Dymin_RT_Main.vi
Q:\GitHub\DyminSTED4all\LabviewCode\Dymin_RT_Main.vi
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open a reference to the FPGA VI
#Important you must have already successfully compiled your Dymin4ALL_FPGA_Main file for this to work.

Calibrate power vs voltage or just use last calibration file

Acquire and process data

Main Loop

Close

RIO0

error in

FPGA Target

#Dymin_FPGA_Main
Right click and select "configure FPGA vi reference" to check that it is opening your FPGA file. Also check the ip address for the input is correct for your myRIO

Calibrate?

Stop

"Calibrate Power", Default

AOM Units
Enabled / Disabled

Fit Parameters

AOM Units

AOM P or V

Calculate_aomVolts

Power Units set entry limit
Maximum
Minimum

AOM Voltage

DyMIN Step Time (us)

Laser Wait (us)

All Step Times (us)

CalculateTimes.vi

PIX CLK period (us)

PIX CLK period (bits)

Threshold (counts)

Dymin On?

Time (#80MHz periods)

AOM Volts
Threshold (counts)
Time (#80MHz periods)
stop 1
stop 2
stop 3
stop 4
Dymin On?
PIX CLK (bits)

Stop

Can't write the measured pixel clock to the front panel because it will be off at the turn arounds.

PIX CLK Measured (bits)

PIX CLK Measured (us)

100

error out

Add an option to use old calibration data if I want to
Just save the fit paramters in a file for later with date created in filename

Multiplexer digital input names a...
CS A1 A0 CK1 CK2 -> Output
00000 -> IN0 = A/AO0
00100 -> IN1 = C/AO0
01000 -> IN2 = C/AO1
01100 -> IN3 = A/AO1
1XX00 ->High-Z, X means anything

Multiplexer inputs from FPGA DIOs:
A0=DIO7
A1=DIO8
CK=CKBAR=DIO9=0 always
CS=DIO10=0 (unless High Z desired)

"Use Voltage Only"

AOM Units
Disabled

Disabled and Grayed Out

False
Voltage-set entry limits 0-1V

AOM P or V
Maximum
Minimum