

***NPort Express, NPort Server Family,***  
**Async Server**  
**Windows XP Driver Installation Guide**

**Third Edition, April 2002**



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We explain in this manual how to configure NPort Server Family products to operate under the Windows XP operating system. The installation and configuration procedure is substantially different than for Windows NT/95/98/ME, but is quite similar to Windows 2000.

Note that there are several different NPort Server Family products available from MOXA Technologies. Listed by name and model, they are:

<b>Product Name</b>	<b>Model</b>
MOXA Async Server	CN2504/2508/2516
MOXA NPort Express	DE-211/311/311M
MOXA NPort Server Lite	DE-301/302/304/331/332/334
MOXA NPort Server Pro	DE-303/308

These products have either 1, 2, 4, 8, or 16 serial ports. For some products, there is only one serial interface to choose from, whereas for other products, you may be able to set one of two or three serial interfaces (from RS-232/422/485).

The examples in this manual were produced using MOXA NPort Express DE-331, which is a 1-port, RS-422/485 serial device server. If you are installing a different product, then the procedures you need to follow may be slightly different, but you should be able to use this manual as a guide to see how to manage your NPort Product.

The following topics are discussed in this manual:

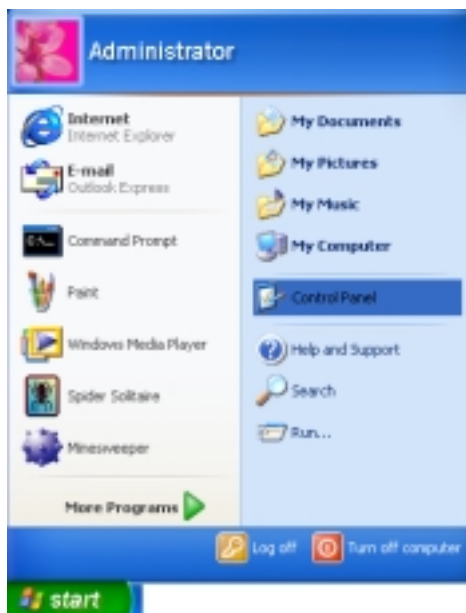
- Windows XP Driver Installation
  - Installing the NPort Product
  - Installing the NPort Product's Serial Ports
- NPort Product Properties
  - General
  - Configuration
    - NPort Product
    - Port Status
  - Driver

## Windows XP Driver Installation

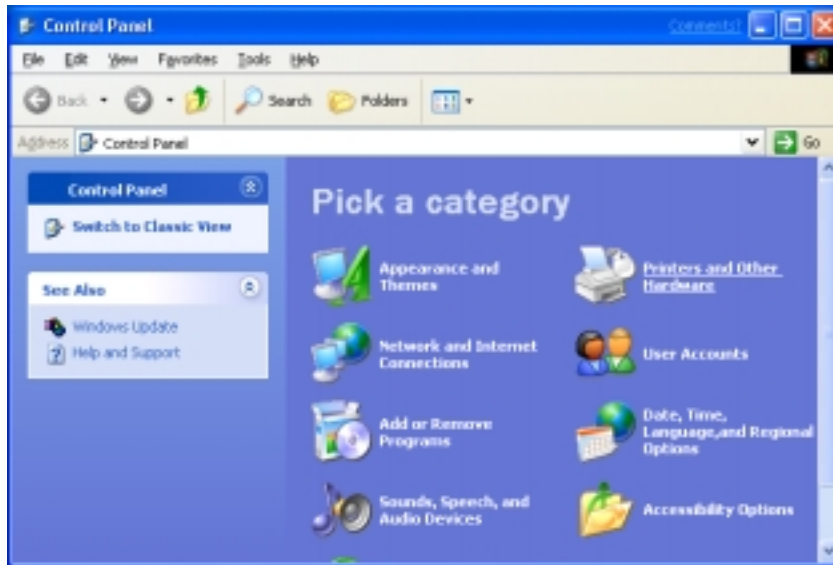
Installing an NPort Product to run under Windows XP involves installing the drivers that are used to operate the NPort Product and its port(s). This is done by using Windows XP's "Add Hardware" function. Note that for first time installations, you must use the "Add Hardware" function twice—once to install the NPort Product itself, and then once to install NPort Product's serial ports.

### Installing the NPort Product

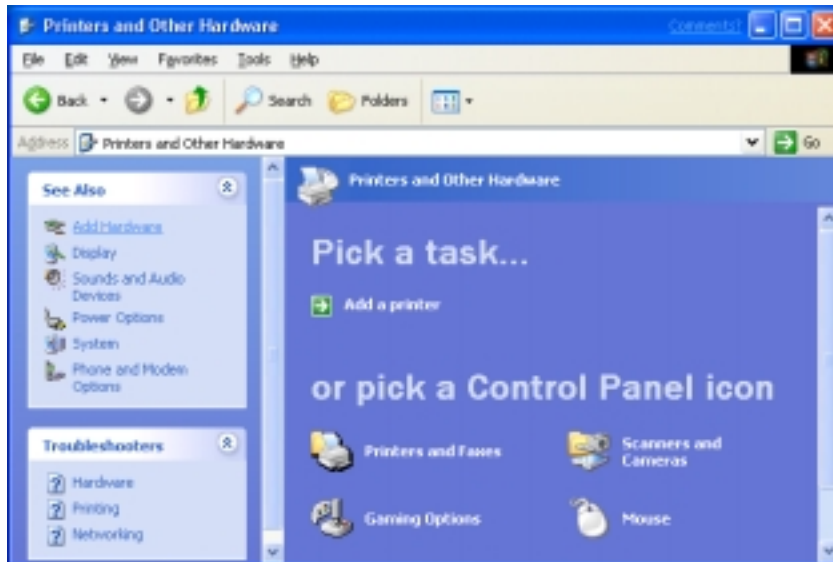
1. From the Windows XP desktop, click on **Start → Control Panel**.



