

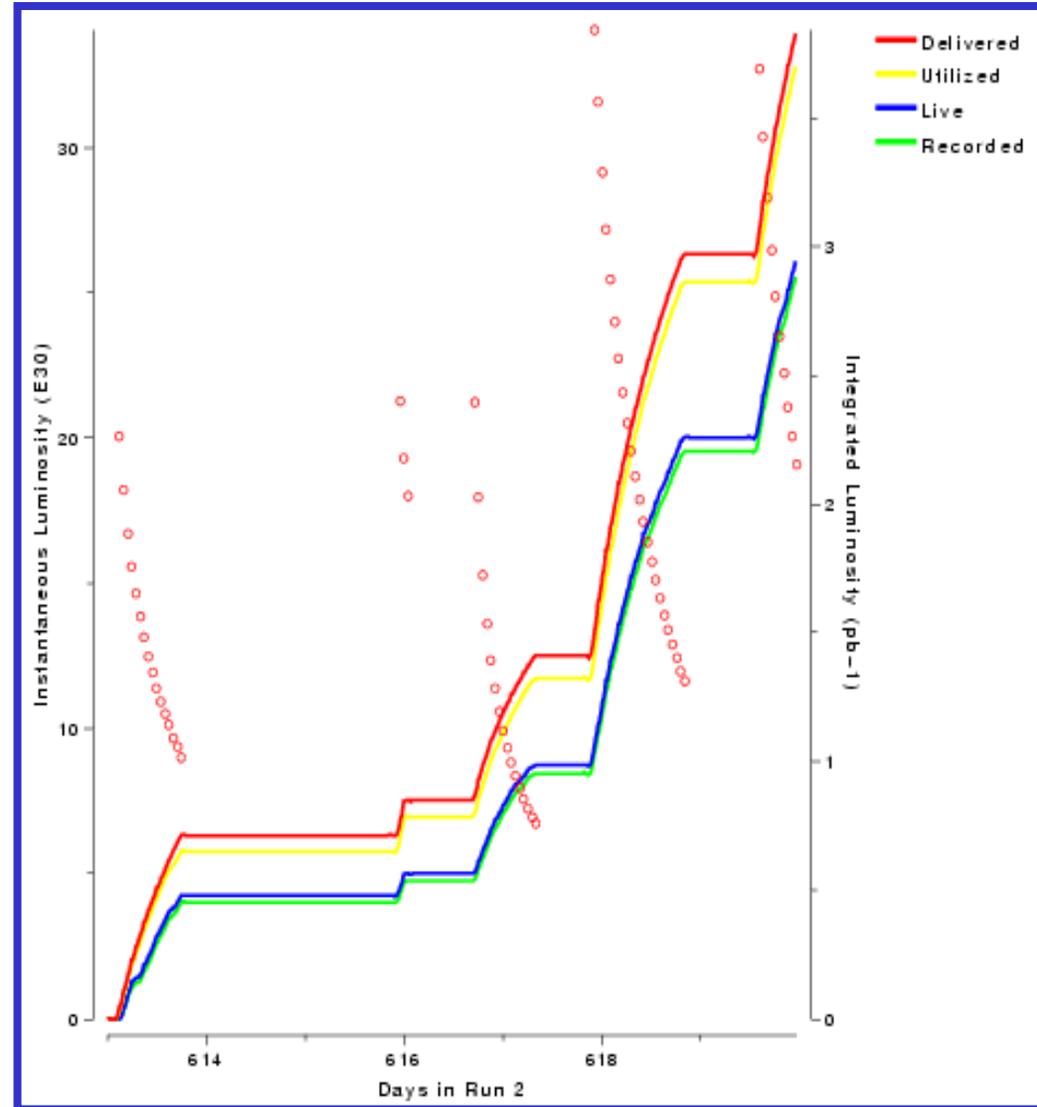
# DO Summary - Week of 2002 November 4-10

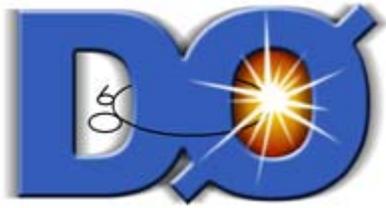
- **Luminosity & operating efficiency**

- **Delivered: 3.8 pb<sup>-1</sup>**
- **Recorded: 2.9 pb<sup>-1</sup>**  
*(~75% data taking eff.)*
- **6.3 million physics events**
- **2.6 hours of downtime**
- **Integrated dose alarm triggered at Initiate Collisions stage on Store 1955 - Lumi HV tripped**
  - **Reset - No problems after scraping**

