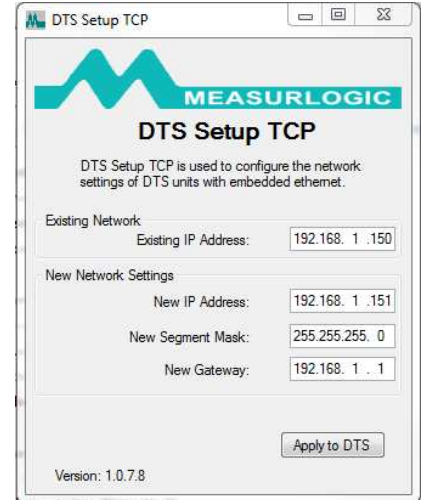


## 1 INTRODUCTION

**DTSsetupTCP** is a small utility that is used to set the network parameters of a Measurlogic DTS Meter that is equipped with embedded Ethernet networking. **DTSsetupTCP** requires that Microsoft .NET frame V2.0 or later is installed on the PC.

**DTSsetupTCP** can be downloaded from the Measurlogic website at:  
<http://measurlogic.com/iframe/Resources/DTSsetupTCP.zip>

- To run DTSsetupTCP, extract the files contained in the .zip file into a new folder on your PC (e.g. C:\Program Files\Measurlogic\DTSsetupTCP) and open "**DTSsetupTCP.exe**".
- Unless specified at the time of ordering, the default IP Address, Segment Mask and Gateway will be set at the factory to 192.168.1.150, 255.255.255.0, and 192.168.1.1 respectively.
- These networking parameters need to be changed so that the meter is on the same subnet as the network into which it is to be installed.
- The IP Address of every device on the network also has to be unique. This is normally achieved by changing the value of the rightmost octet of the IP Address only.
- Please ask your network administrator if you are uncertain of what network settings to use for each meter.



### 1.1 CROSSOVER CABLE METHOD

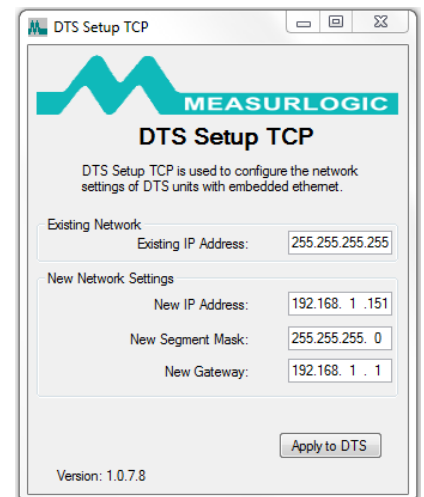
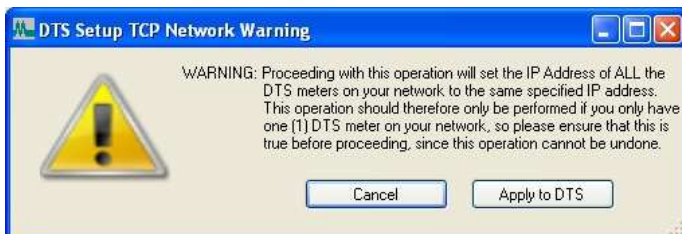
- Since the default network settings of the meter may not match those of your network, it may not be possible to directly communicate with the meter, initially. The most reliable way to set new network parameters is to directly connect the meter to a PC using a "**cross-over**" network cable.
- Power on the meter and the PC and allow a few minutes for the PC to obtain its networking parameters from the DHCP server that resides in the meter for this purpose.
- Start DTSsetupTCP on the PC. For convenience, the existing IP Address defaults to the factory default of 192.168.1.150.
- Enter the new IP Address, Segment Mask and Gateway information of the target network, and press the "Apply to DTS" button.
- The progress and status is shown at the bottom of the dialog box.
- Repeat for all the meters, making sure that each IP Address is different.

### 1.2 INSTALLED ON THE TARGET NETWORK

Should the subnet of the target network be the same as the factory default (i.e. 192.168.1.X) the same method as described above may be used. However, connect and set multiple meters one at a time to the network, otherwise there will be more than one meter with the same IP Address on the network.

### 1.3 WHEN ALL ELSE FAILS

- If the network parameters of the meter are not known, or the meter is not reachable using direct IP Addressing, then new networking parameters may be forced using broadcast messages.
- However, since broadcast messages will be received and executed by **ALL DTS meters on the network**, you **MUST** ensure that only **ONE** meter is connected to the network, otherwise the network parameters of ALL the DTS meters on the network will be set to the specified parameters. This will cause problems because now all the IP Addresses will be the same.
- Therefore, use this method with **CAUTION**, and preferably use of a "crossover" cable.
- To initiate the broadcast, set the existing IP Address to 255.255.255.255 and proceed as above. In this case the following warning message will appear.