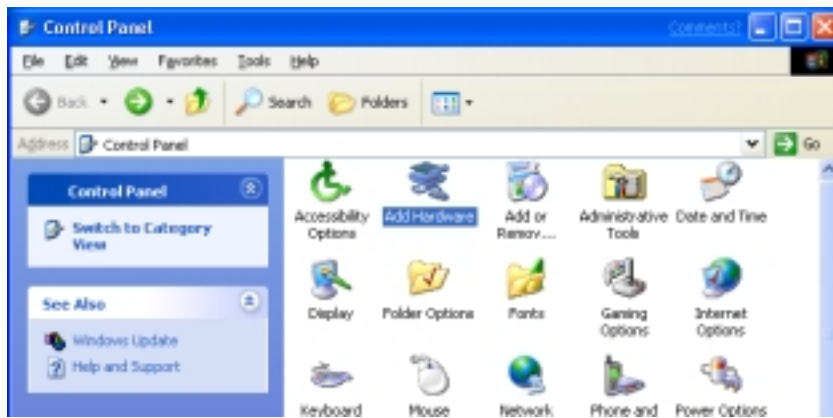
2. [To work **from** “Classic View”, skip to step 4.] If your operating system is set to the new XP “Category View” style, click on **Printers and Other Hardware**.



3. [For classic view, skip to step 4.] Click on **Add Hardware**, found under the **See Also** options.



4. If your operating system is set to the older “Classic view” style, double click on the Control Panel’s **Add Hardware** icon.



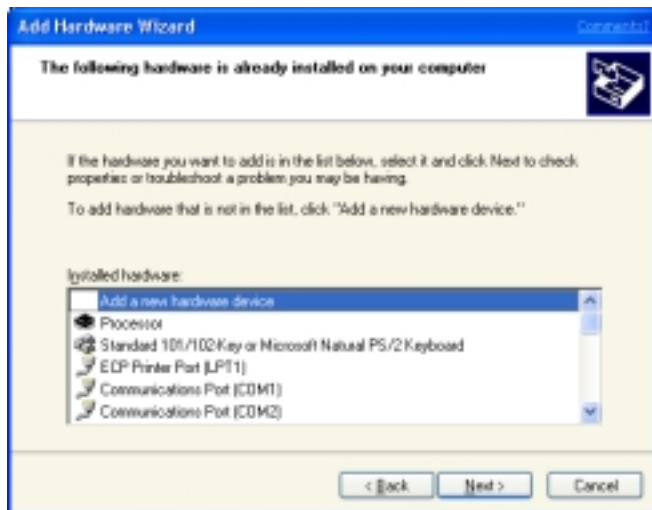
5. When the **Welcome to the Add Hardware Wizard** window opens, click on **Next** to continue with the installation process.



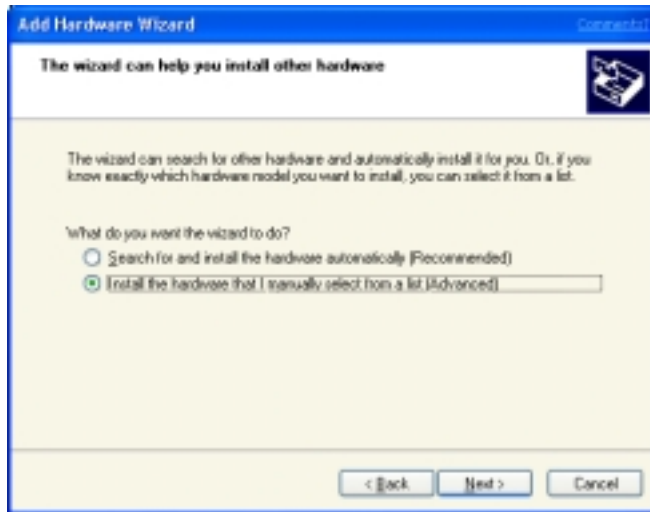
6. The Windows XP operating system will take a few seconds to search for new hardware. Keep in mind that it does not search for devices connected through an Ethernet connection, so that at this stage of the installation process it will not be able to locate your NPort Product.



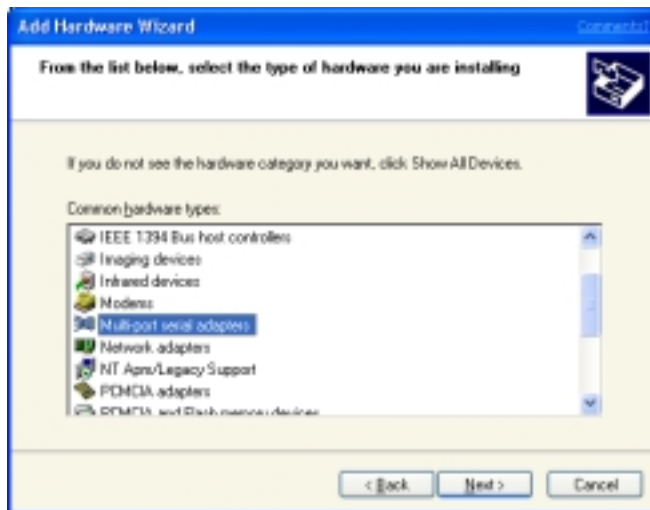
7. The next window to open reads: **The following hardware is already installed on your computer.** Click on the **Add a new hardware device** option to highlight it, and then click on **Next** to continue.



8. The next window to open reads: **The wizard can help you install other hardware.** Select the **Install the hardware that I manually select from a list (Advanced)** option, and then click on **Next** to continue.




9. The next window to open reads: **From the list below, select the type of hardware you are installing.** Click on the **Multipoint serial adapters** option to highlight it, and then click on **Next** to continue.

