

Notes from ProtoDUNE-HD first week of beam

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updates by Mike Kirby – BNL

DUNE General Computing meeting

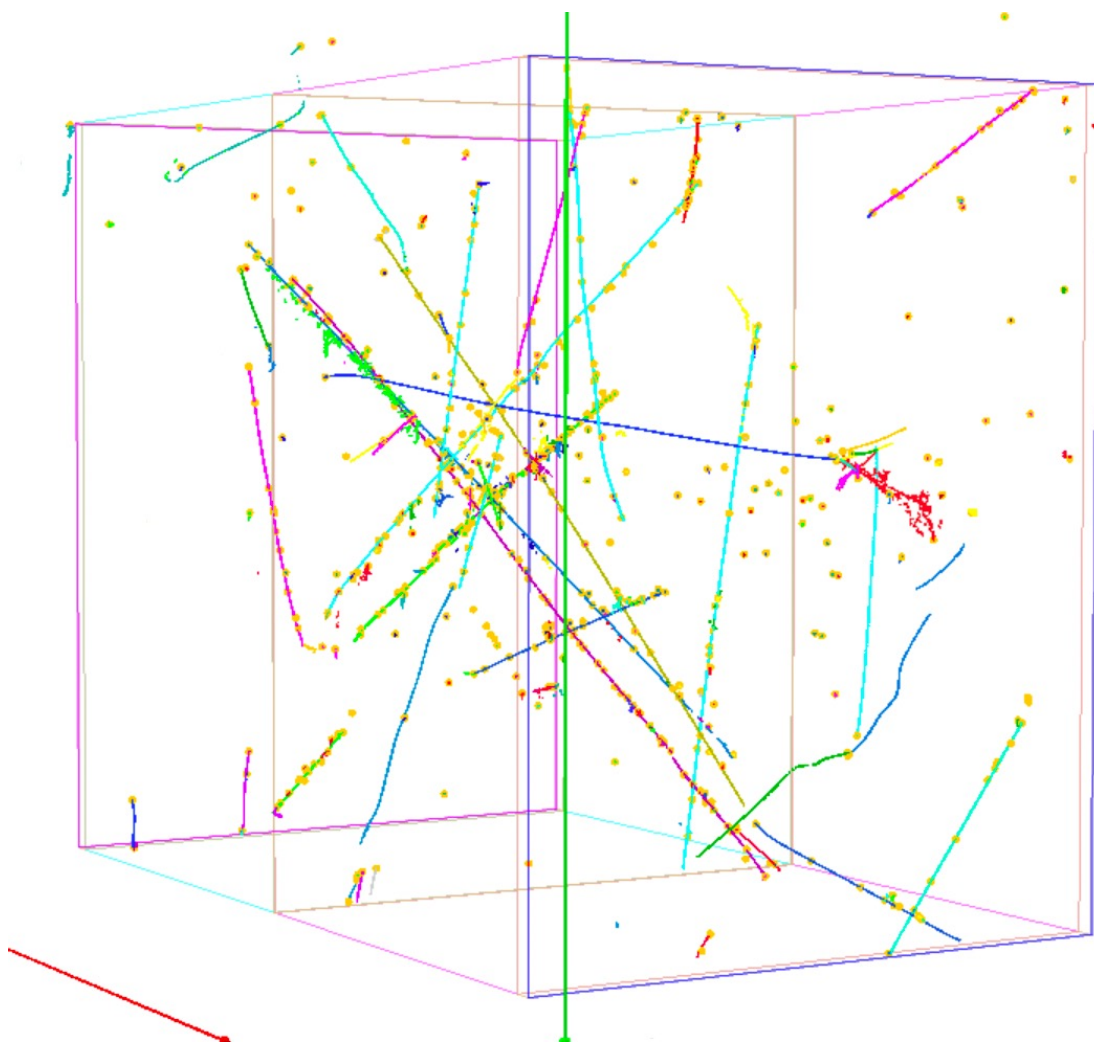
Beam:

- Beam started on 19 June at 18:00 CERN time, will continue to 26 June
- Have run mostly stable for last 2 days with 7 GeV/c beam while beam instrumentation, Cerenkov counters, etc, are checked out.
- In general, SPS has been on most of the time.
- Now have mechanism to change energy and taking our first +1 GeV/c run.
- 13:30 Friday, June 21 afternoon 94TB of beam data written to tape.
- 05:00 Sun 23 June there were 170TB of beam data written
- this is roughly 2.05 TB/hr (incl. beam off)
- during beam roughly 2.7 TB/hr – rough estimates are 3 PB of data for 8 weeks
- 4 PB of EOS disk available at CERN

Significant Issue – accidental overload of CTA

- Meant to scan a few additional files from before beam and upload to CTA
- accidentally ended up scanning 400 TB and submitting transfers
- Caused significant overload of services
 - eospublic -> eosctapublic link saturated
 - eosctapublic buffer filled
 - 8.5 more bandwidth than requested had to be utilized to return service to normal
- Discussion with CERN IT about capping these transfers
- two rough estimates from previous page:
 - 2.7 TB/hr for beam taking
 - 2.0 TB/hr across 83 hours
- Cap at 4 TB/hr for eospublic -> eosctapublic???
- will discuss more broadly and then meet with CERN IT

Reco plot



- Thanks to Leigh Whitehead who says
- “A (pretty well) reconstructed 7 GeV pion (blue track) interaction that happens at the back of APA2 from last night”
- Leigh informs me these changes have been merged into Pandora and should be available in a tagged version of Larsoft next week.
- At which time significant keep-up processing will commence to catch up to the 300-some TB taken the week before beam and the 200-some TB we will generate this week.