The Mestek Communications Bridge is an OEM product called a ProtoCessor manufactured by FieldServer. The bridge comes pre-configured to correctly map the native Modbus registers to the appropriate protocol (BACnet, LonWorks, etc.). Every control network requires that each device have a unique address (IP, MAC, BACnet Node ID, etc.). The network is usually designed by a controls contractor and thus, we have no way of knowing the device addressing scheme being used. For this reason, it may be necessary to program the device in the field. The steps required are outline below.

This document assumes that you have a standalone (not connected to a network) computer (Desktop or Laptop) with an Ethernet network card. You will also need an Ethernet cable, and the FieldServer Toolbox application. The FieldServer Toolbox application can be downloaded from the Literature Library on the appropriate Mestek product website, (ATH, RBI, Sterling, etc.), or directly from the ProtoCessor web site (www.protocessor.com).

The ProtoCessor is shipped with a default IP address 192.168.1.24. The subnet mask is 255.255.255.0. You need to configure your computer so that it is on the same IP network as the ProtoCessor. The required steps are outlined in the following sections for Microsoft Windows 2000, Windows XP, and Windows 7. If you have already changed the IP Address and/or Subnet Mask of the ProtoCessor, you will need to use the appropriate values.

Windows 2000

Open the "*Windows Control Panel"* (Start->Settings->Control Panel) and double click *"Network and Dial-up Connections"* as shown in Figure 1 to open up the *"Network and Dial-up Connections"* window.

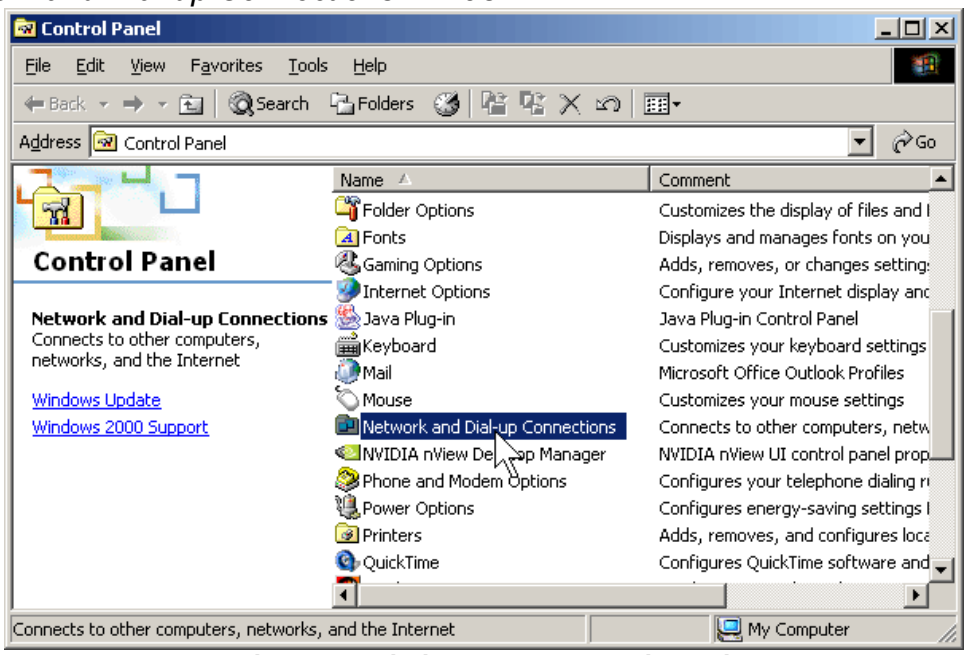

Figure 1 - Windows 200 - Control Panel

Right click on *"Local Area Connection"* and choose properties as shown in Figure 2 to open the *"Local Area Connection Properties"* dialog.

