



# SimpliX

## Serial Port Connection with Omron PLC

07/2020  
man-en-smx-rns-omron-serial.docx  
Version 1.0

## Legal Notices

### Warning Notice System

This document contains alerts and information indications for the safety of you and your devices. The symbols and meanings used to draw your attention to these notifications are listed below.



**Danger:** Indicates that death or severe personal injury will result if proper precautions are not taken.



**Warning:** Indicates that death or severe personal injury may result if proper precautions are not taken.



**Info:** Indicates advice or **information**.

### Qualified Personnel

It is assumed that what is described in this document will be applied by qualified personnel for the specific task.

### Disclaimer

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency.

The information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

## Change List (Change Log)

Version	Date	Description
V1.0	07/2020	

## **Preface**

### **Purpose of the Document**

This document contains information about the following topics

- ◆ Simplinx SMX-RNS02 – Omron PLC Connection

### **Required Level of Knowledge**

In order to fully understand and apply this document, it is necessary to have knowledge of IT, Automation and Electricity.

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# 1. Requirements

The required items for hardware and software are listed below:

## 1.1. Hardware

- ◆ 1 SMX-RNS02 Module,
- ◆ 1 SMX-RKY01 or 1 SMX-RKS01,
- ◆ SMX-RS001,
- ◆ DC Power supply (At least 24V 1A or 12V 2A),
- ◆ Omron PLC with serial port,
- ◆ User computer (for configuration of Simplinx and Omron PLC devices).

## 1.2. Software

- ◆ Windows 7 or Windows 10 (32 Bit or 64 Bit) Operating System,
- ◆ Web Browser (Preferably Google Chrome),
- ◆ Administrator rights to install the required programs,
- ◆ CX-ONE software.



The SX-Client program installs network and USB drives, so administrator rights will be required during installation.



Administrator rights will be required because the SX-Client program changes network settings while running.

## 2. Pre-requisites

- ◆ Download and install SX - Client from <https://www.simplinx.net> web address.
- ◆ The user certificate must be prepared.
- ◆ CX-ONE software must be installed.



Review the required documents for installing the SX-Client program and drivers.



Review the required documents for the user certificate.



### 3. Preparing Hardware

#### 3.1. Electrical Connection of SMX-RNS02 Module

The SMX-RNS02 module has 1 terminal group. The terminal group is called X1. The X1 terminal group has 3 terminals. They are in the following order:

X		
+	-	Gnd



(+) 15 – 32 VDC

(-) 0 VDC

GND Earth



There are 2 USB ports on the SMX-RNS02. The USB connection requires (-) and GND short circuited as a design fact. For this reason, GND and (-) on SMX-RNS02 are short circuited.



Incorrect or incomplete connection may damage you, those around you, or devices. See the relevant documents and electrical drawings for detailed information.



### **3.2. Omron PLC Connection**

Plug the SMX-RS001's USB port into one of your Simplinx device's USB inputs, plug the SMX-RS001's RS232 port into Omron PLC's RS232 input.

See the relevant documentation for other connection options.



Incorrect or incomplete connection may damage you, those around you, or devices.

