

First pass reduction

[1] Getting code together

- Framework pieces
- Reconstruction pieces

[2] Setting up production on the batch farms

Cycle for production running

[1] Produce “good” run list

[2.1] Retrieve raw data from enstore

[2.2] Convert to root format. Store on /afs (temporarily)

[2.3] Store root format to enstore

[3] Calibration run on root data

- Calibration constants

- Bad channels

- “Global” run statistics (useful for refining good/bad run table)

[4] Reconstruction job

- Store data summary root trees on /afs and enstore

[5] Data summary job

Getting first phase working

- Good run list: is it just the “production” runs listed in DB?
- Remote data access to enstore. Is it possible? How? How reliable?
Is access to enstore from FNAL farms “remote”
- Need to get software installed and running on the farm
- How much disk space does MIPP have on /afs? Are there other disks attached to the farm where we have space? How much?
- What's the estimate for the total data size for the production assuming we store:
 - raw data (must have)
 - unreconstructed root data (optional)
 - reconstructed root data (must have)

Reconstructed data inflation is roughly x5-10. Needs to be better measured

[Need 1+ people to look into this: who?]

Calibration Run

- Some work done on bad channels: How complete is this?
 - Are we writing bad channels to DB? For which detectors?
 - Are we pulling bad channels out of DB?
- To my knowledge there is roughly 0 calibration for any detectors

Reconstruction run

[0] Beam reconstruction

- Trigger ID
- Beam particle ID These are in reasonable shape.
- Beam track reconstruction Several improvements in works
Better versions available in ~1 month?

[1] Tracking

- Seed tracks from TPC (Jon et. al)
- Seed vertex from TPC (Jon et. al)
- Seed tracks using TPC + chambers (Mark)
- Seed tracks that don't match to TPC tracks (??)
- Vertex finding using seed tracks (??)
- Final vertex-constrained fit to tracks (??)

Needed improvements:

- Adjustments to JGG and Rosy field for hall probe data
- Nice to have TPC geometry/drift velocity worked out

Reconstruction run (2)

[2] Particle ID

- Have start on dEdx in TPC (Jen). Should probably use seed tracks for now and migrate to final “vertex constrained” tracks latter
- No work (I've seen...) done on CKOV
- What do we have for TOF? Perhaps just good enough to associate TOF hits with tracks. I think current tracking is good enough for this
- RICH: Reconstruction in good shape. Need code to associate rings with tracks

Can we assign names to these jobs today??

[3] Calorimetry

- What do we want here? Can we associate an HCAL and ECAL energy for each track?