

# Sniff Out Trouble FAST!



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**frontline**™

## Serialtest® Async Serial Com Protocol Analyzer

**NOW DECODES  
MODBUS**

# RS-232/422/485 Sniffer

### Troubleshoot Serial Data Communications Live

- High-speed, real-time data analysis.
- Use on RS-232/422/485 with your serial ports (built-in, PCMCIA and PCI).
- Modbus RTU & ASCII decoders included for enhanced support of industrial applications.
- Also decodes: Async PPP, SLIP, TCP/IP.
- View & capture live data, control signals and error conditions: Display, decode, & filter; Errors shown in red.

### Trusted Worldwide by:

- Field Engineers
- Communications Specialists
- Software & Hardware Developers
- Network Supervisors

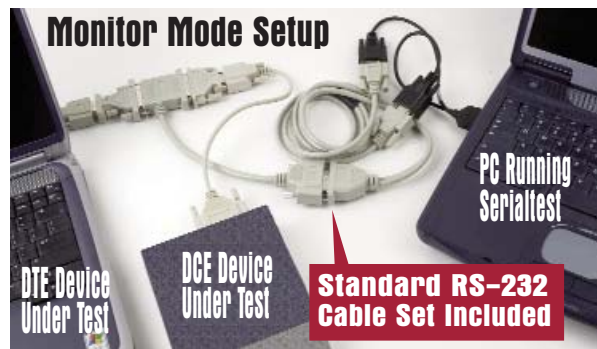
### Isolate Problems Fast in Three Powerful Modes

- Monitor, Source, & Spy (see below)
- Statistics Display summarizes DTE and DCE totals for bytes, frames, events, errors, characters and frames per second, utilization, and frame sizes.
- Analyze control signals using Signal Display and live Breakout Box.
- View raw Hex Data using the Event Display window.
- Work externally or from inside your PC to catch hard-to-find bugs.
- Store data in RAM or to any size disk file on the same PC running Serialtest. Or use a second PC.
- Use the RS-232 cable set. Optional hardware available.
- Create your own decodes with time-tested FrameDecoder® tool.

More Features on Back

## Designed by Engineers for Engineers

Once you've used Serialtest, you will never want to work on another serial communication problem without it. Serialtest will help you quickly and easily find and fix even the most obscure problems and save countless hours of troubleshooting time. It is portable and easy-to-use with power and flexibility. No matter what the industry, Serialtest is an indispensable troubleshooting tool.



Passively monitor serial communications by tapping the line using Frontline's custom cable set. A source cable is also included for transmitting signals directly to DTE & DCE devices.

## Time-tested Frame Display Drills Down to Show Errors in Finest Detail

**1** The **Summary Pane** displays a one line high-level overview of each data frame/message. Click on any line to reveal detail in multiple panes below.

**2** The **Decode Pane** shows comprehensive layered decodes of each frame with concise descriptions.

**3** The **Logical Data Panes** show data in binary, hex, & character format.

The **Event Display** shows raw hex data.

View control signals in the **Breakout Box**.

## View, Capture, & Decode In Three Comprehensive Operating Modes

### FrameDecoder

FrameDecoder comes standard to build your own custom decodes. A \$500 value! Part of the Frontline Edge.

### Monitor Mode

Shows exactly what is flowing between ANY two serial devices (bytes, control signals, and protocols). View live, capture, decode, filter & find errors fast.

### Source Mode

Transmit DTE or DCE data in user-defined data strings to interactively test any serial device with the included customized source cable.

### Spy Mode

Monitors internal serial port communications. Run and troubleshoot your datacom application on a single PC. No need for a second PC.

## Sync Communications Problems?



Analyze synchronous serial data with our **Serialtest ComProbe** solution. This specialized software and hardware monitors synchronous circuits and supports protocols such as Monosync, Bisync, HDLC, SDLC, X.25, SNA, and Frame Relay. Find and fix synchronous serial comm problems-FAST! Ask about it today.

## The Frontline Edge



### Outstanding Technical Support

Whether you need help using a basic FTS product feature, want Frontline's explanation of the protocol stack, or have a question on using FrameDecoder to write a decode, you can be assured of a response that is friendly, thorough, and timely.

