Notes on connections from real setup to test stand: Moore, Linnemann, Edmunds 4/22/99

Question: How does "toy" L3 system get informed about next event coming

Is this done by software, or is some board required?

Prefer real *L1*, *L2 accept/reject information* to test stand:

3 SCL cables running to the 3 crates

outbound: standard L1/L2 messages

all such sent if no L2 running; else copy of what sent to L2 crates will get into some trouble if these don't match data transmission plug into normal Pilot MBT's

back path: busy from each as needed (for resynch if test stand behind)

fallback:

SFO fanout from one of the MBT's in the test stand crate, or even from L2 in MCH This would require special initialization of the MBT: turn off L1 accept channel Plug SFO copy of L1 accept channel in another MBT channel, and set it's destination ID to the one usually used by channel 0

L2 accept behavior in test stand:

L3 R/O of test stand MUST be controlled locally in the test stand Since a local L3 is there for data taking

Preprocessor Standalone:

Administrator of crate must decide

Could use L1 qualifiers (eg Unbias Sample)

Could prescale, or write all events, depending on rate

Global Standalone

All inputs captured

Crate will see real L2 decision, and its own decision

Based on these two can choose whether to do L3 R/O

If Global worker failed event, Adm must do ALL R/O!! (tricky--fixed VME address)

Global + preprocessor(s)

Auxiliary circuitry connects crates

Hardware support required is TSI circuitry, and possibly driver/receiver

L2 accept to preprocessors from Global:

J2 drive (2 pins)

J2 receive (2 pins)

16 deep fifo to simulate mbt 12 decision fifo ok (if pins available)

put on pins not normally used (if pins avail)

purpose: control of L3 readout for preprocesors

probably CAN'T write to L3 at 10 KHz

Vertical interconnect is a fallback to this

Requires VME poll--more different from usual software