

Menu bar.

Measurements.
This pane shows current parameters of displayed signal.

Trackbars.
In Adjust mode left trackbar moves trace up and down. Right trackbar adjust trigger level. Bottom trackbar adjust horizontal position.

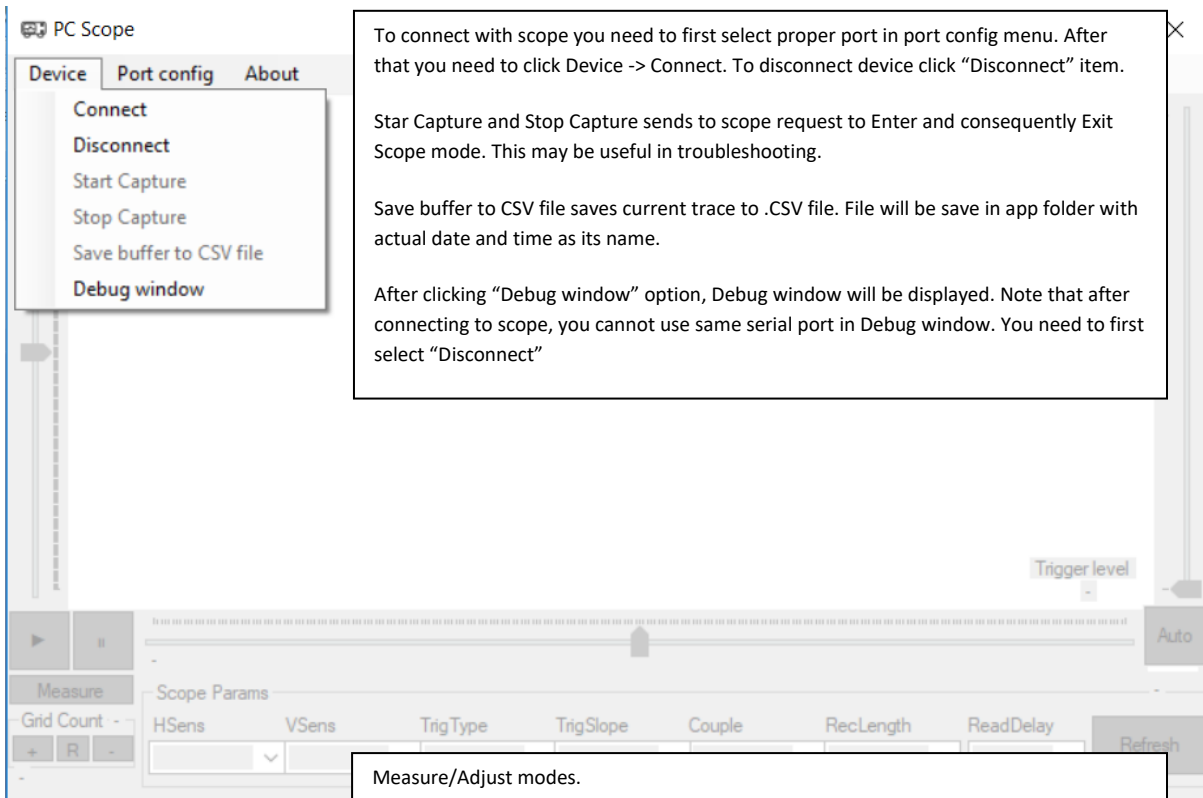
Play and Pause buttons.
Play button resume updating trace. Pause button pauses updating trace.

Current data in buffer count. Useful for indication is there any activity on serial port.

Grid adjustment buttons.
“+” button adds additional row in grid and “-” button remove that.
“R” button resets position to default (10 cells).
Double click “R” restores also horizontal trackbar position to default.

Refresh button re-display current settings. Useful in troubleshooting.
Auto button automatically set trigger.

Scope control comboboxes.
This group of controls is using for change and display scope parameters. ReadDelay is delay in ms between reading and writing to serial port. Raise to improve stability. Lower to improve response. Default is 100ms. Disabled combobox means that parameter is read only (cannot be changed by app)

