



Data Taking Statistics

Week of 2002 December 30 - 2003 January 5

Day	Date	Del	Normalizable Luminosity (nb ⁻¹)			Hours			Evts (k)	Eff.
			Util	Live	Rec	Store	Util	Rec		
Mon	30-Dec-02	1214.26	1206.36	1111.27	1104.08	17.7	17.6	17.4	2225	0.909
Tue	31-Dec-02	181.64	180.76	172.74	172.69	4.4	4.4	4.3	511	0.951
Wed	1-Jan-03	1075.95	1017.82	914.37	905.20	18.2	17.4	17.1	2430	0.841
Thu	2-Jan-03	326.13	324.22	303.56	303.31	5.8	5.8	5.7	767	0.930
Fri	3-Jan-03	1316.42	1250.20	1066.22	994.22	21.0	19.9	19.3	2761	0.755
Sat	4-Jan-03	1365.30	1243.80	1048.93	1046.00	21.5	19.4	18.7	2898	0.766
Sun	5-Jan-03	1385.81	1378.62	1200.18	1197.12	21.7	21.6	21.1	3252	0.864
		6865.5	6601.8	5817.3	5722.6	110.3	106.1	103.6	14844	0.834

• Corrections to Physics Lumi & Events to Tape

- Special Runs: Jet Trigger Study

- Recorded 103 nb⁻¹ & 331k of non-Physics evts

• Physics: Recorded Lumi of 5.6 pb⁻¹ or **81.9%** of Delivered Lumi

➔ Recorded 14.5 million Physics Quality Events

• Prior best performance was last week of Dec 23-29

➤ 4.8 pb⁻¹ and 11.0 million events



Delivered Luminosity Losses

Major Sources of Downtime: Not recording during a store

1-Jan-03	18:49	0.33	Begin Store 2123; L3 Supervisor
3-Jan-03	9:53	0.27	d0ol31 crashed
3-Jan-03	13:55	0.30	Jet Trigger Study
4-Jan-03	16:31	0.27	Jet Trigger Study
4-Jan-03	19:19	0.25	SMT x61 Power Cycling

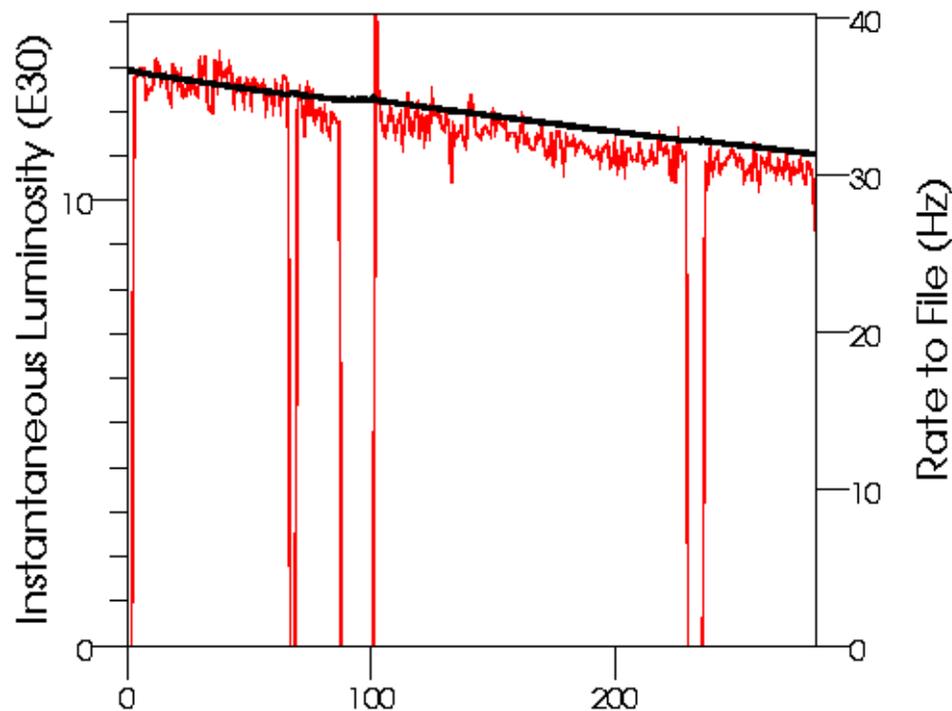
Other Losses

- 1.4 hrs: 16:55 Fri Jan 3rd - Online Buffer disk crashed.
 - The disk was used in the transfer of data into SAM and the event catalog. The crash occurred in the middle of a run, and about 70 nb⁻¹ of Recorded Physics Lumi was lost.
- 1.5 hrs: 02:35 Sat Jan 4th - Begin Store 2136 - "Hot" L1 CAL Trigger Towers
 - Random occurrence - problem was not seen during previous store only a few hours earlier. Took some time to diagnose, page expert, disable triggers, etc. We took several inefficient recorded runs throughout this period.
- ~1.0 hr: 50 Run transitions (~1 minute/per)
- ~1.0 hr: 11 Begin or End Store transitions (~5 minutes/per)
- ~1-2 hrs: Average 1-2% FEB during physics data taking



