# 1-port RS-232/422/485 Serial Device Server

Model: 065-1166 Series







### Quick Start Guide

This quick start guide describes how to install and use the Industrial Serial Device Server. Capable of operating at temperature extremes of -10°C to +60°C, this is the Serial Device Server of choice for harsh environments constrained by space.

### **Physical Description**

### The Port Status LEDs and Power Inputs



LED	State	Indication	
	Stoody	Serial Device Server is not located by Xport utility	
Status	Sleauy	yet.	
(Orange)	Flashing	Serial Device Server has been located by Xport	
	Flashing	utility.	
Ethernet port: 10/100BaseTX, 100BaseFX			
LAN	Steady	A valid Ethernet network connection established.	
(Yellow)	Flashing	Transmitting or receiving data.	
Serial port			
Port TX/RX	Steady	A valid serial connection established.	
(Yellow)	Flashing	Transmitting or receiving data.	



Power Input Assignment				
Power1	+	12-32VDC		
(Yellow)	_	Power Ground	Terminal Block	
÷		Earth Ground		
Power2 (Yellow)		12VDC	DC Jack	

There are Terminal Block and DC Jack power inputs can be used to power up this device. Redundant power supplies function is supported.

### **DIN-Rail Kits and optional Panel Mounting Kits**



### **Pin Assignments of Serial Port**

• DB-9

Pin	1	2	3	4	5	6	7	8	9
RS-232	DCD	RxD	TxD	DTR	Signal GND	DSR	RTS	CTS	RI
RS-422 4-wir RS-485	TxD+	RxD-	RxD+		Signal GND		TxD-		
2-wire RS-485		D-	D+		Signal GND				

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Terminal Block

Pin	1	2	3	4	5
RS-422 4-wir RS-485	RxD-	RxD+	Signal GND	TxD+	TxD-
2-wire RS-485	D-	D+	Signal GND		

#### **Functional Description**

- Flexible Serial Interface: DB9 for RS-232/422/485 or Terminal Block for RS-422/485.
- Isolation: 2KV isolated RS-422/485.
- Fiber Option: Support single-mode and multi-mode fiber optical.
- Flexible Power Input: Including both Terminal Block and DC Jack.
- Latch: DC Jack with latch secures higher stability of connection.
- Flexible Installation Method: Aluminum housing with panel and DIN-Rail mounting.
- Port Buffering: 64KB port buffer prevents data loss when connection fails.
- Warning: Inform user by relay output and E-mail in case of disconnection.
- Multiple Operation Mode: Support Virtual COM, TCP Server, TCP Client, UDP, Pair Connection.
  Reset button:
  - Reboot device: Press Reset button for 0~10 secs, Status LED flashes every 500 msecs.
  - Default password: Press Reset button for 11~30 secs, Status LED flashes every 200 msecs.
  - Factory default: Press Reset button for over 30 secs, Status LED flashes every 1 sec.

#### Utility Configuration

Install Xport utility to the operating system of your computer and follow the on-screen instructions to finish the installation.

- Double click the Xport icon on your computer screen to launch the Xport utility.
- Double click IP Address 192.168.1.10 on the Device List. A web-based login window will be shown as below.



© Xport	
File Tools Setting Monitoring	<u>Restart COM H</u> elp
	<u>a</u>
E Device List	[Information] Host Name : Model : Serial No. : 12345 Firmware Version : 2.1.8(2008.02.27-03:17+0000) [P. : 132.168.1.10 Netmask : 255.255.255.0 MAC: 00:08:01:03:04:26 Gateway : DNS1 : DNS2 : DNS3 : Lan Speed: 100M [Status] Reachable : Yes Login : No Active port(s) / Total ports : 1/1 Up Times : 0d:0h:1m:30s Locate : Flash light OFF

#### Web Configuration

• Login the Serial Device Server:

Specify the default IP address (192.168.1.10) of the Serial Device Server in the web browser. A web-based login window will be shown as below:

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Address      http://192.168.1.10/first.asp	Go Links 💙
065-1166series Password Submit	
	v

• Enter the factory default password: admin. Then click on the "Submit" button to log on to the Serial Device Server.



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Address 🛃 http://192.168.1.10/index.	asp		🔽 🔁 Go 🛛 Links 🎽
1-port RS-2	232/422/485	Serial Device Server	
<ul> <li>overview Menu</li> <li>Overview</li> <li>Racis Notwork Cottings</li> </ul>	Welcome to 065-1166s	eries	
Serial Port Settings	Model name	065-1166series	
E System Management	Server name	(null)	
System Management	Serial No.	12	
System Monitoring	Firmware version	2.1.17(2009.03.25-06:51+0000)	
🖻 🔁 Restart	IP address	192.108.1.10	
	LAN speed	100M	
	Up time	0d:0h:4m:2s	
		m	
<u>8</u>	14		🔮 Internet



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## INTRODUCTION

#### Overview

This Serial Device Server is a gateway between Ethernet (TCP/IP) and RS-232 / RS-422 / RS-485 communications. It allows almost any serial device to be connected to a new or existing Ethernet network. The information transmitted by this Serial Device Server is transparent to both host computers (IP network over Ethernet) and devices (RS-232 / RS-422 / RS-485). Data from the Ethernet (TCP/IP) is transmitted to the designated RS-232 / RS-422 / RS-485 port and data from RS-232 / RS-422 / RS-485 port is transmitted to the Ethernet (TCP/IP) transparently.

In the computer integration manufacturing or industrial automation area, Serial Device Server is used for field devices to direct connect to network. Terminal Server (main control program run in this Serial Device Server) transforms whatever data received from RS-232 / RS-422 / RS-485 to TCP/UDP port then connects devices to the IP network via a single application program or multiple application programs.

Many control devices provide the ability to communicate with hosts through RS-232 / RS-422 / RS-485 however RS-232 / RS-422 / RS-485 serial communication has its limitations. For instance, it is hard to transfer data through a long distance. With this Serial Device Server, it is possible to communicate with a remote device in the Intranet environment or even in the Internet and thus, increases the communication distance dramatically.

Flexible configuration options enable this unit to be setup remotely over IP network by Telnet, web browser, or Window utility. Packed in a rugged DIN Rail mountable case and 12~32V DC power input range, this Serial Device Server is ideal for almost any industrial and manufacturing automation.

#### Features

- Flexible Serial Interface- RS-232 / 422 / 485 or RS-422 / 485
- Isolation- 2KV isolated RS-422 / 485
- Fiber Option- Support single-mode and multi-mode fiber optics
- Flexible Power Input- Including both terminal block and DC jack
- Latch- DC jack with latch secures a stable connection
- Flexible Installation Method- Aluminum housing with panel and DIN-Rail mounting
- Port Buffering- 64KB port buffer prevents data loss when connection fails
- Warning- Inform user by relay output and E-mail in case of disconnection
- Multiple Operation Mode- Support Real COM, TCP server, TCP client, UDP, Pair Connection
  Reset button:
  - Reboot device: Press Reset button for 0~10 secs, Status LED flashes every 500 msecs.
  - Default password: Press Reset button for 11~30 secs, Status LED flashes every 200 msecs.
  - Factory default: Press Reset button for over 30 secs, Status LED flashes every 1 sec.



### Packaging

- Serial Device Server x 1
- 5 pins Terminal Block for Serial Connector x 1
- 3 pins Terminal Block for Power Connector x 1
- Mini DIN to DB-9 cable x 1
- Serial Device Server Quick Start Guide x 1
- Product CD containing configuration utility and other tools

### Interfaces



Fig 1. Serial Device Server Interfaces



LED	State	Indication
Status	Steady	Serial Device Server is not located by Xport utility yet.
(Orange)	Flashing	Serial Device Server has been located by Xport utility.
Ethernet por	rt: 10/100E	Base-TX, 100Base-FX
LAN	Steady	A valid Ethernet network connection established.
(Yellow)	Flashing	Transmitting or receiving data.
Serial port		
Port TX/RX	Steady	A valid serial connection established.
(Yellow)	Flashing	Transmitting or receiving data.

Power Input Assignment					
Power1 +		12-32VDC			
(Yellow)	_	Power Ground	Terminal Block		
Ð		Earth Ground			
Power2 (Yellow)		12VDC	DC Jack		

#### **Installation Procedures**

- Prepare necessary cables, DC power adapter and serial connector.
- Connect Serial Device Server to Ethernet cable with RJ45 connector.
- Connect serial port of Serial Device Server to serial device, make sure the connector and wiring of RS-232 is correct.
- Plug in Serial Device Server to 12-32VDC power source (3-pin terminal bock connector) or 12VDC power source (DC jack connector).

Use Xport utility on the product CD to check the status of Serial Device Server. If it starts up successfully, User shall find the IP and MAC address of Serial Device Server. User can change IP address, gateway IP address and subnet mask networking parameters of Serial Device Server according to user networking configurations.



# **Software Setup**

Now the Serial Device Server hardware is installed and power is on, network IP configuration will be set in this section.

### **Default Settings**

These default IP addresses settings are shown from under information.

Default IP addresses

Interface	Device IP	Subnet mask	Gateway IP
LAN Port	192.168.1.10	255.255.255.0	-

The other default settings of Serial Device Server are shown in the following table.

Property	Default Value
Ethernet Port	
IP Address	192.168.1.10
Gateway	
Subnet Mask	255.255.255.0
Security	
Password	admin
Serial	
COM	9600/None/8/1, No flow control
Link Mode	TCP Server, TCP port 601

Table 1. Default settings of the Serial Device Server

\* **Note:** Press reset button for 3 to 10 seconds to the default password. Press reset button for over 10 seconds to reboot the Serial Device Server.



# **IP Assignment**

### Configure IP by Xport Utility

Use Xport utility that comes with product CD or diskette to configure the network parameters.

Find new device and IP assignment

- Use Xport Utility for finding new device IP address, get device's current IP from Device List.
- Re-assigned IP, network mask and gateway if need with Xport Utility.
- User can configure Password and Server Name with Xport Utility.

© Networl	k setting		
Network Setting	8		
	T DHCP		
IP address	192.168.1 .10		
Netmask	255.255.255.0		
Gateway	<b>[</b>		
DNS server 1	1.01		
DNS server 2	1.0		
DNS server 3			
Time Settings			
Time zone (24-h	our)		-
Local time	2008/03/27	▼ 18:34:11	-
Time server			Enable
		<u>U</u> pdate	

Fig 2. IP settings for Xport Utility tool

### Configure IP by web interface

Use common Web browser, ex. Microsoft Internet Explorer or Mozilla Firefox, to configure the network parameters of Serial Device Server.

- Open web browser, type in the IP address (default IP: 192.168.1.10) of Serial Device Server to be configured. Default password is admin.
- Configure IP settings from web Network links page then click "Submit" to save settings.
- Click on "Restart" button to reboot the Serial Device Server.



### Configure IP by Telnet utility

Use common Telnet utility, ex. Microsoft Command Prompt or Hyper-terminal, to configure the network parameters of Serial Device Server.

- Run command telnet "IP address" to telnet to Serial Device Server. Default IP address is 192.168.1.10 and default password is admin.
- Configure IP settings from Basic Network Settings menu, and restart system after saved settings.

### Auto IP with DHCP

DHCP server will automatically supply an IP address, gateway address, and subnet mask to Serial Device Server. By default, the DHCP client function on Serial Device Server is disabled, user can activate the DHCP functions by the following steps.

- Execute Xport Utility
- Click on the IP address (of Serial Device Server)
- Click "Basic Network Settings" from "Setting" to pop-up the Network setting Window
- Check "DHCP"
- Click "Update" (The Serial Device Server will restart and obtain the IP from the DHCP server automatically)

### TCP/IP Port Number

Default Port number of Serial Device Server is 601 (1<sup>st</sup> port) and it can be associated with the serial COM port of host computer by using Xport utility.

After the application program being connected to the TCP port 601 on the Serial Device Server, data of user's application program are transmitted transparently to Serial Device Server and vice versa.



# **Configure Serial Device Server by web interface**

User has to assign IP address to Serial Device Server before working on web configuration operations.

### Login to System

Open one of the web browsers, ex. Microsoft IE or Firefox etc. Enter the IP address of Serial Device Server on the URL. Example: *http://192.168.1.10* 

The following authentication screen shall appear. Enter password then click on "Submit". The default password is "admin".

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065-1166series	Password		- III.
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Fig 3. Authorization request for system security The overview screen shall appear (Fig. 4).

