

Rev2 06/03/2007

Task List for Preparation and installation of HFT Telescope into STAR on June 6, 2007

Tasks prior to June 6 installation:

- ~~Order carbon fiber tube for telescope push stick.~~
- Fabricate new push-stick.
- ~~Procure 25' extension CAT5 cables for Xilinx JTAG, Altera JTAG, Latchup reset, serial out and spares.~~
- ~~Gather serial cable extension for placement in magnet (25')~~
- ~~Gather Latch up cable extension (25')~~
- ~~Test above extension cables extensively at LBNL.~~
- ~~Clearly label all cables.~~
- Procure cable for extension of power cable (is this necessary or is power already run to the electronics box location?)
- ~~Get permission to run cables along the "T" beam support under the beam pipe.~~
- ~~Get agreement to move beam counters to allow installation of our telescope.~~
- ~~Generate scripts for full remote data taking and test.~~
- Procure a backup power supply and cables to power the electronics box to have ready if and installation problems arise.
- Re-investigate AI box with polyfuses and diodes. Does it pass enough voltage? Should we change it?
- ~~Gather a tool kit to take with us to BNL. It should include screwdrivers, hex drivers, pliers, wrenches, wire cutters, wire strippers, tie wraps, tape, assorted nuts and screws, 5 minute epoxy and mixing sticks, DVM, small oscilloscope, carrying bag.~~
- ~~Bring extra Stratix, motherboard, daughter card, ddl, etc. to BNL to serve as spares for the installation.~~

Sequence for installation at BNL:

- Test everything outside of cave at BNL.
- Enter cave.
- Begin removal of beam counters.
- Glue push stick into telescope with 5 minute epoxy.
- Install CAT5 extension cables and test.
- Install serial and latch up cables.
- Tape TLDs in measured locations on the telescope head and along the cable train and to the electronics box.
- Install new power breakout box and power extension cable (if necessary) and test.
- After beam counters are removed and testing of jumper extensions is complete, install telescope in STAR magnet and electronics box in holder.
- Test all connectivity and functionality.
- If everything works, reinstall the beam counters.

Post install tasks

- Backup electronic logbook at BNL.

- Generate documentation for local and remote running.
- Contact Tonko about adding our data to the STAR data stream.

Run plan

- Take 2K events full frame data for all sensors with magnet off, no beam.
- Take a scan of thresholds in regular data taking mode for and determine the accidentals as a function of threshold with magnet off and no beam.
- Repeat for magnet on and no beam.
- Repeat for magnet on with beam.
- Set thresholds accordingly – the current default is center pixel threshold = 25, ring threshold = 14.
- If we are not yet included in the STAR data stream, take data in normal mode with STAR trigger and save on local disk.
- If we are included in the data stream, take data in normal mode and look at data through STAR online event server.