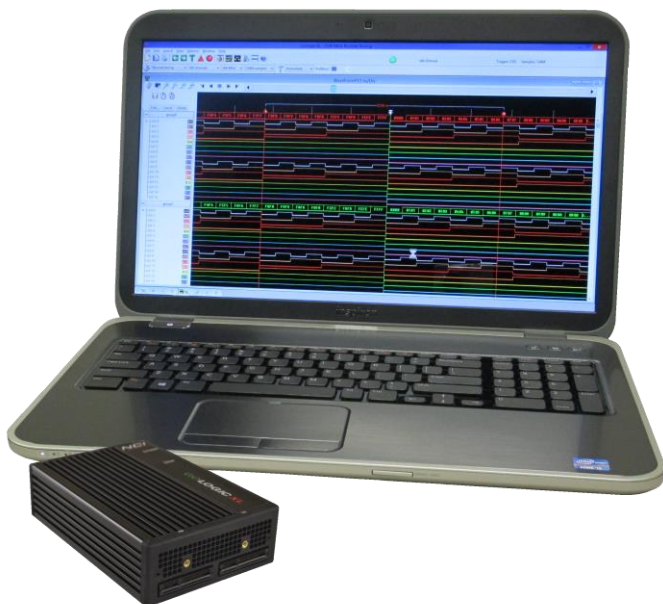


GoLogic™

advanced logic analyzer

Quick Start Guide

- This quick start guide covers installation of the GoLogic7™ software and using NCI logic analyzers.
- The complete HTML-based user's manual is available at nci-usa.com.





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Get Started

Installation

1

Run the automatic driver installer available on the NCI web site. The USB driver supports 32-bit and 64-bit versions of Windows. Verify the latest Microsoft updates and service packs are installed before installing the USB driver.

2

Connect the USB and power cables to complete the driver installation. The logic analyzer does not use USB power. So the power adapter must also be connected.

3

Install the latest GoLogic7™ software.

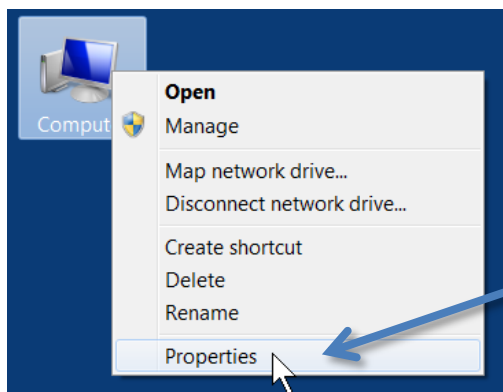


Do not block air flow through the logic analyzer while it is connected to power...

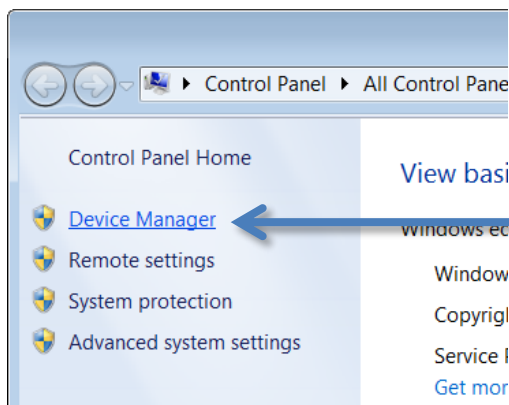


USB Install Problems

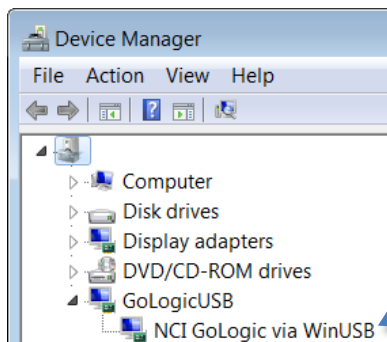
Use Device Manager to verify the device driver is loaded...



Right-click the “Computer” desktop icon and choose the “Properties” menu command.



Click Device Manager



The “NCI GoLogic via WinUSB” driver should be active.

Download and run the automatic driver installer if the device is not recognized or an older device driver is installed. The driver installer file can be found on the NCI web site.

