

# **CONFIGURATION TOOL**

## **VNX SETUP TOOL**

### **FOR VNX ADVANCED MODULES**

#### **INTRODUCTION**

A new generation of VNX ADVANCED modules family offers a lot of new capabilities than previously offered units.

One of the important tasks of VNX control modules is a continuous measurement of the torque of a rotating actuator drive. Whenever the torque exceeds a limit value, the drive has to be stopped.

One of the fundamental difference distinguishing VNX ADVANCED modules family from its predecessors is the ability of adjusting the individual torque limit values for “up” and “down” motions separately, beyond which, the drive is automatically turned off.

Entering of the settings is carried out in a simple way, by using the terminal capability of a VNX ADVANCED module. Input value of a torque may be set in a wide range of 0 ...3500 and is stored into the settings memory. That ensures rapid programming of a repetitive settings for multiple modules while maintaining a high precision of operation.

A VNX SETUP TOOL provides an interface for connecting the VNX ADVANCED module with a PC computer.

#### **REQUIREMENTS**

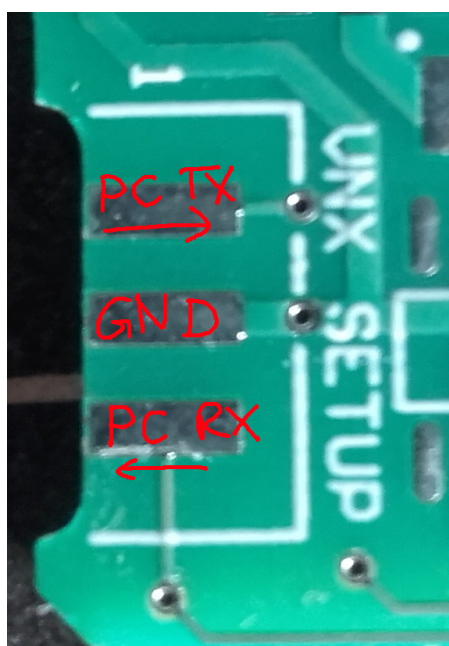
VNX SETUP TOOL interface does not require any special hardware. The interface is a wide common FTDI FT232 USB to UART 5V converter. The PC should:

- be equipped with an USB interface
- system drives shall support the FTDI FT232 converter (the drivers are system powinien obsługiwać sterownik konwertera FTDI FT232 (this driver is built-in by default in a vast majority of operating systems – Windows, Linux, etc.)

#### **INTERFACE CONFIGURATION**

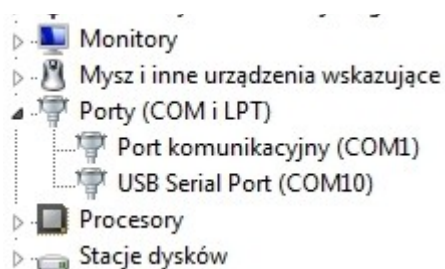
The connection is established with a serial transmission of 9600 8N1 (9600 bits per second, eight bits of data, one stop bit) and can be set up with any terminal supporting software (i.e. Putty for Windows or Minicom for Linux, USB Serial Console for Android).

The pinouts for the signals are shown below:

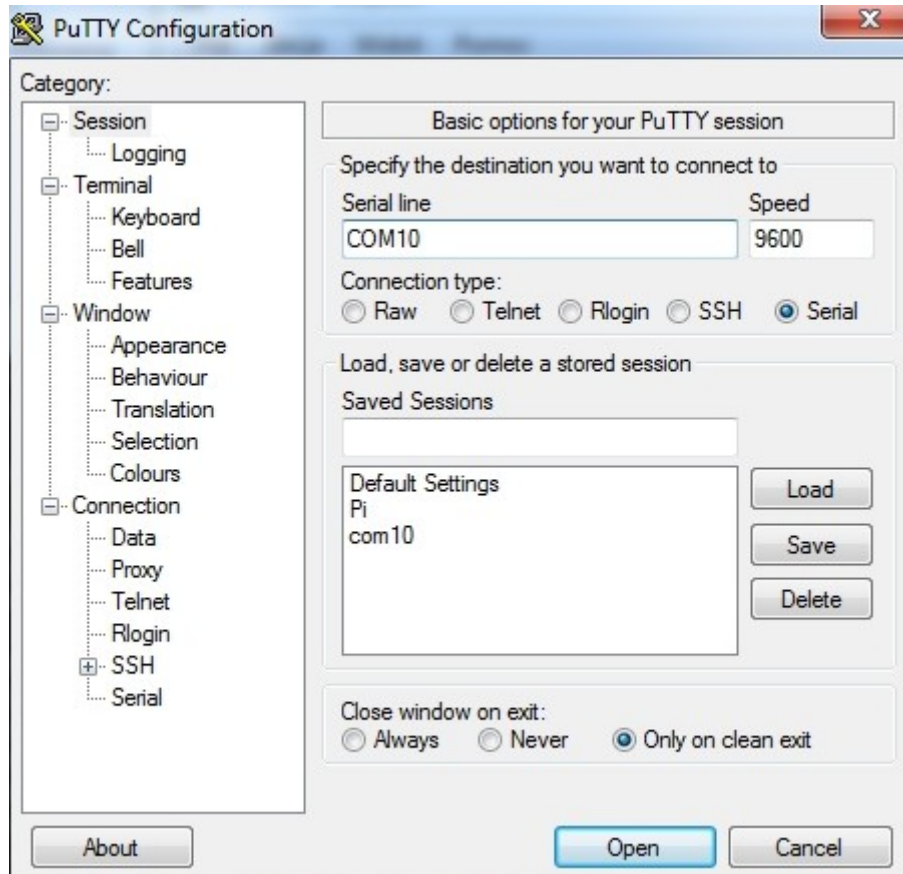


A following documents covers a step-by-step configuration for Windows system.

1. Connect VNX SETUP TOOL to the computer using an USB-MINI cable. Then, open the Device Manager (right click on "My Computer"->Properties->Device Manager) and make sure, the converter has been detected. Note the enumerated port name, that will be used to create a connection (I.e.. COM10 on the below picture).



2. Run the application for a terminal connection. You may either use Putty, that is most popular, well known and freeware application. It could be downloaded from [www.putty.org](http://www.putty.org). At the application's window:



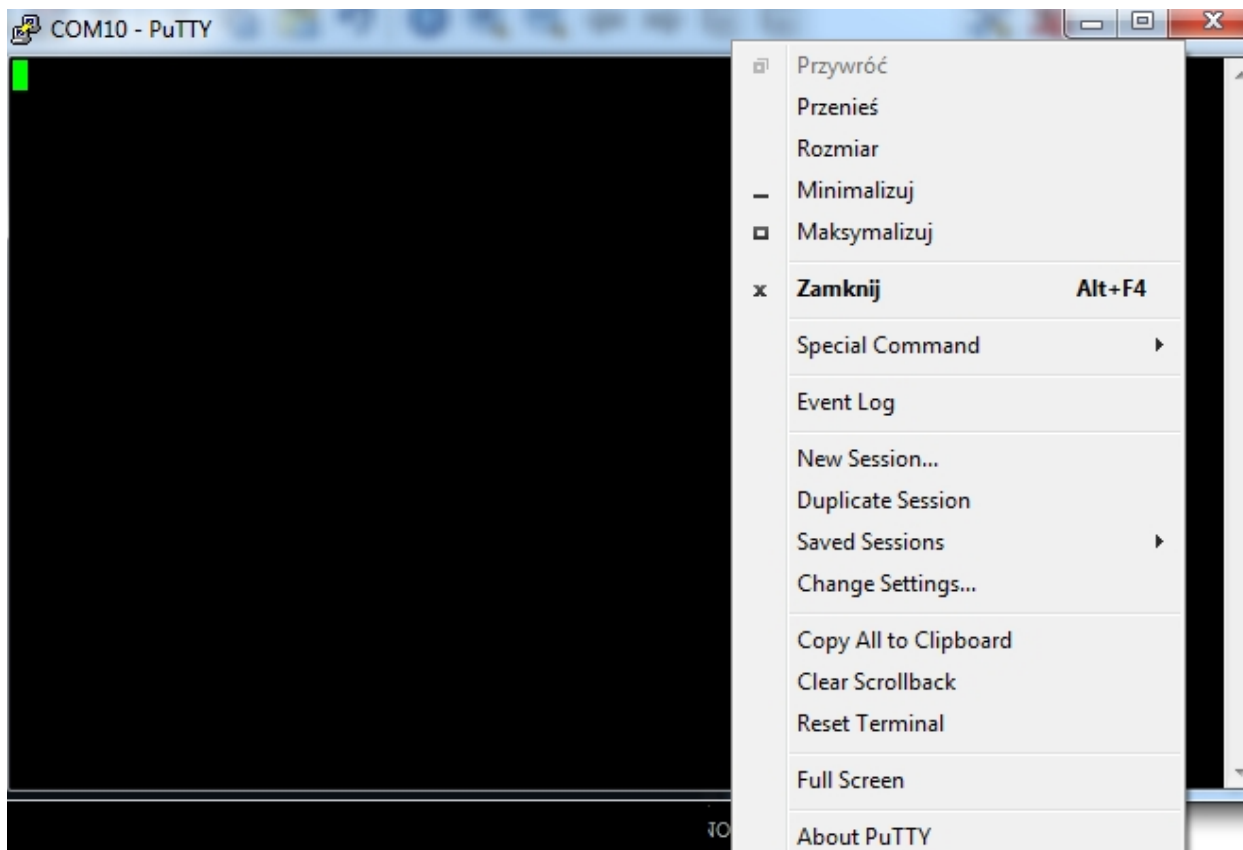
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- choose the connection type as „SERIAL”
- enter the enumeration of Your serial port (i.e. COM10) as “Serial line”
- set the transmission speed as 9600 into the field of “Speed”

