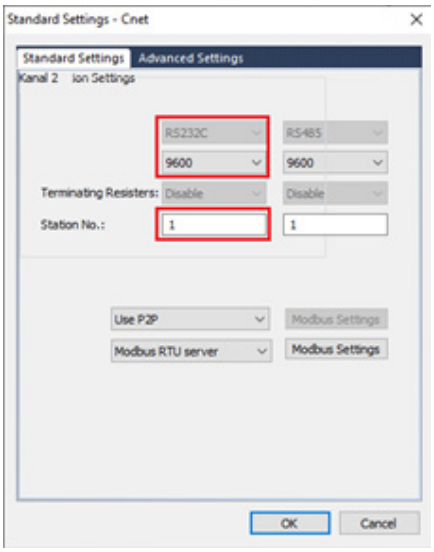
Sending ASCII message between XEC & Computer

Introduction:

This tutorial will outline the steps needed to exchange ASCII data between XEC PLC and computer.

Configuring the XEC :

*Serial Port configuration. To configure the serial port, use these steps:
-On the XG5000 software, click on [B0S0 Internal Cnet].
-On the Standard Settings-Cnet, configure the baud rate and the Station number.



-Click on Advanced settings to configure the baud rate, data bits, parity, and stop bits.

All serial settings must match the serial device being connected.

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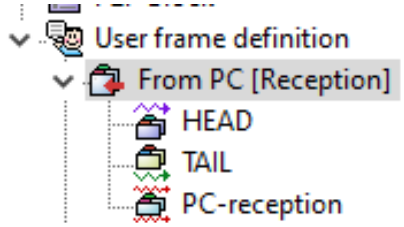
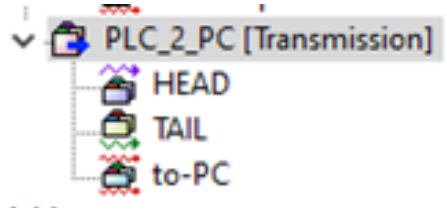
Setting up the ASCII message:

*Configure the User Protocol: to configure the user protocol, use these steps.
-Right Click on the user frame definition to add a Group “Reception” . The frame that reads data.
-Right Click on the “Reception” to add the reception groups (Head, Tail, Body). The body’s name is PC_reception here.

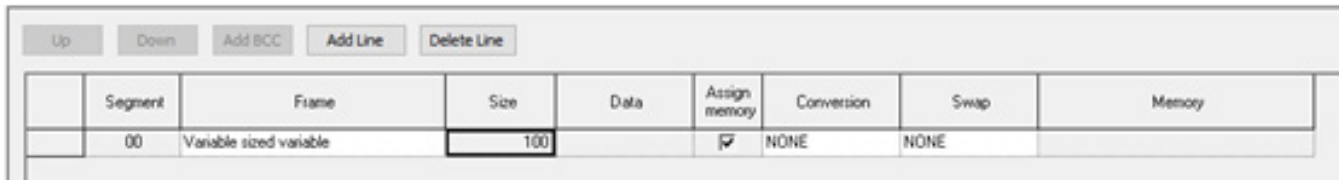


-In this example the Body’s frame is set to Variable sized variable.

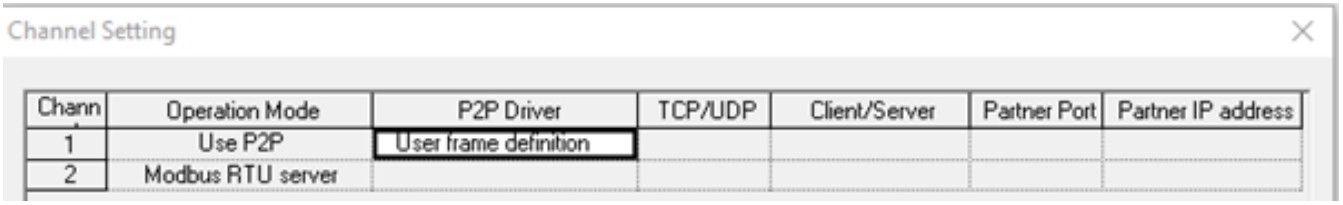
-Right Click on the user frame definition to add a Group “Transmission”. The Frame that writes data to the computer.



-In the following example, we will always send variable sized data.



* Writing P2P transmission/reception block
- Right click on [B0S0 Internal Cnet] to add P2P communication
-Configure the P2P channel 1 as Use frame definition



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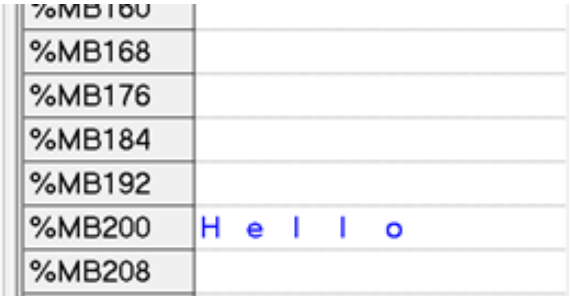
- Double-click P2P block of P2P 01.
- Input channel selected at the P2P channel (user frame definition).
- In case P2P function is a TX frame, select SEND. In the case of P2P function is RX, select RECEIVE.
- The conditional flag _T10MS is activated when the P2P function is SEND.
-Click Setting of RX frame and set save area of current string and setting value.