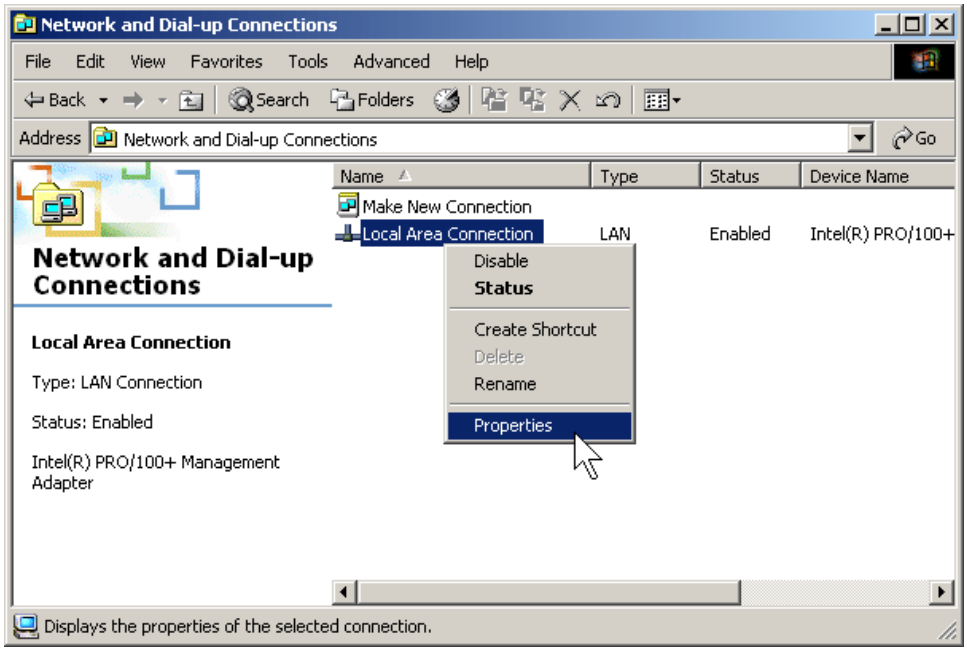

Figure 2 - Windows 2000 - Network Connections

Select *"Internet Protocol (TCP/IP)"* and click the *"Properties"* button as shown in Figure 3 to open the *"Internet Protocol (TCP/IP) Properties"* dialog.

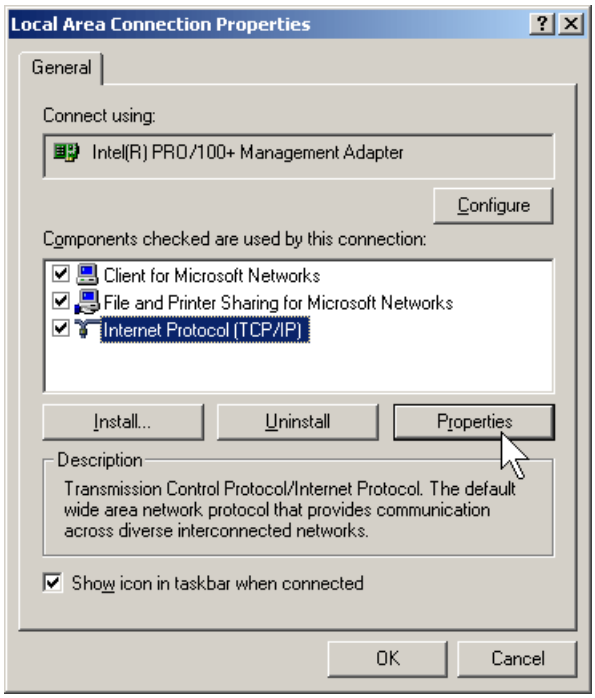

Figure 3 - Windows 2000 - Connection Properties

Write down the current settings so that they can be restored when you are no longer connected to the ProtoCessor. Choose *"Use the following IP address"*, set the *"IP Address"* to 192.168.1.99, and set the *"Subnet Mask"* to 255.255.255.0 as shown in Figure 4. Click the *"OK"* button to save your changes.

