Real COM Mode for NPort

Moxa Technical Support Team
support@moxa.com

Contents

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

- NPort DE-211
- NPort DE-311
- NPort 5100/NPort 5100A/NPort P5150A Series
- NPort 5200/NPort 5200A Series
- NPort 5400 Series
- NPort 5600 Series
- NPort 5600-8-DT Series
- NPort 5600-8-DTL Series
- NPort IA5150/ NPort IA5150A Series
- NPort IA5250/ NPort IA5250A Series
- NPort IA5450A Series
- NPort 5000AI-M12 Series
- NPort 6000 Series
- NPort W2150A/ NPort W2250A Series
- NPort IA5000A-I/O Series
- NPort IAW5000A-I/O Series
- NPort S8455I /NPort S9450I /NPort S9650I Series

What is Real COM Mode for the 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.
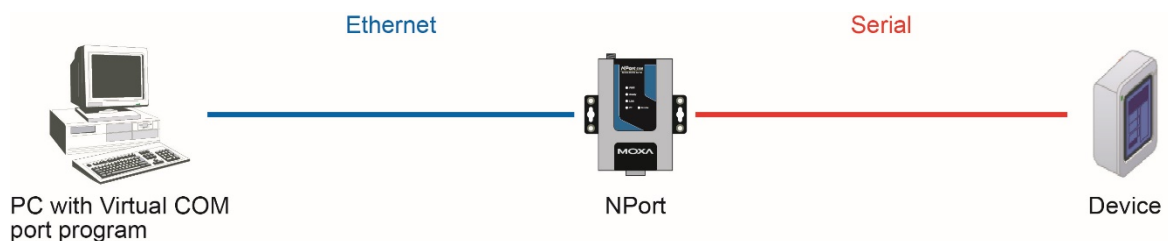
Installing Real COM drivers for the NPort DE-211 and NPort DE-311

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 (Both NPort DE-211 and NPort 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 Windows Driver Manager on the host PC. This driver can be downloaded from the Support → Software & Documentation at www.moxa.com.

7. Run the NPort Windows Driver Manager program. It can be found through the Windows Start menu as follows: **Start → All Programs → NPort Windows Driver Manager**.

8. In NPort Windows Driver Manager, click **Add**. If the NPort is on the same subnet as the host PC, select from **List** and then click **Search**. On completion of the search, select it from the list. Otherwise, select **Input Manually** and then type in the NPort's IP address.

9. Click **OK** and then **Yes** to save changes.

Installing Real COM drivers for the NPort 5000, 5000A, IA5000, IA5000A, 5600-DT, 5600-DTL, and 5000AI-M12 Series

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 Windows Driver Manager on the host PC. This driver can be downloaded from the Support → Software & Documentation at www.moxa.com.

8. Run the NPort Windows Driver Manager program. It can be found through the Windows Start menu as follows: **Start → All Programs → NPort Windows Driver Manager**.

9. In NPort Windows Driver Manager, click **Add**. If the NPort is on the same subnet as the host PC, select from **List** and then click **Search**. On completion of the search, select it from the list. Otherwise, select **Input Manually** and then type in the NPort's IP address.

10. Click **OK** and then **Yes** to save changes.

Installing Real COM drivers for the NPort 6000, W2150A/W2250A, NPort IA5000A-I/O, NPort IAW5000A-I/O, NPort S8000 and NPort S9000 Series

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 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 W2150A and W2250A).

9. Install the NPort Windows Driver Manager on the host PC. This driver can be downloaded from the Support → Software & Documentation at www.moxa.com.

10. Run the NPort Windows Driver Manager program. It can be found through the Windows Start menu as follows: **Start → All Programs → NPort Windows Driver Manager**.

11. In NPort Windows Driver Manager, click **Add**. If the NPort is on the same subnet as the host PC, select from **List** and then click **Search**. On completion of the search, select it from the list.. Otherwise, select **Input Manually** and then type in the NPort's IP address.

12. Click **OK** and then **Yes** to save changes.

Testing Real COM Mode
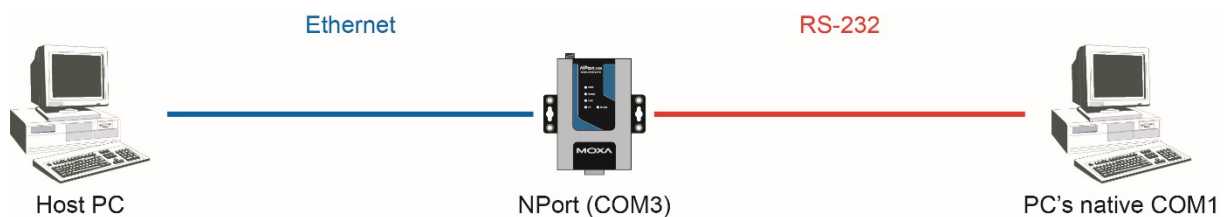
1. Make sure that RS-232 is selected as the serial interface.

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