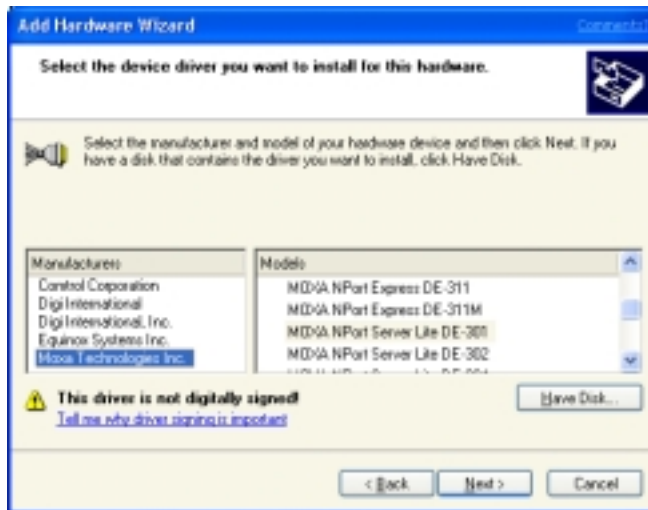


10. The next window to open reads: **Select the device driver you want to install for this hardware.**

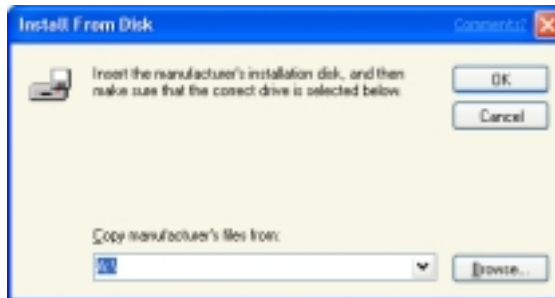
If **Moxa Technologies Inc.** appears in the left selection window under **Manufacturers**, click on the company name to highlight it, and then search for the model of your NPort Product from the right selection window under **Models**. If you locate the correct model, click on the model name to highlight it, and then click on **Next** to continue.

If the company name, **Moxa Technologies, Inc.**, is not listed, or you are unable to find the correct model name for the NPort Product you are installing, click on the **Have Disk...** button to continue.

 *NOTE: The rest of these instructions are written assuming you are using this second option.*

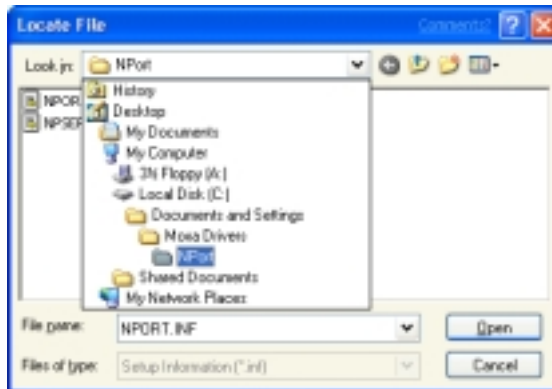


11. The next window to open gives you the ability to easily select the location of your NPort Product's driver files. The easiest way to proceed is to click on the **Browse...** button.

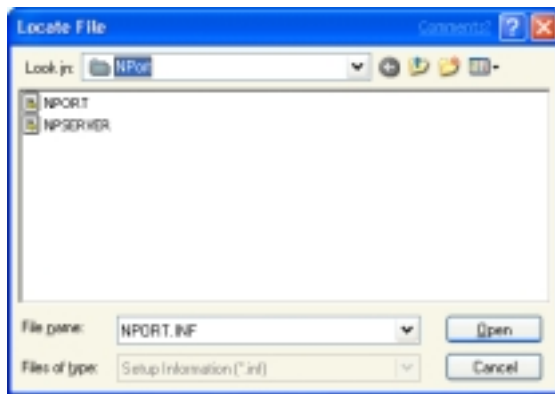


12. Use the folder selection tool located to the right of **Look in:** to find the folder in which your NPort Product driver files are located. For this explanation, we copied the files into a folder located on the computer's hard disk, although the more normal circumstance would be for the files to be located on either a floppy disk or CD.

Use the left mouse button to click on the appropriate folder.



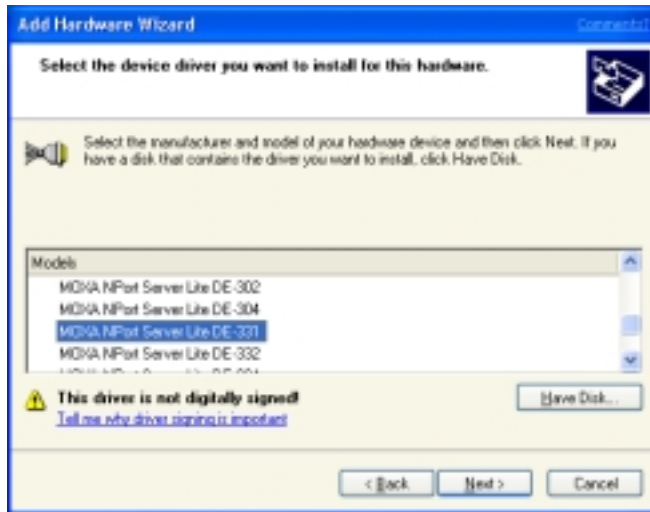
13. You should next see a window that shows two files: **NPORT** and **NPSERVER**. One file is for installing the NPort Product, and the other is for installing ports—as long as you've chosen the correct folder, it does not really matter which file appears in the **File name** input box. The system will choose the correct file to use as needed. Click on the **Open** box to continue.



