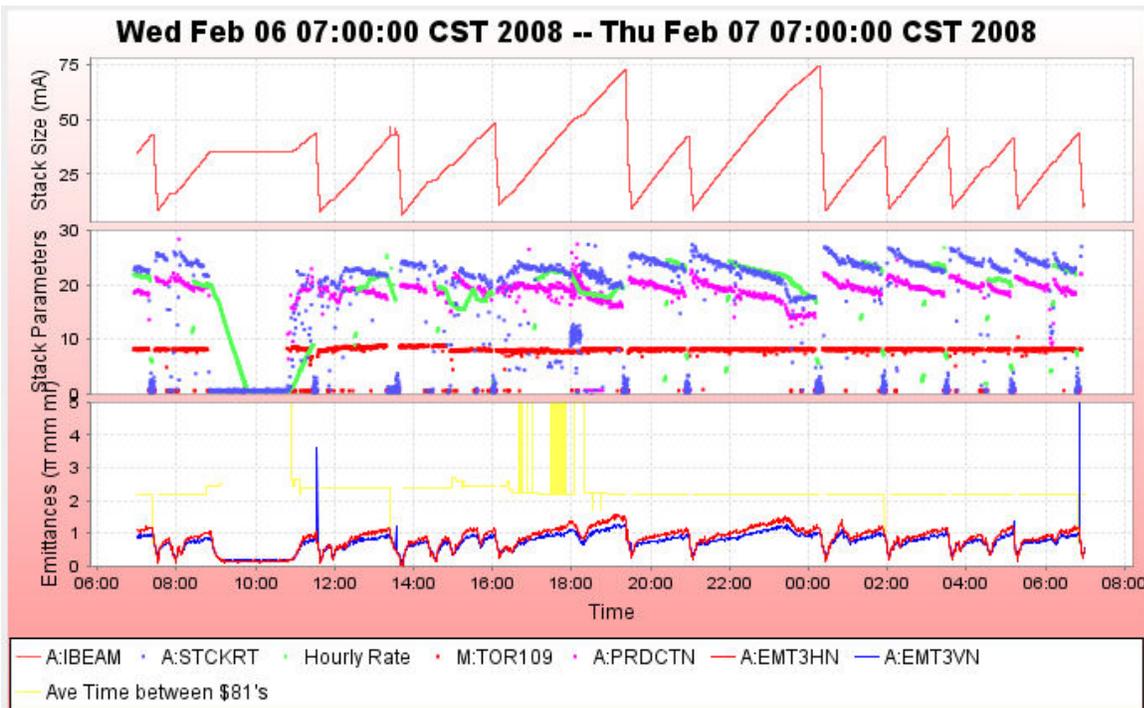


Stacking

- Protons on target averaged about $7.6e12$ at 11 turns overnight.
 - Up in the neighborhood of $8e12$ when we ran stacking only \$29 cycles.
- Some of our tools that we use to generate performance numbers use the E_760 lumberjack on DCE05 . Since that DCE was offline, some of our automated numbers were not reported and have to be estimated the old fashion way.
- Stacking was up a few percent from the day before.
 - Primary gains appear to be tuning efforts that including optimizing movable device positions in the Debuncher.
 - With the E_760 lumberjack down, we were able to switch to a different lumberjack to recalculate our best stacking our.
 - The best stacking hour was 24.0mA/hr ending at 20:31:21.
- Broken items in the tunnel: Tunnel access items continue to accumulate, but have not yet accumulated enough to ask for access time.
 - Debuncher Momentum Band 3 TWT #3 has a tunnel problem, so we'll add it to our worklist. DVM modified the TWT babysitter to be able to handle a broken TWT.
 - DRF1-4 continues to spark, and has a phase error problem. Experts will look more into this today, but fixing this station will likely require a tunnel access. If the station continues to degrade, we can run without it, but will take a few percent hit in stacking.
- Other issues:
 - D:HS7177 which is a shunt on the H717 IB7 magnet. The setting on this shunt is zero with +- 6A alarm window. Probably a readback problem. We will look into this.
 - Ops report that the Stacking Monitor has problems when turning on after a set of Recycler transfers. Experts will look at this today.



Transfers

- Unstacked 440mA in 35 transfers over 11 sets.
 - Accumulator to MI efficiency was 96.4%
 - Accumulator to Recycler efficiency was 90.7%
- Transfer efficiency average is still low.
 - The first couple of transfers had efficiencies in the high 80%.
 - There were some problems with the transfers on the owl shift after the sequencer was exited. Some commands were skipped that failed to restore the "fudge factors" that account for the differences between reverse protons and pbars. This created 1-bumps in the line.
 - A beamline tune-up was done on the next set of transfers, but only partially fixed the problem.
 - The end result was a 12mm error at D:ELAM. This caused Pbars to scrape, resulting in a lower transfer efficiency.
 - After fixing this problem, transfer efficiencies were above 90%, and inline with recent standards, but still a little lower than we would like.
- The Recycler transfers tables were fixed
 - Excel files were brought back into service, but they are still not right.
 - Features such as hiding columns are still broke.

