

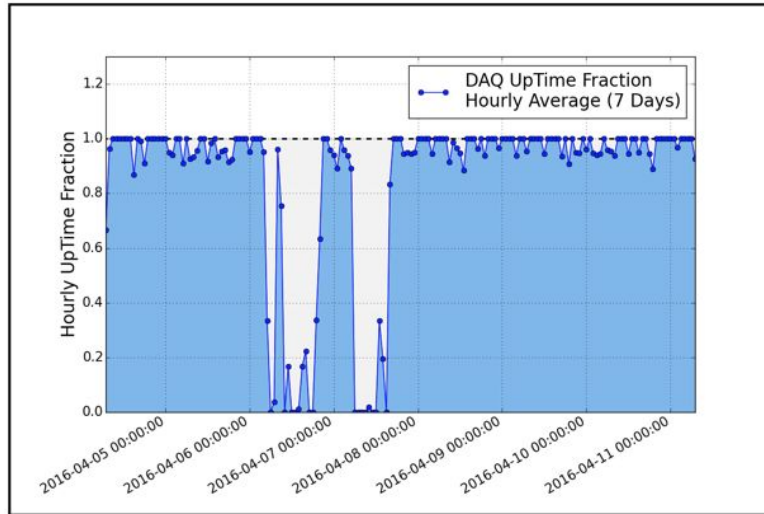
MicroBooNE Update

All Experimenters' Meeting - 4/11/2016

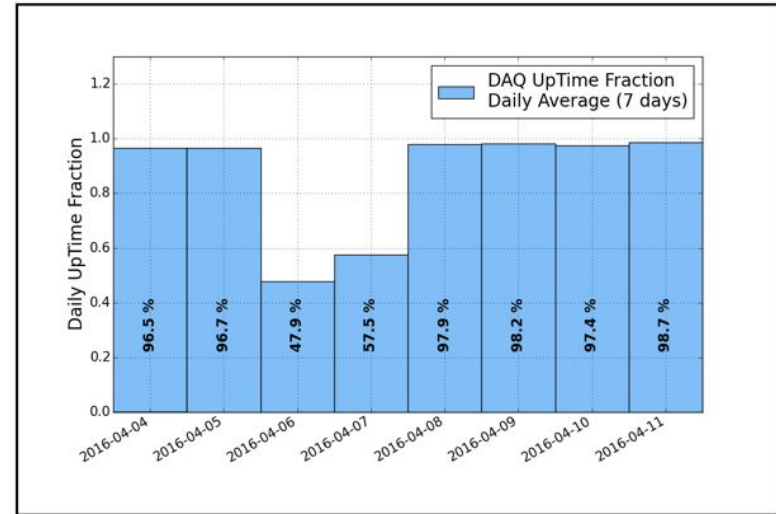
Matt Bass



DAQ Uptime



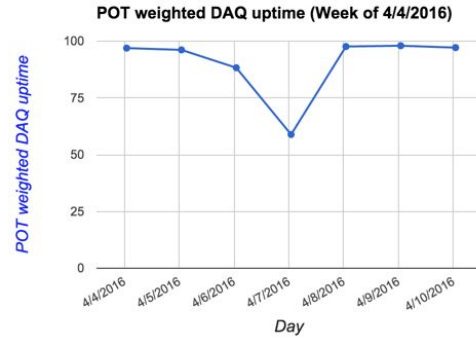
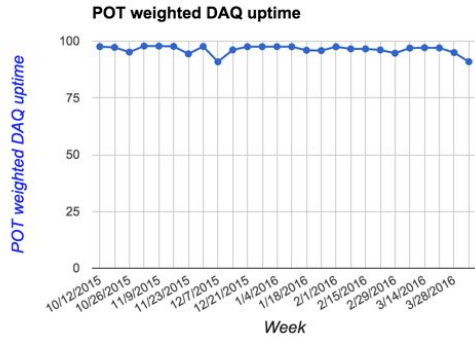
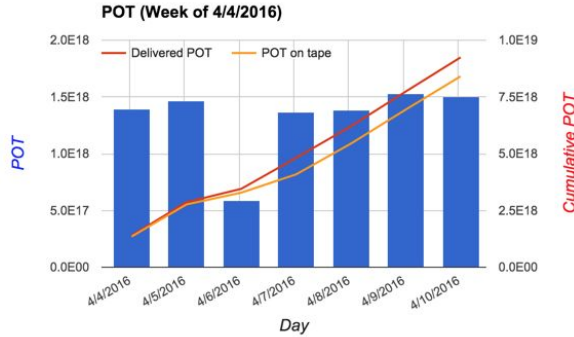
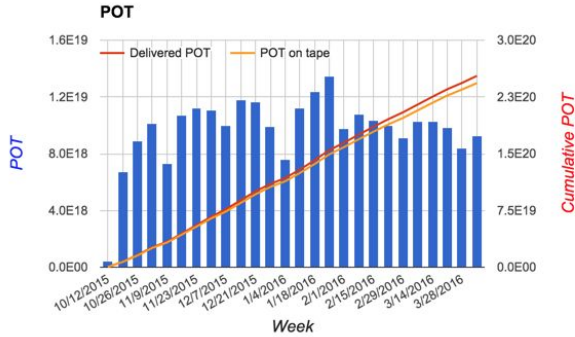
DAQ Uptime (Hourly, Past Week)