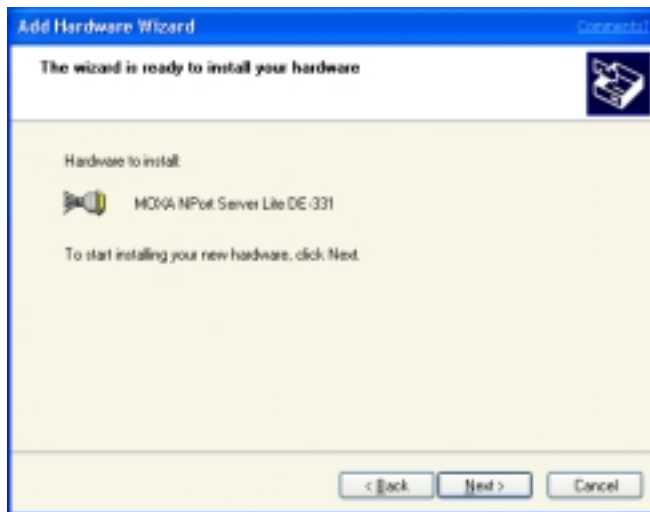
14. When the next window opens, check that the correct folder name and path is listed under **Copy manufacturer's files from:** and then click **OK**, located in the window's top right corner.



15. Click on the correct model to highlight it (for this example, we installed MOXA NPort Server Lite DE-331, a 1-port serial device server that supports RS-422/485 serial interfaces), and then click on **Next** to continue.



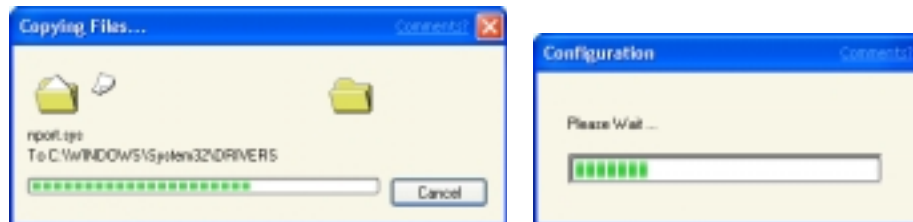
16. The next window to open reads: **The wizard is ready to install your hardware.** Click on **Next** to continue.



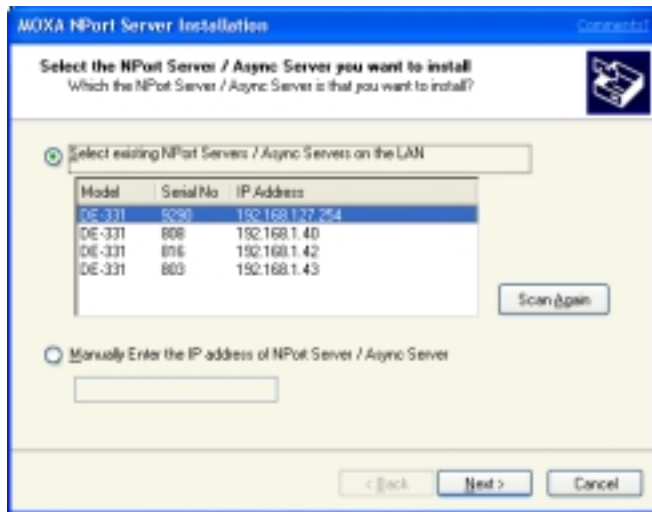
17. You may safely ignore any warnings from the operating system about compatibility with Whistler. Click on **Continue Anyway** to proceed.



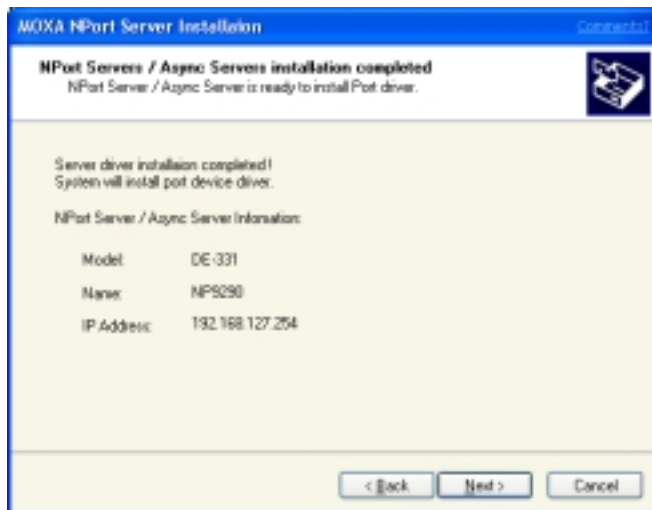
18. A series of windows indicating the progress of the installation procedure will open and then close.



19. The next window lists all units of the NPort Product you are installing that are currently connected to your network. Click on the name of the server you wish to install to highlight it, or manually enter the IP address of your server if it does not show up in the list. Click on **Next** to continue.



20. The next window to open reads: **NPort Servers / Async Servers installation completed**. Check to make sure that the information displayed is correct, and then click on **Next** to continue.



21. Click on **Finish** to complete the installation of your NPort Product. Keep in mind, however, that you may still need to install the port(s).



## Installing the NPort Product's Serial Ports

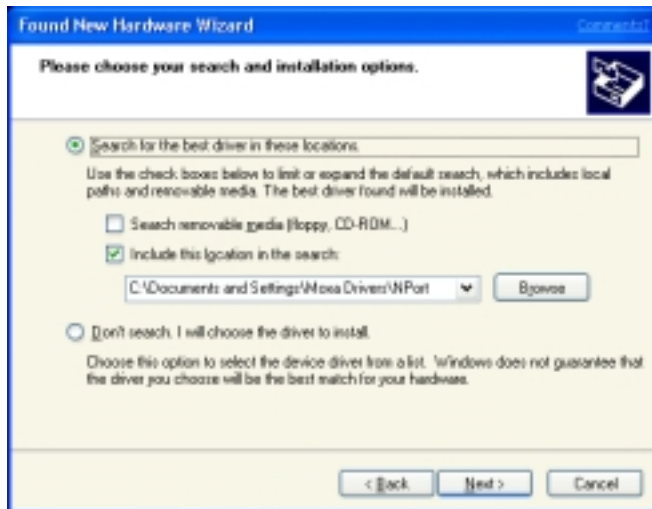
If you or someone else has previously installed on your system a unit of the NPort Product you have just installed, then the NPort Product's serial port(s) should install automatically. In this case, you may skip this section and continue to the section *NPort Product Properties*.

