NPort Server Monitor User's Manual

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MOXA®

NPort Server Monitor User's Manual

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About This Manual

This manual is composed of four chapters. This manual is written for installer, and system administrator.

If you are a first-time installer and system administrator, we recommend you to go through the whole manual.

Chapter 1 Introduction
    This chapter gives you the overview of **NPort Server Monitor** program

Chapter 2 Installation
    This chapter teaches you how to install **NPort Server Monitor** program.

Chapter 3 Configuration
    This chapter gives you the idea to make preparation and configuration before using the program.

Chapter 4 Monitor
    This chapter contains monitor function details and its procedures and other related functions.
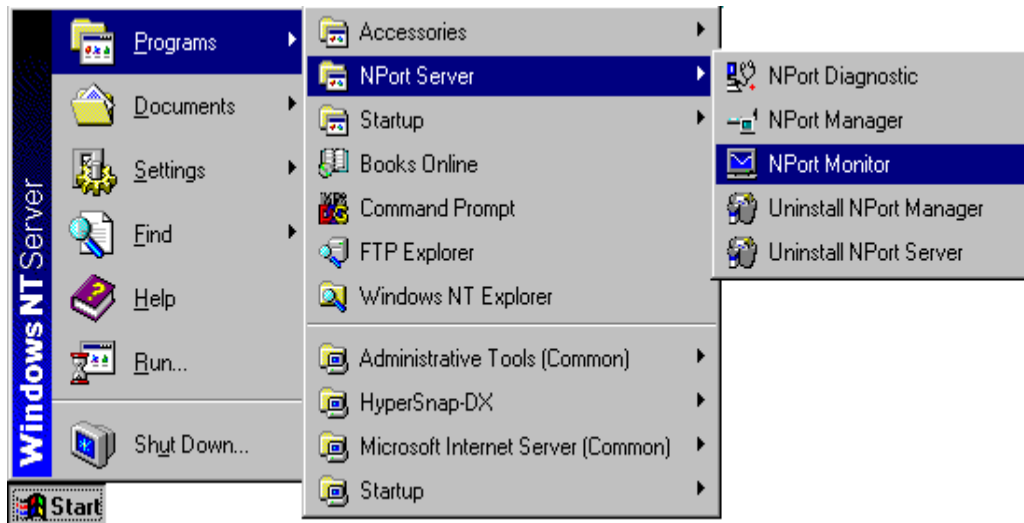
Table of Contents

1

Introduction

NPort Server Monitor is a utility providing port monitoring function for MOXA NPort Server. It allows you to get useful information about NPort Server like Login Name, Login IP Address, DTR, RTS, Tx/Rx Count and throughput, etc. it is a powerful tool to get the current information you need.

2

Installation

NPort Server Monitor is one of Nport Server utility, therefore it is available after installing NPort Server driver. Please refer to **NPort Server User's Manual** for driver installation. Be sure that the NPort Server power is turned on and the Ethernet cable connected firmly. In the following chapter, we will introduce to you how to configure and use **Nport Server Monitor** properly.

To start **NPort Server Monitor** program**:** Go to **Start→Programs→NPort Server→NPort Monitor**.

3

Configuration

When first running the NPort Monitor program after the installation, you should setup the configuration by selecting target servers/ports and monitoring items. After the configuration is done, you can save the configuration for the next time use or go back to **NPort Server Monitor** to check the monitoring information. In case you have trouble with using this program, **Help** menu will guide you to understand and use **NPort Server Monitor** better and provide you with a powerful on line help.
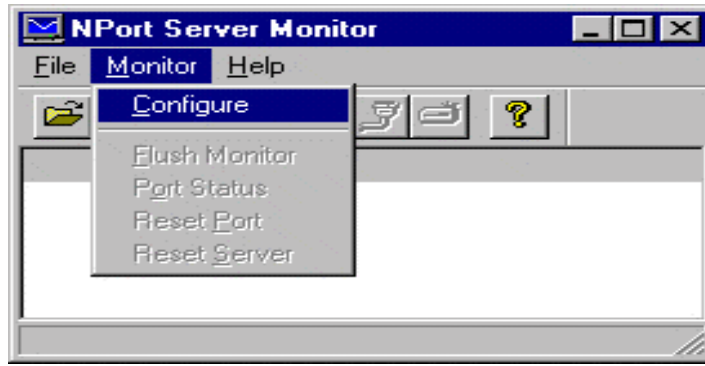
Setup Configuration

Before running monitor function, you must setup the configuration first by selecting server/port, monitoring items and sampling time.

Set Server/Port

ADD NPORT SERVER/PORT

To add servers or ports, you can follow the procedures as listed below.

