![HuMANDATA logo]

LNX SETTING TOOL

User's Manual

Ver. 1.0

HuMANDATA LTD.

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● Precautions

⚠ **Attention**	1	This manual may be revised in the future without notice owing to improvements.
	2	All efforts have been made to produce the best manual possible, but if users notice an error or other problem, we ask that they notify us.
	3	Item 2 notwithstanding, HuMANDATA cannot be held liable for the consequences arising from use of this product.
	4	HuMANDATA cannot be held liable for consequences arising from using this product in a way different from the uses described herein, or from uses not shown herein.
	5	This manual may not be copied, reproduced, or distributed without permission.

● Revision History

Date	Revision	Description
Oct. 21, 2024	v1.0	Initial release

● Introduction

Thank you very much for purchasing our product.

This manual describes how to use LNX SETTING TOOL, an application for setting up our LNX series products. This application can be downloaded from the CD that comes with the product or from our website.

When you run LNX SETTING TOOL, the product selection screen will appear first. Select the product model number and click the "OK" button to open the product setting screen. The initial values on the first screen will all be displayed as default values.

The setting items and methods vary depending on the product.

FTDI		
LNX-001	LNX-002	LNX-002e
LNX-003	LNX-003e	LNX-003-24V
LNX-004	LNX-004e	LNX-201
LNX-202	LNX-203	LNX-204
LNX-204e	LNX-205	LNX-209
LNX-209e		

1. Installation procedure

1.1. Function
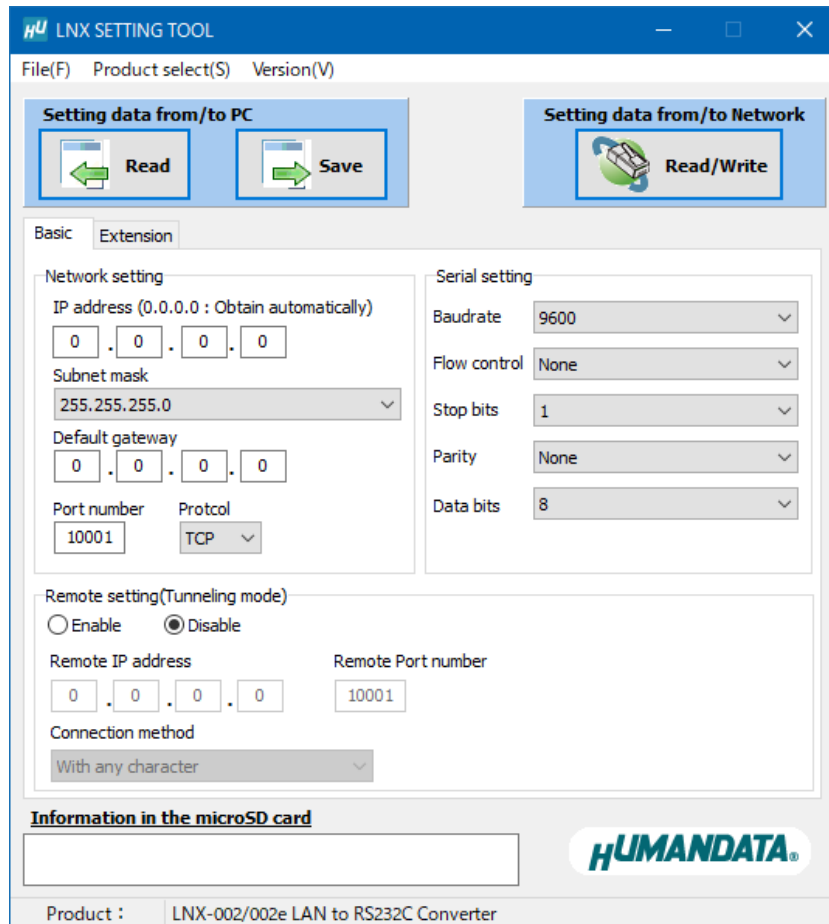
Item	Contents
Reading data	Read setting data (RD_DATA.txt) from microSD card.
Saving data	Save setting data (WR_DATA.txt) to microSD card.
Network	Read or write setting data over the network. LNX product and PC must be connected to the same network segment.
Product select(S)	Display product select window.
File(F) -> Copy to clipboard	Copy a display image to clipboard.
File(F) -> Exit	Terminate the application.
Version(V)	Display application version.
Information in the microSD card	When the setting data (RD_DATA.TXT) is loaded from the microSD card, the MAC address and the firmware version of the product will be displayed.

