

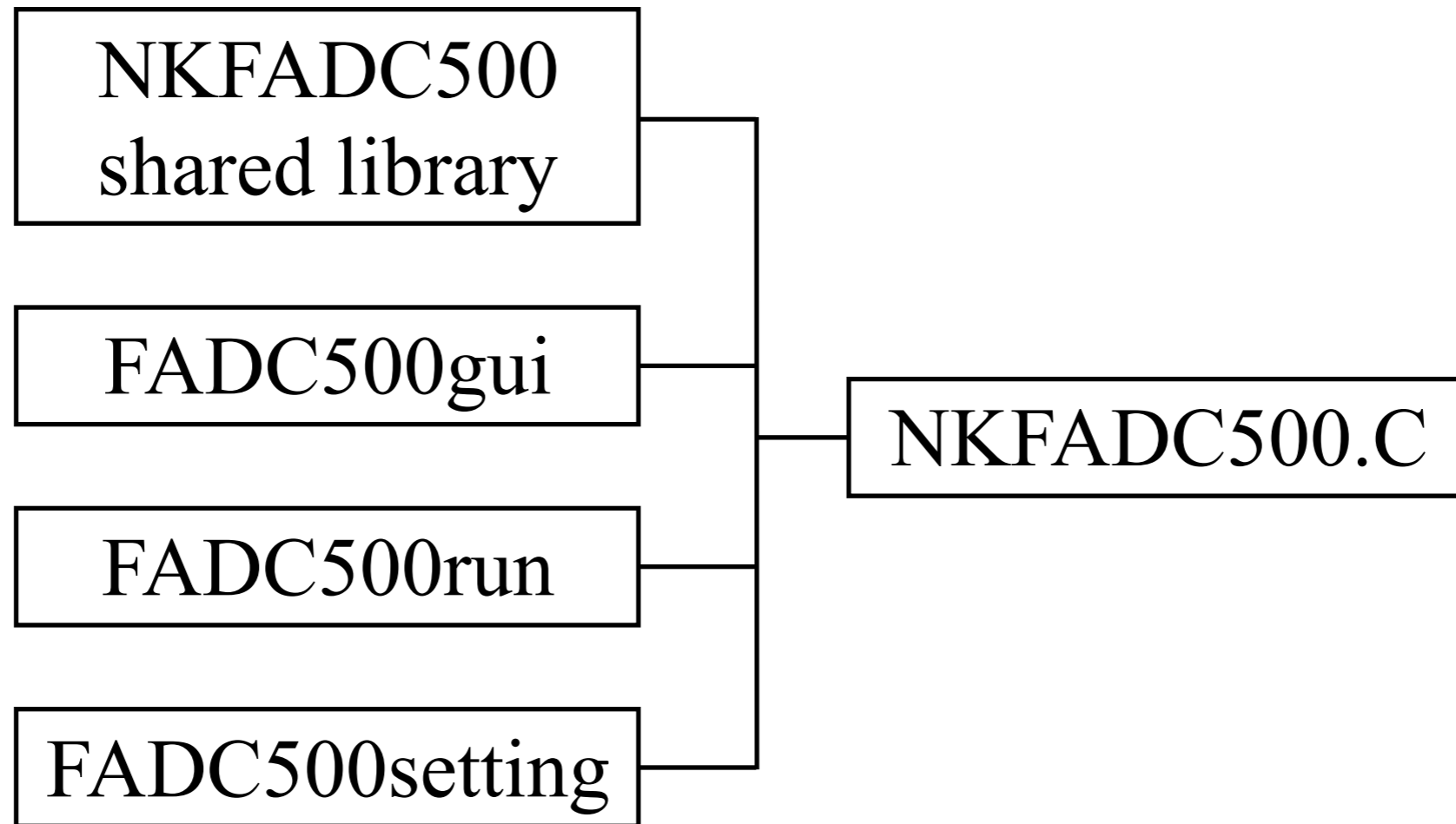
NKFADC500 GUI DAQ Development

25th. Apr. 2017

Byul Moon

NKFADC500 GUI

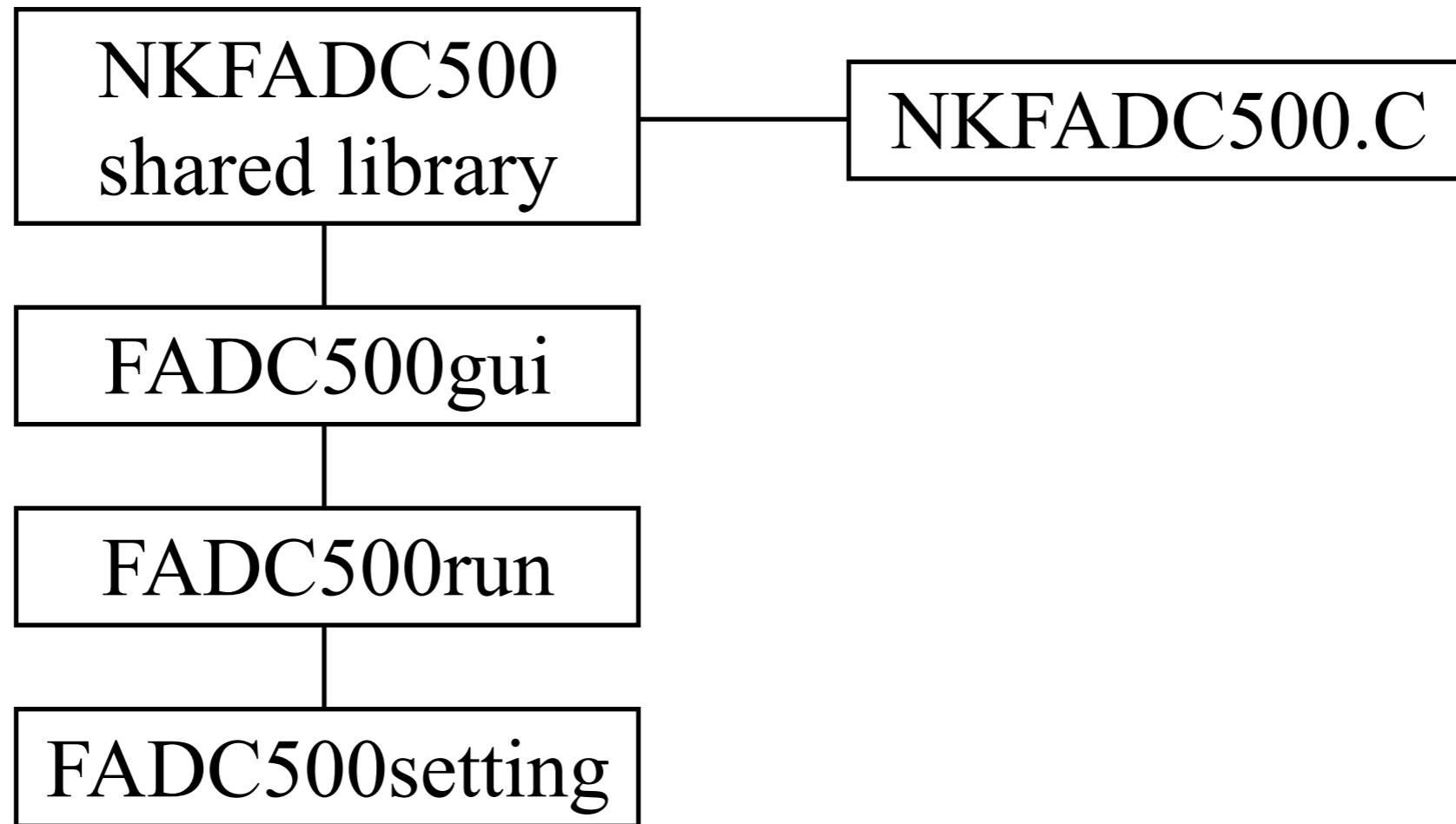
Current status



All parameters are same for all channels and modules.

NKFADC500 GUI

Future plan



Individual setting parameters for each channel and module.

