



B0 Maintenance Test-stands

- We plan to have 3(5?) VME test crates that are in the 1st and 2nd floor counting rooms and are fully connected to the DAQ system:
 - Have connections to TSI (RXPT, TXPT), VRB, CLOCK
 - Use MVME2301 to be compatible with Run Control (Smart Sockets)
 - TRACER for DAQ/CLK interface
 - Have Rack protection/cooling etc
 - Can be used separate from rest of DAQ or included in run
- Several VME Teststands will be located in the tech area at the west end of B0 2nd floor
 - All will have cut out right side panels for scope/LA access
 - Typically equipped with MVME 162/167
 - Testclk for CLK/TS signal emulation
 - **Crates will be air cooled, it is NOT expected that long term tests with full crates would occur here**
 - Attempt to make configurations that are compatible for multiple systems (similar voltages/J3 backplanes)



Test-stands in DAQ System

- Level 2 Decision Crate (b0l2de01, 2RR30C-B)
 - Have a complete 2nd Processor crate in the same rack – complete working spare processor crate
 - L2 Processor, Interface boards, Magic bus J3 etc
 - Does not have open side access for logic analyzer/scope access
 - In use now
- Level 2 Control Crate (b0l2gl00, 2RR29C-T)
 - This crate currently has no cards assigned to it
 - Does not have open side access for logic analyzer/scope access
 - Missing DAQ/Clk cables
- TDC Crate (b0diag00, 2RR22C-T)
 - Used to run Tracktest on boards prior to installation on the detector
 - Currently no J3 backplane – add a TDC (220pin feed-thru) J3?
 - Has cutout right side-panel for scope/analyzer access
 - In use now
 - Expect this could be useful for other systems that might have readout problems in future
 - Compatible with most trigger system boards



Test-stands in DAQ System

- XFT SL7 Crate (b0xft06, 1RR27F-B)
 - This crate is for expansion of the XFT to include stereo tracking for the XFT using SL7. It is set up as an XFT finder crate
 - XFT Finder (220pin)
 - No cutout side panel
 - It is available for use now
 - Could be used for XFT testing when SL7 tests are not in progress
- Calorimeter Crate (b0diag01, 1RR30H or I)
 - Include 6U SMD crate and NIM crate
 - 160pin feed-through J3
 - Service CMU ASD, HAD ASD, ADMEM, SMXR, and CALIB
 - Vicor or PEI power supply for Calorimeter crate voltages
 - Has cutout right side-panel for scope/analyzer access
 - Currently set up in middle clean room with PEI supply



Test-Stands on 2nd Floor

- SVT Crate
 - Service All SVT
 - SVT J3
 - Needs 3.3V for SVT boards
 - **Currently in use without J3**
- Muon Trigger/TSI
 - Service Match, PreMatch, TXPT, DXPT, TS
 - J3: ½ 220 pin TDC and ½ 160 pin calorimeter
 - **Currently in use for Muon trigger/TDCs with TDC backplane**
- Calorimeter Trigger/L1 Decision
 - DIRAC, Cratesum, PreFRED, FRED, DCAS, LOCOS
 - 220 pin J3: ½ feedthrough, ½ L1 CAL
- Do we need a separate crate for XFT in B0?
 - Finders could be tested in any of these crates (but no neighbor sharing)
 - Linkers could be tested in either the Muon Trigger or Cal trigger crate



Test-Stands on 2nd Floor

- Currently no plan for test-stand for XTRP cards
 - Requires SVX type crate and special PS
 - Have test-stand at UIUC
- 6U VME crate for MVME tests and programming
- Muon ASD (2nd floor with VME teststands)
 - Needs 400Hz
- Need about 4 PCs to operate teststands
- Space for LA/scopes
- Bench space for board work:
 - Soldering irons
 - Wire
 - Hand tools



Power Supply Teststands

- HV teststands (middle clean room?)
 - SY127
 - Muon, XENON, CES/CPR
 - SY527
 - 60Hz: Plug, TOF, CLC
 - 400Hz: SVX
 - Do we need 400Hz teststand
 - Pisabox
 - How many PCs to operate these?
- Low Voltage Power supplies
 - East Clean room tech area
 - VME (Alacrity and PEI)
 - Load resistor banks in rlay rack (PEI) and cable tray (Alacrity)
 - Energy Systems: A, B, and C types (aka Rabbit)
 - Needs 400Hz
 - One PC to run voltage monitoring tests