MOXA IP Serial Library

Communication line of "MOXA IP Serial Library" category

The "MOXA IP Serial Library" communication line supports the communication with the converters of serial interfaces (device servers), NPort series.
Unlike the "*SerialOverUDP Device Redundant*" and "*SerialOverUDP Line Redundant*" lines, the transmission parameters may be set remotely, i.e. from the configuration of a line in D2000 System.
The line of this category can be used only on the Windows platform.

The IPSerial library must be installed on the computer, where the KOM process with the "MOXA IP Serial Library" line will be running. It is a part of "**NPort Administration Suite**" pack, which can be downloaded from the site www.moxa.com.

Parameters

Configuration parameters of "MOXA IP Serial Library" line.

Server IP

IP address (recommended) or DNS name of Moxa NPort Device Server.

Port Index

Port index of NPort Device Server. The index of the first port is 1.

Line modes

Transmission parameters can be set for four modes, as when setting the "Serial" and "Serial Line Redundant" lines.

Configuration of NPort Device Server

The configuration of Moxa NPort Device Server can be done using the "**NPort Administration Suite**" software or through the common internet browser, if the configuration of NPort Device Server via the web is enabled.

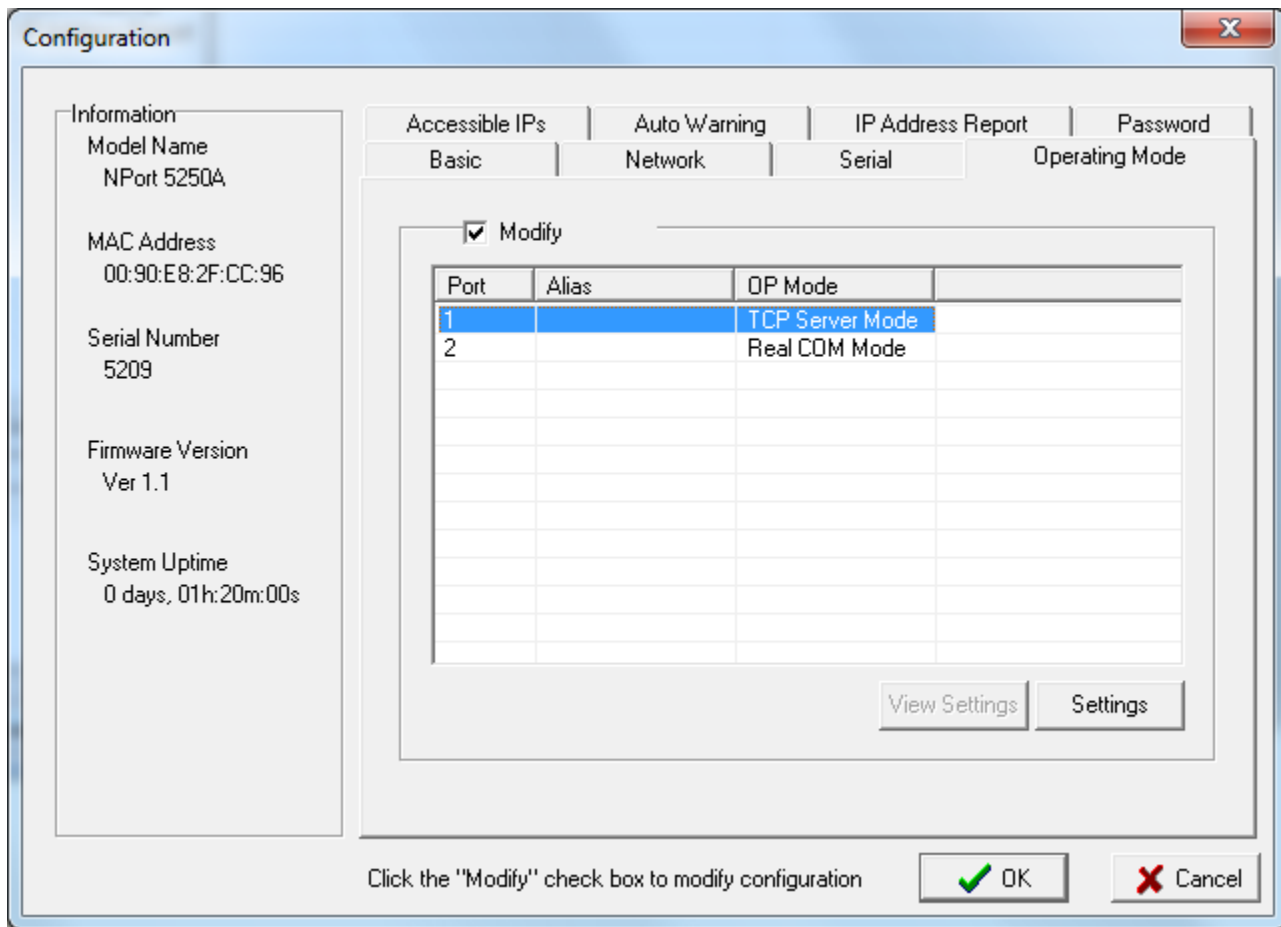## Configuration by "NPort Administration Suite".

After searching a device, in the list double-click on the particular NPort Device Server to start its configuration (Fig. 2).