NKFADC500 GUI

NKFADC500 PROTOTYPE

File Help

Setting Online ADC Monitoring Online TDC Monitoring

Basic Parameters

Number of Modules

Pedestal Trigger Interval

Recording Length

Number of Events

ADC Parameters

Pulse Polarity

ADC Offset

ADC Delay

Peak Sum Width

ADC Mode

Trigger Parameters

Trigger Type

Trigger Delay

Trigger Coincidence Width

Coincidence Width

ADC Threshold

TDC Threshold

Pulse Count Threshold

Pulse Count Interval

Pulse Width Threshold

Trigger Deadtime

Zero Suppression

Pulse Count Trigger

Pulse Width Trigger

Peak Sum Trigger

Peak Sum OR Trigger

SET RUN STOP

Start the DAQ program.

NKFADC500 GUI

NKFADC500 PROTOTYPE

File Help

Save Data Save Setting Open Setting Exit

Offline TDC Monitoring Online TDC Monitoring

Number of Modules

Pedestal Trigger Interval

Recording Length

Number of Events

ADC Parameters

Pulse Polarity

ADC Offset

ADC Delay

Peak Sum Width

ADC Mode

SET RUN STOP

Trigger Parameters

Trigger Type

Trigger Delay

Trigger Coincidence Width

Coincidence Width

ADC Threshold

TDC Threshold

Pulse Count Threshold

Pulse Count Interval

Pulse Width Threshold

Trigger Deadtime

Zero Suppression

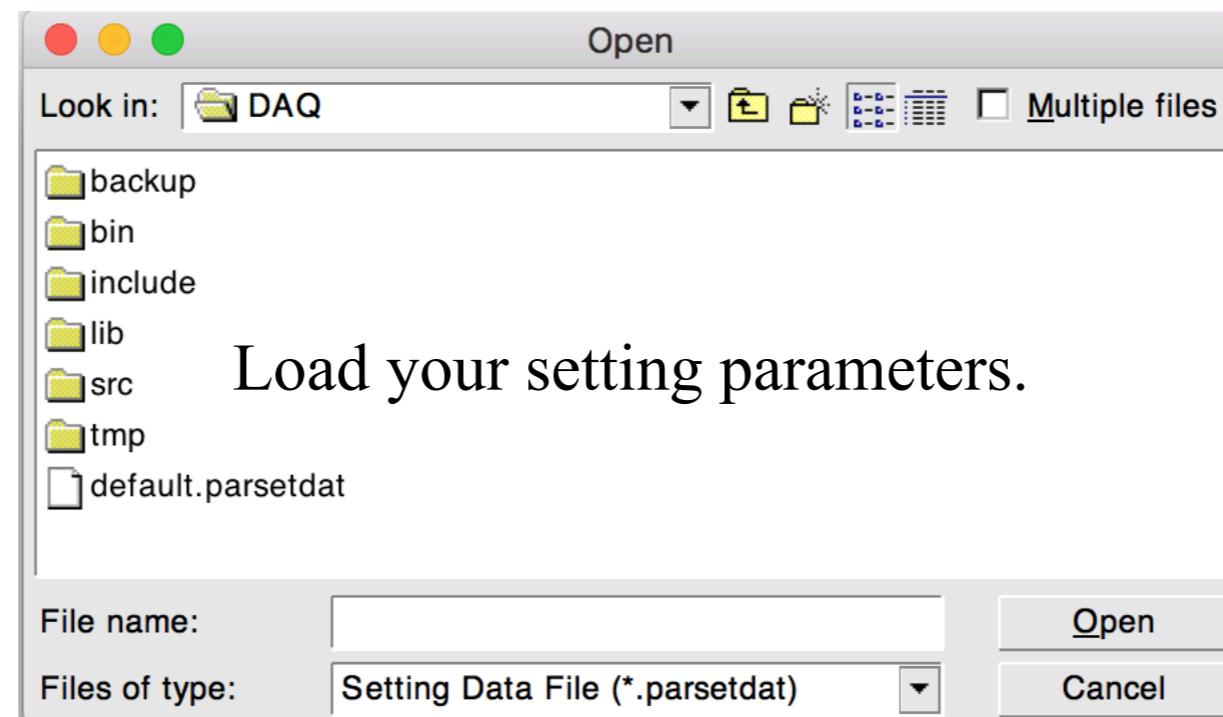
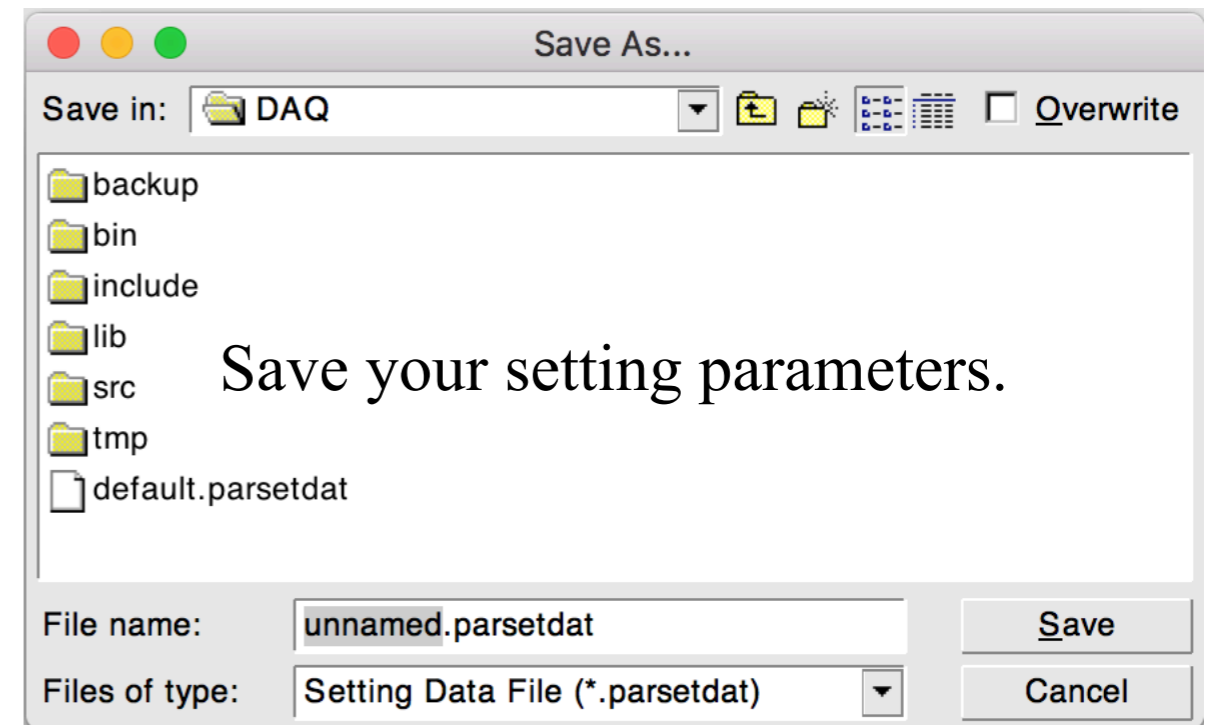
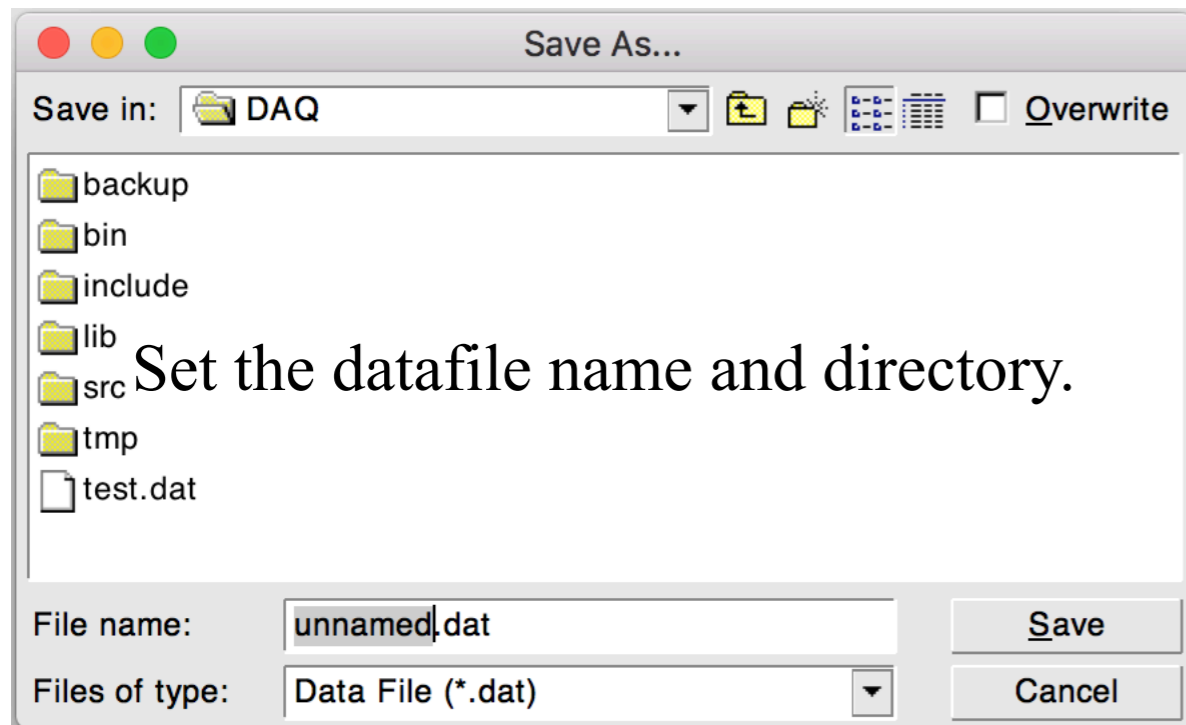
Pulse Count Trigger

