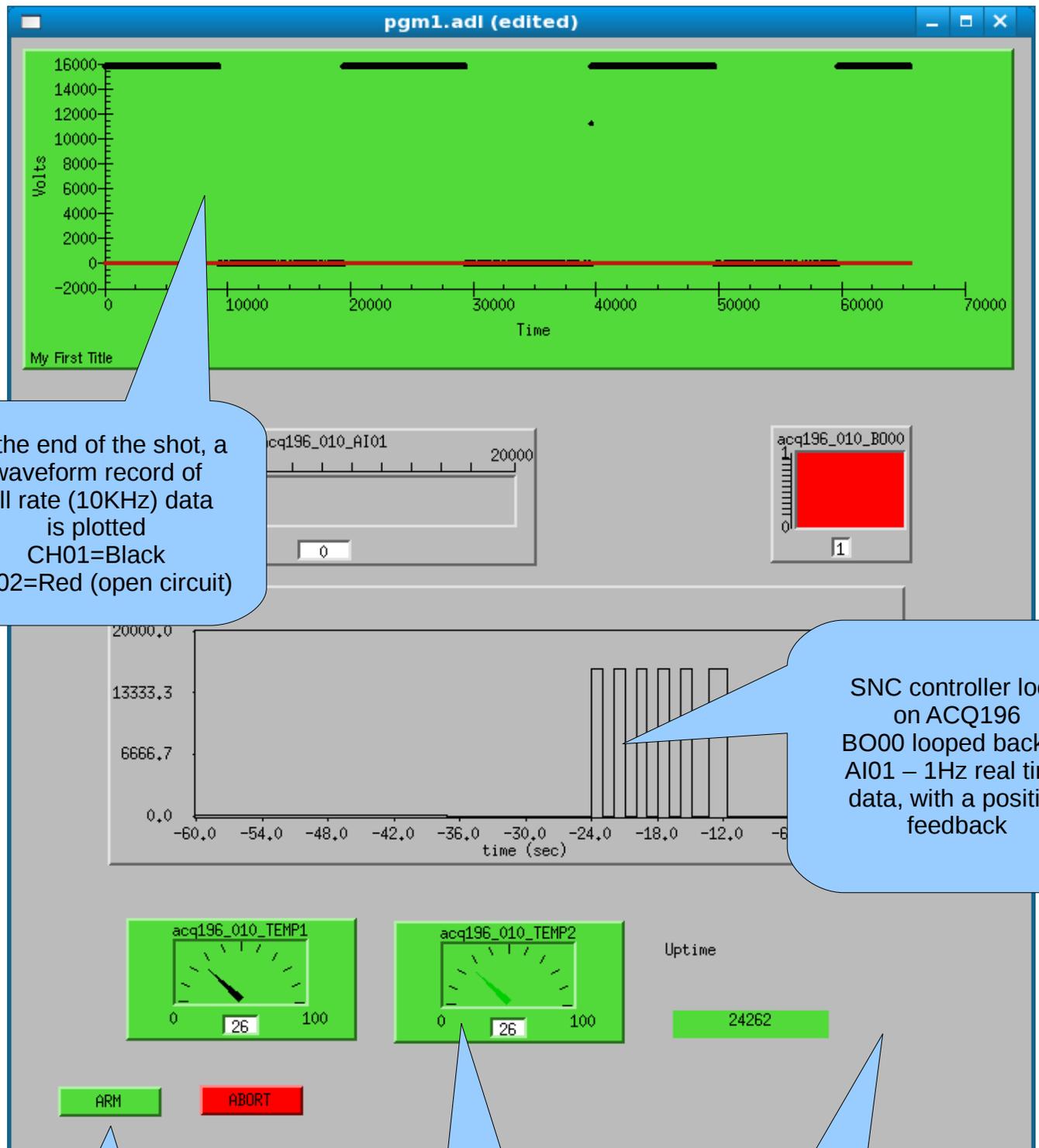


ACQ196 with embedded EPICS IOC

Combined Process Controller and Transient Digitizer



At the end of the shot, a waveform record of full rate (10KHz) data is plotted
CH01=Black
CH02=Red (open circuit)

SNC controller loop on ACQ196 B000 looped back to AI01 – 1Hz real time data, with a positive feedback

