M2M-711D Quick Start User Guide

The package includes the following items:

- One M2M-711D hardware module
- One quick start guide
- One Software CD
- One Wi-Fi Antenna (ANT-124-05)
- One RS-232 cable (CA-0910)

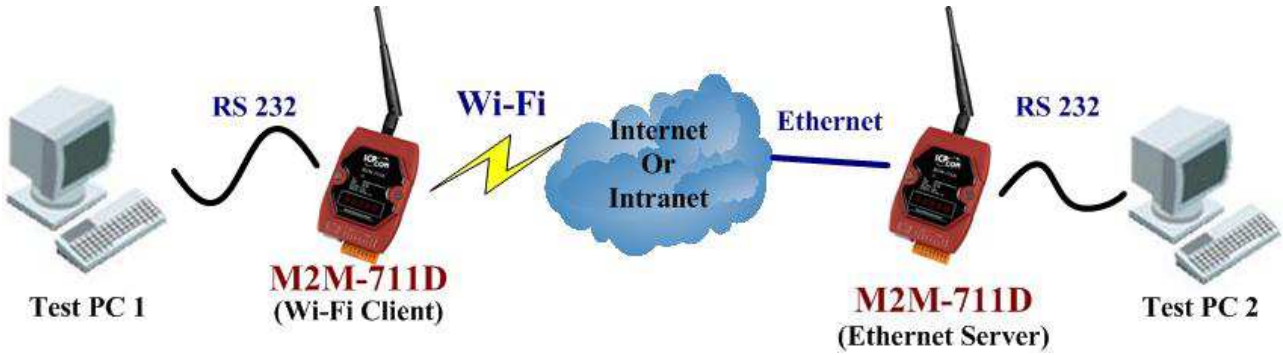
1. Introduction

The major purpose of this Guide is to help users become familiar with M2M-711D module quickly. If you want to realize the detail items please refer to user manual. (CD:\napdos\multimedia\M2M-711D\manual\M2M-711Duser manual.pdf)

M2M-711D provides 2 major technologies on networking:

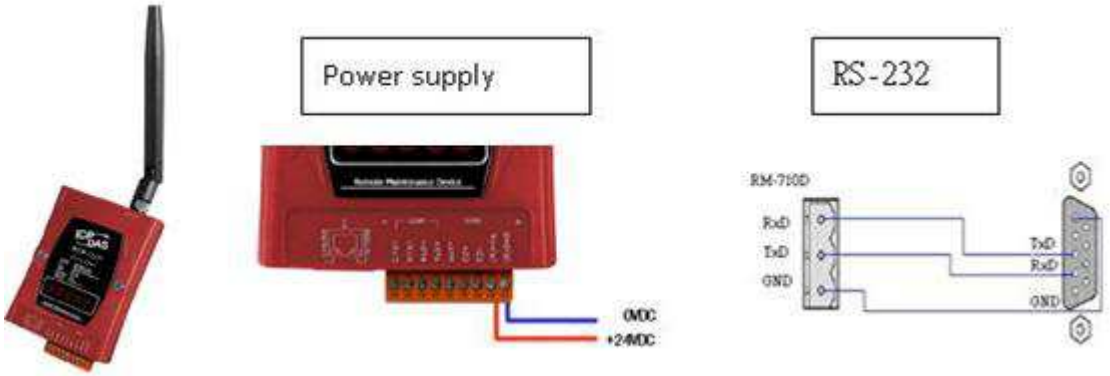
(1) **VxServer mode(Wi-Fi):** This connection method needs a Wi-Fi AP (Access Point) in the working field. M2M-711D connects to Internet via Wi-Fi AP, and then establishes connection with VxServer Software on PC. The architecture is shown below:

(2) Pair-Connection: This communication mode takes two M2M-711D modules, one works as an Ethernet Server; the other works as a Client, and use two computers to test and operate the M2M-711D modules. The architecture is shown below:



2. Device Assignment

- **Appearance**



- **Pin Assignment**

Pin	Name	Description
1	CTS1	Clear to Send
2	RTS1	Request to Send

Pin	Name	Description
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**
- **VxServer mode**

State	Process	Description
ON	Connection Mode	Ethernet mode、AP mode、Ad Hoc mode
	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
	IP	In AP mode or Ad Hoc mode, it shows the web setting IP.
Connect	connecting	It shows twinkled “Conn.”.
	Show AP Signal	It shows the current signal strength of Wi-Fi AP Device in the AP mode.
	Serial Pair-Connection	Interactive display Comport signals.

- **Pair-Connection Server Mode**

State	Process	Description
ON	Connection Mode	Ethernet Server、Wi-Fi Server、Ad Hoc Server
	11111	Shows the local IP or DHCP sequentially
	22222	Shows the Monitor’s port of server.
	33333	Shows the current setting of Com port.
	IP	In Wireless mode, it shows the web setting IP.

State	Process	Description
Connect	Monitor State	Shows -LIS-
	AP Signal Strength	It shows the current signal strength of Wi-Fi AP Device in the AP mode.
	Serial Pair-Connection	Interactive display Comport signals.

