TD114V-R2

Frontline Test System™

Serialtest® Async
Serialtest Spy

for Windows® 9x/NT

Setup and Quick Start Guide

Technical Support

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Frontline is located in the Eastern time zone of the USA, usually five hours behind London, England.

This Quick Start Guide contains instructions for two products: Serialtest Async and Serialtest Spy. The two products are very similar but the initial setup varies. Serialtest Async works in conjunction with a custom cable set included with the product, while Serialtest Spy does not require cables. There is also a combination package that includes both Serialtest Async and Spy. Check your diskette labels or registration form to determine which product you have.

The license for the combination package allows you to run either Serialtest Async or Serialtest Spy on one machine only. If you need to run both products concurrently on the same PC or on two different PCs, please contact Frontline to purchase an additional license.

Packing List

Serialtest Async and Serialtest Async+Spy

* Cable Set, containing one Routing Cable, one Monitor Head, one Source Head and two 25-9 pin adapters
* This Setup and Quick Start Guide
* License Envelope with Product Registration Card and software diskettes

Serialtest Spy

* This Setup and Quick Start Guide
* License Envelope with Product Registration Card and software diskettes

System Requirements

* PC with Windows 95/98 loaded and a 486 DX66 MHz processor or higher, or Windows NT and a Pentium or faster processor or higher
* 16 MB of RAM (32 recommended for NT)
* 5 MB free Hard Disk Space (capture file size is limited by disk size)
* Minimum of one COM port, two required for bi-directional monitoring when using cable set
* Serialtest supports COM1 through COM64
* Maximum data rate supported is dependent on PC processor speed

Welcome to Serialtest, a member of the Frontline Test System (FTS) family of products! Serialtest is designed to let you conduct serial data analysis using your personal computer. The FTS interface is easy to use without training, but you will want to read the online Help to learn how to take maximum advantage of all the features.

We have tried to make the online Help complete and easy to use. You can reach the online Help by choosing Help Topics from the Help menu, or by pressing the F1 key on any window.

If you need to print out a topic, click on the Print Topic button. If you would like to print out an entire section from the Help (a section corresponds to one of the books in the Table of Contents), click on the section you want, and then click on the Print button. All of the topics listed in the section will be printed.

Installing the Software

If you are installing the product for the first time, follow these steps:

* Insert Disk 1 into your floppy disk drive.
* Run SETUP.EXE. You can do this from the command line, Windows Explorer, or the Add/Remove Programs icon in the Control Panel.
* Follow the instructions on your screen. You will need your serial number (found on your diskettes and on the registration card) to complete the installation.
* Fill out your registration card and send it in! This will help us to keep you informed on product upgrades. You can register online at our web site, www.fte.com.

If you are installing an add-on product or additional copies of FTS, follow these steps:

* Double-click on the Fts folder on your desktop, and double-

click on the Hardware Settings icon, OR

* Click on the Start button, and choose Programs —> Frontline Test System —> Hardware Settings.
* Click on the Setup Tab and then click on the Install button.
* Enter your serial number. Click OK.

Starting Serialtest

When Serialtest is installed, it creates a folder called Fts on the desktop. This folder contains icons used to start Serialtest, including icons for the help files, FTS View (see the online Help for more information on View mode), FTS Hardware Settings, and for the demos of each product. There will also be an icon for each product installed. By default, these icons are called:

Product Name	Icon Name
Serialtest Async	ST Async
Serialtest Spy	ST Spy
Serialtest Aysnc+Spy	ST Async+Spy

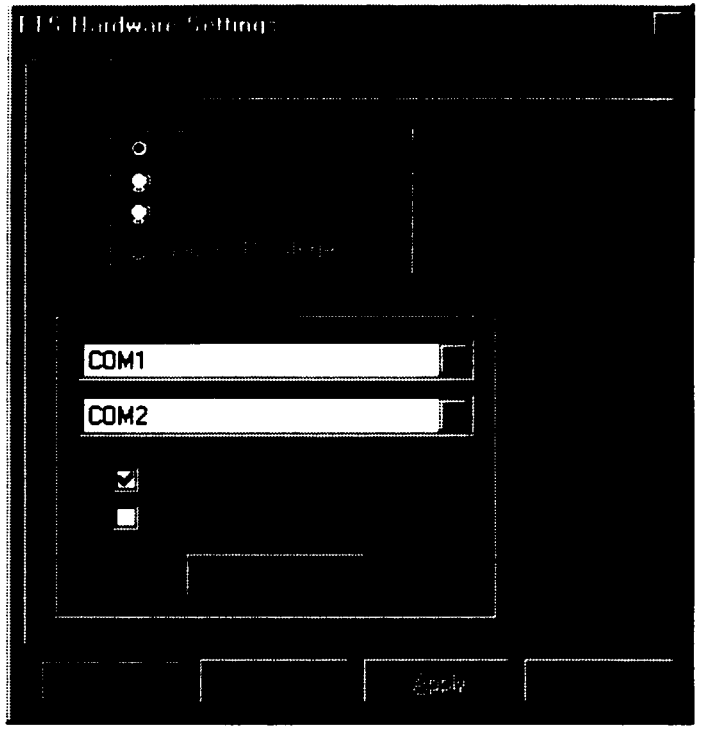
If you have more than one copy of a product installed, the additional copies will have numbers following the icon name.

