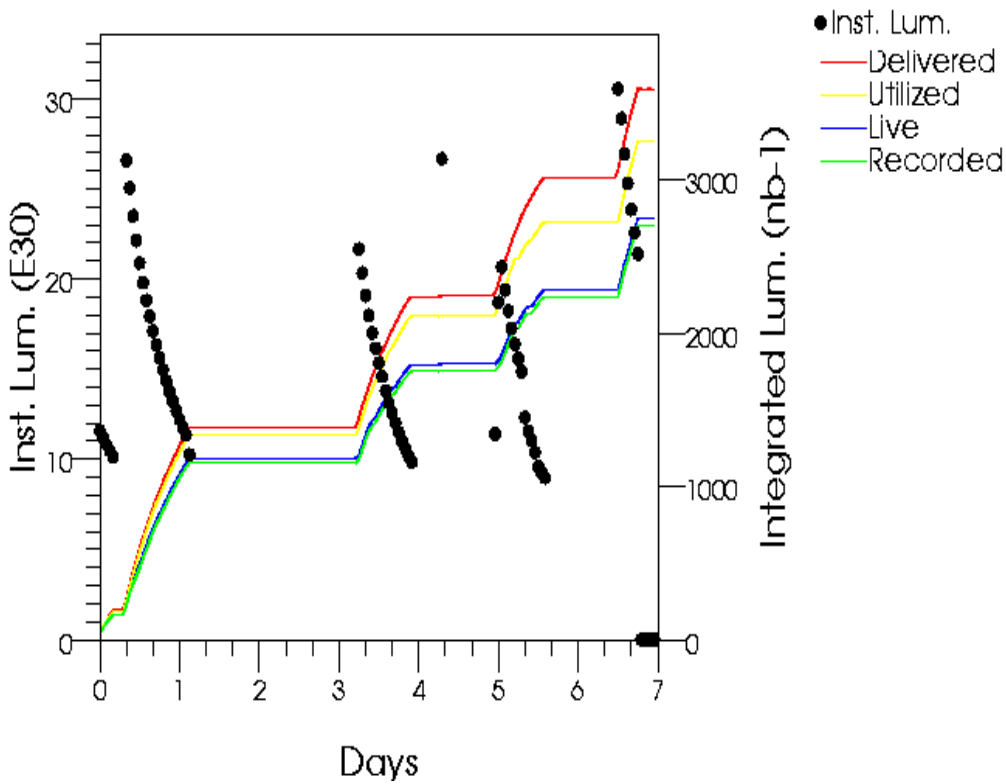
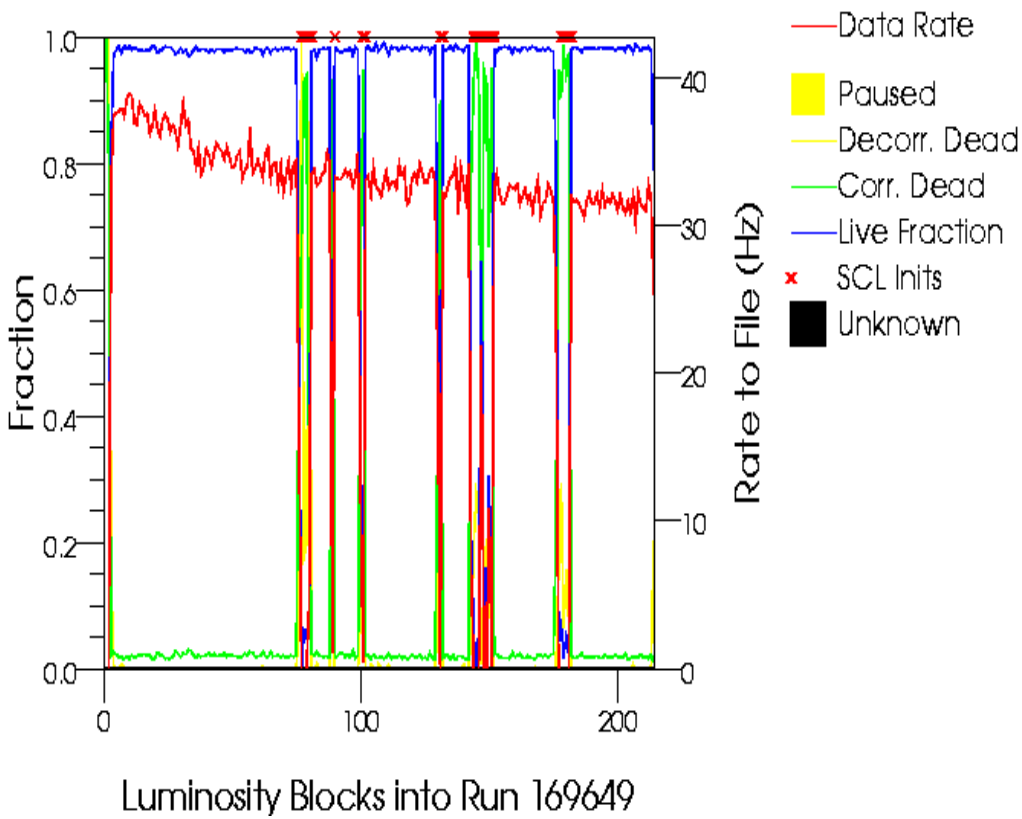
Week of December 15 to December 22 D0 Summary

- Delivered luminosity and data taking efficiency
  - Delivered: 3.6pb^{-1}
  - Recorded: 2.7pb^{-1} (75%)
- Data taking efficiency
  - typical global run efficiency is 85%-90%
  - quite a few special runs
  - have had a few runs with efficiency in the 95% range
- Number of events collected
  - 6.5 mln events
- Accelerator halo
  - within specifications



Data Taking and Triggering

- Running physics trigger list 9.50 since last week
  - changes vs 9.31
    - Level 2 EM algorithms
    - muon wire terms added
    - CFT trigger terms are in for test purposes
- Typical global run trigger rates
  - L1 trigger ~0.6kHz
  - L2 trigger ~250Hz
  - L3 trigger (to tape) ~50 Hz
- Currently most serious issues limiting our trigger rates
  - muon readout
    - readout code is still in process of been re-written
    - lost collider data with un-tested version of the code run on-line early December
    - Implementing detailed testing of the code before it is used for data taking
- Issues affected our downtime last week (~4 hours) total
  - Silicon problems at the beginning of Friday's store
  - A few ~0.5 hour issues



Best Run in the last 3 months
94% efficiency

January Shutdown

- Detailed day by day plan for the January shutdown has been developed
  - Shutdown duration is enough to finish all planned jobs
- D0 detector will be fully opened to provide experts with opportunity (first time in more then a year) to access central region of the detector
- Muon system opening is required to fix 2 broken wires in mini-drift tube octants
  - First 2 days of shutdown
- Multiple other jobs including installations, commissioning, and minor repairs
- Availability of survey for a few critical jobs is important to stay on schedule

Summary

- D0 experiment is progressing well with physics data taking
  - trigger list 9.5 is running on-line
  - 6.5 mln events collected last week
- D0 weekly data taking efficiency is steady around 75%
  - no major software/hardware problems
  - running in the "stability" region of the L1/L2 rates
  - in process of attacking most serious issue
    - PDT front-end code crashes
  - downtime is on the level of ~10% for the week
- Filled (not without problems) holiday shift schedule
  - Expect beam over holiday period
  - Most of the experts are not around – will minimize number of changes/improvements to absolute minimum, still some issue might require considerably longer time to get resolved
- Merry Christmas to everybody from D0!