

Minutes, 2/02/05 Tevatron BPM Upgrade Meeting
Stephen Wolbers

This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Report from Bob and Steve
2. Report from subproject leaders
3. Report from Jim Steimel
4. AOB

1. Report from Bob and Steve

- Bob asked if Rob Kutschke could rework his analysis of the TBT data to include "meaningful" units on the y axis. Bob and Rob will communicate and come up with the proper formulation to get this done.

- A Fermilab Today article is being written about the upgrade (to more or less coincide with the installation and commissioning of A3 and moving to B3. Hopefully there will be more articles as we move forward.

2. Reports from L2 Managers

Tim Kasza:

- Echotek testing continues. See Beams docDB #1381-v18. All 250 boards have been tested. 4 have been sent to Echotek for repair. Most boards have updated firmware. All boards need a 50 ohm resistor on the SYNC input. 2 boards were damaged on the filter board test stand.

- A problem in a filter board shorted the backplane on the VME crate which in turn caused some damage to the backplane, a timing card, a MVME processor board, and 2 Echotek boards.

- 107 filter boards have been tested and passed. The failed boards are being studied and classified and a report should be heard next week. Most of the failures are larger than specified phase differences.

- 33 of the 38 TeV BPM timing boards are working. The remaining 5 are being repaired and tested.

- Crates for C3,D3 and E3 are being staged and readied for eventual installation in the Tevatron.

Mike Martens:

- Mike looked at data from the most recent store (February 1) and saw quite a few anomalies in the data. As of the meeting these were not understood and people were going to look at the data and debug. This includes SDA data.

- Mike mentioned that he would like to see the first turn data collection working, including understanding the outliers in the A3 data.

Rob Kutschke:

- Rob showed some results from the Jan 31 shot, including looking at the outliers, tune lines, synchrotron motion, etc. Some of the plots shown are in the document Beams docDB 1552. Some of the information shown is likely to give important clues as to the cause of the outliers and of other interesting effects seen in this data.

Luciano Piccoli:

- Many issues already were discussed previously. Luciano has fixed the diagnostic mode issue. And has made some source code rearrangements. He will be downloading new code to A3 soon.

Brian Hendricks:

- W25 can access crate diagnostics. Discussion about what capabilities should be available from this page. Decision is that we do want to reboot the system or even to turn off power from these pages but there should be a "do we really want to do that?" sort of check before the action is actually taken.

- W68 and W136 should both be able to look at TBT data. There was a question of timestamps in TBT data and what is available. Jim would like to be able to see position and intensity or I & Q from W68.

- W135 is also being made to work with the new system and TBT data.

- Brian reported that the first request (after a long time with no request) of TBT data seems to take a long time. The second and further requests seem to be quite fast.

Vince Pavlicek:

- Optilogic cables are on order.

- The timing board is stable recently. Only changes were made for the first turn studies on the test stand.

- Ken is classifying filter board failures for future discussion and decisions.

- Need to schedule the reconfiguration of the fiber connection from AD to FCC3. We should learn what it takes to remove the old connection, make a new one, and then reconnect to the AD network. For the time being we should leave the current connection there so as not to disturb the studies on the test stand.

3. Jim Steimel:

- Bob Forster is organizing teams of people for crate installation. It was recommended and accepted that Marv Olson and Judy Szabo be included in these teams.

- Jim is thinking about the test procedures for the crates and will work with Marv and others to refine them.

- Jim is working on TBT and first turn studies. Uncoalesced beam studies on the bench still shows some problems with noise. Jim has the necessary hardware to mimic the first turn on the test stand.

4. AOB.

- No meeting Thursday February 3.

- We will meet Monday February 7 at 11:00 A.M. in the Penthouse to assess progress.