# Turn <u>ANY</u> Win 9x/NT PC Into A Full-Featured
# Async Serial Data and Protocol Analyzer
### Serialtest Async and Spy for Windows® 9x/ME/NT/2000/XP

## Models STASPY32, STAS32 and SPY32

Your PC, coupled with this true 32-bit user-friendly software provides a powerful yet economical platform for data communication troubleshooting and development. The Serialtest Async for Win 95, 98, ME, NT 4.0, 2000 and XP **(STAS32)** package includes the software and a custom cable set. The cable set connects to your PC via the serial ports and allows the software to passively monitor or actively test asynchronous devices.

Spy **(SPY32)** is an industry first software package that offers the ability to capture and decode data being sent to and from your PC's CPU and the UART (internal serial port or the internal modem). Transmit capabilities are also included, allowing you to test an internal device.

Serialtest Spy lets users run a data communications application and troubleshoot that application on the same PC. Spy is a software-only package that will passively monitor or actively test any serial device that utilizes SERIAL.VXD (for Win 9x/ME) or SERIAL.SYS (for Win NT 4.0/2000/XP) as its serial driver, including serial ports, internal modems, infrared ports, and RS-232/422/485 communications cards.

Spy offers the ability to decode data sent to an internal modem (including Internet PPP or SLIP connections on a single user or gateway machine), analyze data rate throughput, troubleshoot control signal timing problems, and emulate a DTE device. When troubleshooting external modem or transport devices, Spy eliminates the need for a costly second PC – the user can analyze data on the same machine running the data communications application.

Serialtest Spy and Serialtest Async are sister products that are very similar in regard to their features. The differences between the two products is that Spy troubleshoots data going to and from the CPU and an internal UART, while Serialtest Async works in conjunction with a cable set to monitor the external data link you wish to troubleshoot. Serialtest Spy **(STAS32)** and Serialtest Async **(SPY32)** are offered as stand alone products or as a cost saving unit that includes <u>both</u> Serialtest Async and Spy **(STASPY32)**.

The Live Events window shows you, in real-time, the information flowing between any two serial devices -- both data bytes and control signals. The Review Events, Frame Summary and Frame Decode windows of the software let you examine, search, and manipulate the data as it is being captured. You don't have to stop capturing data to begin analyzing your problem, so valuable troubleshooting time is saved.

The Review Events window provides byte level details that include control signal and timestamp information. The Frame Summary window displays a one line summary of each frame/packet. The Frame Decode window displays a comprehensive layered decode of each frame/packet. Protocol decodes include PPP, SLIP and TCP/IP.

The Statistics window provides DTE and DCE traffic totals that include bytes, frames, errors, characters per second, and utilization. This information can help simplify understanding of what is happening on the link, thereby saving valuable troubleshooting time.

The Breakout Box window provides a real-time graphical view of six RS-232 control signals (DTR, RTS, CTS, DSR, CD and RI). Also included are counters showing the number of times that a control signal has changed. The Signal Display window allows you to scroll and analyze captured control signal transitions in relation to captured data bytes and packets.

The Transmit window lets you emulate either the DTE or DCE side of the communications link, enabling you to actively test a device.
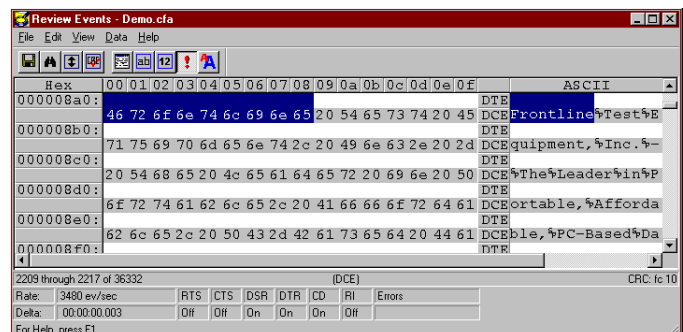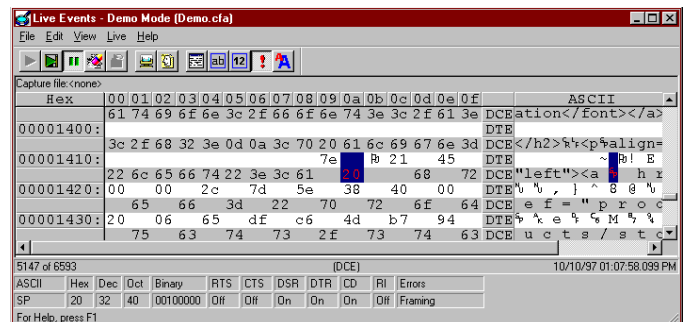




