M2M-710D Quick Start User Guide

1. Introduction

The major purpose of this Guide is to help users become familiar with M2M-710D module quickly. If you want to realize the detail items please refer to user manual.
(CD:\napdos\multimedia\M2M-710D\manual\M2M-710Duser manual.pdf)

M2M-710D provides 2 major technologies on networking:

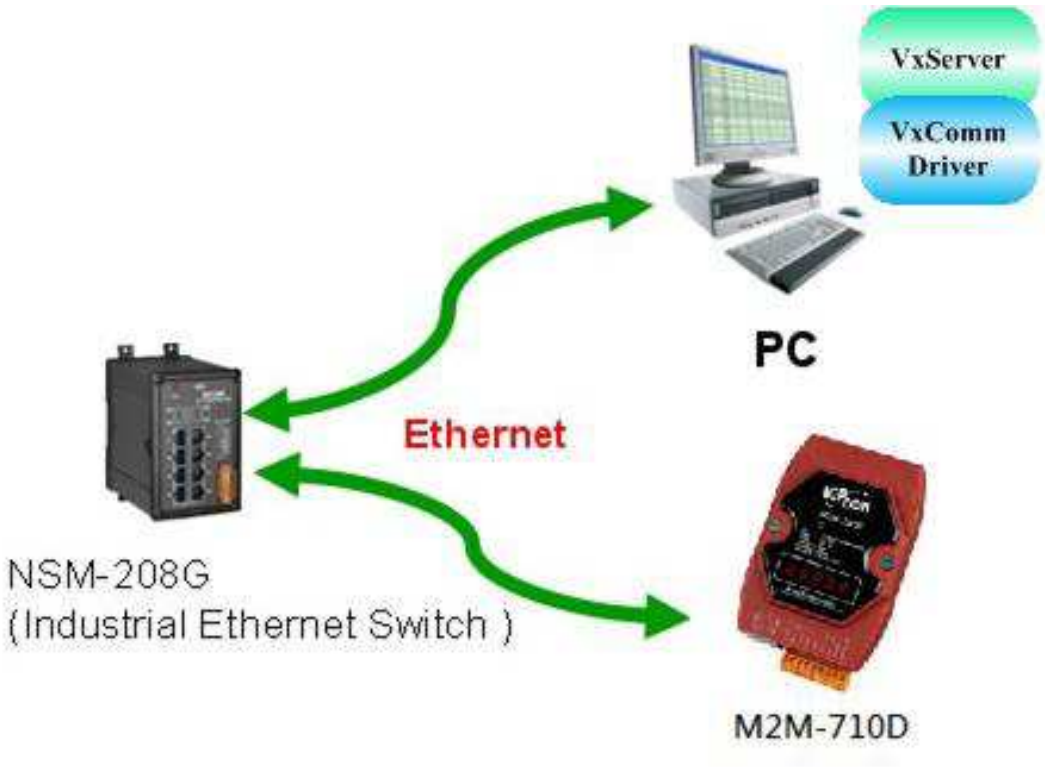
(1) **Pair-Connection mode**:
This communication mode takes two M2M-710D modules, one works as an Ethernet Server; the other works as a Client, and use two computers to test and operate the M2M-710D modules. The architecture is shown below:



▲ (Figure 1): Pair connection

(2) **VxServer Mode**:
M2M-710D connects to Internet via Ethernet, and then establishes connection with VxServer Software on PC. The architecture is shown below:

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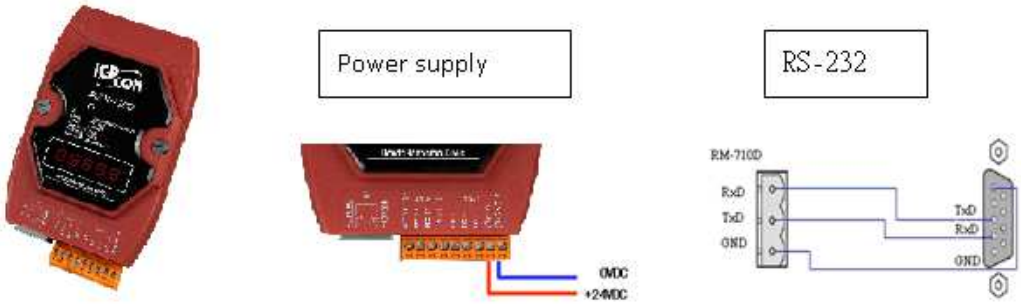


▲ (Figure 2): VxServer Mode Connection

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2. Hardware configuration

- Appearance



- Pin Assignment

Pin	Name	Description
1	CTS1	Clear to Send
2	RTS1	Request to Send
3	RxD1	Receive Data
4	TxD1	Transmit Data
5	INIT	InitPin
6	DATA+	Data+ of RS-485
7	DATA-	Data- of RS-485
8	Vs	Vs of Power Supply
9	GND	GND of Power Supply

- 7 Segment LED Display
- Pair-Connection Server Mode

State	Process	Description
ON	11111	Shows the local IP or DHCP sequentially
	22222	Shows the Listen's port of server.
	33333	Shows the current setting of Com port.
Connect	Monitor State	Shows -LIS-
	Serial Pair-Connection	Interactive display Comport signals.

- Pair-Connection Client Mode

Stat	Process	Description
ON	11111	Shows the local IP or DHCP sequentially

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Stat	Process	Description
	22222	Shows Server IP
	33333	Shows the Monitor's port of server.
	44444	Shows the current setting of Com port.
Connect	Connecting	It shows twinkled "Conn.".
	Login State	Shows "Conn."
	Serial Pair-Connection	Interactive display Comport signals.

