

CODA 2.6.2 on hpstracker

CODA 2.6.2

Every time you run

(Assumes setup as described further down on this page.)

```
ppa-pc88427 \~$ cd pelle/daq/coda
ppa-pc88427 \~/pelle/daq/coda$ source coda_user_setup
```

Check the msqld daemon is running. If not start with:

```
ppa-pc88427 \~/pelle/daq/coda$ msqld&
```

First terminal:

```
ppa-pc88427 \~/pelle/daq/coda$ rcplatform
```

See below for expected output. If it's the first time you should answer 'Y' to the questions.

Second terminal:

```
ppa-pc88427 \~$ cd pelle/daq/coda
ppa-pc88427 \~/pelle/daq/coda$ source coda_user_setup
ppa-pc88427 \~/pelle/daq/coda$ codamaster
```

You should get a GUI with the different configurations available. Select "cool" and press OK.

Third terminal:

```
ppa-pc88427 \~$ ./pelle/daq/coda/trackerRoc
```

See below for expected output. You should also see that the ROC1 being registered in the rcplatform terminal.

In CODA master:

```
* Config->Enable buttons
* Click Event Builder
```

This should open an xterm and you should see EB1 being connected in the logs.

```
* Click Run Control
```

In the RC GUI:

```
* Platform->Connect
```

First time running?

First time you will need to setup configuration

```
* Session-> new = pelletest (or what you named you session above)
* options-> coda2 database-> run types = cool
```

Answer yes to translate

```
* configurations->cool
```

This should enable and connect run control properly to the session.

Press Configure in codamaster

EB1 and ROC1 should be configured

Press download in coda master

EB1 and ROC1 should be downloaded

```
Press prestart in coda master
```

EB1 and ROC1 should be paused

Example output

```
ppa-pc88427 ~/pelle/daq/coda$ rcplatform
```

Example output expected:

[illegible]

```
ppa-pc88427 \~$ ./pelle/daq/coda/trackerRoc
```

Expected output:

```
Setting up coda 2.6.2 from /home/tracker/pelle/daq/coda/2.6.2
AF ECS Home set to /home/tracker/pelle/daq/coda/2.6.2/afecs
done.
MSQL DATABASE = hps_tracker
WARNING: Could not get uid and gid info from database
        number of args in the id entry of sessions is 1
Coda 2.6.2, Name : ROC1, Type ROC Id : 0
pelletest::ROC1> INFO: Starting up rcClient Thread...Running the cMsg RC client, "ROC1"
        connecting to UDL, cMsg:rc://multicast/hps_tracker
Connect is completed\!
subscribing subject = ROC1 type = run/transition/\*
subscribing subject = ROC1 type = session/control/\*
subscribing subject = ROC1 type = coda/info/\*
```

Setup CODA 2.6.2 from scratch on Linux

Updated 3/29/13 - Per Hansson Adrian

Instructions below are for the loal setup at SLAC on the hps tracker cpu.

%%% Initial setup

Login to hps tracker computer

```
$ ssh -X tracker@ppa-pc88427
```

```
Download CODA and unpack[https://coda.jlab.org/wiki/index.php/Downloads]
$ mkdir daq \& cd daq
$ mkdir coda \& cd coda
$ tar -xzf coda_2.6.2.tar.gz
```

Edit the coda setup user script (attached):

```
Change CODA to to point to your coda installation
Change EXPID to hps_tracker (will identify the coda setup from here on)
Change SESSION to pelletest (defines what configuration you want to use)
```

Execute the coda setup user script

```
$ source coda_user_setup
```

You will now have access to start the mSQL database daemon

```
$ mysql &
```

(first time it will complain that it cannot open files and dirs but it creates them afterwards)

Check that the daemon is running (process msqld should be running)

Setup database structure

```

* File->New Database (enter same name as $EXPID) to make a DB for the experiment
* File->New->Config (enter name 'cool') which is the "Run Type" or "configuration"
* Create the ROC (one of the icons, try them):
name: ROC1
ethernet host: ppa-pc88427.slac.stanford.edu
id: 2
boot string: $CODA_BIN/coda_roc
readout list: /home/tracker/pelle/daq/coda/test_primary/test_primary.so userString
The readout list is the configuration that tells coda what this ROC is being readout (see later for details)
* Create the event builder (EB)
name: EB1
host: ppa-pc88427.slac.stanford.edu
id: 1
booting string: $CODA_BIN/coda_eb
incoming: CODA
outgoing: CODA
* Then connect the ROC and EB with an arrow (drag a line between them)
* File->Save and then close the cedit program

```

```
$ dbedit
```

```

* choose localhost to find your database in the browser and go to the localhost tab
* choose hps_tracker database from drop down list
* choose Table cool and you should see the ROC and EB you created earlier
* Change EB1 outputs to 'coda'

* go to the 'session' table
* add new row:
  name: pelletest (should be same as your session in the user script)
  id: 10 (should be unique?)
  owner: tracker (should have writeable permissions)
  runNumber: 1 (not sure why)
* quit dbedit program

```

To clean the database you can remove the content of the cool/ directory.

Setup the ROC and EB executables to use custom binaries built to handle large data frames needed for the SVT (attached)

```

$ cp coda_roc_rc3.5big 2.6.2/Linux/bin/
$ cp coda_eb_test 2.6.2/Linux/bin/
$ cd 2.6.2/Linux/bin/
$ ln -s coda_roc_rc3.5big coda_roc_rc3
$ ln -s coda_eb_test coda_eb_rc3

```