EM Status Report

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SAS Core meeting

Current EM Activities

Very mild interest in EM so far from the Collaboration !

- Calibrations
  - Discussing with CAL
    - how to determine the best light taper model
    - how to fit muon peak and how to simulate noise
  - Discussing with TKR
    - how to implement TOT in recon
    - How to match online/offline XML files
- Data Analysis
  - Energy reconstruction for VDG data in progress
  - Data analysis of hardware diagnostic data in progress
- Documentation
  - Updated EM Calibration Algorithms (LAT-TD-01588)
  - Wrapping up EM results in LAT-TD-01593

EM Lessons Learned

During LAT integration we will be doing time critical operations and need quick turn around.

- SLAC upgrades
  - Batch system was upgraded from RH7 to RH9 and EM package was built in RH7
    - Kludge a solution to run the executable in RH9
    - We need to build the EM package in RH9
- System Tests
  - Can SAS implement a test to verify the reconstruction for a large number of events?
    - Read in and reconstruct a large VDG data file (~100k events)
    - Generate a large number of MC muons (~100k events)
- Online/Offline Interface
  - We need to agree on formats for calibration data between online and offline groups.
    - We started probing subsystems to find out when can we get together around the table

Future Tests

- EM2 (4 TKR XY layers + full CAL + 2 ACD tiles)
  - Most likely in April 2004
    - We should test the calibration infrastructure to be used for LAT
    - We should document the final calibration algorithms to be used for LAT
    - We should determine how often we will calibrate
- LAT
  - Delivery schedule is in July 2004
    - We should be ready to go a 2 month before since 1 month prior to integration there is an Instrument Readiness Review