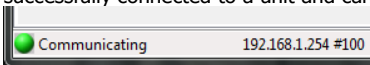
## 2 TROUBLESHOOTING

The following section details general troubleshooting topics in case you are having difficulties connecting to a meter after trying all the applicable steps detailed above with **DTSsetupTCP**. You will need to install the **DTS Config** software for these steps.

**DTS Config** can be downloaded from the Measurlogic website at:  
<http://www.measurlogic.com/software.html>

### 2.1 CONNECTING WITH DTS CONFIG

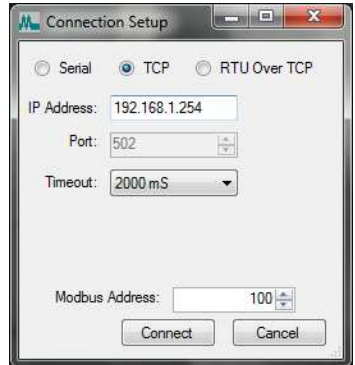
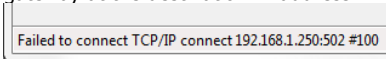
- Install DTS Config on your PC (default location C:\Program Files\Measurlogic\DTSConfig)
- Connection to a meter through DTS Config is established through the **"Connect"** menu after launching the application. Click the **"TCP"** radio button, enter the IP address of the meter you wish to connect to, choose Modbus address 100, and click the Connect button.
- If you receive the following **"Communicating"** message on the DTS Config status bar, then you have successfully connected to a unit and can view the associated monitors and configuration:



- If you receive the following **"MB Timeout"** message on the DTS Config status bar, then you have successfully connected to the Ethernet gateway embedded in the unit, but not the meter itself. This indicates an incorrect Modbus address - confirm that this is 100.



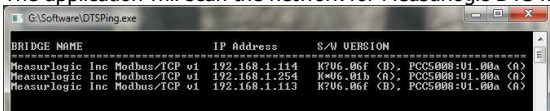
- If you receive the following **"Failed to connect TCP/IP"** message on the DTS Config status bar, then DTS Config is not detecting an Ethernet gateway at the destination IP address. Proceed to **Section 2.2** below for further troubleshooting.



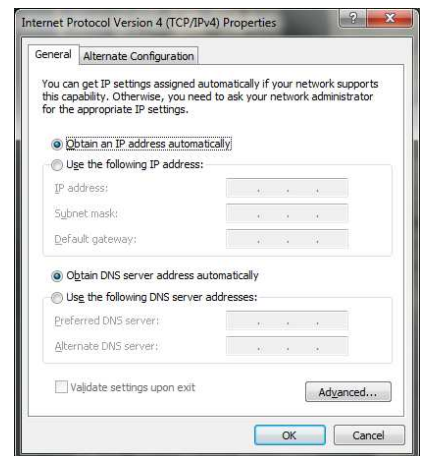
### 2.2 NETWORKING

If you're attempting to connect to the meter at the factory default IP address of 192.168.1.150 **OR** you've attempted to change the IP address of the meter using DTSsetupTCP and cannot connect to it afterwards, you will need to confirm the network connectivity between the PC and meter. The following steps assume you are hooking up your PC and meter directly with a crossover cable, as described in **Section 1.1**.

- Try to **"ping"** the IP address of the meter with the DTSPing utility. You can download it here: [www.measurlogic.com/Software/DTSPing.zip](http://www.measurlogic.com/Software/DTSPing.zip). The application will scan the network for Measurlogic DTS meters with embedded Ethernet and return the IP addresses of any it finds.



- Check that your PC network adapter is set to automatically receive IP settings from the DHCP server that resides in the meter.
  - In Windows 7, you can find this in *Control Panel>Network and Sharing Center>Change Adapter Settings>Local Area Connection>Properties>Internet Protocol Version 4 (TCP/IPv4)*
  - In Windows XP, you can find this in *Control Panel>Network Connections>Local Area Connection>Properties>Internet Protocol (TCP/IP)*
- If you are using a PC with a wireless network adapter, you must disable it to avoid any conflicts during this process. This can be done through the aforementioned Change Adapter Settings/Network Connections locations in Windows 7/XP.
- Check that the IP address of the PC has been set by the meter. Go to Start>Run and type **"cmd"** to start the command prompt. Type **"ipconfig"** into the command prompt and read the IP address in the **"IPv4 Address"** field. If the meter is at the factory default, the PC should be assigned the address 192.168.1.254. If the PC has an IP starting with 169.X.X.X, remove auxiliary power from the meter for 30 seconds and power the meter, again.



- Check the LEDs on the Ethernet ports of the meter and PC are on/blinking, indicating link activity and network speed. If one or both LEDs are off, there may be a problem with the cable. Confirm that it is terminated as a crossover and try another cable out if in doubt.
- Confirm that only one meter is connected to the LAN during setup. If multiple meters on the LAN are at the factory default IP address **OR** all have received the broadcast message detailed in **Section 1.3**, there will be a conflict that will prevent all affected meters from communicating. If this happens, remove auxiliary power from all meters, then power and set up one at a time.