

# 1. Run DAQ

From home directory type: **godaq**

code location: ~/Current/readout/

run readout: ./godaq

# 2. HiRA Si Control Software

Be logged into spdaq20 (ssh spdaq20)

For E's:

From home directory type: **goASIC\_E**

Or:

code location: ~/Current/ASIC\_control\_E/

run : ./CHIP

Then

ONLY if the VME crate has been reset, either by software or by powering it off, load the XLM configurations a.k.a. the bit file. **DON'T DO THIS IF THE VME CRATE HAS NOT BEEN DISTURBED:**

- 1) On the File menu, select XLM configure
- 2) In the frame that opens at the right of the program, you will have to load a configuration into each XLM.
- 3) Set the "crate" slider to 2, and the "type" slider to XLMXXV
- 4) Set the "slot" slider to 12
- 5) push "Pick Load File", then select "Browse". You cannot just type the filename.
- 6) Select "bitfiles/hira\_xlmxxv\_2mb\_rev273.bit"
- 7) The bit file will load into the XLM, which will take some time (10 s to 1 m)
- 8) If the program crashes, chances are the XLM has locked up and you have to turn the VME crate off and back on again, and start over.
- 9) When it has loaded, check the messages in the terminal window. They will tell you whether the XLM correctly communicated with the motherboards. In this case, there are two motherboards connected, so you should see two sets of messages that say something like "data reliability check passed" or errors saying that it wrote some bit string but read back another. Make a note if you saw any errors here but you can continue regardless if there are only a couple of lines of errors. Each reliability check is followed by a list of what chipboards are in that motherboard. Each E motherboard should have eight slots with new chips, and the other slots should be empty. If this doesn't display correctly, you have a problem with the motherboard or XLM. Shut off all power and try again; if the problem persists, contact Dan or Zibi.
- 10) Repeat steps 3 – 9 for the XLMs in the table below

Crate	Type	Slot	Bit file	MBs to check
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2	XLMXXV	12	hira_xlmxxv_2mb_rev273.bit	2 MB, each with 8 new chips
2	XLMXXV	14	hira_xlmxxv_2mb_rev273.bit	2 MB, each with 8 new chips
2	XLMXXV	16	hira_xlmxxv_2mb_rev273.bit	1 MB, with 8 new chips

Once the XLMs are configured, load the motherboard setupfile. Do this anytime you restart the control program or reset the power to any of the motherboards.

- 1) from the File menu, select Load.
- 2) Select Browse. Again, you cannot just type in the filename
- 3) Browse to setupfiles, and select the file below:

- motherboard config file (setupfile): e07037\_E\_ebOR\_lowthresh.setup

For dE's

**From home directory type goASIC\_dE**

Or:

code location: ~/Current/ASIC\_control\_DE/  
run : ./CHIP

then follow the directions for the Es above, substituting the values below

Crate	Type	Slot	Bit file	MBs to check
2	XLMXXV	18	hira_xlmxxv_2mb_rev273.bit	2 MB, each with 9 old chips

- motherboard config file (setupfile): e07037\_de\_slave\_midthresh\_May26.setup

DON'T CHANGE ANYTHING IF YOU DON'T KNOW WHAT YOU'RE DOING!!!

### 3. Load Csl

**Be logged into spdaq20 (ssh spdaq20)**

**From home directory type gopico**

Open Shaper File: shaper\_07037.dat

Open Disc File: disc\_07037.dat

code location: ~/Current/Pico/

run: wish pico.tcl

### 4. Scalars

**From home directory type goscaler**

code location: ~/Current/others/scaler  
run: ./ScalerDisplay e07037.tcl

## **5. Power supply for HiRA Si and Csl**

**From terminal type gocaen**

user name : admin  
password: admin

Address location: telnet 35.9.56.159 1527

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## **6. Pulsers**

From the home directory type goBLUE, goWHITE, or goGREEN depending on which pulser you want to use

White is connected to dE's  
Blue is connected to the E\_backs  
Green is connected to the E\_fronts

(N.B. The Blue and Green are triggered off of White)

## **7. Server**

From the home directory type goserver

You must be on the u6pc2 computer to use the server (only use that physical computer)

## **8. E-Log**

From the home directory type goelog

You must be ssh'd into a u6 account (u6pc2 or u6pc3)

## 9. SpecTcl

**From home directory type gospec**

code location: ~/Current/spectcl/

run: ./SpecTcl