

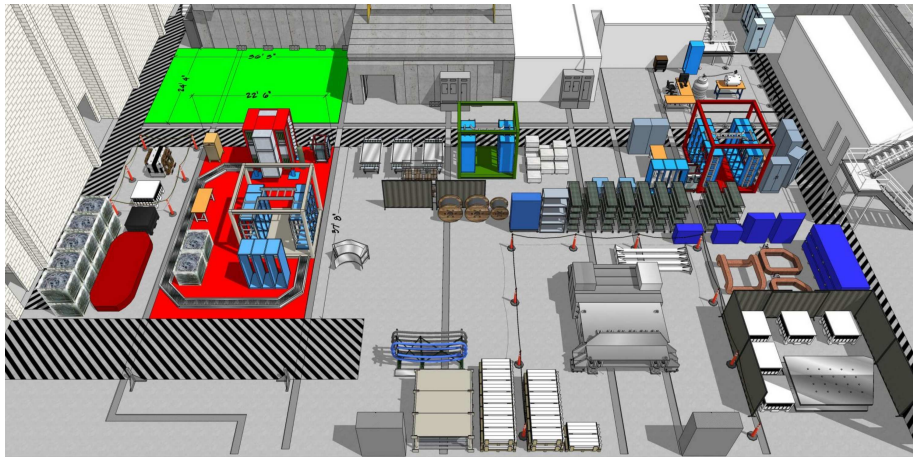
BigBite Update

November 16, 2016

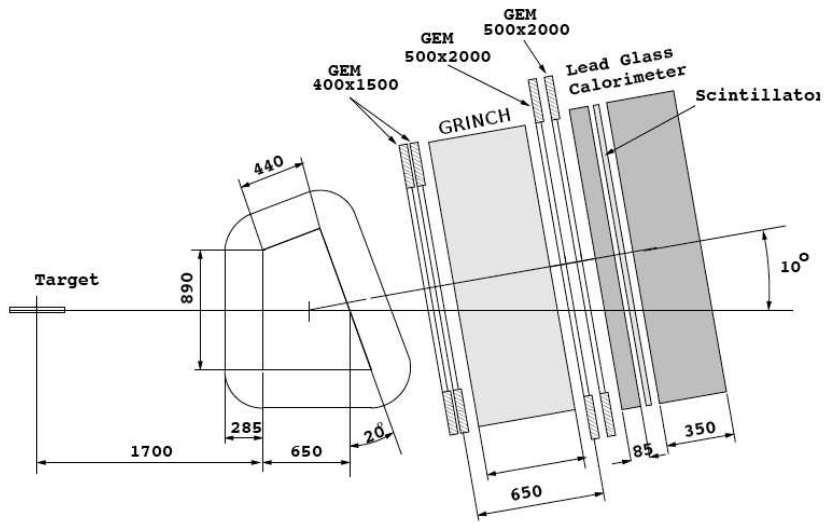
Evan McClellan

November 16, 2016

Test Lab: New Location

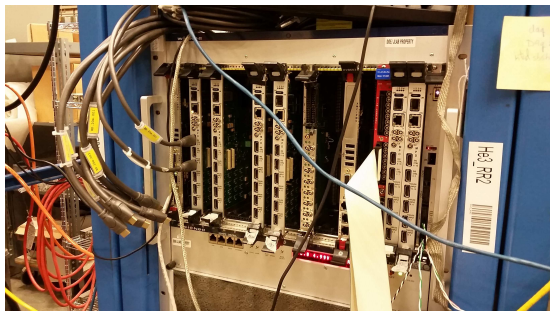


BigBite Configuration (for SBS)

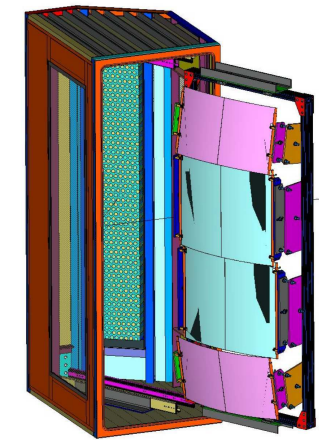


GEMs

- GEMs replace all wirechambers
- HV, LV, available
- Custom Readout:
 - Custom MPD cards
 - HDMI cables
 - Optional Optical Transfer
 - Requires VME crate space