Fig. 2 Selecting of NPort devices
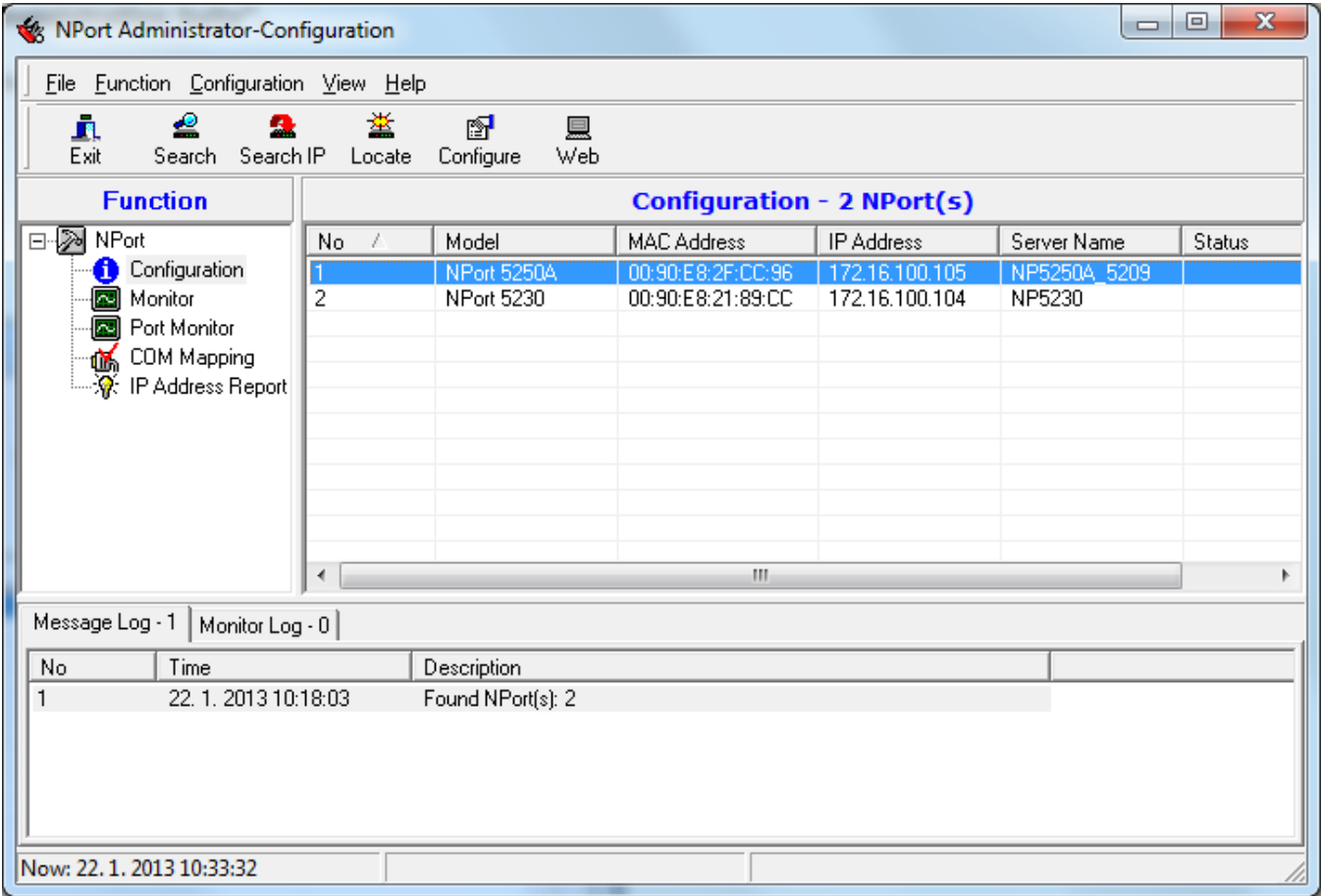
The ports are configured in the **Operating Mode** tab (Fig. 3).

Fig. 3 Configuration of device ports

To modify the parameters, check "Modify". Double-clicking on the port opens the **Operating mode** dialog window. It is intended for the configuration of the operating mode of a particular port (Fig. 4).

Fig. 4 Default configuration of Port 1 using the "NPort Administration Suite".

Operating Mode must be set to "TCP Server Mode". Pay attention to the setting of TCP ports - "Local TCP Port" and "Command Port" mainly if D2000 and NPort Device Server are connected via router/firewall. See the next paragraph "**TCP and UDP ports**".

TCP and UDP ports

The communication between IPSerial library and NPort device uses several TCP and UDP ports. TCP channel "Local TCP Port" is used for data transmission, where the device receives data to send them to the serial port and vice-versa where it sends the received serial data of connected client IPSerial (so-called data channel). Another TCP channel is the "Command Port" control channel.

The values of "Local TCP Port" and "Command Port" have the default values (see the tables below), but they can be changed. UDP channel is the third communication channel between IPSerial library and NPort device, through which IPSerial gets the accurate values of "Local TCP Port" and "Command Port". For NPort 5000 Series it is 4800/UDP and for NPort DE-311/211/30x/33x it is 1029/UDP. This port cannot be changed. It is an input point to the device. Data must always be routed to this port and non-blocked by a firewall.

Preferred well-known ports

Source: FAQ on the site www.moxa.com.

[For NPort 5000 Series; NPort W2x50, NE-4100 and MiiNePort Series] – Device Servers

Protocol	Port No.	Purpose
TCP	23	Telnet
TCP	80	Web Console
TCP	950(~965)	Data Port (actually used 4001~4015)
TCP	966(~981)	Command Port

UDP	4800	Broadcast, Monitor, Get current settings, RealCOM Port mapping
TCP	4900	Write Firmware

[For DE-311/211/30x/33x] – Device Servers

Protocol	Port No.	Purpose
TCP	23	Telnet
TCP	4000	Write Firmware
TCP	950(~965)	Data Port
TCP	966(~981)	Command Port
UDP	1029	Broadcast, Monitor, Get current settings, RealCOM Port mapping

ⓘ **Related pages:**

Communication lines