

Real COM Mode for NPort

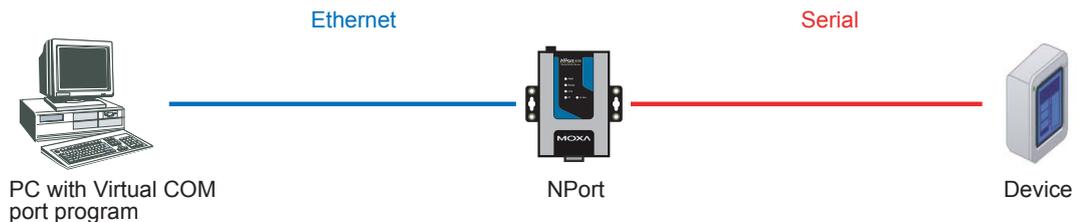
*Moxa Technical Support Team
support@moxa.com*

This Tech Note applies to the following NPort device server models:

- NPort DE-211
- NPort DE-311
- NPort DE-311M
- NPort 5100 series
- NPort 5200 series
- NPort 5400 series
- NPort 5600 series
- NPort IA5150
- NPort IA5250
- NPort 6000 series
- NPort W2150
- NPort W2150 Plus
- NPort W2250
- NPort W2250 Plus

What is Real COM Mode for NPort?

Real COM Mode is designed to allow Windows PCs to treat NPort serial ports as local COM ports. The Real COM driver that comes with NPort can be used to create a transparent data tunnel from a local COM port to the NPort's serial port.



Copyright © 2008 Moxa Inc

Released on July 17, 2008

About Moxa

Moxa manufactures one of the world's leading brands of device networking solutions. Products include serial boards, USB-to-serial hubs, media converters, device servers, embedded computers, Ethernet I/O servers, terminal servers, Modbus gateways, industrial switches, and Ethernet-to-fiber converters. Our products are key components of many networking applications, including industrial automation, manufacturing, POS, and medical treatment facilities.

How to Contact Moxa

Tel: 1-714-528-6777

Web: www.moxa.com

Fax: 1-714-528-6778

Email: info@moxa.com

MOXA®

This document was produced by the Moxa Technical Writing Center (TWC). Please send your comments or suggestions about this or other Moxa documents to twc@moxa.com.

Installing Real COM drivers for the NPort DE-211, DE-311, and DE-311M

Before performing the following steps, restore the NPort's default settings by holding the reset button down for 10 seconds.

1. Make sure that DIP switch 1 is set to OFF (DE-211 and DE-311).
2. Turn the NPort on. The Ready LED should turn green.
3. Modify the DIP switch settings for serial communication as required for your device.
4. Make sure that the NPort and the host PC are properly connected to the network.
5. Adjust the NPort's IP settings as necessary so that it is on the same network as your PC. You may also need to modify the host PC's IP configuration. Make sure you can ping the NPort from your host PC.

Note: The IP addresses of the NPort and the PC must be on the same subnet. If one IP address is modified, you may need to modify the other IP address.

6. Install the NPort Management Suite utility on the host PC. This utility can be found on the CD that came with the NPort. It can also be downloaded from the Download Center at www.moxa.com.
7. Run the RealCOM Installer program. It can be found through the Windows Start menu as follows: **Start → All Programs → NPort Management Suite → COM Port Mapping → RealCOM Installer.**
8. In RealCOM Installer, click **Add Server**. If the NPort is on the same subnet as the host PC, select **Automatically search the LAN**. Otherwise, select **Manually enter IP address** and then type in the NPort's IP address.

Installing Real COM drivers for the NPort 5000

Before performing the following steps, restore the NPort device server's default settings by holding the reset button down for 10 seconds.

1. Turn the NPort on. The Ready LED should turn green.
2. Make sure that the NPort and the host PC are properly connected to the network.
3. Adjust the NPort's IP settings as necessary so that it is in the same network as your PC. You may also need to modify the host PC's IP configuration. Make sure you can ping the NPort from your host PC.

Note: The IP addresses of the NPort and the PC must be on the same subnet. If one IP address is modified, you may need to modify the other IP address.

4. On the host PC, connect to the NPort's Telnet console by entering **telnet <NPort's IP address>** at the command prompt. For example, if your NPort's IP address is 192.168.127.254, enter **telnet 192.168.127.254** at the command prompt.

5. In the Telnet console under **Main Menu → Serial Settings → Port → Interface**, select the appropriate serial interface for the attached device.
6. In the Telnet console main menu, select **Save/Restart** to restart the NPort with the new settings activated.
7. Install the NPort Administrator Suite utility on the host PC. This utility can be found on the CD that came with the NPort. It can also be downloaded from the Download Center at www.moxa.com.
8. Run the COM Mapping program. It can be found through the Window Start menu as follows: **Start → All Programs → NPort Administrator**.
9. In COM Mapping, click **Add**.
10. If the NPort is on the same subnet as the host PC, select **Rescan** and choose the desired NPort after scanning is complete. Otherwise, select **Input Manually** and then type in the NPort's IP address.
11. Click **OK** and then **Apply** to save changes.

Installing Real COM drivers for the NPort W2150 and W2250

Before performing the following steps, restore the NPort device server's default settings by holding the reset button down for 10 seconds.

