



Ethernet ComProbe Quick Start Guide

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MINIMUM SYSTEM REQUIREMENTS

- PC with Windows XP 32 bit, (Service Pack 2 or higher), Windows 7 (32 and 64 bit).
- Intel Core 2 Duo 2.2 GHz Processor or Higher
- RAM Requirements: 1 GB minimum, 2 GB recommended
- 50 MB free Hard Disk Space
- One USB 2.0 High Speed enabled port





PURPOSE OF THIS QUICK START GUIDE

This Quick Start Guide contains setup information for using Frontline's Ethernet ComProbe (Figure 1). The Ethernet ComProbe works with Frontline's Ethertest[™] software and NetDecoder[™] software.



In order to use the Ethernet ComProbe with either the Netdecoder or Ethertest software, you need to follow these steps;

- 1. Install the Ethertest or NetDecoder software
- 2. Install WinPcap
- 3. Install the drivers for the Ethernet ComProbe
- 4. Configure the Ethernet ComProbe

This Quick Start Guide contains information on these four steps.





INTRODUCTION

Welcome to Frontline Test Equipment's Ethernet ComProbe. The Ethernet ComProbe is an Ethernet tap device that can passively capture Ethernet data without the need for managed switches and/or making complex changes to network configuration (Figure 2).





As shown in Figure 2 above, the Ethernet ComProbe, aggregates bi-directional traffic on the Ethernet wire and sends the packets to the analysis PC via USB. The Ethernet ComProbe can be used with either Ethertest or NetDecoder software analyzer.





INSTALLATION INSTRUCTIONS

Software Installation (Ethertest or NetDecoder)

The Ethernet ComProbe can be used with either Ethertest or NetDecoder.

- 1. Insert the "Product CD" or run the installer from **fte.com**.
- 2. From the Launch dialog select "Install [Product]". Be patient, the software takes a few moments to load.
- 3. Select "OK" on the first dialog.
- 4. Select "Live Product" and "Install".
- 5. On the next dialog, select "Next" to continue.
- 6. On the Licensing Agreement dialog, select "I accept the terms of the license agreement" and click "Next".
- 7. On the Choose Destination Location dialog, click "Next" to install to the default location.
- 8. On the *Ready to Install the Program* dialog, click "Install".
- 9. On the final dialog, click "Finish" to complete the installation.

WinPcap Installation

After you install the Ethernet ComProbe, you must install WinPcap. The Ethernet ComProbe will not work without WinPcap installed. If you have WinPcap already installed, you must verify that it is version 4.1.1 or newer.

1. Select "Install WinPcap" from the [NetDecoder or Ethertest] Setup folder (Figure 3).

	rigui e S
Frontline NetDecoder	🕨 📷 Optional Components 🔸 🕽
	🖮 Setup 🔹 🚺 About NetDecoder
·	🚱 Capture File Viewer 🛛 🛅 Configure Active Track
	Frontline NetDecoder End User License Agreemenic
	Quick-Start Guide How to install the FTS Serial Driver
	🜔 Transmit Data 🔀 Install WinPcap
	LPT Port Scanner







Figure 4



2. Select "Next" to continue.

The first setup dialog appears (Figure 5).

3. Select "Next" to continue.

Figure 5



4. One the License Agreement dialog (Figure 6), select "I agree" to continue.



Figure 6





The Installation Options dialog appears (Figure 7).

- 5. Make sure that the "Automatically start the WinPcap driver at boot time" is selected.
- 6. Select "Install".



🕞 WinPcap 4.1.1 Setup
(()): Port Installation options
Please review the following options before installing WinPcap 4.1.1
Automatically start the WinPcap driver at boot time
System Information
Operating system detected on registry: Windows XP - x86 True operating system (kernel.dll): Windows XP - x86
npptools.dl present on the system: true netrm.inf present on the system: true
nmnt.sys present on the system: true
Nulsoft Instal System v2.45
< Back Instal Cancel

The installation continues.