Column 1 Number _O_Pbar Transfer Shot #	Column 2 Number _1_Recy der Shot #	Column 4 Number_3_Transfer Time	Column 21 Number_2 O_A:IBEAM B sampled on \$91 (A:IBEAM1) ,E10	Column 22 Number _21_A:IB EAMB sampled on \$94	Unstacked (mA)	Column 23 Number _22_R:BE AMS (R:BEAM EO[0])	Column 24 Number _23_R:BE AM (R:BEAM EO[1])	Stashed	Acc to RR Eff	Column 27 Number_ 26_MI DCCT SMALL BEAM	Column 28 Number_2 7_MI Before Extraction (I:BEAM6), E10	Acc to MI Eff	Acc to MI2 Eff	Transfers	Sets	
		2/7/2008	7:00:00 AM		440.198			399.20	90.69%	424.449	422.636	96.42%	96.01%	35	11	
7084	4554	Thursday, February 07, 2008	6:51:03 AM	44.188	10.188	34.000	248.415	279.318	30.90	90.89%	32.859	32.245	96.64%	94.84%	3	1
7083	4553	Thursday, February 07, 2008	5:11:53 AM	41.788	9.188	32.600	219.608	249.591	29.98	91.97%	31.421	31.420	96.38%	96.38%	3	1
7082	4552	Thursday, February 07, 2008	3:32:28 AM	42.588	9.388	33.200	189.742	220.570	30.83	92.86%	32.807	32.577	98.82%	98.12%	3	1
7081	4551	Thursday, February 07, 2008	1:56:32 AM	42.787	9.188	33.599	159.759	190.488	30.73	91.46%	32.382	32.533	96.38%	96.83%	3	1
7080	4550	Thursday, February 07, 2008	12:16:34 AM	74.788	8.788	66.000	100.297	160.499	60.20	91.22%	64.693	63.824	98.02%	96.70%	4	1
7078	4549	Wednesday, February 06, 2008	8:58:32 PM	42.588	8.988	33.600	70.197	101.053	30.86	91.83%	32.674	33.031	97.24%	98.31%	3	1
7077	4548	Wednesday, February 06, 2008	7:23:10 PM	72.988	9.388	63.600	15.810	71.036	55.23	86.83%	61.019	59.353	95.94%	93.32%	4	1
7076	4546	Wednesday, February 06, 2008	4:04:31 PM	48.588	11.188	37.400	290.913	324.971	34.06	91.06%	35.973	35.551	96.18%	95.06%	3	1
7075	4545	Wednesday, February 06, 2008	1:37:42 PM	42.787	6.988	35.799	257.761	292.350	34.59	96.62%	35.672	35.626	99.65%	99.52%	3	1
7074	4544	Wednesday, February 06, 2008	11:33:02 AM	43.988	8.388	35.600	228.176	259.186	31.01	87.11%	32.464	32.955	91.19%	92.57%	3	1
7073	4543	Wednesday, February 06, 2008	7:24:52 AM	43.388	8.588	34.800	198.978	229.798	30.82	88.56%	32.485	33.521	93.35%	96.32%	3	1

Studies

- P1 optics:
 - Quad oscillations may be reduced.
 - Efficiencies appear to be about the same.
- Debuncher Gain ramping (<http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar08&action=view&page=57&scroll=false&load=>)
 - Successfully were able to manipulate the Debuncher gain ramps with the new Java application.
 - We did not see as big of an impact as we expected by changing the ramps.
 - Will setup more diagnostics today.

Requests

- More P1 optics work during transfers (Q703). This will be parasitic.
- Diagnostics for Debuncher gain ramps.
 - 2 or so hours parasitically this afternoon.
 - No special TLGs needed.
 - We will not impact stacking more than a few percent.

