

Minutes from 5/18/05 Tevatron BPM Upgrade Meeting
Jim Steimel

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:

Discussion of status and completion of safe mode operation
Discussion of diagnostics improvements

1. Safe mode operation

The frontend code to enable safe mode operation was completed by Luciano, and A3 has been configured to run in the mode for the last week. Some minor modifications were made to the frontend's beam finding algorithm, to eliminate false beam readings. Also, some small modifications were made to the console application BPM libraries to deal with the smaller safe mode injection buffer size. Rob reported that safe mode looks reasonable now compared to other BPMs injection turn-by-turn measurements.

Currently, A3 is configured to run safe injection mode all the time. We still need to program a user's ability to change injection modes. We have decided to make a new state device, V:TBPMSF (Tev BPM SaFe), that will determine whether the BPMs should be in normal injection or safe injection mode (1 - normal mode, 2 - safe mode). T39 will be modified to allow the operator to set or clear this flag from the application, so we don't have to remember the database name. Also, the state variable will be programmed to alarm when set to safe mode, so that operators are notified when this happens, and we don't miss normal injections because we inadvertently left the safe mode active.

2. Diagnostics

Jim Steimel presented a plan for diagnostics upgrades. This plan can be found on Beams-doc-1835-v1. The plan was presented as shown with a few comments:

There is some confusion about "diagnostic" mode. It can have two different meanings. W25 application can put a crate in diagnostic mode, implying that the crate can have its operational mode changed independent of the rest of the ring to look at specific data issues. We also define diagnostic mode as using the signal source during no-beam conditions to check consistent continuity of each channel. This can be a ringwide test.

Vince mentioned that he could not see a reason for have separate diagnostic mode setup and run commands. We could just setup and run the diagnostics with just one command. There was no justification for having the system setup in diagnostic mode without running the diagnostics immediately.

Brian mentioned to Marv, that there is a way to look at global diagnostics with the current applications environment by using a LexSA application.