☛ **Pair-Connection Client Mode**

Stat	Process	Description
ON	Connection Mode	Ethernet Client、Wi-Fi Client、Ad Hoc Client
	11111	Shows the local IP or DHCP sequentially
	22222	Shows Server IP
	33333	Shows the Monitor's port of server.
	44444	Shows the current setting of Com port.
	IP	In Wireless mode, it shows the web setting IP.
Connect	Connecting	It shows twinkled "Conn.".
	AP Signal	It shows the current signal strength of Wi-Fi AP Device in the AP mode.
	Login State	Shows "Conn."
	Serial Pair-Connection	Interactive display Comport signals.

3. System Setting

The M2M-711D module is built-in web server, the user can configure and operate the M2M-711D by web browser (ex: IE).

Note: Users must enter M2M-711D web server by Ethernet in the setting.

☛ **Connection Setting**

First, connect the M2M-711D with PC by RF-45 as shown below:

Ethernet default value is 192.168.1.217. The PC and M2M-711D have to set setting in the same network segment. The example of connection setting will be described below and Microsoft Windows XP Professional SP2 is used.

❖ **The setting of PC:**

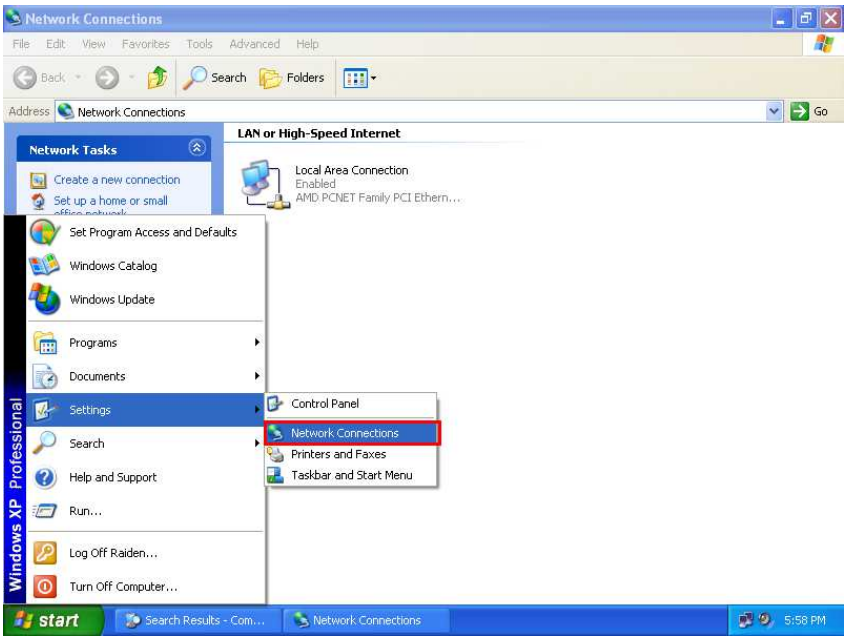
Open the dialogue window of IP to set the IP and subnet mask. The default Ethernet IP of M2M-711D is 192.168.1.217. Users must assign the same network segment setting but NOT the same IP (EX: 192.168.1.220).

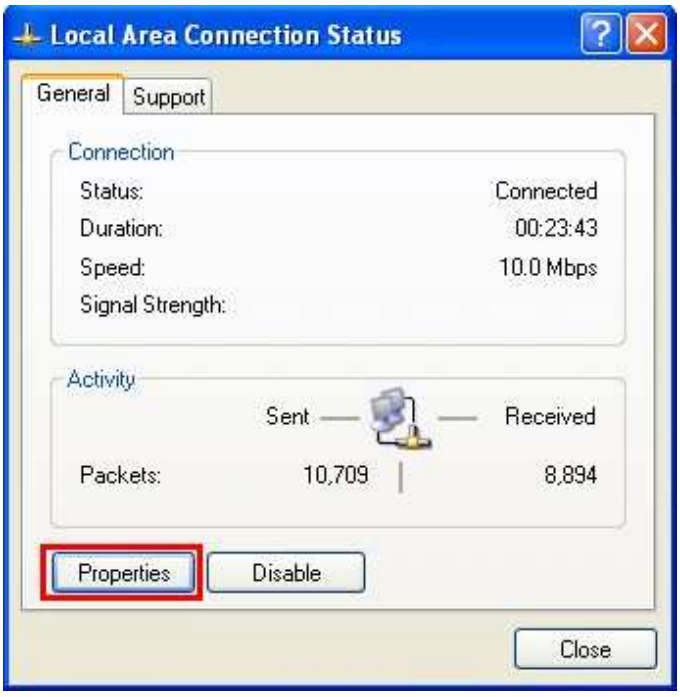
Step1: Click “start→Settings→Network→Connections”

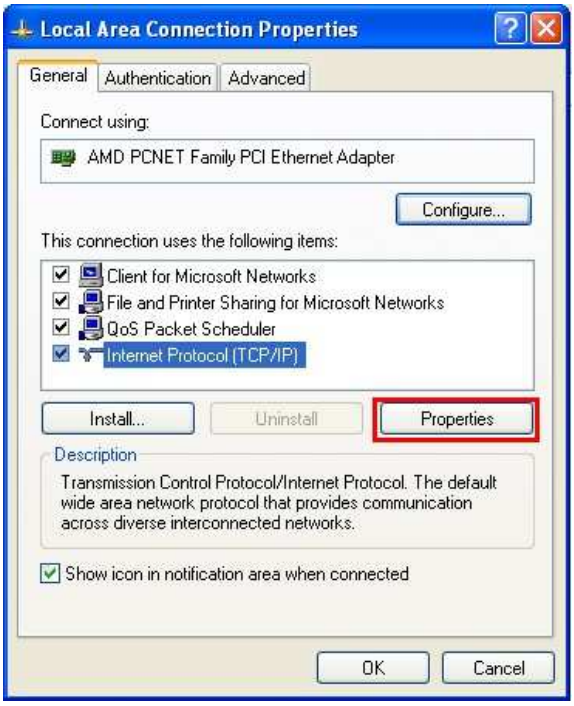
Step2: Click “contents” in the dialogue window.