1. Click **Start**→**Programs**→**NPort Server**→**NPort Monitor** to open "**NPort Server Monitor**" screen.
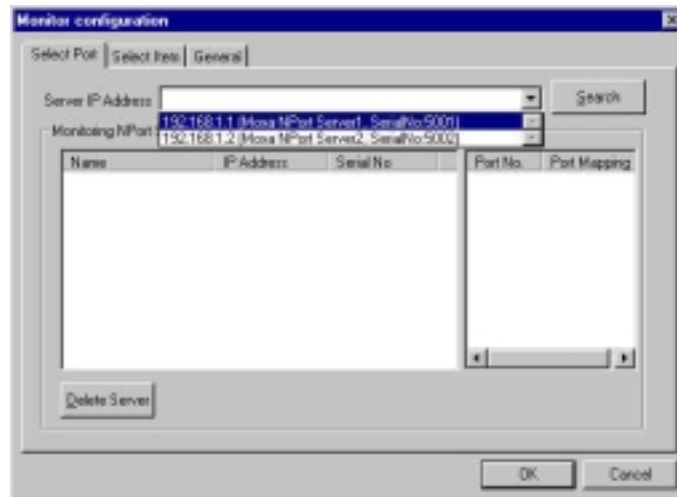
2.   Click **Monitor** in main menu bar of "**NPort Server Monitor**" screen and select
      Configure item or directly click the icon on the toolbar to open "**Monitor Configuration**" dialog box.

      There are three tabstrips which are **Select Port**, **Select Item** and **General** under the "**Monitor Configuration**" dialog box. When "**Monitor Configuration**" screen pop up, "**Select Port**" tabstrip will be selected by default. **Monitor** utility will find any NPort Server connected in Ethernet automatically when initiating it.

3.   Select the server(s) from the **Server IP Address** pull down list in "**Select Port**" tabstrip.

Servers being selected will be displayed in the left column below. It will also show other server information such as **NPort Server Name**, **IP Address** and **Serial No**.

    Warning: For one IP address can only represent ONE NPort Server, if one server with identical IP address from others is selected, the **Monitor** utility will pop up an error message as below. To solve this problem, click **OK** in error message box and change the IP address for the NPort Server in **NPort Manager**.

    Note: Please click **Search** button first before selecting one server from the pull down list if more NPort Servers are connected to the host after the **Monitor**

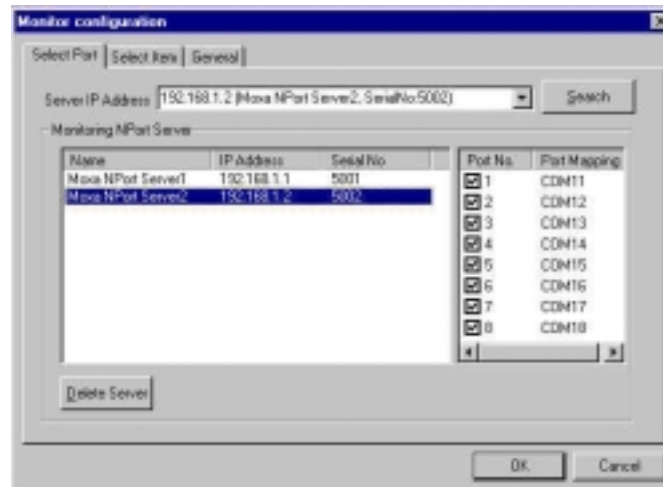utility is initiated. If not doing so, the new connected server will not be shown in the pull down list.

In the right column, ports for servers selected will be displayed.

4.   Click the check boxs of specified ports for servers for future monitoring use.

5.   Click "**Select Item"** tabstrip to setup monitoring items or **OK** to return to "**NPort Server Monitor"** screen.

DELETE A NPORT SERVER/PORT

This function is provided for deleting previously added Servers or ports. You can use this function when the server/port was disconnected or when there is no need to monitor the specified server/port.

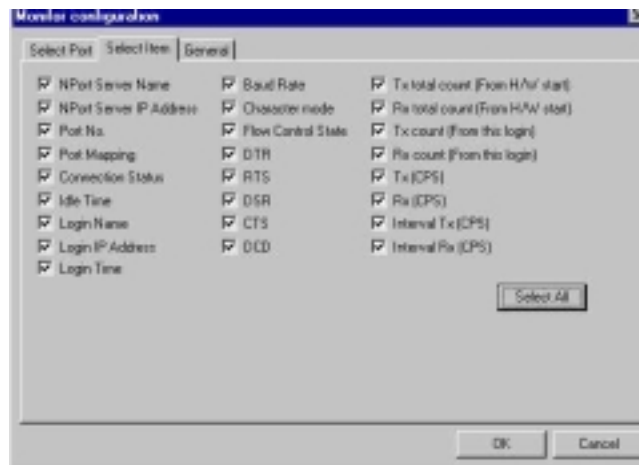1.   Click on the specified NPort Server unit going to be deleted in the left column.

