

PC-DNC FAQs

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Installing a Moxa Wireless serial device

The Moxa W2150-A wireless serial device needs to be configured to communicate with your wireless access point, and it also needs to be configured as a serial (COM) port on your PC-DNC Plus or PC-DNC Editor computer. Here's the step-by-step way to do that:

You will need this information:

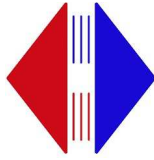
- 1) Your wireless network's "SSID", or network name
- 2) A wireless network IP address that you can use, along with the subnet mask and gateway (if used)
- 3) Your wireless network's encryption type (WEP, WPA, WPA2) etc. and passwords

You will also need a computer or laptop with an available Ethernet port, a short Ethernet cable, and a power cube for the Moxa unit (provided with each Moxa unit).



Step 1: Connect the Moxa unit to your computer's Ethernet port with the Ethernet cable

Step 2: With your computer turned on, provide power to the Moxa unit using its power cube. After a few seconds, you will get a "beep" and the green "ready" LED should turn on.



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Step 3: Set your computer's Ethernet port to use the IP address of 192.168.126.100. Here's how that's done: **Be sure to set it BACK when you're finished setting up all the Moxas**

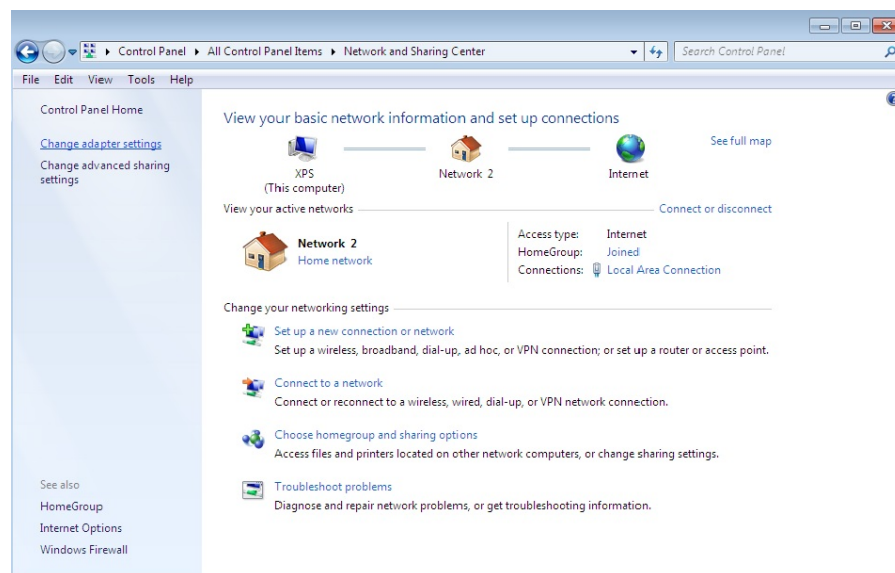
Windows 7:

- 1) Left click on the Windows START button, then click on "Control Panel"
- 2) Select "Network and sharing center", then select "Change adapter settings"
- 3) Click to highlight "Local area connection", then RIGHT-click and select "Properties"
- 4) Select "Internet protocol version 4" then click the "Properties" button
- 5) Click the button to "use the following IP address", then enter 192.168.126.100
- 6) Enter the subnet mask of 255.255.255.0. Click OK, then Close

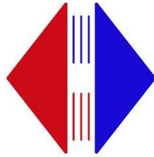
Windows 10:

- 1) RIGHT click on the Windows START button, then click on "Network Connections"
- 2) Select "Network and sharing center", then click "Ethernet"
- 3) Click "Change adapter options"
- 4) Click to highlight "Ethernet", then RIGHT-click and select "Properties"
- 5) Select "Internet protocol version 4" then click the "Properties" button
- 6) Click the button to "use the following IP address", then enter 192.168.126.100 Enter the subnet mask of 255.255.255.0. Click OK, then Close