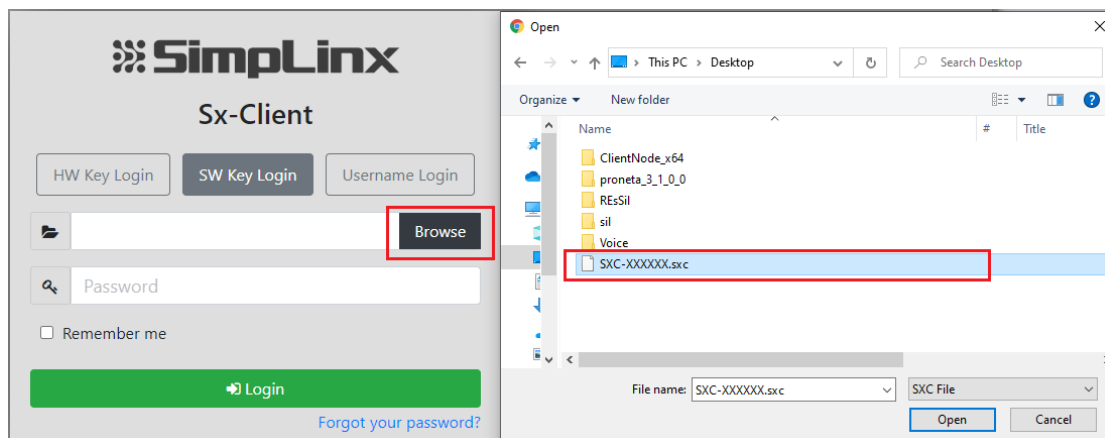
See the relevant documents and electrical drawings for detailed information.

## 4. Remote Connection setup

- ◆ Go to [www.simplinx.net/sx-client/](http://www.simplinx.net/sx-client/) from the browser.



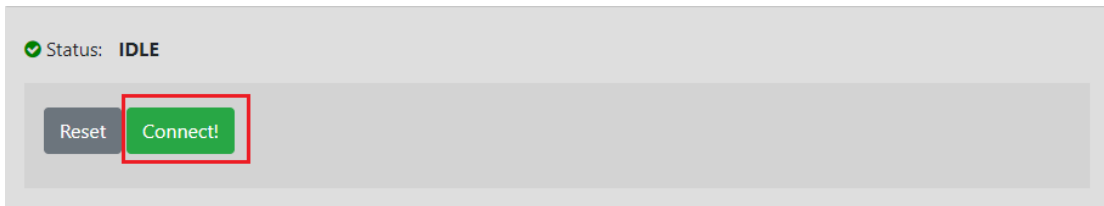
- ◆ Click the "Browse" button and find the xxxxx.sxc file.



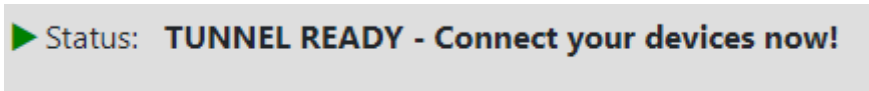
- ◆ Predefined Password: "@S123456"
- ◆ Press the "Login" button.
- ◆ From the Left Menu, go to the "Remote Node"---->"Remote Node-List" page.

	Serial	Last Conn Date	Last Conn Ip	Location
✔	SRX-...	2020/07/13 10:04:49	88.248.96.126	Turkey / Istanbul
✔	SRX-...	2020/07/13 16:42:04	88.248.96.126	Turkey / Istanbul
✘	SRX-...	2019/12/13 15:35:01	88.248.96.126	Turkey / Istanbul
✘	SRX-...	2018/12/04 13:40:17	88.248.96.126	Turkey / Istanbul
✘	SRX-...	2018/11/20 12:57:32	88.248.96.126	Turkey / Istanbul
✘	SRX-...	2020/07/03 14:39:54	88.248.96.126	Turkey / Istanbul
✘	SRX-...	2020/07/10 12:45:23	88.247.103.86	Turkey / Istanbul

- ◆ The far-left column shows the internet connection status of your device.
- ◆ Select your Simplinx SMX-RNS02 device connected to your Omron PLC.



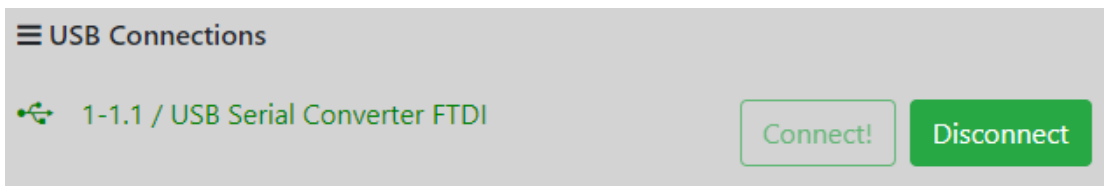
- ◆ Press the "**Connect**" button.
- ◆ You can see the connection status of your Simplinx SMX-RNS02 from "**Status**".