START CAPTURE

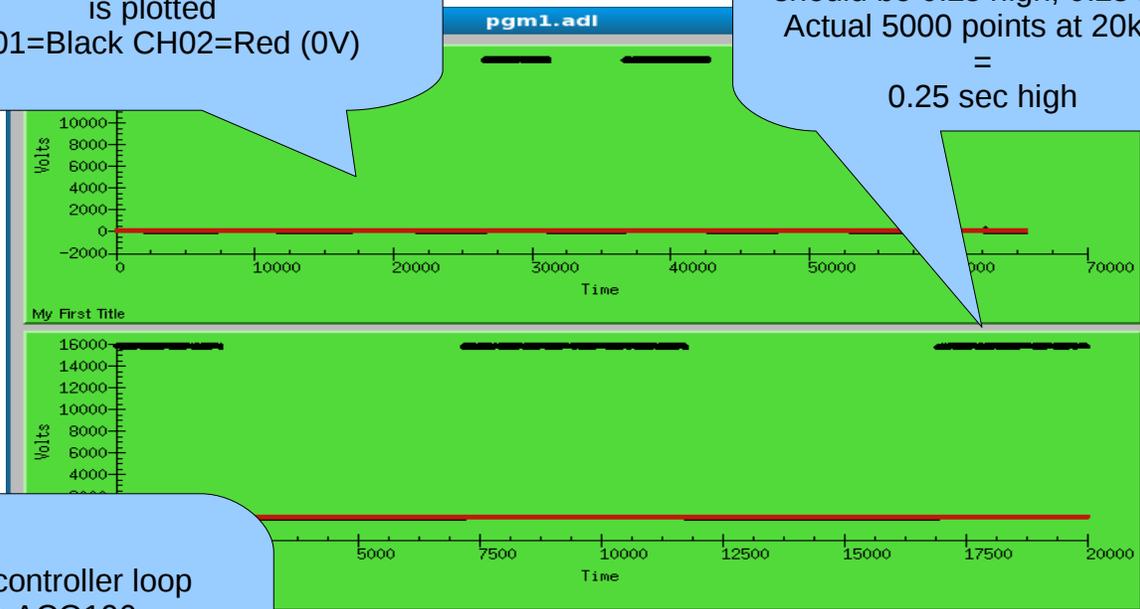
Display a few PV's (TEMP1, TEMP2, Uptime)

MEDM screen on host computer provides OPI

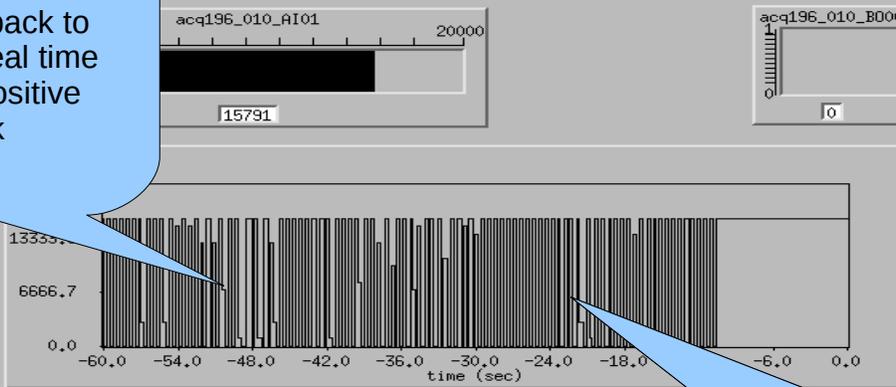
New Software demonstrates: 10Hz mean update, Trigger

At the end of the shot, a waveform record of full rate (20KHz) data is plotted
CH01=Black CH02=Red (0V)

SncExample is changing state with a delay of 0.1s. Add 0.1s for AI poll time, and this should be 0.2s high, 0.2s low. Actual 5000 points at 20kHz = 0.25 sec high



SNC controller loop on ACQ196
BO00 looped back to AI01 – 10 Hz real time data, with a positive feedback



Much faster loop repetition rate shows up in live trace.
This is about as fast as MEDM can go.

ACQ196 CPU load:
running 96PV@0.1s :
top shows acqioc 45%

New trigger button initiates a hardware trigger, causing transition from PRE- to POST-

ARM ABORT Trigger