Driver

Contents

1 Introduction

What: Emplementing the "driver" XDAQ will use.
Binary located at:

- *libLDA/run/driver*

This binary is used to simulate a XDAQ run.

2 Single test

Here we have set the `DISPLAY_PACKET` constant to 1 in the *include/run/all.hh* before compiling the libLDA.

```
# run/config poldhcp54.conf -s
...
INFO: Good, ASU are configured
# run/driver poldhcp54.conf -snf
[ 1,8] trigger 14 :
read-out 276 words
0000: b0 8000 0000 0e00 0000 0000 0000 0e00 0017 3673 a803 d567
000b: b4 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0016: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0021: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
002c: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0037: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0042: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
004d: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 a3
0058: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0063: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
006e: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0079: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0084: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
008f: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
009a: b4 0080 0000 0000 0000 0000 0000 0000 0000 0080 0000 a3
00a5: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00b0: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00bb: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00c6: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00d1: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00dc: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00e7: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00f2: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
00fd: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
0108: b4 0080 0000 0000 0000 0000 0000 0000 0000 0000 0000 a3
```

```
0113: a0

*** Total : miss 0 / 27 Pkts = 0%
 DIF [ 1,8] : 26 received + 0 missing 26 pkts and 0 errors.
 DIF [ 1,5] : 1 received + 0 missing 1 pkts and 0 errors.
 Dropped pkts:    0
 Unexpected pkts: 0
```

Bug: this test shows that read-out less sometime one words (as configuration also do). This append more frequently because this is related to the number of the packets sent.

3 Non regression test

```
# run/driver poldhcp54.conf -nf
Drv: [pcap] [ 1,8]
Drv  (  540):      0%    46%
Drv  (  542):      0%    45%
Drv  (  540):      0%    45%
Drv  (  513):      0%    36%

*** Total : miss 0 / 2243 Pkts = 0%
 DIF [ 1,8] : 2160 received + 0 missing 2160 pkts and 0 errors.
 Dropped pkts:    0
 Unexpected pkts: 83
```

Warning: please use at less double buffer size than an expected event size. If the first and last word is corrupted as above, the 2 events are registered as a single event and overflow the buffer.

```
700: We receive DAQ:
0000: 0080 0000 0000 0000  0000 0000 0000 0000   0000 0000 a3b4

701: We receive DAQ:
0000: 0080 0000 0000 0000  0000 0000 0000 0000   0000 0000

704: We receive DAQ:
0000: a380

705: We receive DAQ:
0000: 0080 04c7 0000 0000  0000 04c7 0022 c238   052b 0000 18b4 ...
```