

Direct Ethernet Connection

A Fast, Simple, and Reliable Link Between a PC and a DSO

LeCroy's WaveSurfer oscilloscope is easily controlled via a built-in Ethernet connection. This port can be used for a connection to a local area network or for a direct connection to a personal computer. Since WaveSurfer uses standard Windows XP connectivity tools, setup is very fast and automatic. LeCroy supplies a full featured interface and control program called ScopeExplorer that provides all the tools necessary to interface to and control the oscilloscope. ScopeExplorer can be downloaded free of charge from the LeCroy website (www.Lecroy.com).

Figure 1 shows a composite ScopeExplorer screen, which includes a fully interactive scope display and virtual front panel. All the display's pull down menus and front panel controls can be used to operate the scope remotely, just as if you were controlling the scope locally. There is a bidirectional terminal interface for sending and receiving remote commands and responses. ScopeExplorer also provides a tool to transfer traces back and forth between the scope and the PC. There is also a translator that can convert scope binary files into ASCII. Finally, there is a mass storage tool for moving files directly between the scope and PC. ScopeExplorer operates under Windows 98 or

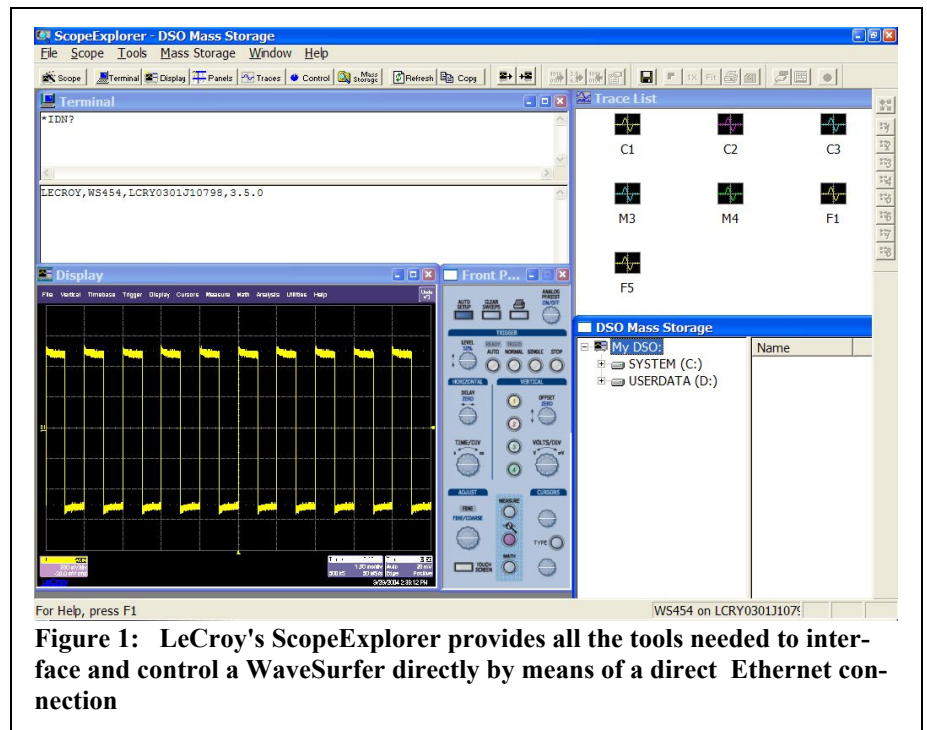


Figure 1: LeCroy's ScopeExplorer provides all the tools needed to interface and control a WaveSurfer directly by means of a direct Ethernet connection

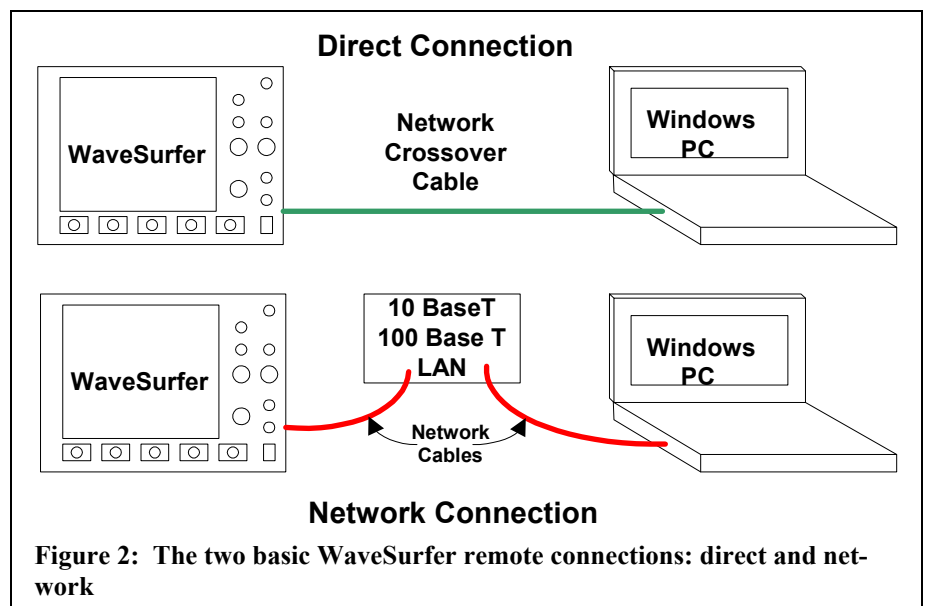


Figure 2: The two basic WaveSurfer remote connections: direct and network

later versions of the Windows operating system that use automatic private IP addressing (APIPA) to automatically configure network addresses when a

server is not on the network. If a server is present, then Windows will use DHCP addressing to establish connection.

