VxServer 使用手册

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第一章 簡介

VxServer 為一個虛擬 COM 的中介軟體, VxServer 搭配 VxComm Driver 軟體可以在 Windows 作業平台新增虛擬 COM,並且可透過乙太網路、 GPRS、 3G 和 Wi-Fi 對應到 GT-541/M2M-710D/M2M-711D 設備的 COM。使用者在電腦端的 RS-232 程式只需要更改對應的虛擬 COM,即可控制遠端序列設備。

特色:

- 虛擬 COM 中介軟體
- VxServer 與 VxComm driver 最大支援管理 128 虛擬 COM 設備
- ●輕鬆且快速建立虛擬 COM 系統
- 支援 Windows-based 作業系統

第二章 硬體需求

2.1 硬體系統需求

● 軟體需求

作業系統版本	是否支援
Windows 2000	\checkmark
Windows XP	\checkmark
Windows 7	\checkmark

● 硬體需求

硬體元件	等級
中央處理器 (CPU)	1.0 GHz 或更高
記憶體 (Memory)	512 MB 或更高
硬 碟 空 間 (Hardware space)	100 MB 或更高
其它 (Other)	CD-ROM 或 DVD-ROM

支援的產品

產品型號	描述
GT-541	智慧型 Multi-port 系列 GPRS 閘道器 (虛擬 COM 功能)
M2M-710D	遠端維護乙太網路設備端單元裝置
M2M-711D	遠端維護 Wi-Fi 設備端單元裝置

2.2 軟體架構

軟體名稱	描述與版本
VxComm driver	版本 2.11.4 或更高
.NET Framework	版本 2.0 或更高

VxComm Driver
VxServer software
TCP/IP Socket

Ethernet/GPRS/3G/Wi-Fi







2.3 應用架構



第三章 安裝VxServer軟體

3.1 安裝.NET Framework

執行 VxServer 的電腦,需要有.NET Framework 2.0 以上的 Runtime 環境。如 果電腦上,已經有安裝.NET Framework 2.0 以上的版本,則可略過 3.1 的步驟,直接 跳到 3.2 進行 VxServer 軟體的安裝

Microsoft .Net Framework Version 2.0:

http://www.microsoft.com/downloads/details.aspx?FamilyID=0856eacb-4362-4b0d-8edd-aab15c5e04f5&DisplayLang=en

• Microsoft .Net Framework Version 3.5:

http://www.microsoft.com/downloads/details.aspx?familyid=333325FD-AE52-4E35-B531-508D977D32A6&displaylang=en 使用者可至 Microsoft 網站下載.Net Framework 安裝軟體,以下是.Net Framework2.0 的安裝畫面:

1. 按"下一步"繼續



2. 勾選""I accept the terms of the License Agreement", 按下"Install"後繼續

Microsoft .NET Framework 2.0	Setup		
id-User License Agreement			
nd-User License Agreement			~
IICROSOFT SOFTWARE SUPPLEMENT/ IICROSOFT .NET FRAMEWORK 2.0	AL LICENSE TERMS		
flicrosoft Corporation (or based on why upplement to you. If you are licensed oftware (the "software"), you may us to have a license for the software. Y alidly licensed copy of the software.	ere you live, one of to use Microsoft W e this supplement, ou may use a copy	its affiliates) licens /indows operating s You may not use it of this supplement	ses this system : if you do with each
	1 1 1	а . Г	Print
y clicking "I accept the terms of the Lic roduct, I indicate that I have read, un icense Agreement.	ense Agreement" a derstood, and agre	ind proceeding to u ed to the terms of	use the the End-User
✓ I accept the terms of the Licen	ise Agreement		
	< Back	Install >	Cancel

3. 安裝進行中

婦 Microsoft .NET Framework 2.0 Setup	
Installing components	
The items you selected are being installed.	
Installation Progress:	
Generating script operations for action:	
Updating component registration	
	Cancel
	Cancel

4. 安裝成功,按下"完成"後結束

Hicrosoft .NET Framework 2.0 Setup	
Setup Complete	
Microsoft .NET Framework 2.0 has been successfully installed.	
It is highly recommended that you download and install the latest service packs and security updates for this product.	
For more information, visit the following Web site:	
Product Support Center	
	Finish

