

Notes from the 12/06/04 Tevatron BPM Upgrade Meeting
Stephen Wolbers

Rob Kutschke - Calibration

- Rob's slides can be found in AD doc #1451-v2 (Part III).
- Rob discussed his current plan of attack, which is to focus on protons only and to document all sources of corrections and errors, including their magnitudes.
- It was decided to ignore phase shifts (based on Gustavo's work, AD doc 1482) and digitizer effects (based on Jim Crisp's note 812).
- The resultant table includes the difference in the centers of the BPMs and the quad magnetic field, the differential cable attenuation, the differential gain in the Echotek front-ends, the error due to not knowing the orthogonal coordinate, the effect of antiprotons (at current pbar levels), etc.
- Rob's conclusion is that the largest effects were the lack of knowledge of the orthogonal coordinates. But the corrections for the other measured effects do have to be included in some way and this may require tracking cables, Echotek boards, filter boards, etc. This will be better known once the measurements for all these devices are known and in hand so that one can see the effect of changing out a board or cable.
- Rob will continue the analysis and move on to antiprotons in the coming meetings. Marc Mengel, Rob and Brian will start to work to build an infrastructure to implement the calibrations in the measurements.