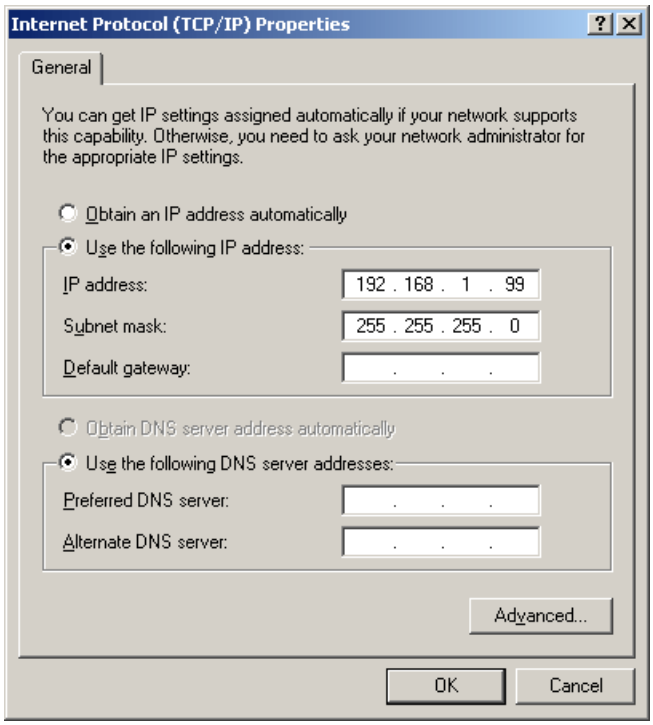

Figure 4 - Windows 2000 - TCP/IP Properties

Close all remaining dialogs and windows that were opened following the instructions in this section. Proceed to the *"Connecting to the ProtoCessor"* section below.

Windows XP

Open the "*Windows Control Panel"* (Start->Control Panel) and double click *"Network and Dial-up Connections"* as shown in Figure 5. to open up the *"Network Connections"* window.

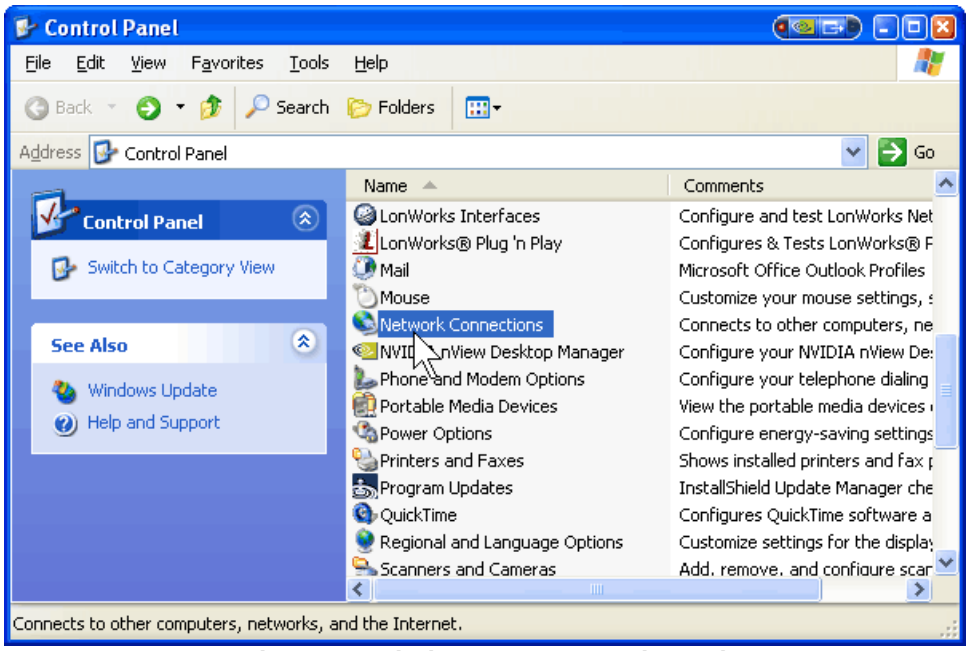

Figure 5 - Windows XP - Control Panel

Right click on *"Local Area Connection"* and choose properties as shown in Figure 6 to open the *"Local Area Connection Properties"* dialog.

