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FTS4USB™ PROTOCOL ANALYZER

USB V2.0 & V1.1 ANALYZER SNIFFS 2 WAYS

FTS4USB: Overview

Summary

New PPP Decoder

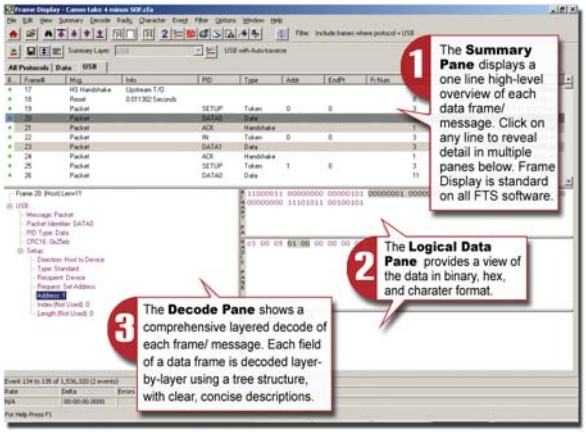
- PC-Based Real-time USB Protocol Analyzer Software & USB ComProbe® Hardware
- Simultaneous Points of Observation Hardware & Software System
- User-defined decoding of protocols is available with the included FrameDecoder™ Developer Kit.

Highlights

- Real-time Low, Full, & High Speed USB protocol analyzer with live display.
- New PPP decoder allows you to decode application level PPP data.
- Print summary and detail printing as they appear in an easy to read HTML file.
- Data can be simultaneously sniffed externally and from inside the PC.
- Compact USB ComProbe sniffing hardware requires no external power.
- Packets with protocol violations are flagged in red.
- No limit on the amount of data that can be captured.
- User-defined decoding of proprietary protocols.
- Session notes and annotated bookmarks allow for quick identification of questionable packets.
- Free viewer allows you to share FTS4USB capture files with development partners and customers.

Take the Guesswork Out of USB Troubleshooting: Live!

The ease of plugging in a USB device and just having it work is great for end users. But, as a software or hardware developer or test engineer, you know creating that ease-of-use is often difficult. There is a lot of data on the wire and it comes fast. You need a tool that gives you visibility into the USB circuit so you can figure out what exactly is going on. The key is to use an analyzer that will show you what you want to see when you want to see it. Too much data and you are overwhelmed—too little data and you are left guessing.



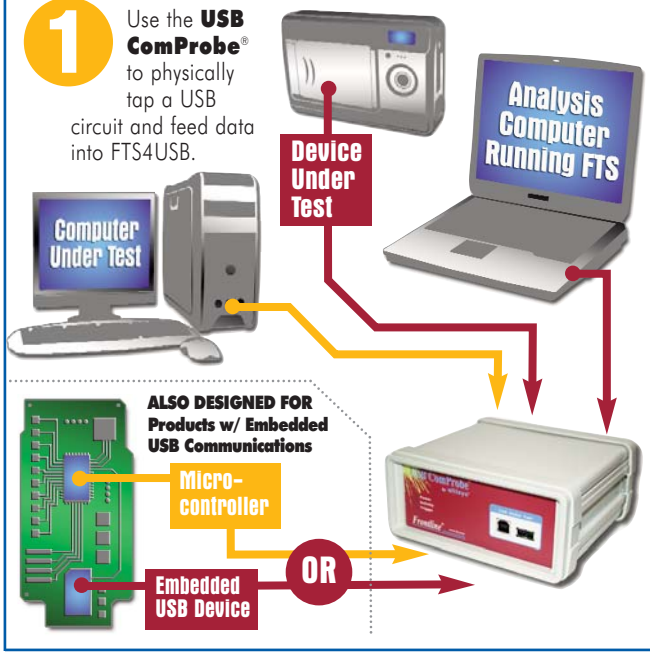
Bit-level decoding speeds up debugging and protocol verification.

"Live" Means Quick Debugging & Verification

FTS4USB simplifies understanding what is happening on a USB circuit by simultaneously capturing, decoding, displaying, filtering, and detecting errors—all live and in real-time. Other USB analyzers don't work this way. Take, for example, debugging a USB mouse. With FTS4USB you'll see the USB packets displayed live, and in real-time, as you move the mouse. With other analyzers you need to capture the data, and then review what was captured. FTS4USB reduces debug time by eliminating a step.

