![Chipsmall logo]

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

LogicStudio™
16 Channel Logic Analyzer

Key Features

- **100 MHz, 1 GS/s, 16 channels**

- **3.75 ns pulse capture**

- **I^{2}C, SPI, UART protocol analysis**

- **Display live analog waveforms from oscilloscope on PC**

- **Powerful, flexible triggering**

- **Easy documentation and sharing tools**

Logic analyzers are known to be slow, complicated and expensive but LogicStudio™ changes all this by delivering a powerful feature set, high-performance hardware and an intuitive point and click user-interface. With timing cursors, history mode, I^{2}C, SPI and UART decoding, powerful triggering and simple navigation the PC is transformed in to an all-in-one debug machine.

Intuitive User Interface for Efficient Debug

LogicStudio software provides an intuitive interface for capturing, analyzing and triggering waveforms. All channels, settings and controls can be accessed from the main screen. In addition, complex trigger conditions conditions can be created with a simple mouse click. The user-interface works with basic mouse operations. To pan the waveforms simply click and drag, use the mouse wheel to zoom in, or scan the waveforms with the magnification tool to get a great view of the details. With all the debug tools accessible from the main screen, debugging is simple, efficient and just one mouse click away.

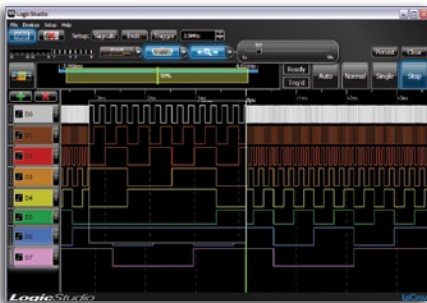### Turn the PC into a Mixed Signal Oscilloscope

LogicStudio provides even more functionality when an oscilloscope is connected to the PC. Analog waveforms from the oscilloscope are displayed alongside the digital and serial waveforms captured by LogicStudio. LogicStudio is compatible with ten popular oscilloscopes series covering bandwidths from 40 MHz up to 1 GHz.

EASY TO USE DEBUG TOOLS

Digital, Serial, Analog

Connect Teledyne LeCroy, Tektronix or Agilent oscilloscope to the same PC as the LogicStudio 16 and turn the PC into a Mixed Signal Oscilloscope displaying digital, serial and analog signals simultaneously allowing you to get a full picture of your embedded system.
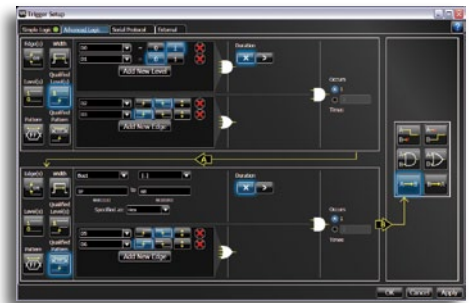

Waveform Magnifier

Get a better view of the waveforms by passing over them with the magnifier, scroll the mouse wheel to zoom in for an even closer look. The magnifier shows waveform details in a long capture without having to change the horizontal scale.
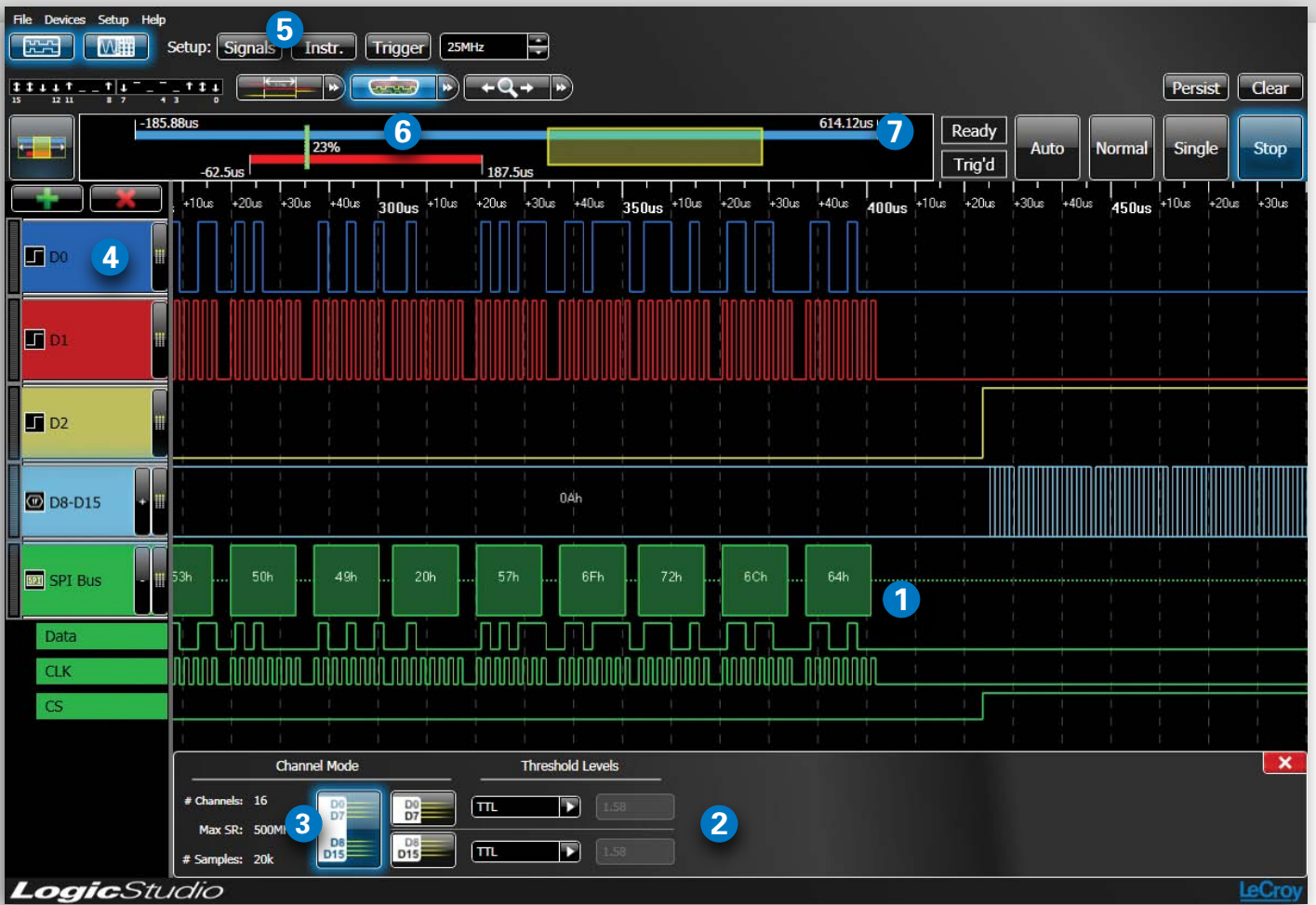
Timing Cursors