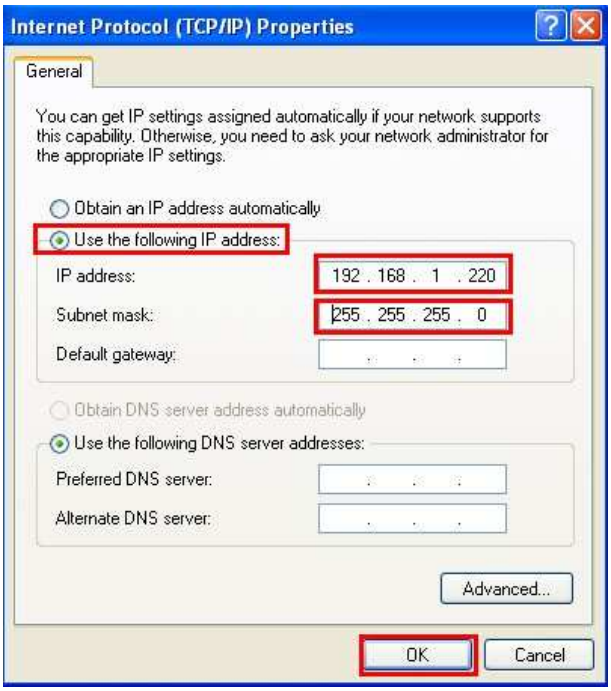
Step3: Click Internet Protocol (TCP/IP) and then click the contents

Step4: Set the IP and subnet mask.

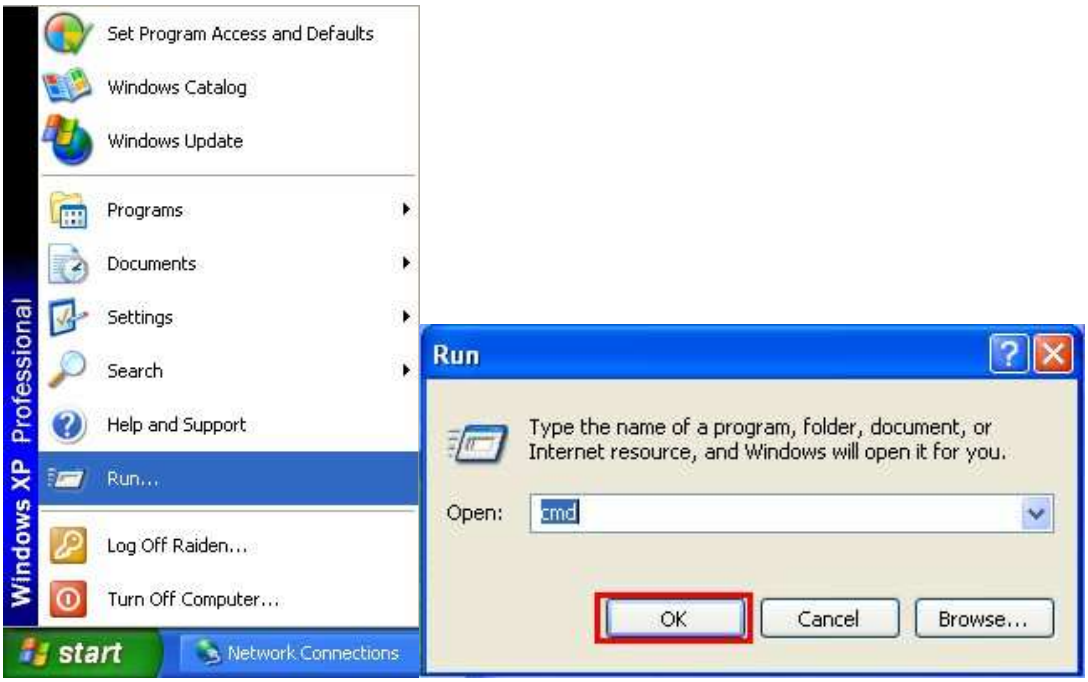



Local Area Connection Status
General
Support
Connection
Status:
Connected
Duration:
00:23:43
Speed:
10.0 Mbps
Signal Strength:
Activity
Sent
Received
Packets:
10,709
8,894
Properties
Disable
Close