Sniffs Data Two Ways to Lick USB Bugs *FAST !*

1 Use the **USB ComProbe®** to physically tap a USB circuit and feed data into FTS4USB.



2 Use **Spy Mode** to internally tap the connection between a PC and any connected USB device. See how your application communicates over USB—*live*.

The Frontline Edge

Outstanding Technical Support

Whether you need help using a basic FTS4BT 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 Bluetooth Expertise

The Bluetooth SIG (the governing body of *Bluetooth* technology) has selected Frontline to provide worldwide technical support for the SIG's Profile Tuning System (PTS) test tool. PTS is the cornerstone of the *Bluetooth* product qualification program.

Unequaled Protocol Analysis Experience

Frontline is a proven protocol analyzer industry leader with units installed worldwide. FTS4BT is a member of the growing family of Frontline Test System® (FTS®) protocol analyzers, each of which incorporates a our 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..

Free Premium Maintenance

With FTS4BT not only will you receive free software, firmware, and protocol decoder upgrades for two years, but you will also receive free or low-cost air sniffing hardware upgrades. After two years, it is inexpensive to keep your Premium Maintenance current. *Bluetooth* technology moves fast—with Frontline products, so can you!

FTS4USB: Simultaneously Observe USB Data Inside & Out

Use Both Modes Simultaneously to Catch Hard-to-Find USB Bugs.

We have learned through extensive experience supporting our customers that many problems are most effectively debugged live, using multiple points of observation.

A Outside View

Use one instance of FTS4USB and the USB ComProbe to watch the external connection between the device under test and the PC connected to the device.

B Inside View (Spy Mode)

Use a second instance of FTS4USB running in Spy mode to see the data that is actually being delivered to the application running on the PC.

Find USB Bugs Where They Hide

In order to fix bugs, you have to be able to observe the complete communication chain. FTS4USB allows you to systematically confirm packet content at the point of origination, and inside your PC where your application receives the information.

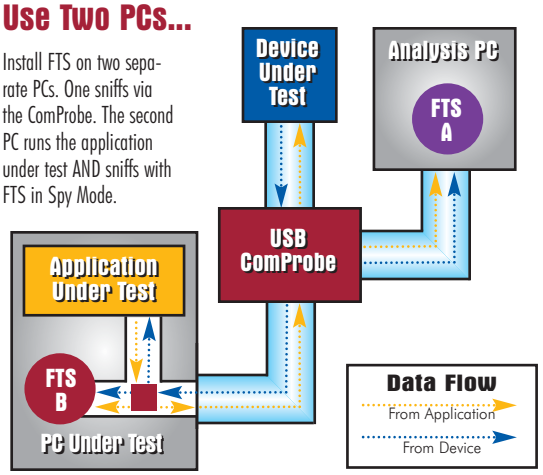
Use FTS4USB with Products with Embedded Devices

Use the ComProbe to check embedded USB devices sending and receiving data to and from the microcontroller.

Versatile Configurations

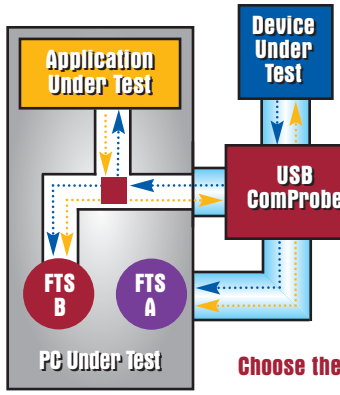
Use Two PCs...

Install FTS on two separate PCs. One sniffs via the ComProbe. The second PC runs the application under test AND sniffs with FTS in Spy Mode.



...Or Just One.

Use one analysis PC alone running two instances of FTS to view data from the ComProbe and the application and device under test. This configuration eliminates the need for a second PC.



Choose the setup best for you.

Includes FrameDecoder

Write custom decoders or modify existing decoders with the included FrameDecoder Developers Kit. Use them just like any of the decoders supplied by Frontline. This can be useful to display items in a language other than English, or to extend decoders to work with non-standard protocols.

Minimum PC Requirements

- 1GHz Penitum PC or equivalent
- Windows XP
- 512MB of RAM
- 50 MB of free disk space
- USB 2.0 port (for the USB ComProbe)

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