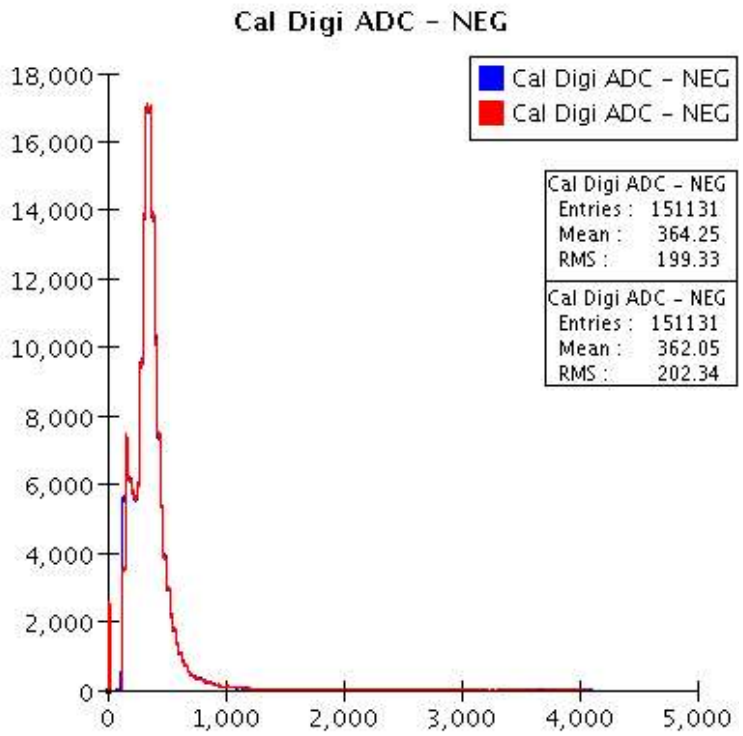
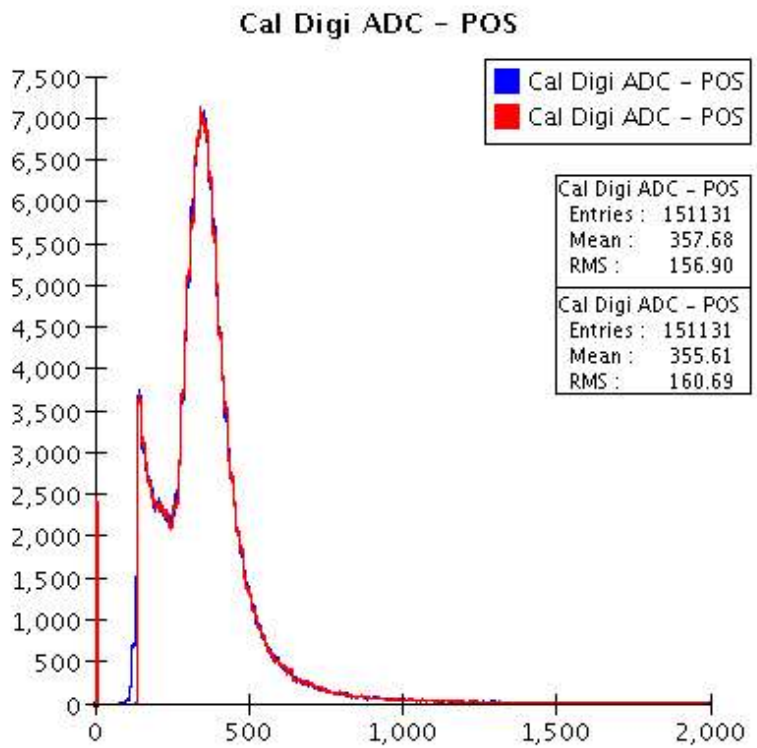
Systems Tests

- What are these?
  - Tests to check output distributions from a particular SAS software release (e.g. emv3r0402p09 used for instrument analysis workshop)
- What do they do?
  - Produce distributions that allow us to determine what the "pedigree" of the reconstruction software is
    - Thanks to Julie we are getting there with a standard set of plots
    - She implemented emv3r0402p09 as a baseline for us (since we used it for the workshop)
- What is in this talk?
  - We will show distributions that changed since the first data from the workshop
    - Initial version (baseline): emv3r0402p09
    - Significant changes detected in version: emv3r0402p17
    - Most recent version: emv3r0402p20 (no changes since p17)