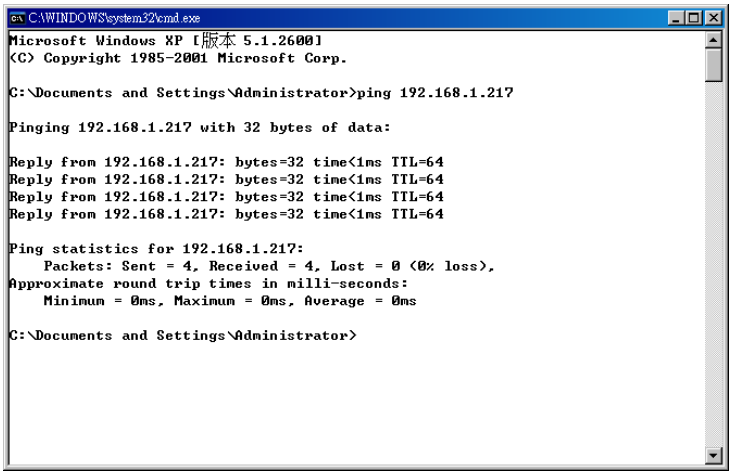

Local Area Connection Properties
General
Authentication
Advanced
Connect using:
AMD PCNET Family PCI Ethernet Adapter
Configure...
This connection uses the following items:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
QoS Packet Scheduler
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
OK
Cancel



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

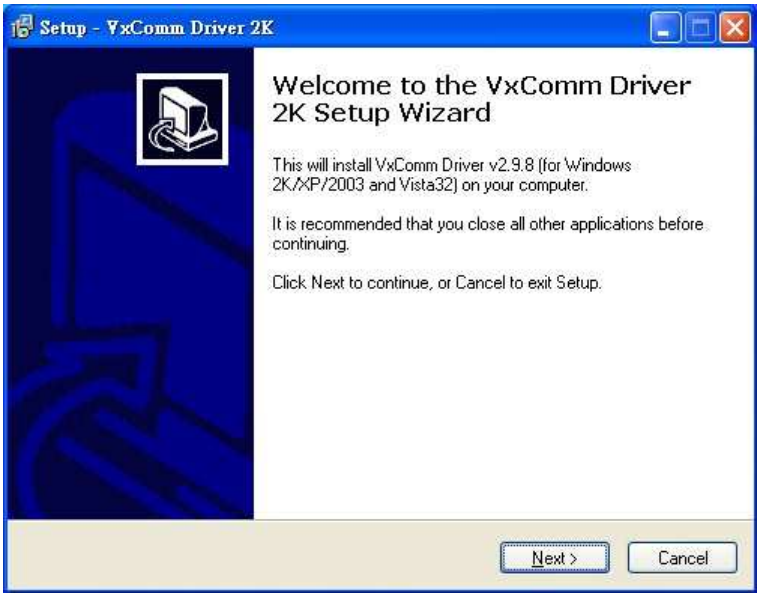


If the network settings are correct, it will show:



After entering M2M-711D, the system divided into two applications:

- **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/

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"

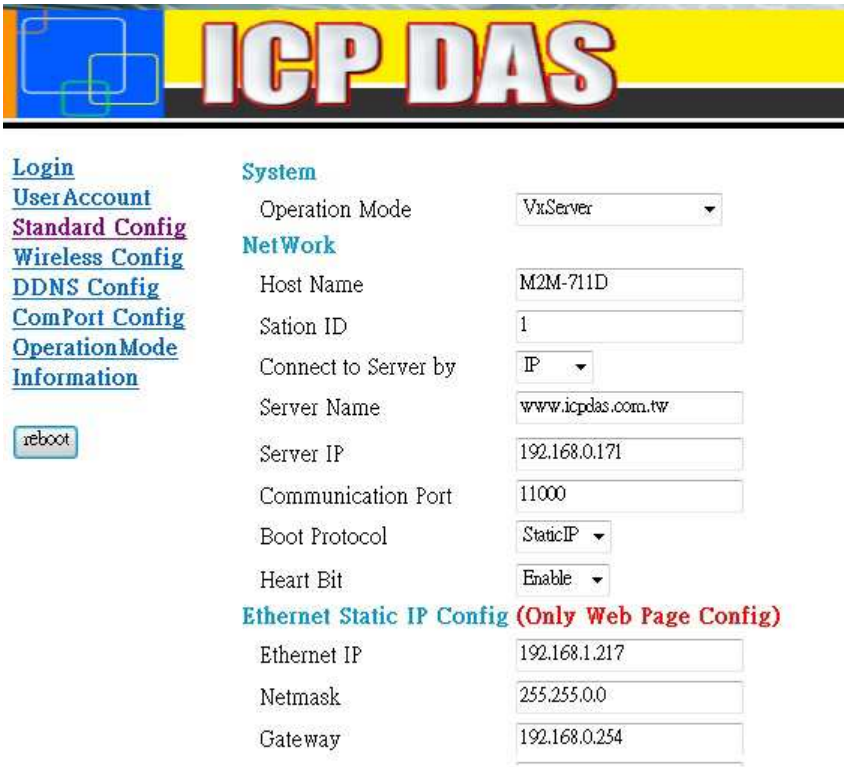
Settings in the Standard Config:

(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”.