- **Accelerator halo**

- **Submitted feedback to Tevatron halo task force**





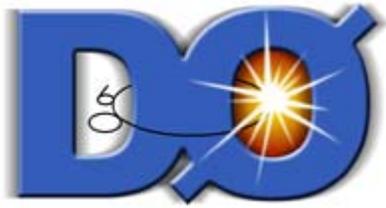
# Data Taking Statistics

**\*\*Preliminary\*\***

Date	nb <sup>-1</sup>				Hours		Events (k)	Live	Eff.
	Del Lumi	Util Lumi	L2/L3 Lost	Rec Lumi	Store	Downtime			
4-Nov-02	714.3	651.2	25.1	453.4	15.4	1.4	1140	0.808	0.635
5-Nov-02	0.0	0.0	0.0	0.0	0.0	0.0	0	0.000	0.000
6-Nov-02	60.3	60.3	0.2	35.3	0.8	0.0	68	0.625	0.585
7-Nov-02	384.7	368.3	3.9	280.8	7.3	0.3	658	0.814	0.730
8-Nov-02	459.6	445.7	5.4	339.0	10.4	0.4	1027	0.786	0.738
9-Nov-02	1353.4	1340.2	14.7	1097.2	20.5	0.2	2196	0.840	0.811
10-Nov-02	874.5	855.7	3.6	695.6	9.8	0.2	1175	0.822	0.795
	<b>3846.8</b>	<b>3721.4</b>	<b>52.9</b>	<b>2901.3</b>	<b>64.2</b>	<b>2.5</b>	<b>6264</b>	<b>0.817</b>	<b>0.754</b>

- **Significant sources of data taking downtime**

- **0.6 hrs: Muon/L2 inputs (disable & re-enable channels)**
- **0.55 hrs: Muon Special Runs**
  - **End of Store 1940 - during EOS studies (quasi-parasitic)**
- **0.4 hrs: SMT HDIs & Sequencer**
  - **Required special attention from experts to download & re-enable**
- **<1.0 hrs: Begin/End Stores - ramp down Muon & SMT HV Start/Stop Runs**



# 3 Controlled Accesses

08:00 6 Nov - 5.5 hrs

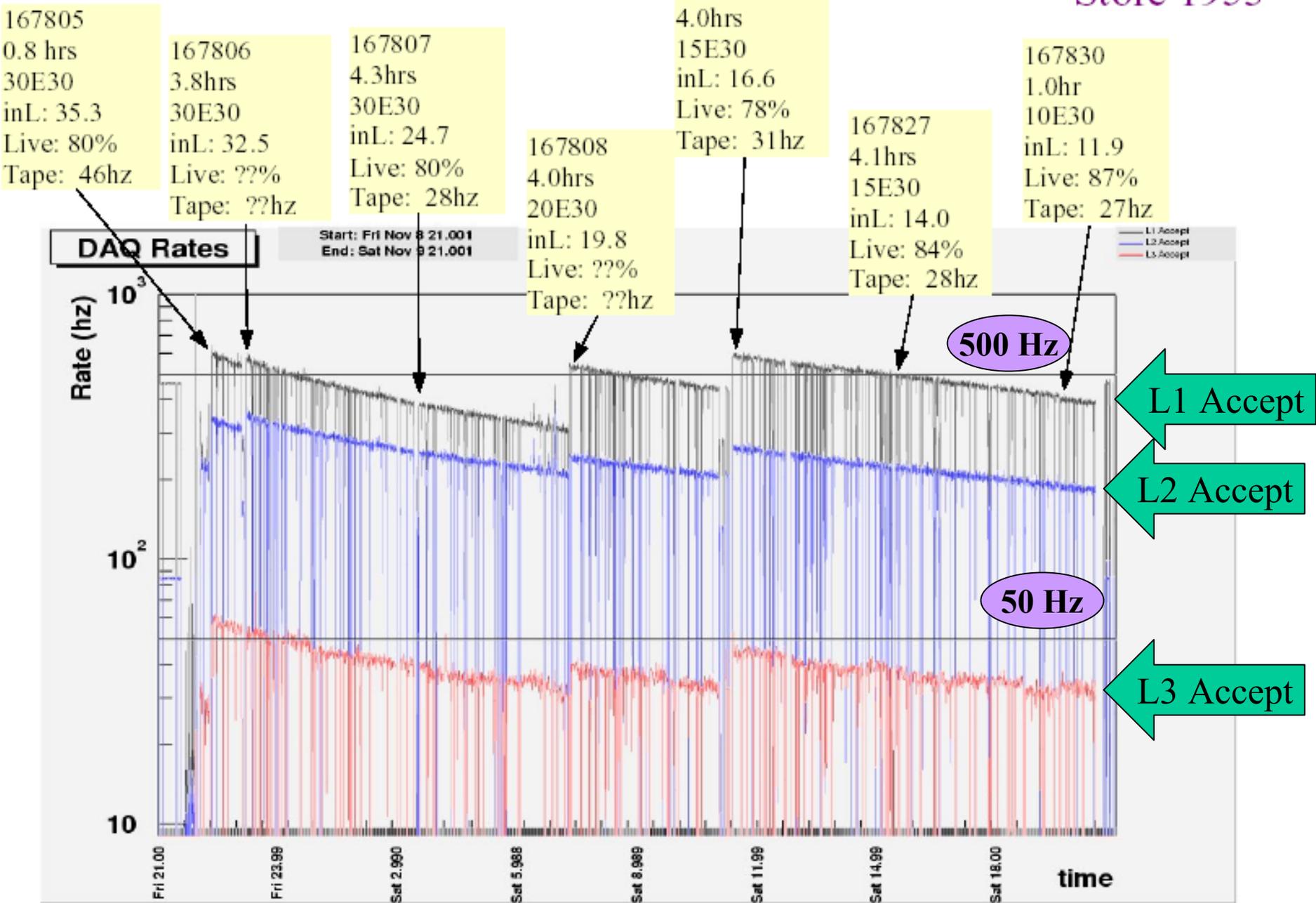
- CFT & SMT Sequencer PROM replacement
  - Firmware bug caused spurious writes in the registers
- SMT 1553 Transformers modification
  - Separated geographically from Sequencer work
- Replaced:
  - 4 Muon HV pds
  - L1 Muon Trigger Cards
  - BLS PS - twice
- Debug noisy L1CAL triggers