[Basic Setting]

Item	Contents
Network setting	
IP address	If DHCP is not used to assign an IP address, enter it manually. Unique IP address must be used in the network. The default setting is 0.0.0.0 (DHCP is enabled)
Subnet mask	A subnet mask defines the number of bits taken from the IP address that are assigned for the host part.
Default gateway	A gateway address of a router which is allowed to communicate to other LAN segments. This address should be an IP address of the router which is in the same LAN segment.
Port number	Enter the local port number. The default setting is 10001. If you change the value, please avoid the following numbers. They are allocated to other function.<table><tr><td>1-1024</td><td>Reserved for well-known ports</td></tr><tr><td>9999</td><td>Reserved for telnet setup</td></tr><tr><td>14000-14009</td><td>Reserved for old redirector</td></tr><tr><td>30704</td><td>Reserved for remote control of user I/Os</td></tr><tr><td>30718</td><td>Reserved for configuration</td></tr></table>

Network setting		
	Protocol	From the drop-down menu, select TCP or UDP. Normally TCP is used, but when one-to-multiple communication like broadcast or sensitive-responsiveness is needed, please select UDP. The default setting is TCP.
Remote Setting (Tunneling mode)		
	Enable/Disable	Select to enable remote connection (tunneling). The default setting is disable.
	Remote IP address	Enter the remote IP address of tunneling target.
	Remote Port number	Enter the remote port number of tunneling target.
	Connection method	Select connection method to the target.
Serial setting *1		
	Baudrate *2	Valid baud rates are 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, 460800 or 921600. The default setting is 9600.
	Flow control *3	Flow control manages data flow between devices in a network to ensure it is processed efficiently. Too much data arriving before a device is prepared to receive it causes lost or retransmitted data. Select from None, Xon/Xoff, Xon/Xoff Pass Chars to Host or RTS/CTS (hardware). The default setting is none.
	Stop bits	Select from 1 or 2 bit. The default setting is 1.
	Parity	Select from Even, Odd or None. The default setting is none.
	Data bits	Select from 7 or 8 bit. The default setting is 8.
	RS485/422 (4-wire) RS485 (2-wire) *4	Select communication protocol.

*1: This setting of the LNX-201, LNX-202, LNX-204, LNX-204e, LNX-205, LNX-209 and LNX-209e are fixed.

*2: The maximum value for the LNX-003, LNX-003e, LNX-003-24V, LNX-004, and LNX-004e is 230,400 bps.

*3: This setting of the LNX-003, LNX-003e, LNX-003-24V, LNX-004, and LNX-004e are fixed.

*4: It will be displayed for the LNX-003, LNX-003e, LNX-003-24V, LNX-004, and LNX-004e.