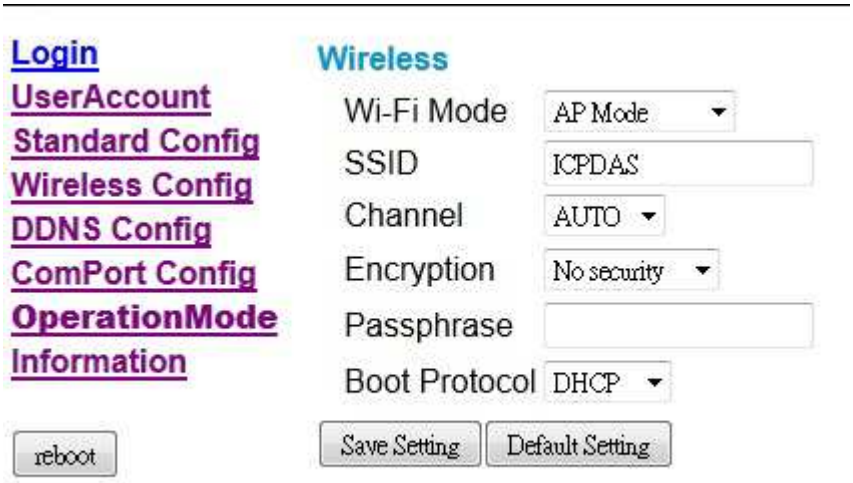


Settings in the Wireless Config:

(1) Wireless Mode: AP mode

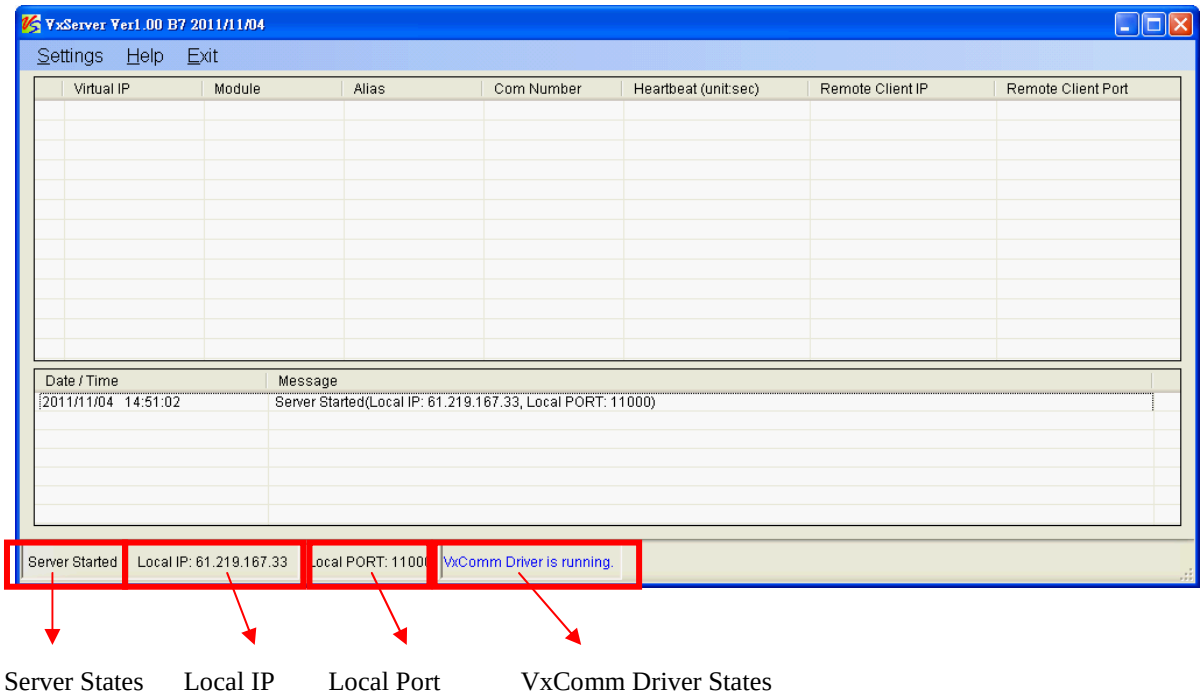
(2) SSID, Channel, Encryption and Passphrase are the same with the working field Wi-Fi AP.

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

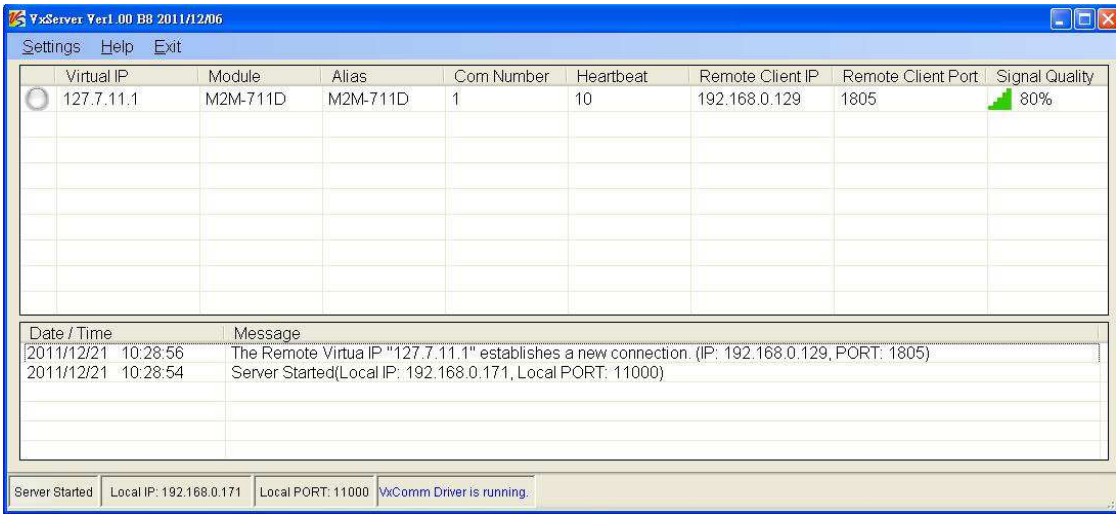


Finally: Don't forget to click "Reboot".