CAL Digis





emv3r0402p17
emv3r0402p09

ADC rises faster in baseline as compared to new version

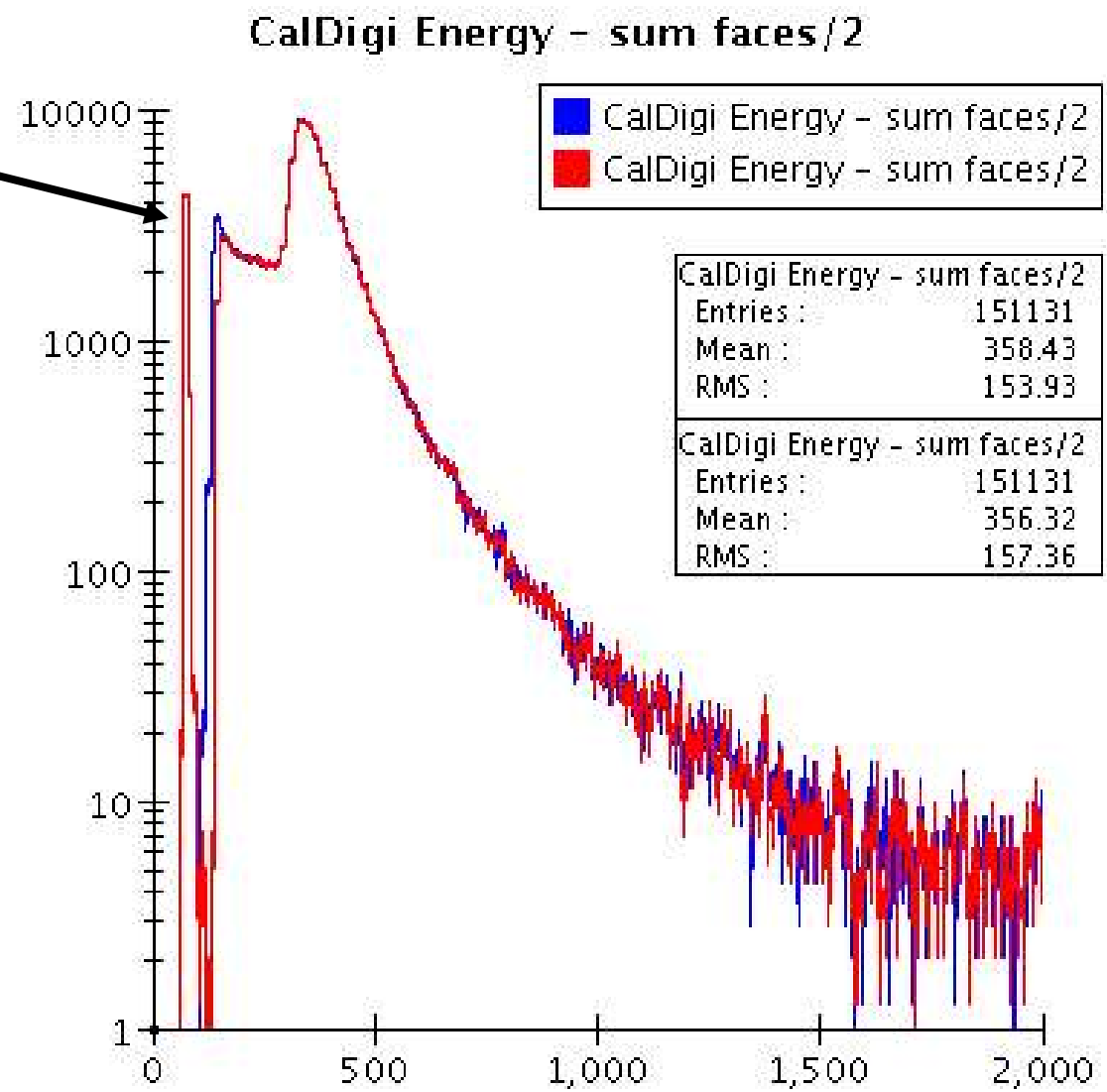
What has changed?

CAL Average Digi

emv3r0402p17
emv3r0402p09

Old version has a spike at low values

Why is that?



CAL Bug

- Release emv3r0402p09 has a CAL bug:
  - Related to
    - http://www-glast.slac.stanford.edu/protected/mail/calsoft/0348.html
- Fixed in release emv3r0402p17

Summary

- Do we need to generate a new file for the 2 tower tests?
  - Sasha recommends it because of the CAL problem
  - Have people discovered other problems?

- Plan for future checks
  - First line of defense against software bugs (from user's perspective)
    - If there is a problem we should not release the code to I&T during integration
  - Every time we get a release out we expect these to be checked
    - The more we look at them and the more people we have looking at them, the better the system tests will become. Please chime in and start looking at them !
    - http://www-glast.slac.stanford.edu/software/SysTests