[Extension]

Item	Contents
Pack control *¹	
Enable/Disable	Select to enable pack control. Two packing algorithms define how and when packets are sent to the network. The standard algorithm is optimized for applications in which the unit is used in a local environment, allowing for very small delays for single characters, while keeping the packet count low. The alternate packing algorithm minimizes the packet count on the network and is especially useful in applications in a routed Wide Area Network (WAN). Adjusting parameters in this mode can economize the network data stream. The default setting is disable.
Idle gap time	Select idle gap time from 12, 52, 250 or 5000 msec. After this idle gap time with no response from a serial device, data is packetized and transmitted to the target. The default setting is 12.
Trigger character	Select packet size and set trigger character (hexadecimal digits).
Check sum	Select check sum size.

|	
TCP keepalive	Sets the TCP keep-alive time. The configurable range is from 0 to 65 seconds, and setting it to "0" disables the feature. When there is no communication during a TCP connection, it sends a packet to check if the other side is still operating. This setting determines the interval between these packets. If there is no response from the other side for 7 consecutive packets, the connection will be terminated. For example, if set to 5 seconds, the connection will be terminated after 35 seconds.
Telnet Com port control (RFC2217)	Set to enable when control COM port using Telnet. The product enables a RFC2217 function to use a control signal used in a serial port on a network. When it is not used this function, set to disable.
DHCP host name (up to 16 char.)	Sets the hostname of the DHCP server that provides the IP address.
I/O Buffer clear setting *1	Configures whether to clear the LNX input and output buffers upon network connection or disconnection.
Password setting *2	If you set a password for TCP connection, you must enter the password before connecting. If you set a configuration password, you can restrict access to the setting screen that is displayed by entering the IP address from the browser. □ TCP connection: half-width characters (up to 15 characters) □ Configuration: half-width characters (up to 16 characters) * Password is not read even if [Reading Data] or [Read from Network] is performed with this tool. * Password setting supported in product version 1.2 or later.

*1: This setting of the LNX-201, LNX-202, LNX-204, LNX-204e, LNX-205, LNX-209 and
LNX-209e are fixed.

*2: It will be displayed for the LNX-204, LNX-204e, LNX-205, LNX-209, and LNX-209e.
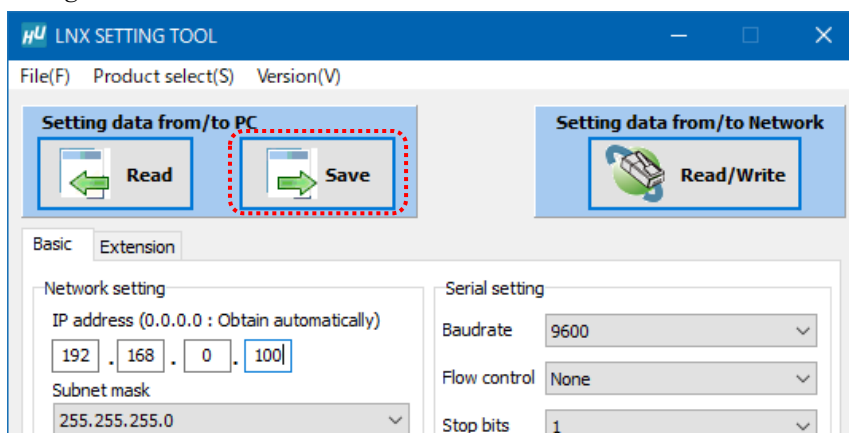
1.2. Write Setting Data

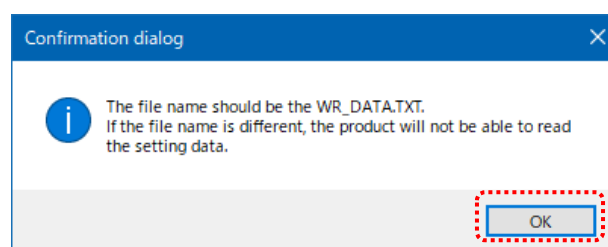This is an explanation of how to write settings using the LNX-002 as an example.

