Notes from the 10/03/06 MI BPM Upgrade Meeting
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These notes can be found in Beams docDB #1526.

Agenda as announced:

Project announcements - Steve and Bob
Transition board controller status - Stefano
& Board by board gains - Stefano + Steve + Bob W.
Diagnostic/testing - Marv, Manfred, Peter, Steve
Software - Steve, Luciano, Brian
2.5 MHz pbar measurements - 1st, last turn
MI BPM status list ("punch list") - Dave
Validation - Rob
AOB

0. Announcements.

- Pizza last Friday was great. Thanks to everyone who has done such a nice job on the project.

- A new version of the MOU is out for people to look at. The references to project work has been removed and therefore only operations responsibilities remain in the document.

- The project is officially finished, all of the task codes, wbs items, etc. are closed. Work will continue to commission the system and that work will be charged to operations. A closeout report will be written for the project over the next month or so.

1. Transition board controller status - Stefano
& Board by board gains - Stefano + Steve + Bob W.

- Stefano's slides can be found at:

http://www-ese.fnal.gov/mi_bpm_tb_ctl/MI_BPM_TB_Controller_Report_2006_10_03.pdf

- New firmware has been installed in MI60N, MI60S, MI50, MI40. The rest will be installed as the transition boards are modified and recalibrated or following any other acceptable plan.

- Board-by-board gains are set for MI60N, MI60S and MI50. The rest will follow as quickly as possible.

- Stefano is working on diagnostics for the new firmware version.

2. Software issues - Steve Foulkes, Brian Hendricks, Luciano Piccoli

- The diagnostic data format exists (for dumping raw data).

- Implementation of raw data dumping, diagnostic using signals (Marv and Peter's plan) will be implemented by Bob West when he returns from vacation.

- Steve is working on some changes to the code as requested by Dave Capista. This includes dealing with buffers when there is no beam and also using some kind of turn counter (timing) to specify the first turn FLASH and extraction last FLASH.

- Raw data using the 96K buffers was taken late last week and Rob Kutschke will analyze it.

3. Validation - Rob Kutschke

- Rob's slides can be found in beams-doc-2493.

- Rob showed many plots showing state 20 and state 11 2.5 MHz turn by turn data for HP100 and VP515. HP100 has little noise and it is easy to find the first or last turns. HP515 has noise and it is a little more difficult to come up with an algorithm that finds the first and last turn with beam. Plots were made showing the turn number based on various algorithms. Same for extraction. One conclusion is that no algorithm is likely to 100% of the time choose the proper turn for all BPMs, especially for the smaller intensity transfers.

- Rob also showed raw data for HP314 and VP515 since they have interesting behavior. The beam moves from one side to the other during the first two turns. The beam is so far from center that the Echotek to position transformation needs to be corrected.

- More interesting data analysis will be shown next week.

4. AOB.

- None.