

# Guide for reading the oscilloscope

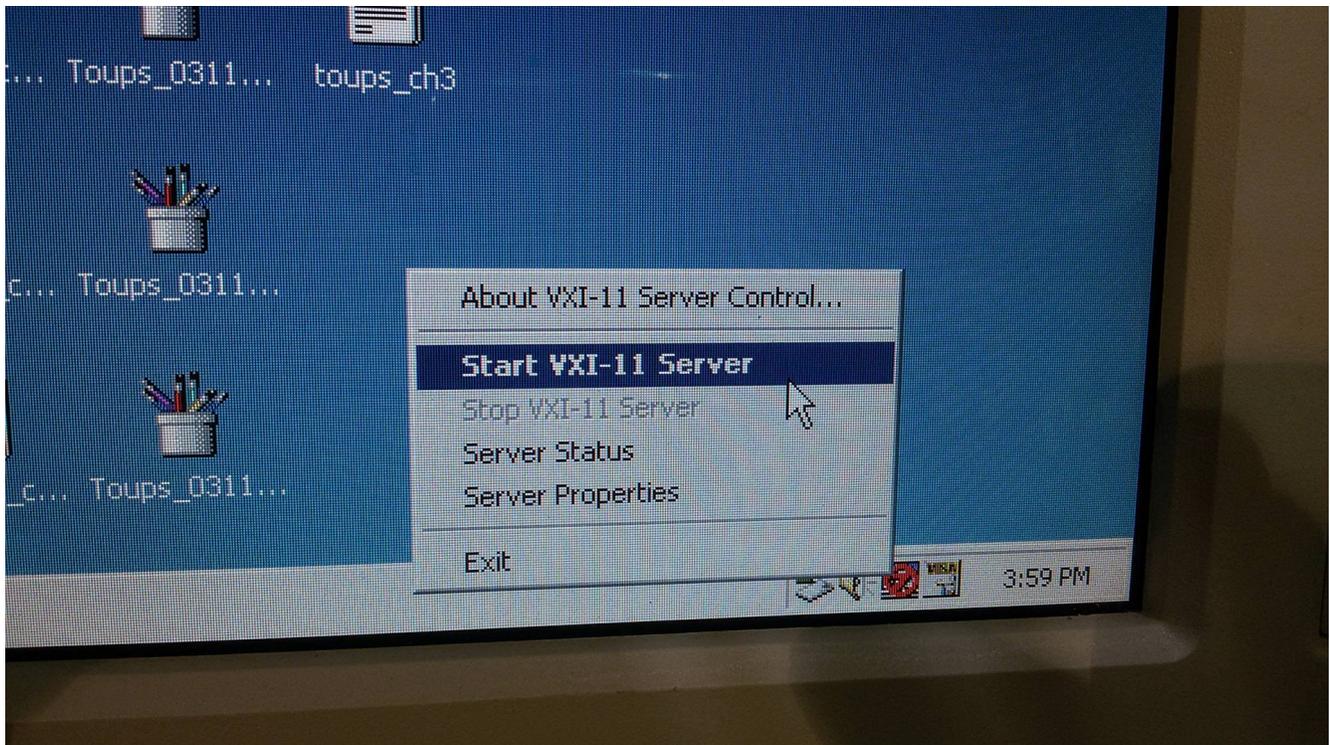
## PRELIMINARY OPERATIONS

The programs are in `/home/uboone/daq/vergani/tekvxi11/exesrc` and they are called “`one_scope.cc`” and “`timer_one_scope.cc`”.

First of all, you want to test if the oscilloscope is connected and works. Be sure the oscilloscope is connected to the internal net (black cable inserted, see picture)



Then check on the oscilloscope that the VXI-11 Server is connected. If not, click on “Start VXI-11 Server” (see picture).



Then run from the terminal, in the directory **/home/ubooneDAQ/vergani/tekvxi11/**, the following command **bin/ping\_scope 192.168.1.3** to check that the oscilloscope is connected.

In case there are some issues with libraries, digit from terminal

```
export LD_LIBRARY_PATH="/home/ubooneDAQ/vergani/tekvxi11/:$LD_LIBRARY_PATH".
```

At this point go in the directory **/home/ubooneDAQ/Pulser** and digit **./Pulser100Hz.sh** to start the LED.

Now everything should be ready to run the two programs.

To run both programs digit from terminal, while in the directory **/home/ubooneDAQ/vergani/tekvxi11/**, the command **bin/one\_scope** (or **timer\_one\_scope**) followed by the name of the output file without extension. E.g. **bin/one\_scope test1**.

