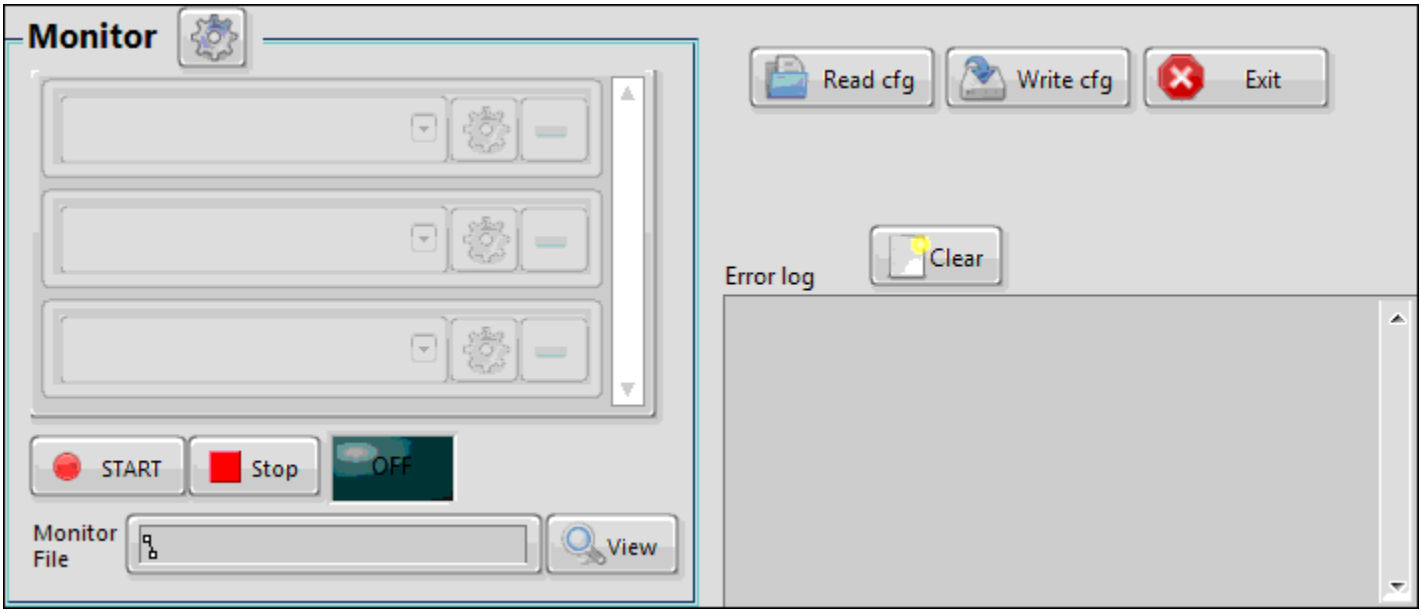
LabActor

Main control panel



Monitor

List of active measurement modules

Start

Start measurement

Stop

Stop measurement

View

View Monitor data file

Read cfg

Read application configuration from file

Write cfg

Write application configuration to file

Monitor configuration

Open Monitor configuration

Exit

Exit application

Clear log

Clear error log

Monitor Running

Measurement state

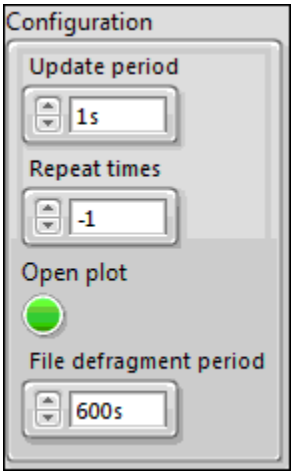
Monitor File

Latest Monitor data file

Error log

Monitor

Monitor configuration



Configuration

Monitor configuration

Update period

Request data collection this often

Repeat times

Complete this many measurements then stop (or keep going if <0)

