# Online monitor for ReD experiment

Oleynikov Vladislav
Italy, Napoli, 16 October 2017

# What do we want?

1) Fast system

2) Display waveforms from 6 channels.

3) Integral waveforms in gate

4) Display histograms from 6 channels.

5) Display combined histograms (for top and bottom detectors)

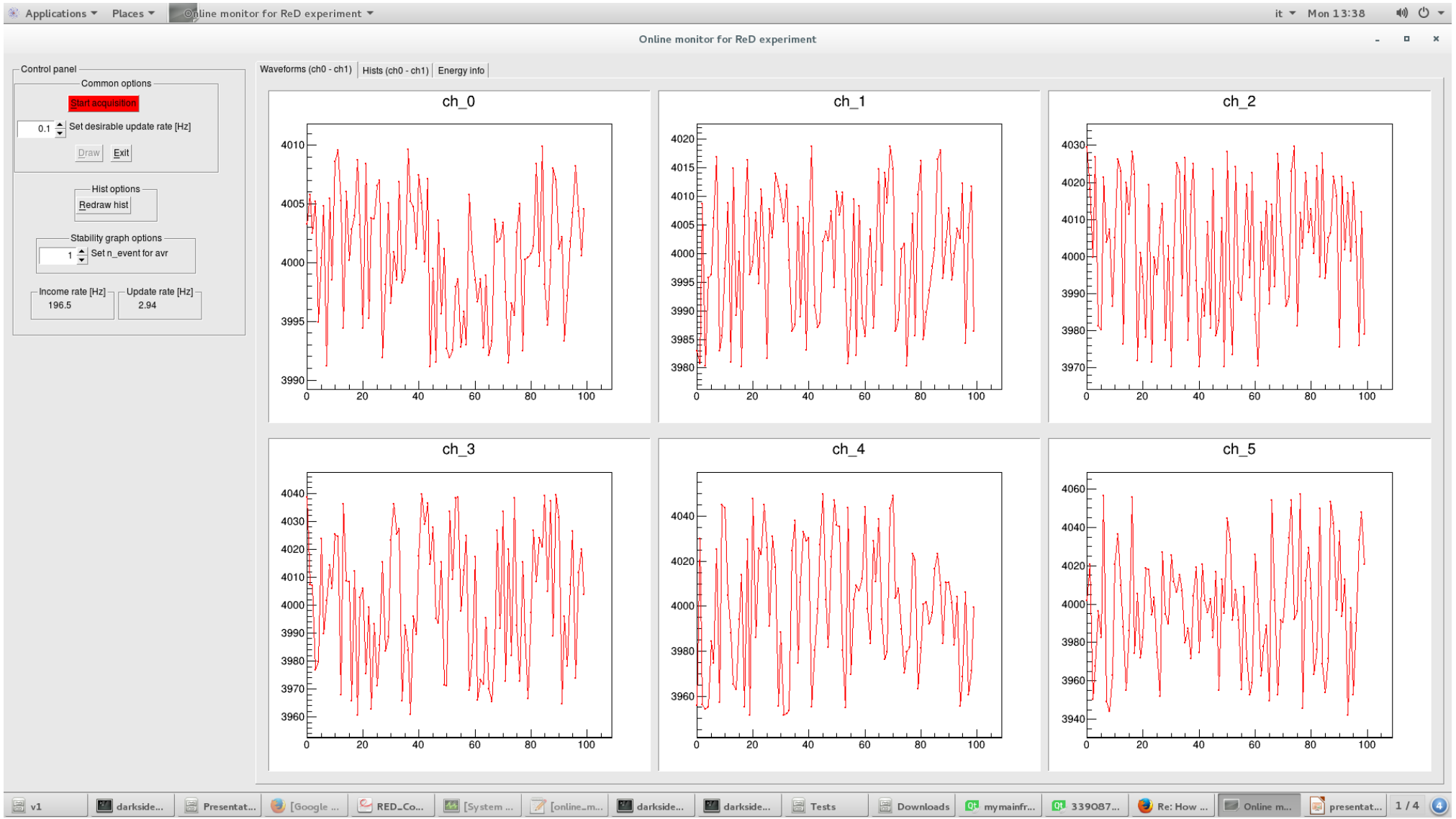
6) Comfortable GUI

# Realization

- Root Cern GUI, because it is free. Qt will be better, but can be some problems with license in future).
- Root Cern Threads. Later I can rewrite code using c++11 standard, if Root Cern Threads will not have desirable functionality.
- Root Cern 5.34/36 version libraries. So, my program is cross-platform.