### **Overview Menu**

This system overview window gives the general information on Serial Device Server that includes Overview and Basic Network Settings.



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Address 📓 http://192.168.1.10/index	.asp		🔽 🔁 Go Unks 🎽
1-port RS-2	2 <b>32/422/48</b> 5	Serial Device Server	SIGNAMAX CONNECTIVITY SYSTEMS
> overview Menu	Welcome to 065-1166s	series	
<ul> <li>Basic Network Settings</li> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> </ul>	Model name Server name Serial No. Firmware version	065-1166series (null) 12 2.1.17(2009.03.25-06:51+0000)	
🖲 🖸 Restart	IP address MAC address LAN speed Up time	192.169.1.10 00:97:03:00:07:07 100M 0d:0h:4m:2s	
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Fig 4. Overview for system information by Web Interface

#### Overview

Serial Device Server's system information includes model name, Server Name, Serial No., Firmware version, IP address, MAC address, LAN speed, and Up time. The information is read only and is attributed from another setting page or system status.

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Serial Port Settings	Server name	(null)	
<ul> <li>Serial Port Settings</li> <li>System Management</li> </ul>	Server name Serial No.	(null) 12	
<ul> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> </ul>	Server name Serial No. Firmware version	(null) 12 2.1.17(2009.03.25-06:51+0000)	
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<ul> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart</li> </ul>	Server name Serial No. Firmware version IP address MAC address LAN speed	(null) 12 2.1.17(2009.03.25-06:51+0000) 192.168.1.10 00:97:03:00:07:07 100M	
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Serial Port Settings     System Management     System Monitoring     System Monitoring     Sestart	Server name Server name Firmware version IP address MAC address LAN speed Up time	(null) 12 2.1.17(2009.03.25-06:51+0000) 192.1661.10 00:97:03:00:07:07 100M 0d:0h:4m:2s	
<ul> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart</li> </ul>	Server name Server name Firmware version IP address MAC address LAN speed Up time	(nul) 12 22 2:1.17(2009.03.25-06:51+0000) 192.165.1.10 00.97:03:00:07 100M 0d:0h:4m:2s	
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<ul> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> <li>System Monitoring</li> <li>Nestart</li> </ul>	Server name Serial No. Firmware version IP address MAC address LAN speed Up time	(null) 12 22 22.1.17(2009.03.25-06:51+0000) 192.1651.10 00.97:03:00:07 100M 0d:0h:4m:2s	
<ul> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart</li> </ul>	Server name Serial No. Firmware version IP address MAC address LAN speed Up time	(null) 12 2.1.17(2009.03.25-06:51+0000) 192.166.1.10 00:97:03:00:07:07 100M 0d:0h:4m:2s	

Fig 5. Device Information from Overview web page



### **Basic Network Settings**

There are two sections allowed to be changed on Basic Network Settings page that includes Network Settings and Time Settings.

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1-port RS	-232/422/485	Serial Device Se	erver SIGI	
> overview Menu	Network Settings - Basic			<u> </u>
Basic Network Setting		Network Se	ettings	
🗄 🕞 Serial Port Settings	IP configuration	Static 💌		
System Managemen	IP address	192.168.1.10		
System Monitoring	Netmask	255.255.255.0		
Kestart	Gateway			
	DNS server 1			
	DNS server 2			
	DNS server 3			
		Time Sett	tings	
	Time zone (24-hour)	(GMT)Greenwich Mean Time	e: Dublin, Edinburgh, Lisbon, Lo	ndon 💌
	Local time	1970 / 1 / 1 0 : 6	: 11	
	Time server	0.pool.ntp.org	Enable	
		Subm	it	
	4			

#### Fig 6. Network information by Web page

#### **Network Settings**

#### **Operation: Basic Network Settings** $\rightarrow$ **Network Settings**

- IP configuration: Click "IP configuration" drop-down menu to choose "Static" or "DHCP" from the "IP configuration" drop-down list so user manually assigns or DHCP server automatically supplies an IP address, gateway address, and subnet mask to Serial Device Server.
- IP address: Click in "IP address" text box and type a new address to change the IP address.
- Netmask: Click in "Netmask" text box and type a new address to change the Netmask.
- Gateway: Click in "Gateway" text box and type a new address to change the Gateway.
- DNS server 1, 2, 3: Click in "DNS server 1", "DNS server 2", or "DNS server 3" text box and fill in DNS information.



### Time Settings

#### **Operation: Basic Network Settings** $\rightarrow$ **Time Settings**

- Time zone (24-hour): Click "Time zone" drop-down menu to select a different time zone from the "Time zone" drop-down list.
- Local time: Click in "Local time" text box to set date and time the Serial Device Server.
- Time server: Click in "Time server" text box to enter Time server address for the Serial Device

Server. And check "Enable" to enable this setting.

Click "Submit" button when you finished Basic Network Settings.

#### **Serial Port Settings**

Here User can configure Serial Port Settings that includes Port Status and Port defined by user.

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1-port RS-	232/4	22/485 Seri	al Device S	Server		
> overview Menu	Port Status	i.				
<ul> <li>Basic Network Setting</li> <li>Serial Port Settings</li> <li>Port Status</li> <li>Port 1</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart</li> </ul>	Name Port1	Parameters 9600 8N1 None	Interface 232	OP Mode TCP Server	Status Running	

Fig 7. Port Status Web Page



### **Port Status**

Click on the "Port Status" link from "Serial Port Settings" and the Fig 7. screen will appear.

#### Port

#### Virtual Com Mode Setting

The Xport utility map a serial port to a COM port on a PC.

- 1. Operation Modes
- Application: Click "Application" drop-down menu to select "Virtual Com" from the "Application" drop-down list.
- RFC2217: RFC2217 is used to establish a transparent connection between a host computer and

a serial device by mapping the serial port on the Serial Device Server to a local COM port on the

host computer. RFC2217 is always enabled for Virtual Com Mode Setting.

- TCP Port: Click in "TCP Port" text box and type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.
- Max-client: The maximum number of host computers that can receive data from the Serial

Device Server simultaneously. Click "Max-client" drop-down menu to select 1 ~ 8 from the "Max-client" drop-down list.

• Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished Virtual Com Mode Setting.



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1-port RS-	- <b>232/</b> 422/485 S	erial Dev	ice Server	
> overview Menu	TCP Server Setting			
<ul> <li>Overview</li> <li>Basic Network Setting</li> <li>Serial Port Settings</li> <li>Port Status</li> <li>Port 1</li> <li>Operation Modes</li> <li>Communication P</li> <li>Accessible IP List</li> <li>System Managemen</li> <li>System Monitoring</li> <li>Restart</li> </ul>	Application TCP 3 RFC2217 En TCP Port 601 Max-client I Apply the above settings to all	Server 💌 nable serial ports	Port1	
	•			F

#### Fig 8. Virtual Com Mode Setting

#### **Communication Parameters**

- Protocol timeout auto-detect: Check this option to support Protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.
- Protocol timeout: Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.
- Baud rate: Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.
- Data bits: Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits"

drop-down list for the serial port. The default Data bits of the serial port is 8 bits.

- Stop bits: Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" dropdown list for the serial port. The default Stop bits of the serial port is 1 bit.
- Parity: Click "Parity" drop-down menu to select Parity None, Odd, Even, Mark, or Space from the

"Parity" drop-down list for the serial port. The default Parity of the serial port is None.

• Flow control: Click "Flow control" drop-down menu to select Flow control None, Hardware, or



Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.

- Mode: Click "Mode" drop-down menu to select Mode RS232, RS485, or RS422 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.
- Delimiter1, 2: Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. Check this option to enable Delimiter1, 2. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.
- Force transmit: Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished Communication Parameters.

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1-port RS-232/4	22/485 Serial	Device Server	
> overview Menu ••• Overview	Communication Parameters		-
Basic Network Settings		Port1	
Serial Port Settings	Protocol timeout auto-detect	🗖 Support	
Port Status	Protocol timeout	0 ms	
Port 1	Baud rate	9600 💌	
Operation Modes	Data bits	8 💌	
Communication Parameters	Stop bits	1 💌	
Accessible IP List	Parity	None 💌	
System Management	Flow control	None 💌	
System Monitoring	Mode	RS232 -	
Nestart		Data Packing	
	Delimiter1	(Hex 00~FF) 🗖 Enable	
	Delimiter2	(Hex 00~FF) 🗖 Enable	
	Force transmit	0 ms (note:"0" mear	ns disabled)
	□ Apply the above settings to a	II serial ports	
		Submit	
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Fig 9. Communication Parameters

### Accessible IP List

Enable the accessible IP list: Check this option to enable the accessible IP list. Disable will allow all IP's connection request.

- IP1 ~ 8: Click in "IP1 ~ 8" text box and specify IP addresses that can access to the serial port on the Serial Device Server. Check this option to enable the IP addresses.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.



Click "Submit" button when you finished Accessible IP List.

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1-port RS-232/4	22/485 Serial D	evice Server	
> overview Menu	Accessible IP List		
• Overview			
🚥 Basic Network Settings	Enable the accessible IP list (	'Disable" will allow all IP's connection rec	quest.)
Serial Port Settings		Port1	
Port Status	IP1	Enable	
Port 1	IP2	🗖 Enable	
Operation Modes	IP3	Enable	
Communication Parameters     Accessible ID List	IP4	Enable	
System Management	IP5	🗆 Enable	
System Monitoring	IP6	🗆 Enable	
🗉 🕨 Restart	IP7	🗖 Enable	
	IP8	🗖 Enable	
	Apply the above settings to all s	erial ports	
		Outersit	
		Submit	

Fig 10. Accessible IP List

#### Pair Connection

One Serial Device Server is assigned as the "master" and the other Serial Device Server as the "slave".

- 1. Operation Modes
- Application: Click "Application" drop-down menu to select "Pair Connection" from the "Application" drop-down list.
- RFC2217: RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. RFC2217 is always enabled for Pair Connection Setting.
- Mode: Click "Mode" drop-down menu to select Master or Slave from the "Mode" drop-down list.
- IP: Click in "IP" text box and specify the IP address of the Slave Serial Device Server of Pair

Connection.

- TCP Port: Click in "TCP Port" text box and type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished Pair Connection Setting.



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1-port RS-232/4	22/485 Sei	rial Device Se	rver	SIGNAMAX CONNECTIVITY SYSTEMS
> overview Menu	Pair Connection Se	tting		
Overview Basic Network Settings	An a line line		Port1	
Serial Port Settings	Application RFC2217	Pair Connection		
Port Status	Mode	Master 💌		
Port 1	IP			
Communication Parameters	TCP Port	601		
Accessible IP List	Apply the above se	ttings to all serial ports		
🗉 🔊 System Management			Submit	
System Monitoring				•
🖽 🔊 Restart 💽	•			

### Fig 11. Pair Connection Setting

### **Communication Parameters**

- Protocol timeout auto-detect: Check this option to support Protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.
- Protocol timeout: Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.
- Baud rate: Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.
- Data bits: Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.
- Stop bits: Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" dropdown list for the serial port. The default Stop bits of the serial port is 1 bit.
- Parity: Click "Parity" drop-down menu to select Parity None, Odd, Even, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.
- Flow control: Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.
- Mode: Click "Mode" drop-down menu to select Mode RS232, RS485, or RS422 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.
- Delimiter1, 2: Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. Check this option to enable Delimiter1, 2. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.

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- Force transmit: Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished Communication Parameters.

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Basic Network Settings		Port1	
🖻 🔊 Serial Port Settings	Protocol timeout auto-detect	Support	
The Port Status	Protocol timeout	0 ms	
🖻 🕨 Port 1	Baud rate	9600 💌	
Operation Modes	Data bits	8 💌	
Communication Parameters	Stop bits	1 -	
	Parity	None 💌	
System Management	Flow control	None	
System Horncornig	Mode	RS232 💌	
_	Dolimitor1	Data Packing	
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	Deminiterz	(Hex 00~FF) L Enable	
	Force transmit	⊻ms (note:"0" meai	ns disabled)
	Apply the above settings to all Apply the above settings to all	i seriai poπs	
		Submit	_1
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Fig 12. Communication Parameters

### **TCP Server Setting**

TCP Server mode is default Link mode of Serial Settings, and it can wait for connecting requests from remote host PCs which running Xport utility. Default TCP Port number of serial port on Serial Device Server is 601.

