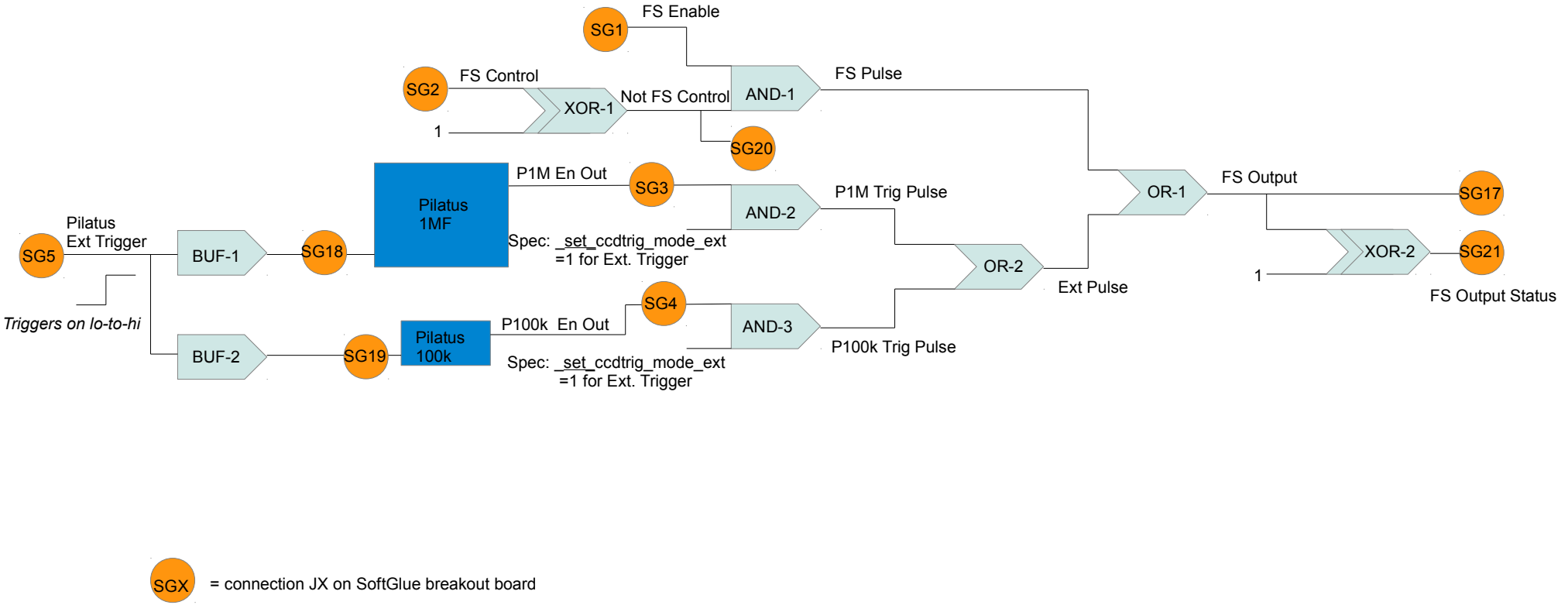
Dual Trigger Pilatus

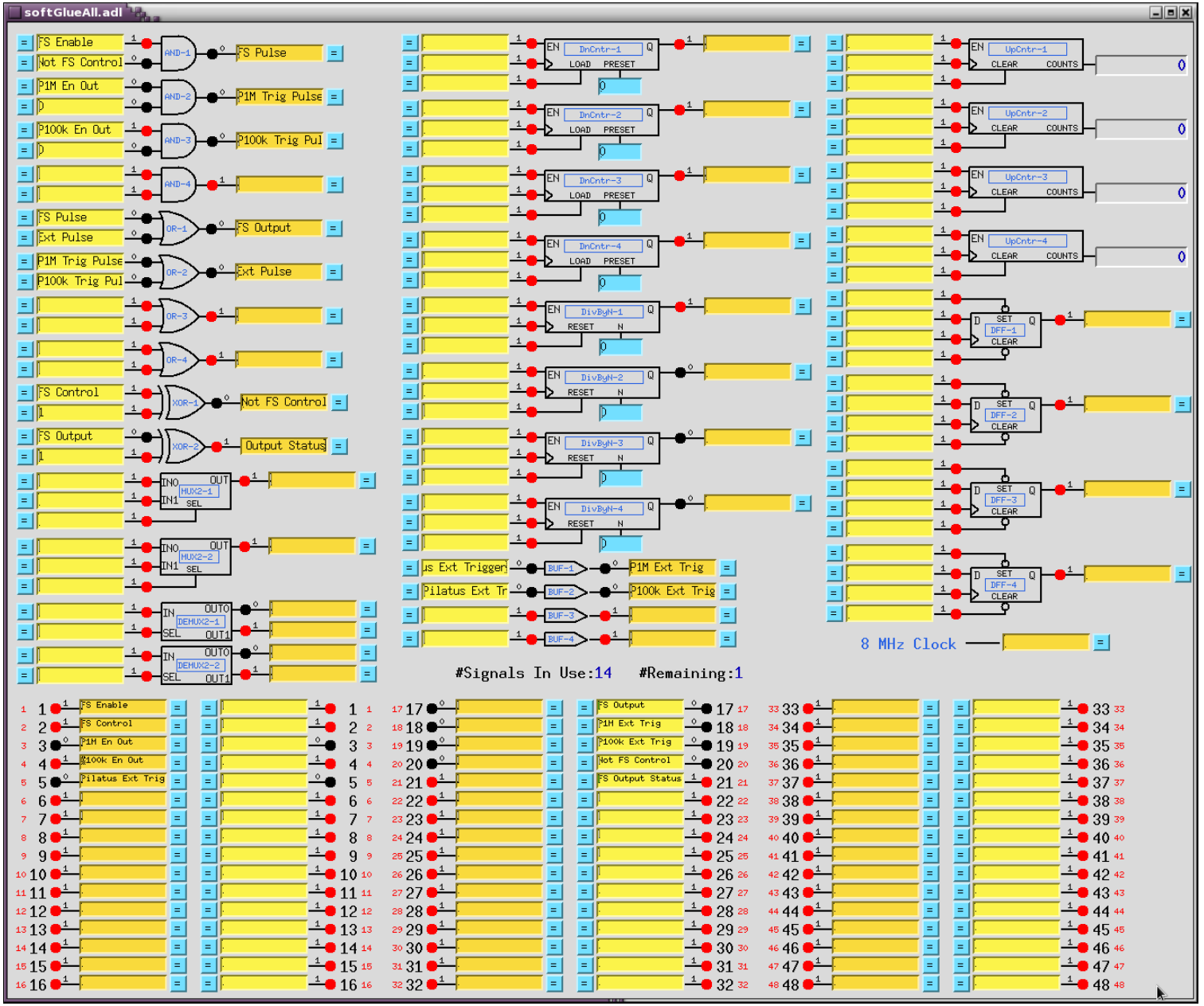
- Commissioned simultaneous GISAXS (with Pilatus 1M at 2.2 m) and GIWAXS (with Pilatus 100k at 0.2m) for user Sharenko, 2012.11.06-12, for thermal annealing.
- Issues remaining:
  - “Elapsed time” does not exactly match input exposure time.
  - Gridftp sometimes does not copy
  - Fast shutter control signal must be inverted.