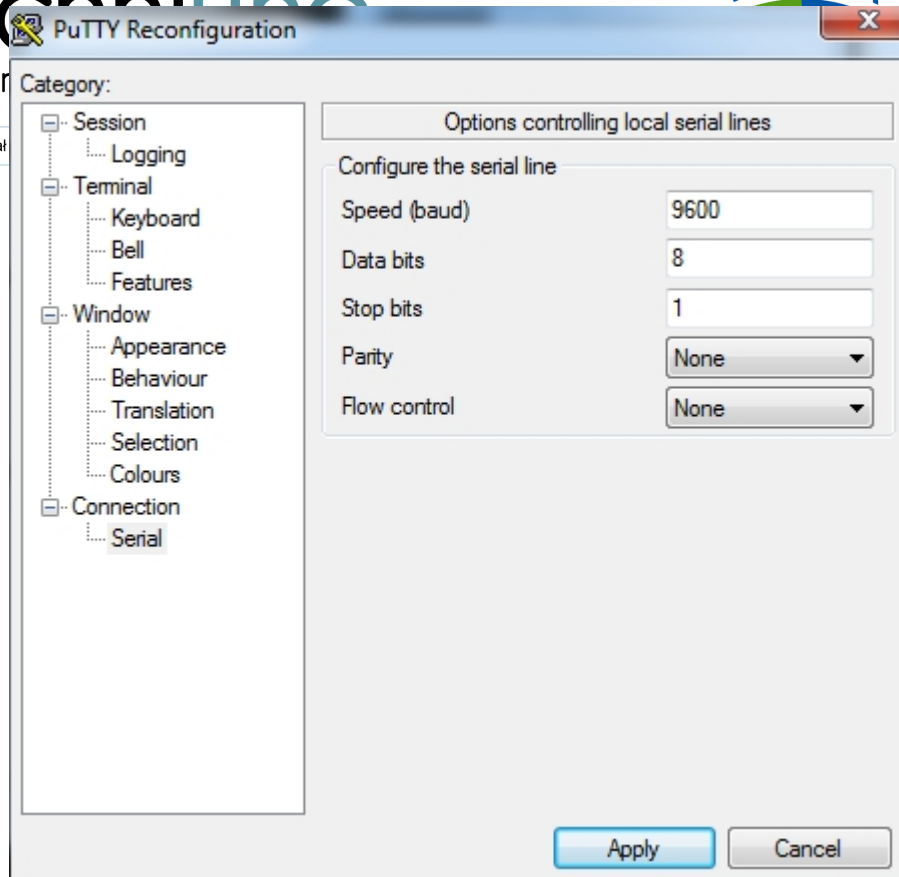
And click „Open”

2. Once the window appears, right click on the top bar of a window:

- select „Change Settings...”.