2.   Click **Delete Server** to remove this NPort Server from the list.

⛁ **Note:**   If only specified ports need to be deleted, just click on the NPort Server unit which the ports belong and click off the specified port items.

3.	Click **Select Item** to setup monitoring items. Or click **OK** to return to "**NPort Server Monitor"** screen.

Set Monitor Items

This function is provided for selecting monitoring items according to your need. Items selected will be displayed in "**NPort Server Monitor**" screen. Some operations can be activated simultaneously. Following will list all the monitoring items and their meanings.

NPort Server Name	**NPort Server name specified previously in NPort Manager.**	
NPort Server IP Address	**NPort Server IP address specified previously in NPort Manager.**	
Port No	**The port number of NPort Server**	
Description	**The status of this port, there are three different types respecting it**	
	1.	**The port has the mapping com port number on Windows NT.**
	2.	**WAN--The port is used for WAN port.**
	3.	**… --The port is not be mapped to Windows NT**

Connection Status	**The status of mapped and unmapped port connection.**

COM port

1. **Close---The COM port is mapped to Windows NT but doesn't be opened**

2. **Open---The COM port is mapped to Windows NT and opened**

WAN port

1. **Connect   ---The WAN port is connected with the remote site**

2. **Disconnect---The WAN port is disconnected with the remote site**

Unmapped port

…   ---The port is not mapped to Windows NT

Idle Time	**The count time when there is no data transmitting throught this port.**
Login Name	**The name of Windows NT host logging in NPort Server**
Login IP Address	**The IP Address of Windows NT host logging in NPort Server**
Login Time	**The count time of Windows NT host logging in NPort Server**
Baud Rate	**Current serial speed**
Character Mode	**The status of Parity, Data bits and Stop bits.**
Flow Control State	**The status of flow control including hardware flow control(CTS/RTS) ,software flow control(Xon/Xoff) and no flow control(None)**
DTR	**DTR signal status (on/off)**
RTS	**RTS signal status (on/off)**
DSR	**DSR signal status (on/off)**
CTS	**CTS signal status (on/off)**
DCD	**DCD signal status (on/off)**

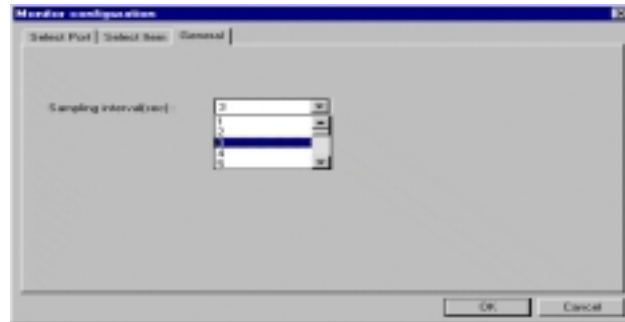|	
Tx Total Count	**Total transmitting bytes.**
Rx Total Count	**Total receiving bytes..**
Tx Count	**Transmitting bytes**
Rx Count	**Receiving bytes.**
Tx (CPS)	**Average throughput on TX by bytes/second**
Rx (CPS)	**Average throughput on TX by bytes/second**
Interval Tx (CPS)	**Average throughput on Tx by bytes/second in setting interval.**
Interval Rx (CPS)	**Average throughput on Tx by bytes/second in setting interval.**

1.　Click **Select Item** tabstrip in "**Monitor Configuration**" screen.

2.　Click the check boxes of monitoring items. Or you can click **Select All** button to select all monitoring items.

3.　Click "**General"** tabstrip to setup sampling time or **OK** to return to "**NPort Server Monitor"** screen.

General

This function is provided for users to setup sampling time. Sampling time is the time interval for updating the current data of NPort Server. The time interval range is from 1 to 20 seconds. Simply select a number from the pull-down list to setup the interval seconds.

1.　Click "**General**" tabstrip in "**Monitor Configuration**" screen.

2. Click the arrow to display the pull down list and select a number.

3. Click **OK** to return to "**NPort Server Monitor**" screen or switch to other tabstrips.

After returning to "**NPort Server Monitor**" screen, servers/ports selected will be listed in column. Some general information such as **NPort Server Name**, **NPort Server IP Address**, **Port No.**, and **Description** will be included. Other information such as DTR, DSR…..etc. will be also displayed here if they are selected in **Set Monitor Item** function.