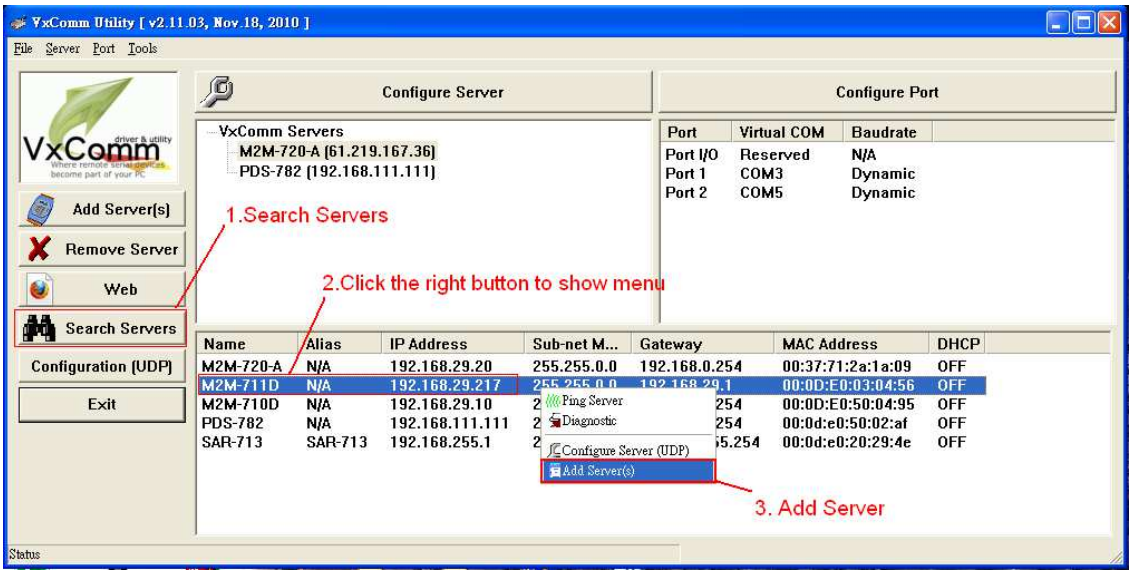
Step4: Open VxServer and M2M-711D to establish connection → open Virtual Com.



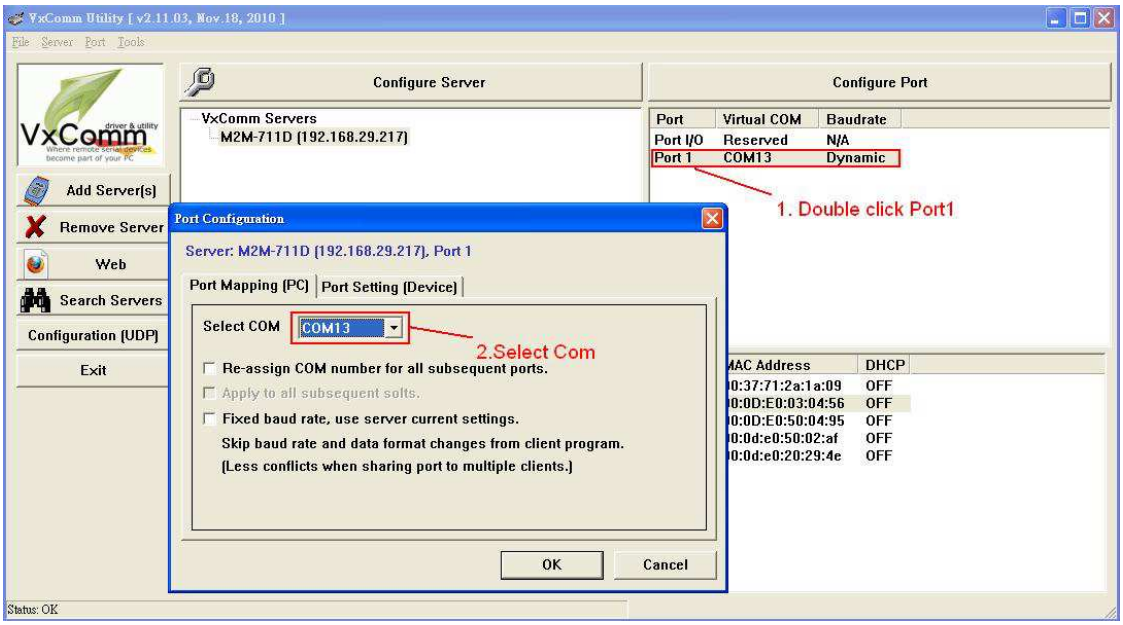
Server States Local IP Local Port VxComm Driver States



