Q: How do I access multiple distributed serial devices through the Ethernet by using a serial master?

A: The following solution describes how to configure several PDS-700 modules to create a many-to-one pair-connection system. Once the configuration is complete, the serial master (e.g., a PLC) will then be able to easily access the various serial devices through the Ethernet. A detailed description of the configuration is provided below.
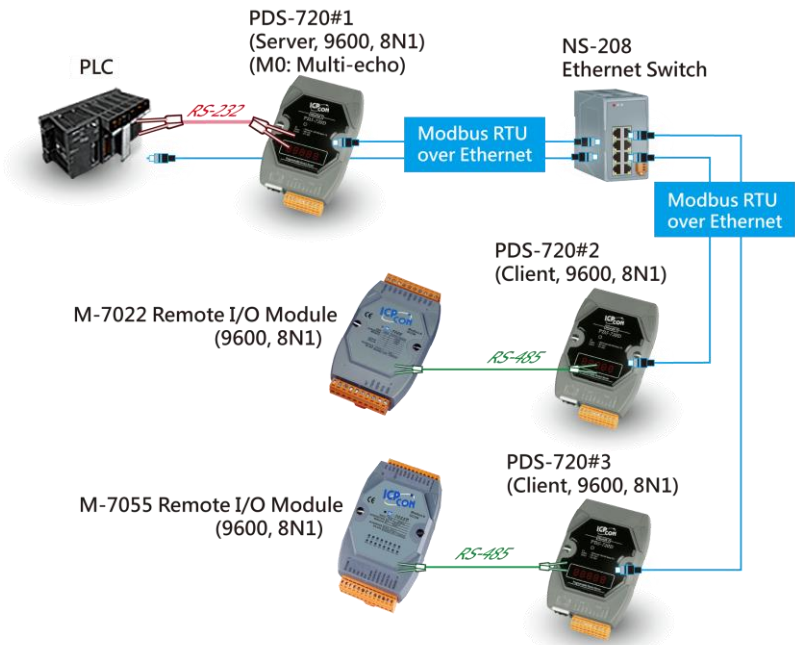
The following are examples of Pair-connection Settings:

Model		Port Settings (Default)				Pair-connection Settings	
		COM Port	Baud Rate	Data Format	Operation Mode	Remote Server IP	Remote TCP Port (Default)
Server Mode	PDS-720 #1	COM1	9600	8N1	M0	-	-
Client Mode	PDS-720 #2	COM1	9600	8N1	M0	IP Address of PDS-720 #1	10001
ClientMode	PDS-720 #3	COM1	9600	8N1	M0	IP Address of PDS-720 #1	10001

Step 1: Install the **VxComm Utility** on the Host PC and then run the Utility to search for any PDS-700 series modules connected to the network.
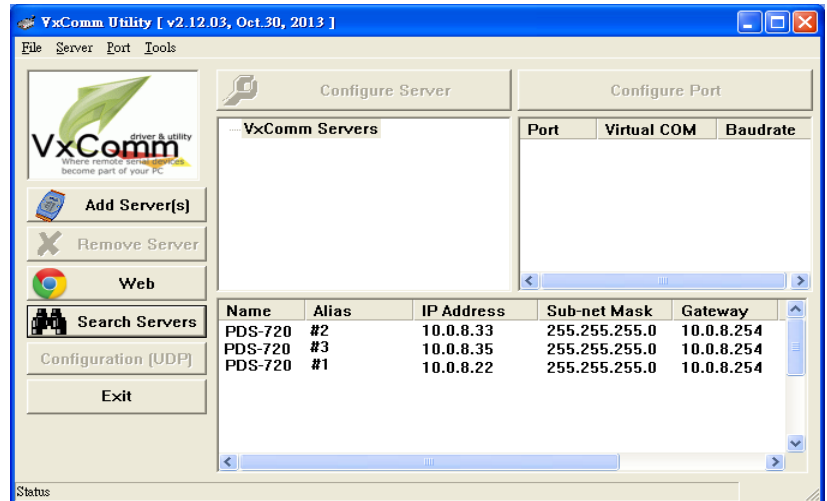
Download the VxComm Utility

Step 2: Configure the correct network settings for each of the required PDS-700 series modules. Refer to **Chapter 5 "Configuring Ethernet Settings"** in the PDS-700 Quick Start Guide for more details.

Download the Quick Start Guide.