Now the monitor configuration is done. You may either save it for the future use or return to **NPort Server Monitor** to check the monitoring information. Please refer to the next section for further description.

Save Configuration

This function is provided for saving new or updated configuration for the future use. After initiating **NPort Monitor** function, you may choose to load the saved configuration file or go to configure **NPort Monitor** again. Please refer to the next section for how to load configuration.

After the configuration is setup, you may save the configuration by following the procedures below.

1.   Click 🖫 or **File→SaveConfiguration** to save the configuration just setup.

⚞ **Note:**   The NPort Monitor will prompt you to save the changed configuration file when exit the program.

2.   Enter the path where to save the configuration file.

3.   Enter the file name of the configuration.

⚞ **Note:**   The configuration file will be saved in .MNT format.

4.   Click **OK** to save the configuration file.

Load Configuration 📂

This function is provided to load the configuration file you have setup and saved previously, so the configuration can be applied again very conveniently without much effort. You may load the configuration file you desired when initiating **NPort Monitor**.
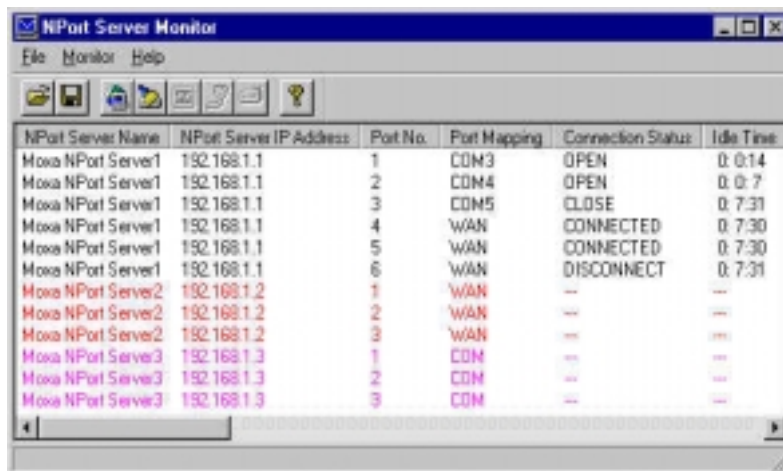
To load the previously saved configuration file, please follow the procedures listed below.

1.   Click 📂 or **File→Load Configuration** to load the previously saved configuration file.

2.   Enter the path and file name specified previously or click **Browse** to locate it yourself.

3.   Click **OK** to load the selected configuration file.

4

Monitor

After configuration is setup or the configuration file is loaded, **NPort Server Monitor** will automatically start monitoring servers and ports. Now you can see the monitoring information in **NPort Server Monitor** column below. If you got any trouble in using this program, you can refer to **Help** menu to find the answers.
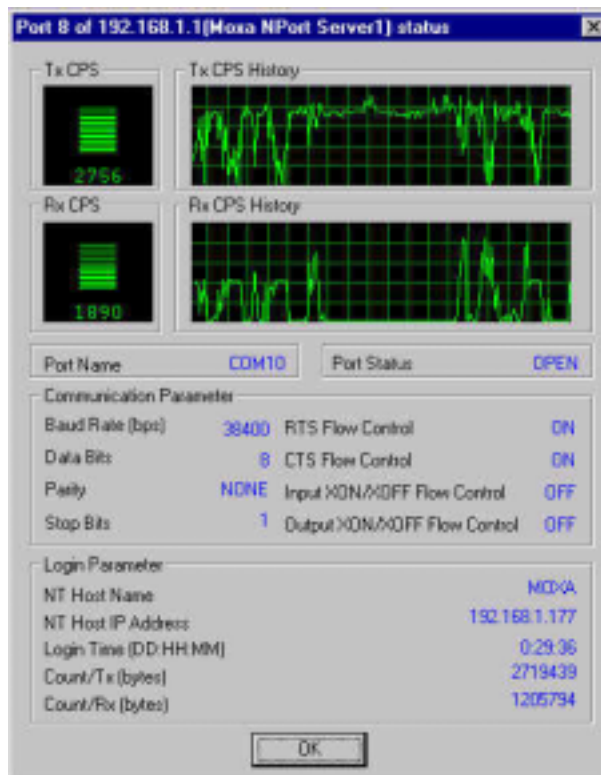

When monitoring, **NPort Server Monitor** will use different colors to represent different current status of server ports. If the NPort Server Port items are in **Black**, it means that these ports are currently activated in your LAN. If the NPort Server Port items are in **Red**, it represents that these ports are either currently power off, removed from existing LAN or error routing which means you are not able to access them now. If the NPort Server Port items are in **Pink**, it means more than one NPort Servers bear the same IP address. You may only change IP address in NPort Manager to correct this situation.

