EM Status Report

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February 4, 2004
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