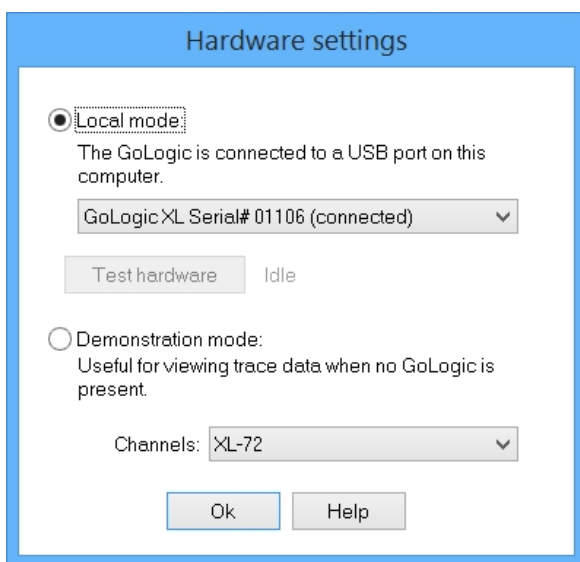
If Device Manager does not show the GoLogicUSB device and the device driver cannot be installed...

- Both power and USB cables must to connected to the logic analyzer. The logic analyzer does not use USB power.
- Windows detected a USB error. Possible causes are...
 1. The host computer's USB port is not working properly. Try other USB ports (on the same and other computers).
 2. The USB cable is damaged. Try a different USB cable.
 3. Remove any USB hubs, repeaters, or extension cables between the logic analyzer and the computer.
- The logic analyzer needs repair.

Hardware Settings



The "GoLogic Device" toolbar button in the Setup ToolBar displays the "Hardware Settings" dialog box...



The GoLogic7™ software supports local and demonstration modes.

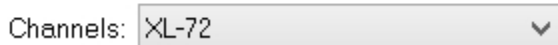
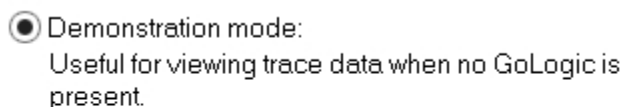


The power and USB cables must be connected before Windows can detect the device.

Once the software detects the logic analyzer, The “Test hardware” button can be used to determine if the device is behaving properly...



The "Demonstration mode" option tells the software to ignore the hardware. Select this option if you need to view trace data while no device is connected. Demo mode avoids warnings that the hardware is missing...



The Channels option allows demo mode to emulate different models...



Probes

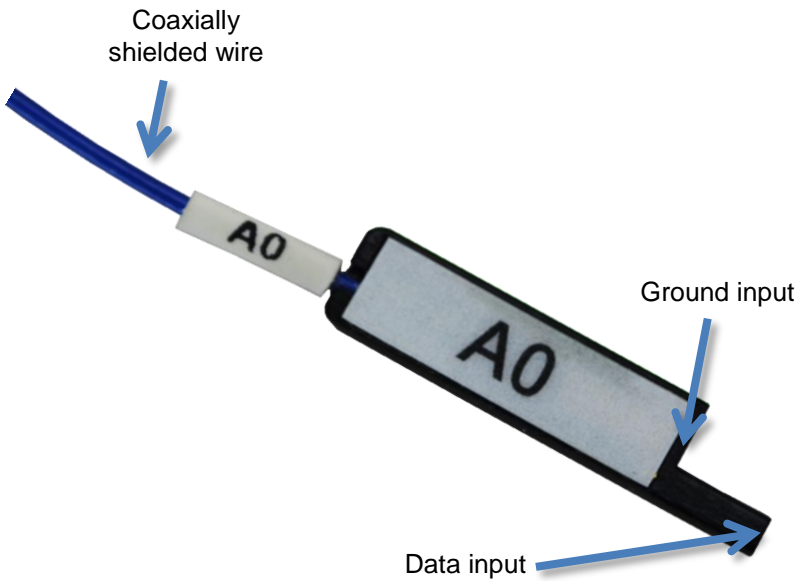
Front Panel

Insert the probe cables into the A/B and C/D connectors on the front panel. Secure each probe with the captured screw...