1. Turn the NPort on. The Ready LED should turn green.
2. Make sure that the NPort and the host PC are properly connected to the network.
3. Adjust the NPort's IP settings as necessary so that it is on the same network as your PC. You may also need to modify the host PC's IP configuration. Make sure you can ping the NPort from your host PC.

Note: The IP addresses of the NPort and the PC must be on the same subnet. If one IP address is modified, you may need to modify the other IP address.

4. From the host PC, connect to the NPort's Telnet console by entering **telnet <NPort's IP address>** at the command prompt. For example, if your NPort's IP address is 192.168.127.254, enter **telnet 192.168.127.254** at the command prompt.
5. In the Telnet console under **Main Menu → Serial Port settings → Port Number → Communication Parameters → Interface**, select the appropriate serial interface and wiring type for the attached device.
6. In the Telnet console under **Main Menu → Network Setting → WLAN Configuration**, adjust the settings for your wireless network as necessary.
7. In the Telnet console main menu, select **Save/Restart** to restart the NPort with the new settings activated.
8. Install the NPort Windows Driver Manager utility on the host PC. This utility can be found on the CD that came with the NPort. It can also be downloaded from the Download Center at www.moxa.com.

9. Run the NPort Windows Driver Manager. It can be found through the Window Start menu as follows: **Start → All Programs → NPort Windows Driver Manager**.
10. In NPort Windows Driver Manager, click **Add**.
11. If the NPort is on the same subnet as the host PC, select **Rescan** and choose the desired NPort after scanning is complete. Otherwise, select **Input Manually** and indicate the NPort's IP address.
12. Click **OK**, **Yes**, and **Continue Anyway** to save changes.

Installing Real COM drivers for the NPort 6000, W2150 Plus, and W2250 Plus

Before performing the following steps, restore the NPort device server's default settings by holding the reset button down for 10 seconds.

Also, please note that for NPort Wireless Plus models, only one network interface (WLAN or Ethernet) can be active at a time. To use the Ethernet interface, make sure the network cable is plugged in before powering on the NPort. To use the WLAN interface, make sure the network cable is unplugged when the NPort is powered on.

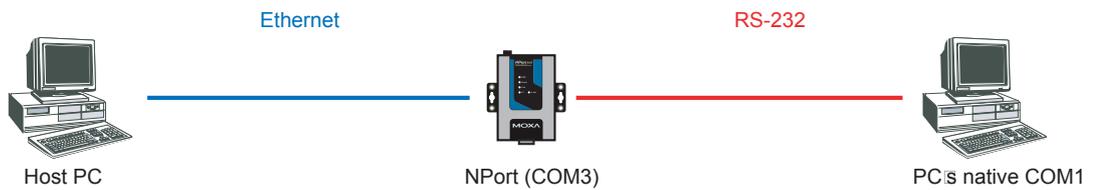
1. Turn the NPort on. The Ready LED should turn green.
2. Make sure that the NPort and the host PC are properly connected to the network.
3. Adjust the NPort's IP settings as necessary so that it is on the same network as your PC. You may also need to modify the host PC's IP configuration. Make sure you can ping the NPort from your host PC.

Note: The IP addresses of the NPort and the PC must be on the same subnet. If one IP address is modified, you may need to modify the other IP address.

4. From the host PC, connect to the NPort's Telnet console by entering **telnet <NPort's IP address>** at the command prompt. For example, if your NPort's IP address is 192.168.127.254, enter **telnet 192.168.127.254** at the command prompt.
5. In the Telnet console under **[Port]**, select **[Line]** and then select the appropriate serial interface and wiring type for the attached device.
6. Adjust wireless network settings as necessary (NPort W2150 Plus and W2250 Plus).
7. In the Telnet console main menu, select **[Restart]** to restart the NPort with the new settings activated.
8. For wireless operation, disconnect the NPort's Ethernet cable and restart the NPort again (NPort W2150 Plus and W2250 Plus).
9. Install the NPort Windows Driver Manager utility on the host PC. This utility can be found on the CD that came with the NPort. It can also be downloaded from the Download Center at www.moxa.com.

10. Run the NPort Windows Driver Manager. It can be found through the Window Start menu as follows: **Start → All Programs → NPort Windows Driver Manager**.
11. In NPort Windows Driver Manager, click **Add**.
12. If the NPort is on the same subnet as the host PC, select **Rescan** and choose the desired NPort after scanning is complete. Otherwise, select **Input Manually** and indicate the NPort's IP address.
13. Click **OK**, **Yes**, and **Continue Anyway** to save changes.

Testing Real COM Mode



1. Make sure that RS-232 is selected as the serial interface.
2. Use a null modem cable to connect the NPort's serial port to the PC's COM 1 port.
3. Run a terminal emulator program, such as Windows HyperTerminal. PComm Terminal Emulator is available for free from the Download Center at www.moxa.com.
4. In the terminal emulator, open both COM 1 and the virtual COM port that is mapped to the NPort. Make sure that the serial communication settings (baudrate, start bit, stop bit, etc.) match.
5. In the terminal emulator, input some data for COM 1. If the data is received by the virtual COM port, the Real COM connection is working.

Cable Wiring

