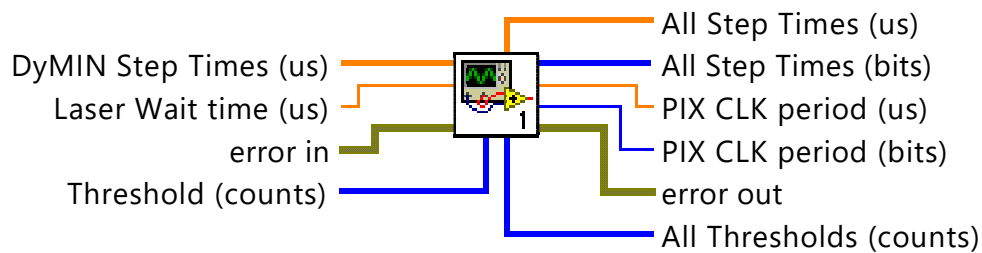CalculateTimes.vi
Q:\GitHub\DyminSTED4all\LabviewCode\CalculateTimes.vi
Last modified on 1/26/2023 at 2:46 PM
Printed on 12/8/2023 at 12:25 PM

CalculateTimes.vi

All Step Times (us)
DyMIN Step Times (us)
Laser Wait time (us)
All Step Times (bits)
PIX CLK period (us)
error in
PIX CLK period (bits)
Threshold (counts)
error out
All Thresholds (counts)

DyMIN Step Times (us)

0
0
0
0
0

Laser Wait time (us)
0

All Step Times (us)
0
0
0
0
0
0
0
0
0

All Step Times (bits)
0
0
0
0
0
0
0
0
0

PIX CLK period (us)
0

PIX CLK period (bits)
0

error in

status   code
0

source

Threshold (counts)
0
0
0
0
0

All Thresholds (counts)
0
0
0
0
0
0
0
0
0

error out

status   code
0

source

DBL **Laser Wait time (us)**

DBL **DyMIN Step Times (us)**

DBL **Time (us)**

CalculateTimes.vi
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error in

<B>error in</B> can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

Right-click the <B>error in</B> control on the front panel and select <B>Explain Error</B> or <B>Explain Warning</B> from the shortcut menu for more information about the error.

status

<B>status</B> is TRUE (X) if an error occurred or FALSE (checkmark) to indicate a warning or that no error occurred.

Right-click the <B>error in</B> control on the front panel and select <B>Explain Error</B> or <B>Explain Warning</B> from the shortcut menu for more information about the error.

code

<B>code</B> is the error or warning code.

Right-click the <B>error in</B> control on the front panel and select <B>Explain Error</B> or <B>Explain Warning</B> from the shortcut menu for more information about the error.

source

<B>source</B> describes the origin of the error or warning.

Right-click the <B>error in</B> control on the front panel and select <B>Explain Error</B> or <B>Explain Warning</B> from the shortcut menu for more information about the error.

Threshold (counts)

Theshold (counts)

error out

<B>error in</B> can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

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<B>Explain Warning</B> from the shortcut menu for more information about the error.

All Step Times (us)

Max AOM Voltage

All Step Times (bits)

Time (bits)