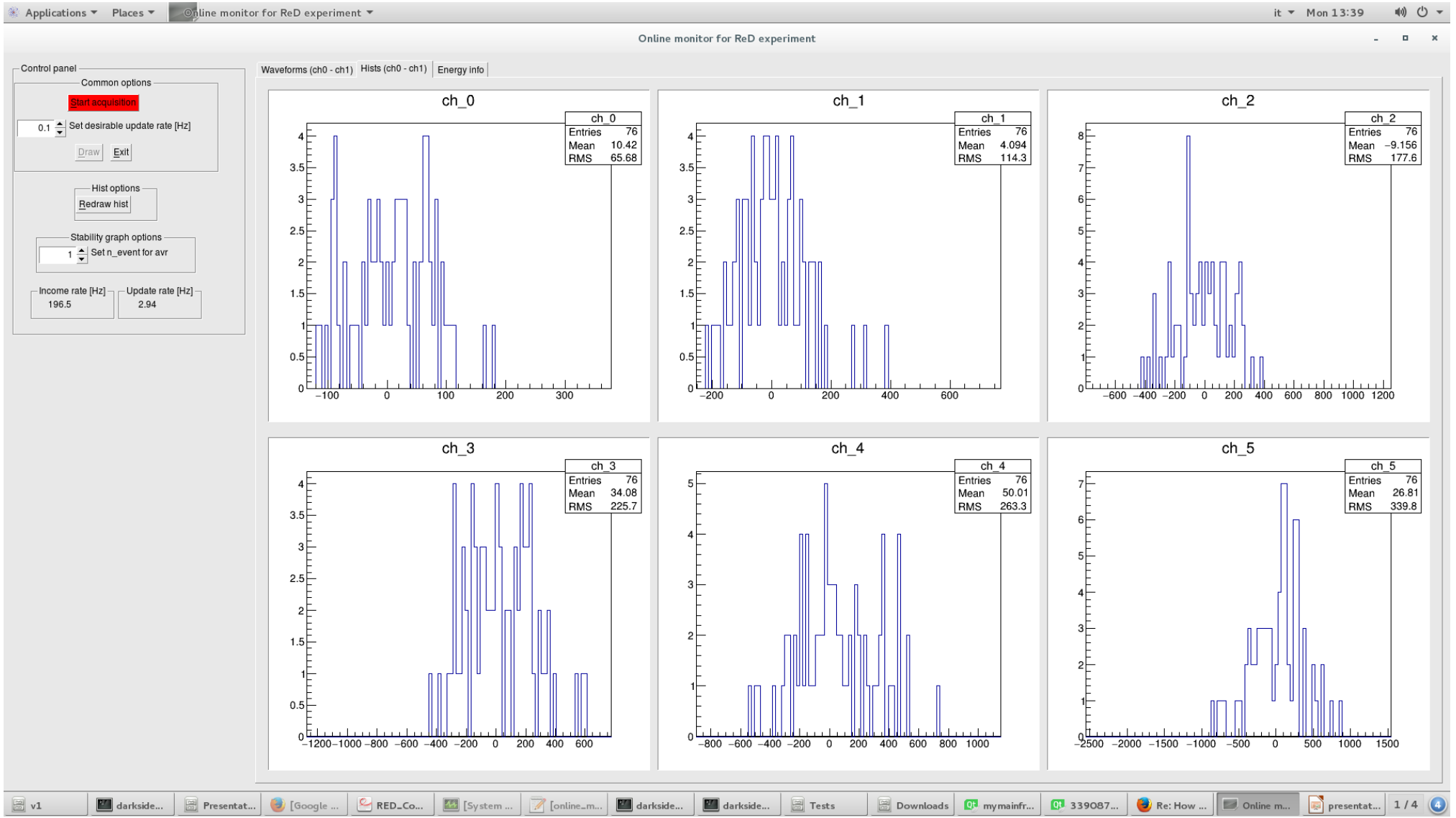
# Interface

Preliminary!