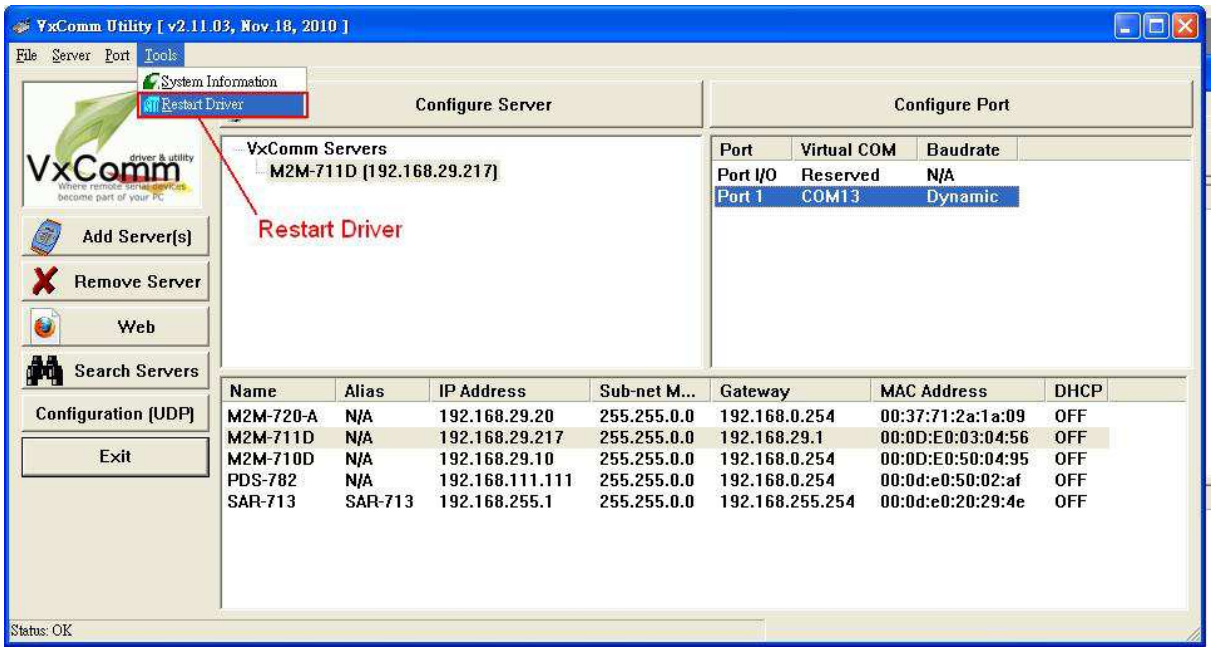
Open VxComm and add into M2M-711D VxComm Server



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



Reset VxComm Driver to make settings take effect.



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.

(3) Finally: Don’t forget to click “Reboot” to reset system.

❖ **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.

Wi-Fi AP Client Settings:

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

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-711D
Server IP: 192.168.1.217
Ethernet IP: 192.168.1.218

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

Settings in the Wireless Config:
Wireless Mode: AP mode
SSID, Channel, Encryption and Passphrase are the same with the working field Wi-Fi AP.
Others keep the default setting, and then click “Save Setting”.

Finally: Don’t forget to click “Reboot”.

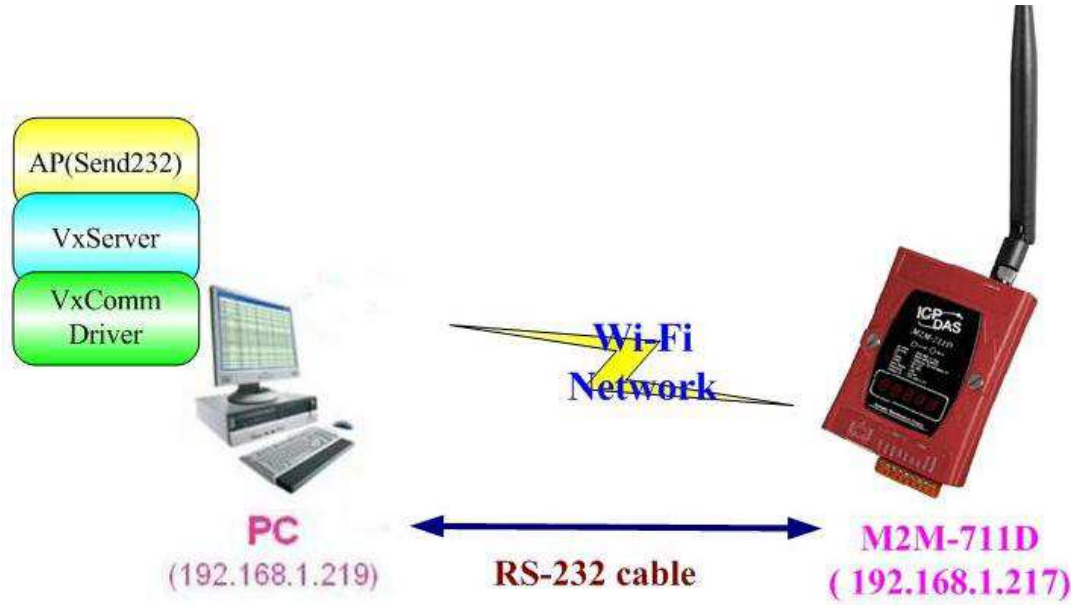
- **Ethernet Server Setting:**
  After setting Client, users can connect another M2M-711D to Internet without removing Client. And then set the Operation Mode to Pair-Connection Server in the Server’s web.

