

Minutes, 11/24/04 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. AOB

1. Report from Bob and Steve.

- The crate was installed in A3 on Tuesday (more below).

2. Reports from L2 Managers

Tim Kasza:

- Echotek board testing resumed last week. So far 29 boards with new firmware have been tested. 27 pass and 2 have issues that need to be looked at in more detail. Details of the testing status can be found in Tim's slides -- 1381-v10. Next week the focus will be on 11 boards that failed with old firmware.

- 23 new Echotek boards have arrived. These are for the MI/Transfer line BPM projects. More boards arrived this week.

- One filter pair was found to have a phase-mismatch of over 5 degrees across the frequency range 53-57 MHz, clearly larger than the acceptance criteria. A discussion continued after Bob Webber arrived later. The action that will be taken includes contacting Lark, possibly sending this pair back to be re-tested by Lark (as their test shows only a 1.7 degree phase difference), ordering some more spare pairs, etc.

- Cables. Waiting for the last cable order, scheduled for shipping November 24 (later it was learned that they in fact arrived on November 24).

- Bill Barker helped with the installation of the crate in A3.

Brian Hendricks:

- Luciano and Bob West continue to work on the acquisition support

needed for the W25 application. They are close to resolution.

- The TeV BPM project can keep the Optilogic box (assuming we replace it once we purchase our own set).
- Brian is fixing bugs in the libraries as they are found.
- Working on support for frame types.
- Brian will put the V:TEVBPM state device into production shortly.

Margaret:

- Preparing for the A3 crate. Ready to start making measurements on Monday.

Bob Forster and Vince Pavlicek:

- Bob gave a long description of the A3 crate as it moved back and forth between FCC3 and A3 on Tuesday and Wednesday. This was necessitated by seeing various problems in the system and trying to debug those problems by swapping crates, moving modules back to FCC3, etc. Bottom line is that work is likely still needed to fully debug the system.

- At this point we discussed some more the cabling and general installation of the A3 crate. The p cables could probably be pulled back in the current rack leaving only the connectors below the top panel. The pbar cables are very long and need to be properly dressed. The clock cables may need to be replaced or reconfigured in some way to not strain the smb connectors on the Echotek boards. Same with the signal cables. All of these issues are being looked at and some of them are already being addressed.

- The panels that sit above and below the VME crates are being delivered.

- Site visits to both vendors (for the filter and timing boards) have been made and all looks good for rapid fabrication of the boards. The current expectation is that boards will be arriving at Fermilab in early January.

Mike Martens:

- Mike is looking at Jim's modes of operation document, the original software specification, the software implementation document, T39, and other related

information. Mike is concerned that not all of the information is consistent, which is probably true. After some discussion it was decided that Mike will organize for the project ways to create more consistent (and correct) information and nomenclature. It is an important issue as we move from a system that has been in place for over 20 years and roll in a new one with sometimes identical but sometimes different capabilities.

Rob Kutschke:

- Rob showed some data analysis results coming from looking at a store from August 18. Part of the analysis is to look at the intensity measurement before and after the helix opens and to see how this change (and corrections needed to correct for it) affect the position measurements. The effect looks small but there are other effects (like the movement in the orthogonal coordinate) that also need to be considered. Rob is going to write up these results in a note or in future calibration discussions and notes.

4. AOB.

- Will meet Thursday, December 2 at 1:30 to discuss calibration and new results from Gustavo and Eric.

- Beam is still expected Monday November 29 in the Tevatron.

- We plan to go out for pizza on or about Wednesday, December 8.