MIPP Software/Analysis meeting

Holger Meyer
Fermilab
12/13/07

Outline

- event generation for MC
  - DPMJET for LH2, Fluka for thin targets
  - stdhep file location in dCache/Enstore
- e907mc on the grid
  - tests show no problems. Plan: submit all jobs to grid before weekend
- JGG and Rosie Hall probe post-run calibration
  - ...agrees with the pre-run calibration
- disk space on e907ana* ... will double in a week

MIPP

Fermilab

Event Generation

- MIPP SRT release R07.12.12
- python scripts to start up fluka and dpmjet
  - in package `fluka/script`
    - on execution links to `.dat` and `_rpc` files in `dpmjet` package
  - fluka: prescale single particle final states. dpmjet: write out all events, no prescales.
- StdHep files
  - Started production on e907ana5 on Wed Dec 12 00:28:55 CST 2007
    - `GenStdListOfRuns.py $SRT_PUBLIC_CONTEXT/BatchProc/runlist-round3-pass4.txt >& output.log`
      - 2918 runs (includes empty target, NuMI, ...)
  - Storage location and file names:
    - mipp10016111.pi.0001.std, mipp10016111.K.0001.std, mipp10016111.p.0001.std
      1 for Cryo, 3 for thin – run – subrun (!=0)
    - ${DCAP_HOME}/mc/stdhep/round3-pass4-runs/NN/M/ for runs NNMLL

e907mc jobs on fnal-osg

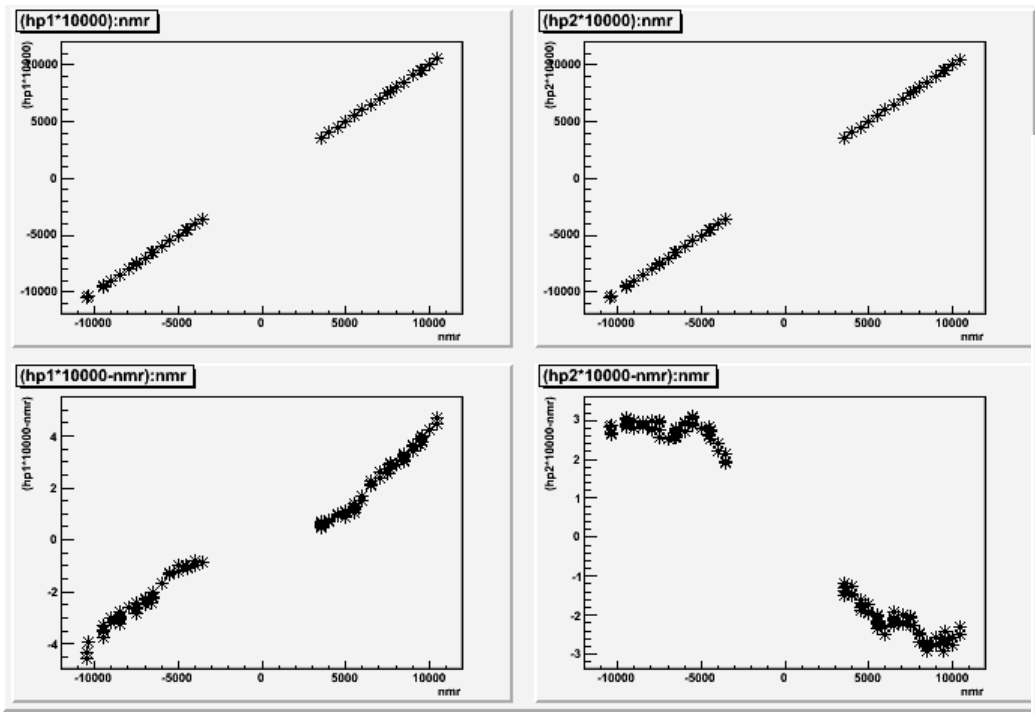
- Using same old trusted BatchProc scripts as before.
- Output will go to ${DCAP_HOME}/mc/geant/round3-pass4-runs/NN/M/mippmcT00NNMxx.000SSS.root
  - Lots of directories, 'few' files per directory.
    - Some tools can't handle large numbers of files in a directory
- Last call:
  - Any changes to e907mc before production jobs get submitted?
    - Plan to use R07.12.12, but I can still change that.
    - Hit information to digitize *all* detectors is included?
      - BCkov, ScInt, etc.

