04/03/2010

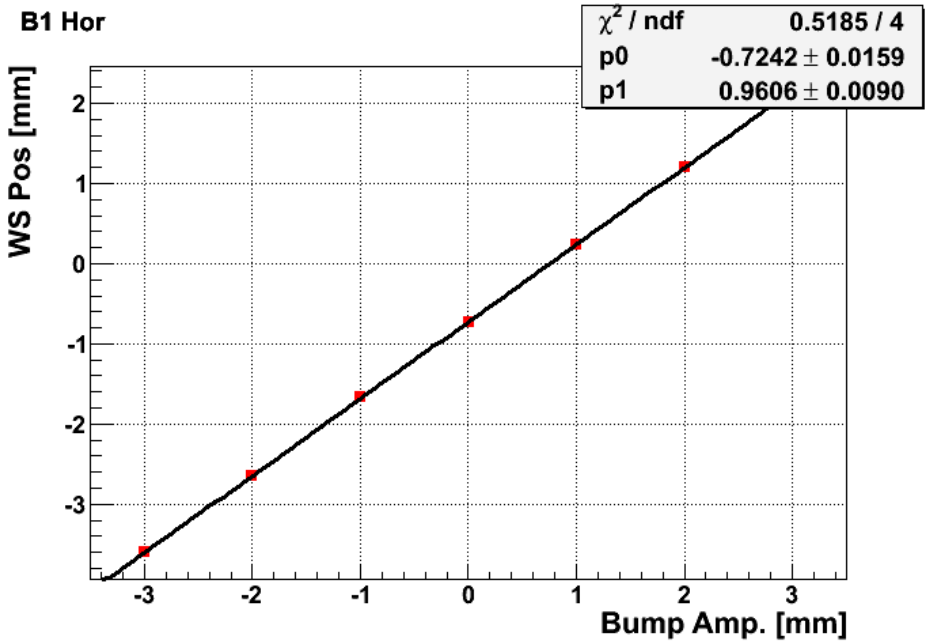
- 07:00: Switch OFF all sectors – ready for HWC.
- 07:00 – 15:00 : HWC tests
  - HWC tests: quench heaters fired during some of the tests. In particular 14 quench heaters fired on RB.A34.
  - In parallel access for BLMs, Dump BCT, TOTEM, BRAN. Additional access is required for BLM on magnet 32.R7.
- ~16:00: Cryo recovered in the sectors affected by the quench heater firing during the magnet tests
- 16:45 : All sectors ready for pre-cycling – RQF.A78 – RB.A81 tripped when ramping from 100 A (standby level) to 350 A. Had to ramp them to stand-by level with lower ramp rate. Not yet understood….
- Solved the problem with the TCDQ B2 which didn't move (was a software problem
- 21:00: LHC ready to take beam
- Synchronization problem LHC-SPS due to the execution of a task that normally should not be executed (to be fully understood)

04/03/2010

- 22:00 : Circulating beam 1 – straight back to nominal tunes
- 22:30 : Circulation beam 2 – straight back to nominal tunes
- Wire Scanners calibration by measuring beam centroid while applying closed orbit bumps at WS locations. **Bernd Dehning , Federico Roncarolo**
  Assuming perfect corrector magnet calibration and optics between the corrector and the WS, the plots show bump nominal amplitude vs beam centroid as measured by WS.

