

# Injector Status

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Time Meeting

# Injector Status

- We worked on several bunch merge schemes now.
- 8->4->2 merge: Bunch intensity is about 1.9-2.0E9/bunch. The highest from last year was 2.1E9/bunch with slightly higher EBIS input. Longitudinal emittance is about 0.7eVs. Currently, this setup is used for RHIC injection.
- 6->3->1 merge: Booster merge is improved. RF radial loop is used to make the merge more stable so that baby bunch percentage is reduced to 12% (last year was >20%). The bunch intensity is 2.5E9 now (2.3E9 last year). Longitudinal emittance is larger, about 0.8eVs.
- 12->6->2 merge:
  - with higher total intensity, the plunge foil provides additional protection for beam pipes. The plunge foil has been set up properly and ready for use.
  - The 13 Booster cycles have been tested for 7sec super cycle for 15 minutes and it is confirmed that 13 Booster cycles does not violate the PPMR requirement.
  - The Booster cycle has to be modified to meet the PPMR requirement. For this to happen, the merge has to move to higher energy. This remains to be done.
- G10 kicker timing alignment issue is worked on.

# AGS Bunch Merge Comparison

RemoteScope

Setup Scope Signal Trigger Diagnostics Help

Scope Name	User	Session Start
MCR_01	zeno	Jan 19 12:59
MCR_02	lovelace	Jan 21 15:42
MCR_03	wjackson	Jan 21 17:09
MCR_04	yuhongz	Jan 21 15:41
MCR_05	zeno	Jan 19 13:20
MCR_06	wjackson	Jan 21 15:54
MCR_FAST_07	schoefer	Jan 21 10:07
MCR_FAST_08	zeno	Jan 21 15:41
MCR_FAST_09	zeno	Jan 21 13:35

Signals

Ch 1:

Ch 2:

Ch 3: AGS\_MTN\_RANGE

Ch 4: axi.g5.wcm(1)

Trigger

Machine: Booster

Start: Booster T0

Clock: Realtime

Delay: 0 usec

PPM Users:

1

2

3

4

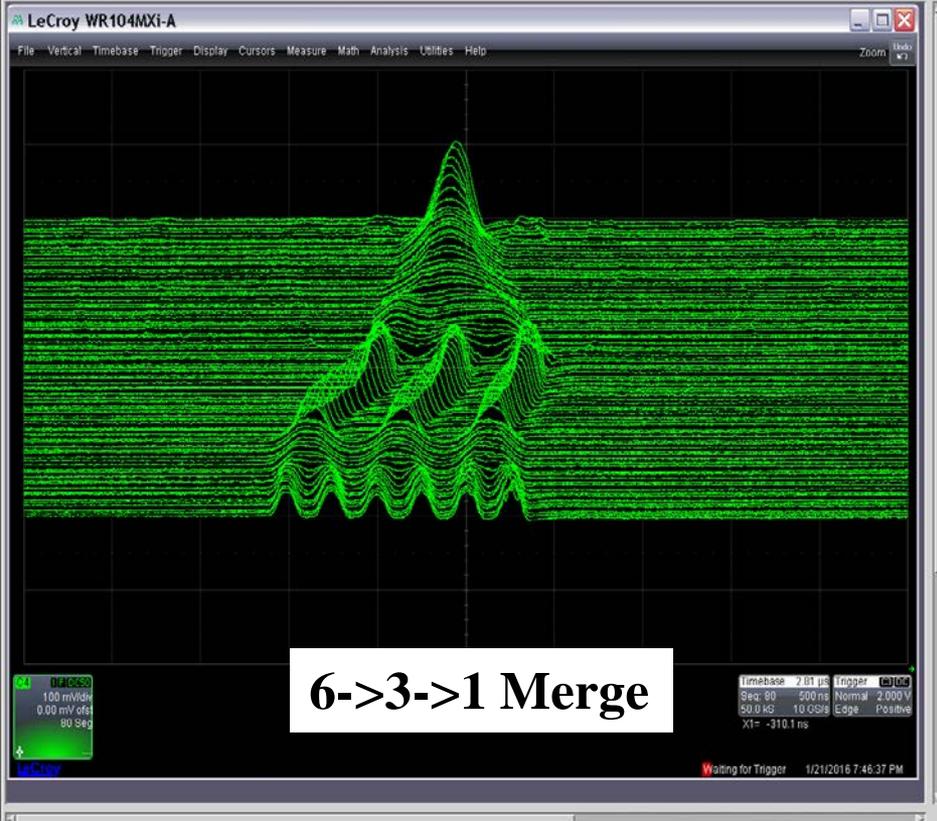
Cycles:

First

Second

Third

Fourth



Channel 3 on scope MCR\_FAST\_07 successfully cleared.  
 Channel 4 on scope MCR\_FAST\_09 successfully set to signal axi.g5.wcm(1).  
 Setup file i:\operations\app\_store\ElogServer\tmpFiles\RemoteScope.1453420605.195035518 successfully saved.  
 Menu Selection: Trigger -> Auxiliary Triggers...