3.2 安裝 VxServer

放入安裝光碟,執行\VxServer\Software\VxServer_Setup_Vx.xxBx.exe,其安裝畫面如下:

1. 按"Next"開始安裝



 2. 選擇安裝目錄,預設路徑為"C:\ICPDAS\VxServer",確定後, 按"Next"繼續

1 Setup - VxServer	
Select Destination Location Where should VxServer be installed?	
Setup will install VxServer into the following folder.	
To continue, click Next. If you would like to select a different folder, click	Browse.
C:\ICPDAS\VxServer	Browse
At least 0.9 MB of free disk space is required.	
<u>Back</u>	Cancel

3. 選擇"所有程式"中的路徑,確定後,按"Next"繼續

1🕏 Setup - YxServer
Select Start Menu Folder Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
ICPDAS/WxServer Browse Browse
< <u>B</u> ack <u>N</u> ext > Cancel

4. 選擇是否在桌面建立捷徑,確定後,按"Next"繼續

1 ¹ / ₂ Setup - ¥xServer	×
Select Additional Tasks Which additional tasks should be performed?	3
Select the additional tasks you would like Setup to perform while installing VxServer, then click Next.	
Additional icons:	
Create a <u>desktop icon</u>	
< <u>B</u> ack <u>N</u> ext > Cancel	

5. 選擇"Install"開始安裝

1 <mark>5</mark> Setup - VxServer	
Ready to Install Setup is now ready to begin installing VxServer on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination location: C:\ICPDAS\VxServer	<u>^</u>
Start Menu folder: ICPDAS\VxServer	
	X
< <u>B</u> ack Install	Cancel

6. 安裝完成



第四章 VxServer操作說明

4.1 版面說明

VxServer 版本主要包括以下幾個部份,說明如下:

	 To VyServer Verl Of	120 2011/12/00						
工具列	<u>S</u> ettings <u>H</u> elp) <u>E</u> xit						
	Virtual IP	Module	Alias	Com Number	Heartbeat	Remote Client IP	Remote Client Port	Signal Quality
設備資訊								
双洲貝 (1)								
	Date / Time	Message						
浦線資訊	2011/12/08 1	3:31:46 Server Sta	rted(Local IP: 1	192.168.0.105, Local	PORT: 11000)			
王 冰東 11								
the state must	L							
狀態列	Server Started Loc	al IP: 192.168.0.105 Local P	ORT: 11000 VxCo	mm Driver is running.				

- (1) 工具列:
 - 1. Settings:

可調整系統性的參數,包括: "Modify local IP"、"Modify local Port"、 "Options"、"System Information"和"Restart VxComm Driver"

- 2. Help: VxServer 版本資訊內容
- 3. Exit: 離開 VxServer
- (2) 設備資訊:

顯示遠端設備相關資訊,包含: "Virtual IP"、"Module"、"Alias"、 "Com Number"、"Heartbeat"、"Remote Client IP"、"Remote Client Port"、 "Signal Quality"

(3) 連線資訊:

記錄設備連線資訊,包含設備連線、斷線和異常斷線...等等相關資訊

(4) 狀態列:

顯示目前 VxServer 相關資訊,由左至右,依序為:

- 1. VxServer Server 目前的狀態
- 2. Local IP 顯示
- 3. Local Port 顯示
- 4. VxComm Driver 目前的狀態

4.2 修改本機 IP (Local IP)

1. 選擇工具列 -> Settings -> Modify local IP

<u>Settings</u> <u>H</u> elp <u>E</u> xit		
Modify local IP Modify local Port	Alias	Com Nu
Options		
System Information Restart VxComm Driver		

2. 將欲修改的 IP 填入至 Modify IP 的欄位中,確定後,按"OK"完成

Modify Local IP	×
VxServer detected your PC	s IP is 192.168.0.105
Local IP: 192.168	.0.105
Modify IP:	
ок	Cancel

4.3 修改本機 Port (Local Port)

