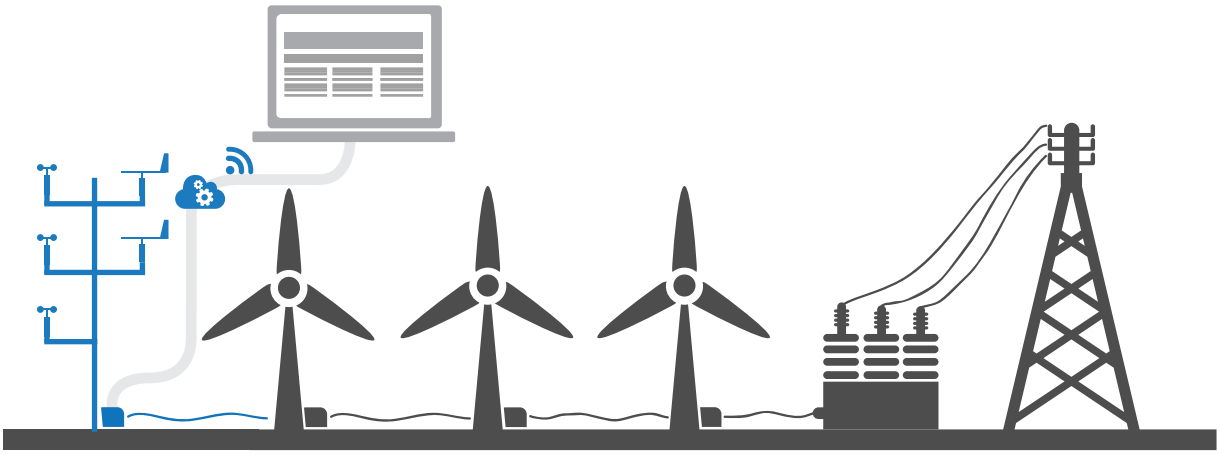
WINDFARM MONITORING TEST

Modbus communication checkup

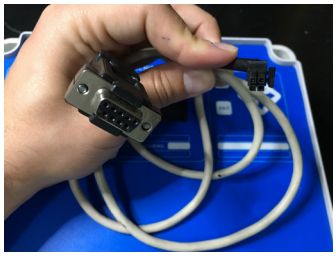


This document shows how to procedure when testing Windfarm Monitoring Module of the **EOL Zenith data logger**. There are two test to do: one directly to the data logger and other throw the Moxa MGate MB3180.

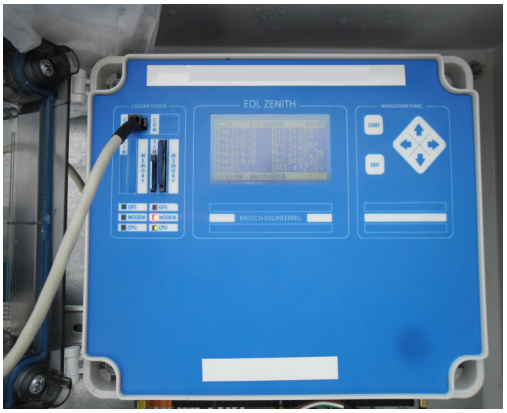
Previous steps:

- Have a PC with two softwares: ModScan and EOL Manager with the .sit file (configuration file) of the data logger to test.

- Have a three cables: Molex connector - RS232 female (from data logger to Moxa MGate), RS232 male - USB (from RS232 female to PC) and cross-wire Ethernet (from Moxa MGate to PC).



- Verify the data logger has the Windfarm Monitoring Module installed.



- On the data logger display, the word MODBUS should be shown in the lower right corner.

- On the data logger COM-Ports, the left COM-port must be available.

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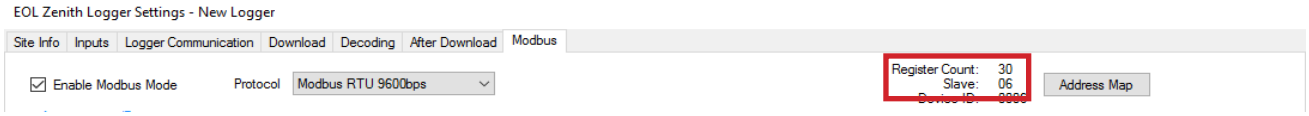
Cable connection:

- Connect the Molex connector into the left COM-Port of the data logger.
- Connect the RS232 female connector to the RS232 male connector.
- Connect the USB connector into the PC.
- Power on the data logger.