DAQ Uptime (Daily, Past Week)

- DAQ uptime ~71% for the past week
- **Beam downtime** on Wednesday
- **Planned downtime** on Thursday

POT Delivered & POT Recorded



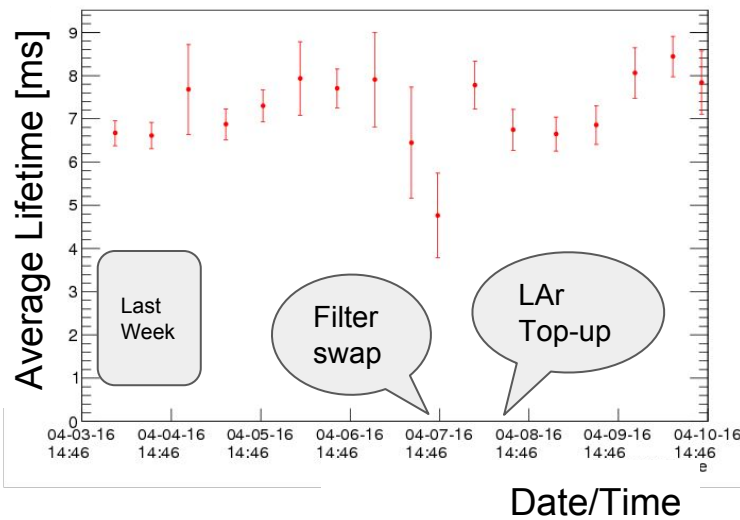
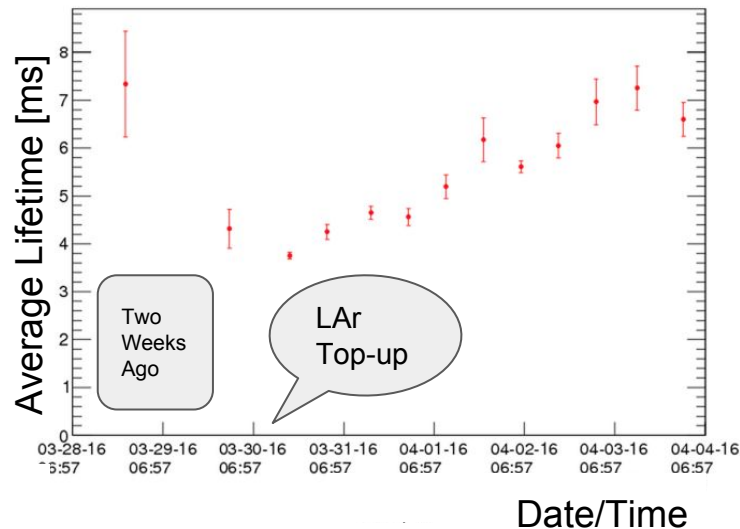
- Weekly POT delivered 0.92e19
- Weekly POT recorded 0.84e19
- 91% POT weighted uptime for week of 3/28
 - Work on 4/7

Wednesday-Thursday Work

- Full two days worth of work starting at Wednesday's beam downtime and extending into Thursday afternoon
 - ASIC low voltage filter switch (in/out)
 - Chirping (intermittent unresponsive channels) measurements
 - Supernova stream readout tests
 - Cryo full filter skid placed online
 - Cryo pump switched out
 - RAID firmware update
- Good planning, team-work, and excellent response from shifters and sub-system experts made this work go smoothly and efficiently

Cryo Filter Skid Swap

- **Swapped** from a low mass cryo filter to a full filter on **Thursday**
- The filter swap went smoothly and we have quickly recovered **electron lifetime**
 - Also replaced cryo pump at the same time
 - Seems to have recovered more quickly than with low mass filter
- Answering a question from last week:
 - 6 ms electron life-time is achieved with 50 ppt O₂ equivalent



ASIC LV Filter Test

- Swapped in service boards with boards that implement a Chebyshev **filter on the LV** power supply
 - On one feedthrough (**FT5**)
 - Goal was to filter low-frequency noise
- Work went smoothly
- Boards **removed** on Thursday; originals put back in place
- Preliminary results look promising
 - See gains in S/N
 - Analysis is ongoing

