

General (Stefan/Kin)

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Current Priority Items (PC)

- Cosmics with all subsystems on, EMCal in high gain
- Characterize TPC behavior - Canary chamber, pulser tests etc.
- DAQ development: fix event counts; test compressed format, zero suppression, multi-event buffering

Work Control Coordinators (Chris/Joel)

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Plan of the Day (Stefan/PC/all—to be revisited at end of meeting)

- Cosmics, all subsystems in

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Evening (Shuhang)

- MVTX FSM status stuck at mix state(9PM), resolved by MVTX experts.
- Some stops and restarts caused by event number of INTT and MVTX stop incrementing
- Grafana page for the DAQ overview has no signal
- Three and half of IHCAL was only seeing pedestal

Night (Chris McGinn)

- Spent ½ the night wrestling with DAQ errors - largely seb w/ stuck counts; bash `~/BigPartition/SetupScripts/dcm_init` during stop/start would fix one but another would be stuck on next run
 - Ended up calling Martin ~3am; after ~45m back to all seb incrementing properly
 - Understanding (could be wrong) is that `~/BigPartition/SetupScripts/dcm_init_select <rcdaq name>` would reduce the Whack-a-Mole nature of this issue; need help from experts in ID'ing the command/commands that check if `*_select` has properly re-initialized things
- Large number of MVTX clock errors (6) compared to previous runs
 - Experienced similar issue on "Recover Clock Error" as reported by Shuhang
 - Stuck in MixedStatus until MVTX expert (Zhaozhong) releases
- Checking logs it appears emcal gain was not set correctly; will make a point of checking tonight

Day (Veronica Verkest)

- DAQ is *smooth*, only interrupting runs for ebdcS/sebs that drop out or MVTX errors
- Some IR humidity alarms, mostly when the sun dried up the dew (10-11am)
- Several hundred thousand events with all detectors (& high-gain EMCal) by noon!!
- The DAQ was very unstable during owl shift, and when it was finally brought back under control, the EMCal gain had been reset to normal (AKA low) gain
 - When I had DAQ issues yesterday, I often found myself forgetting to double-check the gain—easy to forget about something that has been working
- **Request:** record EMCal gain in the DAQ Elog for each run
 - This takes a literal second to record but saves lots of time when looking for data

- This will also help shift crew ensure they are running in the proper mode
- IHCAL slot 10 channel 1 ~7 (see Shuhang's note at HCal)

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Magnet (Kin)

- Nothing new.

MBD ()

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Trigger (Dan)

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GTM/GL1 (Martin)

- Work on final additions to GL1 DB logging (the modebits, the most complicated one to add), almost done

DAQ (Martin/John H)

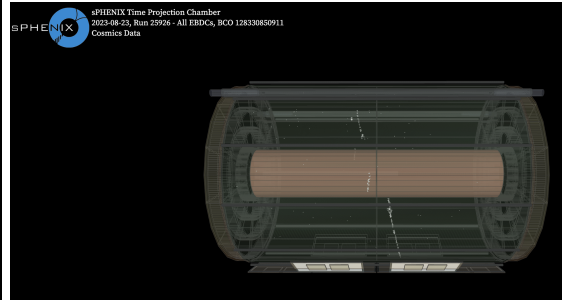
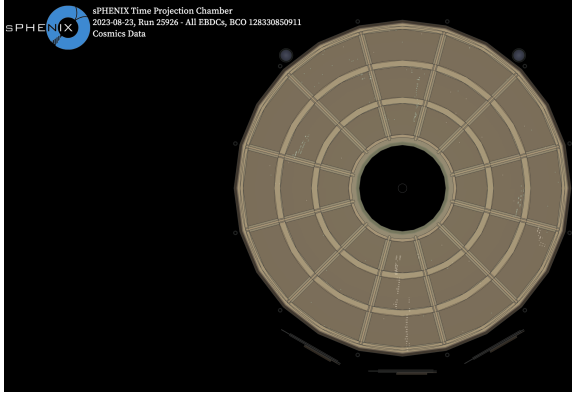
- Long night wrestling with mis-behaving EmCal SEBs, see <https://sphenix-intra.sdcc.bnl.gov/WWW/elog/Run+2023+Log/3146>
- Run-Control related GUI updates, see <https://sphenix-intra.sdcc.bnl.gov/WWW/elog/Run+2023+Log/3151>

MVTX (Zhaozhong)

