GlastRelease v15r39

Run Manager Summary

System Tests v15r39

System Tests Report Summary

No differences for the comparison with the previous release, GR v15r38

This is a candidate for L1Proc. The differences in the comparison with the preceding L1 Proc version, GR v15r33, are mostly from GR v15r35, **some** of these were due to ACD geometry updates (trapezoidal tiles) and do not apply to this comparison since that version of the geometry is not included in this release.
(See GR v15r37 for some discussion of the ACD geometry and effects.)

The system test changes between r39 and r33 are minor and consistent with fluctuations caused by changes to Gleam and G4Propagator.

Changes

- Specific to r39
  - AnalysisNtuple and G4Propagator – more work related to exception handling and stuck tracks
- Before r39
  - Many! - selected highlights listed; see earlier release reports for details
- ACD Geometry is **not** different for r39 and r33
- new calRecon
- ACD high range and coherent noise calibrations
- additions to MetaEvent
- GleamEvent flags
- removal of Event::GltDigi
- change in OmniOrb versions

System Test differences

These are centered in the ACD and CAL: ACD POCA for gamma tests, CAL transverse rms and ACD ribbon Mips for muons, ACD digi ADC for 1 GeV gamma.

The plots that are affected do not show any strong trend and look like harmless fluctuations that happen when the simulated events change (due to different random seeds in Gleam, etc.). I note that the differences appear most strongly in plots with many entries and for the higher energy tests, which generate more activity per event. The statistical comparison used by the system tests does not take correlations into account. This means a few events with many hits/clusters get more weight in the comparison than they may deserve. A comparison of the evenst generated by Gleam support this in that the exact distributions in particle type have change in minor and statistically insignificant ways between versions.

The bottom line is that it looks like most of the difference is (a) minor and (b) can be explained by entries that move into or out of range of the plots due to differences in the simulated events.