

Injector Status

Haixin Huang

Feb. 9, 2016

Time Meeting

Injector Status

- 8->4->2 merge: Bunch intensity is about 2.0-2.1E9/bunch. The highest from last year was 2.1E9/bunch. Longitudinal emittance is about 0.6eVs. Currently, this setup is used for RHIC injection.
- 6->3->1 merge: The bunch intensity is 2.3E9. Longitudinal emittance is larger, about 0.7eVs. Extraction setup with green synchro is done.
- 12->6->2 merge (AGS user5):
 - Tested with 7 sec super cycle last Thursday for about two hours. Get similar intensity as 6->3->1.
 - The emittance is similar to 6->3->1, about 0.7eVs.

AGS Bunch Merge (12->6->2)

RemoteScope
Help

Scope Name	User	Session Start
MCR_01	zeno	Jan 29 17:02
MCR_02		
MCR_03	yuhongz	Feb 4 10:34
MCR_04		
MCR_05	zeno	Jan 28 13:51
MCR_06	yuhongz	Jan 29 15:49
MCR_FAST_07	zeno	Feb 1 12:22
MCR_FAST_08		
MCR_FAST_09	mcr	Feb 4 12:44

Signals

Ch 1:

Ch 2:

Ch 3:

Ch 4:

Trigger

Machine:

Start:

Clock:

Delay:

PPM Users:

2

3

4

5

Cycles:

First

Second

Third

Fourth

LeCroy WR104MXI-A
Autoset Undo

File Vertical Timebase Trigger Display Cursors Measure Math Analysis Utilities Help

C1 FLT DC1M 2.00 V/div -6.6000 V	C3 FLT DC1M 2.00 V/div -7.700 V ofst	C4 FLT DC1M 500 mV/div -1.8800 V	F2 (C2-M2) 1.00 V/div 1.00 s/div
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Timebase 0.00 s	Trigger Ext DC
250 kS	1.00 s/div Normal 410 mV
	25 kS/s Edge Positive
Slow Acquisition	

Setup file /op

Attempting to

Channel 1 on

Setup file /operations/app_store/ElogServer/tmp/ies/RemoteScope.1454629537.199229822 successfully saved.

12->6->2 Merge

es/RemoteScope.1454629302.199229822 successfully saved.

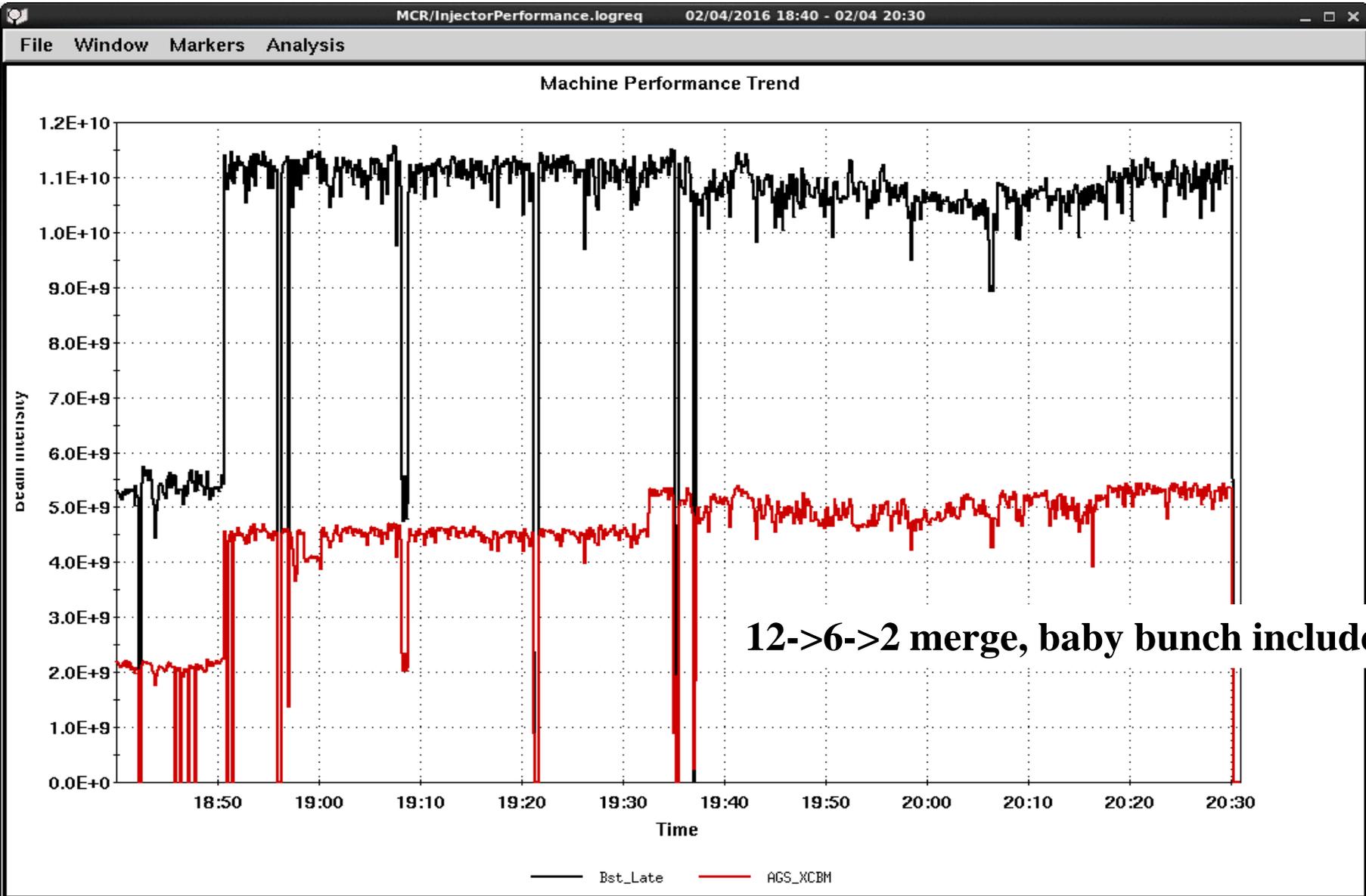
annel 1 on scope MCR_01...

gnal BXI.MAIN_MAG_CUR.

ies/RemoteScope.1454629537.199229822 successfully saved.

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AGS Bunch Merge (12->6->2)



Time = Thu Feb 4 20:21:10 2016+750ms, Bst_Late = 1.1026e+10
Time = Thu Feb 4 20:20:54 2016+468ms, AGS_XCBM = 5.269e+09

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Injector Plan

- **12->6->2 merge setup** will be the focus for further bunch intensity gain.
- **6->3->1 extraction setup** probably should wait, given the longer filling time and hope for 12->6->2.
- **Polarized Proton setup** is on the horizon. Polarimeter target installation will be on next maintenance day, presumed Feb. 17. The pp setup is likely starting in the week Feb. 22.