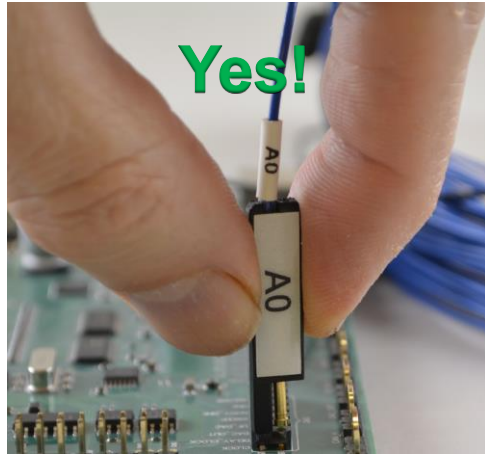
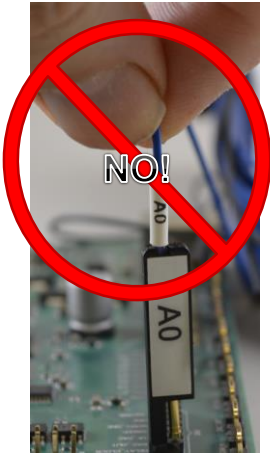
General-Purpose Leadset

Each channel has a “data” and “ground” input. Connecting each ground input shields the data signal...





Do not disconnect lead tips by pulling the wires!
Grab the lead tip body to disconnect the lead tips...



Connect

The channel are connected to your signals using various methods...



pushed directly onto a pin with ground extender



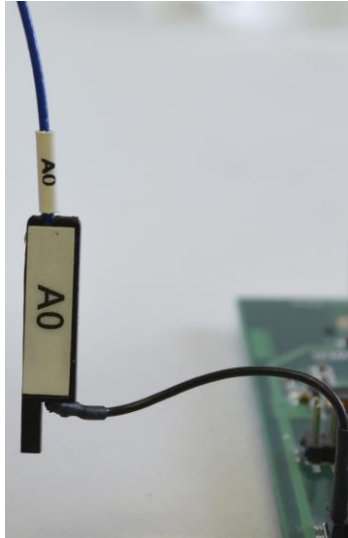
pushed directly onto a pin with separate ground channel

Ground Options

Each channel can be individually grounded via two adapters...



ground extender pin



ground wire

Finally, the General-Purpose Leadset also provides separate ground channels. At least one ground channel should always be connected to the test circuit's ground...



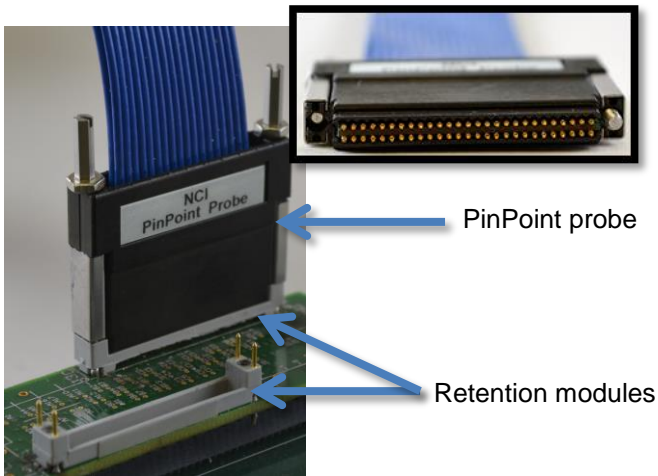
ground channels



Connect at least one ground channel (black wire) to the test circuit's ground. More ground connections are better. If signal quality issues exist, also connect every 4th channel's individual ground.

PinPoint™ Probes

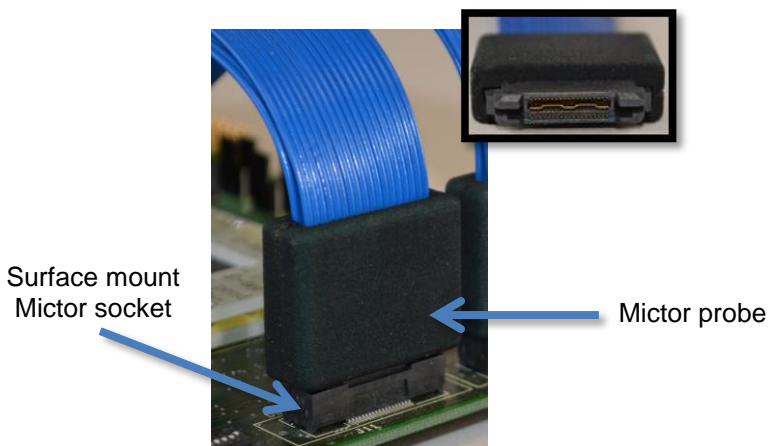
NCI Pinpoint™ probes are pin compatible with similar probes from Keysight and Tektronix.