Pulse Width Trigger

Peak Sum Trigger

Peak Sum OR Trigger

NKFADC500 GUI



NKFADC500 GUI

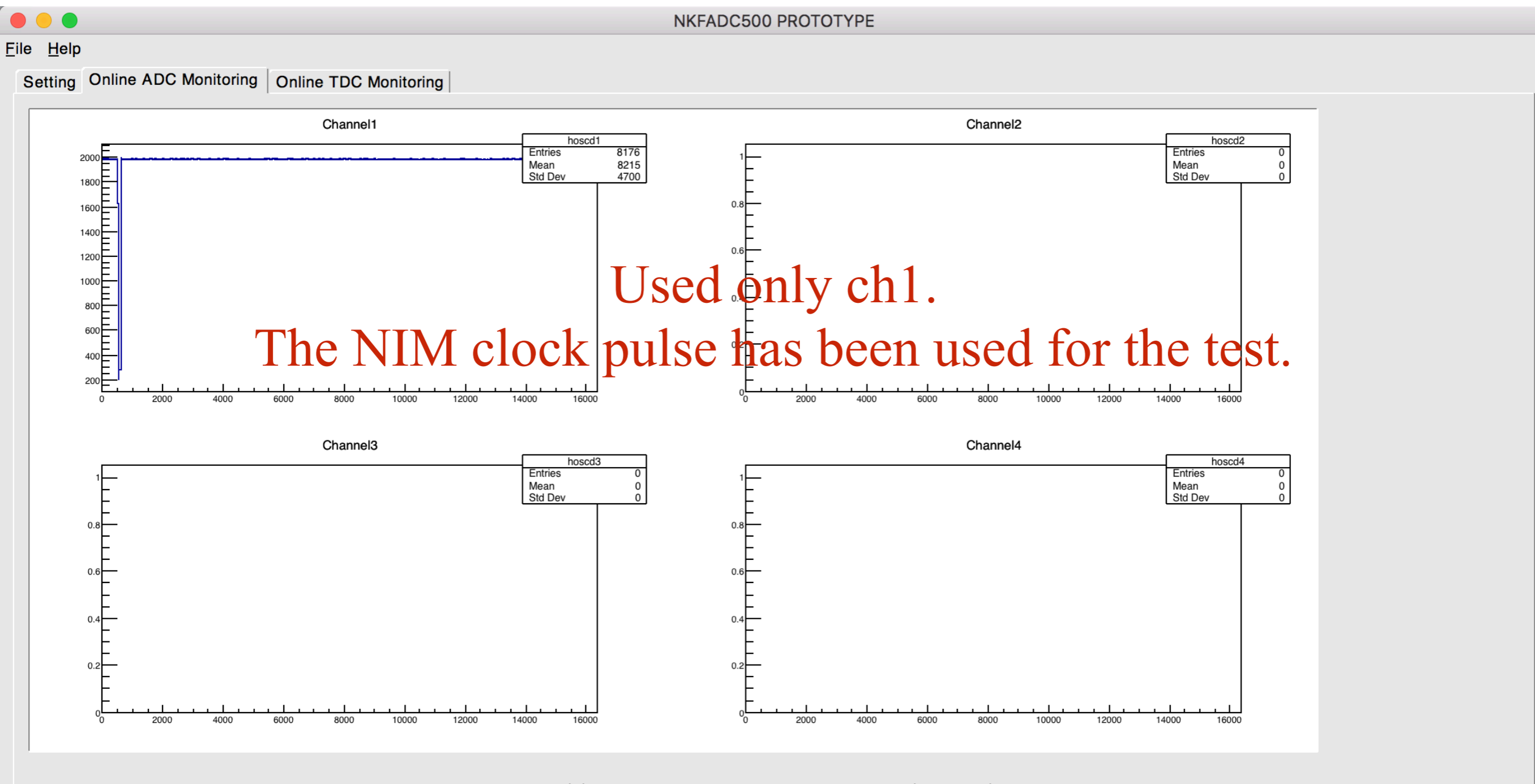
The screenshot shows the NKFADC500 GUI with the following configuration parameters:

Section	Parameter	Value
Basic Parameters	Number of Modules	1
	Pedestal Trigger Interval	0
	Recording Length	16 us
	Number of Events	1000
ADC Parameters	Pulse Polarity	Negative
	ADC Offset	2000
	ADC Delay	1500
	Peak Sum Width	2
	ADC Mode	Filtered
Trigger Parameters	Trigger Type	1121314
	Trigger Delay	0
	Trigger Coincidence Width	1000
	Coincidence Width	1000
	ADC Threshold	10
	TDC Threshold	100
	Pulse Count Threshold	1
	Pulse Count Interval	32
	Pulse Width Threshold	100
	Trigger Deadtime	0
	Zero Suppression	Yes
Pulse Count Trigger	Yes	
Pulse Width Trigger	No	
Peak Sum Trigger	Yes	
Peak Sum OR Trigger	No	

Control buttons: SET, RUN, STOP

After load the setting parameters.

NKFADC500 GUI



Used only ch1.
The NIM clock pulse has been used for the test.

Online FADC monitoring

NKFADC500 GUI

NKFADC500 PROTOTYPE

File Help

Setting | Online ADC Monitoring | Online TDC Monitoring

Global Parameters

Number of Modules

Pedestal Trigger Interval

Number of Events

Trigger Delay

Trigger Coincidence Width

Pulse Count Trigger

Pulse Width Trigger

Peak Sum Trigger

Peak Sum OR Trigger

Module#1 | Module#2 | Module#3 | Module#4 | Module#5 | Module#6

Recording Length

Trigger Type

Channel#1 | Channel#2 | Channel#3 | Channel#4

Coincidence Width

ADC Threshold

TDC Threshold

Pulse Count Threshold

Pulse Count Interval

Pulse Width Threshold

Trigger Deadtime

Zero Suppression

Pulse Polarity

ADC Offset

ADC Delay

Peak Sum Width

ADC Mode

SET SAME TCB RUN STOP

New GUI!!

NKFADC500 GUI

Problems

1. Fix some bugs.
2. Print out when there is any specific error.
3. Fix 'STOP' function.
4. The USB3 connection is very sensitive.

If you have any suggestion or desired function, please let me know.