PERFORMANCE UPDATE

DENT INSTRUMENTS

ELITEPRO XC/SP ETHERNET COMMUNCATION OPTION

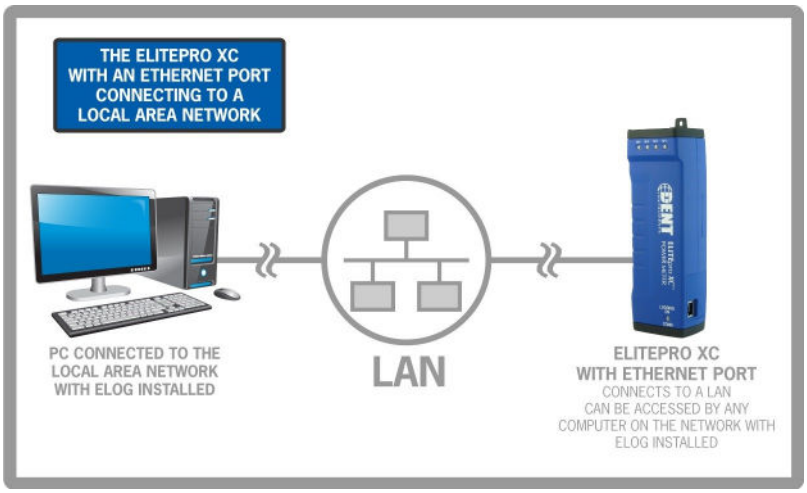
rev061213

Note: This document covers the Ethernet functionality for both the ELITEpro XC and ELITEpro SP. The directions for both meters are identical unless otherwise noted.

Overview

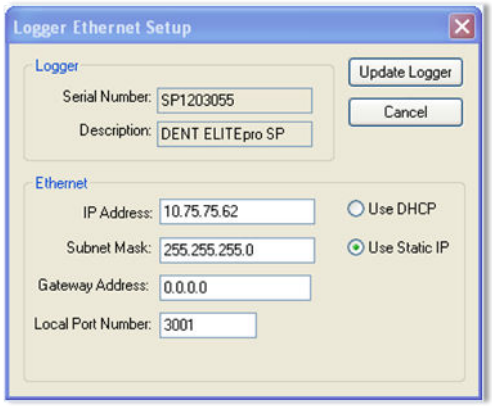
The Ethernet option can be used for a direct connection where a network is available. Ethernet connections must be configured initially via USB by users familiar with the network details, and may require the assistance of a network administrator.

Note: Each ELITEpro XC connected to the network requires its own unique network IP address. An address will be provided automatically if the network allows DHCP (Dynamic Host Configuration Protocol) and the ELITEpro XC is configured to request an address.



Here are the steps to set up the ELITEpro XC for network:

1. Configure the EXC for use on the network. First connect the USB cable to a USB port on your computer, inserting the other end into the USB port on the ELITEpro XC. (Hint: Look for this USB symbol:) If a USB cable is used inside an electrical panel, it must be rated to the appropriate voltage or wrapped in an appropriately rated insulating sleeve. The DENT-supplied cable does not meet this requirement without an insulating sleeve.



2. ELOG should launch automatically and connect to the logger. If it does not, click on the icon on the computer desktop.

3. The ELITEpro XC should automatically connect to the PC. If it does not, choose the correct location from the Friendly Ports™ drop-down menu. For more

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information regarding Friendly Ports™, see ***Communicate with the ELITEpro XC*** in Section 1 of the manual.

4. Configure the Logger Ethernet Setup information once the ELITEpro XC has established a connection with the PC.

   a. From the ELOG menu, select ***Logger > Communication > Logger Ethernet Setup…*** The Logger Ethernet Setup dialog box displays.