If this is the first time that anyone has installed on your system a unit of the NPort Product you have just installed, then the window shown below under step 1. should open automatically (note that you may need to wait several seconds for the window to open).

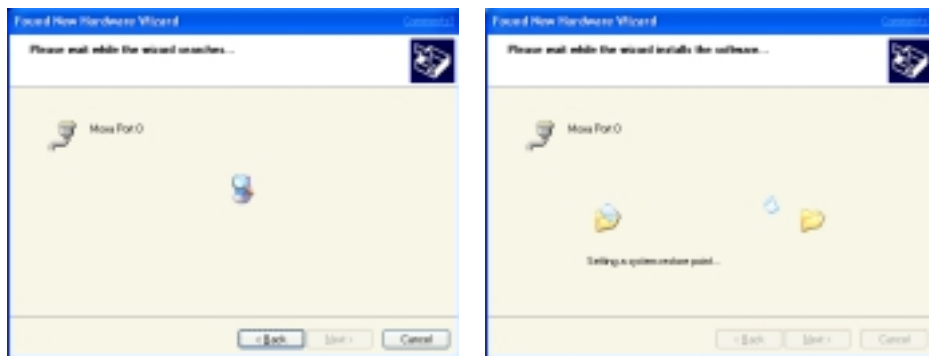
1. When the Found New Hardware Wizard starts up, choose the option Install from a list or specific location (Advanced), and then click on Next to continue.



- Perhaps the most convenient way to proceed is to use the **Browse** button to locate the correct folder. This will be the same folder shown in step 14 of the previous section. Click on **Next** to continue.



- Please wait while the wizard searches for the port and installs the appropriate software.



Note that when installing NPort Family products under the Windows XP Operating System, ports must be installed one by one.

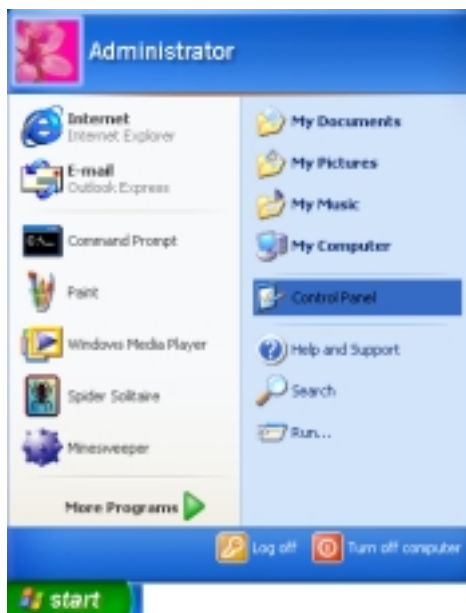
4. The next window to open verifies the information related to your NPort Product's port(s). Click on **Finish** to complete the installation procedure.



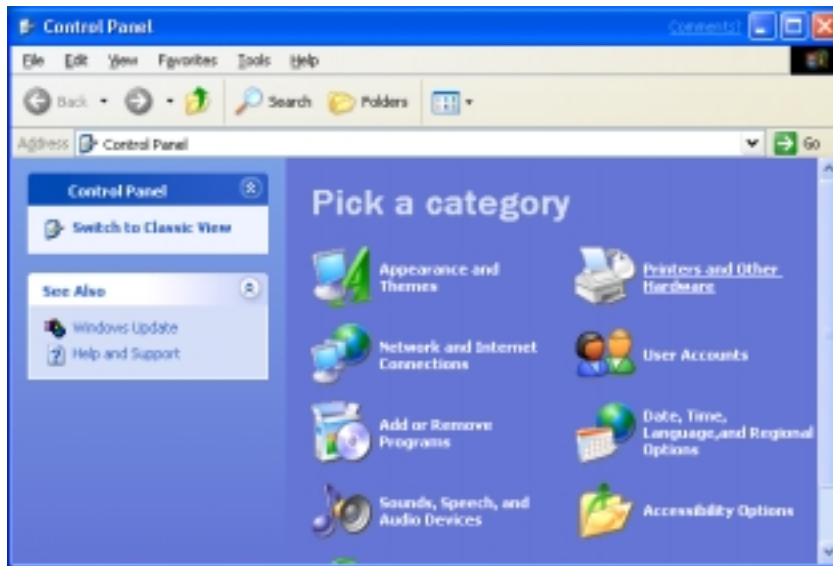
## NPort Product Properties

Your NPort Product's configuration parameters, such as IP address, COM port number, etc., are easily changed from within the Windows XP system's device manager.