Network and Sharing Center

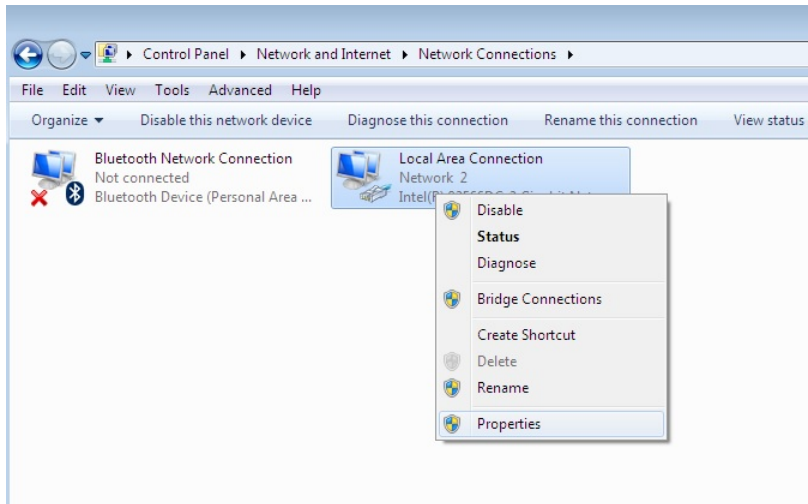


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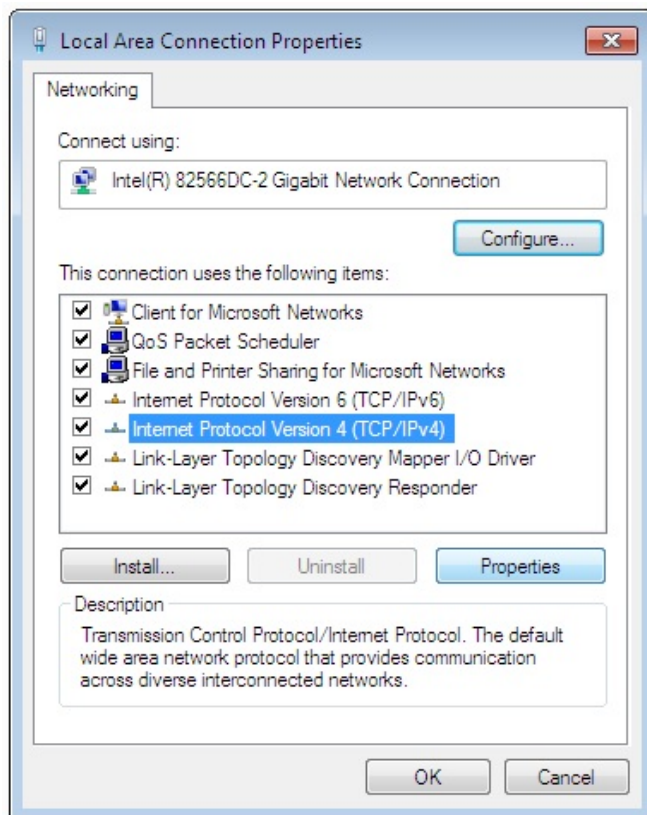


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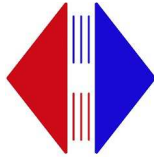
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Right-click, then click properties

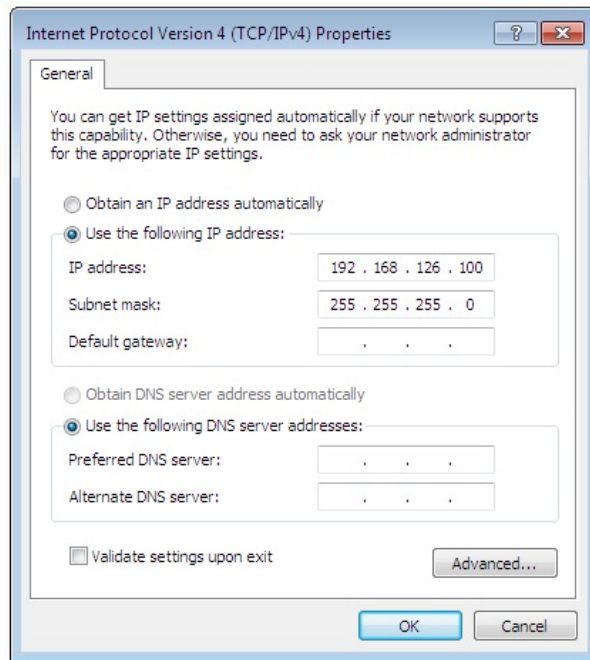


Select "Internet Protocol version 4"