- ◆ You can check the accessibility of your Omron PLC from the "**USB connection**" section .

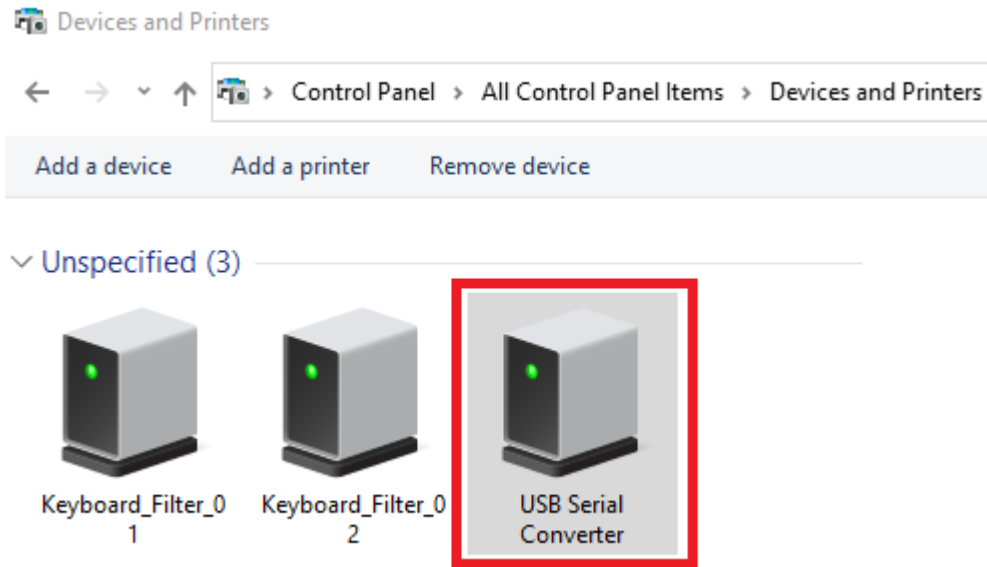


- ◆ Press the "**Connect**" button.

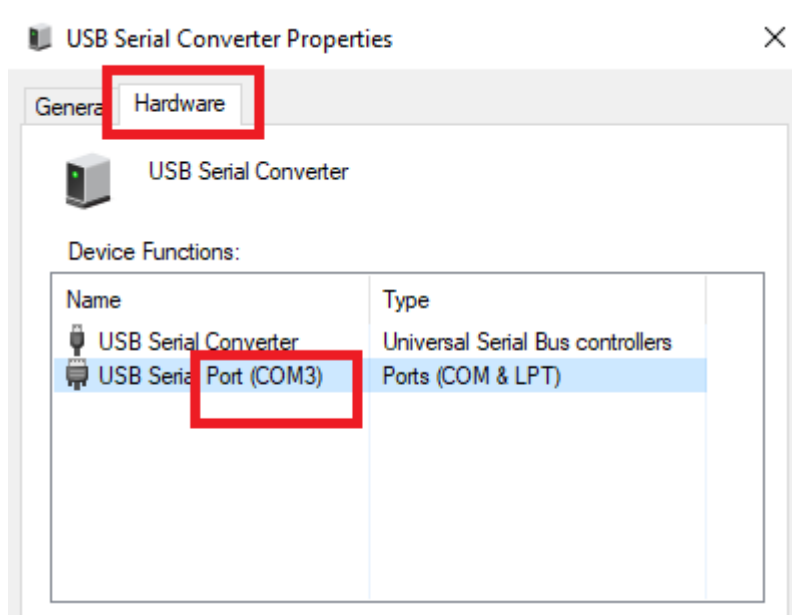


- ◆ After pressing the "**Connect**" button, you can see the connection status from the screen.

