EthernetIP Scanner

straton user guide – Rev. 4

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CP_R31_006_H

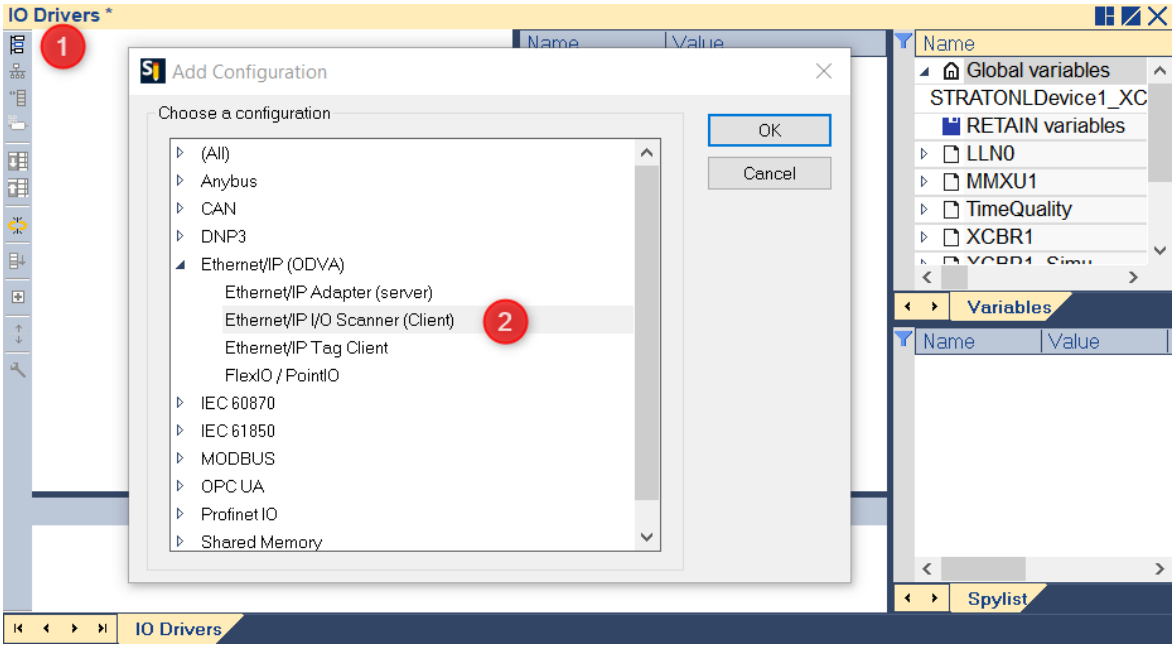
straton

Content

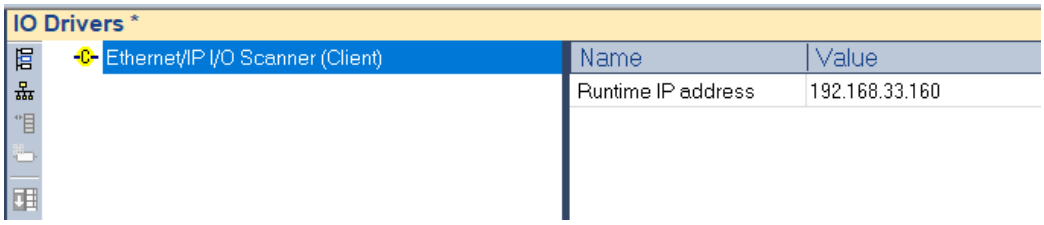
1. Configuration of EtherNet/IP Scanner

1.1. Adding the Scanner configuration

Go in "Fieldbus configurations", click on "Insert configuration", and then select the "Ethernet/IP I/O Scanner (Client)" protocol:

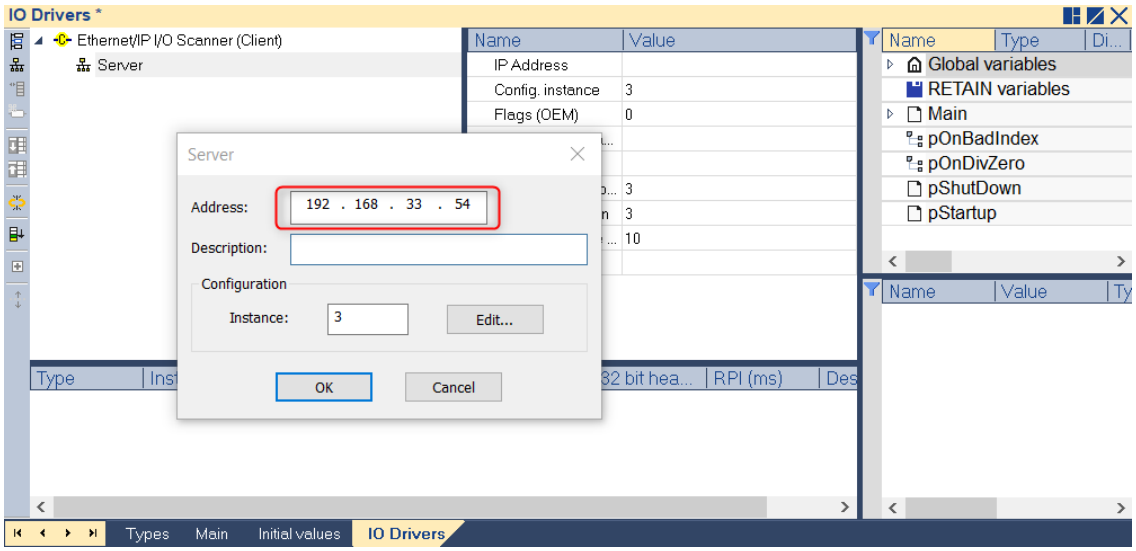


In order for the Scanner to use the right Ethernet card toward the Adapter, the IP address corresponding to this card must be set on the first level of the configuration:

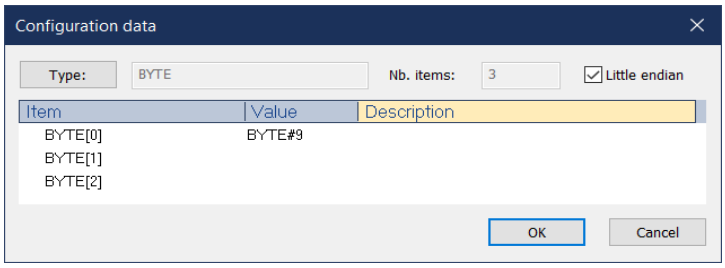


This is available from version 10.0 of the Editor. Only if not available, think to insert an empty Ethernet IP Adapter configuration (two levels) and set, on the first level, the IP Address of the card to be open.

Once this is configured, click on "Insert Master/Port" button. The Address to configure here is the IP Address of the Ethernet IP Adapter.