1. Open Setting Tool for LNX series (LNX SETTING TOOL Ver*.*).
2. Select "LNX-002/002e LAN to RS232C Converter", and click "OK".
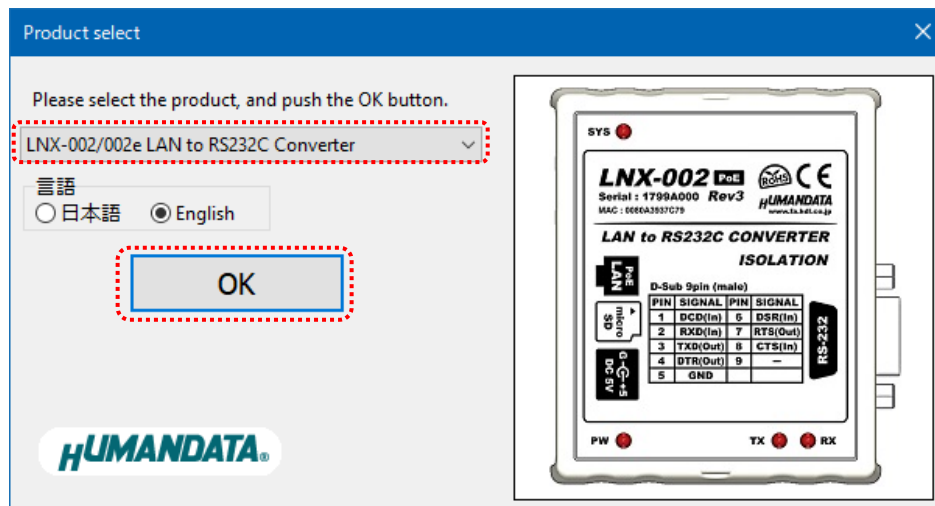
3. Enter the setting such as network or serial.
4. Insert a microSD card to PC (A USB adapter is included with the product)
5. Click "Saving data".

6. Click "OK" in the confirmation dialog.

7. Specify the microSD card as saving destination. Please do not change the file name from "WR_DATA.TXT".

8. Remove the microSD card from PC and insert it to the product. Please confirm that the product power is turned off.

9. When the product is powered on, the setting data is automatically written. The written setting data is saved even when the power is turned off, so there is no need to insert the microSD card again for the next use. After completing the configuration, please remove the microSD card. The microSD card can be removed after the LED below has turned off following power-on.

| Model	LED
LNX-001, LNX-002, LNX-002e LNX-003, LNX-003e LNX-003-24V LNX-004, LNX-004e	TX/RX LED
LNX-201, LNX-202 LNX-204, LNX-204e LNX-205 LNX-209, LNX-209e	microSD (BUSY) LED

1.3. Read Setting Data

1. After confirming the power is off, insert the microSD card to the product.

2. When the product is powered on, the setting data will be reserved to the microSD card automatically. The data file name is "RD_DATA.TXT".

   The microSD card can be removed after the LED below has turned off following power-on.

   * If there is the same file name in the microSD card, the data will be overwritten.

| Model	LED
LNX-001, LNX-002, LNX-002e LNX-003, LNX-003e LNX-003-24V LNX-004, LNX-004e	TX/RX LED
LNX-201, LNX-202 LNX-204, LNX-204e LNX-205 LNX-209, LNX-209e	microSD (BUSY) LED