Visit nci-usa.com for a layout diagram of the PinPoint™ probe for your test circuit.

Mictor Probes

NCI Mictor probes are pin compatible with similar probes from Keysight and Tektronix.



Visit nci-usa.com for a layout diagram of the female Mictor connector on the test circuit.

Configure the Logic Analyzer

Setup ToolBar

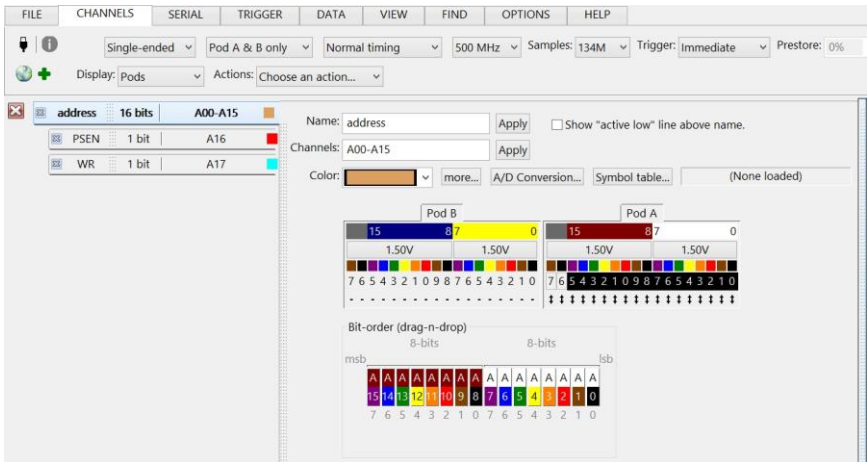
The Setup ToolBar at the program top contains the most used setup values...

	Device Setup
	Setup Summary
Single-ended ▾	Input Mode
All (72 channels) ▾	Active Channels
Normal timing ▾	Sample Mode
1 GHz ▾	Sample Rate
Samples: 268M ▾	Sample Depth
Trigger: Simple ▾	TriggerForm
Prestore: 20% ▾	PreStore
Idle	Start / Stop / Cancel

Visit nci-usa.com for details on all setup values.

Channels Tab

Click the Channels Tab to display the Channels ToolBar and Channels Edit view.



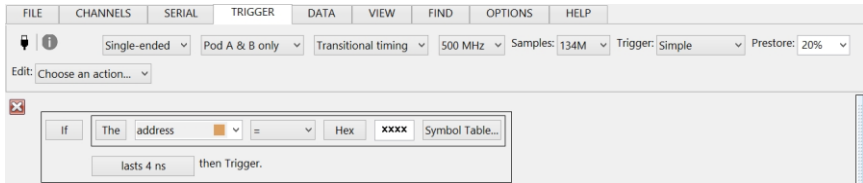
Group Rules

- An unlimited number of groups can be defined.
- One group always exists in the Channels Edit view. The first group can be empty, but it cannot be deleted.
- The group name can have up to 127 characters.
- Each group can contain up to 64 channels.
- Empty groups contain no channels. Empty groups cannot be used in the TriggerForms and are not displayed in the WaveForm or Numeric views. Deleting empty channel groups is strongly recommend.
- The channels can use any bit-order within a group. For example, channel A00 can be the most significant bit in a group while channel B15 can be the least significant bit.
- Channels can be used in multiple groups. However, this practice is not recommended because it can cause conflicts in the TriggerForms.
- Groups containing Virtual Channels cannot be used in the TriggerForms, but can be used to view trace data.

Visit nci-usa.com for details on all Channels Tab features.

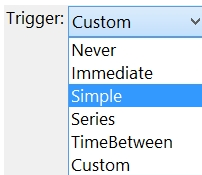
Trigger Tab

Click the Trigger Tab to display the Trigger ToolBar and TriggerForm Edit view.



