Notes from the 8/09/05 MI BPM Upgrade Meeting
Stephen Wolbers
These notes can be found in Beams docDB #1526.

Stephen Wolbers - wbs and milestones
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- Steve showed the major and minor milestones that have been loaded into the wbs for the MI BPM upgrade project. These dates have come from the people doing the design and planning based on estimates of the time and effort required for all the tasks. The "0d" tasks are the major milestones and the "1d" tasks are minor milestones.

- The project plan with resources (people and dollars) has been completed and integrated into the Run 2 Luminosity Upgrade project. We will be reporting every month on the tasks completed.

- Milestones for MI BPM project. I don't know if the formatting is properly maintained in this email.

| Name | Start | Duration |
|---|---|---|
| MI BPM FY04 Obl | 9/30/2004 | 1 d |
| MI BPM DDC Electronics Budget Adjustment | 4/1/2005 | 1 d |
| Combiner box specification complete | 7/1/2005 | 1 d |
| MI BPM: Review (Milestone) | 7/25/2005 | 0 d |
| System requirements approved | 8/26/2005 | 1 d |
| MIBsync, RRBsync, BES, MDAT signal available at FCC | 9/1/2005 | 1 d |
| Transition module decision complete | 9/12/2005 | 1 d |
| Digital consolidated crate PO complete | 9/29/2005 | 1 d |
| TFG electronics specification complete | 10/11/2005 | 1 d |
| All Combiner boxes available | 10/25/2005 | 0 d |
| MIBPM electronics design review complete | 10/25/2005 | 1 d |
| MIBPM SW specification review complete | 10/25/2005 | 1 d |
| Begin system commissioning plan | 10/26/2005 | 1 d |
| MI shutdown | 10/31/2005 | 1 d |
| MI available for tunnel work | 10/31/2005 | 1 d |
| Analog crate/cable/panel PO complete | 12/15/2005 | 1 d |
| Transition module PO issued | 1/10/2006 | 0 d |
| Begin MIBPM integration test w/production items | 2/22/2006 | 1 d |
| First production quailty digital & analog crate installation begins | 2/23/2006 | 1 d |
| First house system comm complete | 3/24/2006 | 1 d |
| Design validation complete | 3/27/2006 | 1 d |
| All MI BPM crates functionally | | |

available or installed 6/29/2006 1 d
HW comm. complete for all houses 7/3/2006 1 d
HW comm. complete for all houses 7/3/2006 1 d
MI BPM system complete 8/15/2006 0 d

Combiner boxes and the shutdown -

- We had a quick discussion about the combiner boards and boxes and how we might install them. If there is a shutdown (and we will know, hopefully, on August 16), we will plan to install them during the shutdown. If not we will have to make a plan to install them during the quad installation (one week) and/or one-day downtimes as available. We should prepare by making sure that we have people available with the proper training.

Bob Forster/Vince Pavlicek - DAWN crate failures
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- Bob and Vince discussed with us the 3 crate failures that have been seen in the Tevatron BPM system. The system has 27 crates installed around the ring and 4 spare/teststands were purchased as well, for a total of 31 crates.

- Details of the failure were emailed to everyone on the mi-bpm-project mailing list on Tuesday and details can be gathered from that email.

- One of the failures is a power supply problem and the other two are either a control problem of some sort or a power supply problem (not yet known). There was a long discussion about various possibilities and how to further diagnose it.

- In any case the MI BPM project will need to procure VME crates at some point. The options seem to be to buy more of the DAWN crates, buy crates from Weiner (similar to BLM crates), or go out for a bid. Bob Forster would like to go out for bid. This will have to be discussed some more, and it will be good to get more information about the DAWN crates that have failed and repaired/replaced.

Vince Pavlicek - Accelerator clock signals in FCC3
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- We had a discussion about the accelerator signals/clocks needed for the MI BPM teststand on FCC3.

- The current setup there has 4 signals -- TCLK and BSYNC and 2

ACNET for the Tevatron BPM system.

- MI needs 4 signals -- TCLK, 2 BSYNC, MDAT.

- One proposal is to pull single-mode fiber between FCC and WH and use it for the ACNET signals. That frees up 2 multi-mode fibers. Two others could be taken from the TeV BPM teststand.

- But...we do want to keep the TeV BPM teststand up and running in FCC.

- So it looks like we will need to pull some multi-mode fiber from FCC to WH to get the MI BPM signals required to have a fully functioning teststand at FCC3.

- Vince will further investigate. It is a fairly high priority to get this issue resolved and the teststands up and running in FCC.

Alberto and Dave: Requirements
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- We had a short discussion about the requirements and the need to solidify the measurements that are to be made by the upgraded BPM system. We have made a great deal of progress in the past weeks and need to continue to come to agreements on exactly what this new system needs to do. Detailed design and implementation cannot proceed without this.

- Alberto and Dave will update the requirements document before next Tuesday's meeting (v5). We can iterate and discuss the additions at that time (though there are quite a few people on vacation next week and the week after) and continue the following week.