Step 3: Enter the IP address of the PDS-720 #1, PDS-720 #2 or PDS-720 #3 **modules** in the address bar of a browser (such as IE, Chrome or Firefox, etc.), or click the **"Web"** button in the VxComm Utility to log in to the web configuration page. (Repeat this step for each module)

Step 4: Check that the **firmware version for the module is v3.2.32[Oct 07 2013] or later** in the "VCOM3 Firmware Version" field for the PDS-720 #1, PDS-720 #2 or PDS-720 #3. (Repeat this step for each module)
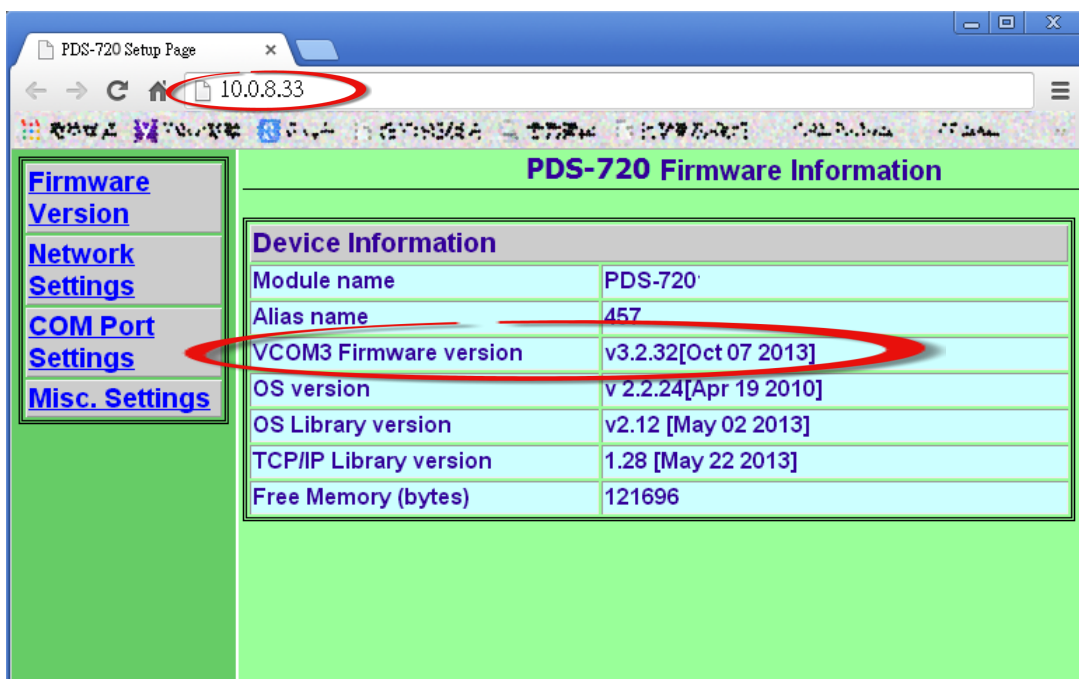
Step 5: Follow the procedure described below to configure the **Pair-connection (Server Mode) on the Web Server for the PDS-720 #1 module**.

1. Click the **"COM Port Settings"** tab to display the "Configure COM PORT" page.
2. Select the appropriate **COM Port number, Baud Rate and Data Format** settings from the relevant drop down options (e.g., "COM1", "9600", "8", "None" and "1").
3. Click the **"M0 (Transparent Mode)"** option button in the "Operation Mode" field.
4. Check the "**Save current settings to EEPROM**" and "**Apply current settings**" checkboxes, and then click the "**SET COM PORT**" button to complete the configuration.
5. Click the "**Set Remote VCOM3 connection**" link to proceed to the "PDS-720 Remote Vcom3 connection Setup Page" (Pair-connection settings).

6. On the "PDS-720 Remote Vcom3 Connection Setup Page", confirm that the **Local COM port/Remote COM port** for the **PDS-720 #1 is show as "None"**.

Step 6: Follow the procedure described below to configuring the **Pair-connection (Client Mode) on the Web Server for the PDS-720 #2 and PDS-720 #3 modules**.

1. Click the **"COM Port Settings"** tab to display the Configure COM PORT page.
2. Select the appropriate **COM Port number, Baud Rate and Data Format** settings from the relevant drop down options (e.g., "COM1", "9600", "8", "None" and "1").
3. Click the **"M0 (Transparent Mode)"** option button in the "Operation Mode" field.
4. Check the "**Save current settings to EEPROM**" and "**Apply current settings**" checkboxes, and then click the "**SET COM PORT**" button to complete the configuration.
5. Click the "**Set Remote VCOM3 connection**" link to proceed to the "PDS-720 Remote Vcom3 connection Setup Page" (Pair-connection settings).

6. On the "PDS-720 Remote Vcom3 Connection Setup Page", click the "**Add COM**" option button, and then **enter the COM port for the PDS-720 #2** that is to be used (e.g., COM 1). Enter the appropriate **IP address and TCP Port for the PDS-720 #1** settings in the relevant fields (e.g., "IP: 10.0.8.22" and "port: 10001").

7. Check the "**Save to EEPROM**" checkbox and then click the "**submit**" button to update the configuration.

8. Confirm that the newly created for pair-connection settings are show in the **Local COM Port/Remote COM port** area.

9. **Reboot** the **PDS-720 #2 module** to complete the configuration.

10. Repeat Steps 1 to 9 (Pages 4 and 5) for the PDS-720 #3 module.