7. When the installation is done, select "Finish" to close the dialog and complete the process (Figure 8).









Ethernet ComProbe Driver Installation (NetDecoder or Ethertest already installed)

When first connecting the Ethernet ComProbe to your PC, you will be directed to install the required Frontline interface driver.

- 1. Connect the USB cable into the back of the Ethernet ComProbe .
- 2. Connect the other end to a USB port on the computer with NetDecoder installed.

The Found New Hardware Wizard dialog box appears (Figure 9) which may ask you if you want to connect to Windows Update to search for software.

3. Choose "No, not this time" and click "Next" (Figure 9).

 would New Hardware Wizard

 Welcome to the Found New Hardware Wizard

 Widows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows: Update Web site (with your permission).

 Freed our privacy policy

 Can Windows connect to Windows Update to search for software?

 Pres, this time only

 Yes, now and every time I connect a device

 No, not this time

 Citck Next to continue.

Figure 9

- 4. Choose "Install from a list or specific location" and click "Next" (Figure 10).

Figure 10





Now you have to locate the Ethernet ComProbe driver.

5. Make sure the "Search for the best driver in these locations" and the "Include this location in the search" checkbox is selected, then click the "Browse" button (Figure 11).

'lease cho	ose your search and installation options.
Sear	h for the best driver in these locations.
Use ti paths	e check boxes below to limit or expand the default search, which includes local and removable media. The best driver found will be installed.
	Search removable media (floppy, CD-ROM)
	Include this location in the search:
	C:\Program Files\Frontline Test System II\Frontline BI 💌 Browse
C Don't	search. I will choose the driver to install.
Choo: the dr	e this option to select the device driver from a list. Windows does not guarantee wer you choose will be the best match for your hardware.
	Cancel Next Cancel

Figure 11

6. Locate the directory (Figure 12) where you installed NetDecoder. The default is C:\Program Files\Frontline Test System II\Frontline NetDecoder [version #]\Drivers\Ethernet ComProbe)

Browse For Folder	<u>? X</u>
Select the folder that contains drivers for your hardware.	
🗵 🦳 Docudesk	
E Elezila FTP Client	
🖃 🚞 Frontline Test System II	
E C Frontline NetDecoder 9.11.3.0	
🗉 🧰 App Data	_
🗉 🚞 Asynchronous Driver Support	
🗆 🧰 Drivers	
Ethernet ComProbe	
🚞 Vista 32bit	
🚞 Vista 64bit	
😂 WinXP 32bit	
C WinXP 64bit	
E 🗀 Serial ComProbes	
Executables	
Core	
Cobservers	
Optional Components	-
1	
To view any cubiolders, click a plus sign above	
To them only sourceders, ency a plus sign above.	
	OK Cancel

Figure 12

7. Select the directory among Vista 32bit, Vista 64bit, WinXP 32bit, or WinXP64bit and click "OK".





8. Click the "Next" button to finish the installation (Figure 13).

Figure 13



9. If you get a dialog box like the one below (Figure 14)., don't worry—click *Continue Anyway*.

Figure 14



Your computer will now install the Ethernet ComProbe driver from the directory you selected.









You'll get a dialog box saying that the installation is finished (Figure 16).

Figure 16

Found New Hardware Wizard			
	Completing the Found New Hardware Wizard		
	The wizard has finished installing the software for:		
	ASIX AX98178 USB2.0 to Gigabit Ethernet Adapter		
	Click Finish to close the wizard.		
	< Back Finish Cancel		

- 10. Click the *Finish* button to close the wizard (Figure 16).
- 11. Since the Ethernet ComProbe installs as a NIC card on your PC with a new MAC address, we recommend that you restart the PC for the ComProbe to work correctly.

The installation of the Ethernet ComProbe driver is now complete.



Configure Ethernet ComProbe

After you install the driver for the Ethernet ComProbe, you have to configure the IP address and Subnet Mask for the Ethernet ComProbe.

