GlastRelease v4r5

Link to release summary

http://www.slac.stanford.edu/exp/glast/ground/software/RM/rh9_gcc32/GlastRelease/GlastRelease-v4r5/summary.htm

Trigger (Oct 10, Julie)

Additional bits were added to the trigger word (l1T->trigWord) to hold the GEM summary information. This resulted in changes in the TRGWORD distribution. However, this caused a problem with the merit tuple variable GltWord, which is identical to trigWord except that there was an assumption in AnalysisNtuple::GltValsTool that the variable should be less than 1024, so the routine set GltWord to zero if trigWord > 1024. The addition of the higher order bits made this assumption incorrect. This caused large changes in all the distributions which depend on a trigger cut using GltWord (i.e. all the distributions with names consisting of mixed upper and lower case letters).

TkrRecon Error Calculation (from Leon)

We just changed the default error calculation in TkrRecon from the old "standard" errors to the new slope-dependent errors. These are supposed to better model the actual errors, and are in general smaller than the standard ones, so whenever this makes it to GlastRelease, you'll see the chisquared go up in the system tests (and the track "quality" go down).

I don't think the other variables will change very much, if at all.

Zero Suppression threshold. (Oct 10, Julie)

The code/parameters used to correct for the effect of the zero suppression threshold in the cal in CalValsTool is tuned for a threshold of 1 MeV. The value used in the simulation is 2 MeV, so there is a mismatch, between the simulation and reconstruction. This results in an underestimate of the reconstructed energy (particularly for low energy events).