To run Serialtest, double-click on the product icon.

The first time Serialtest is run the Hardware Settings window will appear. At the top of the window are the mode buttons. Boxes for choosing the COM ports you want to use are in the middle, and a cable detection button is at the bottom. If you need to change your COM ports in the future, double-click on the Hardware Settings icon in the FTS folder or choose Hardware Settings from the File menu on the Control window.

The picture below shows what the Hardware Settings window looks like for someone who has installed one copy of Serialtest

Async + Spy. If you have installed only Serialtest Async or Serialtest Spy, the window will look similar, but only the mode buttons for the product you have installed will be active.



There are three possible modes in Serialtest: Use FTS Cables, Spy Mode, and Source DTE, No Cables. SerialBERT mode refers to Serialtest's sister product SerialBERT, a Bit Error Rate Tester.

* If you have Serialtest Async with the cable set, click on the Use FTS Cables button.
* If you have Serialtest Spy, click on the Spy Mode button.
* If you have both Async + Spy, you can choose either Use FTS Cables or Spy Mode.
* Source DTE, No Cables mode is available for all versions (see

the online Help for more information on this mode).

Click on a radio button to choose which mode to use. Then skip to the appropriate section for the mode you have chosen.

Use FTS Cables Mode

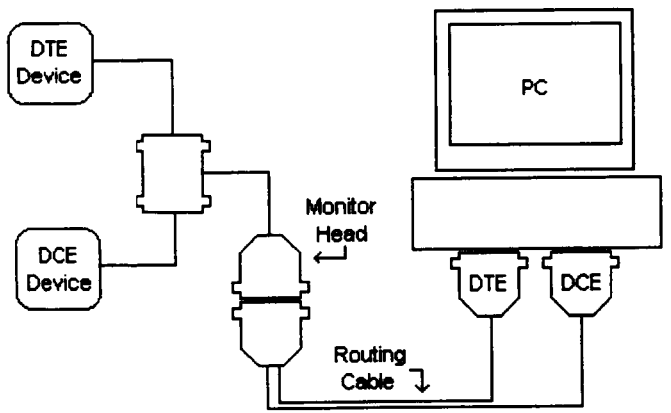
Read this section if you selected Use FTS Cables in the Hardware Settings box.

Choose your COM ports

Select which COM ports you want to use in the two port boxes. Click on the arrow to see a list of all COM ports available on your computer. If you want to use only one COM port, list that port in the top box, and choose Not Used for the bottom box.

Connecting the Cables

The diagram below shows how to connect the cables for monitoring on a PC with two serial ports. The online help on Cable Configuration includes diagrams and instructions for other configurations.



Once you have connected your cables, click on the Detect Now button to be sure that your cables are connected to the correct COM ports.

Click OK when you are finished. The Hardware Settings box will close and Serialtest will start.

Set the I/O Configuration

Before you can begin capturing data, you need to tell Serialtest about the circuit you want to monitor. From the Control window, open the Set I/O Configuration window by clicking on the Set I/O button . Change the settings in the Set I/O Configuration window to match those of the circuit you are monitoring, and set the operating mode to Monitor Both. If you have one COM port, choose either Monitor DTE or Monitor DCE. Close the Set I/O window when you are finished.

You are now ready to begin using Serialtest to capture data. Skip to the section called *Using Serialtest.*

Spy Mode

Read this section if you selected Spy Mode in the Hardware Settings box.

Spy Mode allows you to monitor the data passing through an internal COM port or modem. (*Note: You must start Serialtest Spy before you start the application that will be using the COM port in order to ensure that Serialtest's driver is used by both Serialtest and the COM port. See the online Help for more information.*)

Choose your COM port

In the top port box, select which COM port you want to monitor. Click on the arrow to see a list of all COM ports available on your computer.

