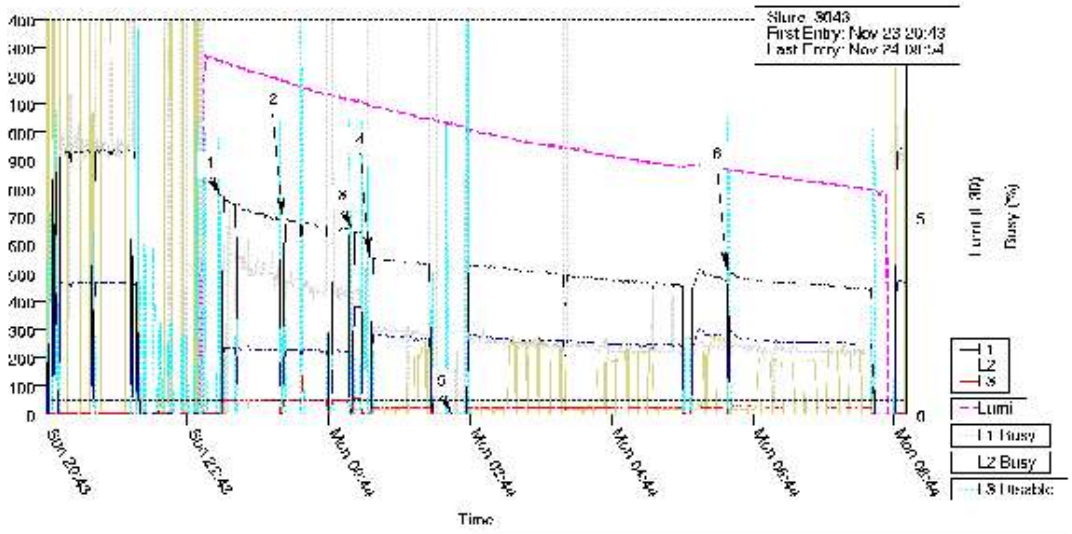
D0 Weekly Summary: November 17 to November 24

- Last week
  - Commissioned all parts of the D0 detector during accelerator studies
  - List of problems in the hall has been identified and most of them resolved during Saturday morning access
  - We succeeded in reading all detectors stably in zero_bias (no beam) mode
- Saturday store
  - First post-shutdown store
  - We did not know exactly how much time could be used by experiments in advance
    - Magnets have not been ramped
  - We did collect short run with physics trigger list, but it was too short to debug seriously any of the sub-systems

Dmitri Denisov

Sunday November 23rd Store

- All D0 sub-systems have been prepared for the store coming Sunday evening. Known problems before the store
  - Failure the calorimeter front-end crates power supply
    - Provides power to the 2 calorimeter crates
- Started data taking with ALL crates in readout with global physics trigger list 3 minutes after store has been declared
  - Very smooth data taking for the duration of the store, overall data taking efficiency is ~ 90%



First 36x36 Store

- Comments on the beam conditions
  - Beam halo is well within specs
  - Beam position in transverse
    - Within ~100 microns from pre shutdown location!
  - Beam position along beam axis
    - Within ~5cm from detector center
  - Beams crossing time is within 1-2ns in comparison with pre-shutdown
- Issues discovered
  - Bug in muon Level 2 filtering – resolved ~ 2 hours into the store
    - Very efficient response from the D0 Level 2 group
  - New fiber tracker hit map not propagated to Level 3 executable
    - No (correct) filtering on tracks
  - Noisy test triggers in fiber tracker
    - Masked within 2 hours of the store
- Runs collected during today's owl shift have been reconstructed on the farms and experts are analyzing data

D0 Summary

- Started data taking after shutdown smoothly
  - No major problems discovered
  - Reading all detector during data taking
    - 5 silicon trigger crates and new luminosity readout crate are in readout
  - List of problems have been identified and experts are working on them
- The only current known problem which prevents D0 from taking physics data is calorimeter front-end power supply
  - Failed about 20 minuets after access has been over
  - Trying (at this moment with no success) to keep it ON for more then a few minutes
  - If not resolved until tomorrow morning will request 1 hour access Tuesday
    - Experts are not around starting Wednesday
- We are all at D0 pleased with Beams Division efficient accelerators commissioning during first post-shutdown week culminated in Sunday evening store
  - Looking forward for physics quality data taking within a few days