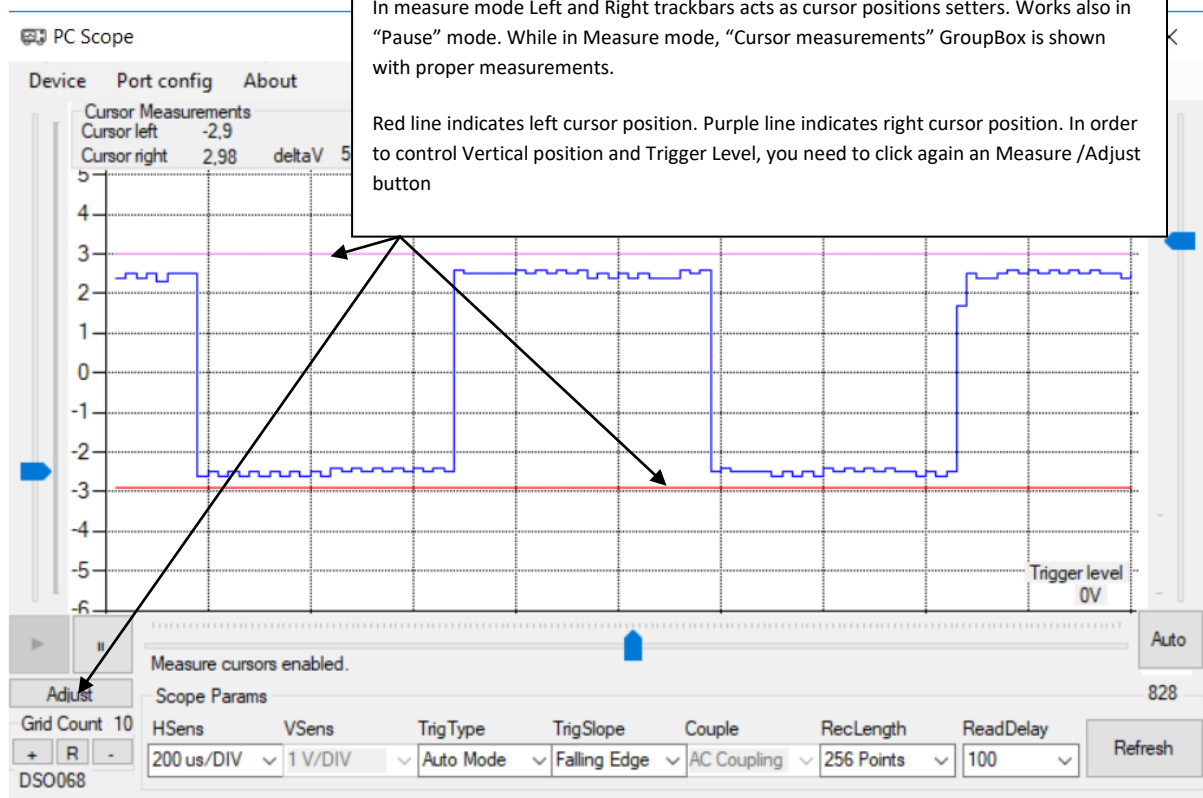


To connect with scope you need to first select proper port in port config menu. After that you need to click Device -> Connect. To disconnect device click "Disconnect" item.

Star Capture and Stop Capture sends to scope request to Enter and consequently Exit Scope mode. This may be useful in troubleshooting.

Save buffer to CSV file saves current trace to .CSV file. File will be save in app folder with actual date and time as its name.

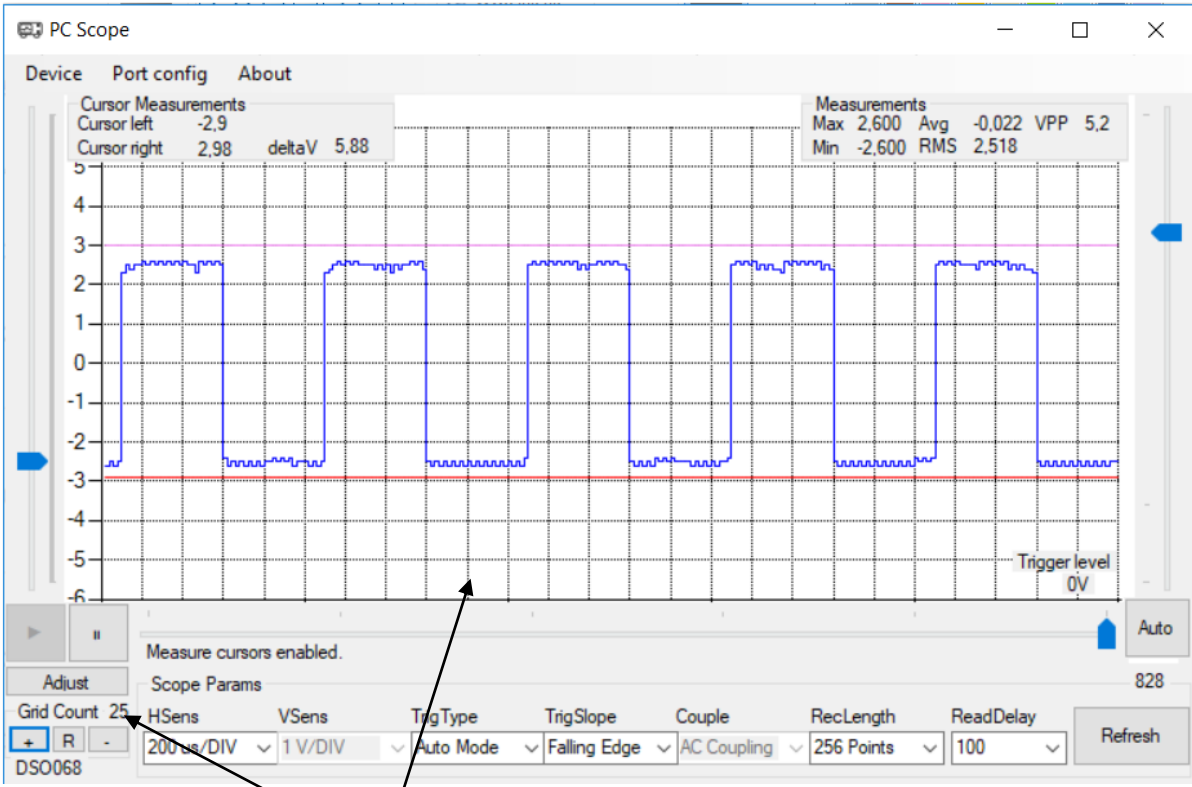
After clicking "Debug window" option, Debug window will be displayed. Note that after connecting to scope, you cannot use same serial port in Debug window. You need to first select "Disconnect"



