

BPM Diagnostics Thoughts

Stephen Wolbers

May 20, 2004

Diagnostics by Function

- No input signals, integrity checks.
 - VME crate
 - MVME Processor
 - EchoTek boards
 - Timing Card
 - Front-end/transition/filter card
- Input signals, functionality checks
 - EchoTek front panel charge injection
 - Charge injection through pickups

Diagnostics by Function (2)

- Test Stand
 - New board checkout
 - Board diagnosis/repair
 - Board checkout (same as previous?)
- Testing in place in service buildings
 - During store?
 - Between stores? Automated? Manual?
 - Special debugging modes.

Diagnostics by Agent

- Labview (teststand)
- EchoTek test procedures
- TeV BPM FE S/W
- Console Applications
- Other

Organization of Diagnostics in Project

- Diagnostic Specification for overall diagnostics in the project
 - Who would be responsible for this?
- Joint effort to specify and code diagnostics
 - FE, Online, Offline, Technical Coordinator, Electronics, etc.

Added Later

- We should learn as much as possible from previous experience:
 - Recycler BPM using EchoTek boards
 - R25
 - Old Tevatron BPM system
 - Other systems in AD