3. Insert a microSD card to PC (A USB adapter is included with the product)

4. Start the setting tool and click "Reading data".
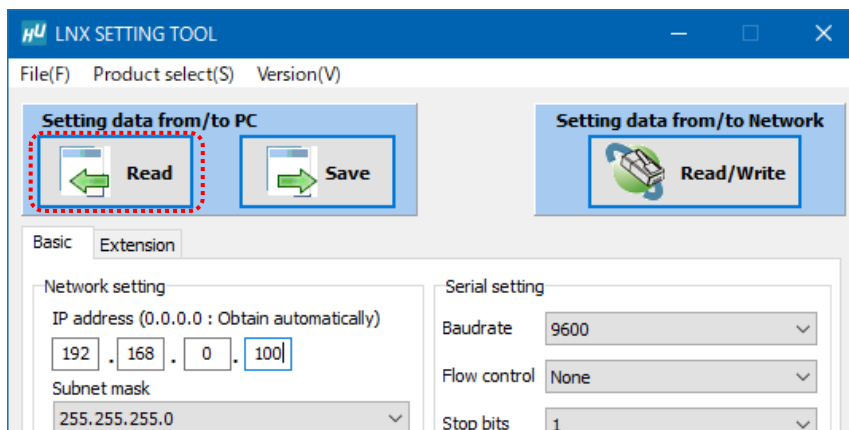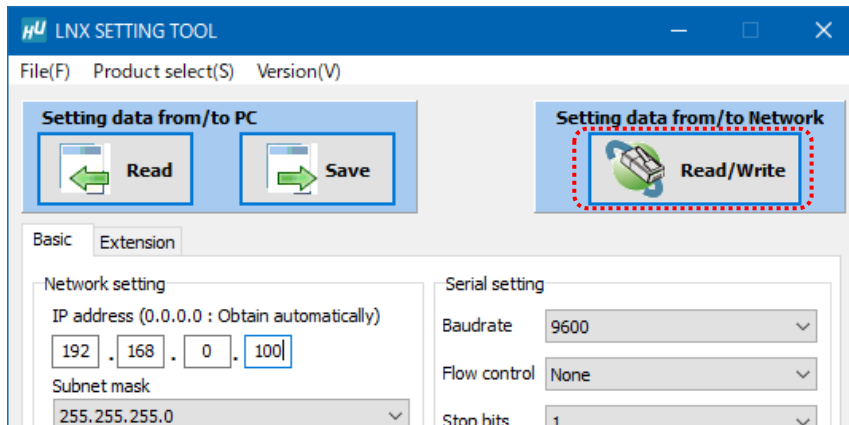

5. Click "OK" in the confirmation dialog.
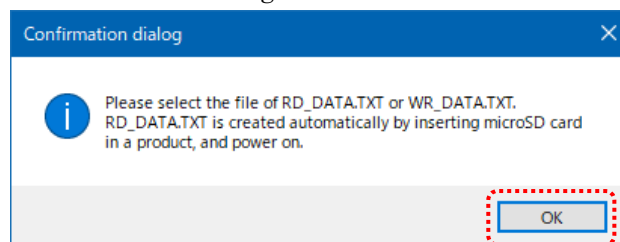
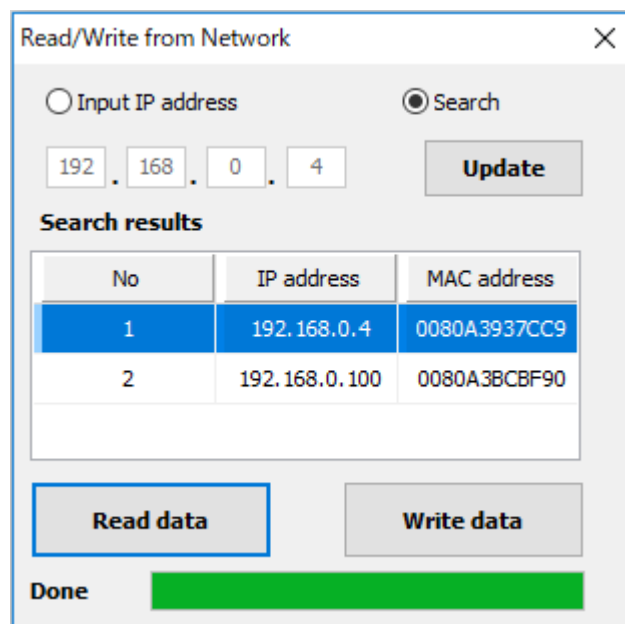6. Open the "RD_DATA.TXT" in the microSD card.

