Online Monitoring

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Overview

- Package monitor/p0dHisto
- Has four levels of histograms. -e4 made least frequently, -e3 medium and -e2 made most frequently (-e1 will eventually be for fully live histograms, but not yet functional)
- Creates TpictureInfo objects of histograms
- Currently have graphs for timing, number of banks, and tfb and p0dule hit maps
Timing And Sample Histograms

Current histogram layout is just testing layout (won't have empty histos in finished layout)

Sample histo is number of banks (probably not necessary?)

Timing info is chronologically ordered tdc time with first first chronological time in event subtracted
Uses p0dUnpack database to convert from tfb to p0dule and bar
Have bars from 1-126 for X and 1-134 for Y for each p0dule
Have tfb hit information all on one graph, starting with RMM 0 with bin for every channel
Want to make separate graphs for different p0dule/tfbs?
Current Ecal and SMRD Plots

SMRD
- High Gain ADC
- Low Gain ADC
- Integration Cycle
- TFB Hit Map
- RMM Hit Map
- Time Distribution

Ecal
- Time Distribution
- Time relative to start of first integr-cycle
- Distribution of TDC Times Relative to Trigger
- HighADC vs Time
- Low ADC
- High ADC
- Dead Channel Map
- High vs. Low ADC
- Integration Cycle
- RMM Hit Map
Future Work

- Make more hit maps?
- Which Ecal and SMRD plots would be useful for the p0d?
- Add LI plots?
- Is it possible to do temperature or other monitoring online?
- What other suggestions do people have?