- ◆ Check the **"USB Serial Converter"** device which is added to the **"Control Panel\All Control Panel Items\Devices and Printers"** page.



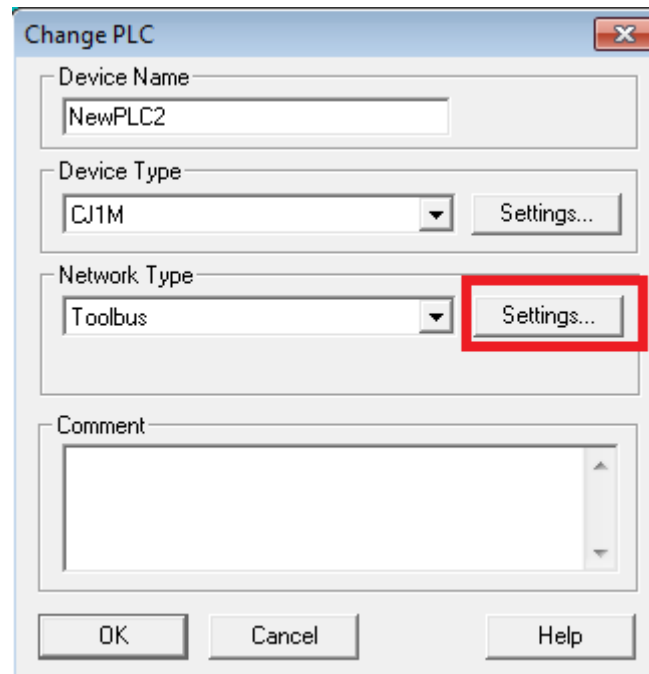
- ◆ Double-press the **"USB Serial Converter"** icon.
- ◆ Open the **"Hardware"** page.



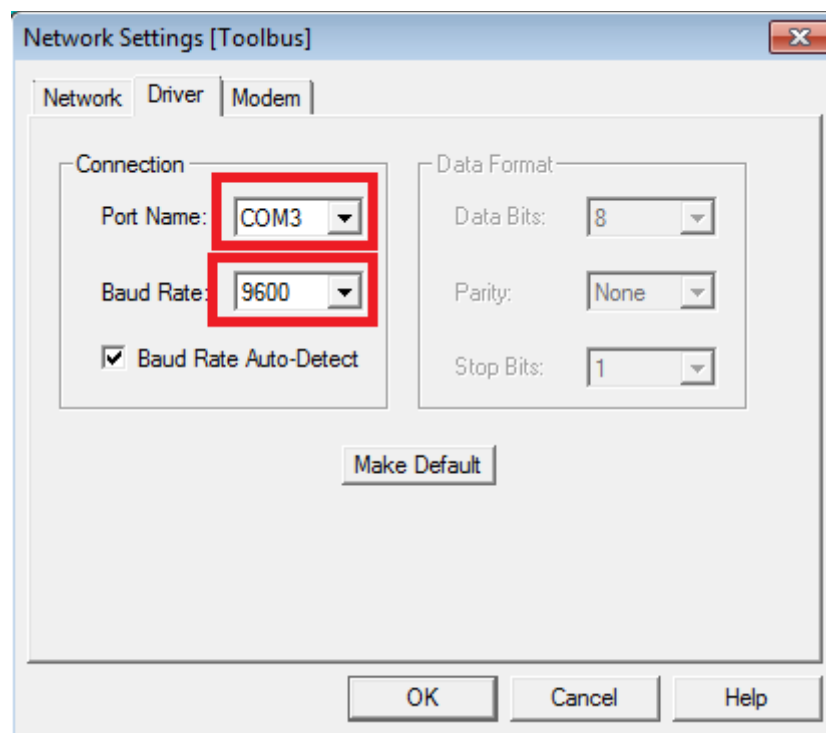
- ◆ In CX-One, the **"Port Name"** connection must be selected as **"COM3"**.