☛ VxServer Mode

Stat	Process	Description
ON	11111	Shows the local IP or DHCP sequentially
	22222	Shows the VxServer IP sequentially
	33333	Shows the connecting port.
	44444	Shows the current setting of Com port
Connect	Connecting	It shows twinkled "Conn.".
	Serial Pair-Connection	Interactive display Comport signals.

3. System Setting

The M2M-710D module is built-in web server, the user can configure and operate the M2M-710D by web browser (ex: IE).

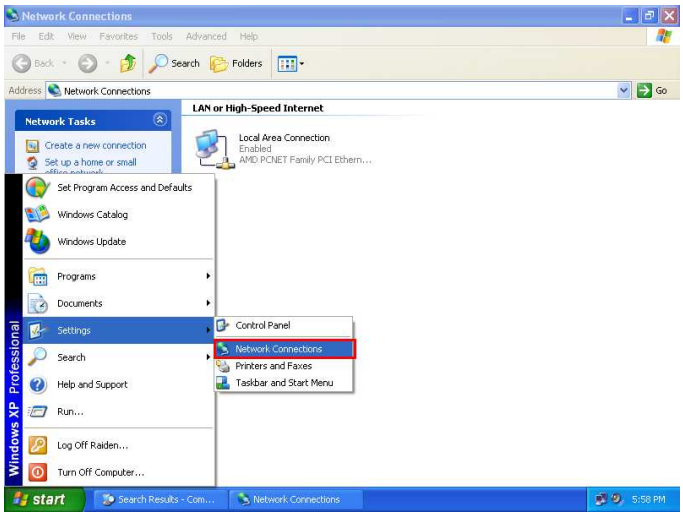
Connection Setting

The user needs to prepare a system like figure 1. The user can connect PC and a M2M-710D by Ethernet switch. It can not connect with two M2M-710D at the same time before setting.M2M-710Ds' IPs will conflict, because M2M-710D' default IPs (Default IP address is "192.168.1.217") are the same. The connection setting will be described below and Microsoft Windows XP Professional SP2 is used.

- **The setting of PC:**
  Open the dialogue window of IP to set the IP and subnet mask. The default Ethernet IP of M2M-710D is 192.168.1.217.

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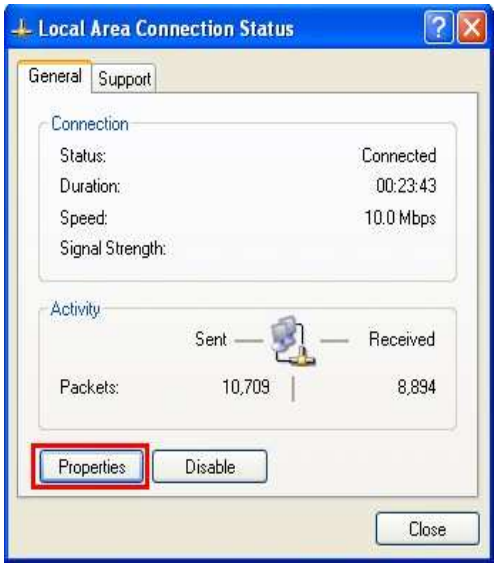
Users must assign the same network segment setting but NOT the same IP (EX: 192.168.1.220).
Step1: Click “start→Settings→Network→Connections”
Step2: Click “contents” in the dialogue window.
Step3: Click Internet Protocol (TCP/IP) and then click the contents
Step4: Set the IP and subnet mask.



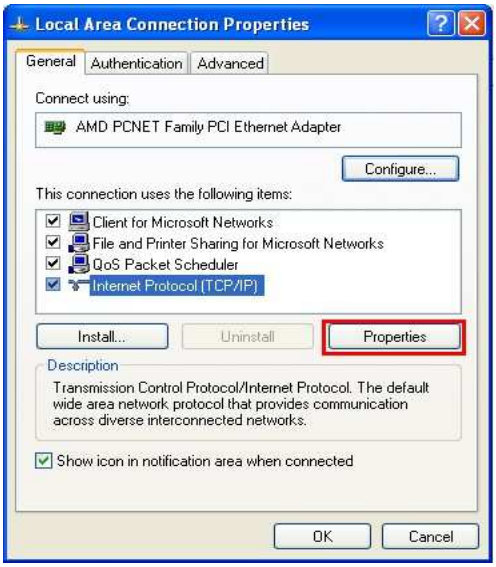
Step 1: Click “Network Connections”