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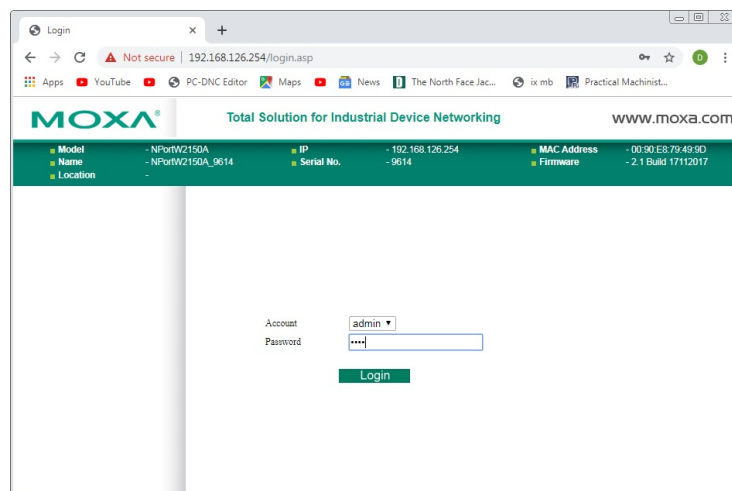
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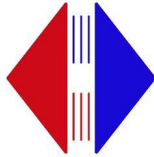
Enter an IP address that's on the same subnet as the Moxa's (wired) default IP address, as shown. Be sure to click OK, then Close

Next, open any browser (Chrome or IE), and enter the Moxa's default IP address of 192.168.126.254 and press ENTER. You should see the Moxa unit's internal web page.

Enter the password: "**moxa**" (all lower case) to enter the Moxa's configuration page.



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Select “Network Settings”, then “WLAN Settings” then enter the IP address you want the Moxa to use on your wireless network. Set the subnet mask (usually 255.255.255.0) and (optionally) any gateway address your network might use. Click “Submit”

NPort Web Console

192.168.126.254/index.asp

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Model	Name	Location	IP	Serial No.	MAC Address	Firmware
NPortW2150A	NPortW2150A_9614	-	192.168.126.254	9614	00:90:E8:79:49:9D	2.1 Build 17112017

Welcome to NPort W2150A

Model name	NPortW2150A
Serial No.	9614
Firmware version	2.1 Build 17112017
Ethernet IP address	192.168.126.254
Ethernet MAC address	00:90:E8:79:49:9D
WLAN IP address	N/A
WLAN MAC address	E0:4F:43:DC:DF:1E
SSID	N/A
WLAN network type	N/A
WLAN security mode	N/A
WLAN RF type	N/A
WLAN country code	US
WLAN fast roaming	N/A
Active network port	Ethernet

- Overview
- Wizard
- Basic Settings
- Network Settings
 - General Settings
 - Ethernet/Bridge Settings
 - WLAN Settings
 - Advanced Settings
- Serial Port Settings
- System Management
- System Monitoring
- Restart

NPort Web Console

192.168.126.254/index.asp

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Model	Name	Location	IP	Serial No.	MAC Address	Firmware
NPortW2150A	NPortW2150A_9614	-	192.168.126.254	9614	00:90:E8:79:49:9D	2.1 Build 17112017

WLAN Settings

WLAN Settings

IP configuration: Static

IP address: 192.168.2.25

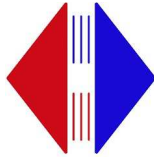
Netmask: 255.255.255.0

Gateway: 192.168.2.1

Submit

- Overview
- Wizard
- Basic Settings
- Network Settings
 - General Settings
 - Ethernet/Bridge Settings
 - WLAN Settings
 - WLAN
 - Profile
 - WLAN Log Settings
 - Advanced Settings
- Serial Port Settings
- System Management
- System Monitoring
- Restart

