Event size considerations (no ZS)

500 V/cm, PD window 15 us, PD threshold rejects all noise and radiologicals.

- TPC: 2048*10000*16 = 330 Mbits/millislice (=5 ms)
- PD: 2000*71*16 = 2.3 Mbits/flash, 10 Mbits/millislice

250 V/cm

- TPC: 495 Mbites/millislice (=7.5 ms)
- PD: 13 Mbits/millislice

To note:

- If ZS gets us a factor of 50 for the TPC data, then the PD data is more than half of the file size.
- Continuous readout is 13-20 Mbits/5 ms or 3-5 Gb/sec with ZS. Ethernet link from PC4 to the outside world is only 1Gb/sec

Example . . . .

- We can run 2 RCEs + 0 SSPs at 10 Hz stably. (no ZS). We can write 40 Mbytes/sec!
- Add PD data and ZS (2 Mbyte/mslice), we can take data at 20 Hz??
- Can we run 14 RCEs + 0 SSPs at 1 Hz? No!
- Need to probe more

Questions

- Does the speed of writing data to disk change if another process is trying to read from that disk? (Say to transfer the previous run to tape)