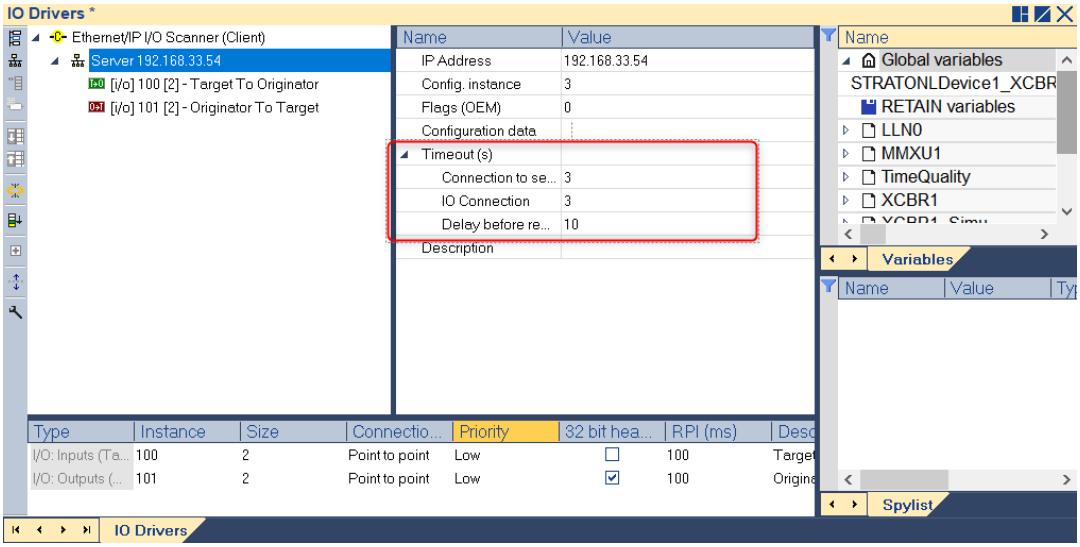


If **and only if** a configuration assembly must be sent to the Adapter, the instance number must be configured (if the device offers a configuration assembly; see the Edit button on the sceenshot above). Clicking on the "Edit..." button gives access to the following dialog window:



On this dialog, you can define the payload for the configuration assembly clicking on the "Type:" button.

Several timeouts can be configured on the second level of the Configuration:



Connection to Server: When a forward open is sent [TCP telegram via CIP] the response should arrive within this time. *

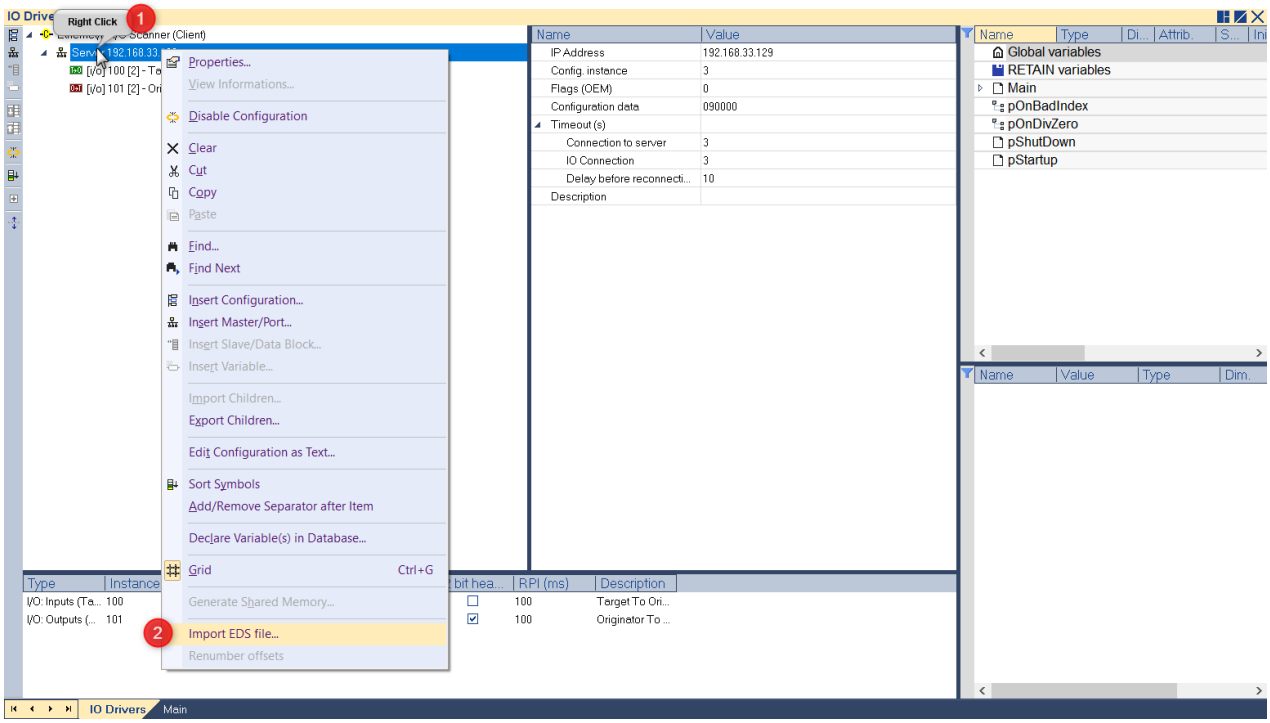
IO Connection: The time until a cyclic message [UDP message sent in RPI cycle] is still accepted. IO connection would be reestablished if a message is delayed longer than this time.*

