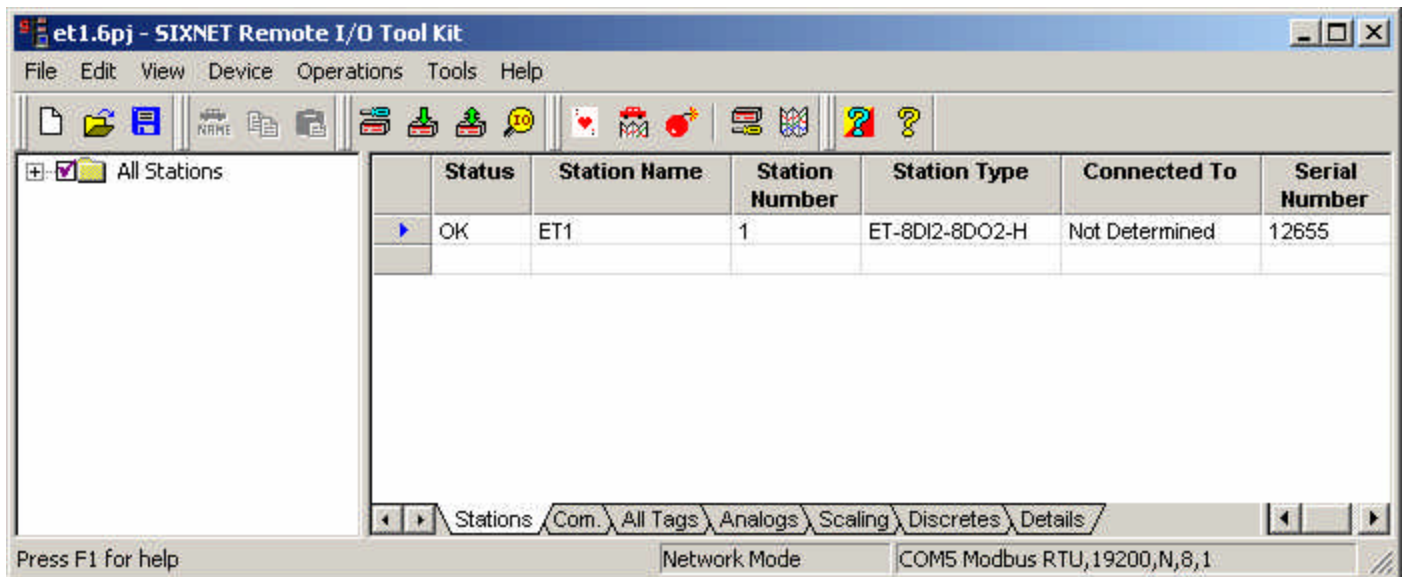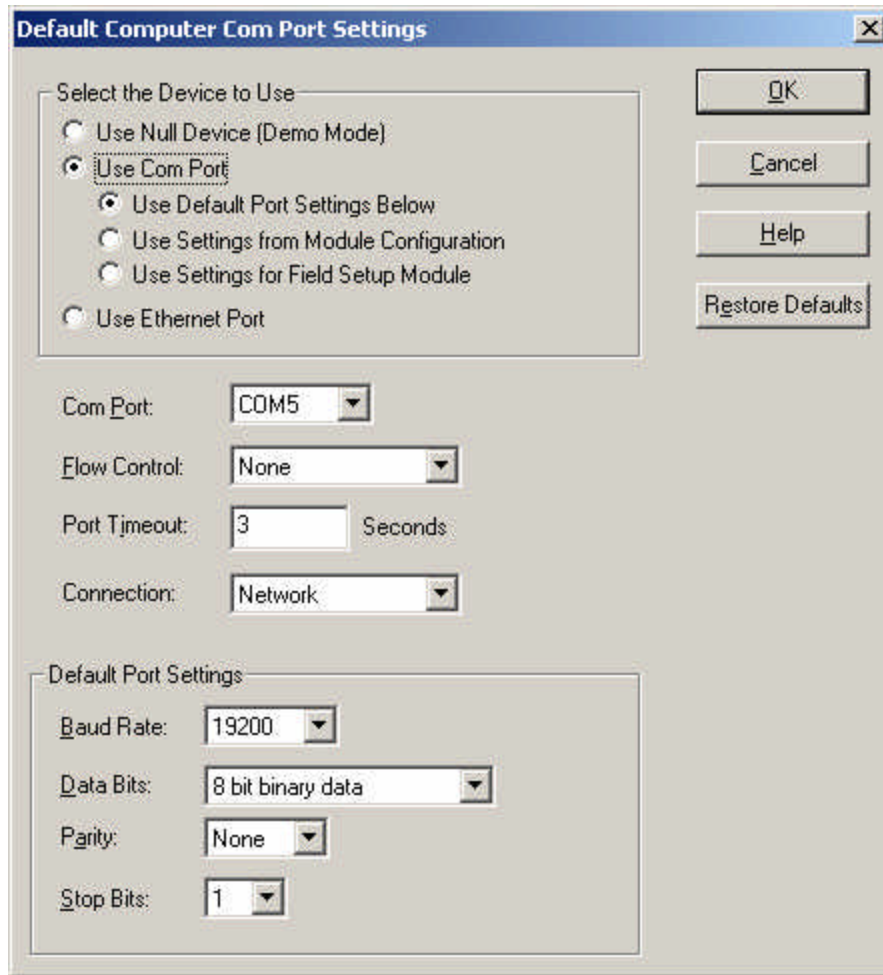# SEALEVEL
SYSTEMS INCORPORATED