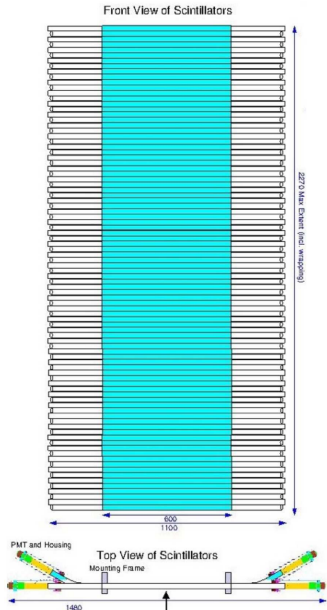
- GRINCH replaces older Cherenkov
 - Test setup/construction in ESB
 - Many more channels:
 - NINO/VETROC readout (VME crates)
 - Grouped HV distribution (lobotomized LeCroys)
 - GTP board for generating trigger (A1n)
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- GRINCH will front-load into BigBite
 - PMT bases accessible on left side, *in-situ*
 - Mirrors can slide out on right, *in-situ*



Timing Scintillator

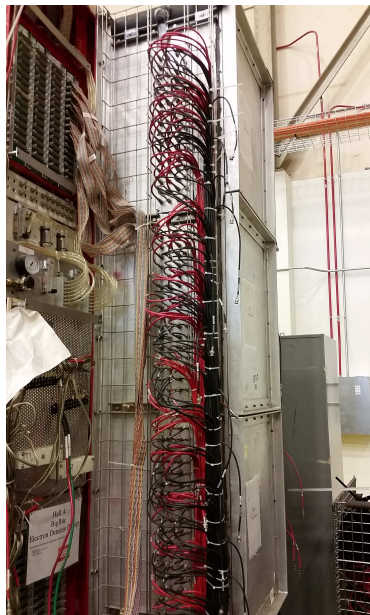
- New Glasgow timing plane
- 2270mm x 1100mm x 25mm
- 180 channels, 15 NINOs
- Readout: fastbus? VETROC?
- HV requirements?

- Will mount directly onto shower
- Mounting frame design still needed



Shower/Pre-Shower

- Installed, Cabled
- Signals form trigger in Front-End
- No planned changes



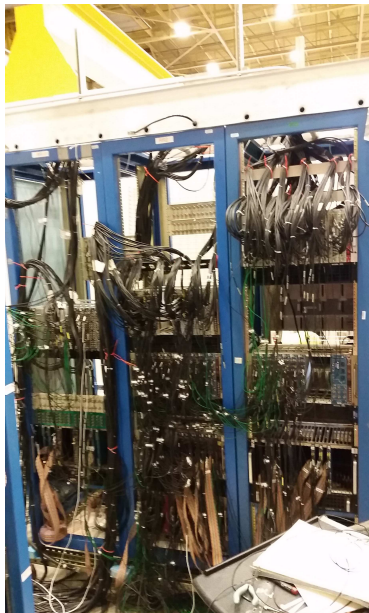
- 1 Remove Cerenkov (long-term storage)
- 2 Remove Pre-Shower (short-term storage)
- 3 Remove timing hodoscope (long-term storage)
- 4 Install Glasgow hodoscope
- 5 Re-Install Pre-Shower
- 6 Install GRINCH and GEMs
 - GRINCH, front-load, requires rail design
 - GEMs, side/top load, requires hanging frame design

Meanwhile:

- New ground plate for new BB area (soon)
- Re-organize Weldment crates
- Evaluate/reconfigure Front-End

Test Lab Setup: Front End

- 7 NIM Crates
 - 6 Amplifiers
 - 12 Fan-In/Fan-Out
 - 15 Logic Units
 - 14 Amp/Summers
 - 1 QVt
- 2 CAMAC Crates
 - 12 Discriminators
 - 1 Level Translator



Test Lab Setup: Weldment

- 2 HV Crates, 27 cards
- 3 FastBus Crates, 28 TDCs, 6 ADCs
- 2 TS VME crates, 1 VME crate
- 160 custom level translators