*Software is user-friendly and on-line Help provides you with all the information you need to use the product. Comes with a handy quick start guide for new users.*

## Serialtest Features:

### Data Capture
- Data captured includes data bytes, control signals and error conditions.
- Data can be captured to RAM and direct to disk with no file size limit.
- Bit reversal feature interprets data MSB or LSB first.

### Data Displays
- View multiple windows at the same time. Analyze data as it is being captured using the Review Events, Frame Decode and Frame Summary windows.
- Get detailed Frame/Packet level information.
- Display byte level information in a split-line DTE over DCE or mixed format.
- Display characters in ASCII, EBCDIC or Baudot.
- Display nonprintable characters using hex and mnemonics.
- Search captured data. Search types include timestamp, controls signals, errors, and patterns (patterns include bit and nibble level wildcard characters.)

### Statistics Display
- Includes DTE and DCE totals for bytes, frames, events, errors, characters per second, and utilization.

### Control Signal Display
- Live breakout box includes timing diagrams and counters.
- Captured control signal transitions can be viewed in relation to captured data bytes using timing diagrams.

### Data Transmission
- Transmit strings or files once, multiple times or continuously.
- Insert delays in millisecond, second or minute increments.
- Set controls leads on or off.

### Time Stamping
- Absolute or relative display of event time.
- Delta time and effective data rate calculations.
- Time stamping resolution ranging from 10 milliseconds to 1 microsecond.

### Protocol Decodes
- PPP
- SLIP
- TCP/IP

### Configuration Management
- Name and save an unlimited number of configurations.

## Technical Specifications:

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|---|---|
| Data Interfaces: | RS-232, converters available for other interfaces **(STAS32).** Any device that utilizes SERIAL.VXD as its serial driver (for Win 9x/ME) or any device that utilizes SERIAL.SYS as its serial driver (for Win NT/2000/XP); including serial ports, internal modems, infrared ports, and RS-232/422/485 communication cards **(SPY32)** |
| Baud Rates: | Up to 115.2k bps, including user defined baud rate support |
| Operating Modes: | Monitor, Source DTE, Source DCE **(Source DCE not available with SPY32)** |
| Protocol Decodes: | PPP, SLIP, TCP/IP, plus user customizable protocol stack |
| Flow Control: | Software (including user defined XON/XOFF characters) Hardware (RTS/CTS and DTR/DSR) |
| Character Sets: | ASCII, 7-bit ASCII, EBCDIC, Baudot |
| Parity: | None, Even, Odd, Mark, Space |
| Word Length: | 5, 6, 7, 8 bits |
| Stop Bits: | 1, 1.5, 2 |
| Time Stamping: | Absolute and relative time stamping, resolutions down to 1 microsecond |

## System Requirements:
- PC with Windows 95, 98, or NT 4.0 loaded and a Pentium processor or higher
- 8 Meg of RAM (16 required for NT)
- 5 Meg Hard Disk Space (capture file size is limited by disk size)
- Minimum of one serial port or other serial communications device, two required for bi-directional monitoring
- Supports COM1 through COM64
- Maximum data rate supported is dependent on PC processor speed