

Minutes, 3/09/05 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

- Mike Martens is giving a talk today at 1:30 in the Huddle on how to use the new BPMs.

- Steve and Rob Kutschke are giving talks about the project and measurement quality, etc. next week Thursday at 2:30 P.M.

3. Report from Steimel

- Jim reported on the installation and early work on the D3 BPM crate on Tuesday March 8.

- The electronics installation went well, as far as he knows. All changes necessary were made to the BPM libraries by Brian and the ACNET variables by Luciano.

- The diagnostics program of Dehong was then run. Problems were found (it hung) and in the process changes were made to the crate to try to correct the problems. Unfortunately after all of this activity a cable was left unplugged/loose and this caused trouble in rebooting the crate. All of this was debugged by Jim and Luciano late in the afternoon/early evening on Tuesday.

- Some lessons learned:

- Test the crate on the test stand.
- Don't modify the system until it has been shown to work.

- We learned that Bill and Ken are working on changes to the timing card to try to address the hanging diagnostics program. We agreed that

it should be tested on E3 (or some other teststand) before modifying A3, B3, C3 or D3.

- E3 is not yet ready to install. This would have been a good opportunity to install, given the recent Tevatron quench. However, we should verify that E3 is functioning and the request to install it as soon as possible and hopefully this week.

- There was some discussion of the ACNET devices for resetting C3 and D3. We have to agree on a process for enabling these features as we install crates.

- There is a question of changes that Brian makes and Luciano makes to enable a new crate. Jim asked if it was possible for Brian to make all the changes at once, streamlining the process. Brian, Luciano and Jim will discuss.

- W25 "VME Status" is not ideal, according to Jim and he requests that the interface change. Nobody objected and so that work should go forward.

2. Reports from L2 Managers

Luciano Piccoli:

- Luciano is working on the FTP at 500 Hz. It was agreed that only the positions and intensities are needed at 500 Hz, not the I's and Q's.

- Luciano is fixing the front-end software to fix the problem that caused the hangs in D3 on Tuesday. The software will give up rather than hang.

- Kurt and Brian are working on alarms.

Mike Martens:

- The D3 crate was not yet functioning when the store went in on Tuesday afternoon.

- The A3, B3, C3 crates all passed tests and the PROFILEs looked OK. This is not final proof that the fixes made by Luciano have fixed the earlier PROFILE problems, but it is quite promising.

- The store that almost went in Wednesday morning had all 4 houses pass the diagnostics.

Brian Hendricks:

- Some bugs found in the intensity frame plot and table format were found and fixed (or will be fixed).
- All BPM code was ported to Linux!

Tim Kasza:

- Tim's slides can be found in Beams docDB #1381-v23.
- 2 Echotek boards have been sent to Echotek to check on the firmware loading problem.
- 3 of 6 boards returned by Echotek still fail our diagnostics. 2 of the 3 were found not to have problems by Echotek. So Mark Bowden will be looking at our test to see how we resolve the conflict.
- Marv Olson will be listed in the Prep database (not the same as the lab's database) as the contact person for the TeV BPM hardware.

Vince Pavlicek:

- Working on documentation updates.
- Firmware changes to Timing board for the diagnostic signal, as mentioned on Monday, and for debugging/fixing the problem with the standalone front-end diagnostic test.
- The termination board for the VME crates is set to arrive on Friday or Monday and then they will be stuffed.

Rob Kutschke (sent in email):

- Most of my work this past week went into the preparation of the material which I showed on Monday. The written version will go into the docdb this afternoon. I have started to rewrite the offline software specs. I had thought it would be done yesterday but a few other things came up. I now expect to finish it tomorrow morning.

4. AOB.

- No meeting Thursday March 10.
- We discussed the criteria for "commissioning" crates. Mike has a list and we should more or less satisfy that list before declaring a crate commissioned. However, the whole

system cannot be commissioned until a larger list of capabilities are demonstrated, including pbar measurements, safe mode, stability, linearity, etc. Much or all of this is in the requirements document and we can tie it to that.

- This will not necessarily slow us down in installation, and Mike has indicated that we can go ahead with E3 installation when we are ready and we get all the needed approvals.