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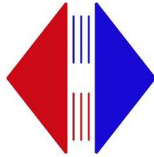
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Select “Profile”, then “General” and enter your wireless network’s SSID (network name). Click “Submit”

Select “General”

Enter your wireless network SSID, then Click “Submit”

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Select “Security” and enter your wireless network’s encryption information and any passwords or passphrases you might use. Click “Submit”

The screenshot shows the Moxa NPort Web Console interface. At the top, there's a status bar with the Moxa logo, the text "Total Solution for Industrial Device Networking", and the website "www.moxa.com". Below this is a table with device information:

Model	Name	Location	IP	Serial No.	MAC Address	Firmware
NPortW2150A	NPortW2150A_9614	-	192.168.126.254	9614	00:90:E8:79:49:9D	2.1 Build 17112017

The main content area is titled "WLAN Profile Properties" and contains a "Security Properties" section. It has the following fields:

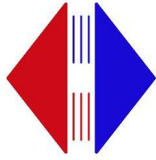
- Profile name: Infrastructure
- Authentication: WPA2-PSK
- Encryption: TKIP
- PSK passphrase: (masked with dots)

A "Submit" button is located at the bottom of the form. On the left, there is a sidebar menu with options like Overview, Wizard, Basic Settings, Network Settings, General Settings, Ethernet/Bridge Settings, WLAN Settings, Profile, WLAN Log Settings, Advanced Settings, Serial Port Settings, System Management, and System Monitoring.

Lastly, click the “Activate” button. You will get an alarm, but that’s OK. You must now unplug the power from the Moxa, remove the Ethernet cable, and apply power again. The Moxa “Ready” LED should come on, the WLAN LED should blink for a few seconds, then the “Signal strength” LEDs should light up, indicating that the Moxa has connected successfully with your access point.

Note: If the signal strength LEDs does not light, or if the WLAN LED continues to blink, something is not right with the settings you just entered. Check the SSID and the Encryption data again. You could also just be out of range of your wireless network, so be sure the Moxa unit is within about 300 feet of your access point as well.

If you have several Moxa units to configure, repeat the process outlined above for each unit. Each Moxa must have a unique IP address, but all the other configurations will be the same.



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Configuring the Moxa's serial port in the PC

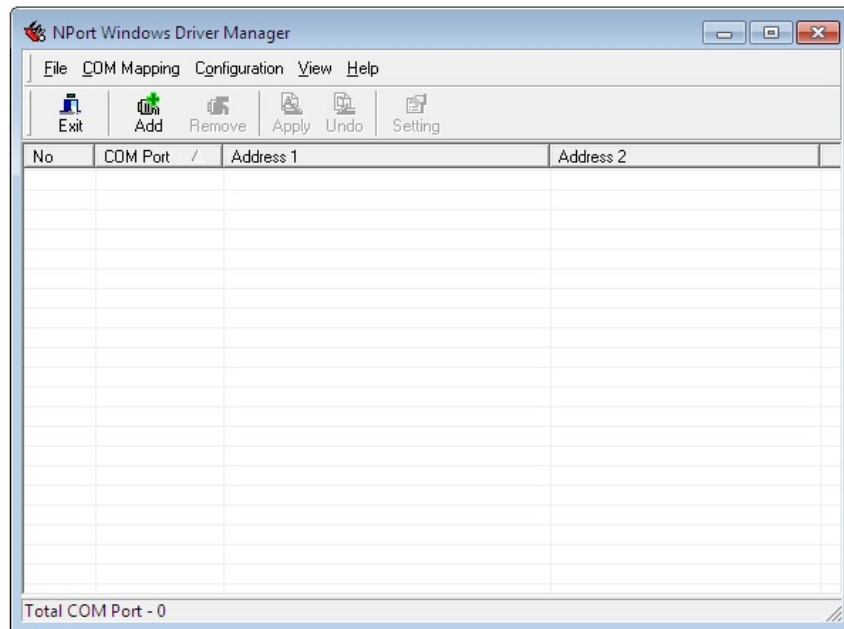
Once you have all the Moxa units configured, be sure that they are all under power and connected to your wireless network. Now, you're ready to install the serial port device drivers on your computer.

