

Clock Event Updates for TLG

Due to operational requirements associated with Booster and Muon Campus we will be needing to make some changes to TCLK events sourced by TLG. These changes will include the removal of 2 events from TLG (\$08 & \$E4), the addition of 2 events to TLG (\$0E & \$F1) and the relocation of 6 events presently in TLG to new IP locations (\$0C, \$E0, \$E1, \$E2, \$E3 & \$E9). This will necessitate database changes to reflect the new locations of these events within the associated TCLK HCRMs.

As usual, changes within TLG will be handled by Linden, the dabble work for the HCRMs will be handled by Mike & Owen.

TLG Changes

Events to be removed:

Following events will no longer be sourced by TLG.

\$08 - Remove at request of Booster Group

\$E4 - Event now triggered in hardware, no longer a TLG event

Event relocations:

Following events remain TLG sourced but need to move to different IP/bit location.

\$0C - Move to IP2 – port2 - bitset 8

\$E0 - Move to IP3 –port1 –bitset 8

\$E1 - Move to IP3 –port1 –bitset 4

\$E2 - Move to IP3 –port1 –bitset 2

\$E3 - Move to IP3 –port1 –bitset 1

\$E9 - Move to IP3 –port2 –bitset 80

New TLG Events:

Following events are new to TLG.

\$0E - IP1 –port1 –bitset 1

The \$0E event is moving from being a hardware triggered event to being a TLG sourced event. It is to occur once at the start of any TLG module that delivers booster beam to either recycler or main injector. The event needs to occur 17mS prior to the first booster beam reset of the module. Therefore it needs to be set in the prior 15hz tick.

\$F1 - IP2 –port2 –bitset 4

The \$F1 is a new TCLK event that needs to be sent out coincident with the last booster beam reset of any TLG module containing a \$0E event (i.e. any module sending beam to Recycler or Main Injector).

HCRM Changes

Database updates:

Remove device.

T:EVT08 HCRM 14 ch 0 (Clear event data)

Relocate devices.

T:EVT0C Move to HCRM 14 ch 12 (add event data)

HCRM 14 ch 13 (Clear event data)

T:EVT0E Move to HCRM 16 ch 7 (add event data)

HCRM 3 ch 13 (Clear event data)

T:EVTE0 Move to HCRM 15 ch 3 (add event data)

HCRM 13 ch 7 (Clear event data)

T:EVTE1 Move to HCRM 15 ch 4 (add event data)

HCRM 16 ch 9 (Clear event data)

T:EVTE2 Move to HCRM 15 ch 5 (add event data)
 HCRM 13 ch 0 (Clear event data)

T:EVTE3 Move to HCRM 15 ch 6 (add event data)
 HCRM 13 ch 2 (Clear event data)

T:EVTE9 Move to HCRM 15 ch 7 (add event data)
 HCRM 13 ch 4 (Clear event data)

Add device.

T:EVTF1 HCRM 14 ch 13 (add event data)

Document changes

Update TCLK Schematic & Web Page

Update TCLK Event Definitions Web Page

Update TLG GPIIP Web Page

Update TLG IP Wiring Web Page

Update TLG FE Rules Web Page