

Notes from the 11/08/05 MI BPM Upgrade Meeting
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These notes can be found in Beams docDB #1526.

Agenda as announced:

Project Announcements : Bob and Steve
Front-end software/MVME : Luciano, Steve, Margaret
Combiner Board status : Marv, Tim, Bob Forster, Vince
VME crate purchase status : Bob Forster
Transition Board: Manfred, Stefano, Vince
Signal cables : Bob Forster, Manfred, Peter
Online software : Brian
Validation: Rob Kutschke
Timing Board : Bill
AOB

0. Announcements - Bob and Steve

- Steve will miss the next two MI BPM meetings -- Nov 15 and Nov 22: to attend management training. He will return fully trained!
- Bob mentioned that we are one week closer to Jan 15.
- Bob also mentioned that measurements have been made of the wide aperture BPMs and these measurements are available in beams-doc-2007. Bob is working on an analytical approximation to convert BPM response to position. Details will be found in a future beams-docDB note.

1. Front-end software/MVME : Luciano, Steve, Margaret

- Luciano is working on many of the jobs laid out in the plan for FE software. Much of this is being done in parallel and with help from and in collaboration with Charlie, Brian, and others.
- Steve and Luciano have made progress in debugging problems and can now take closed orbit and turn by turn measurements both at 2.5 MHz and 53 MHz. They are working on getting a 2.5 MHz test signal set up.
- There has been discussion with Brian and others about a W25 equivalent for MI BPM including:
 - Selection of state that one wants to see.
 - Selection of measurement (2.5 MHz CO, 53 MHz TBT, ...).
 - Single measurement or continuous updating.

2. Combiner Board status : Marv, Tim, Bob Forster, Vince
VME crate purchase status : Bob Forster

- 125 boards that were delivered last week were visually inspected and rails attached. They wait for boxes so they can be assembled and tested.

- No parts have been received yet from GAMA electronics. If not by next week or so we should order parts for the non-combiner combiner boards and for spares and repairs on the combiner boards.

- The pc boards for the non-combiner combiner boards are due now.

- There was a discussion of testing at least one of the new boards so that we can establish that the parts are correct, that the response is as expected, etc. This will be arranged by Tim and Manfred.

- The VME crates are due in 5 weeks. Charlie is looking at the native crate monitoring support.

3. Transition Board: Manfred, Stefano, Vince
Signal cables : Bob Forster, Manfred, Peter

- Manfred has made some additional changes to the 2-channel prototype to allow for a bypass of the low-noise amplifier, among other things.

- The noise has been reduced by a factor of 2 and this corresponds to a TBT resolution of 50 microns in the 53 MHz measurement. Both channels will be modified and careful bench and then accelerator measurements will be made.

- The changes have been made in the layout. A layout review is scheduled for Thursday afternoon.

- The next steps, once the review is over and final mods have been made, is to order all the parts (most if not all are on order), order the pc boards, build some prototypes.

- Adim is back on military service and Peter has taken on his responsibility for the crates, power supplies and backplanes.

- The cable order needs to be finalized and placed. A spreadsheet with more detailed information about the roll-ups in beams-doc-2012, in particular the breakout of MI BPM and MI 8 cables and the details of which cables are needed for BPM to transition, transition to Echotek, timing board to Echotek, etc.

4. Online software : Brian

- Linden is substantially finished with the first version of the I6 clone and associated DB tables. Also rules for editing fields. The ANCET device structures were finalized on Monday.

- Bob West will be working on the "W25"-like diagnostic application. He is away this week so work will begin next week.

5. Validation: Rob Kutschke

- Waiting for data.

6. Timing Board : Bill

- The pc boards were received Monday. Assembly of the first board will occur this week.

- A second board will be assembled once the first is assembled, tested and is working.

7. AOB

- Marv has a VME crate in MI40. We should install a processor in the crate and any other hardware needed to prepare for taking data there.

- This was the spare crate for TeV BPM so some plan for replacing crates in TeV is needed until the new crates come in about 5 weeks.