Quickly measure the time between transitions on a single line, across digital lines or from a digital line to an analog waveform. Snap the cursors directly to the waveform edge for precise measurements.

Powerful Triggering

For difficult problems a simple edge or logic level trigger is not enough. LogicStudio advanced triggering provides an environment for creating powerful combinations of edge, logic level, parallel bus and serial bus triggers to isolate difficult problems.

POINT, CLICK, DEBUG

LogicStudio is fast! Waveforms update quickly and panning or zooming is extremely responsive. The software interface is modern and intuitive creating a new logic analyzer experience. LogicStudio is easy to operate with simple left-click and right-click controls plus all buttons are on the main screen, no complicated menus to navigate.

1. Serial Data Protocol Decode and Trigger
Decode I2C, SPI and UART serial data busses and view the appropriate clock and data signals directly below the protocol message. Isolate specific data patterns or addresses by triggering directly on that data.

2. Logic Thresholds
Choose from standard TTL and CMOS levels or create a custom level from 0–7 V.

3. Interleaving for Higher Performance
Use all 16 channels at 500 MS/s or 8 channels at 1 GS/s for more timing resolution.

4. Add/Remove/Hide Waveforms
One click to add a new waveform, one click to remove it, right-click to hide it for later viewing.

5. Built-in Help and Support
Not sure how to use a certain tool, mouse over for tool tips or access the manual from the Help menu.

6. History
Did something interesting or surprising just flash across the screen, stop the trigger and flip through a history of the previous 100 acquisitions.

7. Waveform Display and Scaling
View waveforms stacked on top of each other or overlay one waveform on top of another. Change the vertical scale by dragging the bottom edge.

SPECIFICATIONS AND ORDERING INFORMATION

Specifications

Input Channels	16
Sample Rate	1 GS/s on 8 Ch, 500 MS/s on 16 Ch
Minimum Detectable Pulse Width	3.75 ns
Memory	40 kpts on 8 Ch, 20 kpts on 16 Ch
Trigger Types	Edge, pattern, pulse width, pattern width. I^{2}C, SPI, UART
Threshold Selections	TTL, CMOS (1.8 V, 2.5 V, 3.3 V, 5 V), user defined
User-defined Threshold Range	0–7 V
Maximum Survivable Input Voltage	±40 VDC
Threshold Accuracy	±150 mV + 5% of threshold
Maximum Input Dynamic Range	40 V$_{p-p}$
Minimum Voltage Swing	500 mV$_{p-p}$
Input Impedance	150 kΩ parallel 12 pF
Channel-to-Channel Skew	1 ns typical
Trigger Resolution	500 MS/s
Host Port	USB 2.0, bus-powered peripheral
Size	3.2" x 4.9" x 1.1" (81.3 mm x 124.5 mm x 28.0 mm)

Oscilloscope Compatibility

Manufacturer	Oscilloscope
Teledyne LeCroy	WaveJet 300A, WaveAce 1000, WaveAce 2000
Tektronix	TDS1000B, TDS2000B, TDS2000C, TDS3000C, DPO/MSO2000, DPO/MSO3000, DPO/MSO4000
Agilent	DSO5000A, DSO/MSO6000A, DSO/MSO7000A, DSO/MSO7000B

Ordering Information

Product Description	Product Code
16 Channel, 1 GS/s, 100 MHz USB Logic Analyzer	LogicStudio 16

Included with Standard Configuration

LogicStudio 16
Digital Leadset (16 channels, 4 ground)
Micro Hooks (Set of 20 grippers)
USB Cable
BNC Cable
Welcome Card

Customer Service

Teledyne LeCroy products are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, LogicStudio is fully warranted for one year.

This warranty includes:

• No charge for return shipping

• Long-term 7-year support

• Upgrade to latest software at no charge

TELEDYNE LECROY
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1-800-5-LeCroy
teledynelecroy.com

**Local sales offices are located throughout the world.
Visit our website to find the most convenient location.**

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