

C:\Users\Second Harmonic Spec\Documents\Labview Training\Data Aquisition\Stanford Research 830\Utility\Time Dependent Decay With SC10.vi

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Connector Pane

Stanford Research 830.lvlib:Time Dependent Decay With SC10.vi



Front Panel

Time Dependent Decay Profile

Designed by Binit Mallick, PhD Student, Department of Electrical Engineering, IIT Bombay, For Query Contact Me on binit.mallick@gmail.com

Program Info:

User interface for time dependent SHG decay data acquisition using SR830 Lock-In Amplifier.

Note: Please provide the file name and location to save the data file. It saves the data files in a text format (*.txt), while the files contains the acquired value from channel-1 display of SR-830 and the corresponding time instant respectively. A shutter is also controlled through the AUX Out-1, while the shutter is in a external voltage level controlled mode. Two blank dummy text files has to be created first. Insert the dummy file names and provide the locations too. It keeps the record of the data as a temporary backup if the program stopped abruptly. The value "R" in the dummy R data and "T" in the dummy time data file represents a succesful data acquisition cycle with the given parameters.

General I/O Segment for SR830 Lock In

Lock In Address In

GPIO0:8::INSTR

Lock In Address Out

Lock In Name Out For AUX 1

Lock In Error In

status code

0

source

Loop Execution Error Out

status code

0

source

AUX 1 Operation Out

status code

0

source

Dummy Files I/O

Temporary Decay SH Data

C:\Users\Second ...\Data in Text File\Time Dependent Decay Data\Decay SH Data.txt

Temporary Decay SH Data

C:\Users\Secon...\Data in Text File\Time Dependent Decay Data\Decay Time Data.txt

Temporary Decay SH Data File Error

status code

0

source

Temporary Decay Time Data File Error

status code

0

source

Time Dependent Decay Shchedule

Initial Pre Exposure Delay (s)

50

Blocking Time Step (s)

400

Saturation Time from Second Step (s)

150

First Saturation Time (s)

3000

Loop Count

25

Experiment Time in Min

0

Experiment End Time

Day

Hour

0

Minute

0

Choose Time Dependent Decay File I/O

Choose File Path To Save Decay SH Data

C:\Users\Second Harmonic Spec...\Time Dependent Decay Data\P-Si\Time Dependent Deacy SHG 10_30 Ohm_cm p-Si-850C 10Sec RTP 2.77 nm Oxide X-Ray 2020_02_20 SH Data-1.txt

Choose File Path To Save Decay Time Data

C:\Users\Second Harmonic Spec...\ime Dependent Decay Data\P-Si\Time Dependent Deacy SHG 10_30 Ohm_cm p-Si-850C 10Sec RTP 2.77 nm Oxide X-Ray 2020_02_20 Time Data-1.txt

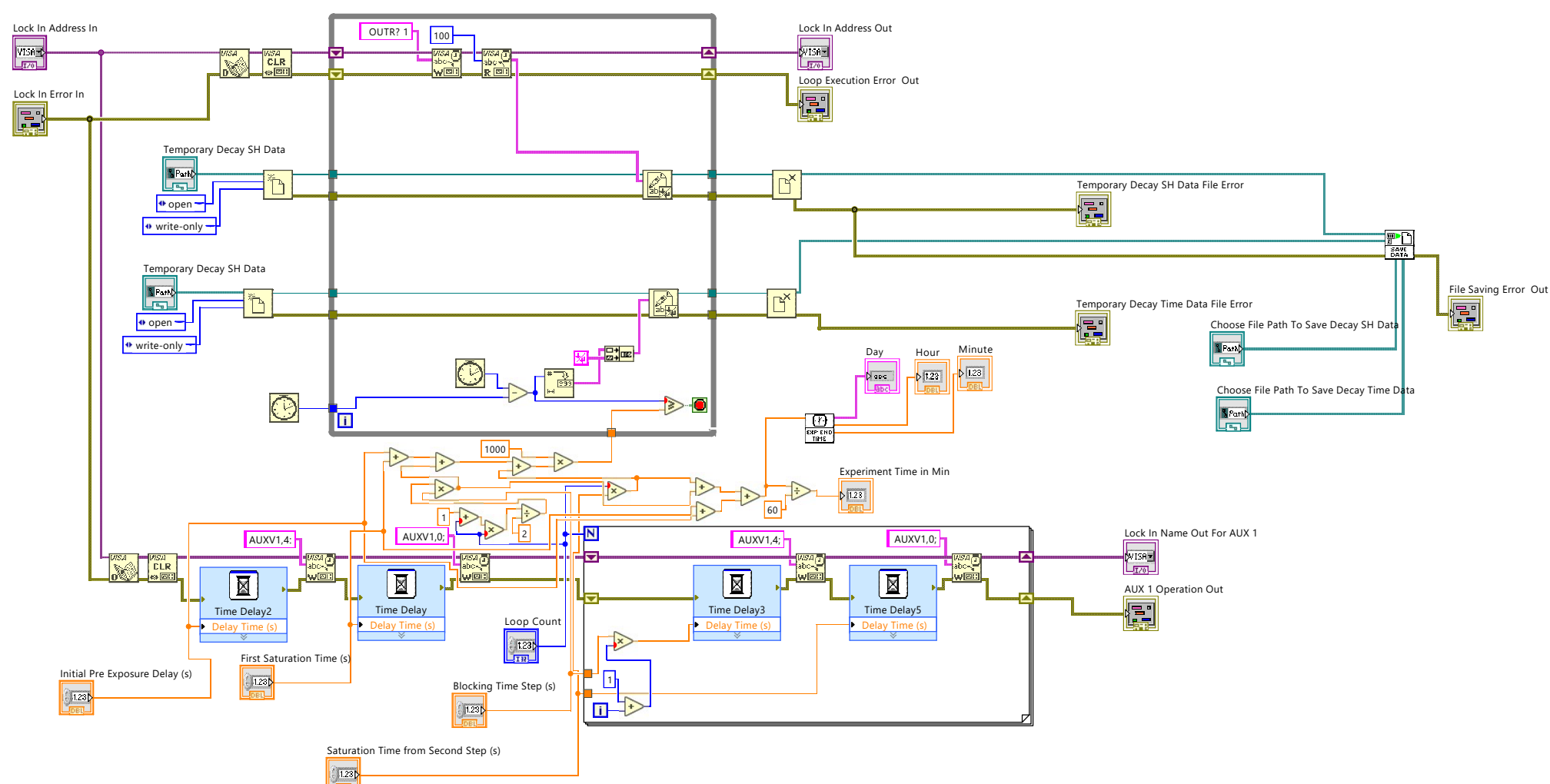
File Saving Error Out

status code

0

source

Block Diagram





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C:\Users\Second Harmonic Spec\Documents\Labview Training\Data Aquisition\Stanford Research 830\Utility\Time Dependent
Decay With SC10.vi
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Express VI Configuration Information