Step 2: Click icon

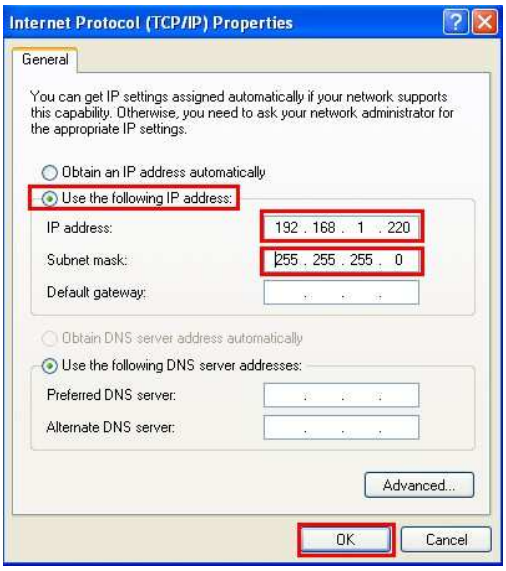


Step 3: Click “Properties” button



Step 4: Click “Properties” button

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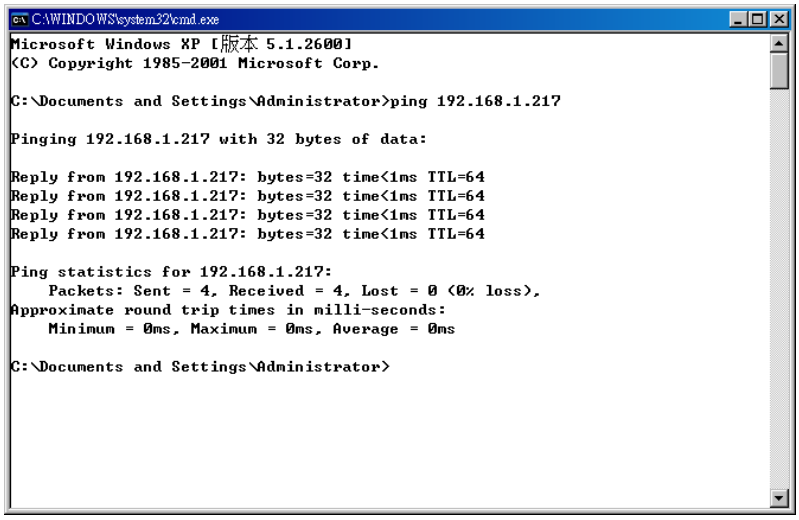
Step 5: Set “Internet Protocol Properties”

- **Communication Test:** Click“start→Run...”→ Key in “cmd” and then click “OK”→Key in “ping 192.168.1.217”



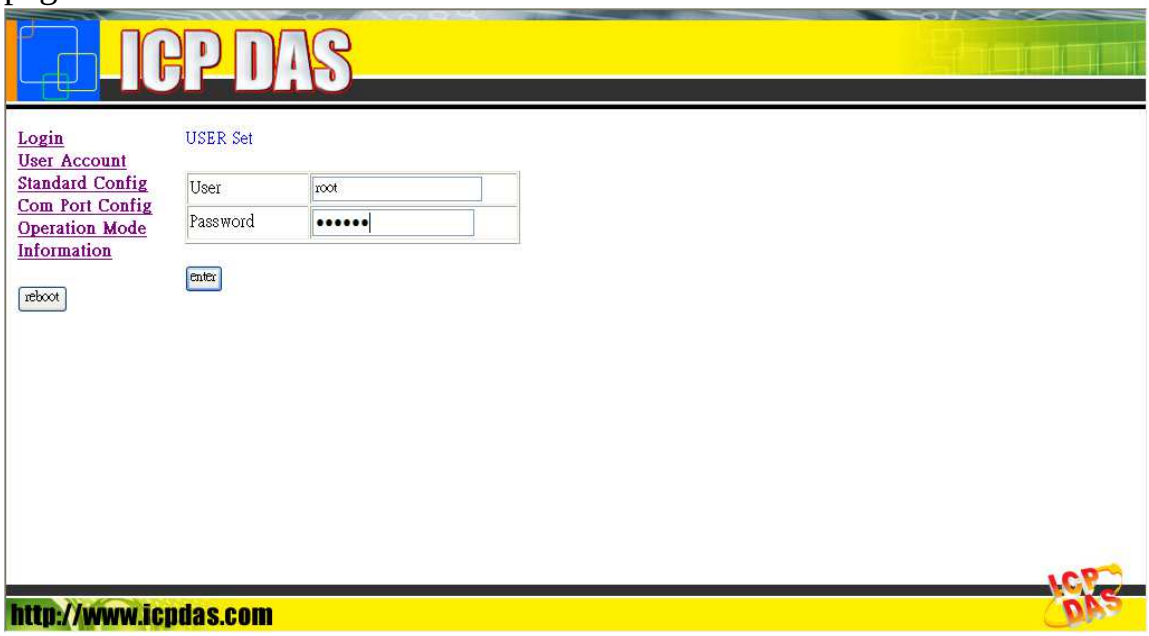


If the network settings are correct, it will show:



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Set Client: Open web browser (ex: IE, Mozilla, etc.) on PC and key in http://192.168.1.217/main.htm in the Address line and then press “Enter” key to link the M2M-710D’s web page.



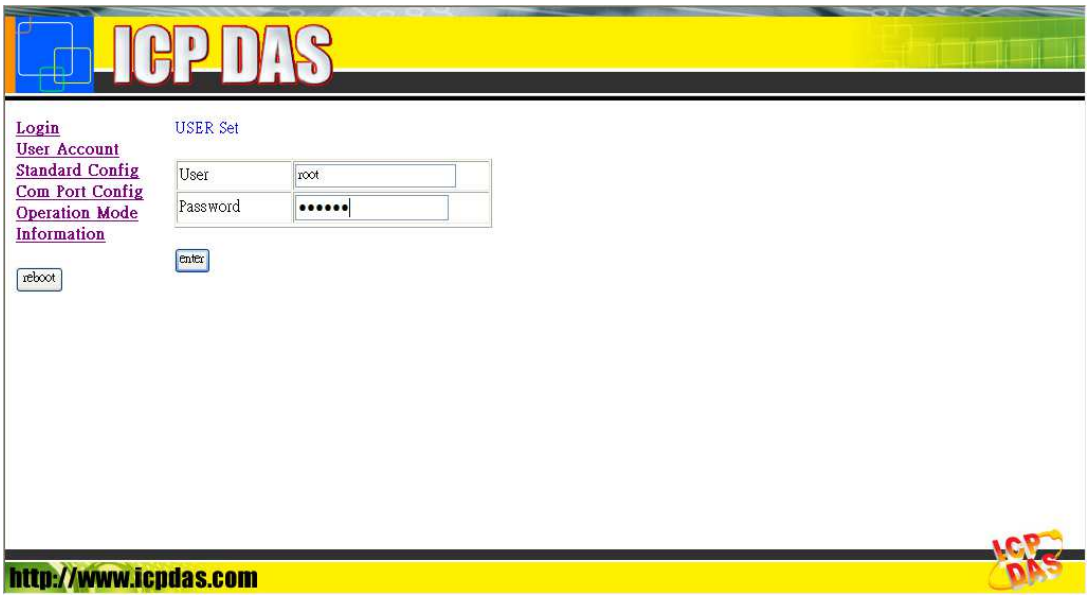
After entering M2M-710D web setting, the system divided into two applications:

Pair-Connection mode:

In Pair-Connection mode, users set one works as Ethernet Server; the other works as Wi-Fi AP Client. You can change to a different transmission mode in accordance with practical application.

- Client Settings:
  Open web browser to key in http://192.168.1.217 and then click Enter.

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Key in User name (Default setting: root) and Password (Default setting: icpdas) and click Enter.



Settings in the Standard Config:
Operation Mode: Pair-Connection Client
Host Name: M2M-710D
Server IP: 192.168.1.217
Ethernet IP: 192.168.1.218
Others keep the default setting, and then click “Save Setting”.
Finally: Don’t forget to click “Reboot”.

- Server:
  After setting Client, users can connect another M2M-710D to Internet without removing former Client. And then set the Operation Mode to Pair-Connection Server in the Server’s web.

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About three seconds after booting, the Client and Server are going to connect with each other and show serial communication settings.

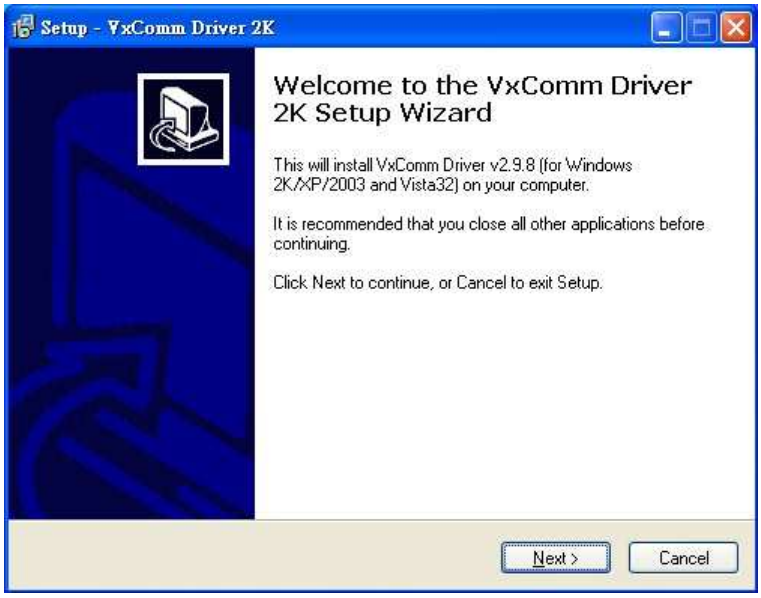
- Error Checking:
  (1)If the 7 segment has error display please check power, network connecting and system settings.
  (2)Open web browser and key in http://192.168.1.217 to login and click “Default Setting” button in the Standard Config page. Set the Operation Mode to Pair-Connection Server and click “Save Setting”.
  (3)The Client can key in http://192.168.1.218/main.htm in the web address and click “Default Setting” in the Standard Config page, and then repeat above setting processes.
  (4)Finally: Don’t forget to click “Reboot”.

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VxServer mode:

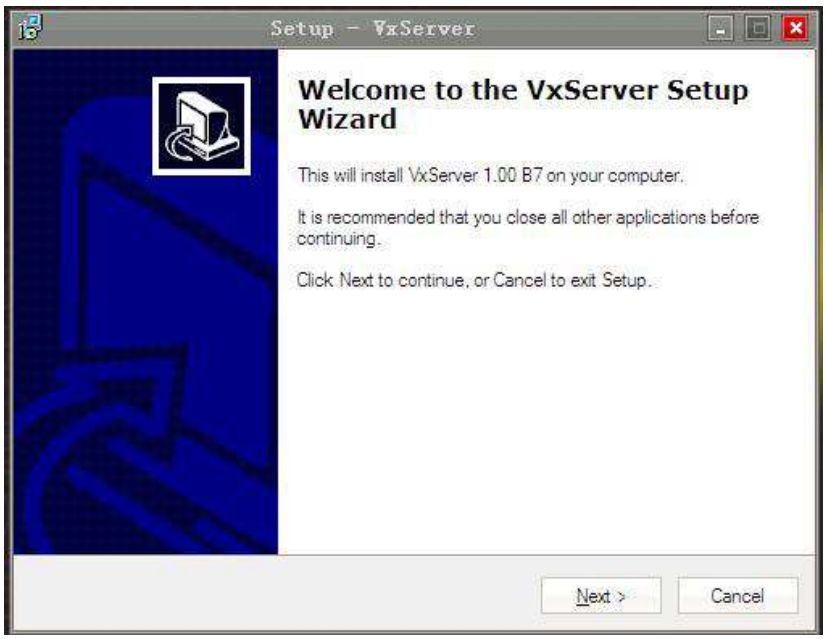
The PC must install VxServer Software and VxComm Driver in VxServer mode:

Step1: VxComm Driver Installation
Download VxComm Driver:
http://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/vxcomm_driver/
Please select the most suitable for your Windows and download the latest version. And then, run the installer.
"VxComm2K_v2.11.05_setup.exe" for Windows NT4.0, 2000 /XP/2003 and Vista32 (32-bit)
"VxComm98.exe" for Windows 95/98/ME



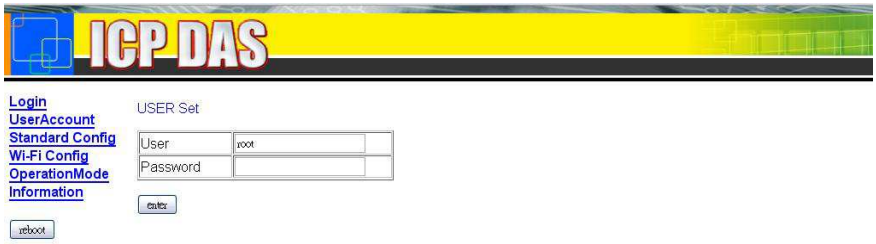
Step2: VxServer Software Installation
VxServer Software download link:
http://ftp.icpdas.com/pub/cd/usbcd/napdos/vxserver/software/
VxServer user manual:
http://ftp.icpdas.com/pub/cd/usbcd/napdos/vxserver/manual/

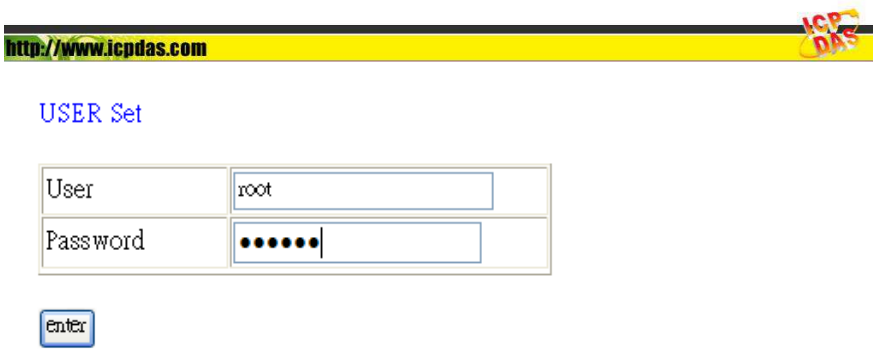
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Step3: Set VxServer Mode

Open web browser (EX: IE) and key in http://192.168.1.217 and then click Enter to enter Web Config. →Key in User name (Default setting: root) and Password (Default setting: icpdas) →click “Enter”





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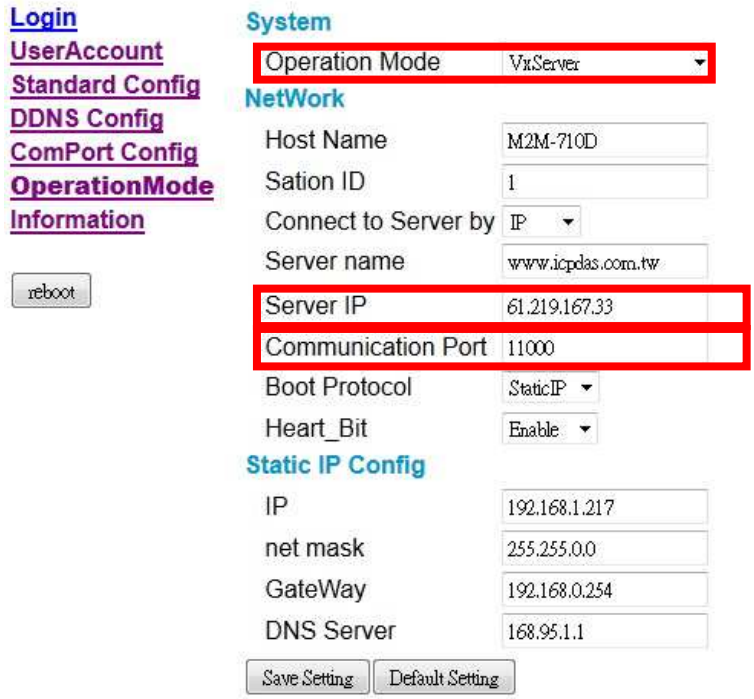
Settings in the Standard Config:

(1) Operation Mode: VxServer mode

(2) Server IP: The IP of PC

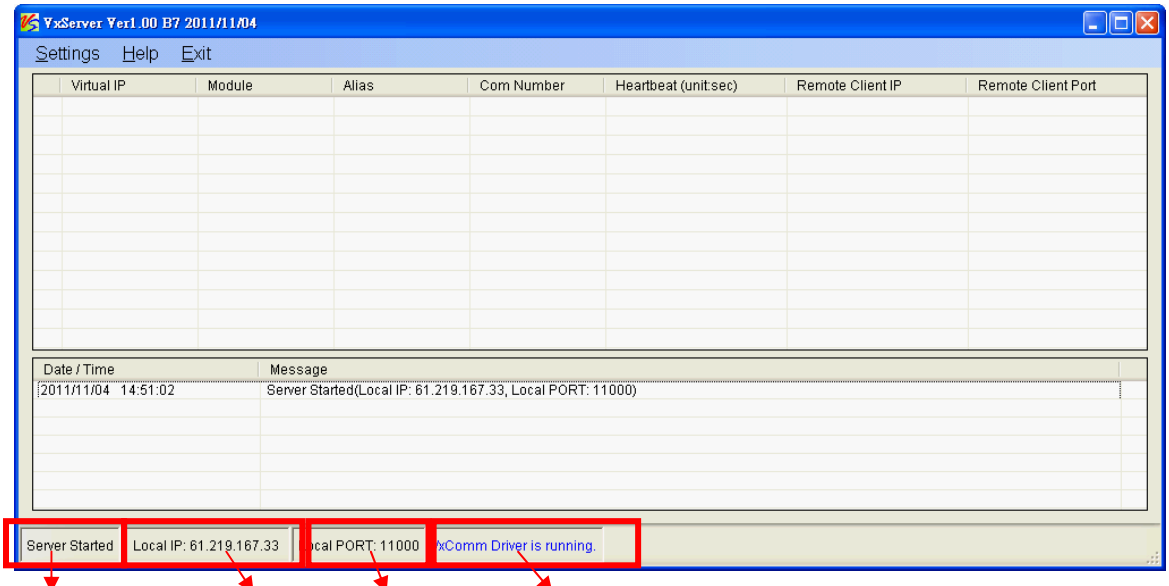
(3) Communcation Port: 11000

Others keep the default setting, and then click “Save Setting”.

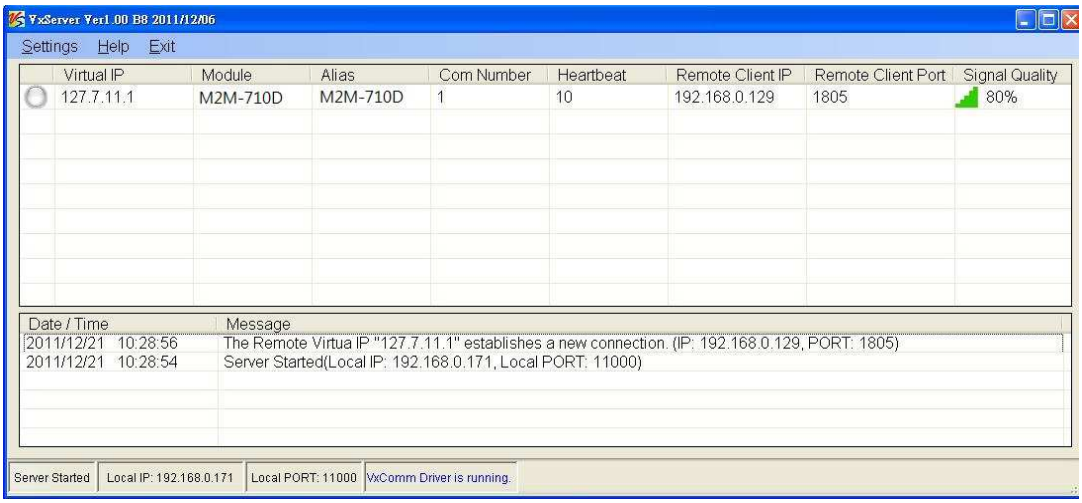


Don’t forget to click “Reboot” after saving.

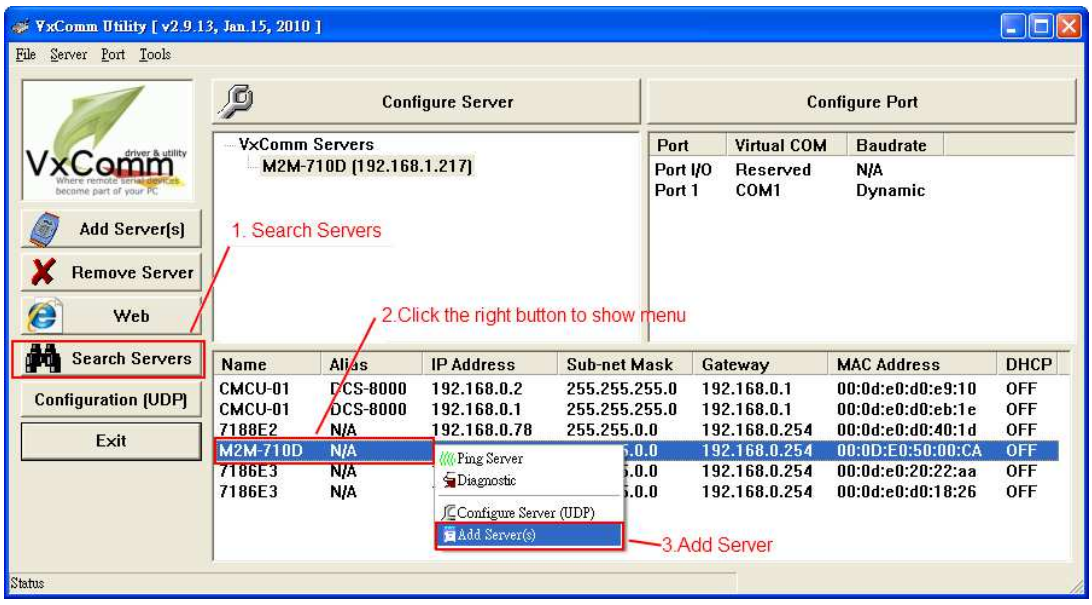
Step4: Open VxServer and M2M-710D to establish connection open Virtual Com.