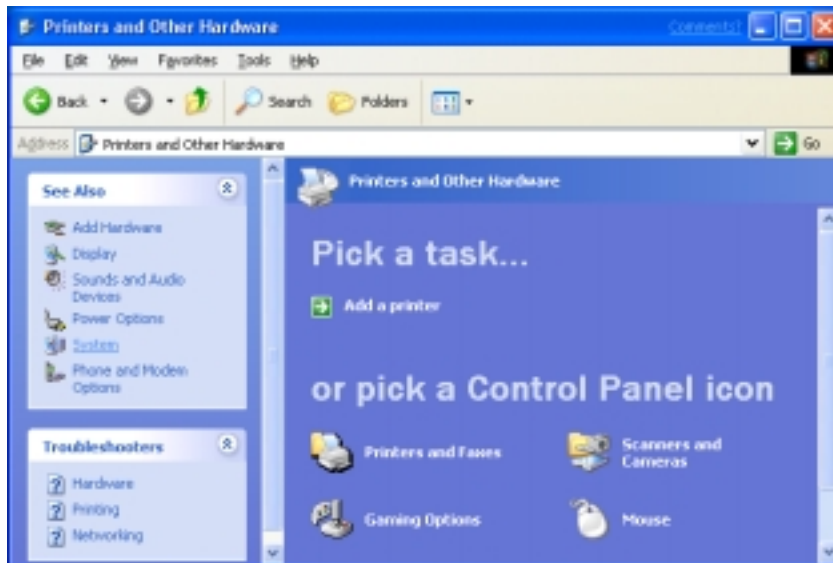
1. From the Windows XP desktop, click on **Start → Control Panel**.



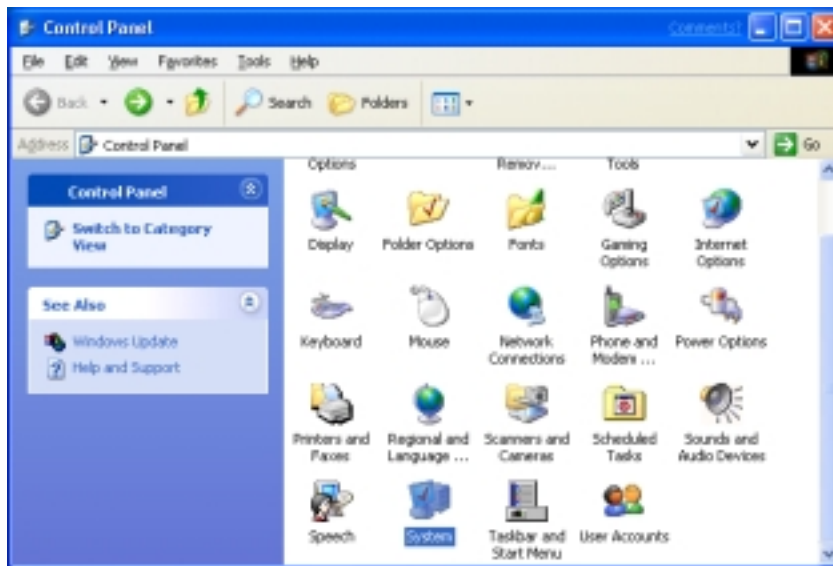
2. [To work from “Classic View”, skip to step 4.] If your operating system is set to the new XP “Category View” style, click on **Printers and Other Hardware**.



3. To evoke the device manager, click on **System**, located under the **See Also** options.



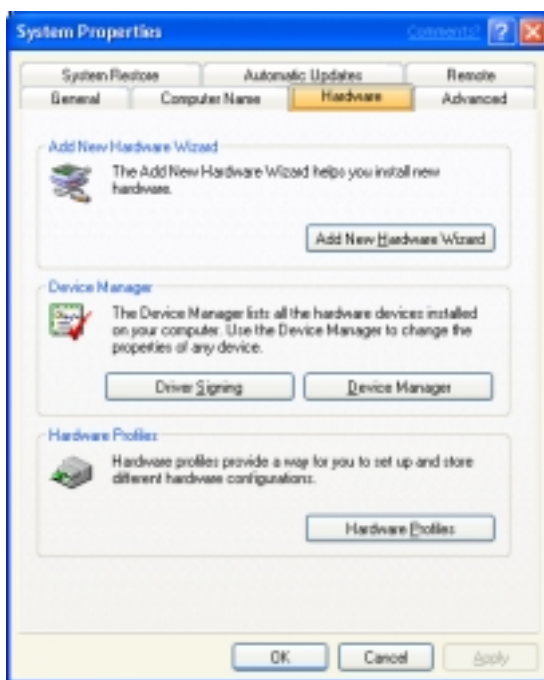
4. If your operating system is set to the older “Classic View” style, double click on the Control Panel’s **System** icon.



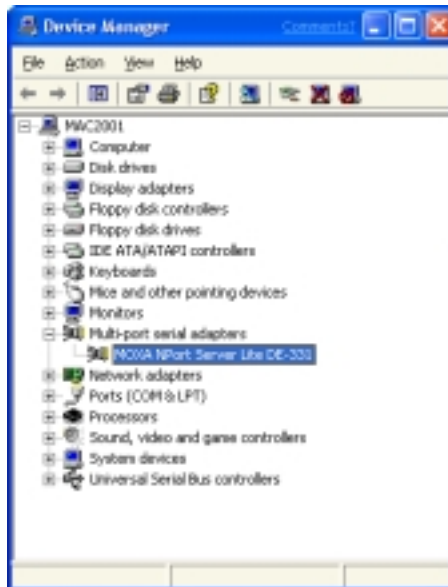
5. The Windows XP **System Properties** window opens next.



6. Select the **Hardware** tab, and then click on **Device Manager...**

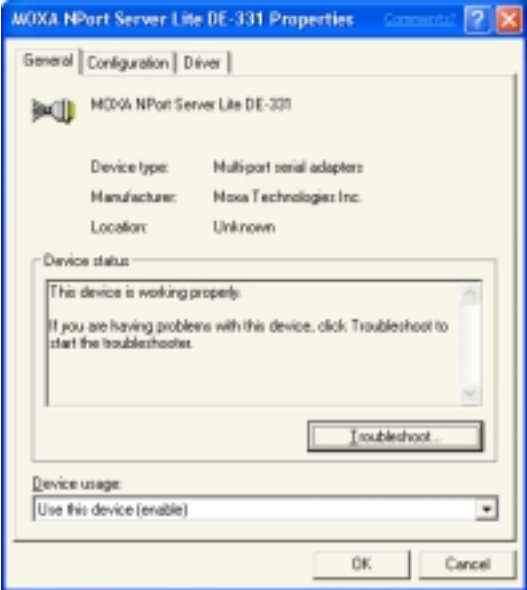


7. Click on the plus sign to the left of **Multi-port serial adapters** and then double click on **MOXA NPort Server Lite DE-331** (select the correct NPort Product if different from that used in this example) to open the **Properties** window.