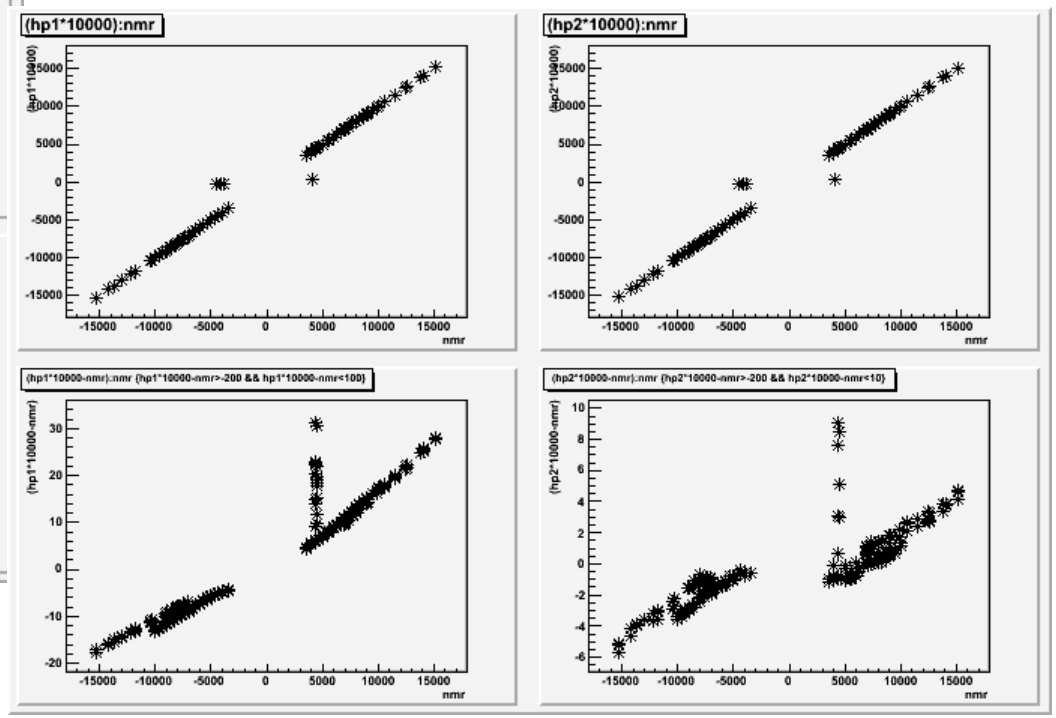
JGG and Rosie Hall probe post-run calibration

- We knew there was no problem with the calibration
  - both JGG and both Rosie probes tracked each other well throughout the run
    - except at the discontinuities due to JGG coil failures, of course.
- new Hall probes for Ziptrack have to be calibrated
  - We had to set up the calibration magnet, NMR, readout anyway, so we (D. Jensen, J. Zimmerman, RR, HM) calibrated the four Hall probes again.
- Details in MIPP CRL logbook, entries 28203 to 28211
- Results are as expected: Little change to the pre-run calibration, reliable throughout.
  - compare to pre-run calibration published in MIPP-doc-9

JGG and Rosie Hall probe post-run calibration

- JGG probes left, Rosie probes right. All axes in Gauss (1 G = 0.0001 T)
- Bottom panels show residuals of order 10^{-4} (three probes) to 10^{-3} (one Rosie probe)





disk space on e907ana*

- Currently have 1.15 TB disk space.

disk name	total	used	free	
e907ana1:/home	19G	18G	398M	98%
e907ana2:/disks/2	9.7G	5.4G	3.8G	60%
e907ana2:/disks/3	19G	11G	7.4G	59%
e907ana2:/disks/4	19G	8.2G	9.8G	46%
e907ana3:/disks/5	63G	45G	15G	75%
e907ana5:/disks/6	27G	18G	8.8G	68%
e907ana6:/disks/8	3.4G	1.4G	1.9G	42%
e907ana3:/disks/9	231G	204G	15G	94%
e907ana5:/disks/10	230G	230G	15M	100%
e907ana7:/disks/11	209G	202G	4.1G	99%
e907ana8:/disks/12	209G	204G	2.9G	99%
e907daq2:/data/2	110G	82G	28G	75%
Total:	1149.1G	1052G	97.1G	

- `/home` and `/disks` are full. Small data disks are inconvenient to use.
- Two 500GB disks will be added to e907ana7/8
  - double available disk space
- Move `/home` to what is now /disks/5 – Brief downtime for that.