

DAQ Status

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Victory at C++

I think the DAQ group is entitled to at least one slide in which we crow about the improvements this year:

- The Event Builder is a solid piece of work, and David has done an excellent job creating a Linux based EvB in the time since the run ended last May
 - It's faster—as far as we can tell, it is capable of taking data at the rate that DCM's can disgorge it
 - It's faster—to initialize and start from scratch
 - It is more reliable
 - Data is no longer corrupted (that was a jseb firmware problem, we see now)
- Multievent buffering no longer has any obvious problems; the event and beam clock counters count correctly and together, and the DAQ Monitor looks the same for multievent buffered runs as single event buffered
- The move to Scientific Linux was pretty smooth
- CORBA problems are almost nonexistent
- We have piled up nearly 40 Tbytes of disk space in the counting house

OK, that's enough of that

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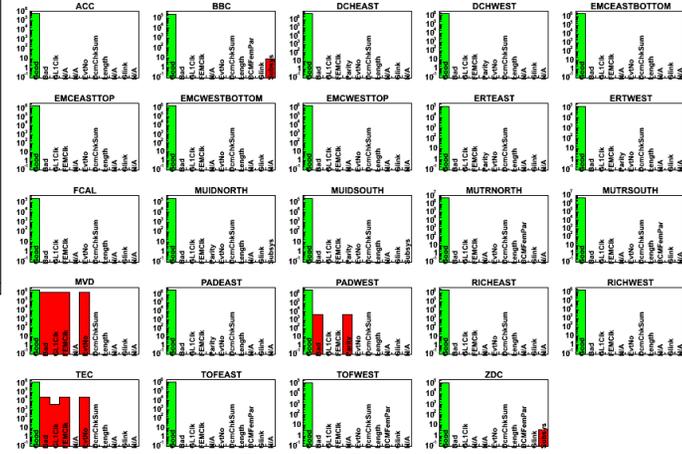
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Running Again

24 granules in BigRun5, including the prototype of TOF.W

Monitoring looks ok

Run 147828
Date: Tue Jan 11 09:05:30 2005



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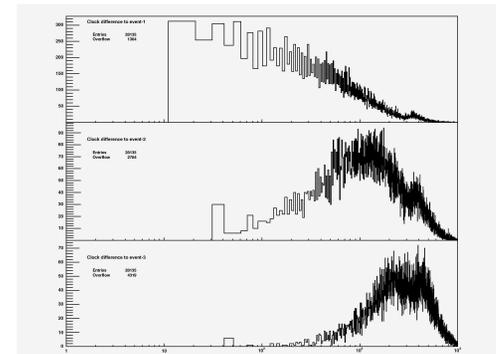
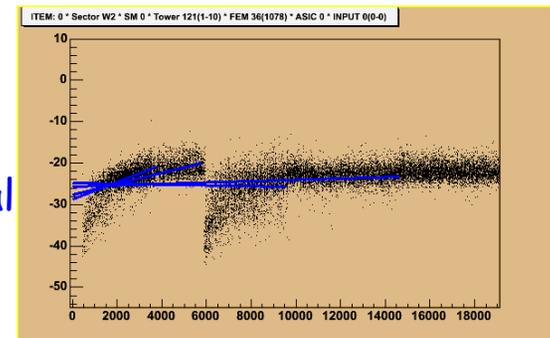


Multievent Buffering

The jury is still out on whether we can run with multievent buffering for physics

This pretty simple situation shows (for one EMCAL TAC channel) the difference in pedestal for multievent buffering
This is going to need some detailed study

The basics work—events really do come 16 clock ticks apart



Other Problems

- Probably the thing that causes the most disruption right now is readout of the MUID LL1 data; probably the LL1 DCM gets sent an extra word, and because the transmission protocol has no protection or error recovery, you're screwed from then until you cycle the power. I can't see how to fix this right during the run, but we can try some band-aids.
- There are lots of operational clean-ups needed to improve servers, make the run end cleanly, and so on.
- We need to start debugging the common server crashes and hangs.
- We need to do something about changing the clock! Things were an order of magnitude more stable when we ran with a stable clock; Fermilab seems to know how to do this, so we should press on the RF group. Failing that, Chi is working with Bill Sippach to make a clock which smoothly switches over.
- We need more work on the documentation, which I think is more important than the training. If you know how to do something, enter it in the Wiki; you can always ask experts to review it and revise it as necessary.