# General

Information on the **General** page gives basic details about the NPort Product and its current status.



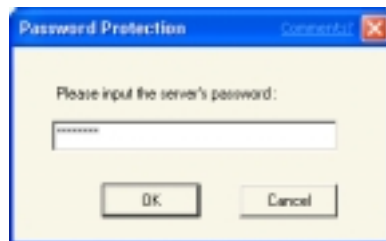
## Configuration

Select the **Properties** window's **Configuration** tab to change parameter settings for your NPort Product. Most of the system settings are accessed by clicking on **Settings** (see the *NPort Product* subsection below). The COM port number can be changed by clicking on **Ports Setting** (see the *Port Status* subsection below).



## NPort Product

Clicking on **Settings** in the above **Properties** window causes NPort Express's **Property Sheet** to open. If prompted, enter NPort Product's password, and then click **OK** to continue.



## Basic Configuration

The **Basic Configuration** page that opens allows you to make changes to the following items:

- Server Name** Choose an appropriate name for your NPort Product. The default name is simply “NP” followed by the product’s serial number.
- IP Address** Check with your network administrator if you have questions about setting your NPort Product’s IP address.
- Netmask** 255.255.0.0 is for Class B networks.  
255.255.255.0 is for Class C networks.
- Gateway** This is usually the IP address of the router connecting your LAN to the Internet.
- DHCP** Click on the DHCP box to allow NPort Product’s IP address to be chosen automatically by a DHCP server connected to your LAN.



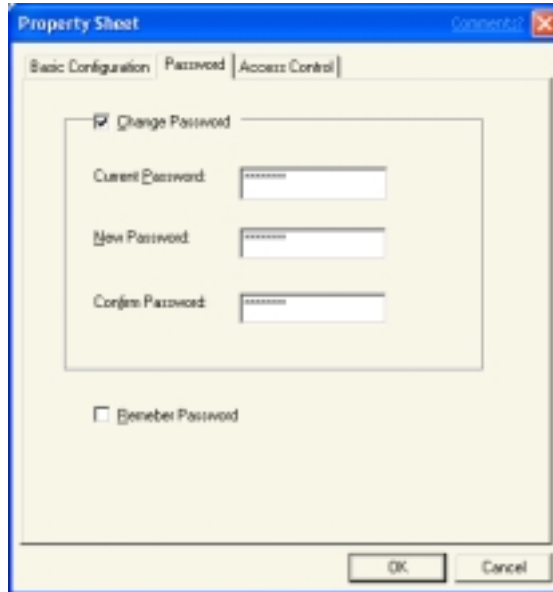
The screenshot shows a 'Property Sheet' window with the 'Basic Configuration' tab selected. The window contains the following information:

- Model Name: DE-331
- Serial Number: 9290
- Server Name: NPS290
- IP Address: 192 . 168 . 127 . 254
- Netmask: 255 . 255 . 0 . 0
- Gateway: 192 . 168 . 1 . 252
- DHCP

At the bottom of the window are 'OK' and 'Cancel' buttons.

## Password

The **Password** page allows you to change the password. Click the **Remember Password** box to have the password automatically stored by your operating system.

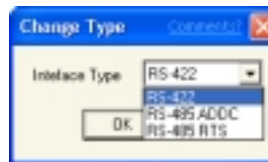
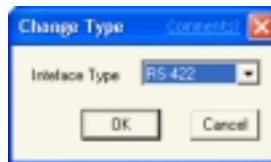
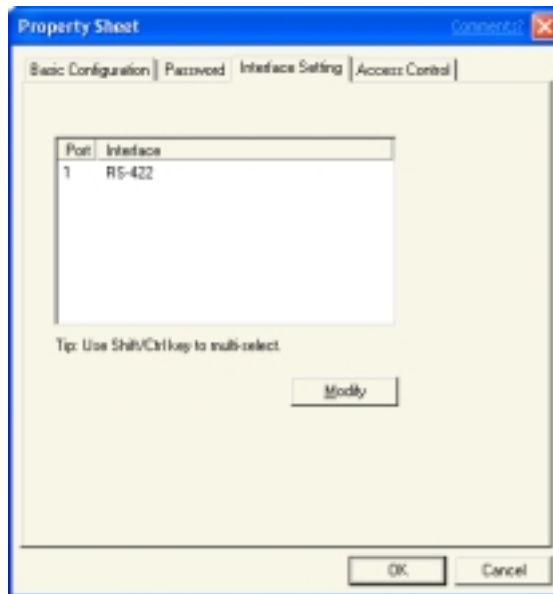


The image shows a screenshot of a "Property Sheet" dialog box with three tabs: "Basic Configuration", "Password", and "Access Control". The "Password" tab is selected. Inside the dialog, there is a checkbox labeled "Change Password" which is checked. Below this checkbox is a group box containing three text input fields: "Current Password", "New Password", and "Confirm Password". Each field contains a series of asterisks. Below the group box is another checkbox labeled "Remember Password" which is unchecked. At the bottom right of the dialog are "OK" and "Cancel" buttons.

## Interface Setting

The **Interface Setting** page shows the current Serial Port interface setting. (Note that for NPort Express, model DE-311, you must use the DIP switch settings on NPort Express's front panel to make changes to the product's serial interface setting). To see changes in the setting, click **OK** at the bottom of the **Property Sheet** window to close the window, and then follow the instructions given above to reopen the window.