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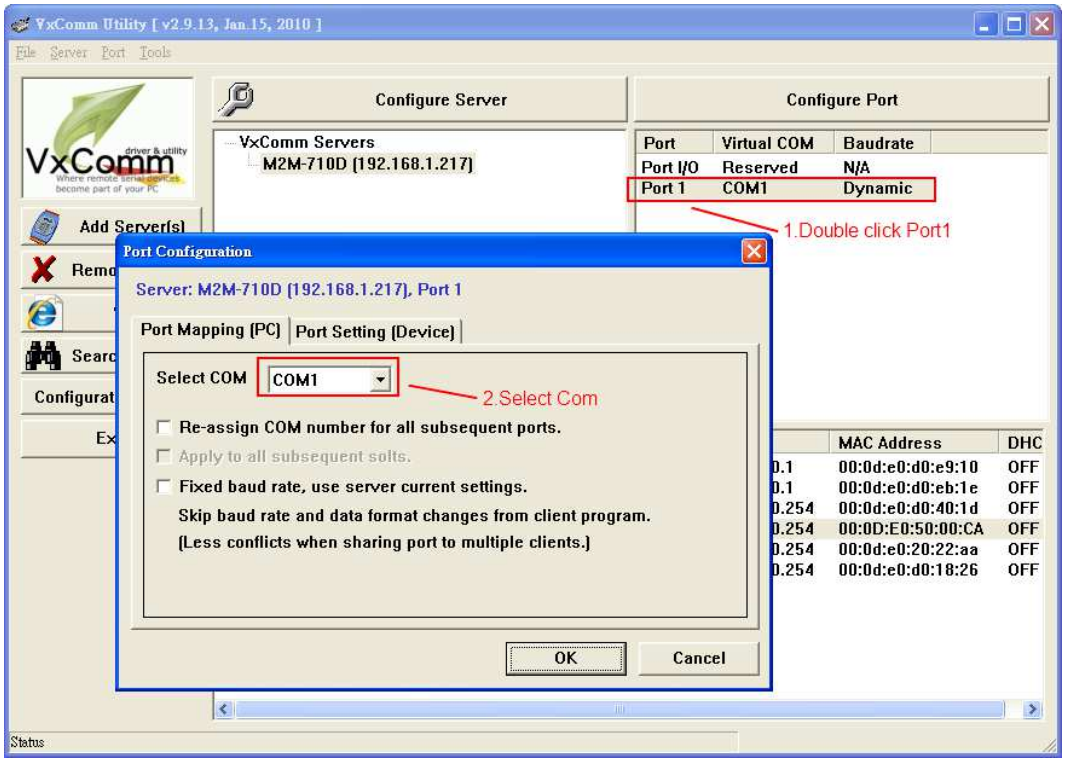


Open VxComm and add into M2M-710D VxComm Server

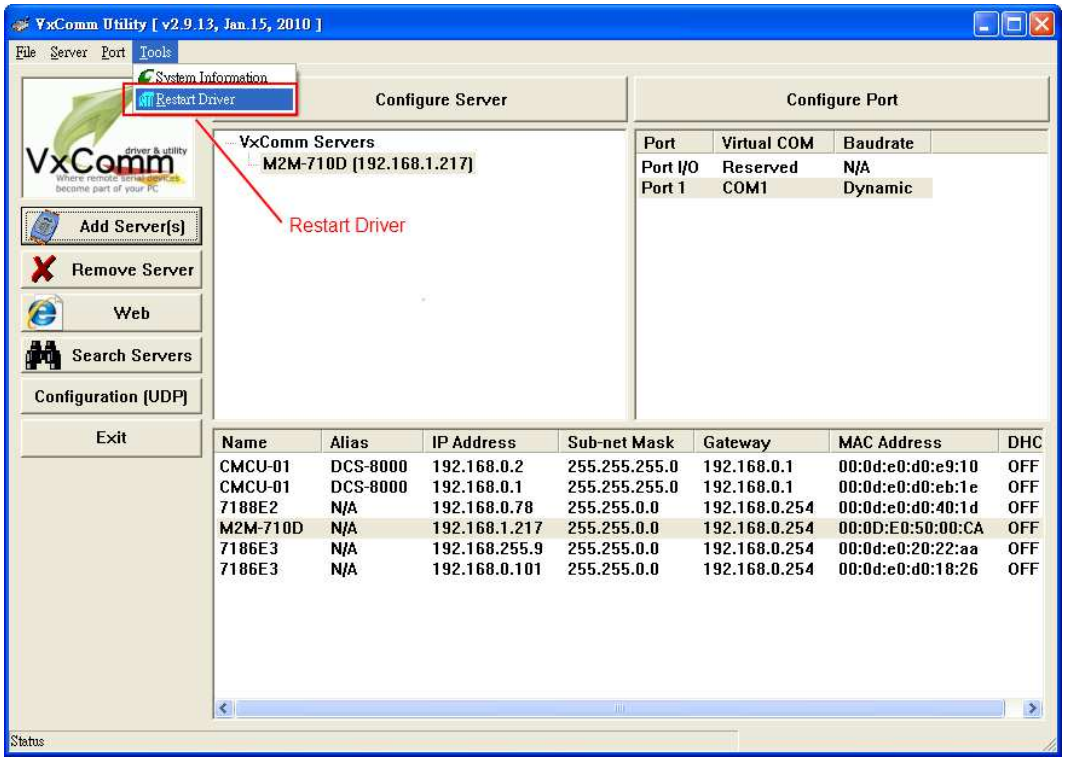


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Double-Click “Port1” and open Port Configuration dialog window, and then select the suitable Com Port.



Reset VxComm Driver to make settings take effect.



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VxServer mode error checking:

(1) If the 7 segment has error display please check power, network connecting and system settings.

(2) Open web browser and key in http://192.168.1.217 to login and repeat the above processes.

Finally: Don't forget to click "Reboot" to reset system.