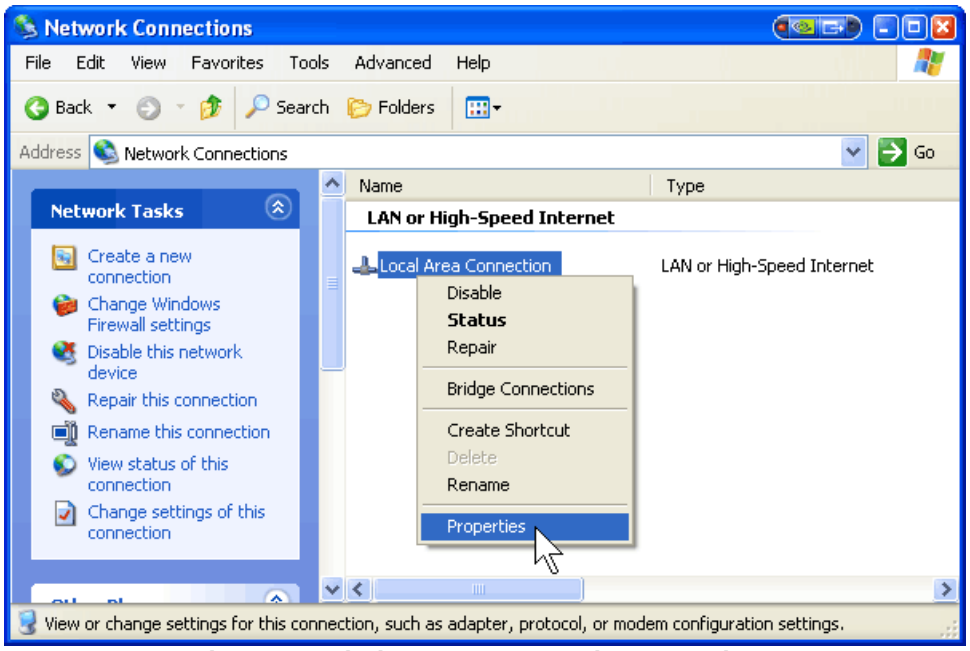

Figure 6 - Windows XP - Network Connections

Select *"Internet Protocol (TCP/IP)"* and click the *"Properties"* button as shown in Figure 7 to open the *"Internet Protocol (TCP/IP) Properties"* dialog.

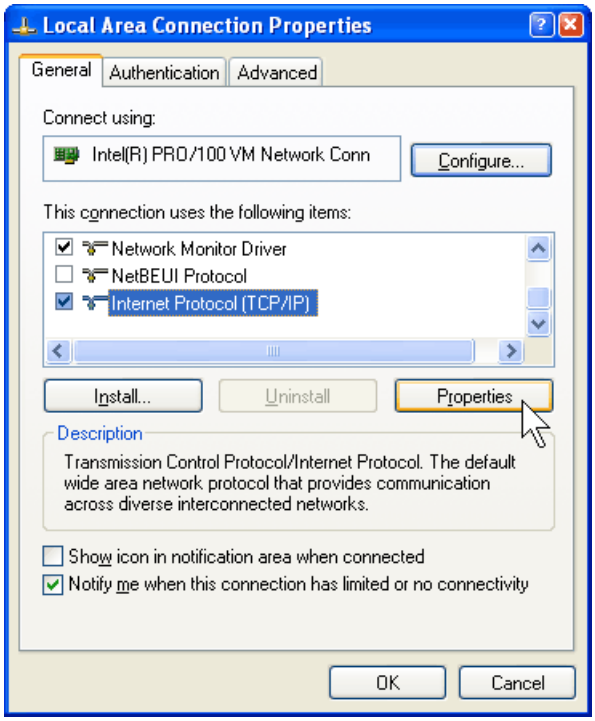

Figure 7 - Windows XP - Connection Properties

Write down the current settings so that they can be restored when you are no longer connected to the ProtoCessor. Choose *"Use the following IP address"*, set the *"IP Address"* to 192.168.1.99, and set the *"Subnet Mask"* to 255.255.255.0 as shown in Figure 8. Click the *"OK"* button to save your changes.

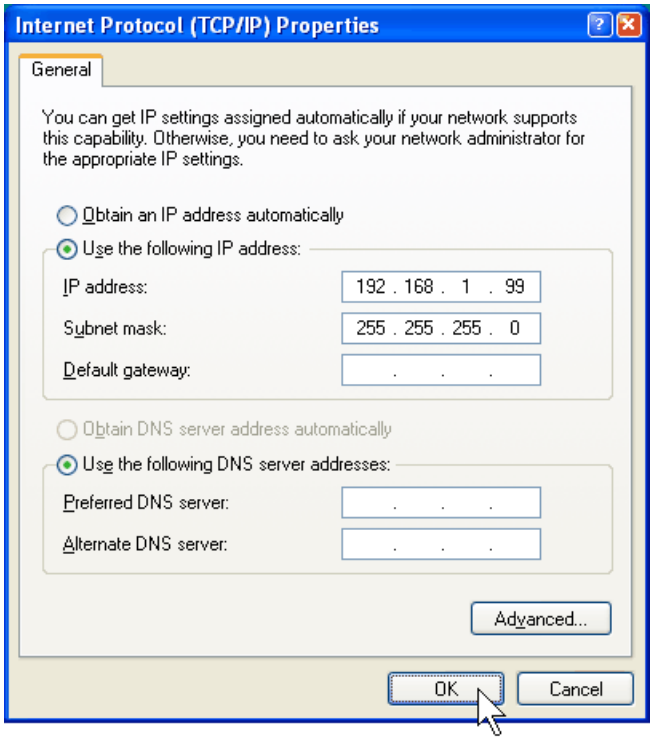

Figure 8 - Windows XP - Internet Protocol Properties

Close all remaining dialogs and windows that were opened following the instructions in this section. Proceed to the "Connecting to the ***ProtoCessor****" section below.*