Open plot

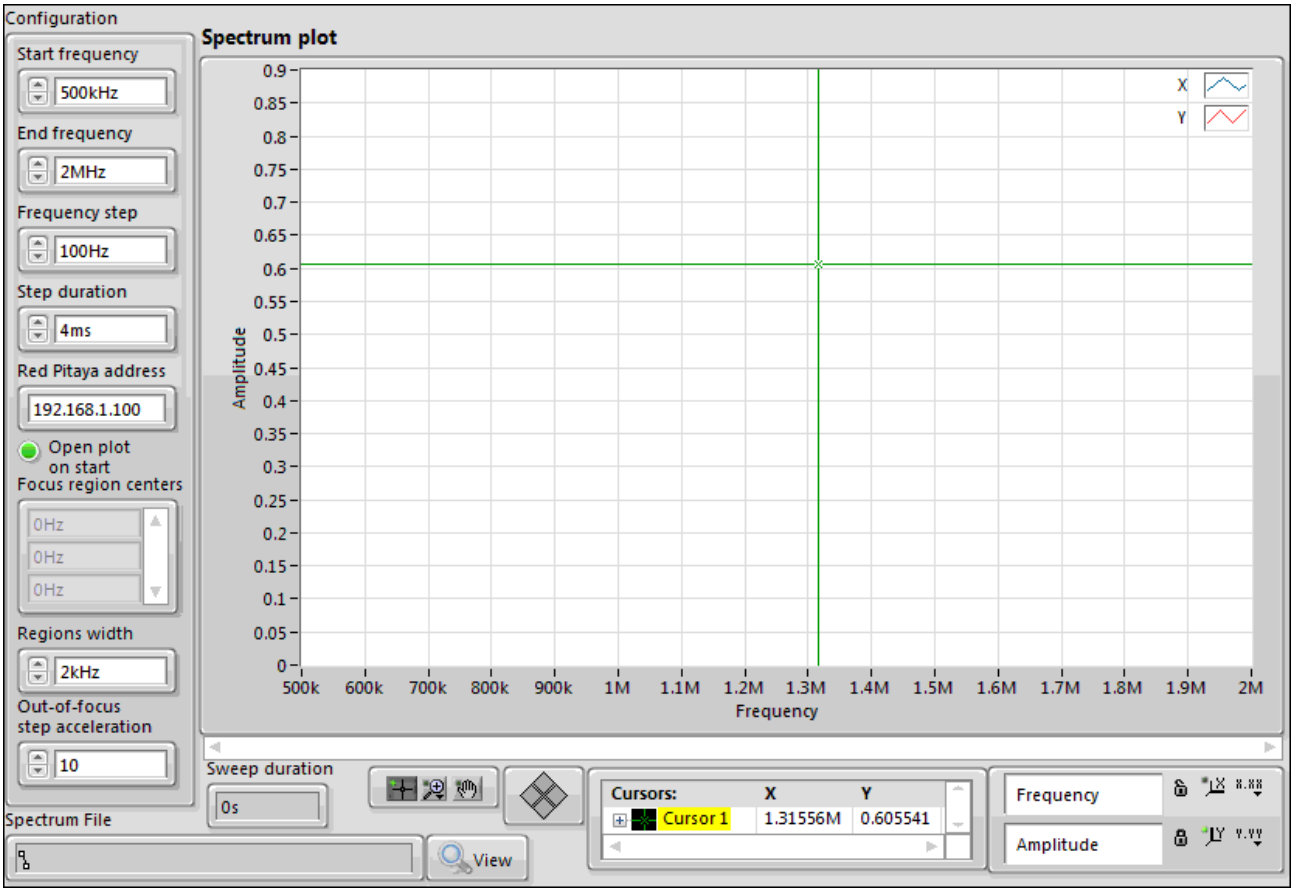
Open new Monitor data plot on start

File defragment period

Defragment Monitor data file this often when running

Spectrum Recorder

Spectrum Recorder module sweeps frequency and records complex response using Red Pitaya