## 5. Remote connection test to Omron PLC with CX-One


- ◆ Open the Omron CX-One program.
- ◆ Click "**Change PLC**" button.



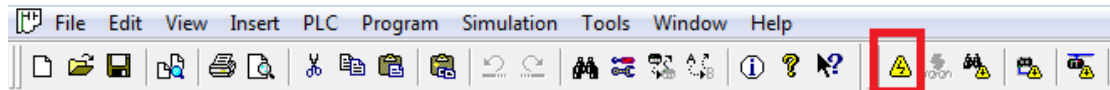
- ◆ Set the Device Type to "**CJ1M**".
- ◆ Press settings in network tab.



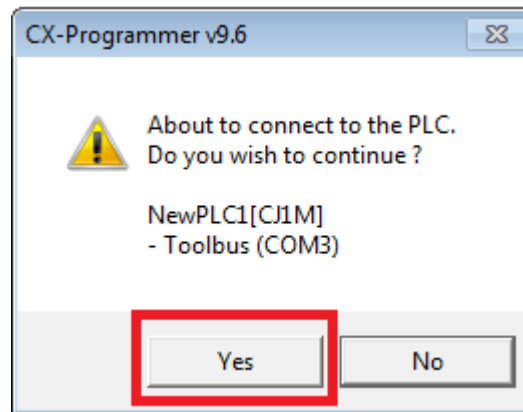
- ◆ Set the Port Name "**COM3**" Baud Rate "**9600**"..

 The "**Port Name**" section must match the Simplinx device port number.

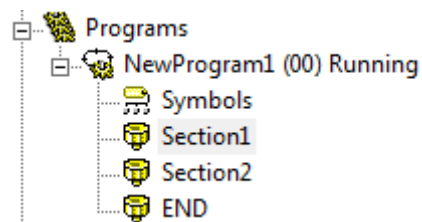
- ◆ Click the "**Work Online**" icon.



- ◆ Press the "**Yes**" button.

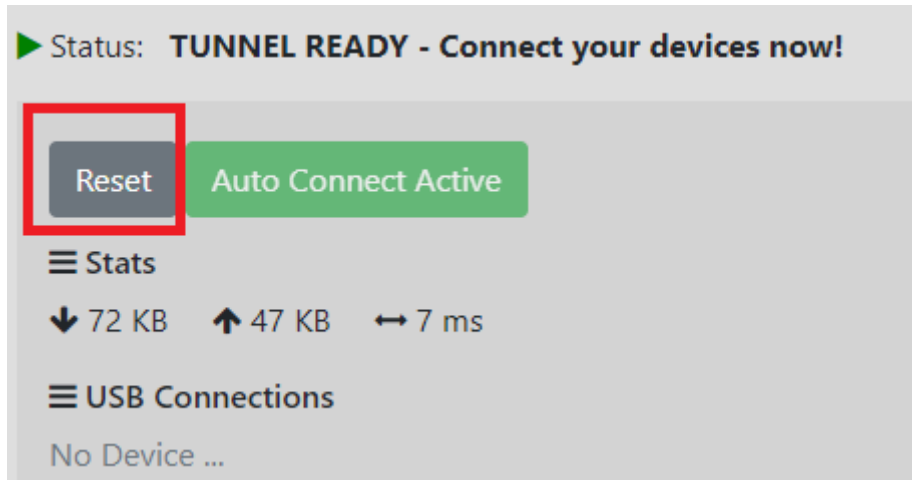


- ◆ You can observe the online status of your PLC.





- ◆ To end access to your Simplinx device from your computer, simply press the "**Reset**" button from the Web page. The connection with simplinx SMX-RNS02 will be automatically terminated.





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