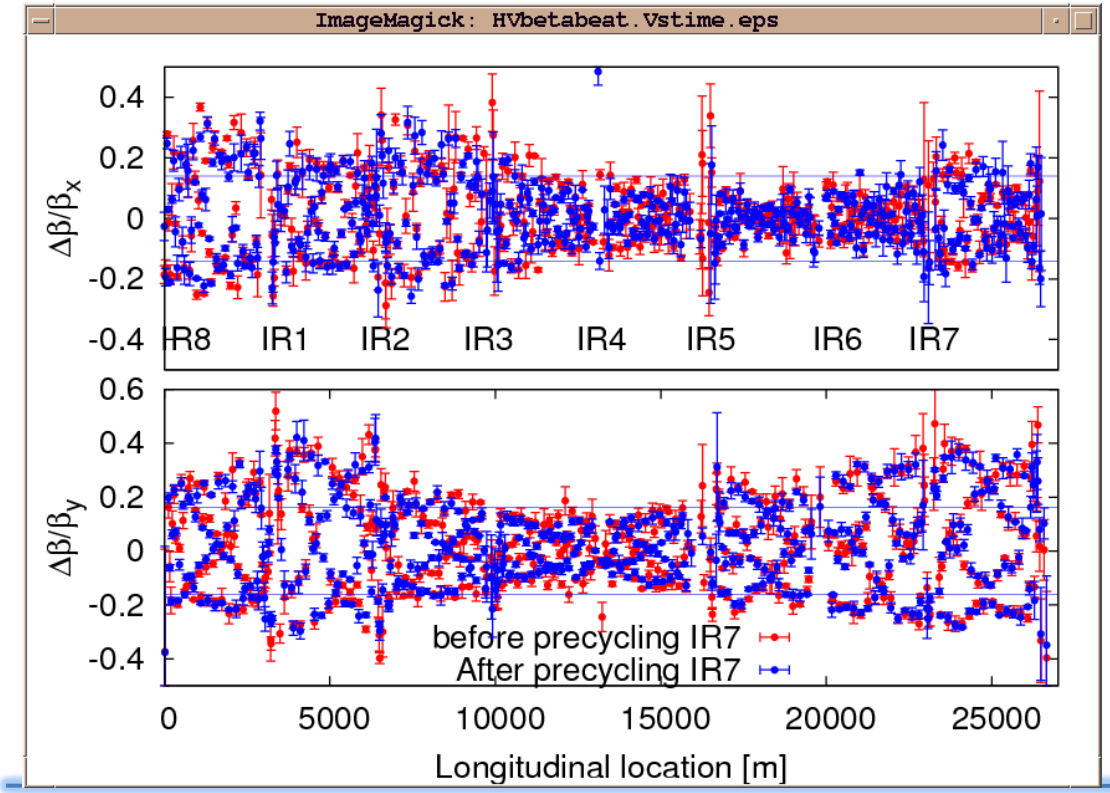
Slopes of linear fit:
B1 H : 0.961
B1 V : 1.053
B2 H : 0.982
B2 V : 1.001

--> maximum error = 5%



- Overnight: beta beating measurements and correction: **Rogelio Tomas and team**

Performed baseline beam 2 beta-beat measurement to proof reproducibility after trimming MQW magnets in IR7 (the correction left in two nights ago). Conclusion: The reproducibility is excellent.

