FIC Monitoring

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Monitoring Proposal

- Monitoring done in VME
  - periodic read-out of monitoring information from VME.
  - Counter/Latches reset from VME after reading.
- For each input/output channel
  - Error Latches and Error counter
  - Histogram of event number
Error latches

• Latches
  – FIFO full
  – Error counter overflow
  – >16 events in FIFO
  – Protocol error

• Error counter
  – 4 bits counter
Event Number Histogram

- Histogram max event number amongst channels.

- Histogram max event number for sampling period of 2 ms.
Event Number Histogram (2)

• 5 entries
  – 0 event in all channels.
  – 1 event in some channels and 0 event in the others.
  – Less than 3 events in all channels; at least one channel with 2 or more events.
  – Less than 7 events in all channels; at least one channel with 4 or more events.
  – one channel with 8 or more events.
Event Number Histogram (3)

- Updates @ 500Hz
- 12 bits counters.
- Overflow after 8 seconds.
- One overflow latch for each histogram bin.