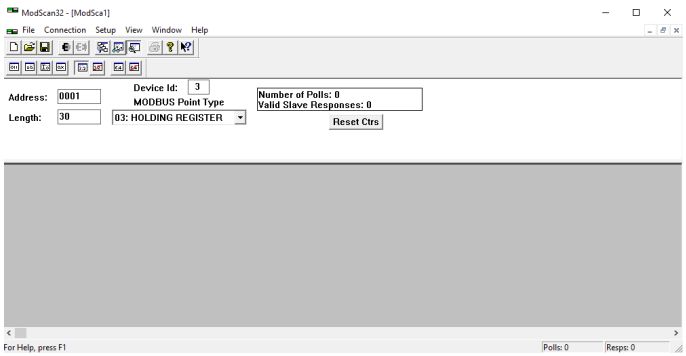
Parameters:

- Go to the .sit file of the data logger in EOL Manager and click on Modbus tab. The parameters to use in ModScan software will be **Register Count and Slave**.



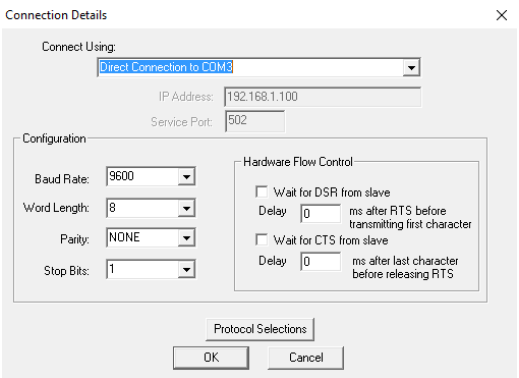
- Setup the correct display's output format click on: **Setup > Display Options > Floating pt.**
- Fill the options in ModScan software as the following table:

ModScan software	EOL Manager - Modbus tab
Device Id	Slave
Length	Regster Count
Address: 0001	-
Modbus Point Type: 03: HOLDING REGISTER	



Communication:

- Click on Connection and configure the COM-Port used by the USB in the PC.
- Configure Baud Rate: 9600.
- Click on OK.



If everything is alright the Number of Polls must be the same as the number of Valid Slave Responses.

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Cable connection:

- Connect the Molex connector into the left COM-Port of the data logger.
- Connect the RS232 female connector to the Moxa MGate.
- Connect the cross-wire Ethernet cable from the Moxa MGate to the PC.
- Power on the data logger.

PC configuration:

- Open "Control Panel" and disable all the network adapters (for example, Wifi) but the one you are going to use.
- Open "Control Panel" > "Network and Internet" > "Network and Sharing Center" > "Ethernet".
- In "Ethernet Status" tab click on "Settings".
- In "Ethernet Settings" tab click on "Internet Protocol version 4 (TCP/IPv4)".
- In "Internet Protocol version 4 (TCP/IP)" fill the parameters according to the Moxa MGate:

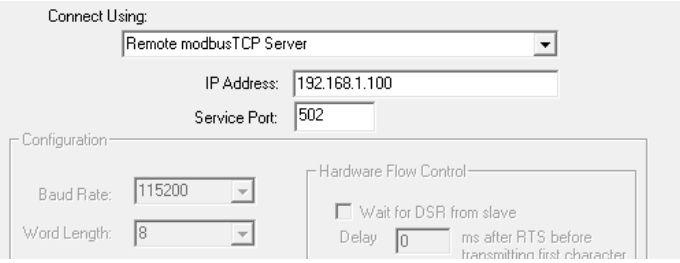
Parameters	Moxa MGate (example)	Internet Protocol version 4 (TCP/IP)
IP Address	**192.168.1.**100	**192.168.1.**254
Netmask	255.255.255.0	255.255.255.0
Gateway	**192.168.1.**1	**192.168.1.**1

Parameters	Internet Protocol version 4 (TCP/IP)
DNS1	8.8.8.8
DNS2	8.8.4.4

- Finally, click on "OK" until exit the menu.

Communication:

- Click on Connection and configure Remote modbus TCP Server.
- Configure the Moxa MGate IP Address and Service Port.
- Click on OK.



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