

## Instructions after succeeding in booting Linux on COPPER CPU

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### 1, How to install COPPER driver on COPPER CPU

1-1, get driver source code

svn co <https://belle2.cc.kek.jp/svn/trunk/software/daq/copper/driver/cprdist-0.1.0>

1-2, Read 00README and follow the instruction

### 2, Configure CPLD before using an unused HSLB

2-1, download a CPLD configuration directory

svn co <https://belle2.cc.kek.jp/svn/trunk/software/daq/copper/HSLB>

2-2, Read 00README and follow the instruction

### 3, How to download FPGA firmware and check data from HSLB

3-1, download a utility folder

svn co [https://belle2.cc.kek.jp/svn/trunk/software/daq/copper/test\\_program](https://belle2.cc.kek.jp/svn/trunk/software/daq/copper/test_program)

3-2, Read 00README and follow the instruction

3-2-1, Download firmware to FPGA on HSLB

% ./hslb/boothslb -abcd ./hslb/hslb.bit

"-abcd" specify slots for HSLB cards

If you fail to download firmware, please try following

- Check if CPLD on HSLB is already programmed.
- Check if copper and cprfin\_fngeneric have already been installed  
% /sbin/lsmmod
- Install drivers again  
# driver/cprdist-0.1.0/initd\_copper stop  
# driver/cprdist-0.1.0/initd\_copper start  
# driver/cprdist-0.1.0/initd\_cprfin\_fngeneric stop (do not use "restart")  
# driver/cprdist-0.1.0/initd\_cprfin\_fngeneric start
- Download firmware to CPLD on HSLB again. ( basically not necessary ).

3-2-2, Read data in COPPER FIFO

% ./copper/record-nakao -abcd

"-abcd" specify slots for HSLB cards

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#### **4, How to get and install TTRX device driver**

4-1, download a device driver

svn co <https://belle2.cc.kek.jp/svn/trunk/software/daq/copper/driver/ttrx/ttrxprogs-20060413-for-SL5>

4-2, follow instructions in README in the directory