- 1. Operation Modes
- Application: Click "Application" drop-down menu to select "TCP Server" from the "Application" drop-down list.
- RFC2217: RFC2217 is used to establish a transparent connection between a host computer and aserial device by mapping the serial port on the Serial Device Server to a local COM port on the



host computer. Check this option to enable RFC2217 for TCP Server Setting.

- TCP Port: Click in "TCP Port" text box and type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.
- Max-client: The maximum number of host computers that can receive data from the Serial Device Server simultaneously. Click "Max-client" drop-down menu to select 1 ~ 8 from the "Maxclient" drop-down list.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished TCP Server Setting.

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1-port RS-232/4	22/485 Sei	rial Device Ser	ver	
> overview Menu	TCP Server Setting			
• Overview			Port1	
Basic Network Settings	Application	TCP Server		
Serial Port Settings	RFC2217	Enable		
Port Status	TCP Port	601		
Port 1     Operation Modes	Max-client	1 💌		
Communication Parameters	Apply the above se	ttings to all serial ports		
			Outerall	
System Management			Submit	
System Monitoring				
🗄 🕨 Restart 🗸 🗸	•			

#### Fig 13. TCP Server Setting

**Communication Parameters** 

- Protocol timeout auto-detect: Check this option to support Protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.
- Protocol timeout: Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.
- Baud rate: Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.
- Data bits: Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.
- Stop bits: Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" dropdown list for the serial port. The default Stop bits of the serial port is 1 bit.
- Parity: Click "Parity" drop-down menu to select Parity None, Odd, Even, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.



- Flow control: Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.
- Mode: Click "Mode" drop-down menu to select Mode RS232, RS485, or RS422 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.
- Delimiter1, 2: Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. Check this option to enable Delimiter1, 2. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.
- Force transmit: Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The

default Force transmit of the serial port is 0 to disable Force transmit.

 Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished Communication Parameters.

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Serial Port Settings	Protocol timeout auto-detect	🗖 Support	
Port Status	Protocol timeout	0 ms	
Port 1	Baud rate	9600	
Operation Modes	Data bits	8 🔻	
Communication Parameters	Stop bits	1	
T System Management	Parity	None 💌	
System Monitoring	Flow control	None	
<ul> <li>➡ S Restart</li> </ul>	Mode	RS232 -	
-	Delimiter1	Data Packing	
	Delimiter?	(Hex 00~FF) L Enable	
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	Force transmit	ms (note:"0" me	ans disabled)
	Apply the above settings to a	li serial ports	
		Submit	-
	4		

Fig 14. Communication Parameters

#### Accessible IP List

Enable the accessible IP list: Check this option to enable the accessible IP list. Disable will allow all IP's connection request.

- IP1 ~ 8: Click in "IP1 ~ 8" text box and specify IP addresses that can access to the serial port on the Serial Device Server. Check this option to enable the IP addresses.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

SIGNAMAX a.s. Seat: Palackeho trida 38, 612 00 Brno, CZ I Office: Vlarska 22, P. O. Box 214, 658 14 Brno, CZ T:+420 533 338 854 I F:+420 533 338 883 I www.signamax.eu



Click "Submit" button when you finished Accessible IP List.

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Serial Port Settings		Port1	
Port Status	IP1	Enable	
Port 1	IP2	Enable	
Operation Modes     Communication Parameters	IP3	Enable	
	IP4	Enable	
System Management	IP5	Enable	
System Monitoring	IP6	Enable	
🗈 ゝ Restart	IP7	Enable	
	IP8	Enable	
	Apply the above setting	ngs to all serial ports	
		Submi	1

Fig 15. Accessible IP List

### TCP Client Setting

User may enter IP addresses and port numbers of remote host computers to establish connection from Serial Device Server to remote host computers.

- 1. Operation Modes
- Application: Click "Application" drop-down menu to select "TCP Client" from the "Application" drop-down list.
- RFC2217: RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. Check this option to enable RFC2217 for TCP Client Setting.
- Connect timeout: Click in "Connect timeout" text box and type a period of Connect timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Connect timeout). The default Connect timeout is 3 seconds.
- Re-connect interval: Click in "Re-connect interval" text box and type a period of Re-connect interval assigned to the serial port on the Serial Device Server. The connection will be reestablished with other hosts for a defined period of time (Re-connect interval). The default Reconnect interval is 3 seconds.
- IP1 ~ 8, Port: Click in "IP1 ~ 8" and "Port" text boxes to specify IP addresses and Port numbers
  of remote host computers.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.



Click "Submit" button when you finished TCP Client Setting.

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1-port RS-232/4	22/485 Serial De	vice Server SIGN	
overview Menu	TCP Client Setting		
<ul> <li>Basic Network Settings</li> <li>Serial Port Settings</li> <li>Port Status</li> <li>Port 1</li> <li>Operation Modes</li> <li>Communication Parameters</li> <li>Accessible IP List</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart</li> </ul>	Application TCP Clie RFC2217 Enabl Connect timeout 3 Re-connect interval 3 IP1 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	e second second Port Port Port Port Port Port Port Port	

Fig 16. TCP Client Setting

### **Communication Parameters**

- Protocol timeout auto-detect: Check this option to support Protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.
- Protocol timeout: Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.
- Baud rate: Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.
- Data bits: Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.
- Stop bits: Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" dropdown list for the serial port. The default Stop bits of the serial port is 1 bit.
- Parity: Click "Parity" drop-down menu to select Parity None, Odd, Even, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.
- Flow control: Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.
- Mode: Click "Mode" drop-down menu to select Mode RS232, RS485, or RS422 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.



• Delimiter1, 2: Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. Check this option to enable Delimiter1, 2. The data will be transmitted if the

Delimiter1 is received or Delimiter1 and Delimiter are received.

- Force transmit: Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished Communication Parameters.

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<ul> <li>Serial Port Settings</li> <li>Port Status</li> <li>Port 1</li> <li>Operation Modes</li> <li>Communication Parameters</li> <li>Accessible IP List</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart</li> </ul>	Protocol timeout auto-detect Protocol timeout Baud rate Data bits Stop bits Parity Flow control Mode Delimiter1 Delimiter2 Force transmit C Apply the above settings to a	Support ms 9600 8 1 None RS232 Data Packing (Hex 00~FF) Enable (Hex 00~FF) Enable 0 (Hex 00~FF) Finable 0 ms (note:"0" ms	ieans disabled)
		Submit	<b>_</b>

Fig 17. Communication Parameters

### UDP Setting

Serial Device Server can be configured in a UDP mode to establish connection using Unicast or Multicast data from the serial device to one or multiple host computers. Vice versa is also true.

- 1. Operation Modes
- Application: Click "Application" drop-down menu to select "UDP" from the "Application" dropdown list.
- Server1 ~ 8, Port: Click in "Server1 ~ 8" and "Port" text boxes to specify IP addresses and Port numbers of remote UDP Servers.
- UDP Port: Click in "UDP Port" text box and type a UDP Port number assigned to the Source UDP Clients. The default UDP Port number is 601.
- Source IP 1 ~ 8: Click in "Source IP 1 ~ 8" text box to specify IP addresses of Source UDP



Clients.

• Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished UDP Setting.

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Basic Network Settings			Port1	
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Communication Parameters     Accessible ID List	Server1	Port	Source IP 1	(IP)
System Management	Server2	Port	Source IP 2	(IP)
System Monitoring	Server3	Port	Source IP 3	(IP)
E Restart	Server4	Port	Source IP 4	(IP)
_	Server5	Port	Source IP 5	(IP)
	Server6	Port	Source IP 6	(IP)
	Server7	Port	Source IP 7	(IP)
	Server8	Port	Source IP 8	(IP)
	🗖 Apply the above set	ttings to all serial ports		
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#### Fig 18. UDP Setting

### **Communication Parameters**

Protocol timeout auto-detect: Check this option to support Protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.

- Protocol timeout: Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.
- Baud rate: Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.
- Data bits: Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.
- Stop bits: Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" dropdown list for the serial port. The default Stop bits of the serial port is 1 bit.
- Parity: Click "Parity" drop-down menu to select Parity None, Odd, Even, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.
- Flow control: Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.



- Mode: Click "Mode" drop-down menu to select Mode RS232, RS485, or RS422 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.
- Delimiter1, 2: Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. Check this option to enable Delimiter1, 2. The data will be transmitted if the

Delimiter1 is received or Delimiter1 and Delimiter are received.

- Force transmit: Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.
- Apply the above settings to all serial ports: Check this option to apply the above settings to all serial ports.

Click "Submit" button when you finished Communication Parameters.

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		Submit	
	<b>▲</b>		

Fig 19. Communication Parameters



# System Management

There are six sections for System Management that includes Server Name Setting, Change Password, E-mail Alert, SNMP Trap, Restore Factory Default, and Firmware Update.

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Server Name Setting	
Change Password	Submit
SNMP Trap	
Restore Factory Default	
Firmware Update	
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Fig 20. System Management Web Interface

### **Server Name Setting**

Server name: Click in "Server name" text box and specify Server name to the Serial Device Server. Click "Submit" button when you finished Server Name Setting.

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E-mail Alert			
SNMP Trap			
Restore Factory Default			
Firmware Update			
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Fig 21. Server Name Setting web page



### Change Password

- Old password: Click in "Old password" text box and enter the Old password of the Serial Device Server.
- New password: Click in "New password" text box and enter the New password for the Serial Device Server.
- Confirm password: Click in "Confirm password" text box and enter the New password again for the Serial Device Server.

Click "Submit" button when you finished Change Password.

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🖃 🔊 System Management	New password		
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E-mail Alert		Submit	
Restore Factory Default			
Firmware Update			
🗉 🔊 System Monitoring			
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Fig 22. Change Password web page

### E-mail Alert

- SMTP Host: SMTP (Simple Mail Transfer Protocol). Click in "SMTP Host" text box and enter IP address of the SMTP Host.
- SMTP Port: Click in "SMTP Port" text box and enter the SMTP Port number. The default SMTP Port number is 25.
- From E-mail address: Click in "From E-mail address" text box and specify the E-mail address to receive the E-mail from.
- E-mail address1 ~ 4: Click in "E-mail address1 ~ 4" text box and specify the E-mail addresses to receive the E-mail. Check this option to enable E-mail address1 ~ 4.

Click "Submit" button when you finished E-mail Alert.



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Serial Port Settings	SMTP Host			
🖻 🔰 System Management	SMTP Port	25		
🚥 Server Name Setting	From E-Mail address			
Change Password	From E-mail address			
E-mail Alert	E-mail addresses to report			
SNMP Trap	E-mail address1	Enable		
Restore Factory Default	E-mail address2	Enable		
Firmware Update	E-mail address3	Enable		
System Monitoring	E-mail address4	Enable		
🕮 🔰 Restart	•	Submit		

Fig 22. E-mail Alert web page

### **SNMP** Trap

• IP of remote SNMP trap receiver: Click in "IP of remote SNMP trap receiver" text box and enter IP address of the remote SNMP trap receiver.

Click "Submit" button when you finished SNMP Trap.

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SNMP Trap		
Restore Factory Default		
Firmware Update		
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Fig 23. SNMP Trap web page


### **Restore Factory Default**

- Restore factory defaults (all): Check this option to restore the Serial Device Server to the factory default values.
- Restore factory defaults (keep networking settings): Check this option to restore the Serial Device Server to the factory default values but keep networking settings of the Serial Device Server.

Click "Submit" button when you finished Restore Factory Default.

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1-port RS-23	2/422/485 Serial Device Server	
> overview Menu • Overview	Restore Factory Default	
Basic Network Settings	Restore Factory Default	
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🖻 🕟 System Management	Restore factory defaults (keep networking settings)	
🚥 Server Name Setting		
🚥 Change Password	Submit	
🚥 E-mail Alert		
SNMP Trap		
Restore Factory Default		
Firmware Update		
System Monitoring		
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Fig 24. Restore Factory Default web page

### **Firmware Update**

• Select file: Click the "Brower" button to select the firmware and click "Submit" button to update the firmware to the Serial Device Server.



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1-port RS-23	32/422/485 Seria	I Device Server	
<ul> <li>overview Menu</li> <li>Overview</li> </ul>	Firmware Update		
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System Management			
Server Name Setting		Submit	
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Fig 25. Firmware Update web page

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# **System Monitoring**

There are three sections for System Monitoring that includes Serial to Network Connections, System Log, and Event Log.