Display Port Status

This function allows you to check the current monitoring information with curve for individual port items. This function provides extra information such as TX/RX CPS history and related information if applicable.

1. Click on the port item you are going to check.

2. Click [icon] or click **Monitor→Port Status** to open **Port Status** dialog box. Or just double click the port item to open **Port Status** dialog box.

3. Click **OK** to close the "**Port Status**" dialog box and return to "**NPort Server Monitor**" screen.

Refresh

This function is provided for you so that you can update the port information manually.

    1.   Click on the port item you are going to refresh.

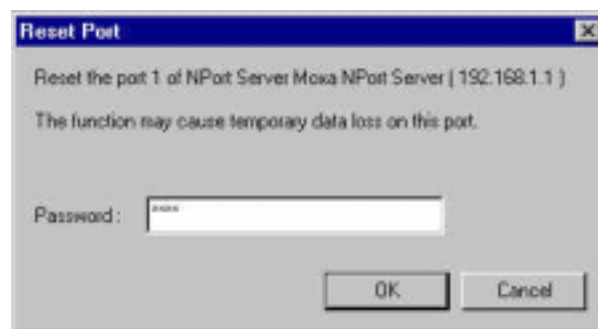   2.   Click or **Monitor→Refresh** to update port information manually.

Port Reset

This function is provided to reset the port whenever the NT server is not shut down properly or the network is disconnected. Normally, the NPort server will be automatically launched in five minutes soon after the NT server is re-connected. This function allows you to restart the port manually if necessary. While reset the port, port transmission process will be halted and the temporary data will be lost.

  Note: Please don't do Port Reset while transmitting IMPORTANT data.

    1.   Click on the port that you are going to reset.

    2.   Click or **Monitor→Reset Port** to reset the port.

  Note: **NPort Server Monitor** will pop up the "**Reset Port**" dialog box and request a password before port reset if you have previously setup the security password in the **NPort Manager**. If you didn't setup the security password, the following dialog box won't be displayed.

3.   Enter the password if you have setup the password in **NPort Manager**. You may skip Step 3 if no security password setup previously.

☞ **Note:**   The system will pop up an error message as below if incorrect password is inputted . Click **OK** and re-input the password.

4.   Click **OK** to do port reset.

The system will pop up a message box as below saying port reset is done successfully.
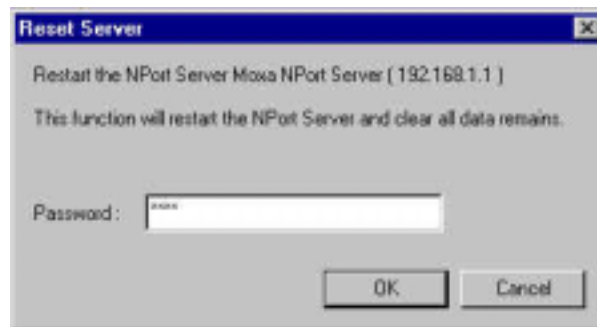

Server Reset

This function is provided to reset the server whenever the NT server is not shut down properly or the network is disconnected. Normally, the NPort server will be automatically launched in five minutes soon after the NT server is re-connected. This function allows you to restart the server manually if necessary. While reset the server, server transmission process will be halted and all data remains will be cleared.

☞ **Note:**   Please don't do Server Reset while transmitting IMPORTANT information.

1.   Click on the server that you are going to reset.

2.   Click ⬜ or **Monitor→Reset Server** to reset the port.

☞ **Note:**   **NPort Server Monitor** will pop up the "**Reset Server**" dialog box and request a password before port rest if you have previously setup the security password in the **NPort Manager**. If you didn't setup the security password, the following dialog box won't be displayed.

3.   Enter the password if you have setup the password in **NPort Manager**. You may skip Step 3 if no security password setup previously.

☞ **Note:**   The system will pop up an error message as below if incorrect password is inputted. Click **OK** and input the password again.

4.   Click **OK** to do server reset.

The system will pop up a message box as below saying the server reset is done successfully.

Exit

You may terminate this program by following the procedures below.

1. Click **File→Exit** to close.

☞ **Notes:** Before shutdown **NPort Server Monitor**, the system will prompt you to save any changes on configuration. Click **No** to exit **NPort Server Monitor** directly or click **Yes** to save changes then exit **NPort Server Monitor**.