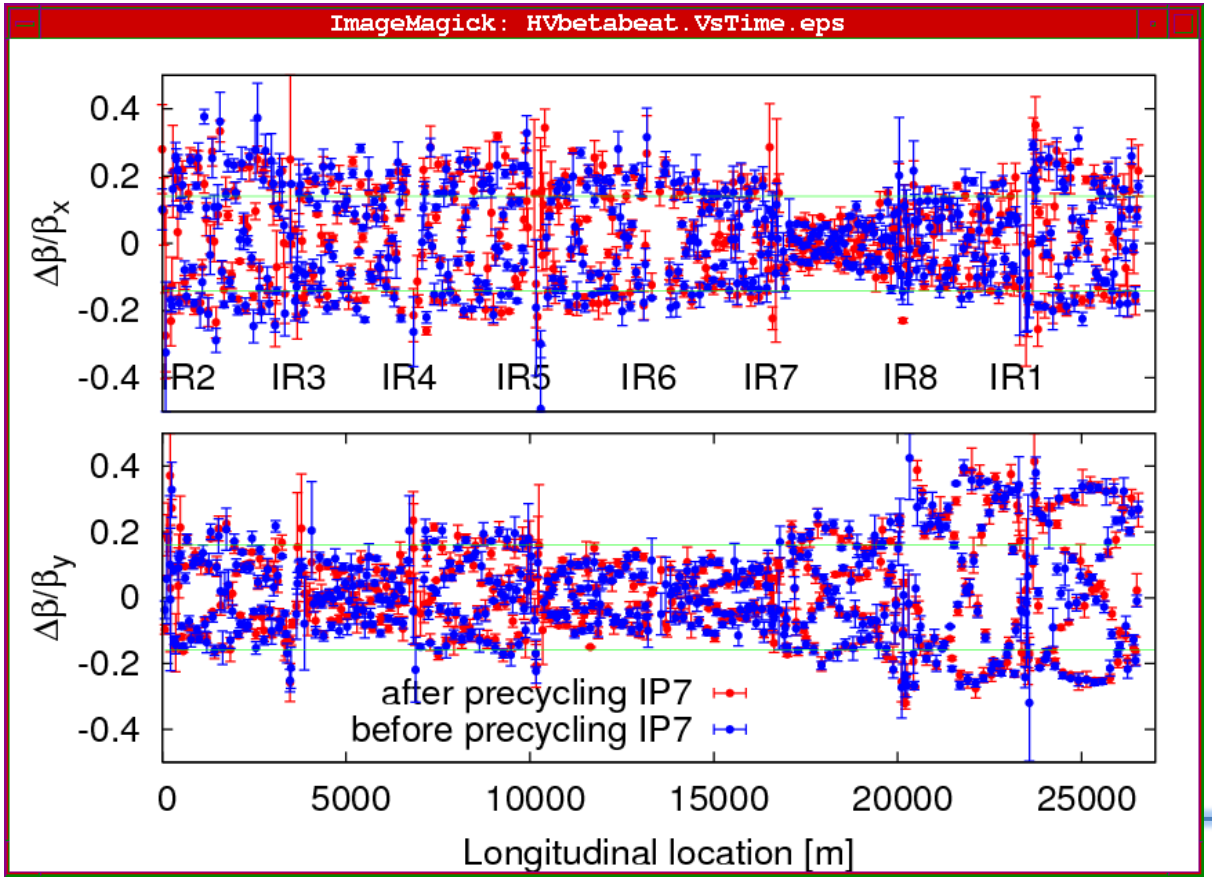


Horizontal plane ~ 30%
Vertical plane ~ 40%

05/03/2010

Beta beat measurements beam1 with only IP7 correction (base measurements)

Conclusion: The reproducibility is excellent.



Horizontal plane ~ 30%
Vertical plane ~ 40%

IR3 b-beat correction – beam 1

IR3 b-beat correction - Beam 2

IR2+IR8 correction - Beam1

IR2+IR8 correction – Beam2

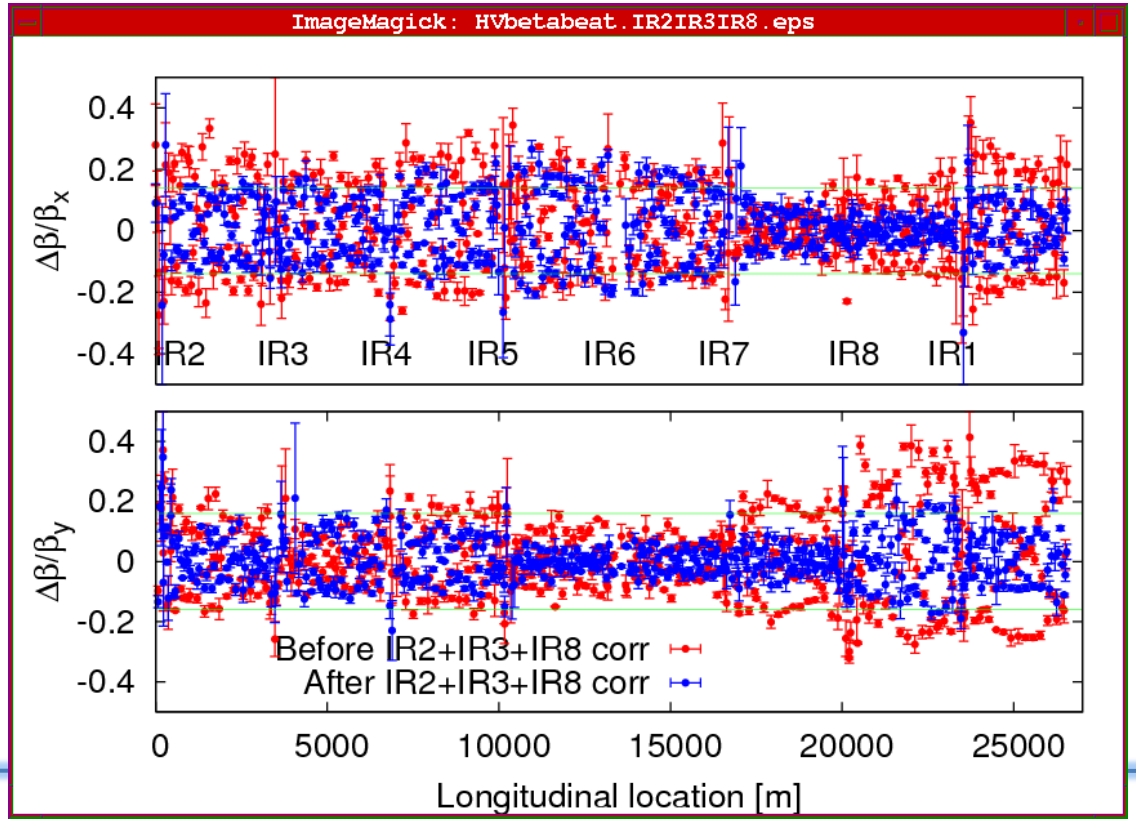
Each set shows a clear improvement of the beta beat, corrections are excellent.