### Serial to Network connections

• Serial to Network Connections: View the network connections status of serial port on the Serial Device Server.

<ul> <li>2055-1166series - Windows Internet Explorer</li> <li> <ul> <li></li></ul></li></ul>		[	Google 🗸 🖌	
1-port RS-232/4	122/485 Se	rial Devic	e Server 51	
<ul> <li>Overview Menu</li> <li>Overview</li> <li>Basic Network Settings</li> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> <li>Serial to Network Connections</li> <li>System Log</li> <li>Event Log</li> <li>Restart</li> </ul>	Serial to Network Co Port1 []	II II II	8	8

Fig 26. Serial to Network Connections web page

# System Log

• System Log: Click the "Reload" button to reload the System Log of the Serial Device Server and click "Clean" button to clean the System Log of the Serial Device Server.



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1-port RS-232/4	22/485 Serial Device Server	
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	Reload	Clean
	•	

#### Fig 27. System Log web page

### **Event Log**

• Event Log: Click the "Reload" button to reload the Event Log of the Serial Device Server and click "Clean" button to clean the Event Log of the Serial Device Server.



Fig 28. Event Log web page



# Restart

There are two sections for Restart that includes Restart Port and Restart System.

### **Restart Port**

• Select Ports: Check to select the serial port on the Serial Device Server to be restarted.

Click "Submit" button when you finished Restart Port.

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1-port RS-232/4	422/485 Seria	al Device Server	
> overview Menu • Overview	Restart Ports		
Basic Network Settings		Restart the selected :	serial ports
Serial Port Settings	Select Ports.		<b>№</b> 1
D System Management     O System Management     O System Management     O Restart     O Restart     O Restart Ford     Restart System		Submit	
	•		

### Fig 29. Restart Port web page



• Select System: Click the "Restart" button to restart the Serial Device Server.

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1-port RS-232/422/485 Serial Device Server     • verview Menu   • verview   • asic Network Settings   • System Management   • System Management   • System Montoring   • Restart Port   • Restart System     • Restart System	🔆 🕂 🏈 065-1166series		👌 • 🔊 - 🖶 • 🍟
<ul> <li>overview Menu</li> <li>Overview</li> <li>Basic Network Settings</li> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart Port</li> <li>Restart System</li> </ul>	1-port RS-232/4	122/485 Serial Device Serv	
Basic Network Settings     Serial Port Settings     System Management     System Monitoring     Sestart     Restart Port     Restart Port     Restart System	> overview Menu	Restart System	
Serial Port Settings   System Management   System Monitoring   Restart Port   Restart Port   Restart System	Basic Network Settings	R	estart System
	<ul> <li>Serial Port Settings</li> <li>System Management</li> <li>System Monitoring</li> <li>Restart</li> <li>Restart Port</li> <li><u>Restart System</u></li> </ul>		Restart

SIGNAMAX a.s.



Fig 30. Restart System web page

# **Telnet Configuration**

User can also use Telnet utility to change Serial Device Server configuration settings.

- Open Ms-DOS command prompt window or other telnet tools.
- Enter the "IP address" of the Serial Device Server. (Telnet 192.168.1.10).

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Fig 31. Login into System by Telnet

• The system then prompts for password, the default password is "admin".

🚥 Telnet 192.168.1.10	- 🗆 ×
Password : _	<b>^</b>
	•

Fig 32. Password to login into System

Then the following main menu shall appear.



Fig 33. Main menu by telnet



### Overview

#### **Operation:** [Main menu] $\rightarrow$ [1 Overview]

Please choice "1" and press <enter> to enter Overview page.

This system overview window gives the general information of Model Name, Server Name, Serial No, F/W Version, IP Address, MAC Address, Lan Speed, and Up Time for the Serial Device Server (Fig 34).

Telnet 192.168.1.	10	- 🗆 ×
===[[[ Main men	u ]]]===	<b></b>
[ 1 ] - Overview [ 2 ] - Basic Ne [ 3 ] - Serial P [ 4 ] - System M [ 5 ] - System M [ 6 ] - Restart [ Q ] - Quit	twork Settings ort Settings anagement onitoring	
Please choice: 1 Model Name Server Name Serial No F/W Version IP Address MAC Address Lan Speed Up Time Press any key to	: SE5100_disp : (null) : 12345 : 2.1.8(2008.02.27-03:17+0000) : 192.168.1.10 : 00:08:01:03:04:26 : 100M : 0d:2h:35m:4s continue	
TIESS any key to	concination	-

Fig 34. System Information from Overview

### **Basic Network Settings**

#### Operation: [Main menu] $\rightarrow$ [2 Basic Network Settings]

Please choice "2" and press <enter> to enter Basic Network Settings page.

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===[[[ Main menu ]]]===	
[ 1 ] - Overview [ 2 ] - Basic Network Settings	
L 3 J - Serial Port Settings [ 4 J - System Management [ 5 J - System Manitering	
$\begin{bmatrix} 5 \end{bmatrix} = 3$ ystem nonitoring $\begin{bmatrix} 6 \end{bmatrix} = \text{Restart}$ $\begin{bmatrix} 0 \end{bmatrix} = 0$ uit	
Please choice: 2_	
	•

Fig 35. Basic Network Settings by Telnet

\* **Note:** Enter "Q" and press <Enter> to return to the Main menu.

This section allows for changes in DHCP, IP address, Netmask address, Gateway address, DNS1 address, DNS2 address, DNS3 address, Time Server, Time Area, Year, Month, Day, Hour, Minute, and Second.



### **Serial Port Settings**

User can configure serial parameters that includes Port Status, Operation Modes, Communication Parameters, and Accessible IP List.

m Telnet 192.168.1.10	- 🗆 ×
===[[[ Main menu ]]]=== [ 1 ] - Overview [ 2 ] - Basic Network Settings [ 3 ] - Serial Port Settings [ 4 ] - System Management [ 5 ] - System Monitoring [ 6 ] - Restart [ Q ] - Quit	
Please choice: 3_	-

Fig 36. Select Serial Port Settings by Telnet

Telnet 192.168.1.10	<u>- 🗆 ×</u>
===[[[ Main menu ]]]===	
[ 1 ] - Overview [ 2 ] - Basic Network Settings [ 3 ] - Serial Port Settings [ 4 ] - System Management [ 5 ] - System Monitoring [ 6 ] - Restart	
===[[[ Serial Port Settings ]]]===	
[ 1 ] - Port Status [ 2 ] - Operation Modes [ 3 ] - Communication Parameters [ 4 ] - Accessible IP List [ Q ] - Exit Page	
Please choice: _	-

Fig 37. The Serial Port Settings page

### Port Status

**Operation:** [Main menu]  $\rightarrow$  [3 Serial Port Settings]  $\rightarrow$  [1 Port Status]

The Port Name, Device, Parameters, Interface, and Operation Mode as the Fig 38. Port Status screen will appear.





Fig 38. The Port Status page

### **Operation Modes**

#### **Operation:** [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [2 Operation Modes]

The Cyber Com, Pair Connection, TCP Server, TCP Client, and UDP as the Fig 40. Operation Modes screen will appear.



Fig 39. Select Operation Modes by Telnet





Fig 40. The Operation Modes page

### Cyber Com

#### **Operation:** [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [2 Operation Modes] $\rightarrow$ [1 Cyber Com]

- TCP Port: Type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.
- RFC2217: RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. Type "y" or "n" to enable or disable RFC2217 for Cyber Com Operation Modes.
- Set Max Client: The maximum number of host computers that can receive data from the Serial Device Server simultaneously. Type "1" ~ "8" Max Client for the serial port on the Serial Device Server.

### Pair Connection

# Operation: [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [2 Operation Modes] $\rightarrow$ [2 Pair Connection]

- TCP Port: Type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.
- Type "1" or "2" to select Master or Slave.
- IP: Specify the IP address of the Slave Serial Device Server of Pair Connection.

### TCP Server

### Operation: [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [2 Operation Modes] $\rightarrow$ [3 TCP Server]

- TCP Port: Type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.
- RFC2217: RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. Type "y" or "n" to enable or disable RFC2217 for TCP Server Operation Modes.
- Set Max Client: The maximum number of host computers that can receive data from the Serial

SIGNAMAX a.s.



Device Server simultaneously. Type "1" ~ "8" Max Client for the serial port on the Serial Device Server.

### **TCP** Client

#### Operation: [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [2 Operation Modes] $\rightarrow$ [4 TCP Client]

- RFC2217: RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. Type "y" or "n" to enable or disable RFC2217 for TCP Client Operation Modes.
- Re-Connect Interval: Type a period of Re-Connect Interval assigned to the serial port on the Serial Device Server. The connection will be reestablished with other hosts for a defined period of time (Re-Connect Interval). The default Re-Connect Interval is 3 seconds.
- Connect Timeout: Type a period of Connect Timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Connect Timeout). The default Connect Timeout is 3 seconds.
- Remote IP1 ~ 8, Remote Port1 ~ 8: Specify IP addresses and Port numbers of remote host computers.

### UDP

### **Operation:** [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [2 Operation Modes] $\rightarrow$ [5 UDP]

- UDP Port: Type a UDP Port number assigned to the Source UDP Clients. The default UDP Port number is 601.
- Source IP1 ~ 8: Specify IP addresses of Source UDP Clients.
- Server IP1 ~ 8, Server Port1 ~ 8: Specify IP addresses and Port numbers of remote UDP Servers.

### **Communication Parameters**

#### **Operation:** [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [3 Communication Parameters]

- Protocol timeout auto-detect: Type "y" or "n" to enable or disable Protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.
- Set Protocol Timeout: Type a period of Protocol Timeout (0 ~ 99ms) assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol Timeout). The default Protocol Timeout is 0ms.
- Baud rate: Select Baud rate 50 ~ 460800bps for the serial port. The default Baud rate of the serial port is 9600bps.
- Data bits: Select Data bits 5, 6, 7, or 8 for the serial port. The default Data bits of the serial port is 8 bits.
- Stop bits: Select Stop bits 1 or 2 for the serial port. The default Stop bits of the serial port is 1 bit.
- Parity: Select Parity None, Odd, Even, Mark, or Space for the serial port. The default Parity of the serial port is None.
- Mode: Select Mode RS232, RS485, or RS422 for the serial port. The default Mode of the serial



port is RS232.

- Flow control: Select Flow control None, Hardware, or Software for the serial port. The default Flow control of the serial port is None.
- Delimiter1 Enable: Type "y" or "n" to enable or disable Delimiter1 for the serial port on the Serial Device Server.
- Set Delimiter1: Type Delimiter1 (Hex 00 ~ FF) to the serial port on the Serial Device Server.
- Delimiter2 Enable: Type "y" or "n" to enable or disable Delimiter2 for the serial port on the Serial Device Server.
- Set Delimiter2: Type Delimiter2 (Hex 00 ~ FF) to the serial port on the Serial Device Server.
- Set ForceTransmit: Specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.

### Accessible IP List

#### Operation: [Main menu] $\rightarrow$ [3 Serial Port Settings] $\rightarrow$ [4 Accessible IP List]

- Enable the accessible IP list: Type "y" or "n" to enable or disable the accessible IP list. Disable will allow all IP's connection request.
- Accessible IP Enable1 ~ 8: Type "y" or "n" to enable or disable IP addresses that can access to the serial port on the Serial Device Server.
- Accessible IP1 ~ 8: Specify IP addresses that can access to the serial port on the Serial Device Server.

### System Management

User can configure System Management that includes Server Name Setting, Change Password, Email Alert, SNMP Trap, and Restore Factory Default.

🚥 Telnet 192.168.1.10	- 🗆 ×
===[[[ Main menu ]]]===	<b>_</b>
[1] - Overview [2] - Basic Network Settings [3] - Serial Port Settings [4] - System Management [5] - System Monitoring [6] - Restart [Q] - Quit	
Please choice: 4_	-

Fig 41. Select System Management by Telnet



🚥 Telnet 192.168.1.10	- 🗆 ×
===[[[ System Management ]]]=== [ 1 ] - Server Name Setting [ 2 ] - Change Password [ 3 ] - E-mail Alert [ 4 ] - SNMP Trap [ 5 ] - Restore Factory Default [ Q ] - Exit Page Please choice: _	
[ 2 ] - Change Password [ 3 ] - E-mail Alert [ 4 ] - SNMP Trap [ 5 ] - Restore Factory Default [ Q ] - Exit Page Please choice: _	

#### Fig 42. The System Management page

### Server Name Setting

#### **Operation:** [Main menu] $\rightarrow$ [4 System Management] $\rightarrow$ [1 Server Name Setting]

• Set Server Name: Specify Server Name to the Serial Device Server.