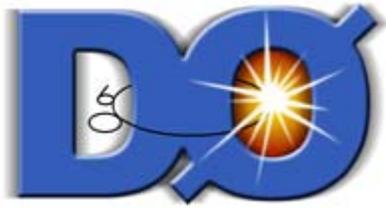
02:00 7 Nov - 0.5 hrs

- L1 Muon Trigger Work

09:00 8 Nov - 3.0 hrs

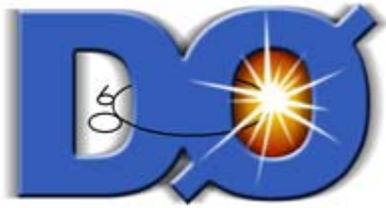
- More CFT Sequencer work
- Replaced SCA daughter card
  - 15 GeV hot cell in CAL
- Installed new VME code on muon scint. FE crates
  - Fix alarms in LV monitoring
- New PDT readout code
  - Errors can now be cleared by SCL init
- Replaced SCL cable to a muon crate
  - Reduced error rate





# DØ Operations

- **Improved stability: L1/L2/L3 ~ 600/250/50 Hz**
  - **Priority physics triggers remain unrescaled at all Lumi**
  - **5<sup>th</sup> consecutive week of increasing Rec/Del Lumi efficiency**
    - 75% for this week & 80% for this weekend of Record Stores!
    - Saturday Nov 9: First 24 hour day > 1 pb<sup>-1</sup> of Recorded Lumi
  - **No major problems!**
- **DØ not affected by Quench of Store 1953 on Sat ~20:30**
  - **No Silicon HV trips or Alarms from Radiation Protection**
    - Rad. Monitoring diodes can pick up signal as far as 16 cm away from the beam axis - SMT did not receive any appreciable radiation
- **DØ has suffered zero downtime in past several months due to the support from Russ Rucinski & Crew**
  - **With 24/7 support from Ops Shifter**
    - Immediate response to problems: humidity (chillers), water leaks, cryo
    - Maximizes time to use a Controlled Access opportunity
      - **Solenoid & Toroid Operations**
      - **Assist experts during off-hours**



# Plans for Upcoming Week

- **Continue with Status Quo**
  - **Keep same trigger list & L1/L2/L3 rates**
    - **Minimize software & hardware changes**
  - **Muon readout errors remain largest source of deadtime & place upper limit on L1/L2 rate**
    - **Experts are working very hard - implemented new monitoring & automated error logging**
- **No major problems!**
  - **Non-critical jobs are queued for a parasitic controlled access opportunity**
- **Looking forward to a Stack 'N Store week**