On the computer that you intend to use the serial ports (PC-DNC Plus Server or PC-DNC Editor PC) Download the Moxa Driver Manager for the Nport W2150-A unit by going to this address:

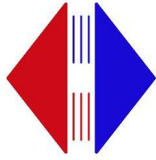
<https://moxa.com/en/support/search?psid=50591>

Click the downward pointing arrow next to the "Windows Driver Manager" The file will be saved in your "Downloads" directory. Click on that .exe file to install the Driver Manager.

Start the Nport Windows Driver Manager:



To search the network for all available Moxa wireless devices, click the "Add" toolbar button, then click "Search"

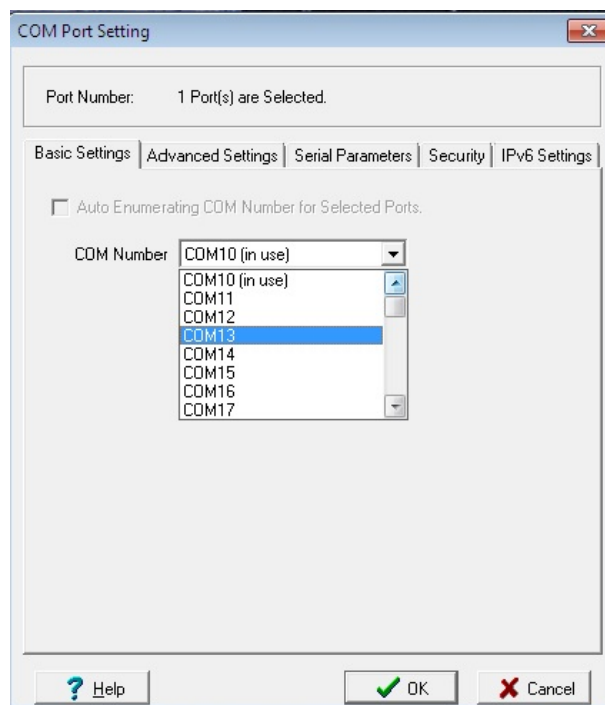


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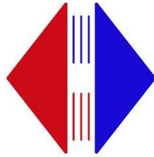
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(We're almost finished).

Here's the last step: In the Moxa Driver manager list, you can see each device's IP address and the automatically assigned (by plug & play) serial COM port number. If you want to change this COM port number, simply double-click on that device and select "Settings"

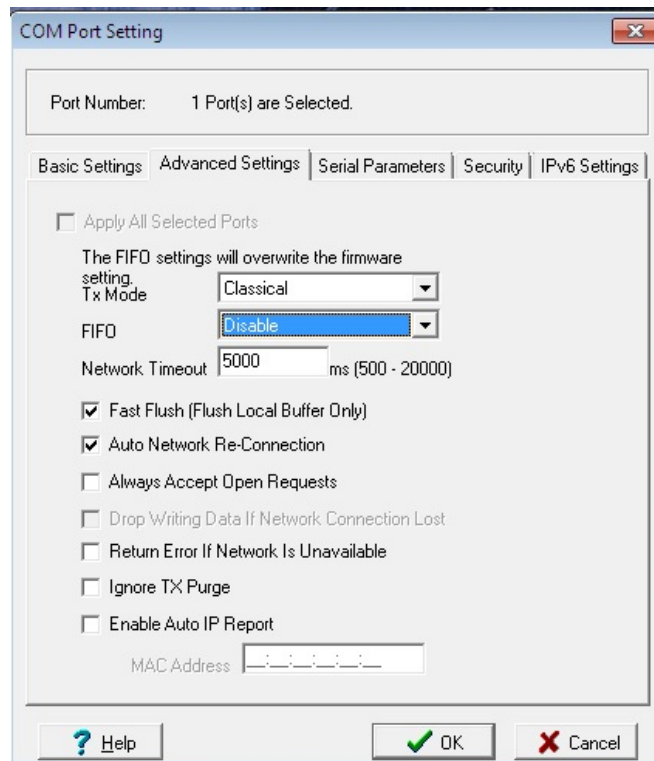


After selecting the desired COM Port number, click the "Advanced settings" tab and make this final adjustment to the "TX Mode" and to the "FIFO" buffer settings (see next page)