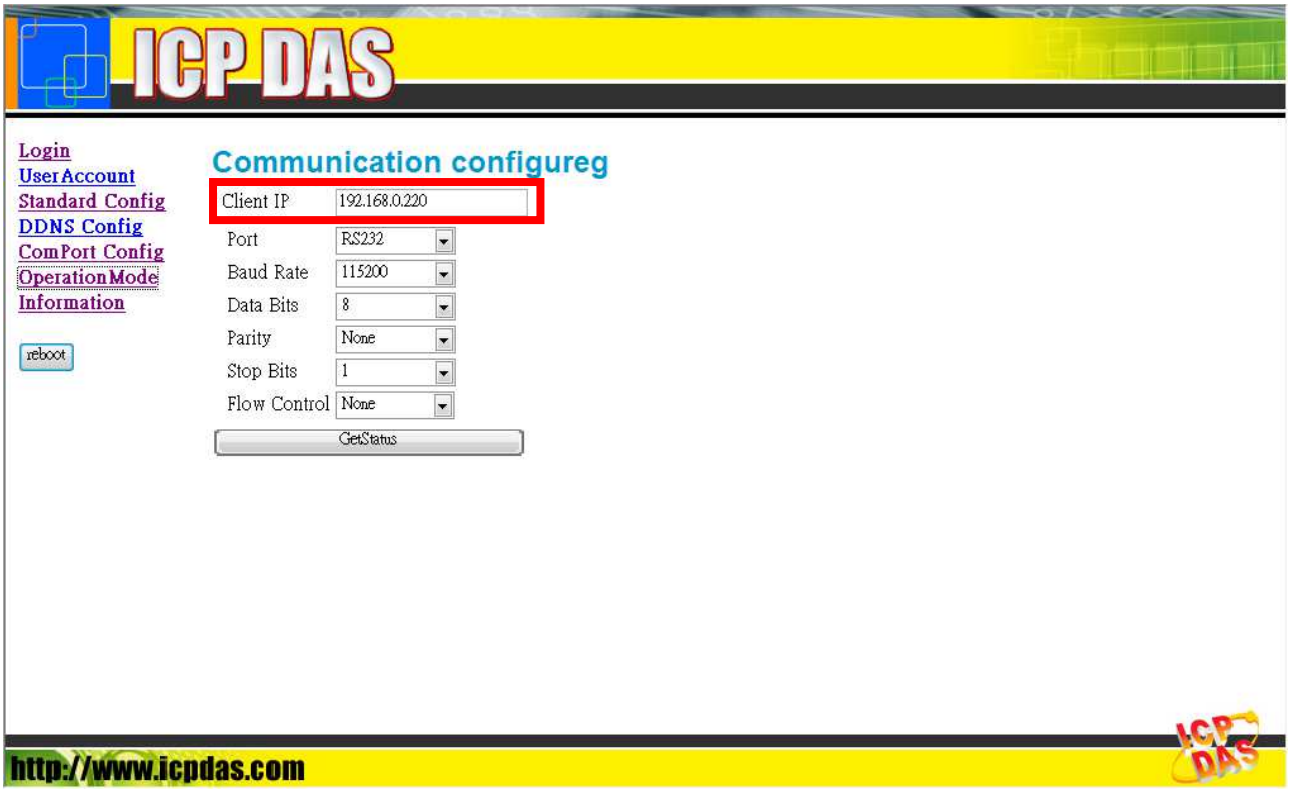
4. Communication test

Pair-Connection

After finishing above setting processes, the Ethernet and Wi-Fi Client have completed connection. We can open web browser and key in http://192.168.1.217 to login and click the Information page, and then we can see the System Sate shows "Communication" or see "Client IP" in the Operation Mode page is correct.



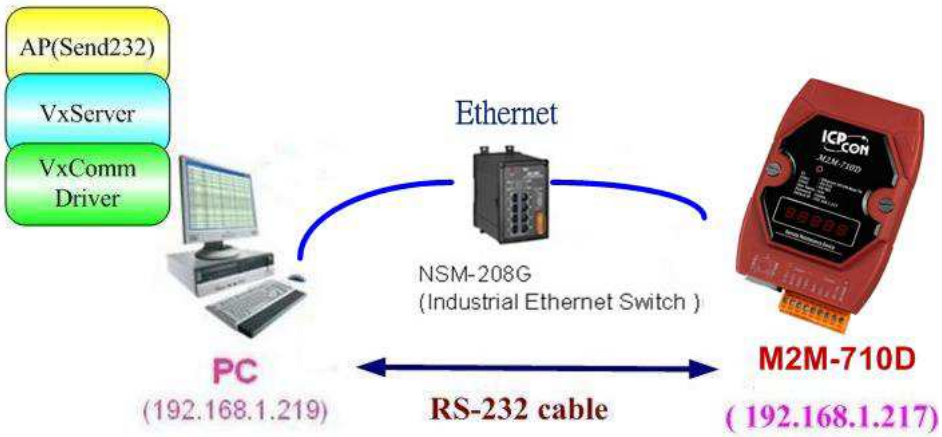
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Finally, users can send RS232 data from one PC to another.

VxServer

Step1: Connect M2M-710D with PC as shown below:



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Step2: Assign the M2M-710D's Server Port1 to PC's virtual Com 13. Please refer to section 4.5.

Step3: Connect VxServer with M2M-710D: In the Standard Config setting web of M2M-710D, users have to set Server IP (For example, the IP in the above diagram is 192.168.1.219) and click "Save Setting" to finish connection.

Step4: Use Send232 Program to test communication. (Download link: http://ftp.icpdas.com/pub/cd/8000cd/napdos/7188e/tcp/pcdiag/source/send232.vb6_2.0.1) Open two Send232 programs, one use Com1 (connect with M2M-710D), the other use Com12 (produced by VxComm driver). Press the Send button respectively and you can see the two Send232 programs send the data with each other. As shown below:



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