The "trigger" is an event which automatically stops the logic analyzer. The trigger event which stops the logic analyzer is normally a specific error which must be diagnosed.

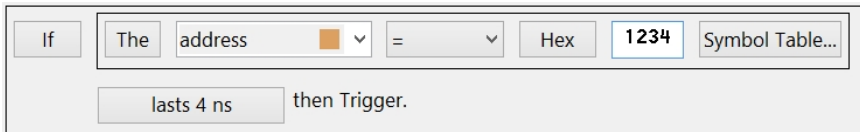
The Setup ToolBar's TriggerForm list box defines the active TriggerForm displayed in the TriggerForm Edit view.



The Setup ToolBar's PreStore edit box defines the trigger's location in the captured trace data.



The trigger events are defined in the TriggerForm Edit view...



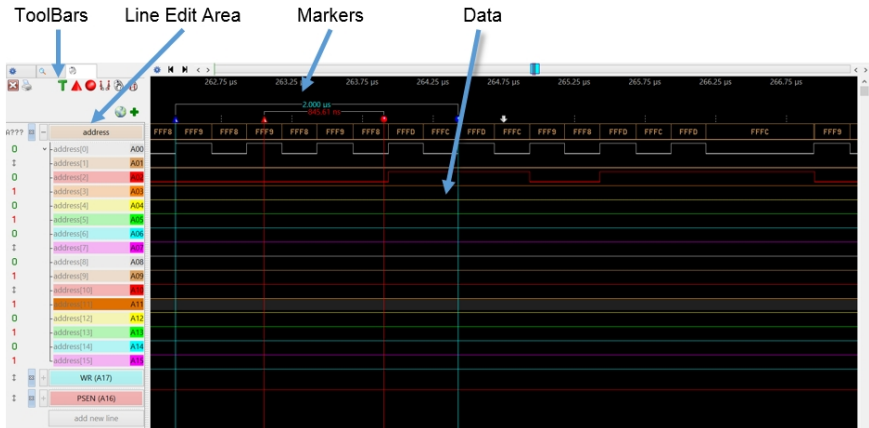
Visit nci-usa.com for details on all trigger features.

WaveForm View

The View Tab  toolbar button adds a new WaveForm view.

Areas

The WaveForm view displays the captured trace data as timing diagrams and graphs. This view also displays analog signals from a digital storage oscilloscope.



Click the  button in the upper-left corner to close the view.

ToolBars

The local ToolBars are in the upper-left corner of the WaveForm view. The local tabs select the Options, Zoom, and Mouse ToolBars.