3. Go to the Connection->Serial and check if „Flow Control” is selected to „None”. Change if required and click “Apply”:



4. Connect VNX SETUP TOOL to the VNX ADVANCED module
5. On pressing the „ENTER” in a terminal window the VNX ADVANCED module menu appears.

#### VNX ADVANCED TERMINAL CAPABILITIES (version 1.0)

The main menu window, as shown below displays:

```
VNX-ADV Driver (c) techniline.com 2016 EXTERNAL BLIND (firmware version 1.0)
Possible torque settings:      MIN:    0      MAX:   3500
Current settings:             DOWN:  1500   UP:    1500
[1] Change torque down
[2] Change torque up
[3] Default values for EXTERNAL BLIND
>
```

- a range of possible, acceptable torque input settings for the unit (0...3500)
- actual settings for up and down motion respectively

From the terminal menu You may select one of the following options by pressing a keys:

[1] for entering a torque limit value for the “down” motion

[2] for entering a torque limit value for the “up” motion

[3] restoring the default settings of both torques.

## ENTERING AN INDIVIDUAL SETTING

The torque may be entered into a wide variety in between of 0 and 3500. The higher value entered, the higher the limit torque would be into a respective motion

If we would like to re-adjust a limit torque setting for the “down” motion we shall press the “1” key. Once it is pressed, a prompt line is waiting for a new value:

```
VNX-ADV Driver (c) techniline.com 2016 EXTERNAL BLIND (firmware version 1.0)
Possible torque settings:      MIN:    0      MAX:   3500
Current settings:             DOWN:  1500   UP:   1500
[1] Change torque down
[2] Change torque up
[3] Default values for EXTERNAL BLIND
>1
Enter new TORQUE DOWN value between 0 and 3500>
```

An input value has to be entered – i.e. 1800:

```
VNX-ADV Driver (c) techniline.com 2016 EXTERNAL BLIND (firmware version 1.0)
Possible torque settings:      MIN:    0      MAX:   3500
Current settings:             DOWN:  1500   UP:   1500
[1] Change torque down
[2] Change torque up
[3] Default values for EXTERNAL BLIND
>1
Enter new TORQUE DOWN value between 0 and 3500>1800
```

The new setting is then confirmed with an “ENTER” key. Further, the values is being stored into a configuration memory of VNX ADVANCED module. The terminal gets back to the main menu, where a newly entered value appears:

```
VNX-ADV Driver (c) techniline.com 2016 EXTERNAL BLIND (firmware version 1.0)
Possible torque settings:      MIN:    0      MAX:   3500
Current settings:             DOWN:  1800    UP:   1500
[1] Change torque down
[2] Change torque up
[3] Default values for EXTERNAL BLIND
>
```

A limit value for the “up” motion torque is to be adjusted in a same manner, by selecting a 2<sup>nd</sup> option from the menu, by pressing “2” key.

## RESTORING THE DEFAULT TORQUE VALUES

Whenever we would like to restore the default values of a torque settings for the init, we select 3<sup>rd</sup> option from a menu by pressing “3” key, Right on pressing, the previously set values (in the below exexample of 567 and 1800) are restored to the default ones (1650).

```
VNX-ADV Driver (c) techniline.com 2016 EXTERNAL BLIND (firmware version 1.0)
Possible torque settings:      MIN:    0      MAX:   3500
Current settings:             DOWN:   567    UP:   1800
[1] Change torque down
[2] Change torque up
[3] Default values for EXTERNAL BLIND
>3
Default torque settings for EXTERNAL BLIND have been applied
VNX-ADV Driver (c) techniline.com 2016 EXTERNAL BLIND (firmware version 1.0)
Possible torque settings:      MIN:    0      MAX:   3500
Current settings:             DOWN:  1500    UP:   1500
[1] Change torque down
[2] Change torque up
[3] Default values for EXTERNAL BLIND
```

## NOTES

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