

Pre-production status

Runs 21000-22000 submitted Tuesday evening (17/6)

596 good runs in data

All but 10 finished by lunchtime

Failure rates (generation + reconstruction)

1070 MC runs total

2 DB2 conflicts

Resulting from queue restart after hold

1 SEGV in datarec

Pre-production status

Runs 21000-22000: 7.5 pb-1 simulated

all_phys, 37.5 pb-1 at 1/5 scale

Generation: 22.6 Mevts in 4.97 Msec 0.22 sec/ev

Reconstruction: 22.3 Mevts in 4.44 Msec 0.20 sec/ev

All times are elapsed

Using 0.5 s/ev and CS 3100 nb

60 CPU's * 86,400 s/d = 5.18 Ms/d

all_phys 3.3 pb-1/d at 1/5 scale **16.7 pb-1/d**

26 d for 86 pb-1 effective program

If neu_kaon event processing time approximately same

CS 1050 nb, scale = 1 **9.9 pb-1 d**

33 d for 330pb-1 effective program

Problems resolved before submission

GEANFI:

Infinite loop in phi generator

DATAREC:

EMCSIMU was overwriting CELCAL word in CELE bank

CELE appeared unsmeared to T0_FIND

T0 was not found, no T0GL bank in output

DST's:

BRID not included in DST's

TCL1 not included in mkc DST's

Filters not enabled for mkc DST's (large output size)

MC DST status

mkc DST's completed	192
mk0	417
m3p	19
mrc, mrn	35

- Submission script switches stream when all runs processed for a given stream
- This happened a couple of times at the very beginning when there were few completed runs on disk
- Last time it happened was switch mkc-mk0 at run ~21300
- Still processing backlog of mk0 DST's

MC DST backlog

Time to generate and reconstruct 1 run (2 MC runs): ~ 4 hr

Time to process 1 mkc DST: ~ 1 hr

Time to process 1 non-mkc DST: ~5 min

Time needed to submit an MC DST: ~5 min

Mean number of CPU's used for mkc DST's: 5-8

Mean number of CPU's used for non-mkc DST's: 1

Why do the MC DST's fall behind?

Time to *submit* 4*600 MC DST jobs: 1.6 days (1 CPU)

Time to generate and reconstruct 600 MC runs: 1.6 days (60 CPU's)

Solutions:

Optimize MC DST submission script

Submit MC DST's as part of main production script

Plans

GEANFI:

- Include Gatti K0e3g generator in GEANFI
- Configure GEANFI so that other K13g decays can be generated by Scuri generator
- Adjust DC wall thickness in GEANFI (CF -75 um)
- Calculate dE/dx information for DHIT between cell entry and exit points, rather than between PCA to successive wires

DATA REC:

- Hunt down SEGV
- Tag new version (DBV-17)

Move DST production to end of mcprod.pl?

Start production on Tuesday 25/6:

430 pb-1 (at 1/5 scale) of all_phys in 30 days

430 pb-1 (at 1/1 scale) of neu_kaon in 40 days