### Change Password

#### **Operation:** [Main menu] $\rightarrow$ [4 System Management] $\rightarrow$ [2 Change Password]

- Old password: Enter the Old password of the Serial Device Server.
- New password: Enter the New password for the Serial Device Server.
- Again: Enter the New password again for the Serial Device Server.

### E-mail Alert

#### Operation: [Main menu] $\rightarrow$ [4 System Management] $\rightarrow$ [3 E-mail Alert]

- SMTP Host: SMTP (Simple Mail Transfer Protocol). Enter IP address of the SMTP Host.
- SMTP Port: Enter the SMTP Port number. The default SMTP Port number is 25.
- From E-mail address: Specify the E-mail address to receive the E-mail from.
- E-mail address1 ~ 4: Type "y" or "n" to enable or disable the E-mail addresses to receive the E-mail.
- Mail 1 ~ 4 address: Specify the E-mail addresses to receive the E-mail.

### SNMP Trap

#### Operation: [Main menu] $\rightarrow$ [4 System Management] $\rightarrow$ [4 SNMP Trap]

• IP of remote SNMP trap receiver: Enter IP address of the remote SNMP trap receiver.

#### **Restore Factory Default**

#### **Operation:** [Main menu] $\rightarrow$ [4 System Management] $\rightarrow$ [5 Restore Factory Default]

• Restore factory defaults (keep networking settings): Type "y" or "n" to enable or disable restoration the Serial Device Server to the factory default values but keep networking settings of the Serial Device Server.



• Restore factory defaults (all): Type "y" or "n" to enable or disable restoration the Serial Device Server to the factory default values.

### **System Monitoring**

User can configure System Monitoring that includes Serial to Network Connections, System Log, and Event Log.

Telnet 192.168.1.10	- 🗆 ×
===[[[ Main menu ]]]===	×
[ 1 ] - Overview [ 2 ] - Basic Network Settings	
[ 3 ] - Serial Port Settings [ 4 ] - System Management	
[ 5 ] - System Monitoring [ 6 ] - Restart	
[ Q ] - Quit	
Please choice: 5_	

Fig 43. Select System Monitoring by Telnet

Telnet 192.168.1.10	<u>- 🗆 ×</u>
===[[[ System Monitoring ]]]=== [ 1 ] - Serial to Network Connections [ 2 ] - System Log [ 3 ] - Event Log [ Q ] - Exit Page Please choice: _	

Fig 44. The System Monitoring page

### Serial to Network Connections

#### **Operation:** [Main menu] $\rightarrow$ [5 System Monitoring] $\rightarrow$ [1 Serial to Network Connections]

• Serial to Network Connections: View the network connections status of serial port on the Serial Device Server.





Fig 45. The Serial to Network Connections page

### System Log

#### Operation: [Main menu] $\rightarrow$ [5 System Monitoring] $\rightarrow$ [2 System Log]

Serial to Network Connections: View the System Log of serial port on the Serial Device Server.



#### Fig 46. The System Log page

#### Event Log

#### **Operation:** [Main menu] $\rightarrow$ [5 System Monitoring] $\rightarrow$ [3 Event Log]

• Serial to Network Connections: View the Event Log of serial port on the Serial Device Server.





#### Fig 47. The Event Log page

#### Restart

User can configure Restart that includes Restart Port and Restart System.



Fig 48. Select Restart by Telnet

Telnet 192.168.1.10	<u>- 🗆 ×</u>
===[[[ Restart ]]]===	
[ 1 ] - Restart Port [ 2 ] - Restart System [ Q ] - Exit Page	
Please choice: _	
	<b>•</b>

#### Fig 49. The Restart page

### **Restart Port**

Operation: [Main menu]  $\rightarrow$  [6 Restart]  $\rightarrow$  [1 Restart Port]



• Restart all Port: Type "y" or "n" to enable or disable all the serial port on the Serial Device Server to be restarted.

### **Restart System**

#### Operation: [Main menu] $\rightarrow$ [6 Restart] $\rightarrow$ [1 Restart System]

• Are you sure: Type "y" or "n" to enable or disable the Serial Device Server to be restarted.



# Xport Utility

### **Xport Utility Introduction**

Xport Utility is a tool for device management and configuration, and can realize the daily management on various network devices for address search, device positioning, parameter configuring, firmware downloading and so on.

### Interface

The operating interface of the Xport utility shown as below:



Fig 50. The operating interface of the Xport utility



# **Device List**

### Login to System by Web Interface

User can double click on the IP address of the Serial Device Server to login to Serial Device Server by web interface.

a Microsoft Internet Explorer	
<u>File Edit View Favorites Tools Help</u>	-
🔇 Back 🔹 ⊘ 🔄 📓 🏠 🔎 Search 🌟 Favorites 🜒 Media 🤣 🔗 🖉 🗟	
Address 🗟 http://192.168.1.10/first.asp 🔹 🔁 Go 🛛 Li	nks <sup>»</sup>
	~
Password	
HTML Version:123107- WEB Version:123107-	01

Fig 50. Login to System by Web Interface

### **Functions**

User can click right button of mouse on the IP address of the Serial Device Server to show functions as Fig 51.



© Xport		
File Tools Setting Monitoring Res	start COM Help	
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Device List	[Information]	
⊕ ● 192.168.1.10 [00:08:01:03:04:26]     COM List	Serial Port Settings Status Log	2008.02.27-03:17+0000)
	Basic Network Settings Restart System	_
	Auto-search Refresh Locate	
	Login : No Active port(s) / Total p Up Times : 0d:3h:35m Locate : Flash light OF	orts : 1/1 :36s F

### Fig 51. Functions

### Serial port

User can click right button of mouse on the serial port of the Serial Device Server to show as Fig 52.

© Xport	
File Tools Setting Monitoring Resta	rt COM Help
🐸 🖬 📕 🔕 🥒 🗃 🕍 🕍	5 D
Device List     192.168.1.10 [00:08:01:03:04:26]     Device List     Device List     Device List	[192.168.1.10 - Port 1 Basic Setting.] Hardware Mode : RS232 Baudrate : 9600bps
COM List Auto-	-mapping a COM port Jal-mapping a COM port
Resta	art Port 1
	[Port Role] Port Mode : Virtual COM TCP Port : 601 RFC2217 : Enable

Fig 52. Serial port



### Auto-mapping a COM port

User can use the Xport utility to automatically map a serial port to a COM port on a PC. The serial port on the Serial Device Server has to be set to Virtual Com mode when mapping COM port with Xport utility.

1. Map successfully: The serial port on the Serial Device Server has been successfully mapped to a COM port on a PC.



#### Fig 53. Auto-mapping a COM port

2. COM List: Click right button of mouse on the COM port to show as Fig 54.

© Xport		
File Tools Setting Monitoring Restart	COM Help	
Device List     Device Li	[COM3 Status] Enable : True Is opened : True Connection State : Connected Overlapped : False IConfiguration] fy Setting ify Se	

#### Fig 54. COM List

3. Modify Setting: User can modify Network setting and Serial setting of COM port settings as Fig 55. and Fig 56.



## **Network setting**

### **Remote IP address**

Input the IP address of the remote Serial Device Server.

### TCP port

Choose TCP port number assigned to the COM port. The default TCP port number is 601.

Active auto-reconnect

Check this option to support Active auto-reconnect. The Xport utility will automatically attempt to reconnect COM port to the serial port on the Serial Device Server.

### **Reconnect interval**

The Xport utility will automatically attempt to reconnect COM port to the serial port on the Serial Device Server in defined time interval (Reconnect interval). The default Reconnect interval is 1000ms.

### Cache data when connection was broken

Check this option to ensure that data is buffered if the connection is broken.

🗭 Modify COM p	ort settings 🔳 🗖 🔀
Serial port number	COM3 (SmartCOM)
Network setting	Serial setting
Remote IP address	TCP port
192.168.1.10	601 🚖
Active auto-rec Reconnect interval	onnect
Cancel	

#### Fig 55. Network setting



# **Serial setting**

### Serial port protocol

Choose Raw protocol or RFC2217 protocol.

### Serial port preset signals

There are CTS, DSR, DCD, and RING serial port preset signals that can be chosen.

#### Enable bitrate emulation

Check this option to limit data transmission speed to that was specified to serial port. Transmission speed depends on bandwidth of the serial connection if bitrate emulation is disabled.

🌣 Modify COM port settings 🔳 🗖 🔀			
Serial port number	COM3 (SmartCOM)		
Network setting	Serial setting		
Serial port protoco	ol		
💿 Raw protocol	1		
ORFC2217 pro	otocol		
Serial port preset	signals R 🗹 DCD 📃 RING		
Enable bitrate e	emulation		
Cancel	ОК		

#### Fig 56. Serial setting

### **Remove COM port**

Remove the COM port and remove mapping the serial port to a COM port on a PC.

Confirm			
?	Are you sur	e to remove (	IOM3?
	Yes	No	]

Fig 57. Serial setting



### Manual-mapping a COM port

User can use the Xport utility to manually map a serial port to a COM port on a PC. The serial port on the Serial Device Server has to be set to Virtual Com mode when mapping COM port with Xport utility.

### Network setting

- TCP port: Choose TCP port number assigned to the COM port. The default TCP port number is 601.
- Active auto-reconnect: Check this option to support Active auto-reconnect. The Xport utility will
  automatically attempt to reconnect COM port to the serial port on the Serial Device Server.
- Reconnect interval: The Xport utility will automatically attempt to reconnect COM port to the serial port on the Serial Device Server in defined time interval (Reconnect interval). The default Reconnect interval is 1000ms.
- Cache data when connection was broken: Check this option to ensure that data is buffered if the connection is broken.

🗘 Advance Map a	1 new CO 🔳 🗖 🔀
Serial port number	СОМЗ
Network setting	Serial setting
Remote IP address	TCP port
Active sulte reco	
Reconnect interval	1000 🗲 ms
📃 Cache data whe	en connection was broken
Cancel	ОК

#### Fig 58. Network setting

#### Serial setting

- Serial port protocol: Choose Raw protocol or RFC2217 protocol.
- Serial port preset signals: There are CTS, DSR, DCD, and RING serial port preset signals that can be chosen.
- Enable bitrate emulation: Check this option to limit data transmission speed to that was specified to serial port. Transmission speed depends on bandwidth of the serial connection if bitrate emulation is disabled.



rial port number	СОМЗ
Network setting	Serial setting
Serial port protoco	ol
💿 Raw protocol	
ORFC2217 pro	tocol
Serial port preset :	signals
🗹 CTS 🗹 DSI	r 🗹 DCD 📃 Ring
T Enable bitrate e	mulation
	anoiddon

Fig 59. Serial setting

### **Restart port**

Click "Restart port" to restart serial port on the Serial Device Server.

### **COM** List

Click right button of mouse on the COM List to show as Fig 54.



Fig 60. COM List



# Create a new COM port

User can use the Xport utility to map a serial port to a COM port on a PC. The serial port on the Serial Device Server has to be set to Virtual Com mode when mapping COM port with Xport utility.

#### Network setting

- TCP port: Choose TCP port number assigned to the COM port. The default TCP port number is 601.
- Active auto-reconnect: Check this option to support Active auto-reconnect. The Xport utility will automatically attempt to reconnect COM port to the serial port on the Serial Device Server.
- Reconnect interval: The Xport utility will automatically attempt to reconnect COM port to the serial port on the Serial Device Server in defined time interval (Reconnect interval). The default Reconnect interval is 1000ms.
- Cache data when connection was broken: Check this option to ensure that data is buffered if the connection is broken.