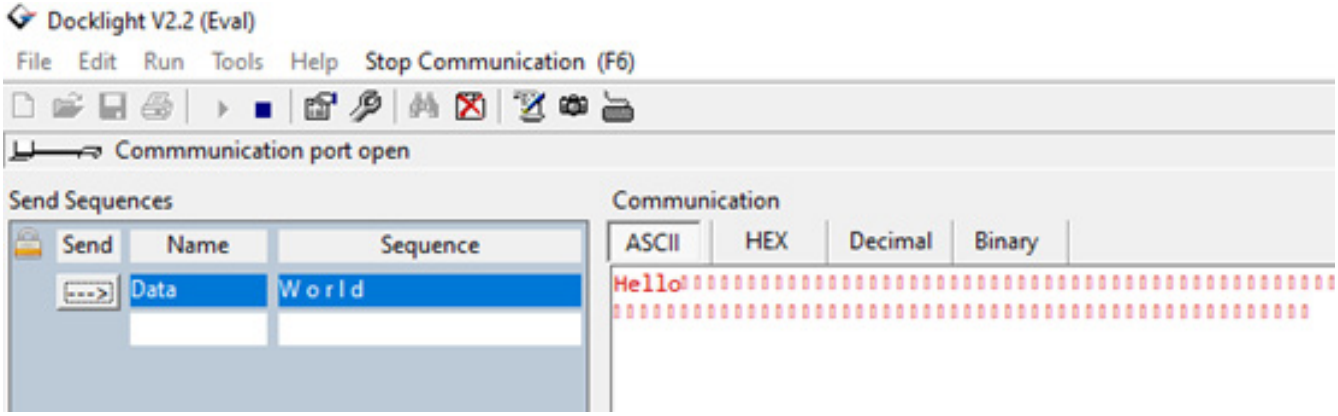
Index	Ch	Driver Setting	P2P function	Conditional flag	Comm and type	Data type	No. of variables	Data size	Destination station	Destination station number	Frame	Setting	Variable setting contents
0	1	User frame definition	SEND	_T10S							PLC_2_PC.to-PC	Setting	Number:1 READ1:%MB200,SIZE1:100
1	1	User frame definition	RECEIVE								From PC.PC-reception	Setting	Number:1 SAVE1:%MB0

Sending data to PC :

-open any simulation software for the serial communication protocols via COM to test the program such Docklight.
-We will send the string “Hello “ every 10MS.



-The string “Hello” was sucessfully sent to the computer as shown in the picture below.



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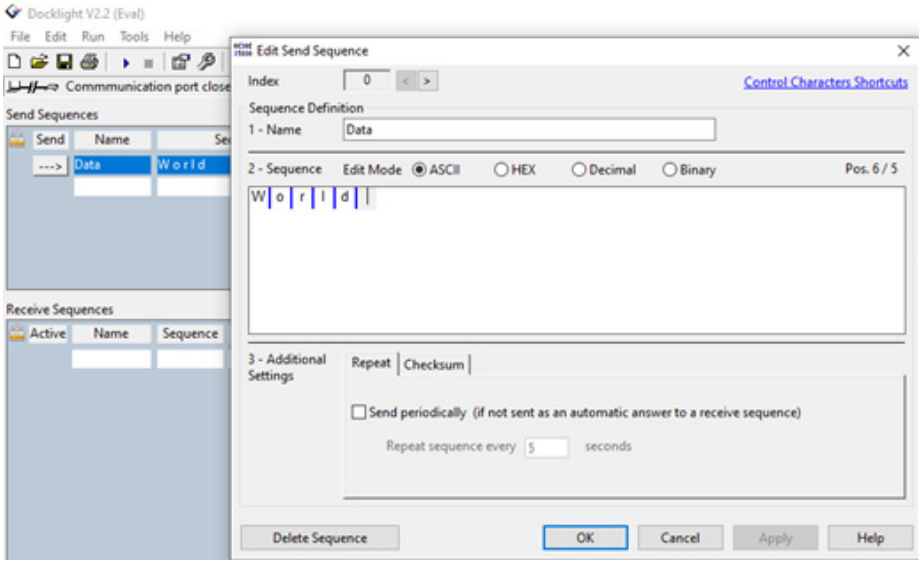
Receiving data from the computer :

-In the docklight software define the string which you want to send



-In XG5000 open the device monitoring to check to the received message.