1. Select "Network Connections" from the Control Panel (Figure 17).

		Figure	217		
Date and Time	Display	Folder Options	Fonts	Game	Internet
		-	1.015	Controllers	Options
1	U	C		2	
Keyboard	Mail	Mouse	Network Connections	Phone and Modem	Power Optic

2. Right click on the Local Area Connection (LAC) for the Ethernet ComProbe and select" Properties" (Figure 18).

LAN or High-Speed Laterne	et		
Local Area Connection	LAN or High-Speed Internet LAN or High-Speed Internet able at a set of the speed Internet at a state shortcut ete name perties	Connected Connected Limited or no connectivity	1394 Net Adapter Broadcom NetXtreme 57xx Gigabit Controller ASIX AX88178 US82.0 to Gigabit Ethernet Adapter

Figure 18

- 3. The LAC Properties dialog appears (Figure 19).
 - Local Area Connection 3 Properties ? X General Advanced Connect using: ASIX AX88178 US82.0 to Gigabit Et Configure... This connection uses the following items Client for Microsoft Networks 1 -E Install... Uninstall **Properties** Description Allows your computer to access resources on a Microsoft network. Show icon in notification area when connected ☑ Notify me when this connection has limited or no connectivity 0K Cancel







4. Scroll down and select "Internet Protocol (TCP/IP)" and select "Properties" (Figure 20).

Figure 20



The Properties dialog appears (Figure 21).

Figure 21	
-----------	--

ternet Protocol (TCP/IP) Pro	perties ?X
General Alternate Configuration	1
You can get IP settings assigne this capability. Otherwise, you n the appropriate IP settings.	d automatically if your network supports eed to ask your network administrator for
Obtain an IP address auto	matically
C Use the following IP addre	
IP address:	
Subnet mask:	
Default gateway:	
C. Obtain DNC concerned address	a subservationally.
Obtain Drive server addres One The following DNS server	ner arktesses
Preferred DNS server:	
Alternate DNS server	
- standard - 10 but rot.	
	Advanced
	0K Cancel

- 5. Select the "Use the following IP address" radio button (Figure 22).
- 6. Enter 192.168.0.1 for the IP address.
- 7. Enter 255.0.0.0 in the Subnet mask.

Figure	22
--------	----

C Obtain an IP address automat	tically		
IP address:			
Subnet mask:			
Default gateway:			

- 8. Select OK to close the Properties dialog.
- 9. Select *OK* again to close the LAC Properties dialog and complete the process.

Note: The IP address and Subnet mask entered here are NOT visible on the network. This address and the Ethernet ComProbe itself is visible only to the applications running on the analysis PC.





Win 7 Installation

The procedure for installing the Ethernet ComProbe driver is different for Win7 than it is for XP. Follow the steps below.

1. Plug the ComProbe into a USB port. The *Found New Hardware Wizard* dialogue box appears, then disappears.

Installing device driver software Click here for status.	9	×	

Then a message similar to this one appears/disappears indicating that the driver software has not been installed.



When the dialog disappears,

2. Go to the Control Panel and open the "Device Manager".

Figure 24







3. Right click on "AX88178" under Other Devices and select "Update Driver Software" (Figure 25).

Figure 25



The next step is to choose the driver location.

4. Select "Browse my computer for driver software" (Figure 26).

Figure 26







5. On the next dialog, select the "Browse" button (Figure 27).

Figure 27

Browse for driver software on your con	mputer
Search for driver software in this location:	
CAUsers/FTE/Documents	· Browse
Let me pick from a list of device dr	rivers on my computer

Now you have to drill down to find the folder that contains the driver. The driver is located at: *Program Files*[*X86*]*Frontline Test System II\Frontline* [*Application Name and #*]*Drivers**Ethernet ComProbe**Vista 64bit.*

6. Select the "Ethernet ComProbe" folder and "OK" (Figure 28).

b 🔒	asynchronous driver support	^
	Documents	
	Drivers	
-	🕌 Ethernet ComProbe	
	🎍 Vista 32bit	
	📕 Vista 64bit	Ħ
	📕 WinXP 32bit	
	📕 WinXP 64bit	
2	Serial ComProbes	
Þ	 Vista 64bit WinXP 32bit WinXP 64bit Serial ComProbes 	

Figure 28





The Browse for driver software on your computer dialog reappears (Figure 29).

