last update: 080207

Spin Scaler Inputs-Run8

Bd	5,6	7(not available)	8	9,10
bit	Luminosity[1]	Deadtime[2]	Calorimetry[2]	FPD Asymmetry
0	ZDC-ΔT 1	ZDC-ΔT 1	FPDE-N-thbit0	LED bit
1	ZDC-ΔT 2	ZDC-ΔT 2	FPDE-S-thbit0	FMS-mon1
2	ZDC-ΔT 3	ZDC-ΔT 3	FPDW-N-thbit0	FMS-mon2
3	ZDC-ΔT 4	ZDC-ΔT 4	FPDW-S-thbit0	FMS-mon3
4	BBC-S-ΔT 1[3]	BBC-S-ΔT 1	BBC-S-ΔT 1	FMS-mon4
5	BBC-S-ΔT 2	BBC-S-ΔT 2	BBC-S-ΔT 2	FD201-0
6	BBC-S-ΔT 3	BBC-S-ΔT 3	BBC-S-ΔT 3	FD201-1
7	BBC-S-ΔT 4	BBC-S-ΔT 4	BBC-S-ΔT 4	FD201-2
8	BBC-L-ΔT 1	Live0 (TPC,FTPC,SVT)	EM201-0	FD201-3
9	BBC-L-ΔT 2	Live1(FPD SMD)	EM201-1	FD201-4
10	ZDCE-sum-th0	Live2(TOF)	EM201-2	FD201-5
11	ZDCW-sum-th0	Live3(BTOW)	EM201-3	FD201-6
12	BBCE-sum-th0	Live4(BSMD)	EM201-4	FD201-7
13	BBCE-sum-th1	Live5(ETOW)	EM201-5	FD201-8
14	LD301/0	Live6(ESMD)[4]	EM201-6	FD201-9
15	EM201/0 (BEMC JP bit1)	TokenFifoMT	EM201-7	FD201-10
16	VT201/0	VT201/0	VT201/0	VT201/0
17	BX0	BX0	BX0	BX0
18	BX1	BX1	BX1	BX1
19	BX2	BX2	BX2	BX2
20	BX3	BX3	BX3	BX3
21	BX4	BX4	BX4	BX4
22	BX5	BX5	BX5	BX5
23	BX6	BX6	BX6	BX6

1)These are set up in pairs, reading one of the pair every 250 sec and storing the data in the database with a timestamp, and letting the other integrate throughout a run.
2)These are read periodically, likely integrating over a complete run.
3) These imply BBCE•BBCW coincidence. Also note that all ΔT values involve a hardware threshold for the discriminator that fires the TAC. The ΔTAC LUT must have values for its 4 MSBs (values 0-15) aligned with the L0 trigger bits: window 0 must correspond to central values – a window from e.g. $7 < \Delta TAC < 9$: window 1 correspond to wider values e.g. $5 < \Delta TAC < 12$. Using a "normal" 1:1 LUT would put the central value near 256, since we compute TAC(E)+256-TAC(W) to keep all values positive. Our new LUT would map 256->8 and compress the 512 possible values into just 16 bins, probably in a non-linear map. By setting the bin boundaries at the values used for level 0 window boundaries we can correlate the scalers directly with the event data.