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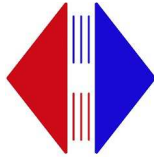
Set the “TX mode” pull-down menu to “Classical” and set the “FIFO” setting to “Disable”, then click OK

Important:

You MUST make this TX mode and FIFO setting change if you plan to use this Moxa device with a Fanuc CNC control, or any other CNC control that requires serial port compatibility with a standard PC serial port. The FIFO buffer must be disabled to prevent “Buffer overflow” alarms in the CNC control when loading programs INTO the CNC.

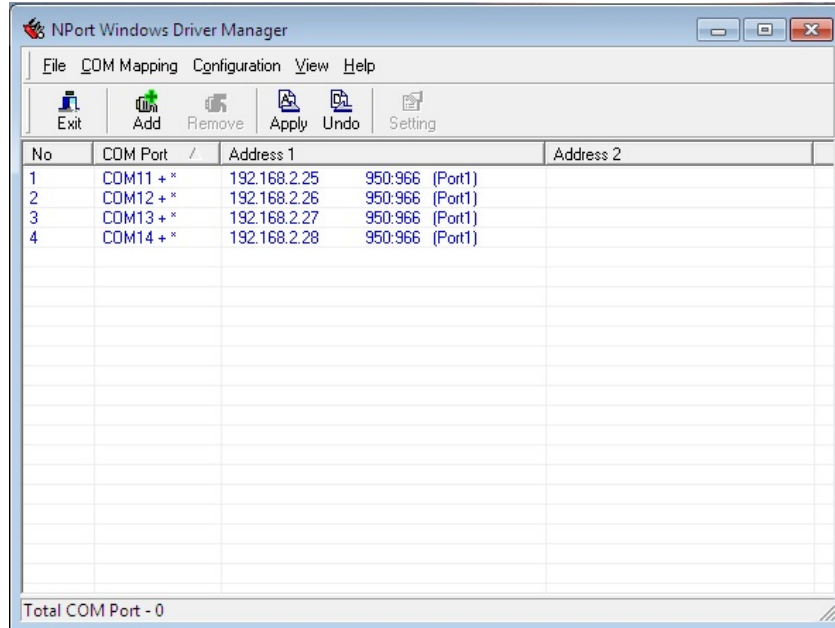
Last Step (promise!) See next page:

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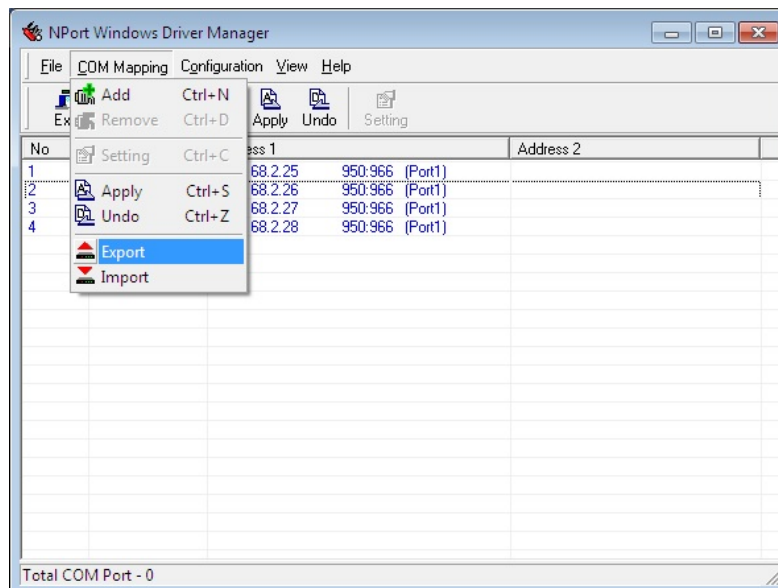


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At the main Driver Manager list, Click the **APPLY** button. To save your configurations file as a backup, use the “COM Mapping” pull-down menu and select “Export”. You will then be prompted to save a file as a backup. Keep this file safe in case you need to re-install the Moxa units on another computer.



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