Fast Shutter Logic

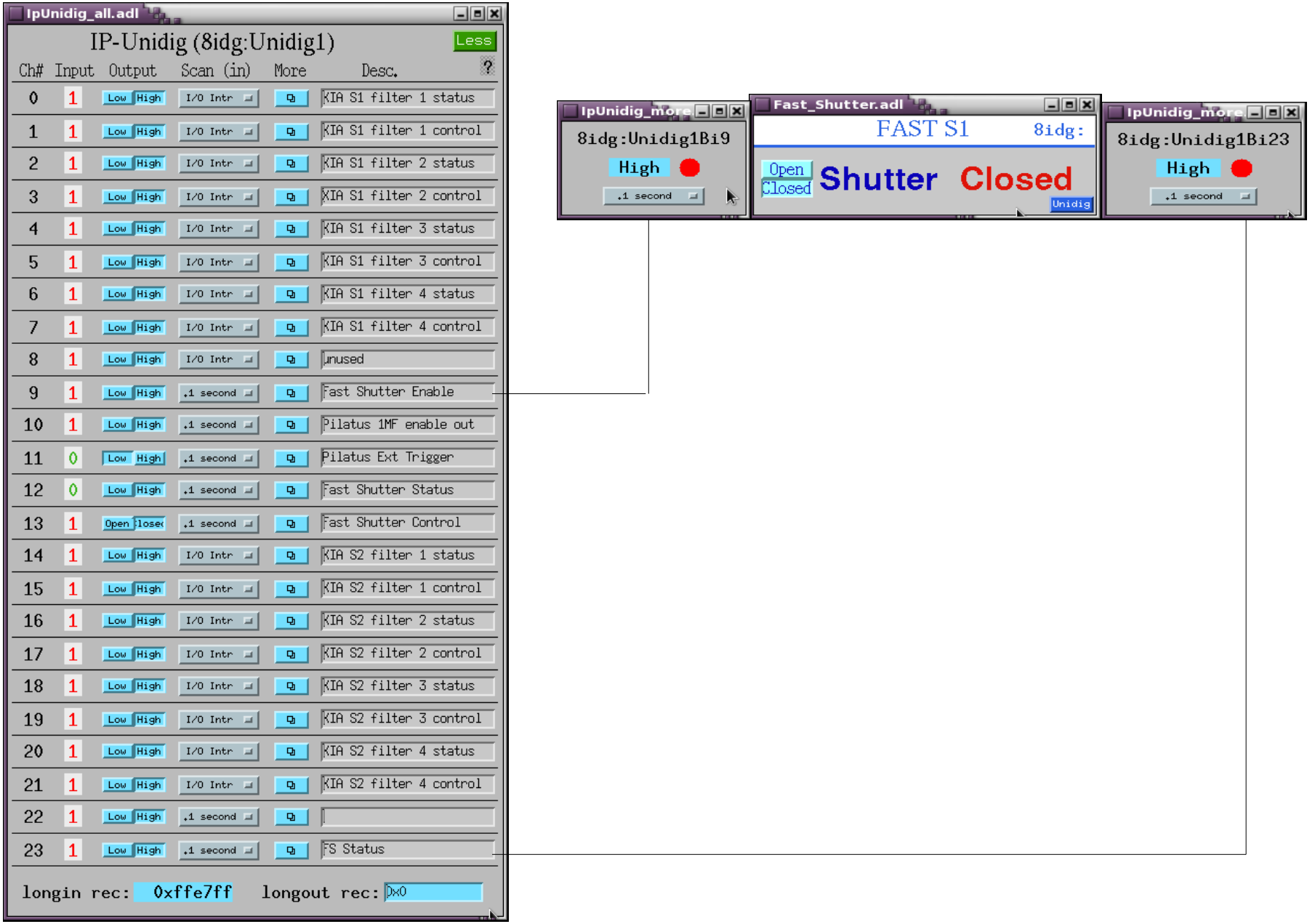


This logic circuit implemented in Soft Glue
by the macro softGlueDualTriggerSetup
defined in ~/local_macros/pil2exp.mac