RemoteScope

Setup Scope Signal Trigger Diagnostics Help

Scope Name	User	Session Start
MCR_01	wjackson	Jan 13 16:22
MCR_02	yuhongz	Jan 11 11:09
MCR_03	lovelace	Jan 13 08:14
MCR_04	maffei	Jan 12 16:47
MCR_05	mcr	Jan 12 15:44
MCR_06	yuhongz	Jan 13 14:10
MCR_FAST_07	mcr	Jan 13 12:28
MCR_FAST_08	mcr	Jan 11 12:41
MCR_FAST_09	mcr	Jan 12 15:39

Signals

Ch 1:

Ch 2:

Ch 3: AGS\_MTN\_RANGE

Ch 4: axi.g5.wcm(2)

Trigger

Machine: Booster

Start: Booster T0

Clock: Realtime

Delay: 0 usec

PPM Users:

1

2

3

4

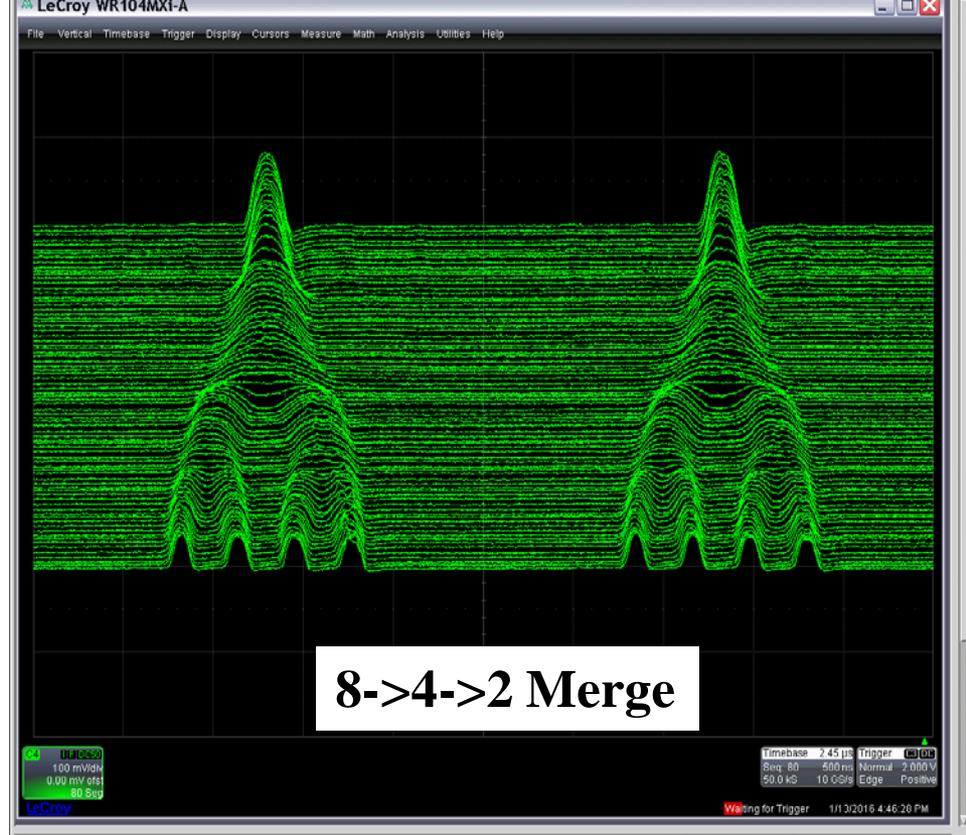
Cycles:

First

Second

Third

Fourth



New rdesktop client successfully spawned.  
 Setup file i:\operations\app\_store\ElogServer\tmpFiles\RemoteScope.1452631154.8388890 successfully saved.  
 Menu Selection: Trigger -> Auxiliary Triggers...  
 Menu Selection: Trigger -> Auxiliary Triggers...