Configuration

Spectrum recorder configuration

Start frequency

Spectrum starting frequency

End frequency

Spectrum ending frequency

Frequency step

Minimal frequency increment

Point interval

Interval between frequency increments

Address

Network address of Red Pitaya

Open plot

Open new spectrum plot window at the start of measurements

Focus region centers

If not empty, increase frequency steps outside listed regions

Regions width

Width of focus regions

Out-of-focus step acceleration

If > 1, increase frequency steps outside listed regions by this factor

View XY Plot

View latest spectrum file

Spectrum plot

Latest spectrum

Spectrum File

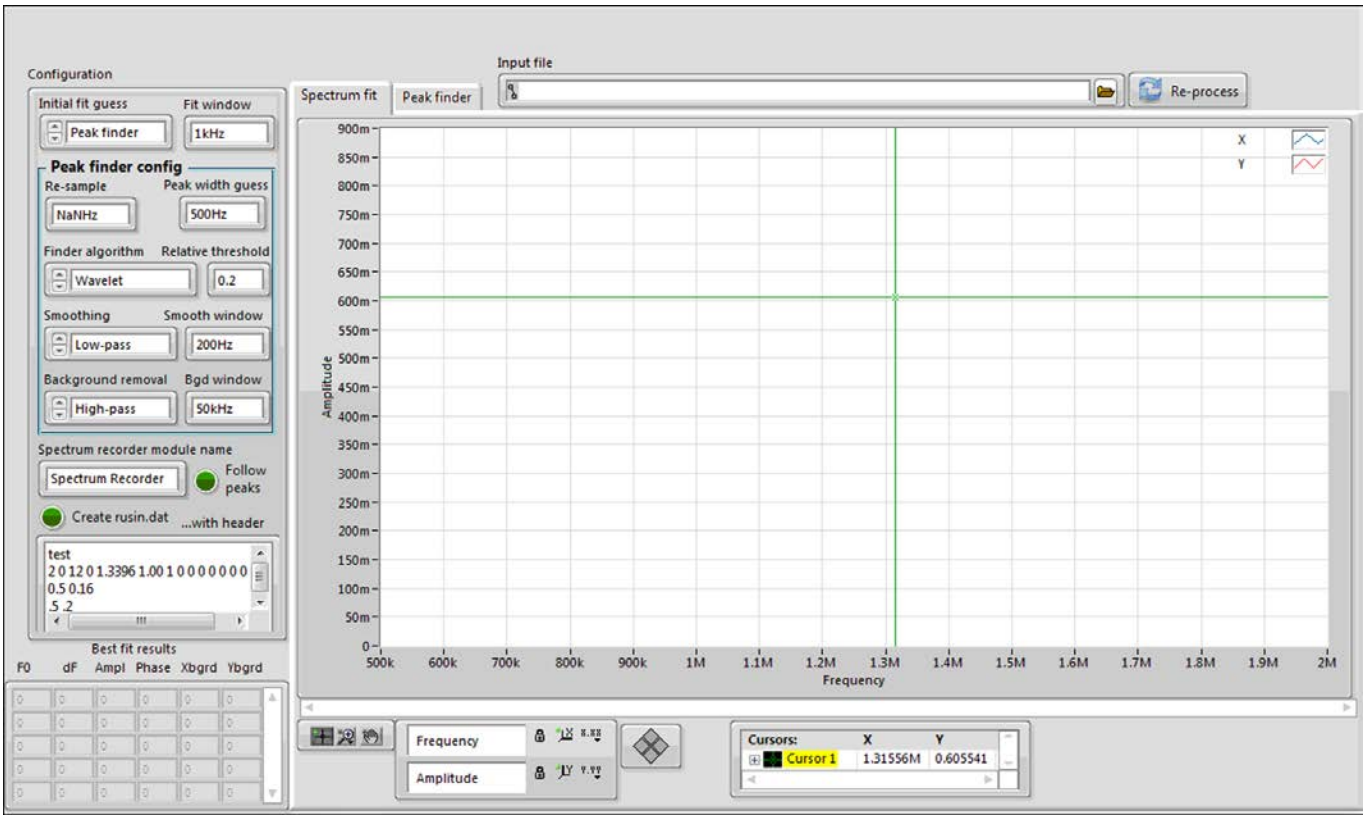
Latest spectrum file

Sweep duration

Estimated duration of single spectrum recording, sec

Line Detector

Line Detector module finds amplitude peaks in spectrum file and fits complex Lorentzian around peaks



Input file

Spectrum file to process (auto-updates when monitor is running)