  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 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 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”.**

4. Communication Test

- **VxServer Mode Communication Test**

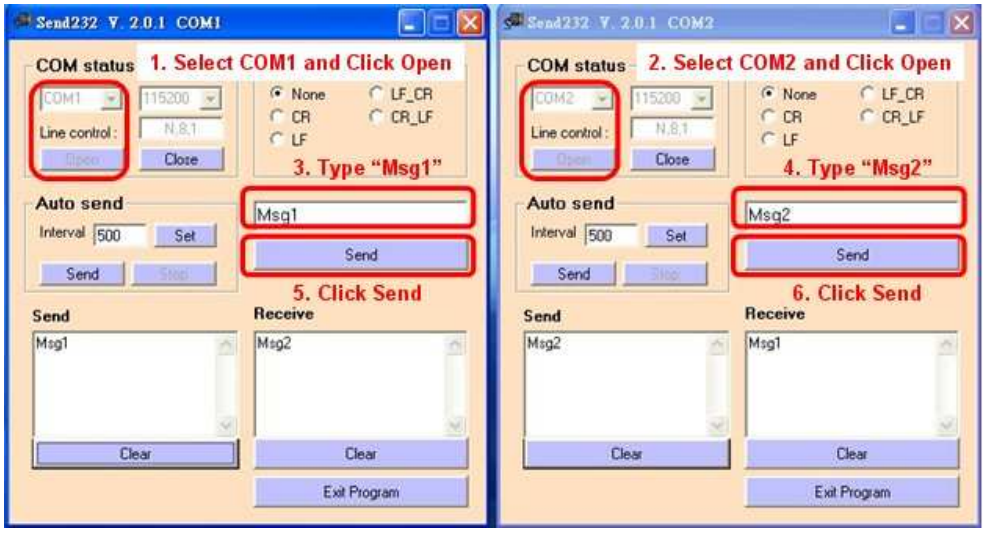
  Step1: Connect M2M-711D with PC as shown below:



  Step2: Assign the M2M-711D's Server Port1 to PC's virtual Com 13. Please refer to section 4.5.

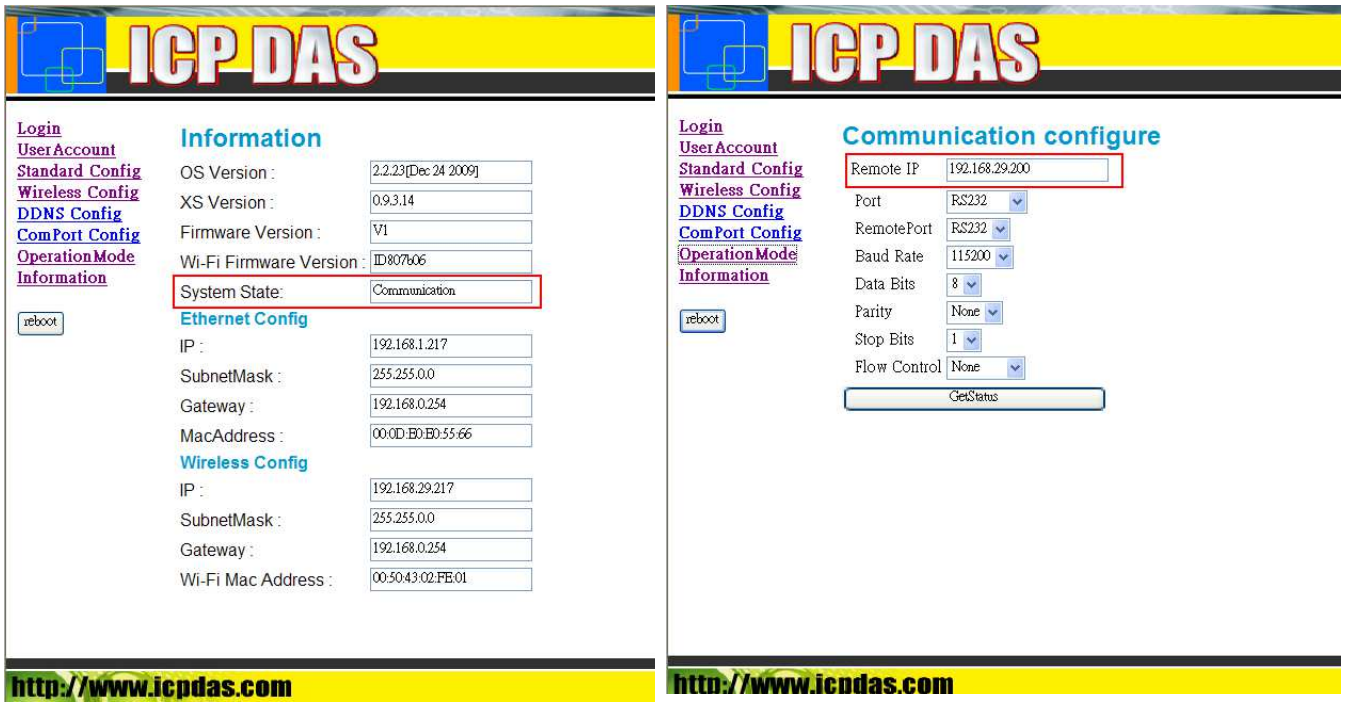
  Step3: Connect VxServer with M2M-711D: In the Standard Config setting web of M2M-711D, users have to set Server IP (For example, the IP in the above diagram is 192.168.1.219) and click "Save Setting" to finish connection.

  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-711D), 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:



- **Pair-Connection Mode Communication Test**

  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.



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