Date: 06/14/2001

This document describes how to use SIXNETS' Remote I/O Tool Kit and a Sealevel Systems' 7201 PCI card to establish a physical connection to a SIXNET EtherTRAK I/O module. Please note that it is also possible to establish the connection to the I/O module using a TCP/IP interface. Our purpose here is to describe only the Aysnchronous Serial configuration.

It is assumed that the Sealevel 7201 card is already correctly installed and its operation has been verified with the Sealevel supplied tools. The 7201 card must be setup in 2-wire RS-485 mode to work properly in this application. If the 7201 card is not already installed, please refer to the 7201 Hardware Manual for installation instructions.

The SIXNET I/O module can be used in a number of protocols. In this example we have set the SIXNET I/O module up to use the MODBUS RTU protocol as a slave. Please find below a screen capture of the main SIXNET Remote I/O Tool Kit application.

To begin configuration, click the 'Device' pull down menu, which should open the following dialog:

Default Computer Com Port Settings   ✕

Select the Device to Use
- ○ Use Null Device (Demo Mode)
- ● Use Com Port
  - ● Use Default Port Settings Below
  - ○ Use Settings from Module Configuration
  - ○ Use Settings for Field Setup Module
- ○ Use Ethernet Port

OK
Cancel
Help
Restore Defaults

Com Port: COM5 ▼
Flow Control: None ▼
Port Timeout: 3   Seconds
Connection: Network ▼

Default Port Settings
Baud Rate: 19200 ▼
Data Bits: 8 bit binary data ▼
Parity: None ▼
Stop Bits: 1 ▼

We have chosen to 'Use Com Port' since we will communicate with the I/O device via a Sealevel 7201 serial port. In this case, the COM identifier assigned to port 1 on the Sealevel 7201 card is 'COM5'. For your application, simply use the drop down box to select the COM port assigned to your card. Set the 'Default Port Settings' to your desired parameters keeping in mind that this configures the COM port on the PC. These settings must match what you download to the I/O module. Click 'OK' to complete PC COM port configuration.

To begin configuring the I/O module, click the 'Operations' pull down menu in the Main dialog and select 'Configuration' to reveal the following dialog:

The 2 tabs of interest here are 'General' and 'RS-485'. The above screen capture reveals the configuration options on the 'General' tab. For 'Station Type:' use the drop down box to select your particular SIXNET I/O module. 'Station Name:' is an arbitrary name and the only requirement is that each one be unique. 'Serial Number:' is just that and it can be found on the I/O module. 'Station Number:' is a unique address and in this example we are using '1' since only one module is attached.
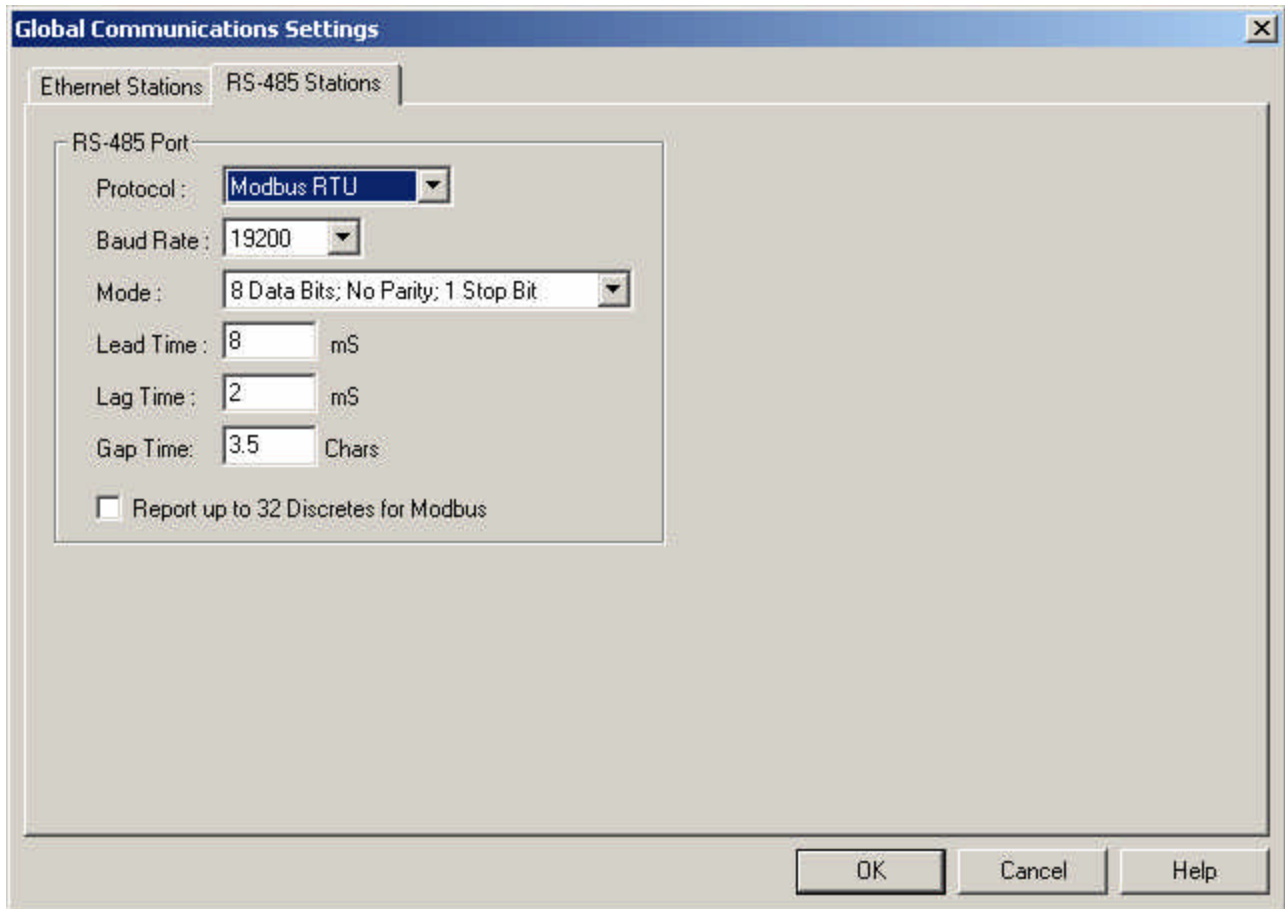
Now click the 'RS-485' tab to bring up the following dialog:
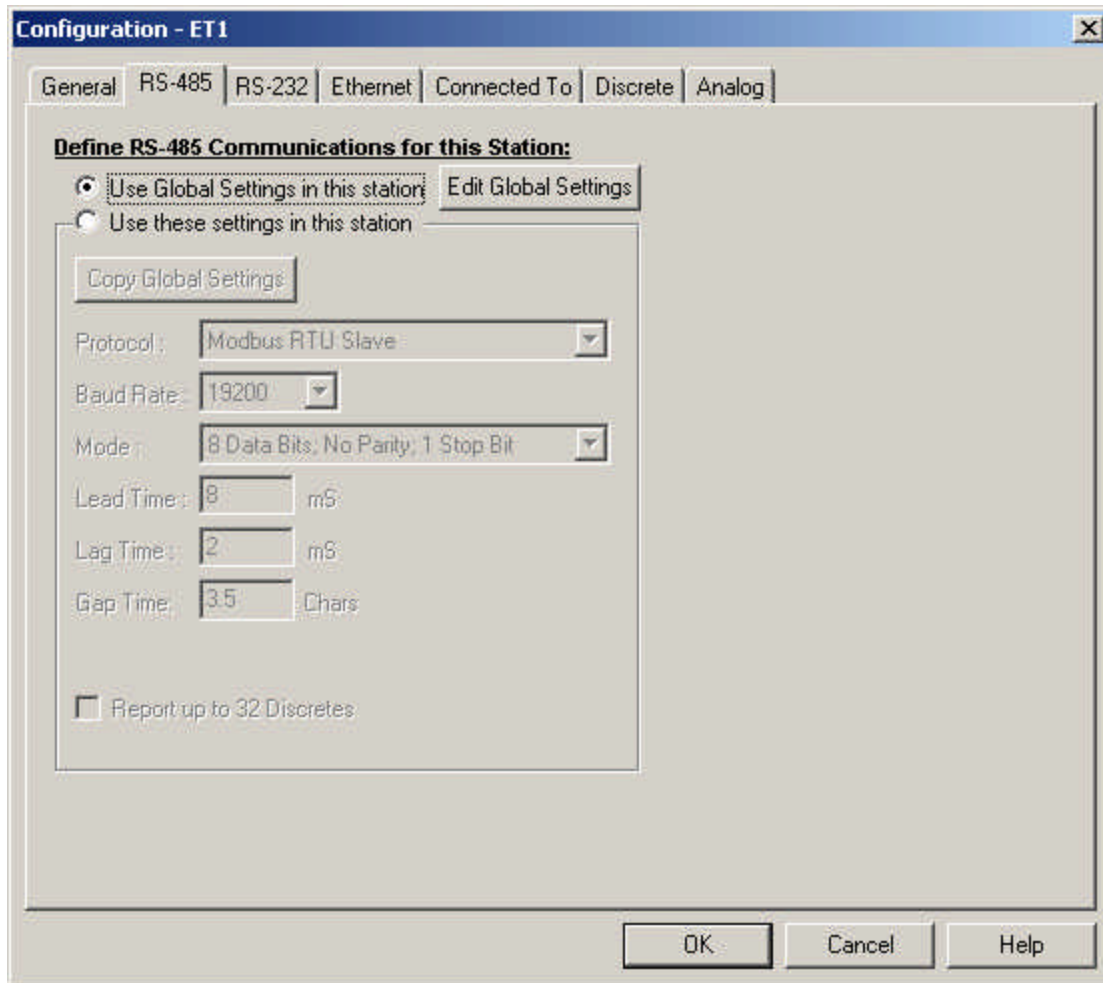
We will use Global Settings so click the 'Edit Global Settings' button to bring up the following dialog:
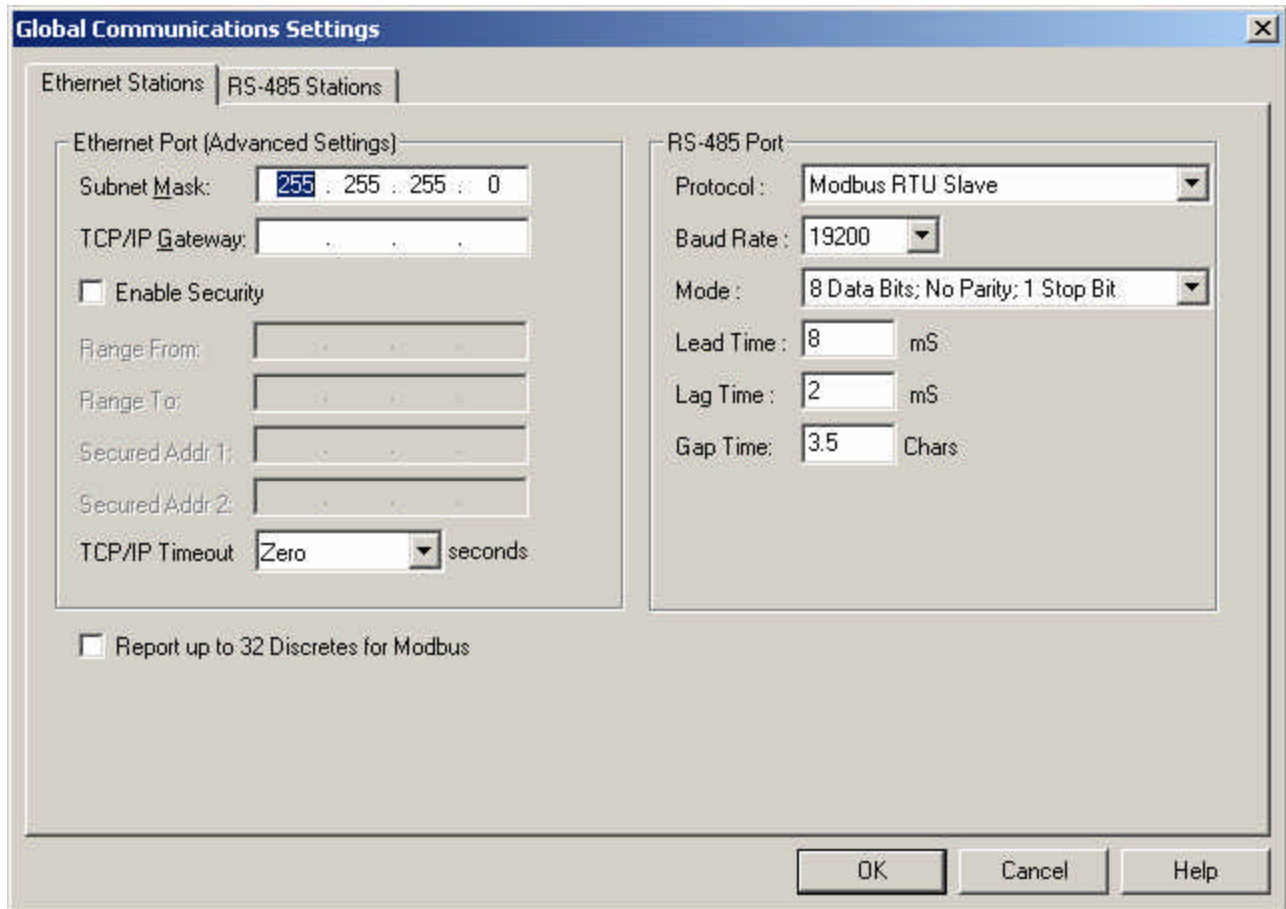
The dialog on the right should match the settings we configured earlier for the PC COM port. Click the 'RS-485 Stations' tab to bring up the following dialog:

These settings should match the earlier PC COM port settings as the I/O module will be configured using these settings. Click 'OK' to accept your settings and continue. The final step in this process is to click 'Operation' again in the main dialog and choose 'Load' so that these settings can be downloaded to your I/O module. The SIXNET Remote I/O Tool Kit will establish communications and download the settings to the I/O module. At the end of the process you should see the following verification that everything was configured correctly.
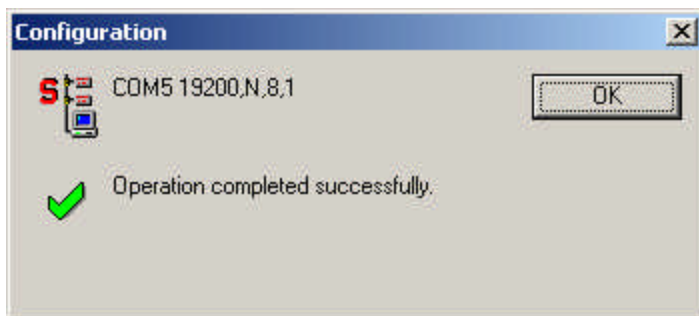
You are now ready to use your SIXNET I/O system with other applications or the SIXNET supplied applications using the MODBUS RTU protocol at 19.2K-baud, 8 data bits, no parity, and 1 stop bit.