Configuration

Line Detector configuration

Initial fit guess

Run peak finder to guess fit parameter or use Best fit results values

Fit window

Width of complex Lorentzian fit window around the peak

Re-sample

If > 0, re-sample signal to this frequency step


Peak width guess

Guess width for peak finder


Finder algorithm

Peak finder type


Background removal

Background removal type for peak finder


Smoothing

Smoothing type for peak finder


Smooth window

Smoothing amount for peak finder


Relative threshold

Smallest peak magnitude relative to spectrum maximum


Bgd window

Background removal width for peak finder


Spectrum recorder name

Name of the spectrum recorder module to watch


Follow peaks

Auto-update Spectrum recorder focus regions with best fit results


Create rusin.dat

Auto-create rusin.dat


...with header

Prepend rusin.dat with this header


Re-process

Re-process spectrum selected in the Input file window


Spectrum plot

Spectrum data with complex Lorentzian fit


Peak Plot

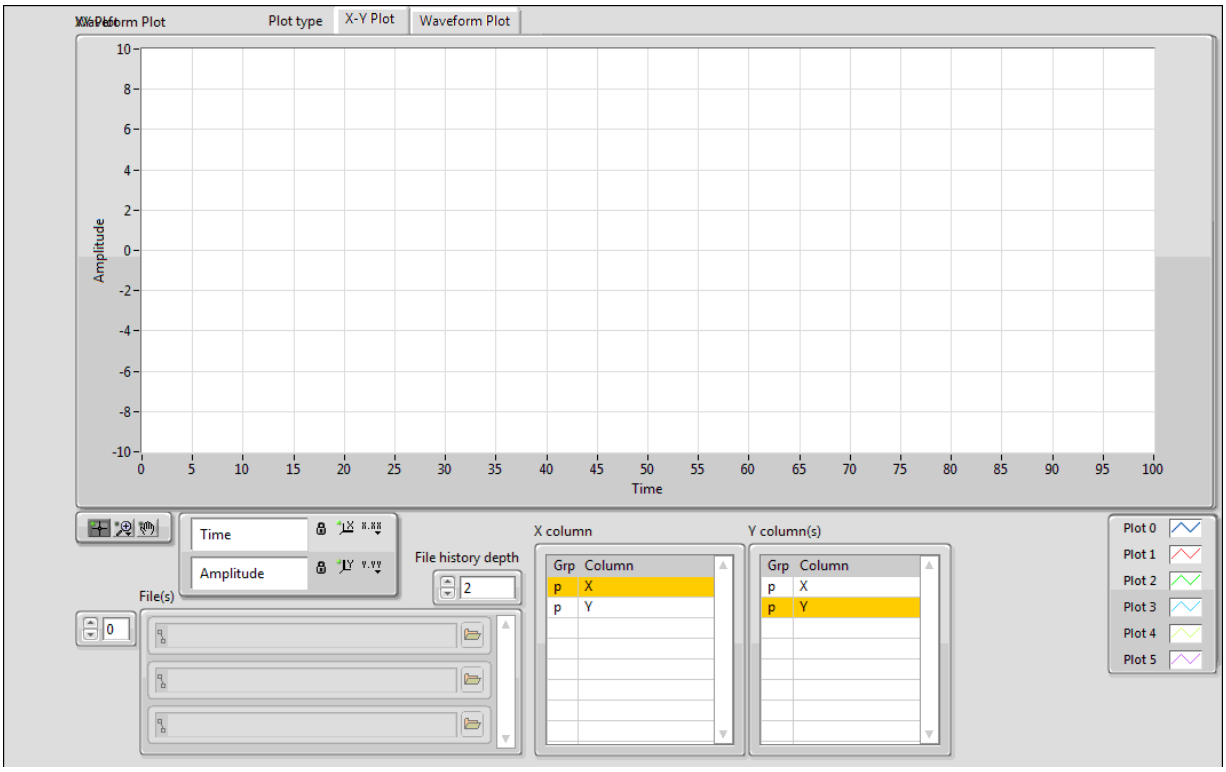
Filtered and smoothed magnitude with peaks found


Best fit results

Latest complex Lorentzian fit results. Manual edits allowed when used with "Last fit" guess mode

Data Plot Module

Plots listed TDMS data files



File(s)
List of files to plot. Click browse buttons on the right to add/replace

X column
Selects X-axis channel name. Avaliable names determined by top file on the lsit.

Y column(s)
Selects Y-axis channel name(s). Hold Ctrl or Shift for multi-channel selection. Avaliable names determined by top file on the lsit.

Plot type
Switch between X-Y and Waveform style plots

File history depth
Keep up to this many previous files in the list when new measurement file arrives