Measure/Adjust modes.

In measure mode Left and Right trackbars acts as cursor positions setters. Works also in "Pause" mode. While in Measure mode, "Cursor measurements" GroupBox is shown with proper measurements.

Red line indicates left cursor position. Purple line indicates right cursor position. In order to control Vertical position and Trigger Level, you need to click again an Measure /Adjust button



Here you can see window with increased grid count to max available for this record length. You can also see that trackbars are in measurements mode.

Debug mode window.

This window is using for debug purposes. It allows app to force run in DSO068 and DSO112A modes. This may be useful if scope is not detected properly (better to use DSO068 mode first).

Command debug 1 group allow you to play with all command used in app to control scope and see immediatly response to this commands (in immediate window) after clicking "Send" button. After selecting desired command, in textbox you can see actual byte configuration (in Hex) of frame (bytes sending to serial port). You can modify values in this textbox and in result change data sended to serial port (remeber that values must be in hex format. Each byte must be separate with ","). In immediate output you can switch between hex and dec values with double click on this output. Checkboxes indicates if in immediate output any recognize output exists. For example, when you select EnterUSBScopeMode, in Immediate output you will expect to see ScopeReady data frame. And if this frame exist in buffer, checkbox "ScopeReady" will be checked.

Command debug 2 allows you to play with scope parameters. To set parameters to scope, you should select "CurrParamDataFrame" from Command debug 1 ComboBox. After that, Command debug 2 became enabled and you can select values in it. As usual after changing any values, you can see actual byte values of frame in textbox contained by Command debug 1. To send frame, click "Send" button.

You can also see actual scope config in Command debug 2. If you select "GetParameters" from Debug window 1 and in immediate output will be recognized CurrParamDataFrame, config will be displayed on Command debug 2.

The screenshot shows the DebugWindow application interface. It is divided into several sections:

- Serial config:** Includes fields for Port Name (COM4), Baud Rate (115200), and Read delay (ms) (50). There are buttons for "Run app in force DSO068 mode" and "Run app in force DSO112A mode".
- Command debug 1:** A dropdown menu shows "DSO_DataFrames.ScopeControlDataFrames.GetParameters". Below it is a text box containing "FE, C0, 4, 0, 21" and a "Send" button.
- Immediate output (double click to change between dec and hex):** A text box showing the hex output: "254, 192, 32, 0, 49, 7, 1, 0, 0, 7, 1, 0, 0, 9, 0, 129, 255, 0, 0, 128, 0, 50, 0, 129, 255, 0, 1, 128, 132, 40, 0, 2, 0".
- Detected response frame:** A set of checkboxes: CurrentConfig (unchecked), CurrentParams (checked), CommandAck (unchecked), DataBlock (unchecked), DataSample (unchecked), ScopeReady (unchecked), and ScopeModeExited (unchecked).
- Command debug 2:** Includes dropdowns for HSens (div10s), VSens (div1V), TrigType (Auto), TrigSlope (Falling), Couple (AC), RecLength (256), TrigPos (50), TrigLevel (128), and VertPos (0).
- Scope info (connect to scope and retrieve config):** A "Populate" button and a list of parameters: Scope model (Detected: DSO068, Readed: "0"IDSO068), No. of channels (1), Sensitivity changeable by host (False), Couple changeable by host (False), Min/max sensitivity setting (div5V/div10mV), Min/max couple setting (DC/GND), Min/max timebase setting (div10min/div500ns), Min/max trigger mode setting (Auto/Single), Min/max trigger slope setting (Falling/Rising), Min/max trigger level setting (0/255), Min/max trigger position (0/100), and Min/max record length (256/1024).