😳 Advance Map a	new CO 🔳 🗖 🔀
Serial port number	сомз 💽
Network setting	Serial setting
Remote IP address	TCP port
192.168.1.10	1601 <b>T</b>
Reconnect interval	1000 文 ms
Cache data whe	n connection was broken
Cancel	OK

#### Fig 61. Network setting

### Serial setting

- Serial port protocol: Choose Raw protocol or RFC2217 protocol.
- Serial port preset signals: There are CTS, DSR, DCD, and RING serial port preset signals that can be chosen.
- Enable bitrate emulation: Check this option to limit data transmission speed to that was specified to serial port. Transmission speed depends on bandwidth of the serial connection if bitrate emulation is disabled.



ial port number	СОМЗ
Network setting	Serial setting
Serial port protoco	ol
Raw protocol	
ORFC2217 pro	tocol
Serial port preset	signals
🗹 CTS 🗹 DS	r 🗹 dcd 📃 ring
Enable bitrate r	emulation
	maladon

Fig 62. Serial setting

## Remove all COM ports

Click "Remove all COM ports" to remove all the COM ports and remove all the mapping from the serial ports to COM ports on a PC.



#### Fig 63. Remove all COM ports

### File

Click "File" from menu bar to show as Fig 64.





#### Fig 64. File

#### Logon

Click "Logon" from "File" to show the authentication screen as Fig 64. Enter password then click on "OK" button to logon to the Serial Device Server. The default password is "admin".

<b>9</b> 192.168.1.10	) Logon 🛛 🔀
Password	_
<u>0</u> K	Close

#### Fig 64. Logon

### Logoff

Click "Logoff" from "File" to logoff from the Serial Device Server.



### Load utility setting

		5			
Look <u>i</u> r	n: Di XPort Utility	V	•	+ 🗈 💣 📰 🔻	•
My Recent Documents Desktop	<sup>™</sup> Xport				
My Documents My Computer	a -				
My Network Places	File <u>n</u> ame:	Xport.		•	<u>O</u> pen Cancel

Click "Load utility setting" from "File" to load utility setting file to the Serial Device Server.

#### Fig 65. Load utility setting

### Save utility setting

Click "Save utility setting" from "File" to save utility setting file from the Serial Device Server.



Fig 66. Save utility setting



### Exit

Click "Exit" from "File" to exit from Xport utility.

### Tools

Click "Tools" from menu bar to show as Fig 67.

o Xp	ort			
File	Tools	Setting	Monitoring	Restart COM Help
<b>12</b>	Auto	-search		
E Dev	Man	ual-search	C Report	[Information] Host Name :
	Loca	te		Model : SE5100_disp Serial No. : 12345 Firmware Version : 2.1.8(2008.02.27-03:17+0000) [Basic Network Settings] IP : 192.158.1.10 Netmask : 255.255.255.0 MAC : 00:08:01:03:04:26 Gateway : DNS1 : DNS2 : DNS3 : Lan Speed : 100M [Status] Reachable : Yes Login : No Active port(s) / Total ports : 1/1 Up Times : 0d:1h:8m:31s Locate : Flash light OFF

#### Fig 67. Tools

#### Auto-search

Click "Auto-search" from "Tools" to search all Serial Device Servers connected to the same LAN as your host PC.

### Manual-search

Click "Manual-search" from "Tools" to search all Serial Device Servers in a range of IP addresses.



O Add Xport	×
Xport IP address from Xport IP address to	
<u>а</u> к	Close

#### Fig 68. Manual-search

#### Locate

The user can apply this function to locate a Serial Device Server. The flash LED of the Serial Device Server will light on if the Serial Device Server is located.

### Setting

Click "Setting" from menu bar to show as Fig 69.

O Xport			
File Tools	Setting Monitoring Resta	rt COM Help	
COM List	Serial Port Settings Basic Network Settings System Management Utility setting	[192.168.1.10 - Port 1 Basic Setting.] Hardware Mode : RS232 Baudrate : 9600bps Data Bits : 8 Parity : None Stop Bits : 1 Flow Control : None [Active status] Status : Running [Port Role] Port Role] Port Mode : TCP Server TCP Port : 601 RFC2217 : Disable	

Fig 69. Setting



### Serial Port settings

Click "Serial Port Settings" from "Setting" to configure the serial port of the Serial Device Server.

0 192.16	8.1.10 Ser	ial Port Settings 🛛 🛛 🔀
Eile <u>A</u> ction		
Port 1		
Step <u>1</u> : Xport     Virtual CO     TCP Serv	mode M C rer C	TCP Client C Pair Connection UDP
-Step <u>2</u> : Serial	port settings	Step <u>3</u> : Protocol timeout setting
Baud rate	9600 💌	Supporting protocol timeout auto-detect
Data bits	8 💌	Protocol timeout 0 ms
Stop bits	1 💌	Step <u>4</u> : Data Packing
Parity	None 🔻	T Delimiter1 (Hex 00~FF)
Flow control	None 🔻	Delimiter2 (Hex 00~FF)
Mode	232 💌	Force transmit 0 ms (note:"0" means disabled)
Step <u>5</u> : Virtua	COM Port Network	k settings
🔲 Enable th	e accessible IP list	( "Disable" will allow all IP's connection request.)
Accept IP 1	a 45a	Enable TCP Port 601
Accept IP 2	a. 43a	Enable Max client
Accept IP 3	a ata	Enable
Accept IP 4	a ata	Enable
Accept IP 5	Sa 1855	Enable
Accept IP 6	Sa 1858	🖵 Enable
Accept IP 7	Si 255	🖵 Enable
Accept IP 8	a 19	Enable Restart Port 1
Apply the abo	ve settings to all ser	rial portsCloseK

Fig 70. Serial Port Settings

### File

Click "File" from menu bar to show as Fig 71.



Import con	figuration	
Export conf	iguration	
Close		TCP Client Connection
Step <u>2</u> : Seria	port settings	Step <u>3</u> : Protocol timeout setting
Baud rate	9600 💌	Supporting protocol timeout auto-detect
Data bits	8 💌	Protocol timeout 0 ms
Stop bits	1 💌	Step <u>4</u> : Data Packing
Parity	None 🔻	Delimiter1 (Hex 00~FF)
Flow control	None 🔻	Delimiter2 (Hex 00~FF)
Mode	232 💌	Force transmit 0 ms (note:"0" means disabled)
Step <u>5</u> : Virtua	al COM Port Netw	ork settings
Enable th	ie accessible IP li	st ( "Disable" will allow all IP's connection request.)
Accept IP 1		Enable TCD Date 601
Accept IP 2	51 363	
Accept IP 3		Max client
		■ RFC2217 IV Enable
Accent IP 4		Enable
Accept IP 4	224 - 22424	
Accept IP 4 Accept IP 5		
Accept IP 4 Accept IP 5 Accept IP 6	01 900	
Accept IP 4 Accept IP 5 Accept IP 6 Accept IP 7	13 403 13 403	j Enable

Fig 71. File

### 1. Import Configuration

Click "Import Configuration" from "File" to import configuration file to the Serial Device Server.

Import >	(port co	nfiguration			?×
Look in	XPort Utility	1	•	← 🗈 💣 📰▼	
My Recent Documents	<sup>™</sup> Xport				
My Documents					
My Computer	1-				
My Network Places	File <u>n</u> ame:	]		•	<u>O</u> pen
	Files of type:	[".ini		<b>_</b>	Cancel

### Fig 72. Import Configuration

### 2. Export Configuration

Click "Export Configuration" from "File" to export configuration file from the Serial Device Server.



Export )	(port cor	nfiguration	1		? 🗙
Save in	: 🔁 XPort Utility		•	← 🗈 💣 📰▼	
My Recent Documents	<sup>™</sup> Xport				
My Documents My Computer	File <u>n</u> ame:	1		•	Save
Places	Save as type:	*ini		•	Cancel

Fig 73. Export Configuration

3. Close

Click "Close" from "File" to exit from "Serial Port Settings" to the Serial Device Server.

Xport message	•	<
Discard changes?		
Yes	No	

Fig 74. Close

### Action

Click "Action" from menu bar to show as Fig 75.



Action				
ort Resta	irt Port1			
St Updat	te ports setting			
C TCP Serv	IM C	TCP Client C Pair Connection UDP		
Step <u>2</u> : Serial	port settings	Step <u>3</u> : Protocol timeout setting		
Baud rate	9600 💌	Supporting protocol timeout auto-detect		
Data bits	8 💌	Protocol timeout 0 ms		
Stop bits	1 💌	Step <u>4</u> : Data Packing		
Parity	None 💌	Delimiter1 (Hex 00~FF)		
Flow control	None 🔻	T Delimiter2 (Hex 00~FF)		
Mode	232 🔻	Force transmit 0 ms (note:"0" means disabled)		
Step 5: Virtua	al COM Port Networ	k settinas		
Enable th	e accessible IP list	( "Disable" will allow all IP's connection request.)		
Accept IP 1	13 303	Enable TOP Date 601		
Accept IP 2		Enable		
Accept IP 3		Max client  1		
Accept ID 4		- RFC2217 REnable		
Acceptin 4	24 9010			
Accept IP 5	-31 - 3223	Enable		
Accept IP 6	31.423	☐ Enable		
Accept IP 7	-53 - 3023	F Enable		
		- Enable		

Fig 75. Action

#### 1. Restart Port

Click "Restart Port" from "Action" to restart the serial port on the Serial Device Server.

2. Update ports setting

Click "Update ports setting" from "Action" to update the settings of serial port on the Serial Device Server.

### Port

Virtual COM

• Step 1: Xport mode

Choose "Virtual Com" from the "Step 1: Xport mode".



a <u>A</u> ction				
ort 1				
Step <u>1</u> : Xport Virtual CC TCP Serv	mode IM C ver C	TCP Client C Pair Connection UDP		
Step <u>2</u> : Seria	I port settings	Step <u>3</u> : Protocol timeout setting		
Baud rate	9600 💌	Supporting protocol timeout auto-detect Protocol timeout 0 ms		
Data bits	8 💌			
Stop bits 1	Step <u>4</u> : Data Packing			
Parity	None 💌	Delimiter1 (Hex 00~FF)		
Flow control	None 🔻	Delimiter2 (Hex 00~FF)		
Mode	232 💌	Force transmit (note:"0" means disabled)		
Step <u>5</u> : Virtua	al COM Port Networ	k settings		
🔲 Enable th	ie accessible IP list	("Disable" will allow all IP's connection request.)		
Accept IP 1	a 2a	Enable TCP Port 601		
Accept IP 2	a sa	Enable Maucliont 1		
Accept IP 3	a aa	Enable		
Accept IP 4	a 2a	— BFC2217 IV Enable		
Accept IP 5	la pa	Enable		
Accept IP 6	la pa	— F Enable		
Accept IP 7	la ga	Enable		
		Enable		
Accent IP 8	1.	Pastat Part 1		

Fig 76. Virtual COM

Step 2: Serial port settings

**Baud rate:** Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.

**Data bits:** Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.

**Stop bits:** Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" drop-down list for the serial port. The default Stop bits of the serial port is 1 bit.

**Parity:** Click "Parity" drop-down menu to select Parity None, Even, Odd, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.

**Flow control:** Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.

**Mode:** Click "Mode" drop-down menu to select Mode RS232, RS422, or RS485 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.

• Step 3: Protocol timeout setting

SIGNAMAX a.s.

Seat: Palackeho trida 38, 612 00 Brno, CZ I Office: Vlarska 22, P. O. Box 214, 658 14 Brno, CZ T:+420 533 338 854 I F:+420 533 338 883 I <u>www.signamax.eu</u>


**Support protocol timeout auto-detect:** Check this option to support protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.

**Protocol timeout:** Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.

• Step 4: Data Packing

**Delimiter1, 2:** Check this option to enable Delimiter1, 2. Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.

**Force transmit:** Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.

• Step 5: Virtual COM Port Network settings

**Enable the accessible IP list:** Check this option to enable the accessible IP list. Disable will allow all IP's connection request.

Accept IP 1 ~ 8: Click in "Accept IP 1 ~ 8" text box and specify Accept IP addresses that can access to the serial port on the Serial Device Server. Check this option to enable the Accept IP addresses.

**TCP Port:** Click in "TCP Port" text box and type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.

**Max client:** The maximum number of host computers that can receive data from the Serial Device Server simultaneously. Click "Max client" drop-down menu to select 1 ~ 8 from the "Max client" drop-down list.

**RFC2217:** RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. RFC2217 is always enabled for Virtual Com Mode Setting.

**Restart Port:** Check this option to restart the serial port on the Serial Device Server when you click the "OK" button to finish Virtual Com Mode Setting.

Apply the above settings to all serial ports: Click this button to apply the above settings to all serial ports.

