

Understanding Coda evio an scaler events

SCALER event: what is inside ?

Scaler event

Scaler event

clk_gated	= 33615202	clk_gated	= 34531070	dif.	= 915868 (0.915879)
clk_ungated	= 40055765	clk_ungated	= 41055753	dif.	= 999988
rndm_gated	= 65321	rndm_gated	= 67048	dif.	= 1727 (0.902771)
rndm_ungated	= 78078	rndm_ungated	= 79991	dif.	= 1913
ts2_gated	= 1790105	ts2_gated	= 1841709	dif.	= 51604 (0.999922)
ts2_ungated	= 1790266	ts2_ungated	= 1841874	dif.	= 51608

N(event tag = MOR)	= 1955
N(event tag = HYCAL COINC)	= 39544
N(event tag = CLOCK)	= 9263
N(event tag = PS)	= 838
N(other event tags)	= 8
SUM	= 51608 (= ts2_ungated ?)

? Can we use event_Tag variable in analysis ? why MORs are twice less vs rate ?

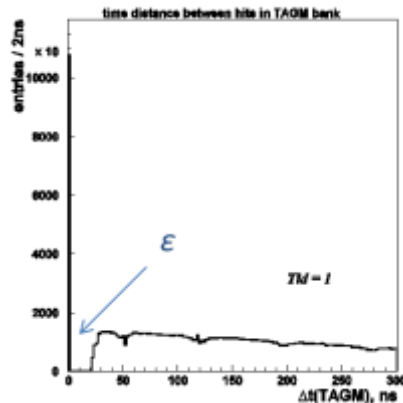
? Scaler events are not fully unpacked ? What else usefull we can have from them: SCALER bank, time, ... ?

? $Livetime = clk_gated / clk_ungated \times (?) ts2_gated / ts2_ungated$?

*) *Bad TS event size: 10 words in two-free adjacent events,
Missing REF TDC in the same events (frequency ~ 1/1300)*

Other questions

- TRIGT TDC to ns = exactly $0.5\text{ns} \pm ?$
- Time between 2 scaler events = $10\text{sec} \pm ?$
- Clock frequency ($\sim 1\text{MHz}$) and clock trigger frequency ($\sim 1\text{kHz}$)
- Slope in TAGM_LR time in Clock events (tiny)
- Understanding yield correction (stolen window, multihit resolution, dead time):



- $\epsilon = ?$
- Level of duplicated hits ?

Time distance between adjacent hits for Tid = 1

- Why always 4 MOR in TRIGTHIT for MOR events
(with one hit around 0 time in almost all cases) ?