

2015-11-10, hazen

Recipe to run AMC13

To start the software tool

- Log on to PC (daqlabamc13.cern.ch) with user 'daq' password 'M.....e' (see Dominique)
- `cd work/amc13`
- `source setup.sh`
- `AMC13Tool2.exe -c 192.168.1.130` (for this AMC13 S/N 166)

Initialize to send fake data

- `> en 1-12 f t`

Enable DAQ link

- `> daq 2` (two links active)
- `> fed 0 100` (set link 0 FED number to 100)
- `> fed 1 101` (set link 1 FED number to 101)

Send triggers

- `> lt 5` (send 5 L1A)

Reconfigure firmware (to change from e.g. 10G to 5G firmware)

- Download `mcs` file as instructed from Mr WU's directory [?](#).
 - ◆ e.g. latest version is `AMC13T1v0x023d_7k325t.mcs`
- `AMC13Tool2.exe -c 192.168.1.130` (for this AMC13 S/N 166)
- `>pk` (to program Kintex chip)

Read status

- `> st` (typical display is `ok_status.txt` [?](#))

Other Resources

- <http://www.amc13.info> [?](#) -- AMC13 main page
- [AMC13UserManual](#) [?](#)
- [AMC13Tool2](#) [?](#) software manual

Testing log for 2015-11-10

At CERN, trying to test 10G link. Found an AMC13 S/N 166 which I can talk to at 192.168.1.130. Firmware is 0x236/0x2d. Updating to 0x23d/0x2e.

NAT-MCH IP address is 192.168.1.41 (same as BU NAT).

Note: `eth1` was set to mask 255.255.255.0, changed by hand to 255.255.0.0. Don't know why this is. Updated AMC13 software in `~ehazen/work/amc13` to trunk version. Reprogram / reboot AMC13. Versions now AOK.

Program `v0x0002` (test version with 1 10Gb link) and it partially works! Dominique can read the status from the other end of the link. No event data transfer due to a known bug.

2012-01-22, hazen

Arrive CERN, install AMC13 in MCH1 slot (upper) in DAQ lab. Move short Ethernet cable from eth1 to upper right RJ-45 on MCH (GbE). Now we can talk to AMC13! See [AMC13spec.txt](#) for some minimal documentation.

AMC13 occupies two I/P addresses at:

- Spartan-6: 254 - 2 * serial_no
- Virtex-6: 255 - 2 * serial_no

So, for S/N 6 installed, I/P addresses are 192.168.1.242 and 192.168.1.243. Install duplex LC fiber between upper two SFP+ and run DAQ loop-back test:

```
(log in as daq to pc)
$ cd amc13_python/src_amc13
$ python ipbus.py 243
...
> w 0 4
> w 1 1
> w 0 2
> r 0 16
0x0000: 0x00006558
0x0001: 0x00000001
0x0002: 0x00000111
0x0003: 0x008965e1
0x0004: 0x00000000
0x0005: 0x019c32ed
0x0006: 0x00000000
0x0007: 0x019c3433
0x0008: 0x00000000
0x0009: 0x00000000
0x000a: 0x06000000
0x000b: 0x12341234
0x000c: 0x00036cc0
0x000d: 0x00000000
0x000e: 0x07f9c6f7
0x000f: 0x0ff70241
```

Address 3 should be counting, not address 4. This is what we observe!

-- EricHazen - 22-Jan-2012

This topic: [Main > AMC13DAQTestingLog](#)

Topic revision: r3 - 2015-11-10 - EricHazen



Copyright &© 2008-2020 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback