

# Instructions to FB/KICKS DAQ

Created Friday 03 August 2012

## Flashbox acquisition program in matlab:

### Directory of the source code

/nfs/cs-ccr-nfs6/vol29/share/ctf/data/ctfmod/MatLab/Califes/Flashbox\_subscription\_v2  
or symbolic link  
/acc/oper/share/ctf/data/ctfmod/MatLab/Califes/Flashbox\_subscription\_v2

### How to run compiled version (recommended):

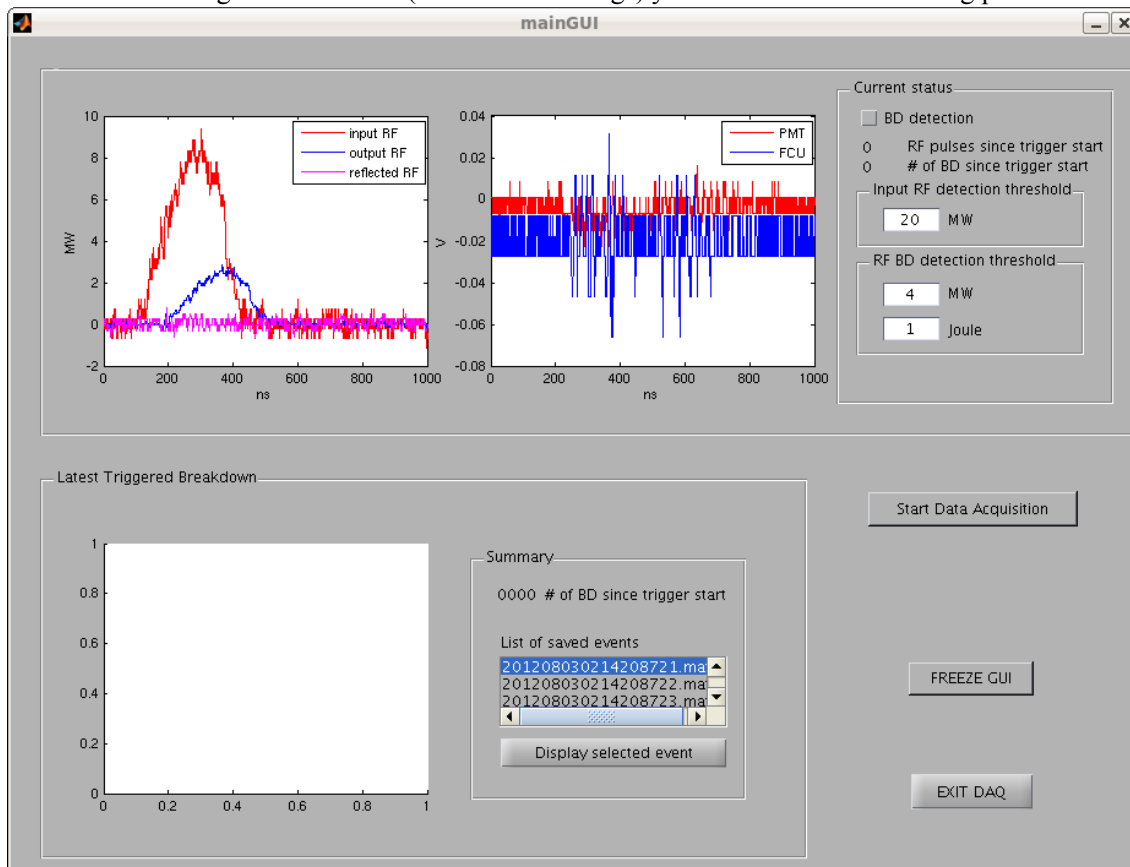
In xterm go to

```
/nfs/cs-ccr-nfs6/vol29/share/ctf/data/ctfmod/MatLab/Califes/Flashbox_subscription_v2/kickDAQ/distrib
```

Then execute:

```
./run_kickDAQ.sh /afs/cern.ch/project/parc/matlabr2010a
```

After lots of messages from Matlab (also some warnings) you should see the following picture:



Click on BD detection and start data acquisition with a button Start Data Acquisition.

The data will be saved in a folder with current date (created automatically if necessary) under:

```
/nfs/cs-ccr-nfs6/vol29/share/ctf/data/ctfmod/MatLab/Califes/Flashbox_subscription_v2/Data
```

You can freeze (and unfreeze) the GUI with the button. When done with data taking you can press Stop Data Acquisition and then EXIT DAQ

The software can be started also directly from Matlab by running command **lectrep.m** from the main directory.

## Signals

Flashbox signals are located on SCOPE04, SCOPE50 and SCOPE51

In addition power levels from ACS are saved from SCOPE02 and FCU and PMTs from SCOPE19.

Please make sure with OASIS that these scopes are ON

## Checking the data

There few simple Matlab scripts to view the data from the Data directories.

**draw\_all.m** and **draw\_single.m** just plot the signal from the workspace (you need to load the desired data from the \*.mat file)

**draw\_one\_by\_one.m** can scan the whole directory (given by user inside the script) with \*.mat and will show all of them event by event.

## Problems

Sometimes when starting the program Matlab spits lots of debug messages and errors ending in something like that:

```
[66] libuij.so:sysq::during_F<sysq::wsfcn_proxy<sysq::ws_ppeHook*>*>
sysq::ppe_for_each<sysq::during_F<sysq::wsfcn_proxy<sysq::ws_ppeHook*>*> >
(sysq::during_F<sysq::wsfcn_proxy<sysq::ws_ppeHook*>*>)(0, 0x00bf4ee8, 0x7f434e444d40, 5) + 134 bytes
[67] libuij.so:svWS_ProcessPendingEvents(int, int, bool)(2, 0x00be3a80 "°:¾", 0x00beff50, 0x00bf09e0) + 508 bytes
[68]
libmwmc.so:mcr::runtime::InterpreterThread::Impl::process_events(boost::shared_ptr<mcr::runtime::InterpreterThread::Impl>
const&)(4, 0x7f434e444e80, 0x7f434e445700, 0x7f4355356700) + 153 bytes
[69] libmwmc.so:mcr::runtime::InterpreterThread::Impl::run(boost::shared_ptr<mcr::runtime::InterpreterThread::Impl>
const&, mcr::runtime::InterpreterThread::Impl::init_context*)(0x00bf09e0, 0x00beff50, 0x3b2d788860 "i<U-;", 0) + 239 bytes
[70] libmwmc.so:run_init_and_handle_events(void*)(0x7f434e445700, 0, 0, 0) + 59 bytes
```

*If this problem is reproducible, please submit a Service Request via:*

*// [http://www.mathworks.com/support/contact\\_us/ts/help\\_request\\_1.html](http://www.mathworks.com/support/contact_us/ts/help_request_1.html)//*

*A technical support engineer might contact you with further information.*

*Thank you for your help.*

In that case just kill the program (Ctrl-C) and try again (and again)

## Andrea's KICK measurements

The instruction for Andrea's kick measurement program are practically the same. The only difference is the working directory

`/nfs/cs-ccr-nfs6/vol29/share/ctf/data/ctfmod/MatLab/Califes/FCUandPM_subscription_v4`

You start the program the same way from subdirectory **kickDAQ/distrib**