

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

Stanford Research 830.lvlib:Time Dependent Data Acquisition With SC10.vi



Front Panel

Time Dependent Second Harmonic Intensity Data Acquisition

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Program Info:
User interface for continuous 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. The AUX Out-1 of SR-830 is at a 5 volt (logical one) level for a duration of "Shutter Exposure Time". The pre exposure delay represents the delay time to enable AUX Out-1 to a logical one. 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 successful data acquisition cycle with the given parameters.

General I/O Segment for SR830 Lock In

Lock In Address In
GPIB0:8::INSTR

Lock In Address Out

Lock In Name Out For AUX 1

Lock In Error In
status code
0

Loop Execution Error Out
status code
0

AUX 1 Operation Out
status code
0

source

source

source

Dummy Files I/O

Choose file path to save R data
C:\Users\Temp R From Ch-1.txt

Choose file path to save Time data
C:\Users\Temp Time.txt

Data File Operation error out
status code
0

Time File Operation error out
status code
0

source

source

Timing Schedule

Shutter Exposure Time in Sec
4000

Pre Exposure Delay in Sec
50

Experiment End Time

Day

Hour
0

Minute
0

Choose Time Dependent Decay File I/O

Choose file path to save R data 2
C:\Users\SH Data-1.txt

Choose file path to save Time data 2
C:\Users\Time Data-1.txt

Block Diagram

Express VI Configuration Information