1. 選擇工具列 -> Settings -> Modify local Port

Settings Help Exit Modify local IP Alias Com Modify local Port Options System Information System Information Restart W/Comm Driver	1	S VxServer Ver1.00 B9 2011/12/08		
Modify local IP Alias Com Modify local Port		<u>Settings</u> <u>H</u> elp <u>E</u> xit		
Options System Information Restart V/Comm Driver		Modify local IP Modify local Port	Alias	Com Nu
System Information		Options		
		System Information Restart VxComm Driver		

2. 將欲修改的 Port 填入至 Modify Port 的欄位中,確定後,按"OK"完成

×
)
(1 ~ 65535)
Cancel

4.4 修改 VxServer 參數 (Options)

1. 選擇工具列 -> Settings -> Options

<u>Settings</u> <u>H</u> elp <u>E</u> xit		
Modify local IP Modify local Port	Alias	Com Nu
Options		
System Information Restart VxComm Driver		

- 2. VxServer 提供人性化選項,讓使用者更輕易的使用,功能如下:
 - (1) Run this program when Windows starts: 電腦啓動時,是否執行 VxServer
 - (2) Automatically reduced to the system tray when run this program: VxServer 執行 時,是否自動縮小至左下角-系統常駐程式

(3) Network response time: 當配合 PLC 設定軟體時,如 Siemens 的 STEP7,需依 照不同的傳輸方式而設定,非 PLC 設定軟體時則設定為 0 即可
 建議參考如下表:

Network res	sponse time
傳輸方式	建議數值 (ms)
Ethernet	100
Wi-Fi	500
3G	1000
GPRS	5000

(4) Smart transmit mode: 是否啓動聰明傳輸機制

en run this program onds (Default: 0 ms)
en run this program onds (Default: 0 ms)
onds (Default: 0 ms)

4.5 系統資訊 (System Information)

1. 選擇工具列 -> Settings -> System Information

5	YxServer Yer1.00 B9 2011/12/08 Settings Help Exit		
	Modify local IP Modify local Port	Alias	Com Nu
	Options		
	System Information		

2. 得到本機系統資訊

00.	MICrosoft Windows NT 5.1.2600 S	ervice Pack 1		
System Dir:	C:\WINDOWS\System32			CPU(s): 1
CPU Type:	x86 Family 6 Model 15 Stepping	13, GenuineIntel		
xComm Driv				
Cilo Sizo:	61184 Byte(s).	File Time:	5/12/2011 9:24:50 AM	
File Size.	NZ 13 NO			
File Size. File Ver:	Win2K v2.11.04 (5/12/2011)	Status:	VxComm Driver is running.	

4.6 重新啓動 VxComm Driver (Restart VxComm Driver)

1. 選擇工具列 -> Settings -> Restart VxComm Driver

Settings Help Exit Modify local IP Alias C Modify local Port Qptions System Information System Information			er Verl 00 B9 2011/12/08	16 7
Modify local IP Alias C Modify local Port			<u>H</u> elp <u>E</u> xit	Se
Options System Information	Com Nu	Alias	dify local <u>I</u> P dify local <u>P</u> ort	
System Information			ions	
Restart VxComm Driver			tem Information start VxComm Driver	

2. 當有修改 Options 的參數或者透過 VxComm Driver 新增 Server,都需要重新啓動 VxComm Driver

Restarting Driver		×
STOP	Restart VxComm driver to use new configuration. Make sure you have closed all virtual Com ports first.	
Status: VxCo	mm Driver is running.	
Res	tart Driver Cancel	

第五章 如何快速設定VxServer和VxComm Driver軟體

5.1 必要安裝軟體





◆ 下載 Microsoft .Net Framework Version 2.0: <u>http://www.microsoft.com/downloads/details.aspx?FamilyID=0856eacb-4362-4b0d-8edd-a</u> <u>ab15c5e04f5&DisplayLang=en</u>

▶ 下載 VxServer 軟體:

http://m2m.icpdas.com/VxServer.html

◆ 下載 VxComm Driver 軟體: http://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/vxcomm_driver/2k/