Finish fist set of measurement for the beta beat. Stop and precycle the magnets that were used for measurements, and then redo beta beat measurements to check consistency

Summary of Beta-beating beam1

05/03/2010

- The plot shows the H&V beam1 beta-beating at the beginning and at the end of the shift (after corrections and pre-cycling). Vertical beta-beat is within spec and Horizontal is ~20% (close to spec).
- The reproducibility after precycling was excellent.



Summary of Beta-beating beam2

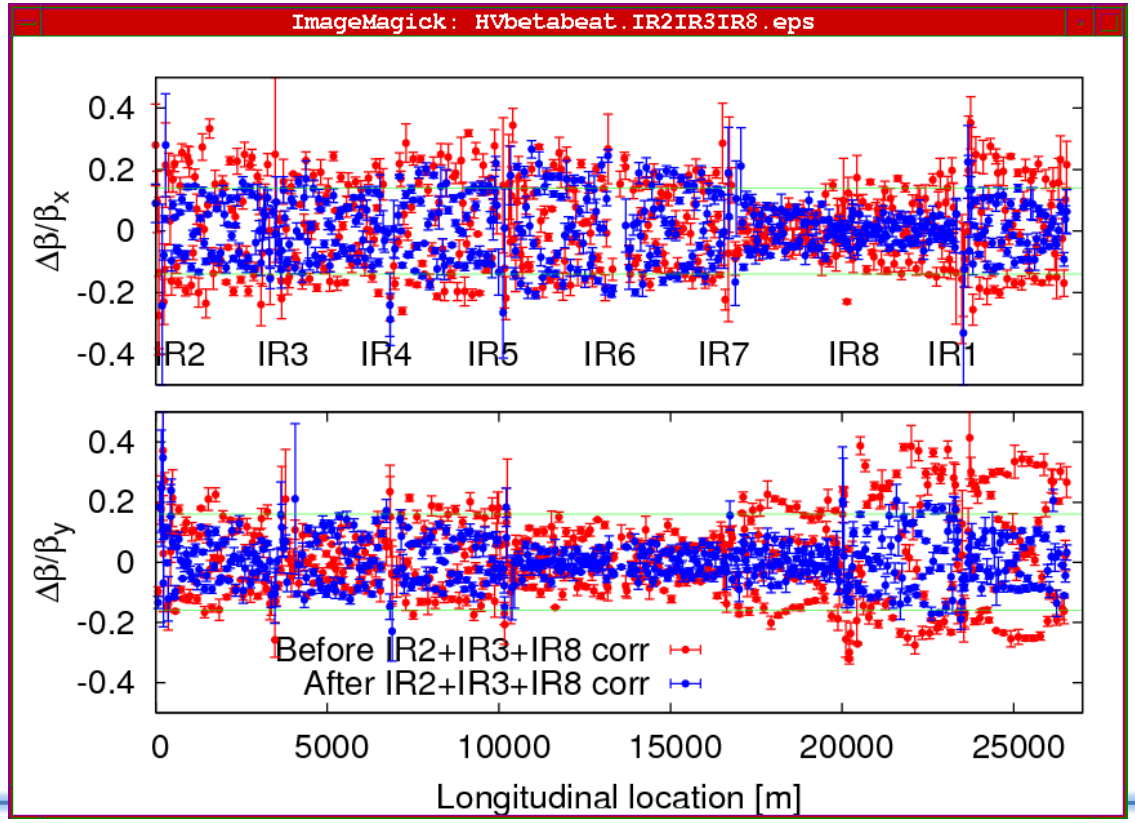
05/03/2010

H&V beam2 beta-beating at the beginning and at the end of the shift (after corrections and precycling).