Click OK when you are finished. The Hardware Settings box will close and Serialtest will start. You are now ready to begin capturing data. Skip to the section called *Using Serialtest.*

Source DTE, No Cables

Read this section if you selected Source DTE, No Cables in the Hardware Settings box.

Source DTE, No Cables allows you to transmit data as a DTE device and monitor the DCE response without the use of cables. You can transmit data to an external device through a serial port or to an internal device, such as an internal modem.

Choose your COM port

In the top port box, select which COM port you want to use. For example, if you want to test an internal modem, choose the COM port that the modem is connected to. Click on the arrow to see a list of all COM ports available on your computer.

Click OK when you are finished. The Hardware Settings box will close and Serialtest will start.

Set the I/O Configuration

Before you can begin capturing data, you need to give Serialtest the parameters of the data you want to transmit. From the Control window, open the Set I/O Configuration window by clicking on the Set I/O button  , or choosing Set I/O Configuration from the Window menu. Change the settings in the Set I/O Configuration window to match those of the device you are transmitting to. Close the Set I/O window when you are finished.

You are now ready to begin using Serialtest to transmit data.

Using Serialtest

The Serialtest Control and Review Events windows are the first windows open on startup. The Control window has a toolbar with icons representing windows or data capture functions, and a status line giving a summary of the events happening on the circuit. Hold the cursor over each button, and a ToolTip will pop up with the name of the button. To learn more about what each button does, read the help topic called "The Control Window Toolbar".

What the Windows Do

 Live Events	watch data capture in real-time
 Statistics	gives a brief overview of the circuit
 Breakout Box	displays control signal states in real-time
 Review Events	review byte-level data and run searches
 Frame Summary	summarizes basic information about each frame
 Frame Decode	shows detailed decodes of each frame
 Signal Display	provides a graphical view of control signal states
Transmit	transmit data to another device

How to Capture Data

Data capture is initiated from the Control window or Live Events window. Serialtest does not need to have any windows other than the Control window open in order to capture data. Click on the Statistics button  to open the Statistics window. This window will show you summary information about the events on the circuit. Next, click on the Live Events button  to open the Live

Events window. This window will show you the events as they are being captured.

To begin capturing to the buffer, click on the Begin Capture to Buffer button  from the Control or Live Events toolbar. Serialtest will start capturing events to the capture buffer. When the buffer becomes full, it will begin to "wrap" using the First In, First Out rule, unless buffer wrap has been turned off in the System Settings. See the online Help for more information on buffer wrapping.

You can pause data capture at any time by clicking on the Pause/ Resume button  . If you pause data capture, Serialtest will not capture any data until you click on the Pause button again to resume capturing. If you want to save your capture buffer, you must Pause data capture first, open the Review Events window and click on the Save button  .

Reset the capture buffer by clicking on the Clear button  . Serialtest will ask you if you really want to reset or if you want to save the data in the buffer first. If you choose Reset, Serialtest will remove all data from the buffer and reset data capture. Once the buffer is cleared, the data is lost and cannot be recovered. Be sure to save your data if you have any doubts about whether you will need it later.

How to Capture to a File

To begin capturing to a file, click on the Begin Capture to Disk button  from the Control or Live Events toolbar. Serialtest will display a dialog box asking you what name you want to give your file and what directory you want to save it in. Click OK when you have made your choices. Serialtest will open a capture file and

begin capturing data.

You can pause data capture at any time by clicking on the Pause/ Resume button. Click again on the Pause button to resume data capture.

When you have finished capturing data, click on the Close File button  to stop data capture and close your file.

The maximum capture file size is set in the System Settings. See the online Help for assistance on changing the System Settings.

Analyzing the Data

You can begin troubleshooting your problem right away using the Review Events window  , while Serialtest continues to gather data in the background. Use the Find feature  from the Review Events window to search for a particular string or error condition. You can also search for control signal changes or for an event that occurred at a specific time.

If you have captured data to a file and want to view the file, go to the File menu on the Control window and choose Open. When you open your file, Serialtest will go into View Mode. The toolbar for the Control window will contain only those options you need for viewing data. To return to capturing data, go to the File menu and choose Go Live.

You can also view files by double-clicking on the icon for FTS View. The difference between choosing FTS View and ST Async or ST Spy is that in FTS View, you will not be able to "go live" and capture data. The advantage of FTS View is that you can open ST Async or ST Spy, begin capturing data, and then open FTS View and look at another capture file while data capture continues in the

background.

Exiting Serialtest

To exit Serialtest, go to the File menu on the Control window, and choose Exit.