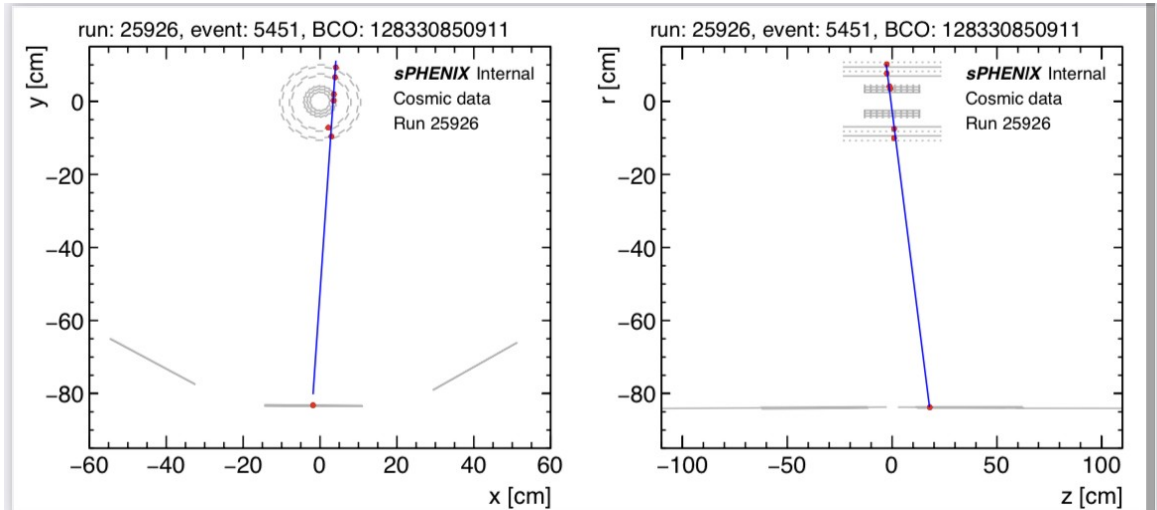
- Still decoding Run 25952 on mvtx-flx0
 - Found an error not saving the BCO as ULong_t in root. Currently fixing it now
 - Issue fixed now: tree->Branch("L1TrigBCO", &L1TrigBCO) -> tree->Branch("L1TrigBCO", &L1TrigBCO, "L1TrigBCO/L")
 - Now restart decoding Run 25952, expect to see some results later tonight

TPC (Tom Hemmick, Jin, Takao, Evgeny, Charles, John K., Bob, Ross, Thomas Marshall)

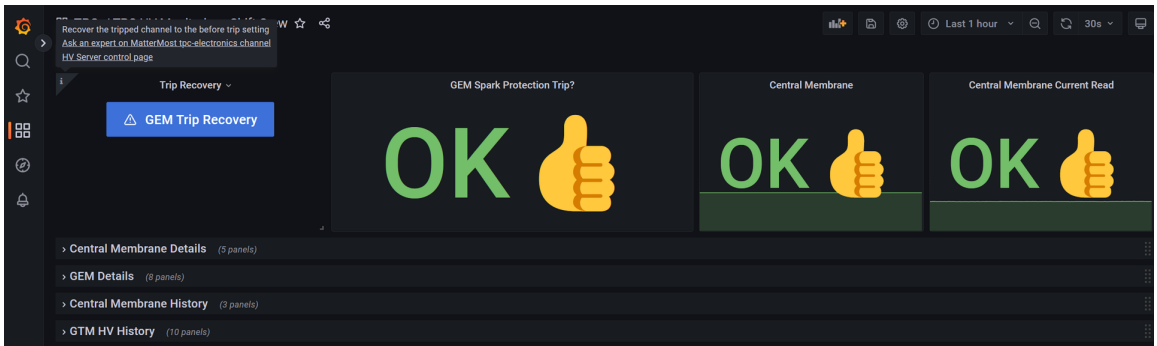
- Yesterday 08/25 after SCM
 - Evgeny continued to work on canary chamber
 - Moved amplifier to other slot in NIM bin
 - Setup works now BUT
 - Noise is too high, approx 27 mV (Fe55 signals in Bob's lab ~ 30 mV)
 - Evgeny reduced noise to 20 mV but still unacceptably high
 - Needs more work next week
 - Raised TPC to 4700 V, put in big partition
 - Thanks again to Shuhang for his help!
 - Thomas Marshall hunting for BCO's
 - Thanks to MVTX, INTT, and TPOT for all their help
 - **Run 25926 (4700 V), BCO 128330850911 / 1DE11D625F**



COMPARE TO 2D event display from yesterday (without TPC) below:



- Close match - very likely the same track (same BCO)
 - May have some mapping errors - still trying to figure out
- Today 08/26
 - 4 trips/16 hours overnight - all fast protection, all recovered, NO NEW DAMAGE
 - Late night, [Jin added "GEM Trip Recovery" button to shifter grafana page:](#)
 - Standing orders remain that trip recovery is still expert operation
 - Next week, transition out of this - hand it over to shifters

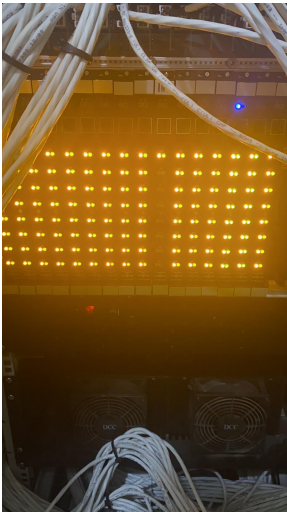


- 4 trips/16 hours overnight - all fast protection, all recovered, NO NEW DAMAGE
- Today, trip rate is a bit higher, 4 trips/4 hours, all fast protection, all recovered, NO NEW DAMAGE

- Plans for future:
 - Keep hunting for matches b/w MVTX, INTT, TPC, and TPOT
 - Thomas Marshall doing a great job (with help)
 - We have to understand our channel mapping
 - Keep TPC going at 4700 V (no plan to raise to 4800 yet, sorry Stefan)
 - Fix canary chamber (next week)
 - Hand over trip recovery to shifters (next week)
 - Work on TPC DAQ Plugin with Martin (next week - Monday)
 - Work on incorporating laser fire into regular running (next week, maybe)
 - **STANDING ORDERS FOR TPC REMAIN UNCHANGED**
 - Charles will post them again to Run-2023 mattermost for clarity

HCal (Shuhang)

- IHCal slot 10 channel 1 ~7 have been off since 08/25 8am



- EMCal ()

- TPOT ()

- INTT ()

- sEPD()

- Gas/Cooling ()

- ZDC ()

- Background Counters ()

- Online Monitoring (Chris)

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