7. Select "Next".

Figure 29



Once the driver starts to load (Figure 30),









you may get a Windows Security warning (Figure 31).





8. You can ignore this warning by selecting **Install this driver software anyway**.

Your computer will now install the ComProbe driver from the directory you selected; you will get a dialog box saying that the installation is finished (Figure 32).



9. Click the *Close* button to close the wizard.



When you close this dialog you will see that the correct driver is displayed in the Device Manager under Network adapters (Figure 33).









Initial Software Startup

The installation of your NetDecoder or Ethertest product creates a folder on your desktop.

Using NetDecoder software with the Ethernet ComProbe

The installation of your NetDecoder product creates a folder on your desktop.

- 1. Open the desktop folder and double-click the shortcut labeled *Frontline NetDecoder*.
- 2. NetDecoder displays the *Choose Protocol to Analyze* dialog that contains a list of the available protocols.
- 3. Expand the folder "Ethernet Analyzer" and select "Ethernet" (Figure 34).

Choose Protocol to Analyze 🛛 🛛 🗙				
	Use NetDecoder to capture and analyze generic Ethernet traffic. You may use any of these options to capture data: 1. Use your PC's Ethernet NIC card. 2. Use the Ethernet ComProbe (connects to your PC via USB).			
Data Capture Method Serial Ports RS-232 ComProbe Ethernet Card Ethernet ComProbe Select "Run" to analyze Ethernet via Ethernet ComProbe. Run Cancel Help [Create Shortcut When Run			

Figure 34

- 4. In the *Data Capture Method* selection pane below the list window, select the "Ethernet ComProbe" option.
- 5. Check the *Create Shortcut When Run* checkbox if you like and click the *Run* button (if you choose to create a shortcut, the system creates one and places it in the desktop folder).

Alternatively, you can access the *Choose Protocol to Analyze* dialog from your Windows operating system by clicking *Start | Programs |NetDecoder* [version#] |*Frontline NetDecoder*. Then select the protocol from the displayed list. Consult the online Help for additional information on choosing protocols.



You can view the Ethernet ComProbe configuration information in the Hardware Settings dialog by choosing *Options* | *Hardware Settings* from the Control window.

You can set Capture Filters in the I/O Settings dialog by choosing *Options* | *I/O Settings* from the Control window.

Using Ethertest software with the Ethernet ComProbe

The installation of your Ethertest product creates a folder on your desktop.

1. Open the desktop folder and double-click the shortcut labeled *Ethertest with Ethernet ComProbe*.

Alternatively, you can access the *Ethertest with Ethernet ComProbe* short cut from your Windows operating system by clicking *Start* / *Programs* /*Ethertest* [version#] | *Ethertest with Ethernet ComProbe*.

You can view the Ethernet ComProbe configuration information in the Hardware Settings dialog by choosing *Options* | *Hardware Settings* from the Control window.

You can set Capture Filters in the I/O Settings dialog by choosing *Options* | *I/O Settings* from the Control window.

That's all you need to do. You are now ready to begin capturing data.





TECHNICAL SUPPORT

Technical support is available in several ways. The online help system provides answers to many user related questions. Frontline's website has documentation on common problems, as well as software upgrades and utilities to use with our products.

Web: <u>http://www.fte.com</u>, click **Support**

Email: <u>tech_support@fte.com</u>

If you need to talk to a technical support representative, support is available between 9am and 5pm, U.S. Eastern time, Monday through Friday. Technical support is not available on U.S. national holidays.

Phone: +1 (434) 984-4500

Fax: +1 (434) 984-4505