Windows 7

Open the "*Windows Control Panel"* (Start->Control Panel) and click *"Network and Sharing Center",* as shown in Figure 9, to open up the *"Network Connections"* window.

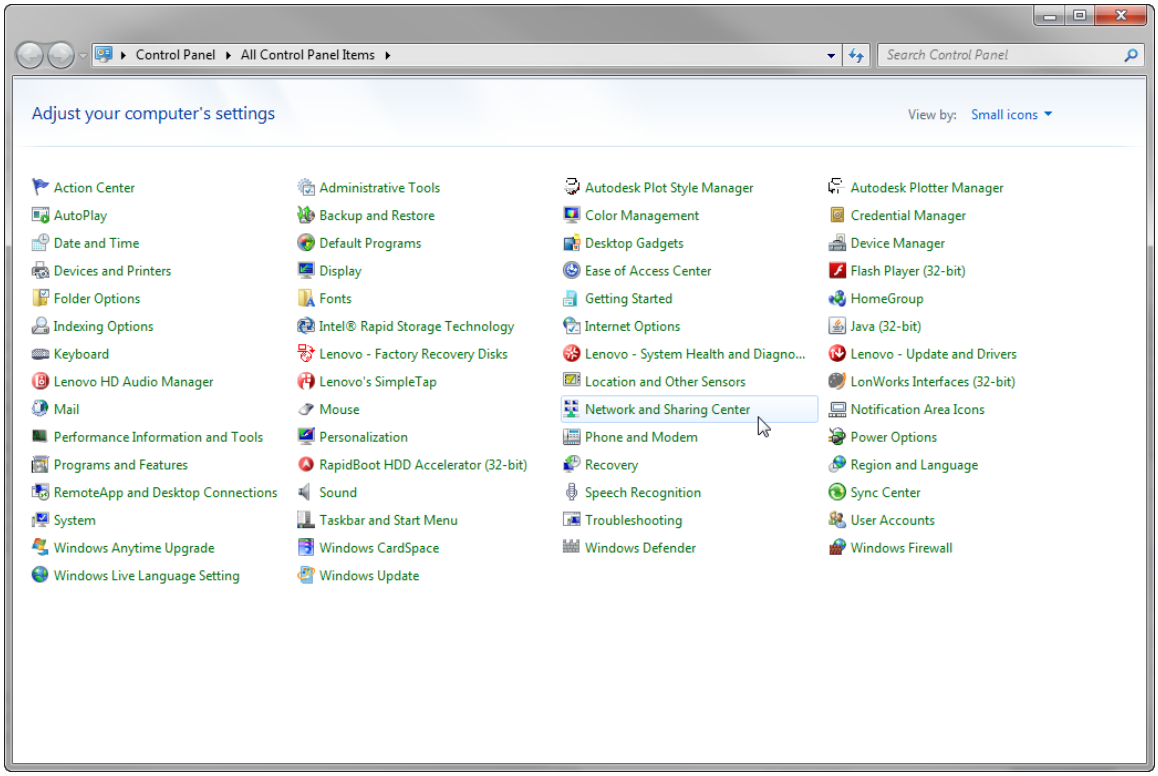

Figure 9 - Windows 7 – Control Panel

Click on *"Local Area Connection"* as shown in Figure 10 to open the *"Local Area Connection Status"* dialog.

