LLR Computer Tasks & Demands

- Retrieve time from GPS clock, once per second (on signal from clock?) minimum
  Serial or GPIB (19 bytes)
- Communicate data to timing interface @ 20 Hz (load PAL registers with ~ 6 bytes)
  Serial (fiber optic?)
- Receive data from timing interface @ 40 Hz (get ~ 13 bytes from PAL registers)
  Serial (fiber optic)?
- Retrieve data from TDC every 25 ms; 4 bytes per channel max
  WIENER 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 : 1 kB + 0.16n kB per second; n = channels 3.6 kB/s to 17 kB/s
- Actuate various motion control devices (beam focus, beam block, calibration cube)
  serial?
- Calculate lunar distance for each pulse @ 20 Hz
- present control panel for operating system
- present graphical displays of status, update @ ~ 1-2 Hz