Mouse ToolBar



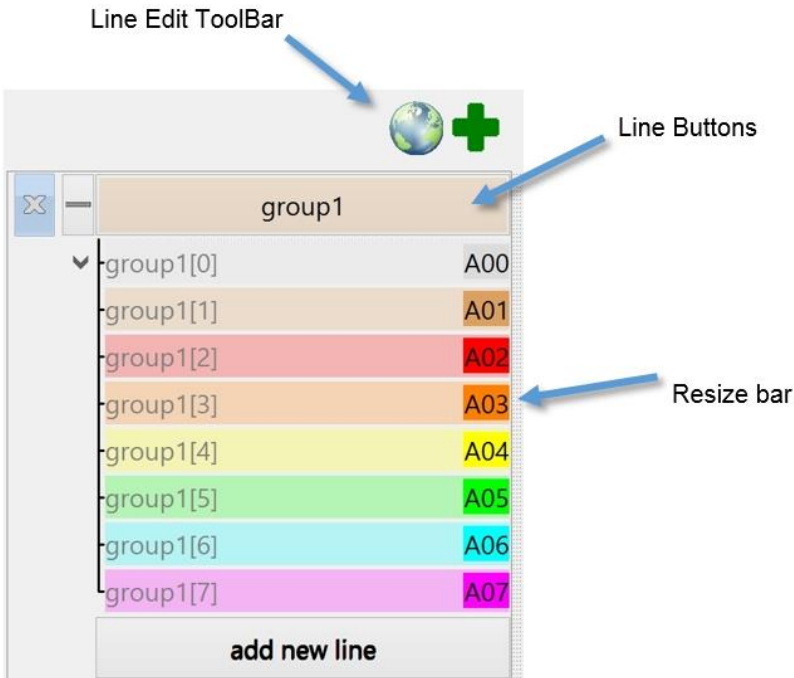
Zoom ToolBar



Options ToolBar

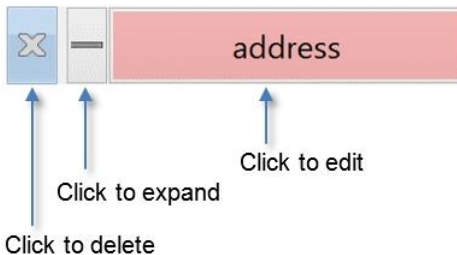
Line Edit Area

The Line Edit Area is on the left side of the WaveForm view. The Line Edit Area is used to configure each waveform line.



If a line's edit button is blank, the line is empty and no data is displayed on the line. Otherwise, the button describes the channel group, serial bus, or scope channel displayed on the line.

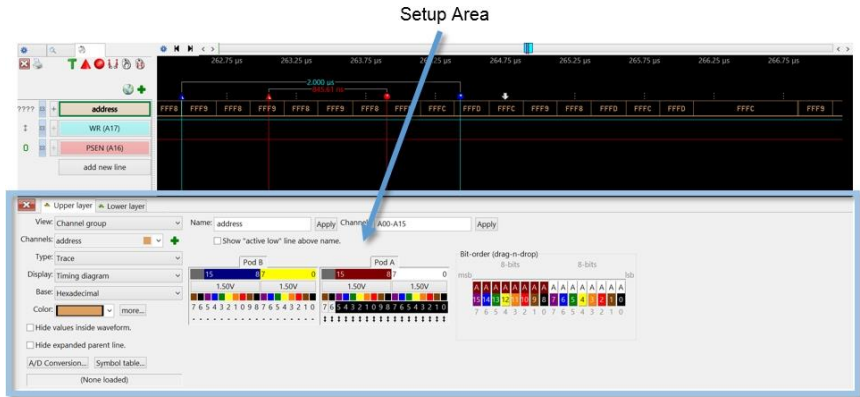
Click on any line edit button to display the Setup Area. Each waveform line has the following buttons...



Visit nci-usa.com for details on arranging and resizing waveform lines.


Setup Area

The Setup Area is displayed when any Line Edit Button is clicked.



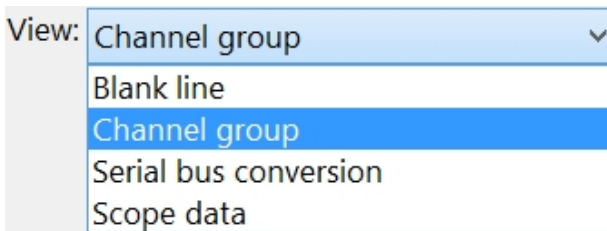
All expanded waveform lines are automatically collapsed while the Setup Area is visible.

The Expand Line buttons and Data Area are disabled while the Setup Area is visible.

Click the  button in the upper-left corner of the setup area to hide the controls and view the trace data.

When the Setup Area is closed, all automatically collapsed lines are re-expanded. The Data Area is enabled for scrolling and moving the markers.

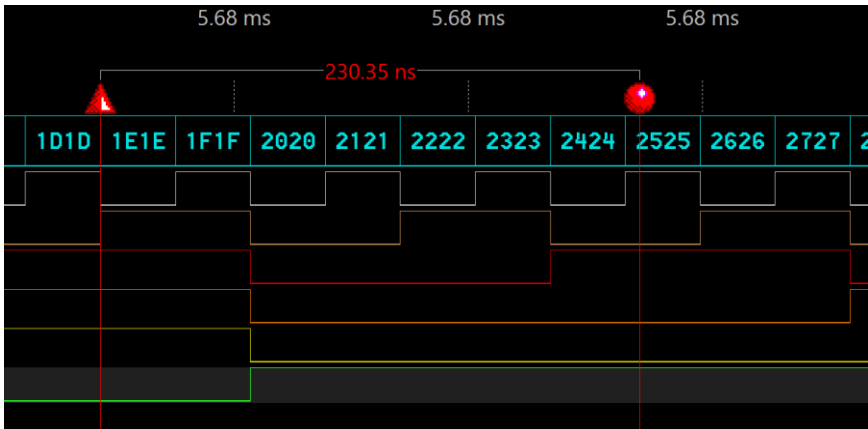
The Setup Area's View list defines the line's type. All other controls in the Setup Area are affected by the selected view.