- 1. TCP Server
- Step 1: Xport mode

Choose "TCP Server" from the "Step 1: Xport mode".



le <u>A</u> ction		
Port 1		
Step 1: Xport	mode DM C	TCP Client C Pair Connection UDP
Step <u>2</u> : Serial	l port settings	Step <u>3</u> : Protocol timeout setting
Baud rate	9600 💌	Supporting protocol timeout auto-detect
Data bits	8 💌	Protocol timeout 0 ms
Stop bits	1 🔹	Step <u>4</u> : Data Packing
Parity	None 🔻	Delimiter1 (Hex 00~FF)
Flow control	None 🔻	Delimiter2 (Hex 00~FF)
Mode	232 💌	Force transmit 0 ms (note:"0" means disabled)
Step <u>5</u> : Serve	er Network settings	
Enable th	e accessible IP list	: ( "Disable" will allow all IP's connection request.) 
Accept IP 1	24-324	Enable TCP Port 601
Accept IP 2	24-324	Enable Max client
Accept IP 3	33-303	Enable
Accept IP 4	25, 323	Enable
Accept IP 5	15 505	F Enable
Accept IP 6	13.303	F Enable
Accept IP 7	14 304 ····	F Enable
Accept IP 8	14-14-14	🗖 Enable 🗖 Restart Port 1

#### Fig 77. TCP Server

• Step 2: Serial port settings

**Baud rate:** Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.

**Data bits:** Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.

**Stop bits:** Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" dropdown list for the serial port. The default Stop bits of the serial port is 1 bit.

**Parity:** Click "Parity" drop-down menu to select Parity None, Even, Odd, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.

**Flow control:** Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.

**Mode:** Click "Mode" drop-down menu to select Mode RS232, RS422, or RS485 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.

#### • Step 3: Protocol timeout setting

**Support protocol timeout auto-detect:** Check this option to support protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.

**Protocol timeout:** Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port



will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.

• Step 4: Data Packing

**Delimiter1, 2:** Check this option to enable Delimiter1, 2. Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.

**Force transmit:** Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.

#### • Step 5: Server Network settings

**Enable the accessible IP list:** Check this option to enable the accessible IP list. Disable will allow all IP's connection request.

Accept IP 1 ~ 8: Click in "Accept IP 1 ~ 8" text box and specify Accept IP addresses that can access to the serial port on the Serial Device Server. Check this option to enable the Accept IP addresses.

**TCP Port:** Click in "TCP Port" text box and type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.

**Max client:** The maximum number of host computers that can receive data from the Serial Device Server simultaneously. Click "Max client" drop-down menu to select 1 ~ 8 from the "Max client" drop-down list.

**RFC2217:** RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. Check this option to enable RFC2217 for TCP Server Setting.

**Restart Port:** Check this option to restart the serial port on the Serial Device Server when you click the "OK" button to finish TCP Server Setting.

Apply the above settings to all serial ports: Click this button to apply the above settings to all serial ports.

## TCP Client

• Step 1: Xport mode

Choose "TCP Client" from the "Step 1: Xport mode".



ile Action	8.1.10 Ser	ial Port Settings
Port 1		
Step 1: Xport	mode IM (• /er C	TCP Client C Pair Connection
Step <u>2</u> : Serial	port settings	Step <u>3</u> : Protocol timeout setting
Baud rate	9600 💌	Supporting protocol timeout auto-detect
Data bits	8 💌	Protocol timeout 0 ms
Stop bits	1 🔹	Step <u>4</u> : Data Packing
Parity	None 💌	T Delimiter1 (Hex 00~FF)
Flow control	None 💌	T Delimiter2 (Hex 00~FF)
Mode	232 💌	Force transmit 0 ms (note:"0" means disabled)
Step 5: Client Remote IP 1 Remote IP 2 Remote IP 3 Remote IP 4 Remote IP 5 Remote IP 6 Remote IP 7 Remote IP 8	Network setting= (IP Address : 	Port ) Connect timeout Reconnect interval RFC2217 Fable
		j Hestart Port 1
Apply the abo	ve settings to all ser	rial ports Close OK

Fig 78. TCP Client

• Step 2: Serial port settings

**Baud rate:** Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.

**Data bits:** Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.

**Stop bits:** Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" drop-down list for the serial port. The default Stop bits of the serial port is 1 bit.

**Parity:** Click "Parity" drop-down menu to select Parity None, Even, Odd, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.

**Flow control:** Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.

**Mode:** Click "Mode" drop-down menu to select Mode RS232, RS422, or RS485 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.

• Step 3: Protocol timeout setting



**Support protocol timeout auto-detect:** Check this option to support protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.

**Protocol timeout:** Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.

• Step 4: Data Packing

**Delimiter1, 2:** Check this option to enable Delimiter1, 2. Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.

**Force transmit:** Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.

• Step 5: Client Network settings

**Remote IP 1 ~ 8:** Click in "Remote IP 1 ~ 8" text boxes to specify IP addresses and Port numbers of remote host computers.

**Connect timeout:** Click in "Connect timeout" text box and type a period of Connect timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Connect timeout). The default Connect timeout is 3 seconds.

**Reconnect interval:** Click in "Reconnect interval" text box and type a period of Reconnect interval assigned to the serial port on the Serial Device Server. The connection will be reestablished with other hosts for a defined period of time (Reconnect interval). The default Reconnect interval is 3 seconds.

**RFC2217:** RFC2217 is used to establish a transparent connection between a host computer and a serial device by mapping the serial port on the Serial Device Server to a local COM port on the host computer. Check this option to enable RFC2217 for TCP Client Setting.

**Restart Port:** Check this option to restart the serial port on the Serial Device Server when you click the "OK" button to finish TCP Client Setting.

Apply the above settings to all serial ports: Click this button to apply the above settings to all serial ports.

# UDP

- Step 1: Xport mode
- Choose "UDP" from the "Step 1: Xport mode".



_				
ort 1				
Step <u>1</u> : Xport Virtual CC TCP Serv	mode IM C ver G	TCP Client	C I	Pair Connection
Step <u>2</u> : Serial	port settings	Step <u>3</u> : Prot	ocol timeout set	ting
Baud rate	9600 💌	☐ Suppo	orting protocol tir	neout auto-detect
Data bits	8 💌	Protocol ti	meout 0	ms
Stop bits	1 💌	Step <u>4</u> : Data	a Packing	
Parity	None 💌	C Delimite	r1 (H	lex 00~FF)
Flow control	None 🔻	🔽 Delimite	r2 (H	lex 00~FF)
Mode	232 🔻	Force transr	mit 0 m	s ote:''0'' means disabled
Step <u>5</u> : UDP - <u>R</u> emote UD	Network settings PServerlist (IPAddres	ss : Port )	Cource UDP	client settings
Server 1	0.403.4	1	Soruce IP 1	ana a
Server 2	i		Source IP 2	
Server 3	03 303 G	1	Source IP 3	433.43
Server 4	1		Source IP 4	• • •
o =	ja asa di	1	Soruce IP 5	433.41
Server 5			Source IP 6	
Server 5 Server 6	03 403 C		Source IP 7	aux a:
Server 5 Server 6 Server 7			Source IP 8	
Server 5 Server 6 Server 7 Server 8	a se t			

Fig 79. UDP

• Step 2: Serial port settings

**Baud rate:** Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.

**Data bits:** Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.

**Stop bits:** Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" drop-down list for the serial port. The default Stop bits of the serial port is 1 bit.

**Parity:** Click "Parity" drop-down menu to select Parity None, Even, Odd, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.

**Flow control:** Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.

**Mode:** Click "Mode" drop-down menu to select Mode RS232, RS422, or RS485 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.

• Step 3: Protocol timeout setting



**Support protocol timeout auto-detect:** Check this option to support protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.

**Protocol timeout:** Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.

• Step 4: Data Packing

**Delimiter1, 2:** Check this option to enable Delimiter1, 2. Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.

**Force transmit:** Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.

• Step 5: UDP Network settings

**Server 1 ~ 8:** Click in "Server 1 ~ 8" text boxes to specify IP addresses and Port numbers of remote UDP Servers.

**UDP Port:** Click in "UDP Port" text box and type a UDP Port number assigned to the Source UDP Clients. The default UDP Port number is 601.

Source IP 1 ~ 8: Click in "Source IP 1 ~ 8" text box to specify IP addresses of Source UDP Clients.

**Restart Port:** Check this option to restart the serial port on the Serial Device Server when you click the "OK" button to finish UDP Setting.

**Apply the above settings to all serial ports:** Click this button to apply the above settings to all serial ports.

#### Pair Connection

• Step 1: Xport mode

Choose "Pair Connection" from the "Step 1: Xport mode".



le <u>A</u> ction			
Step <u>1</u> : Xport C Virtual CC C TCP Serv	mode )M ( /er (	TCP Client	Pair Connection
Step <u>2</u> : Serial Baud rate	port settings	Step <u>3</u> : Protocol time	eout setting stocol timeout auto-detect
Data bits	8 💌	Protocol timeout	0 ms
Stop bits Parity Flow control	1  None  None	Step <u>4</u> : Data Packir Delimiter1	ng (Hex 00~FF) (Hex 00~FF)
Mode	232 💌	Force transmit	ms (note:"0" means disabled)
Pair Connec Master IP TCP Port	ction Mode	e	

Fig 80. Pair Connection

• Step 2: Serial port settings

**Baud rate:** Click "Baud rate" drop-down menu to select Baud rate 50 ~ 460800bps from the "Baud rate" drop-down list for the serial port. The default Baud rate of the serial port is 9600bps.

**Data bits:** Click "Data bits" drop-down menu to select Data bits 5, 6, 7, or 8 from the "Data bits" drop-down list for the serial port. The default Data bits of the serial port is 8 bits.

**Stop bits:** Click "Stop bits" drop-down menu to select Stop bits 1 or 2 from the "Stop bits" drop-down list for the serial port. The default Stop bits of the serial port is 1 bit.

**Parity:** Click "Parity" drop-down menu to select Parity None, Even, Odd, Mark, or Space from the "Parity" drop-down list for the serial port. The default Parity of the serial port is None.

**Flow control:** Click "Flow control" drop-down menu to select Flow control None, Hardware, or Software from the "Flow control" drop-down list for the serial port. The default Flow control of the serial port is None.

**Mode:** Click "Mode" drop-down menu to select Mode RS232, RS422, or RS485 from the "Mode" drop-down list for the serial port. The default Mode of the serial port is RS232.

• Step 3: Protocol timeout setting



**Support protocol timeout auto-detect:** Check this option to support protocol timeout auto-detect. The Serial Device Server will automatically test the TCP connection to remote host. If the TCP connection is idle, the TCP connection will be closed and the port will be freed for other hosts.

**Protocol timeout:** Click in "Protocol timeout" text box and type a period of Protocol timeout assigned to the serial port on the Serial Device Server. The connection will be closed and the port will be freed for connection with other hosts when serial port stops data transmission for a defined period of time (Protocol timeout). The default Protocol timeout is 0ms.

• Step 4: Data Packing

**Delimiter1, 2:** Check this option to enable Delimiter1, 2. Click in "Delimiter1, 2" text box and Delimiter1, 2 assigned to the serial port on the Serial Device Server. The data will be transmitted if the Delimiter1 is received or Delimiter1 and Delimiter are received.

**Force transmit:** Click in "Force transmit" text box and specify Force transmit to the serial port on the Serial Device Server. The data will be transmitted when the Force transmit is reached. The default Force transmit of the serial port is 0 to disable Force transmit.

• Step 5: Pair Connection settings

Pair Connection Mode: Choose Master or Slave from the Pair Connection Mode.

**IP:** Click in "IP" text box and specify the IP address of the Slave Serial Device Server of Pair Connection.

**TCP Port:** Click in "TCP Port" text box and type a TCP Port number assigned to the serial port on the Serial Device Server. The default TCP Port number is 601.

**Restart Port:** Check this option to restart the serial port on the Serial Device Server when you click the "OK" button to finish Pair Connection Setting.

**Apply the above settings to all serial ports:** Click this button to apply the above settings to all serial ports.

#### **Basic Network Settings**

Click "Basic Network Settings" from "Setting" to configure the Serial Device Server.