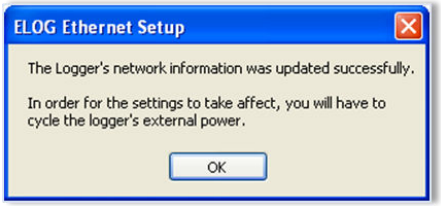
   - The Ethernet connection must have an IP Address that can either be set manually with the Use Static IP option (for fixed address) or obtained automatically from the router connected to the logger using the Use DHCP option (dynamic address). Both options have advantages.

     - ***Static Connection***: If you know an IP address that is not being used by another device on the network select the Use Static IP option and enter that address into the IP Address: field. This may require permission from a network administrator. With a static IP address it is easy to connect to the logger with ELOG as there is no doubt about what IP address to use.

     - ***Dynamic Connection***: If you want the router to assign an IP address to the meter automatically, select Use DHCP. This may avoid the need of a network administrator as the router will assign an IP address that does not conflict with any other devices on the network. A disadvantage of the DHCP option is that the "lease" of the IP address may expire after a period of time and the router could assign a different IP address. A new IP address means that ELOG cannot connect to the logger until the new IP address has been entered when using the Network Connect option. (See below.)

   - An additional option is to set the logger to DHCP and go the router and assign a specific PI address to the MAC address that corresponds to the logger. In this way, if the lease does expire, the router will always assign the same IP number back to the logger. This option may also require a network administrator.

   b. If necessary, change the Port Number. The factory default is 3001 and will usually work in most cases. The use of the Subnet Mask and Gateway Address are outside the scope of this guide or the full manual. If needed, ask the network administrator for assistance.



   c. Click ***Update Logger***. The following message displays:

   d. Select ***OK*** then remove all power to the logger including the USB cable to perform a power cycle.

   e. ***(Skip this step if Static IP was used.)*** If DHCP was selected, reconnect the logger using the USB cable and use ***Logger > Communication > Logger Ethernet Setup…*** to determine what IP address was assigned by the network router to the logger. Note this IP address and disconnect from the USB connection.

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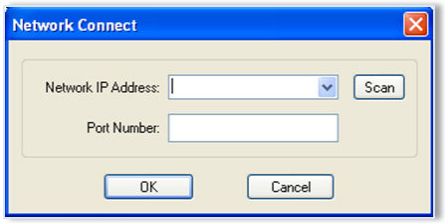
5. Connect an Ethernet cable from the network into the Ethernet port on the side of the logger.

6. Click the ***Ethernet or Wi-Fi Connection*** speed button on the toolbar to reconnect via Ethernet. The Network Connect dialog box displays (next page):



7. Enter the Network IP Address and Port Number if it is no automatically populated. Select OK to proceed and establish your Ethernet connection.

Note: if you do not know your Network IP Address or Port Number, click the Scan button on the Network Connect window. ELOG will scan the network for loggers and display them in the Logger Selection dialog box. Look for the serial number on the logger to determine which connection point is yours. The logger's serial number can also be found on the back of the logger. Select your logger in the Logger Selection dialog box and click ***OK***, and then ***OK*** again in the Network Connect window.

ELITEPRO XC COMMUNICATIONS USAGE MATRIX

Feature	USB	Ethernet	*Bluetooth®*	Wi-Fi	Wi-Fi Access Point Mode
ELITEpro SP 8MB Download Time (approx.)	4 min	6 min	22 min	20 min	Using ELOG: 30 minutes Using Web Browser: N/A
ELITEpro XC 16MB Download Time (approx.)	8 min	12 min	44 min	40 min	40 min
Range	Length of USB cable	Length of network cable	10-100 ft*	75-300 ft**	75-300 ft**
Access with...	PC + ELOG	PC + ELOG	*Bluetooth®*-enabled PC + ELOG	Wi-Fi-enabled PC + ELOG	Wi-Fi-enabled PC + ELOG or Wi-Fi-enabled laptop, tablet, or smartphone with web browser.
Internet?	No	Depends on network firewall	No	Depends on network firewall	No
Functionality	Full	Full	Full	Full	Partial via web browser.