Other notes

- Paul's Numbers
 - Most in an hour: .00 mA at null
 - Best: 25.19 mA on 30-Jan-08
 - Average Production 16.58 e-6/proton Best: 25.41 e-6/proton on 01/30/2008
 - Average Protons on Target 6.96 e12 Best: 8.77 e12 on 07/24/2007
 - Largest Stack .00 mA Best: 271.01 mA on 11/14/2007
- AI's Numbers
 - Not available.
- Sequencer Errors due to controls problems

```

PC:P <INDEX> Class: <MCR>
P P-Bar Index
Stack Trace from Last (Failed) Program
Using host libthread_db library "/lib/tls/libthread_db.so.1".
Core was generated by 'PC0001_09'.
Program terminated with signal 11, Segmentation fault.
#0 0x00d0c42f in db_select (vhandle=0x0,
    request_buffer=0xbffb0740 "select ip,title, ' ', max((isnull(ipe.page
    _rows=0xbffb073c, bytes_per_row=85, reply_buffer=0xbffb0940,
    guarantee_count=false) at db_sqlapi.cpp:709
    /usr/local/mecca_head/mecca/uls/ul_clib/db_sqlapi.cpp:709:23399:beg:0xd

Thread 7 (process 5175):
#0 0x004bd7a2 in _dl_sysinfo_int80 () from /lib/ld-linux.so.2
#1 0x023bce04 in poll () from /lib/tls/libc.so.6
#2 0x00f11300 in SignalThread::signalThread (arg=0x0)
    at system_services.cpp:763
#3 0x007383cc in start_thread () from /lib/tls/libpthread.so.0
#4 0x023c6c3e in clone () from /lib/tls/libc.so.6

Thread 6 (process 5176):
#0 0x004bd7a2 in _dl_sysinfo_int80 () from /lib/ld-linux.so.2
#1 0x0073d958 in recvFrom () from /lib/tls/libpthread.so.0
#2 0x00ca1ce5 in dataThread () at acnet_network.cpp:181
#3 0x007383cc in start_thread () from /lib/tls/libpthread.so.0

```

OK

1: 22 of 118

Pasted from <<http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar08&action=view&page=-702&button=yes>>

Alarms from 18:29:31 Wed Jan 30 2008 to 18:29:31 Wed ...

File Edit View History Bookmarks Tools Help

http://www-bd.fnal.gov/cgi-mcr/alarms.pl

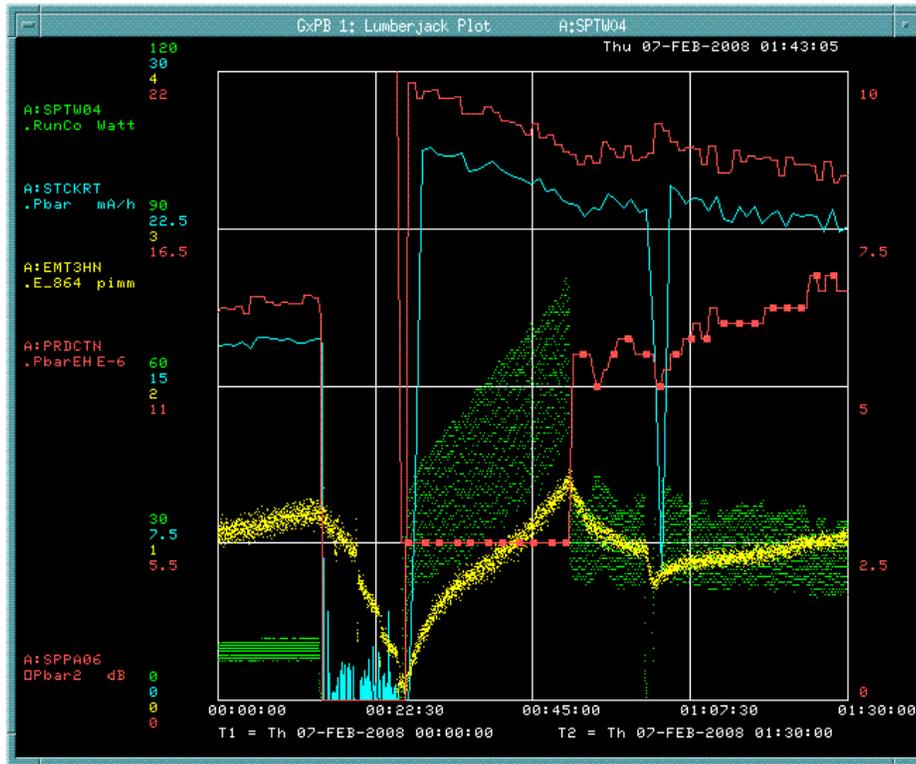
MemoPad Alarms from 18:29:31 ...

Sorted by time
from 18:29:31 Wed Jan 30 2008
to 18:29:31 Wed Feb 6 2008

D:HS7177	08:07:20 Sun Feb 3 2008	0000EBFF
D:HS7177	08:07:23 Sun Feb 3 2008	0000007F
D:HS7177	15:48:28 Wed Feb 6 2008	0000EBFF
D:HS7177	15:48:31 Wed Feb 6 2008	0000007F
D:HS7177	18:22:34 Wed Feb 6 2008	0000EBFF
D:HS7177	18:22:37 Wed Feb 6 2008	00000037

Done

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Pasted from <<http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar08&action=view&page=-704&button=yes>>