PHENIX TRIGGER CONFIGURATION - 6/23/00

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TRIGGER LIST FOR

BONA_FIDE_QGP
BONA_FIDE_QGP_seperateTEC
BONA_FIDE_QGP_seperateRICH
BONA_FIDE_QGP_seperateTEC_RICH

CONFIGURATIONS

PARTITION 0: GL1 (TRIGGER 15)
PARTITION 1: RBIB (TRIGERS 0-14, 24-31)
PARTITION 2: TEC (TRIGGERS 16-19)
PARTITION 3: RICH (TRIGGERS 20-23)

NOTES:

Partition 2 is only available in the BONA_FIDE_QGP_seperateTEC_RICH and BONA_FIDE_QGP_separateTEC configurations.
Partition 3 is only available in the BONA_FIDE_QGP_seperateTEC_RICH and BONA_FIDE_QGP_separateRICH configurations.

This trigger list is valid for all of the above configurations, with exceptions as noted below:

TRIGGERS 0-3 ARE EXCELLENT DATA TRIGGERS, TRIGGER 3 PROBABLY BEING THE BEST. NOTE THAT THE BPM SIGNALS WILL FALL BELOW THE DISCRIMANTOR THRESHOLD WHEN THE BEAM IN THE BLUE OR YELLOW RING IS APPROXIMATELY 1.0E8.

BBC Coinc. (TRIG 0) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

ZDC Coinc. (TRIG 1) {
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC Coinc. + ZDC Coinc. (TRIG 2) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
ZDCN_bit3.GT.0
ZDCS_bit3.GT.0
ZDCN&ZDCS_bit5.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC, ZDC Coinc. + BPMs (TRIG 3) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
BPM7_bit10.GT.0
BPM8_bit11.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC, ZDC Coinc. + BPMs + W1.W2 (TRIG 4) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
BP7_bit10.GT.0
BP8_bit11.GT.0
W1&W2_bit6.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC, ZDC Coinc. + BPMs + E1.E2 (TRIG 5) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
BP7_bit10.GT.0
BP8_bit11.GT.0
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC, ZDC Coinc. + BPMs + W1.W2 + E1.E2 (TRIG 6) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
BP7_bit10.GT.0
BP8_bit11.GT.0
W1&W2_bit6.GT.0
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC, ZDC Coinc. + BPMs + W1.W2.W3 (TRIG 7) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
BP7_bit10.GT.0
BP8_bit11.GT.0
W1&W2&W3_bit7.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC Coinc. + W1.W2 (TRIG 8) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
W1&W2_bit6.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC Coinc. + E1.E2 (TRIG 9) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

TRIGGERS 10-11 ARE GOOD COSMICS TRIGGERS WHEN THERE IS NO BEAM.

W1.W2 (cosmic) (TRIG 10) {
W1&W2_bit6.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

E1.E2 (cosmic) (TRIG 11) {
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

TRIGGER 12 IS A BBC-LL1 TEST TRIGGER - THIS IS CURRENTLY MASKED OFF BY DEFAULT. IT SHOULD ONLY BE USED WHEN THE BBC-LL1 IS LOADED AND ALL FIBERS ARE LOCKED.

BBC-LL1 (TRIG 12) {
BBC00_bit16.GT.0
BBC01_bit17.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

TRIGGERS 13-14 ARE GOOD BEAM-GAS TRIGGERS - USE THESE ESPECIALLY WHEN YOU ONLY HAVE BEAM IN ONE RING (BLUE - TRIGGER 13, YELLOW - TRIGGER 14).

ZDCN + BBN + W1.W2 + E1.E2 (blue beam gas) (TRIG 13) {
ZDCN_bit3.GT.0
BBN_bit0.GT.0
W1&W2_bit6.GT.0
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

ZDCS + BBS + W1.W2 + E1.E2 (yellow beam gas) (TRIG 14) {
ZDCS_bit4.GT.0
BBS_bit1.GT.0
W1&W2_bit6.GT.0
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

TRIGGER 15 IS THE GL1 FORCED ACCEPT KEEPALIVE - THIS TRIGGER BELONGS TO PARTITION 0.

GL1 keepalive (TRIG 15) {
FA_GL1_bit15.GT.0
}

TRIGGERS 16-19 ARE THE TEC TRIGGERS WHEN RUNNING SEPERATELY.

BBC Coinc. + W1.W2 (TRIG 16) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
W1&W2_bit6.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC Coinc. + E1.E2 (TRIG 17) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

ZDC Coinc. (TRIG 18) {
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC Coinc. (TRIG 19) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

TRIGGERS 20-23 ARE THE RICH TRIGGERS WHEN RUNNING SEPERATELY.

BBC Coinc. + W1.W2 (TRIG 20) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
W1&W2_bit6.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC Coinc. + E1.E2 (TRIG 21) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
E1&E2_bit8.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

ZDC Coinc. (TRIG 22) {
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

BBC Coinc. (TRIG 23) {
BBN_bit0.GT.0
BBS_bit1.GT.0
BBS&BBN_bit2.GT.0
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

TRIGGERS 24-27 ARE THE MIKE SIVERTZ SCALERS - THESE ARE MASKED OFF BY DEFAULT AND SHOULD PROBABLY NOT BE USED TO TAKE DATA:

BPM7 + BPM8 (SCALER - do not use) (TRIG 24) {
BPM7_bit10.GT.0
BPM8_bit11.GT.0
}

BPM7 + BPM8 + ZDCN (SCALER - do not use) (TRIG 25) {
BPM7_bit10.GT.0
BPM8_bit11.GT.0
ZDCN_bit3.GT.0
}

BPM7 + BPM8 + ZDC Coinc. (SCALER - do not use) (TRIG 26) {
BPM7_bit10.GT.0
BPM8_bit11.GT.0
ZDCN_bit3.GT.0
ZDCS_bit4.GT.0
ZDCN&ZDCS_bit5.GT.0
}

BPM7 + BPM8 + ZDCS (SCALER - do not use) (TRIG 27) {
BPM7_bit10.GT.0
BPM8_bit11.GT.0
ZDCS_bit4.GT.0
}

TRIGGERS 28-31 ARE THE PPG CALIBRATION TRIGGERS.

PPG (pedestal) (TRIG 28) {
PPG5_bit12.gt.0
PPG6_bit13.eq.0
PPG7_bit14.eq.0
}

PPG (test pulse) (TRIG 29) {
PPG5_bit12.eq.0
PPG6_bit13.gt.0
PPG7_bit14.eq.0
}

PPG (laser) (TRIG 30) {
PPG5_bit12.gt.0
PPG6_bit13.gt.0
PPG7_bit14.eq.0
}

PPG (LED) (TRIG 31) {
PPG5_bit12.eq.0
PPG6_bit13.eq.0
PPG7_bit14.gt.0
}