will'tek

Willtek
9100

How to use the 9100 and 91xx
Data Exchange Software via LAN

Connect the 9100 to a PC to load
and post-process traces or to update
the software

This description details how to set up the PC in order to control a 9100 over a network cable or to download a firmware update to the 9100.

The advantage of a network (LAN) connection over a serial interface (RS-232) is speed: the LAN interface is 100 times faster!

Connecting the 9100 to your PC or notebook

Let's assume that you want to connect the 9100 directly to the PC rather than over an existing network with hubs or switches. We are also assuming that your PC is equipped with a 10 Base T network interface. This is the case if the PC has an RJ-45 (rectangular) jack for networking. You will need a cross network cable. A normal network cable will work in a real network, but not in this example. You will get a cross network cable (RJ-45 plugs) from your local computer shop – simply ask for a network cable to connect two PCs directly.

Connect the 9100 with the LAN connector of your PC using the cross network cable.
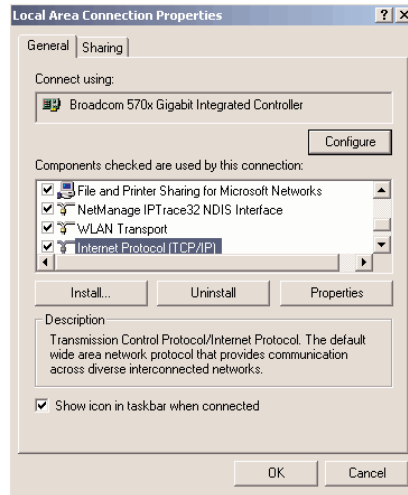
Setting up the PC

The dialogue boxes are slightly different under Windows 98, ME, 2000 and XP, but follow the same principles.

1. Right-click on the Network Environment icon on your Windows desktop (or in the system controls area under Start > Settings) and select Properties. A window will open, showing the network connections already established as in the below example:
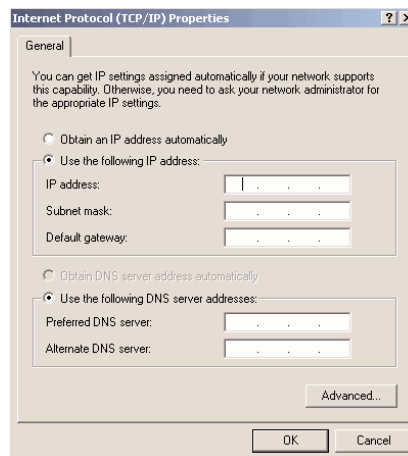
Name ⌃	Type
Make New Connection	
Bluetooth	LAN
Connection to UURemote	Dial-up
Local Area Connection	LAN
WLAN	LAN

2. Right-click on the Local Area Connections icon and select Properties. The following window will open:

Local Area Connection Properties

General | Sharing

Connect using:
Broadcom 570x Gigabit Integrated Controller

[Configure]

Components checked are used by this connection:
- ☑ File and Printer Sharing for Microsoft Networks
- ☑ NetManage IPTrace32 NDIS Interface
- ☑ WLAN Transport
- ☑ Internet Protocol (TCP/IP)

[Install...] [Uninstall] [Properties]

Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

☑ Show icon in taskbar when connected

[OK] [Cancel]

3. If not already available, install the TCP/IP protocol.

4. Select Internet Protocol (TCP/IP) and press the Properties button.

The following window will appear: for more details.

Internet Protocol (TCP/IP) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically
● Use the following IP address:

IP address:
Subnet mask:
Default gateway:

○ Obtain DNS server address automatically
● Use the following DNS server addresses:

Preferred DNS server:
Alternate DNS server:

[Advanced...]

[OK] [Cancel]

5. Select "Use the following IP address" and enter a fixed IP address for your computer. The address should differ from that of the 9100 only in the last few digits.

You can find the network address of your 9100 in the system menu: On the 9100, press the Sys hardkey, followed by the IO Config and the IP Address softkeys.
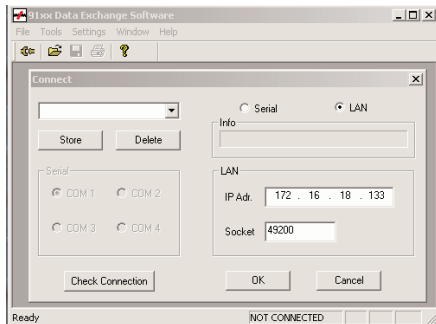
Note: The PC's address must be similar to the 9100 IP address depending on the subnet mask settings (different subnet mask settings are not covered in this document, we will use a simple example).

Example: The 9100 is set to IP address 172.16.18.133, therefore the PC could be assigned 172.16.18.132.

6. In the subnet mask field, enter 255.255.255.0 or 255.255.0.0. You don't need to edit the DNS server settings.

7. Press "OK" to save the settings. Depending on the operating system version, you may need to restart your PC.

Preparing the 91xx Data Exchange Software

1. Start the 91xx DataExchange Software on your PC.

2. Select Settings > Serial / LAN. The following window will appear:
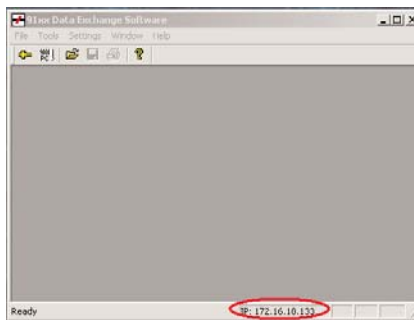

1. Select LAN.

2. Enter the IP address of the 9100 (172.16.18.133 in the above example) and 49200 for the socket number.

3. Now you can press the "Check Connection" button to test if the LAN connection between your PC and 9100 works correctly.

Note: If successful, the info field shows the instrument name, serial number and software version.

If the connection test fails, an error message will pop up. Ensure that you are using the right cable and that the connectors are tightly fitted. Check the parameter settings on the PC and the 9100, especially the IP addresses.

4. Once the 9100 is properly connected, the 91xx Data Exchange Software indicates the IP address of the 9100 that it is connected to.

You can now start to receive measurement traces from the 9100 or update the 9100 firmware.

Now that the 9100 is connected to a PC, you can:

- load measurement traces from the 9100 to a PC in order to view or post-process the data or to include the measurement results in a document.

- update the software with a newer soft-ware available over the Internet at www.willtek.com

- control the 9100 remotely via LAN and build automated procedures for testing.

will'tek