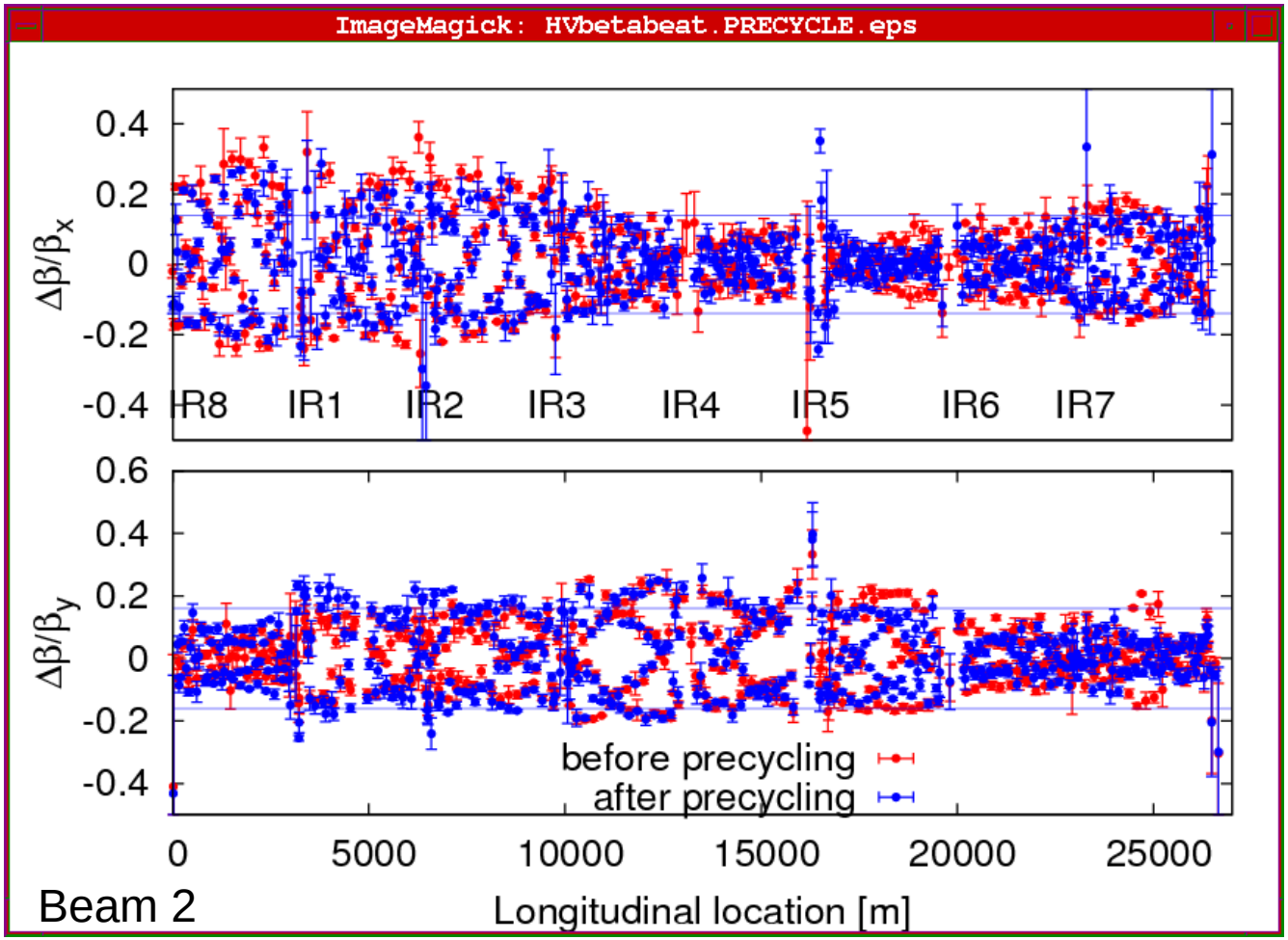
Horizontal b-beat is 30%

Vertical b-beat is 20%

The reproducibility after precycling was excellent.



The reproducibility after precycling was excellent.



Plans for coming days

Friday 05/03/2010

- 07:00 – 12:00 : Establishing reference orbit – “golden” + intlk BPM Pt 6
- 12:00 – 24:00 : Switching on spectrometers + compensators – Correct non-closure – coupling - check knobs. In parallel: orbit, tune feedback
- 00:00 - 07:00 : Switching the separation bumps on

Saturday 06/03/2010 (preliminary)

- 07:00 – 11:00 : HWC
- 11:00 – 14:00 : Cycling and re-establish injection
- 14:00 – 22:00 : Injection and beam dump studies
- 22:00 - 07:00 : Beta beat measurements

Sunday 07/03/2010 (preliminary)

- 07:00 – 15:00 : Collimator setting-up – BLM
- 15:00 - 23:00 : Aperture measurements
- 23:00 - 07:00 : Damper setting-up