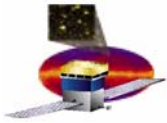


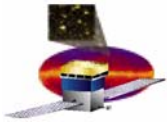
Status of temperature correction of CAL calibration.

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Temperature correction status

- Software modification: CalXtalResponse package, CalCalibSvc
 - initialize:
 - Read temperature file
 - Contains table of CAL temperature measurements vs date/time, extracted from trending database
 - defined by job option CalCalibSvc.TemperatureFile = "cu_temp.txt"
 - Read special pedestal file
 - contains PS pedestal, SPS pedestal and temperature drift coefficient for each CAL channel
 - Defined by job option CalCalibSvc.PedTempCor="cu_ped_temp_cor.txt"
 - If file name is empty (default) - temperature correction is OFF, otherwise it is ON
 - Job options to define MPD correction parameters:
 - CalCalibSvc.MPDTempCor = 0.0025 - MPD correction per degree C
 - CalCalibSvc.MuonCalibTemp = 30.0 - temperature for muon calibration
 - getPed (rngIdx):
 - If temperature correction is OFF
 - get pedestal from database (as before)
 - If temperature correction is ON
 - Get event timestamp
 - Find CU tower temperature in table from cu_temp.txt
 - Calculate pedestal using info from special pedestal file:
 - » Use PS/SPS pedestal based on time stamp
 - » Linear correction using temperature coefficient and temperature value



Temperature correction status (cont)

- `getMPD(xtalIdx)`
 - If temperature correction is OFF
 - `get MevPerDAC` from database (as before)
 - If temperature correction is ON
 - `get MevPerDAC` from database
 - `Get event Timestamp`
 - Find CU tower temperature in table from `cu_temp.txt`
 - Correct MPD by difference between actual temperature and muon calibration temperature multiplied by `mpdTempCor`
- I'm implementing these modifications myself (Zach is too busy)
 - Expect to finish debugging by the end of this week
- Temperature for muon calibration runs 276-285:
 - No information from trending database for this time period (14 July 2006 in Piza)
 - Aous Abdo has made the estimation from pedestal measurement (see his slides), ~30C
 - Johan Bregeon found the information from external temperature sensor attached to the bottom of CU grid ~27C
 - This confirms the "hot" temperature value from pedestal measurements
 - Temperature at muon calibration is high than data taking temperature and rather close to the temperature at the end of SPS run
 - MPD correction will be small and positive