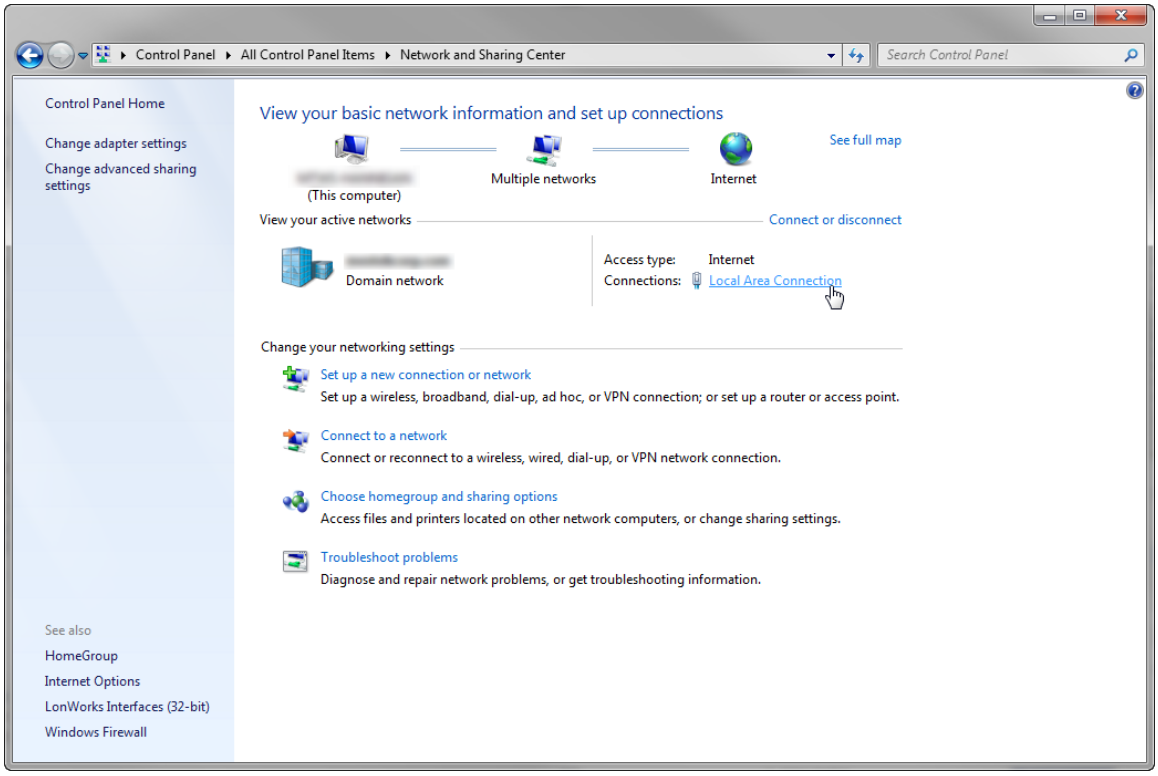

Figure 10 - Windows 7 – Network Sharing Center

Click on the “Properties” button as shown in Figure 11 to open the “Local Area Connection Properties” dialog.

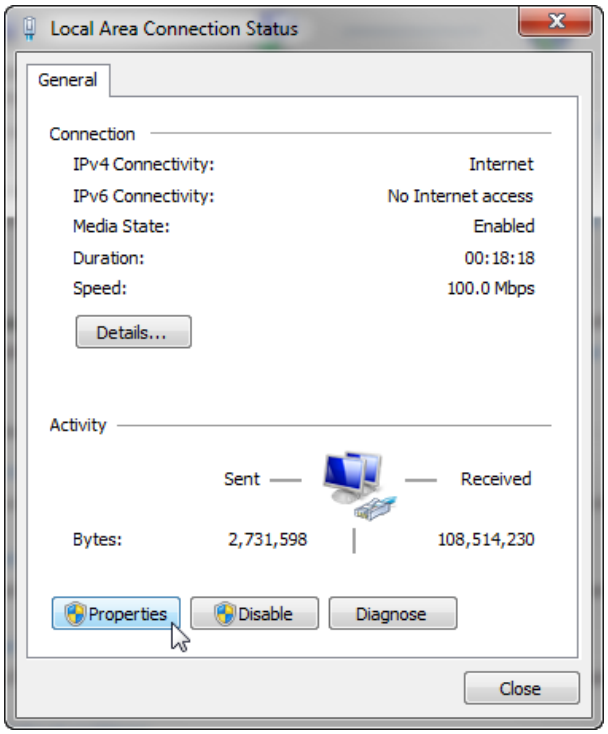

Figure 11 - Windows 7 – Local Are Connection Status

Select *"Internet Protocol Version 4 (TCP/IPv4)"* and click the *"Properties"* button as shown in Figure 12 to open the *"Internet Protocol Version 4 (TCP/IPv4) Properties"* dialog.

