L2 Goals and Plans

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L2 Workshop

Goals Before Shutdown

- L2 Testing Milestones
  - Run cutting on Jets at L2
    - Using Clist and L1 board run at 2-20Khz for 10M L1A
    - Problems to fix: Clist sync error. L1 bits error
  - Run cutting on SVT track information
    - Using SVTlist and L1 board run at 2-20Khz for 10M L1A
    - Problems to fix: L1 bits error. SVTlist dstrobe error
    - Other work: Correct d0. Write code for simple trigger.
  - Run cutting on Electrons
    - Using Clist, Tracklist, L1
    - Problems to fix: L1 bits error. Clist sync error. Clist-Tracklist collisions.
    - Other work: Finish electron code.

Goals Before Shutdown

- L2 Testing Milestones cont..
  - Run with L1, Clist, SVTlist, Tracklist with high rate L1A
    - Main goal is to check data integrity.
  - Test of Reces data
    - Low rate test with beam
    - Useful for understanding SMXR trigger data
    - Ideally: Would have Alpha-VME errors fixed for high rate test
  - Test with Clist and Isolist
    - Need test with beam to compare Isolist and Clist data
  - Test with all interface boards
    - Only consider this if all other problems have been fixed
    - Would first do the test with Cosmics.

Goals Before Shutdown

- L2 Trigger/Physics Milestones
  - Cutting on Jets
    - Just Clist and L1 boards in system
    - Point is to improve data quality at higher Luminosity
  - Cutting on SVT track information
    - Without Clist? And no cutting on Jets?
    - Is there a target sample size useful for Physics groups?
  - Cutting on Jets, Electrons and SVT tracks
    - Ideal goal before shutdown
  - Work to do
    - Establish stable L2 operations
    - Have error handling code in L2 to quickly find errors

Plans during shutdown

- Magic Bus
  - Install new Magic Bus boards
    - Change termination
  - Study Magic Bus collisions with cosmics
    - Need to remove firmware workarounds to create collisions
- Alpha Tests
  - Add additional processors –
    - First test with subset of interface boards
  - Move to full crate test using cosmics
- Other
  - Finish debugging known problems

Plans for Next Startup

- Need to re-establish running with beam
  - Will have new errors with a full crate, new MBUS etc..
  - Will likely have some unresolved old errors (even if at a low level)
- L2 meeting – Full debugging effort
  - Will need to continue through shutdown into startup
  - Additional personnel may be needed