7. Setting data is loaded.
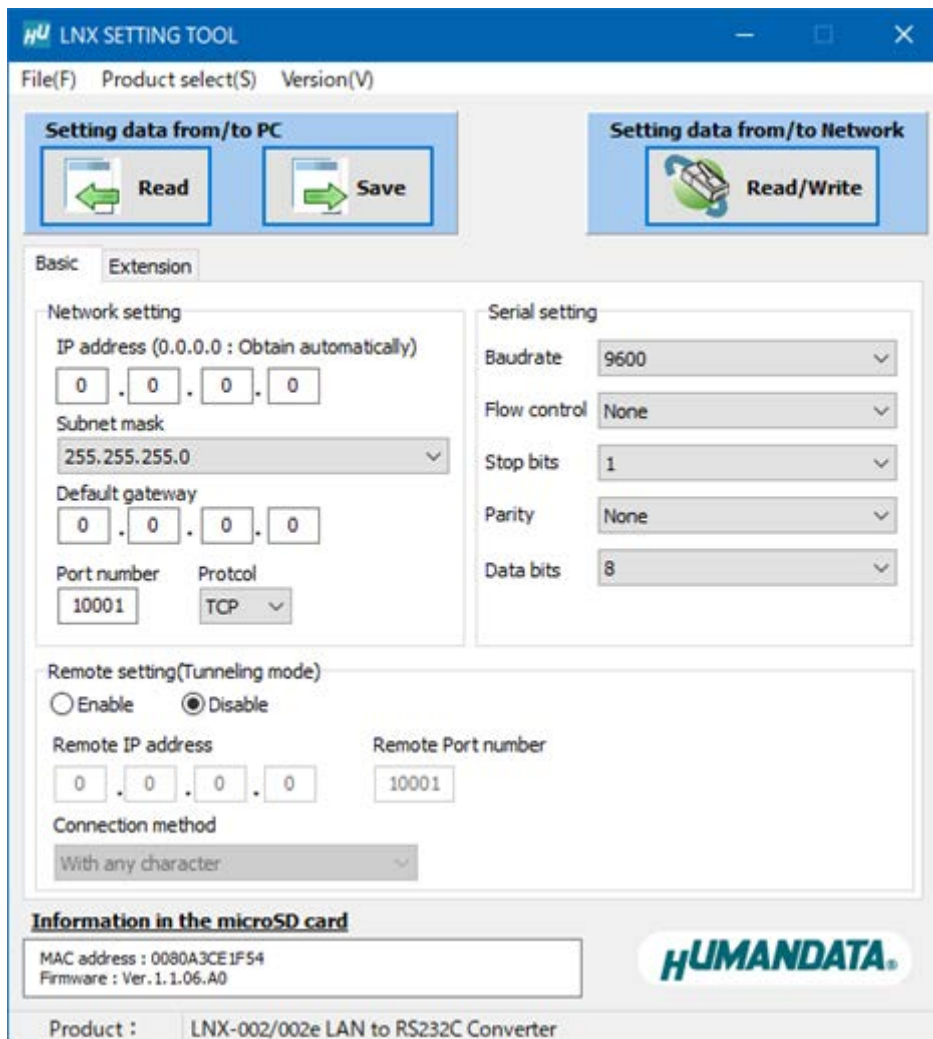
1.4. Write or Read setting data over the network

1. Enter the setting such as network or serial and click "Network".

   * Please confirm that microSD card is not inserted in a product.

2. Enter an IP address manually or click "Search". When some products are found, please select a number from a list.

3. Click "Read data" or "Write data"

   * Even if some devices will be listed in the list and occur process time out. In this case, please change the PCs' network setting to the same network segment as the product or using microSD card.

2. Downloads

Latest LNX SETTING TOOL is available for download from the link following.

https://www.fa.hdl.co.jp/en/info-drivers.html

3. Warranty and compensation

Please refer to the following URL for the warranty.

https://www.fa.hdl.co.jp/en/fa-warranty.html

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