

Ftksim status

Monthly meeting
2008-07-22

New bank production scheme

- Produce **sectors** for each region in 1 job
- Filter sectors with <15 tracks
- Produce **constants & slices** in 8 jobs
- Cleanup sectors, constants, slices
- Produce **pattgen-patterns** in 8 jobs
- Split sectors, constants, pattgen-patterns
- Total time to this point: ~3 days
- Produce **patterns from constants** in 32 jobs
 - Using unsplit sectors, slices, and constants
 - Takes care of **overlap**
 - Consistent with sector and constant splitting

Overlap in patterns-from-const

- $P(5) = C + X(14)*M$
- $X(14) = (P(5) - C)*M^{-1}$
- Generate $P(5)$
- Select set of sectors compatible with $P(5)$
 - Done via slices binned in 100-250 $P(5)$ bins
- For each sector, use its consts to get $X(14)$
- Check that each $X(14)$ is reasonable (0..327)
- Consistently remove overlapping sectors
 - In previous version, this never happened
 - Accepted the first sector with good $X(14)$
- Now each $P(5)$ can generate several patts

Whbb / WHuu

- Locally ran digitization with 0, 10^{33} , 10^{34}
- 10^{34} crashes after a few events (memory)
 - Turning off cavern radiation fixes it
- 10^{34} digi and wrapper run very slow
- # Hits per event (10^{33} is different event):
 - 0-lumi: 3800 hits, 50 ipat tracks, 70 truth tracks
 - 10^{33} : 6700 hits, 30 ipat tracks, 106 truth tracks
 - 10^{34} : **81k hits**, 245 ipat, 800 truth
- Next page – some ftksim numbers

roads and total # fits (WHbb)

- Sorry, no averages – takes too long to run!
- 0-lumi
 - 2M patt: 240 roads, 460k fits
 - 11M patt: 1700 roads, 1.6M fits
- 10^{33} lumi
 - 2M patt: 245 roads, 470k fits
 - 11M patt: 1780 roads, 2.2M fits
- 10^{34} lumi, no cavern
 - 2M patt: 21k roads, 5.9M fits
 - 11M patt: 150k roads, 24M fits
- 10^{34} lumi, with cavern
 - 2M patt: 64k roads, 55M fits
 - 11M patt: took too long to finish 1 event

Dcache access library & CVS

- Well tested over the last 2 weeks
- Factor of 4 faster raw IO
- On practice, ~factor of 2.5 gain in wall time
- Should be transparent to other users
 - Will be turned off by default in CVS
 - Non-dcache users won't notice any difference
- Will commit all changes today or tomorrow