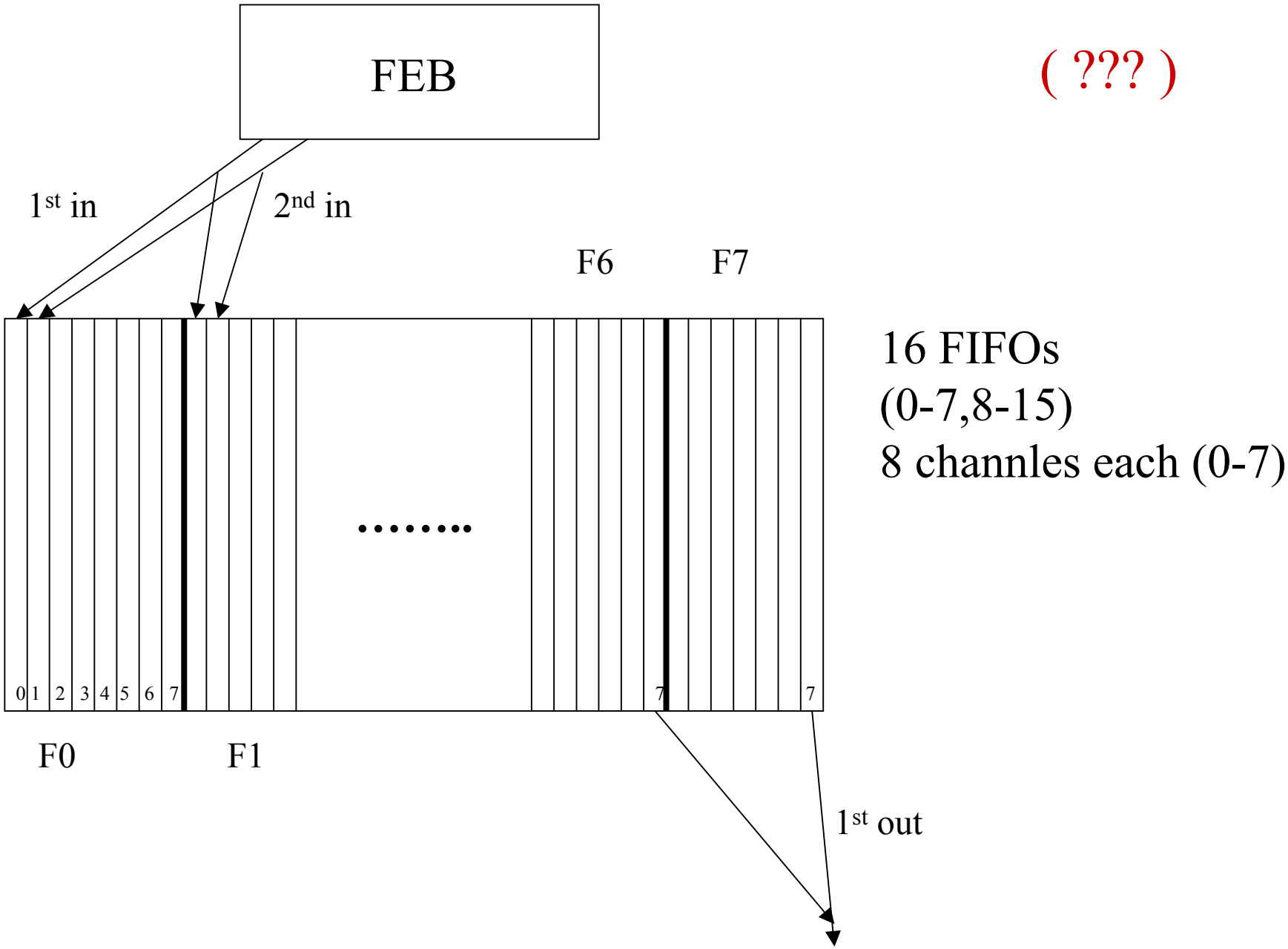
128 channels/ FEboard (FEB, TTB, Cal)
2 gains (sets of samples) / channel:
med, high (ATLAS - 3gains: 1 : 9.2 : 92)
5 samples/channle digitized on FEB

Each miniROD: 16 FIFOs
Each FIFO: 8 channels
Reads and stores data

At the end of burst,: all events are stored in miniRODs and emptied by RIO processor.
(RIO is used for multiple miniROD readout)

MRA (miniRODAcquisition) is controlled by DAQ via control flags in RIO internal memory + accessed via VIC modules.


HEC - EMEC
Technical Run
HEC HUT
ROD CRATE
VMIC
FOR
RLC
ROD
ROD
DAQ CRATE
TRIG, CAL,
SOB, EOB
VIC
RIO2
REG
CORBO
HP
WS
DAQ_BUSY
ROD_BUSY
OR
VETO
mROD_BUSY
EMEC HUT
Control CRATE
VIC
TRIG
SPAC
CORBO
RAID
MiniROD CRATE
VIC
FOR
Mini ROD
Mini ROD
Mini ROD
Mini ROD
Mini ROD
Mini ROD
Mini ROD
RIO
FE CRATE
TRIG
VIC
SPAC
PDC
PDG
FANOUT
TIR
TIR
TDC
HEC FEB 1
HEC FEB 2
HEC FEB 3
CALIB
CALIB
EMEC FEB 1
EMEC FEB 2
EMEC FEB 3
EMEC FEB 4
EMEC FEB 5
EMEC FEB 6
EMEC FEB 7
EMEC FEB 8
EMEC FEB 9
Control CRATE
TTC
PLATFORM


FEB
(???)
1st in
2nd in
F6
F7
16 FIFOs
(0-7,8-15)
8 channles each (0-7)
0 1 2 3 4 5 6 7
7
7
F0
F1
1st out