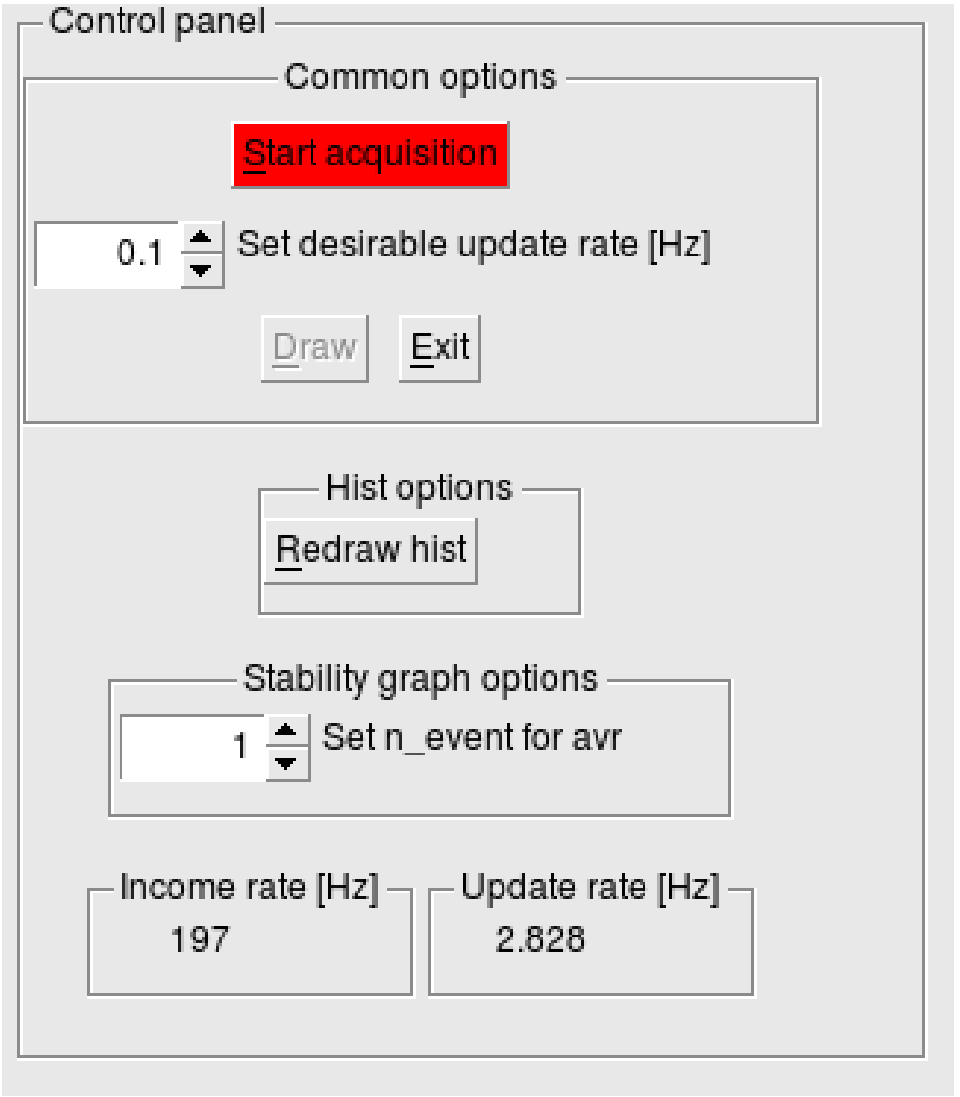
# Interface

Preliminary!



# Interface

Preliminary!



# Plans

- Time gates for integral
- Panel to choose histograms to combine
- Pulse shape discrimination for S1

- Send data from DAQ to OnlineMonitor

My code is here: https://github.com/Vlad-ole/RedOnlineMonitor