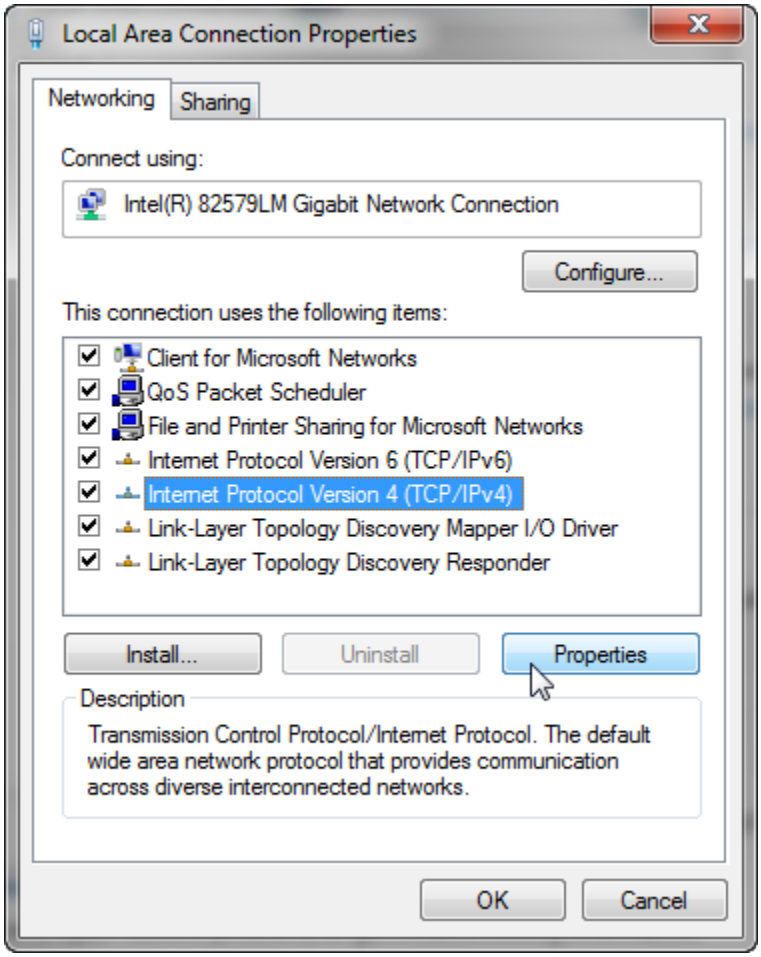

Figure 12 - Windows 7 – Local Area Connection Properties

Write down the current settings so that they can be restored when you are no longer connected to the ProtoCessor. Choose *"Use the following IP address"*, set the *"IP Address"* to 192.168.1.99, and set the *"Subnet Mask"* to 255.255.255.0 as shown in Figure 813. Click the *"OK"* button to save your changes.