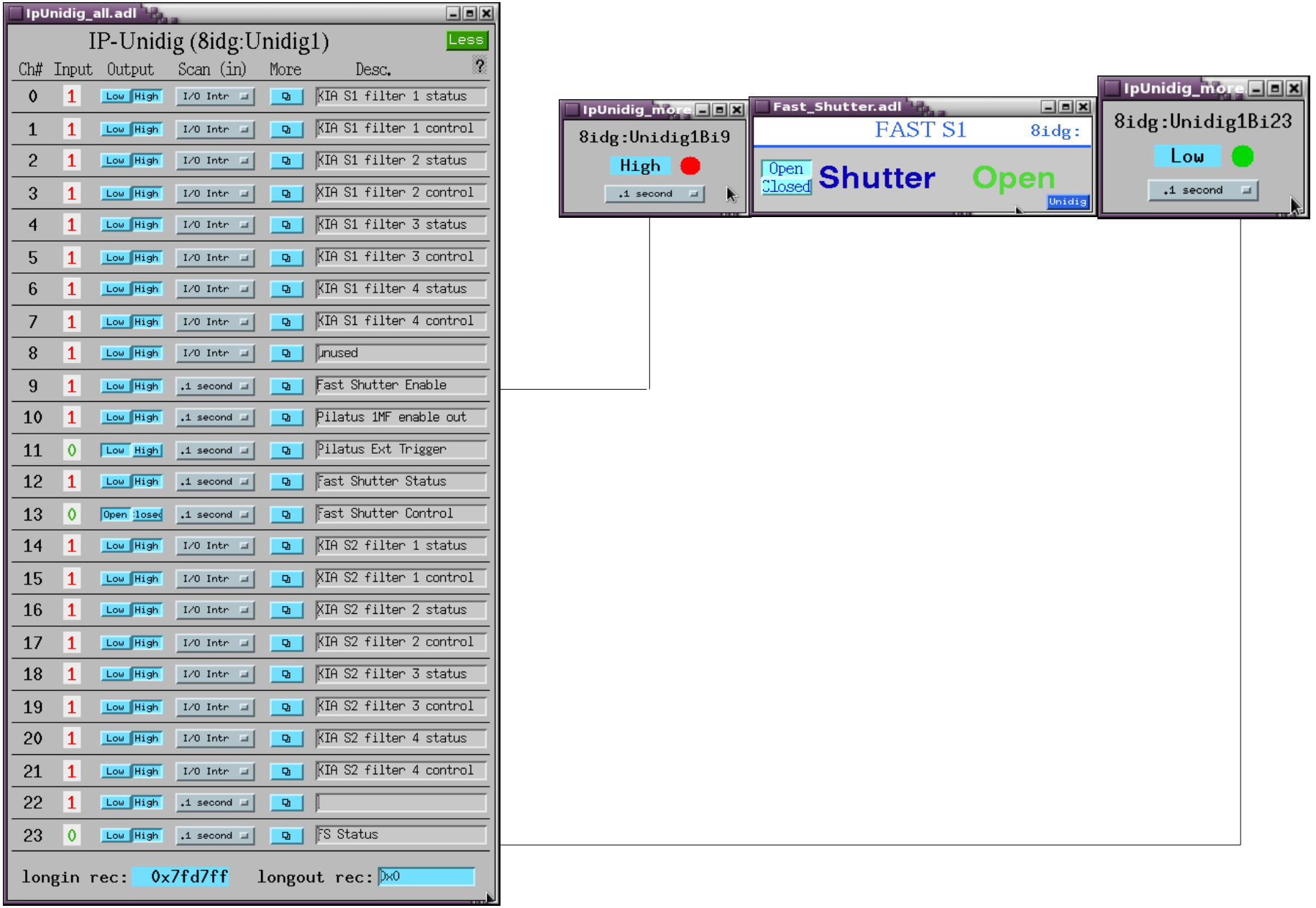
Screenshot: Soft Glue



Screenshot: Shutter Closed



Screenshot: Shutter Open



Connections

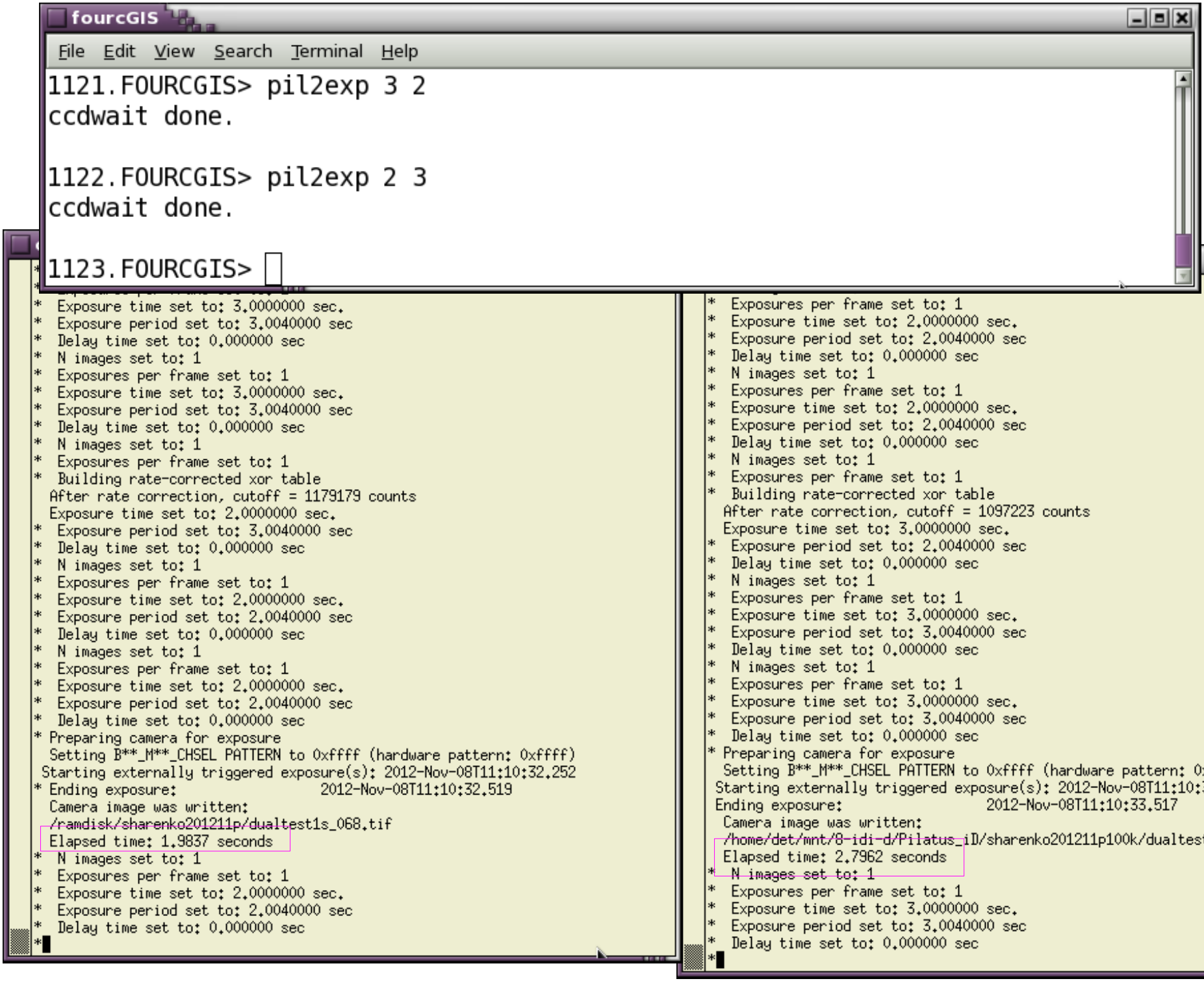
softGlue			Signal
J1			Unidig J10
J2			Unidig J14
J3	GSA1:18	GSC1:6	P1M EN OUT
J4	GSA1:9	GSB1:17	P100k EN OUT
J5			Unidig J12
J17	GSA1:3	GSB1:11	Fast Shutter TTLin
J18	GSA1:22	GSC1:10	P1M EXT IN
J19	GSA1:10	GSb1:18	P100k EXT IN
J20			Unidig J13
J21			Unidig J24

Note: 1. softGlue J1-16 are inputs, J17-30 are outputs.
2. Unidig JX corresponds to channel X-1 on IpUnidig_all.adl

Macros

Defined in ~/local_macros/pil2exp.mac:

- _set_ccdtrig_mode_int [0=P1M, 1= P100k]
- _set_ccdtrig_mode_ext [0=P1M, 1= P100k]
- pil2exp [gisaxs_time giwaxs_time]
- shutter_enable
- shutter_disable
- softGlueDualTriggerSetup
- p100kout
- p100kin



What is Elapsed time?