

Electronic Facilities Status Tasks Remaining for Run 3

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Muon North

- Muon Tracker North
 - Complete aspirating smoke and flammable gas detectors
 - Check out that BUSY "or" board
- Muon Identifier North
 - Aspirating flammable gas detectors

Rack Construction

- Beam-Beam rack
 - The FEM rack is in, needs cables, power, water installed; access is spotty
 - The HV rack can go in as soon as the 1008 crew can get to it
- Forward Calorimeter
 - Buckets under way
 - Design for LV distribution
 - Need orders for DAC's, signal cables
- Looks like we're going to bring the second trigger rack into operation for scalers and LL1's; haven't started yet.

Safety Systems

- Need to restore flammable gas and aspirating smoke apparatus to northeast shield wall (basically back where they came from)
- Iris scanner to be installed in PHENIX Control Room (south wall)

High Voltage

- Two of the most troubled 1471's have been shipped back to UVC for evaluation... they should have been there about two weeks. No word yet.
- Martin has taken charge of the new high voltage control program; he has made good progress on it this summer, and it looks like we're on track for a system test late September or early October.
- There was enough progress to justify buying the hardware (\$4k of terminal servers); the order is in progress.

Other Stuff

- CM cable trays and power have to be restored
- We are investigating using a variation on the Kerner PLL to see if we can make the RHIC clock appear to never disappear or glitch, so that the clock fix is unnecessary.
- The final two phnxbx'es have been delivered and are being studied.
- We will almost certainly have to operate the EC at least partially in the AH to verify the TEC electronics before roll-in

Operation vs. Software Development

- R4.0 is very close to being functional (at least minus the Event Builder)—Steve and Ed, Chris, and Martin have been hard at it to get to the latest CORBA versions, move to automake, and other nice things... Steve said it actually took data standalone (I missed it)
- We are still keeping R3.0.1 standard for detector development for at least a few more weeks.

FEM Work

- Another build of EMCAL FEM's done?
- Miljko is working on the EMCAL FPGA to solve various problems, and Paul has been using Test Bench here to test it
- No PC rework yet; we should do some work to see in more detail what's going on with the 5 event buffer.
- Additional TEC FEM's are under construction for TRD.
- Two crates of RICH FEM are in Japan for debugging of trigger board problem; not solved yet as far as I know, but there is talk of sending the rest of the boards back for rework before the run perhaps.

There's still a lot of work ahead!

I've only touched on the projects under way for Run 3—in addition to a major rework of the online software, substantial changes to the Event Builder, MUTR.N and MUID.N, we've got

- DCM program changes, Smart PM testing
- HV hardware and software upgrades
- The BB and CM rework
- Yet more EMCAL FEM's
- Experimentation with 5 event buffering
- The ERT and MUID triggers using the GLL1 boards
- New scalers?
- New beam and trigger conditions
- RICH electronics rework
- Additional TEC electronics
- New IR and RR air conditioning
- Blue and pink sheet checkout