5.2 設定 VxServer 與 VxComm Driver

1. 確認設備已經連線上來

K VxS	S YxServer Yerl. 00 B9 2011/12/08								
Satt	Virtual IP	Module	Alias	Com Number	Heartheat	Remote Client IP	Remote Client Port	Signal Quality	
	127.7.11.1	M2M-711D	M2M-711D	1	60	192.168.0.129	1833	60%	
Da	te / Time	Messarie							
201	1/12/26 15:48:51	The Remote Vi	rtua IP "127.7.11.1" e	establishes a new co	nnection. (IP: 192.16	3.0.129, PORT: 1833)			
2011	1/12/26 15:48:48	Server Started(Local IP: 192.168.0.1	06, Local PORT: 110	000)				
Server	Started Local IP: 192.16	68.0.106 Local POR	T: 11000 VxComm D	river is running.					

2. 執行 VxComm Utility 並點選"Search Servers"

🥩 ¥xComm Utility [v2.11.	05, Dec.20, 2011	1									_ 7 🗙
<u>File S</u> erver <u>P</u> ort <u>T</u> ools											
	P		Configure S	erver					Co	nfigure Port	
Where remote serial devices become part of your PC	V×Comm S	ervers					Port	Virtual COM	Baudrate		
Add Server(s)											
Web											
Configuration (UDP)											
Exit											
	Name Alia:	s IP Address	Sub-net Gate	way MAC	Address	DHCP	1				

3. 選擇欲加入的設備,並點選"Add Server(s)"

🥩 ¥xComm Utility [v2.11	.05, Dec.20, 201	1]						
<u>File Server Port T</u> ools								
	Þ		Configure	Server				Configure Port
Where remote serve or text become part of your PC	¥×Comm	Servers				Port Virtual	COM Baud	rate
Add Server(s)								
Web								
Configuration (UDP)								
Exit	Í							
	Name	Alias	IP Address	Sub-net Mask	Gateway	MAC Address	DHCP	
	M2M-711D	M2M-711D	127.7.11.1	255.255.255.255	127.7.11.1	ff:ff:7f:07:0b:01	OFF	
				255.255.0.0 255.255.0.0	1923 (d. 1254) 1923 (d. 1254)			

4. IP Range=> COM Port, 選擇虛擬的 com port

Adding Servers								
IP Range Advanced Options								
Server Information Server Name : M2M-711D	Get name automatically							
IP Range Start : 127.7.11.1	✓ Skip duplicated IP							
IP Range End : 127.7.11.1								
Includes the following special IP : 0 (Net) v 254 (Gateway) v 255 (Broadcast)								
Virtual COM and I/O Port Mappings								
COM Port : COM6 💌								
Fixed baudrate, use current settings of servers.								
☐ Maps virtual COM ports to "Port I/O" on servers.								
	OK Cancel							

5. Advanced Options , 請依照底下的參數設定參數固定數値Keep Alive Time1Connection Broken3Connect Timeout1Command Port10000Virtual I/O Port9999

¥	dding Serv	ers		×
	IP Rang	Advanced Options		
	The foll	owing items are all PC s	side settings, not device settings.	
	Keep Al	ive Time (Seconds) :	1	
	Connec	tion Broken (Seconds) :	3	
	Connec	t Timeout (Seconds) :	1	
	Comma	nd Port (TCP):	10000	
	Virtual I	/O Port (TCP):	9999	
				1
			OK Cancel	

6. Tools => Restart Driver

Ø 7xComm Utility [v2.11.05, Dec.20, 2011]							
<u>File Server Port Tools</u>							
C Suntan Information		1					
In Restart Driver	Configure Serv	rer			Co	nfigure Port	
driver & utility V×Comm	n Servers		Port	Virtual COM	Baudrate		
Where remote series dences become part of your PC	-711D (127.7.11.1)		Port I/O Port 1	Reserved COM6	N/A Dynamic		
Add Server(s)							
X Remove Server							
C Web							
Search Servers							
Configuration (UDP)							
Exit							

7. 點選 Restart Driver,即完成設定

YxComm Utility : Restarting Driver						
STOP Restart the driver to use new configuration. Make sure you have closed all virtual COM ports first.						
Status: Driver is not running.						
	Restart Driver	Cancel				

Version Record

Version	Ву	Date	Description
1.00	Yide	2011/12/13	
1.01	Yide	2011/12/26	