Other D0 News

- One controlled access request on Mon Dec 30th
~ 1.5 hours (early am)
 - Calorimeter BLS PS trip
 - Between Stores 2113 & 2114
- Improved stability of Muon readout crates
 - We are now running at L1/L2 rates of 10-20% higher
 - L1: 600 → 700 Hz
 - L1: 250 → 300 Hz
 - Little loss to our efficiency
 - Running at ~90% for most runs
 - Improved monitoring and automated error detection



Luminosity Blocks into Run 169895

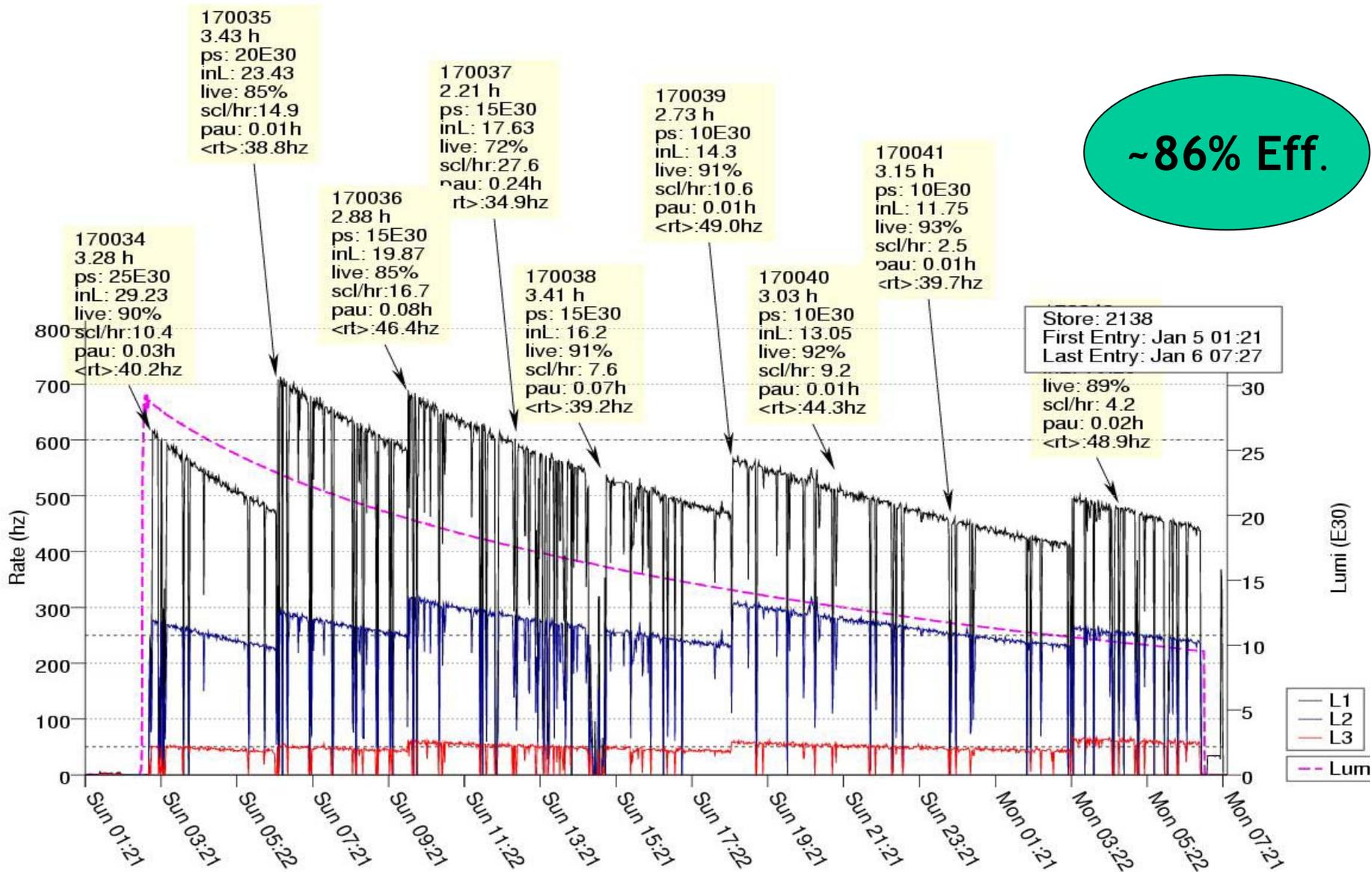
Rec/Del Lumi = 96.0%
Best performance so far for a run of significant length (4.25 hours)



L1/L2/L3 Rates

Store 2138 - Sun Jan 5th from 03:02

~86% Eff.





Plans for Upcoming Week

- **Final checks with beam before shutdown**
 - Trigger commissioning: rates, readout, noise
 - Test new trigger list
 - Collect special runs
- **Complete our Preparation for Shutdown**
 - Detailed plan for daily activities
 - Mechanical/Elec Operations
 - Sub-Detector & Trigger Systems
- **No major hardware or software problems**
 - Small detector jobs done during Supervised Access today
 - Software & Online System changes will be performed during beams studies period
- **Finish data collection for Winter Conferences!!**



Store 2138 - L2/L3 Rates