### Trusted Expertise & Unequaled Protocol Analysis Experience

Frontline is a proven leader in the protocol analyzer industry. Since 1985 we have developed a host of technology sniffing tools and shipped over 40,000 units around the globe. Serialtest is the foundation of our growing family of Frontline Test System® (FTS®) protocol analyzers, each of which incorporates a time-tested user interface and the FrameDecoder protocol-decoding engine. FTS analyzers support serial, Ethernet, Bluetooth®, USB, ZigBee™ and numerous industrial protocols and buses such as Modbus, DH+, and DeviceNet.

### Guarantee & Free Premium Maintenance

Use Serialtest for up to 30 days. If you are not convinced it is the best data analyzer for your application, you may return the product for a full refund. One year of Premium Maintenance is included. Serial Data moves fast—with Frontline products so can you!



## Need More Power? Get Control!



If you need more than Modbus decodes in your serial analyzer, you need to step up to our **FTS4Control** industrial communications software product. Supports serial, Ethernet and industrial devices and networks with DF1, PCCC, CSP, EtherNet/IP, DH+, DH-485, DeviceNet, CAN2.0A, Modbus, BSAP, ROC/ROC+, DNP3, IEC-60870 and soon ControlNet.

## Serialtest: Built for Troubleshooting

<b>Data Interfaces</b>	RS-232/422/485/449/530 (Some require extra hardware)
<b>Data Rates</b>	Up to 921.6K bps, including support for user-defined non-standard data rates
<b>Operating Modes</b>	Monitor, Source, & Spy
<b>Communication Modes</b>	Asynchronous Only
<b>Protocols</b>	Modbus RTU, Modbus ASCII, PPP, SLIP, TCP/IP, user customized protocol stack, and custom decodes
<b>Flow Control</b>	Software (including user-defined XON/XOFF characters), Hardware (RTS/CTS & DTR/DSR)
<b>Character Sets</b>	ASCII, 7-bit ASCII, EBCDIC, Baudot
<b>Parity</b>	None, Even, Odd, Mark, Space
<b>Word Length</b>	5, 6, 7, 8 bits
<b>Stop Bits</b>	1, 1.5, 2



### More Display Features & Benefits

- Control Signal Display shows live Breakout Box including timing diagrams and counters. Shows captured control signal transitions in relation to captured data bytes and packets.
- Analyze data as it's being captured using the **Event Display** and **Frame Display** windows.
- Detailed frame/packet level information.** View and compare multiple frames side-by-side.
- Byte-level information displayed** in split-line DTE over DCE or mixed format.
- Set filters on specific packet fields**, including node addresses and frame type.
- Save an unlimited number of configurations.**
- Search by timestamp, control signals, errors, and patterns.**

### Data Transmission & Timestamp

- Transmit strings** or files once, multiple times, or continuously to hunt down errors.
- Insert delays by millisecond**, second, or minute increments.
- Set control leads on or off.**
- Timestamp resolution to 1 microsecond.**
- View automatic calculation of delta time and effective data rate.**

We're ready to answer any questions or take your order. Buy direct on-line at [www.fte.com](http://www.fte.com) or in the U.S. & Canada, call 1-800-359-8570 x 211. Your satisfaction is guaranteed!

## Selected Serialtest Customer List

### Petroleum

ExxonMobil, Chevron, Gilbarco

### Defense and Aerospace

Lockheed Martin, Boeing, Northrup Grumman

### OEMs

Rockwell Automation, GE, Emerson

### Municipalities

Washington DC Water/Sewer, City of Los Angeles

### Utility Industry

Cooper Power, Detroit Edison, American Electric Power

### Gaming Industry

Scientific Games, Bally Gaming Systems, MultiMedia Games

### Heavy Industry

Caterpillar, John Deere

### Medical / Pharmaceutical

Merck & Co., Pfizer, Tyco Healthcare, Baxter Healthcare

### Transportation

GE Locomotive, Union Pacific Railroad, Canadian Pacific Railway

### Minimum PC Requirements

- 1GHz Pentium PC or equivalent
- Windows XP
- 128 MB RAM + 50 MB free disk space
- A minimum of one serial port; Two for bidirectional monitoring

RS-422/485/449/530 require additional hardware in stock and ready to ship.

Maximum data rate supported is based on PC processor speed.

USB serial ports and USB to parallel ports are currently not supported.

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