The simplest way to connect a PC to WaveSurfer is to make a direct connection using a commercially available crossover cable. The crossover cable connects the Ethernet ports of the scope and PC directly, without the need for a server. This is shown in the top of Figure 2.

The WaveSurfer can also be connected to any 10Base T or 100Base T Ethernet network as shown in the lower section of Figure 2. Before placing the scope on a network you should check with your company's information systems group and comply with any network security requirements. WaveSurfer, like all LeCroy Scopes supports the latest anti-virus software.

Once you have connected the scope to the computer, either directly or via a network, you can set up ScopeExplorer to control the scope. From the ScopeExplorer opening display, pull down the "Scope" menu, then select "Scope Finder". You will see the "Scope Selector" page shown in figure 3. Press the "Add" button and then select "Network" from the "Add Device" popup".

The "Network Device" menu allows you to select the WaveSurfer by simply typing in the scope's serial number, as shown in figure 4, and then pressing OK. The Scope's serial number can be found at the rear of the unit or in the "About" selection in the scope's "Help" pulldown. Once the serial number is entered, ScopeExplorer

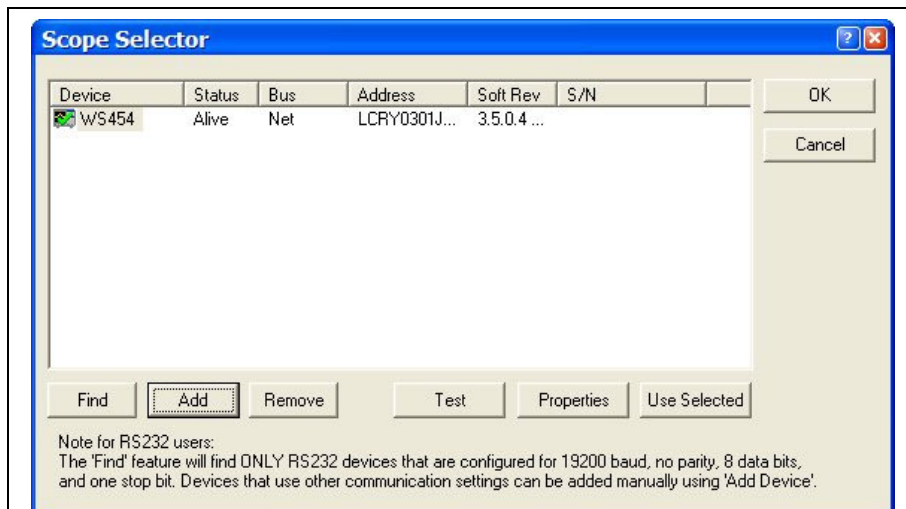


Figure 3: The Scope selection page of ScopeExplorer

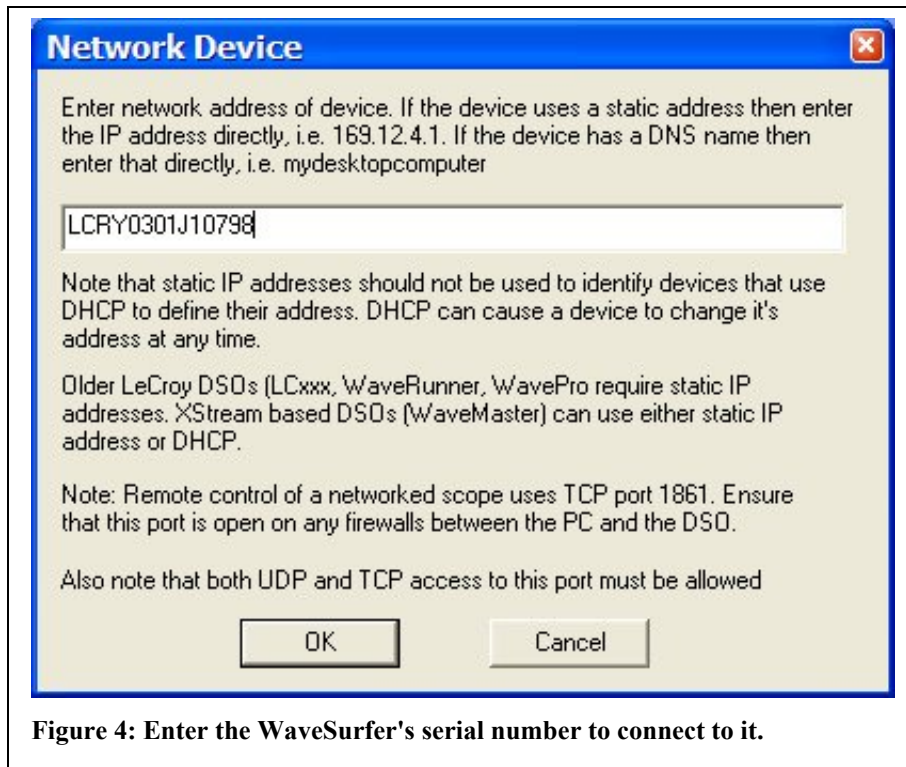


Figure 4: Enter the WaveSurfer's serial number to connect to it.

will connect to the scope and report its status, as shown in Figure 3. The status "Alive" indicates that the connection has been made. From this point you can use any of ScopeExplorer's features to control the WaveSurfer or access any of its data or waveforms. Other PC tools for remote viewing via internet or network, in-

cluding but not restricted to PCanywhere, VNC, and Netmeeting, can be similarly configured.