LIR Computer Tasks & Demands

- Retrieve time from GPS clock, once per second (or signal from clock?) minimum: 19 bytes
  Serial or GPIB

- Communicate data to timing interface @ 20 Hz (load PAL registers w/ ~ 6 bytes)
  Serial (fiber optic?)

- Receive data from timing interface @ 40 Hz (get ~ 15 bytes from PAL registers)
  Serial (fiber optic?)

- Retrieve data from TDC every 25 ms; 4 bytes per channel via VISION or other PCI-CAMAC interface

- Retrieve TDC start time for internal fast photodiode: 4 bytes CAMAC

- Issue rate commands to motor (as often as 20 Hz, but once a minute okay)
  Serial

- Store retrieved data: 2 kbytes, 0.16 kbytes per second; n = channels. 16 kbytes to 17 kbytes

- Actuate various motion control devices (beam focus, beam block, calibration cube) serial?

- Calculate linear distance for each pulse @ 20 Hz

- Present control panel for operating system

- Present graphical displays of status, update as @ 1-2 Hz

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Calibration histogram

- Primary
- Secondary

Lunar return, w.r.t. gate

Lunar return, synchronized

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If could put calibration spatial info here, e.g.