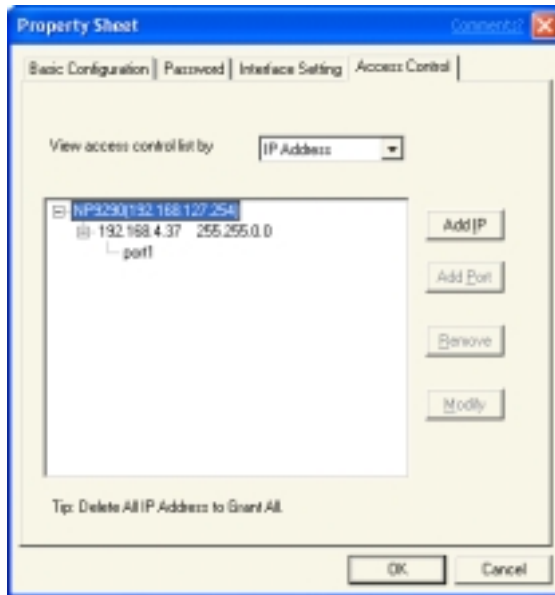
The following windows are for MOXA NPort Server Lite DE-331, which has two serial interface options.



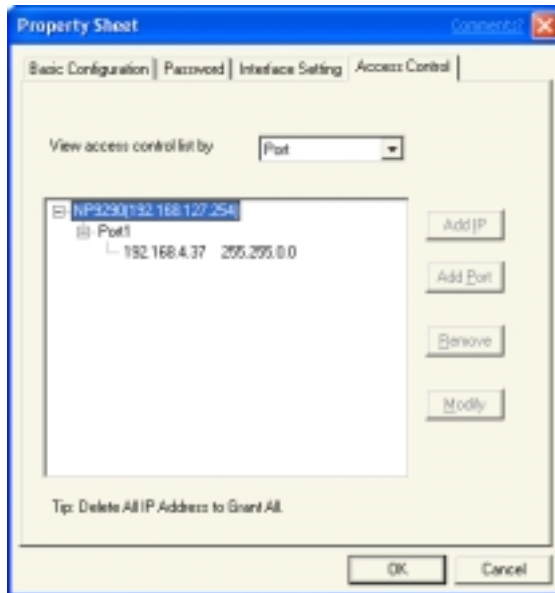
## Access Control

The **Access Control** page can be used to allow access to NPort Product's serial port(s). The process of adding and removing IP addresses is straightforward, although three comments are in order.

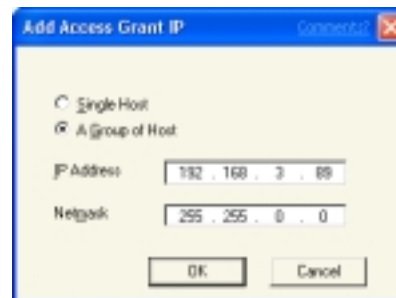
1. You may add access by **IP Address**, as shown here.



2. You may add access by Port, as shown here.



3. There are two options to choose from when adding access. Choose **Single Host** to only allow access to the computer with the given IP Address. Choose **A Group of Host** to allow access to a group of computers. In the example shown here, computers connected to the same LAN as NPort Express, and with IP addresses of the form 192.168.xxx.xxx, will all be given access. More specific types of (limited or wider) access can be granted by considering the bit-by-bit versions of both the IP Address and Netmask.

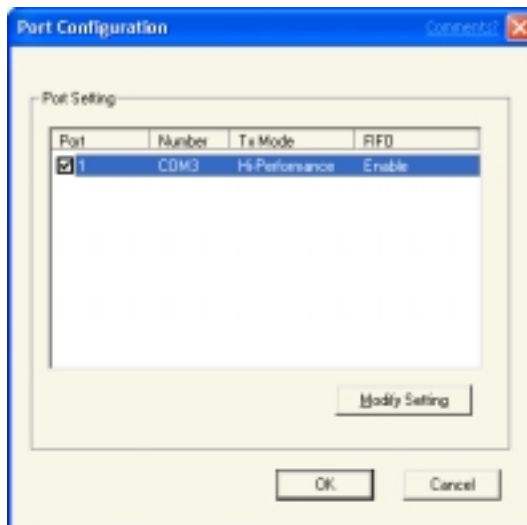


## Port Status

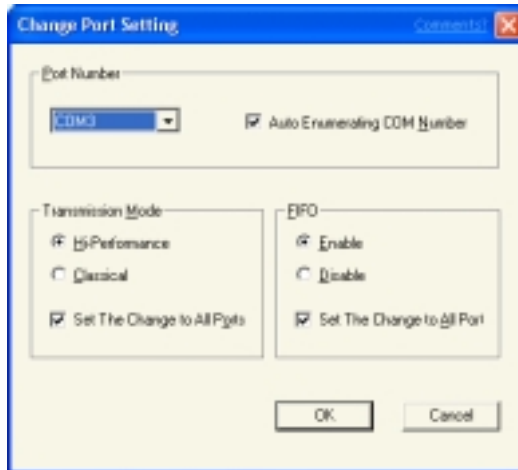
1. The COM number for NPort Product's serial port(s) can be changed by clicking on the **Ports Setting** button.



2. Click on **Modify Setting** to make changes.



3. Use the following window to change **Port Number**, **Transmission Mode**, and **TxFIFO**.



## Driver

The **Driver** page displays important information about the driver. Use the buttons at the bottom of the window for **Driver Details...**, to **Uninstall** the driver, or **Update Driver**.



## Troubleshooting

Q1 : why should I need to install NPort Family Product's ports one by one under Windows XP?

Ans : The Windows XP driver is a beta version which is still in the process of being authenticated, and even though it is necessary to install each port one by one, this has no effect on the operation of the product.

We are working hard to improve the installation procedure, which requires finding a way to work around the problem Microsoft Windows XP has when used with Vendor hardware and software.