It could tell you is not able to find libraries. In that case, digit from terminal

```
export LD_LIBRARY_PATH="/home/ubooneDAQ/vergani/tekvxi11/:$LD_LIBRARY_PATH".
```

# HOW TO RUN THE PROGRAMS

## one\_scope

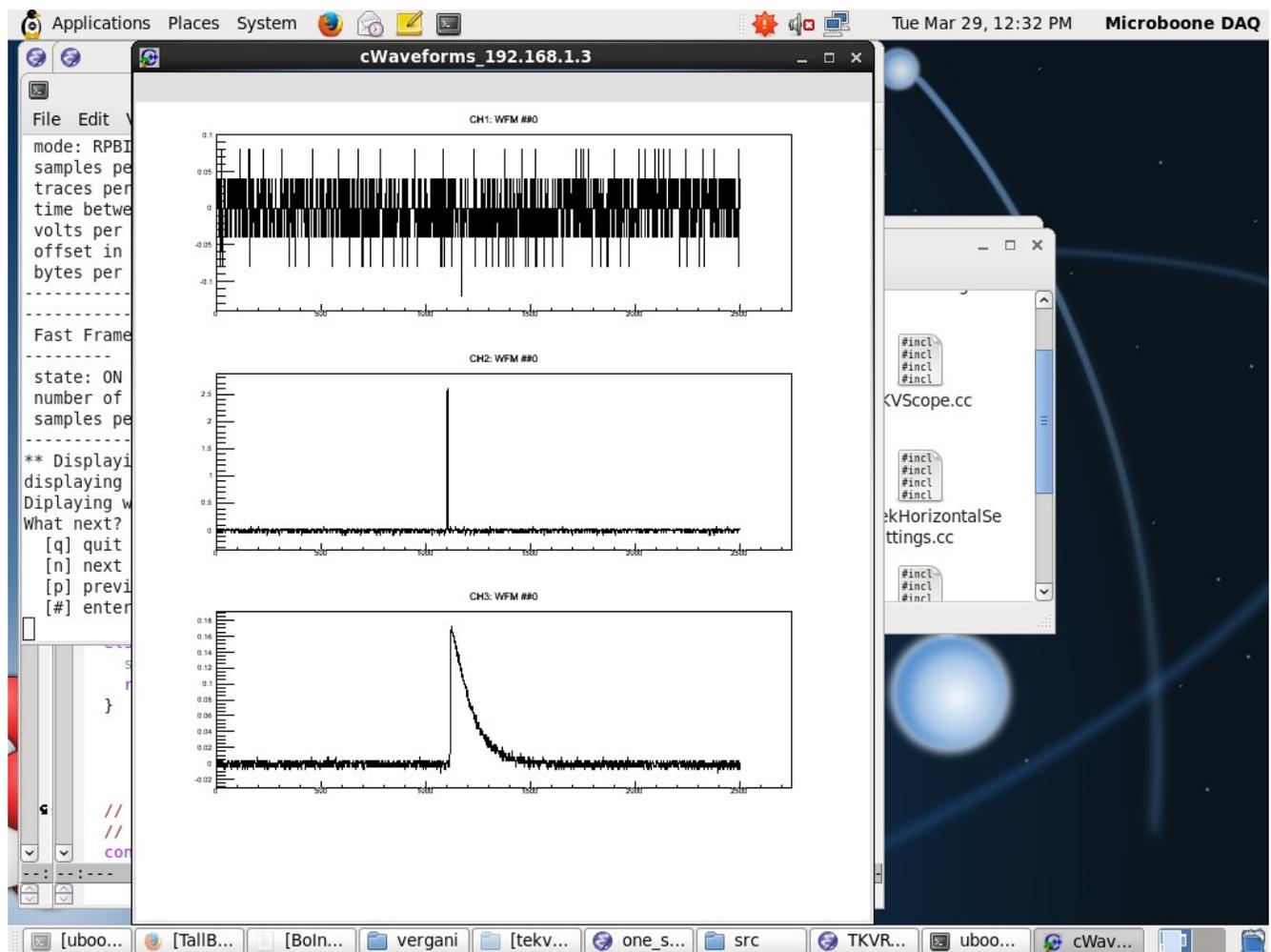
The output file has to be specified when to run the function as an argument, all the other commands have to be given from terminal.

## LIST OF QUESTIONS THAT WILL APPEAR ON THE MONITOR

**Do you want to open the display? Press [y] or [n]** Press y if you want to open the display after waveforms have been collected or n if you don't want. If you press any other button the program will close.

**Select number of frames** Insert the number of waveforms you want to take

In case the display is on, after taking data a plot of the channels will appear (see picture).



After that, this message will appear:

**Press [c] to continue, [q] to quit.** Press c if you want to take the same number of waveforms, q if you want to quit the program.

In the directory **/home/uboonedaq/vergani/tekvxi11/** will appear the output file with a .root extension.

### **timer\_one\_scope**

The output file has to be specified when to run the function as an argument, all the other commands have to be given from terminal.

### **LIST OF QUESTIONS THAT WILL APPEAR ON THE MONITOR**

**For how long do you want the program to take data? Insert the time in seconds** Digit the time in seconds. After taking data the program will close.

In the directory **/home/uboonedaq/vergani/tekvxi11/** will appear the output file with a .root extension.

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