Visit nci-usa.com for details on editing waveform lines.

Data Area

The data area displays the trace, reference, and scope data.

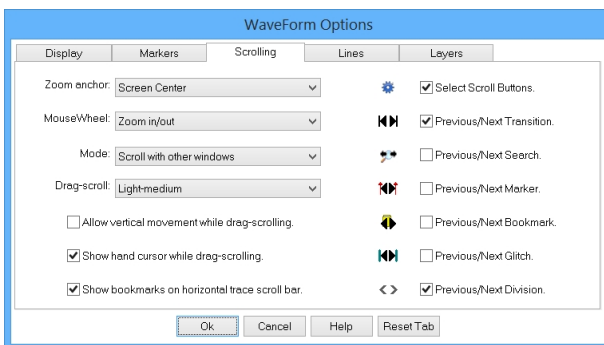


Quick-click the left or right mouse button on the data to move the active markers.

Move the mouse over any marker line to drag-n-drop any marker's position.

Click-n-hold the left mouse button to drag the data horizontally.

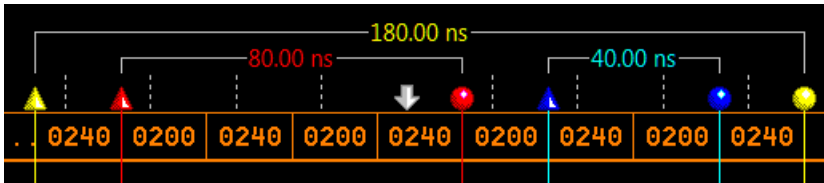
Finally, the left mouse button can grab-n-throw the data horizontally. The behavior of this “inertia” scrolling can be customized in the local window options.




Visit nci-usa.com for details on all WaveForm view features.

Markers

The marker area shows the measurement values for each pair of moveable markers...



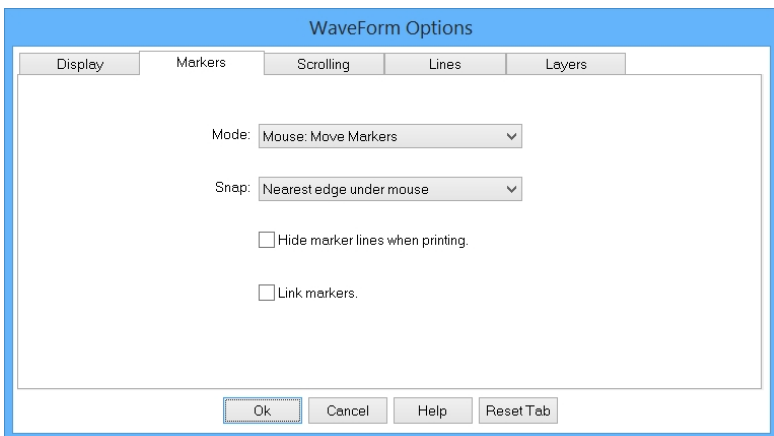
The local Mouse ToolBar's  button selects the active marker-pair. Three pairs of markers are available: red, blue, and yellow.

The “triangle icon” marker in each pair is moved by clicking the left mouse button.

The “circle icon” marker in each pair is moved by clicking the right mouse button.

Move the mouse over either marker line to drag-n-drop the marker position.

By default, the markers “snap” to the nearest edge under the mouse. The marker-snap behavior can be customized in the local window options.



Visit nci-usa.com for details on all WaveForm view features.

Keyboard and Mouse

General

Key	Description
F1	Help
F3	Find Next
Shift+F3	Find Previous
PgUp	Scroll Previous
PgDown	Scroll Next
Left Arrow	Scroll Left
Right Arrow	Scroll Right
Up Arrow	Scroll Up
Down Arrow	Scroll Down

WaveForm view

Key	Description
"+"	Zoom In
"-"	Zoom Out

Mouse

Key	Description
Left-Clk	Move Marker #1
Right-Clk	Move Marker #2
Wheel	Zoom (WaveForm view)
Wheel	Scroll (non-WaveForm)

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