Vetwork Setting	IS		
	T DHCP		
P address	192.168.1 .10		
Netmask	255.255.255.0		
Gateway			
ONS server 1	1. 100		
ONS server 2			
DNS server 3			
lime Settings	10 <u>.</u>		
lime zone (24-h	iour)		•
.ocal time	2008/03/27	▼ 18:34:11	÷
l'ime server			Enable

#### Fig 81. Basic Network Settings

### **Network Settings**

- 1. DHCP: Click this option to enable "DHCP" so that DHCP server automatically supplies an IP address, gateway address, and subnet mask to Serial Device Server.
- 2. IP address: Click in "IP address" text box and type a new address to change the IP address.
- 3. Netmask: Click in "Netmask" text box and type a new address to change the Netmask.
- 4. Gateway: Click in "Gateway" text box and type a new address to change the Gateway.
- 5. DNS server 1, 2, 3: Click in "DNS server 1", "DNS server 2", or "DNS server 3" text box and fill in DNS information.

## Time Settings

- 1. Time zone (24-hour): Click "Time zone" drop-down menu to select a different time zone from the "Time zone" drop-down list.
- 2. Local time: Click "Local time" drop-down menu to change date for the Serial Device Server. And adjust time for the Serial Device Server.
- 3. Time server: Click in "Time server" text box to enter Time server address for the Serial Device Server. And check "Enable" to enable this setting.



# System Management

Server Name Settings	E-mail Alert		
Server name ji	SMTP Host		
Reserved keywords: space(Ux2U),"<",">"	SMTP Port 2	5	
Change Password	From E-Mail address	5	
Old password	From E-mail address		
New password	E-mail addresses to	report	
Confirm password	E-mail address1		Enable
SNMP Trap	E-mail address2		Enable
IP of remote SNMP trap receiver	E-mail address3		Enable
	E-mail address4		Enable
Firmware Update			
Do not power off while upgradir	าต		
Select file	3.		Search File

Click "System Management" from "Setting" to configure the Serial Device Server.

#### Fig 82. System Management

## Server Name Settings

Server Name: Click in "Server name" text box and specify Server name to the Serial Device Server.

## Change Password

- 1. Old password: Click in "Old password" text box and enter the Old password of the Serial Device Server.
- 2. New password: Click in "New password" text box and enter the New password for the Serial Device Server.
- 3. Confirm password: Click in "Confirm password" text box and enter the New password again for the Serial Device Server.

## SNMP Trap

IP of remote SNMP trap receiver: Click in "IP of remote SNMP trap receiver" text box and enter IP address of the remote SNMP trap receiver.

## E-mail Alert

- 1. SMTP Setting:
- SMTP Host: SMTP (Simple Mail Transfer Protocol). Click in "SMTP Host" text box and enter IP

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address of the SMTP Host.

- SMTP Port: Click in "SMTP Port" text box and enter the SMTP Port number. The default SMTP Port number is 25.
- 2. From E-Mail address
- From E-mail address: Click in "From E-mail address" text box and specify the E-mail address to receive the E-mail from.
- 3. E-mail addresses to report
- E-mail address1 ~ 4: Click in "E-mail address1 ~ 4" text box and specify the E-mail addresses to receive the E-mail. Check this option to enable E-mail address1 ~ 4.

Firmware Update

Select file: Click the "Search File" button to search the firmware file to be updated to the Serial Device Server.

## Utility Setting

Click "Utility Setting" from "Setting" to configure the Serial Device Server.

#### Environment

- 1. Auto-detect Device on start: Check this option to enable the Serial Device Server to automatically detect whether the connected serial device is started up.
- 2. Auto-polling: Click in "Auto-polling" text box and type a period of Auto-polling time assigned to Serial Device Server. The default Auto-polling is per 2 seconds.

🔍 Utility Setting 🛛 🛛 🔀
Environment) Load setting
Save and Close

Fig 83. Environment



## Load setting

- 1. Replace network setting: Check this option to replace the network setting of the Serial Device Server when you load setting to the Serial Device Server.
- 2. Replace account and password: Check this option to replace the account and password of the Serial Device Server when you load setting to the Serial Device Server.
- 3. Replace host name: Check this option to replace the host name of the Serial Device Server when you load setting to the Serial Device Server.
- 4. Show this page when load file: Check this option to show this Utility Setting page when user loads setting to the Serial Device Server.



Fig 84. Load setting

## Monitoring

Click "Monitoring" from menu bar to show as Fig 85.



© Xport			
File Tools Setting	Monitoring Rest Port Status Logs (00:08:01:03:04:26) P Server:601)	art COM Help [192.168.1.10 - Port 1 Basic Setting.] Hardware Mode : RS232 Baudrate : 9600bps Data Bits : 8 Parity : None Stop Bits : 1 Flow Control : None [Active status] Status : Running [Port Role] Port Mode : TCP Server TCP Port : 601 RFC2217 : Disable	

Fig 85. Monitoring

# **Port Status**

Click "Port Status" from "Monitoring" to view the Port Status of the Serial Device Server.

	الكالك
Port Device Parameters Inte	terface OP Mode Status
Port1 /dev/ttyS0 9600 8N1 None 23	2 TCP Server Running

#### Fig 86. Port Status

## Logs

#### System

User can view the System Log of the Serial Device Server.



and the second
🔽 Stay on top
<u>C</u> lear Log(s)

Fig 87. System

#### Event

User can view the Event Log of the Serial Device Server.

192.168.1.10 System Monitoring	
🔽 Enable all logs	🔽 Stay on top
System Event	
✓ Bead log List Length 2000 ✓ Scrolling	<u>C</u> lear Log(s)
1	

Fig 88. Event

# Restart

Click "Restart" from menu bar to show as Fig 89.



© Xport		
File Tools Setting Monitoring	Restart COM Help	
Device List     O:08:01:03:04	Restart Port 1 Restart System Restart All Ports	ort 1 Basic Setting.] ode : RS232
COM List	Data Bits : 8 Parity : Non Stop Bits : 1 Flow Contro [Active status] Status : Rur [Port Role] Port Mode : TCP Port : 6 RFC2217 : 1	woudops a e I : None nning TCP Server 501 Disable

Fig 89. Monitoring

## **Restart Port**

Click "Restart Port" from "Restart" to select the serial port on the Serial Device Server to be restarted.

## **Restart System**

Click "Restart System" from "Restart" to restart the Serial Device Server.

Xport reboo	ot	X
Reboot Xport IP	: 192.168	.1.10
Yes	No	

Fig 90. Restart System



# **Restart All Ports**

Click "Restart All Ports" from "Restart" to select all serial ports on the Serial Device Server to be restarted.

Restart all ports		X
Are you sure to restart 1	.92.168.1.10's	all ports?
Yes	No	

#### Fig 91. Restart All Ports

## СОМ

Click "COM" from menu bar to show as Fig 92.

© Xport		
File Tools Setting Monitoring Restart	COM Help Create a new COM port Remove all COM ports Hardware Mode : RS232 Baudrate : 9600bps Data Bits : 8 Parity : None Stop Bits : 1 Flow Control : None	
	[Active status] Status : Running [Port Role] Port Mode : TCP Server TCP Port : 601 RFC2217 : Disable	

Fig 92. COM



## Create a new COM port

Click "Create a new COM port" from "COM" to map a serial port to a COM port on a PC. The serial port on the Serial Device Server has to be set to Virtual Com mode when mapping COM port with Xport utility.

## Network setting

- 1. Remote IP address: Input the IP address of the remote Serial Device Server.
- 2. TCP port: Choose TCP port number assigned to the COM port. The default TCP port number is 601.
- 3. Active auto-reconnect: Check this option to support Active auto-reconnect. The Xport utility will automatically attempt to reconnect COM port to the serial port on the Serial Device Server.
- 4. Reconnect interval: The Xport utility will automatically attempt to reconnect COM port to the serial port on the Serial Device Server in defined time interval (Reconnect interval). The default Reconnect interval is 1000ms.
- 5. Cache data when connection was broken: Check this option to ensure that data is buffered if the connection is broken.

🗘 Create a new	COM Port 📃 🗖 🔀
Serial port number	СОМЗ
Network setting	Serial setting
Remote IP address	TCP port
Active auto-rec Reconnect interval	ionnect 1000 💽 ms ien connection was broken
Cancel	OK

#### Fig 93. Network setting

## Serial setting

- 1. Serial port protocol: Choose Raw protocol or RFC2217 protocol.
- 2. Serial port preset signals: There are CTS, DSR, DCD, and RING serial port preset signals that can be chosen.
- 3. Enable bitrate emulation: Check this option to limit data transmission speed to that was specified to serial port. Transmission speed depends on bandwidth of the serial connection if bitrate emulation is disabled.



🔆 Create a new	COM Port 📃 🗖 🔀
Serial port number	
Network setting	Serial setting
Serial port protoco	ol
Raw protocol	
ORFC2217 pro	tocol
Serial port preset	signals R 🗹 DCD 🔲 RING
Enable bitrate e	emulation
Cancel	OK

Fig 94. Serial setting

# Remove all COM ports

Click "Remove all COM ports" to remove all the COM ports and remove all the mapping from the serial ports to COM ports on a PC.

Confirm		X
Are you	sure to remove all C	:OM ports?
<u>Y</u> es	No	

Fig 95. Remove all COM ports

# Help

Click "Help" from menu bar to show as Fig 96. Click "About utility" from "Help" to show the version of Xport utility as Fig 97.



© Xport	
File Tools Setting Monitoring Restart	t COM Help
🗃 🖬 🔳 🚳 🥔 🐲 📾 🚮	About utility
Device List 192.168.1.10 [00:08:01:03:04:26] Port 1 (TCP Server.601) COM List	[192.168.1.10 - Port 1 Basic Setting.] Hardware Mode : RS232 Baudrate : 9600bps Data Bits : 8 Parity : None Stop Bits : 1 Flow Control : None [Active status] Status : Running [Port Role] Port Mode : TCP Server TCP Port : 601 RFC2217 : Disable

Fig 96. Help



Fig 97. About utility



# **Specifications**

# Hardware Specifications

Applicable Standards	IEEE 802.3 10BaseT		
	IEEE 802.3u 100BaseTX/FX		
Switching Method	Store-and-Forward		
Forwarding Rate			
10BaseT	10 / 20Mbps half / full-duplex		
100BaseTX	100 / 200Mbps half / full-duplex		
100BaseFX	200Mbps full-duplex		
Performance	14,880pps for 10Mbps		
	148,810pps for 100Mbps		
Cable			
10BaseT	2-pair UTP/STP Cat. 3, 4, 5 Up to 100m (328ft)		
100BaseTX	2-pair UTP/STP Cat. 5 Up to 100m (328ft)		
100BaseFX	50 or 62.5/125µm multi-mode fiber (1300nm) up to 2km		
	9 or 10/125µm single-mode fiber (1300nm) up to 75km		
Serial Port			
Interface	RS-232/422/485		
Connector	DB9 (RS-232/422/485), Terminal Block (RS-422/485)		
Line Protection	15KV ESD		
Isolation	2KV		
Serial Communication			
Parameters			
Parity	None, Even, Odd, Mark, Space		
Data Bits	5, 6, 7, 8		
Stop Bit	1, 2		
Flow Control	None, Hardware, Software		
Speed	50bps to 460.8Kbps		
LED Indicators	Per unit – Power status (Power 1, 2), Status		
	Ethernet port – LAN (Link/Activity)		
	Serial port – Port TX/RX (Link/Activity)		
Dimensions	70mm (W) x 110mm (D) x 30mm (H)		
	(2.76" (W) x 4.33" (D) x 1.18" (H))		
Net Weight	0.25Kg (0.55lb.)		
Power Input	DC Jack: 12VDC		
	Terminal Block: 12~32VDC		
Power Consumption	2.88W Max. 0.24A @ 12VDC, 0.12A @ 24VDC		
Operating Temperature	-10°C to 60°C (14°F to 140°F)		
Storage Temperature	-20°C to 85℃ (-4°F to 185°F)		
Humidity	5%-95% non-condensing		

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Emission Compliance	CE Mark Class A
	FCC Part 15 Class A
	VCCI Class A



# **Pin Assignments**

# Pin assignments for serial port

• DB-9:

Pin#	RS-232	RS-422 4-wire RS-485	2-wire RS-485
1	DCD	TxD+	
2	RxD	RxD-	D-
3	TxD	RxD+	D+
4	DTR		
5	Signal GND	Signal GND	Signal GND
6	DSR		
7	RTS	TxD-	
8	CTS		
9	RI		

• Terminal Block:

Din#	RS-422	2_wire PS_185
F 111#	4-wire RS-485	2-1010-403
1	RxD-	D-
2	RxD+	D+
3	Signal GND	Signal GND
4	TxD+	-
5	TxD-	