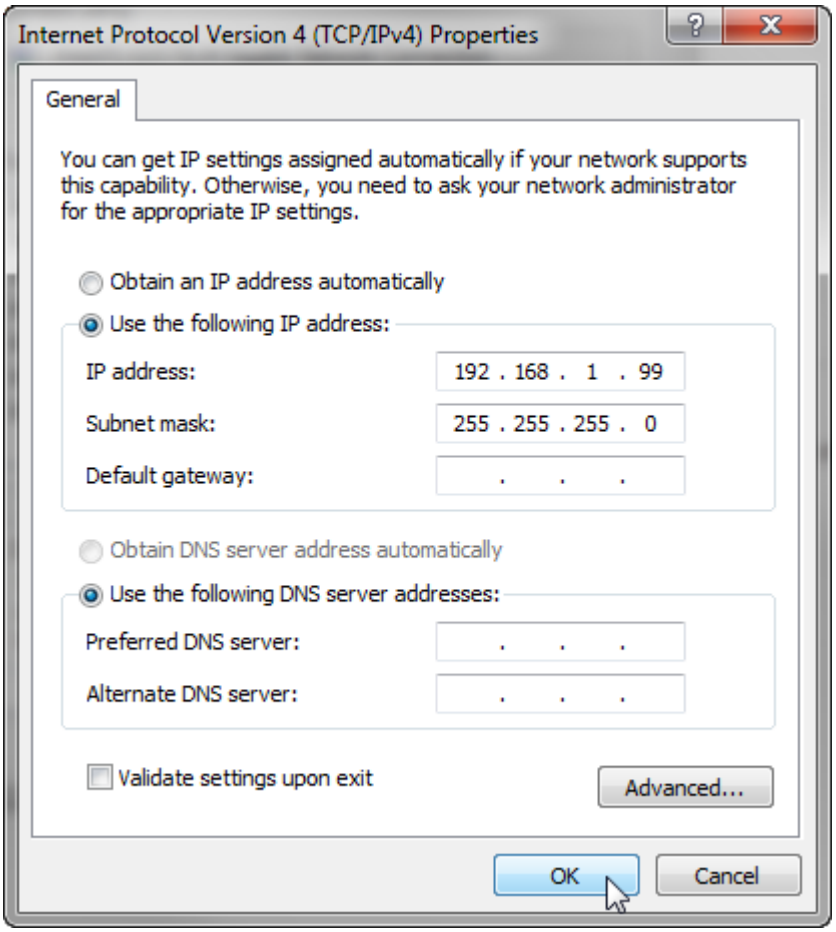

Figure 13 - Windows 7 – Internet Protocol Properties

Connecting to the ProtoCessor

Connect your computer directly to the ProtoCessor using an Ethernet cable, power up the ProtoCessor (apply power to the Mestek product) and run the *FieldServer Toolbox* application. The bridge should be displayed with a green connectivity indicator as shown in Figure 14. Please note that the bridge name may be different on your product. If no bridges show up, or if the bridge shows up with a yellow connectivity indicator there are several possibilities:

1) The Microsoft Windows (or another OEM) Firewall is preventing communications with the bridge. Disable any firewalls and try again.
2) The IP network settings on your computer were not correctly set. Please double check the settings outlined in the preceding sections to verify that they are set correctly.
3) The computer has multiple network cards and you have not configured or are not plugged into the correct port.
4) The IP network settings (IP Address/Subnet) on the bridge have been changed from the default settings.
5) The bridge is not powered or is defective. Please check for power, flashing lights, etc.

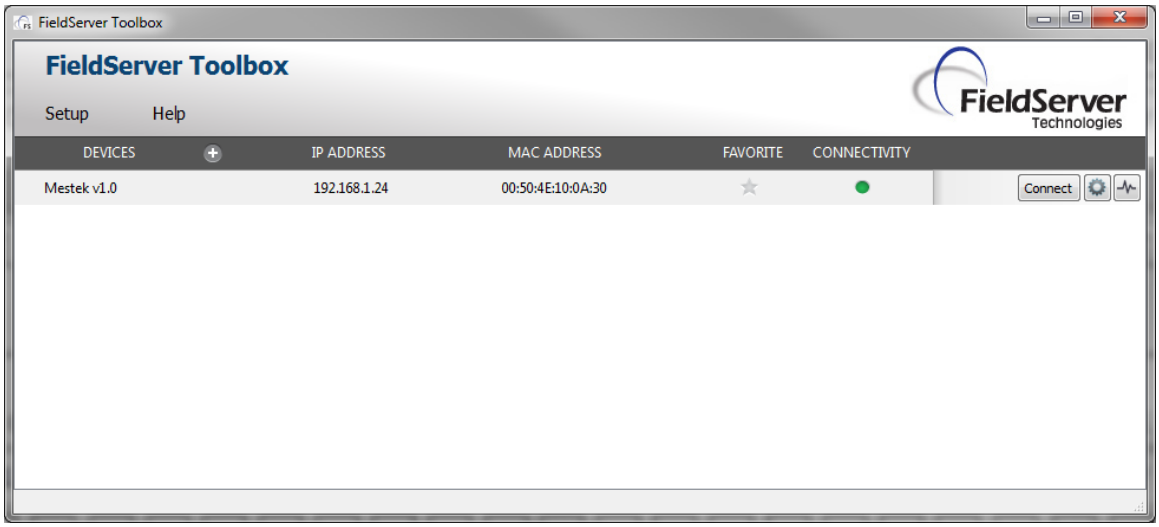

Figure 14 – FieldServer Toolbox - ProtoCessor Found

If the bridge is displayed, and the Connectivity light is green, as shown in Figure 14, you are now ready to monitor and/or configure the bridge. Please consult our technical bulletins (or the Field Server documentation) for configuring the most common settings.