PIX CLK period (bits)
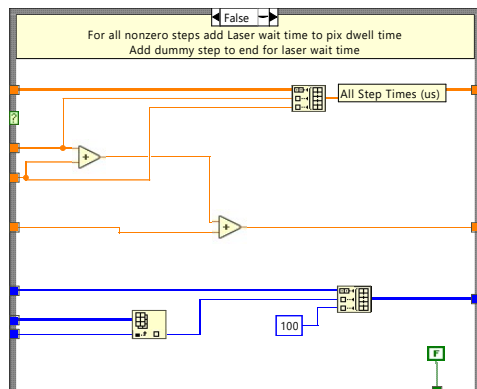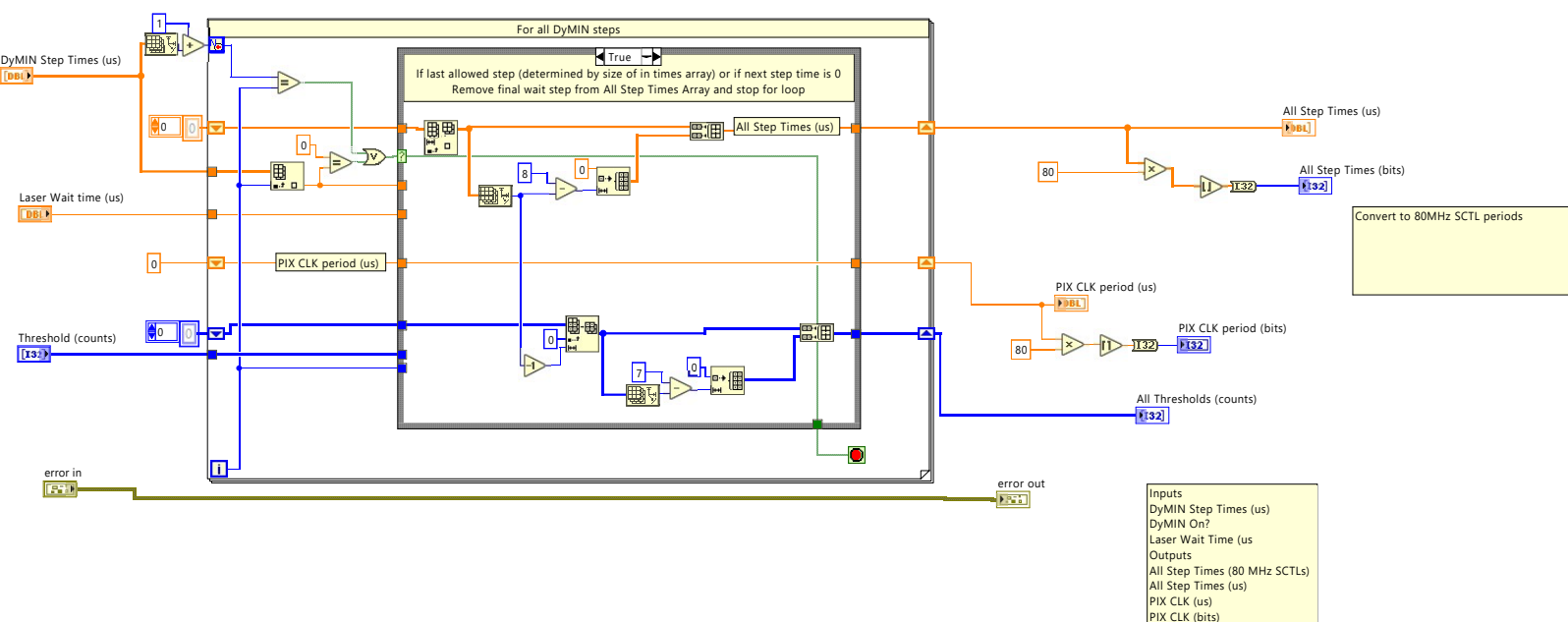
PIX CLK period (us)

All Thresholds (counts)

Theshold (counts)

To do:
Remove pixel clock input, only input DyMIN times
Add wait times where needed
Output pixel dwell time to set in SB

For all DyMIN steps

If last allowed step (determined by size of in times array) or if next step time is 0
Remove final wait step from All Step Times Array and stop for loop

Convert to 80MHz SCTL periods

Inputs
DyMIN Step Times (us)
DyMIN On?
Laser Wait Time (us
Outputs
All Step Times (80 MHz SCTLs)
All Step Times (us)
PIX CLK (us)
PIX CLK (bits)

For all nonzero steps add Laser wait time to pix dwell time
Add dummy step to end for laser wait time

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If last allowed step (determined by size of in times array) or if next step time is 0
Remove final wait step from All Step Times Array and stop for loop

All Step Times (us)