Delay before reconnection: Error wait time. When the connection to an adapter is lost, the scanner waits for this period before it establishes a new connection.*

*these Timeout settings are available from version 9.3

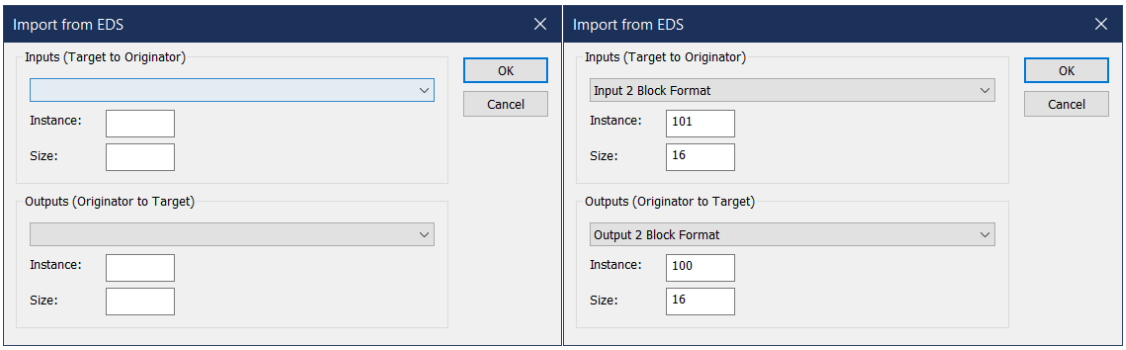
1.2. Datablocks configuration

Once the Server configuration is done, you can start the "Datablocks" configuration. Two options are available. The first one being the import of the *.eds file of your device:

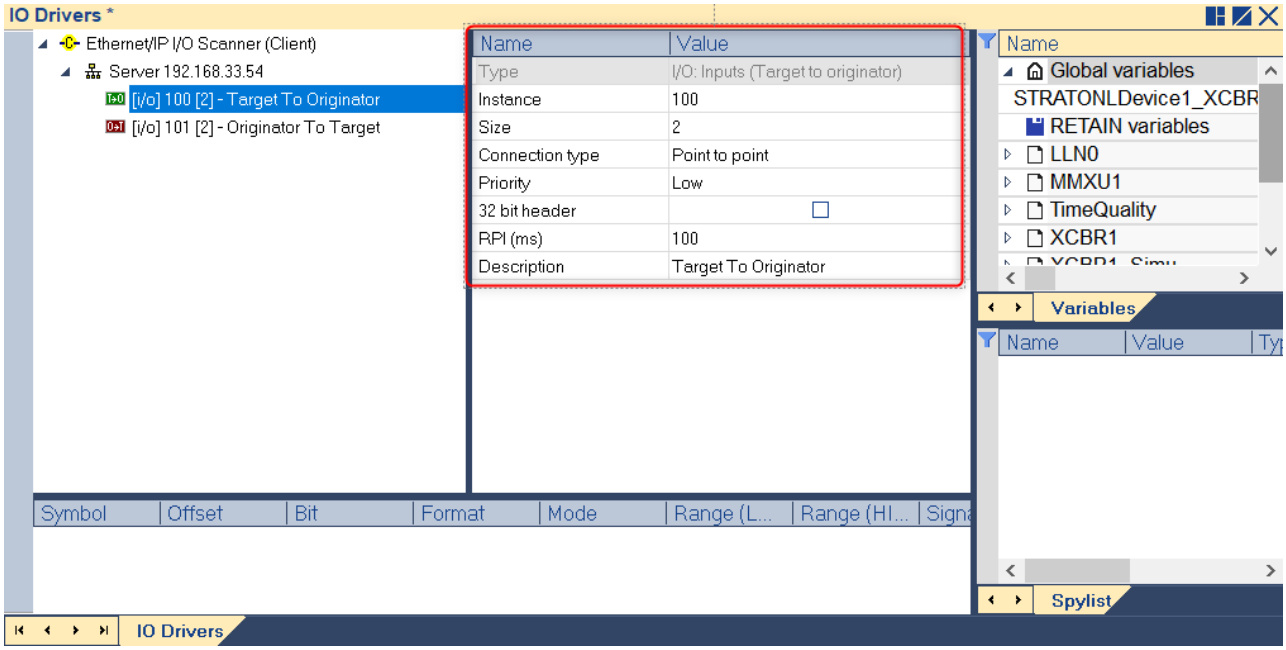


Note: The .eds files are not standardized. If the import is not done correctly, you can check in the .eds file (opened with Notepad++ for example) to complete the configuration.

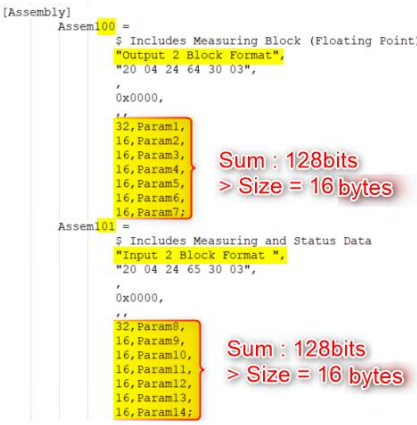
Below, the left picture shows an import, select the inputs and outputs you need. The "Instance" and "Size" (Size in bytes) parameters should be automatically filed upon the Inputs/Outputs selection. We recommend to verify the automatic values using the .eds file.



The second option, is writing the parameters manually using the device .eds file:



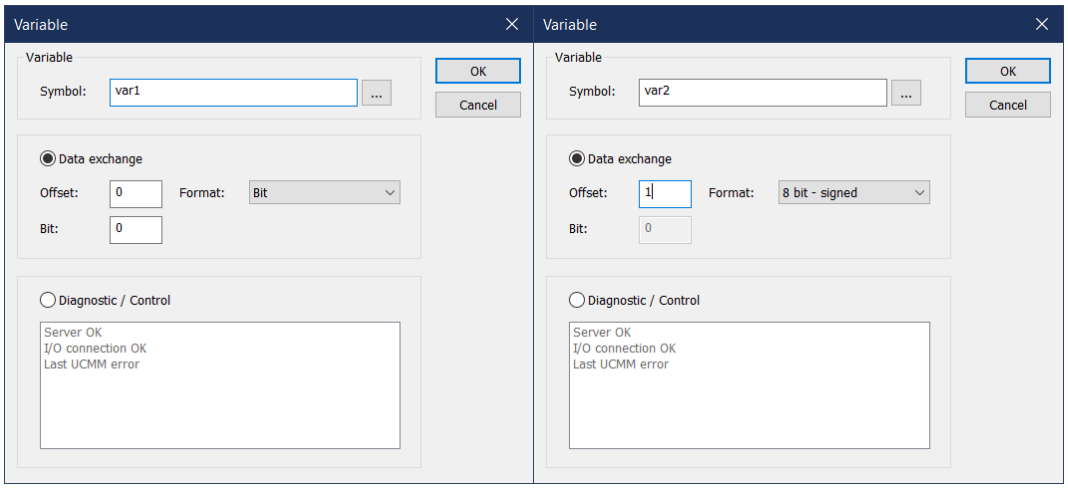
For exemple, on an .eds file:



RPI (ms): Please make sure the RPI value is higher than the PLC cycle time (Recommended RPI value is minimum double the PLC cycle time).

1.3. Variable configuration

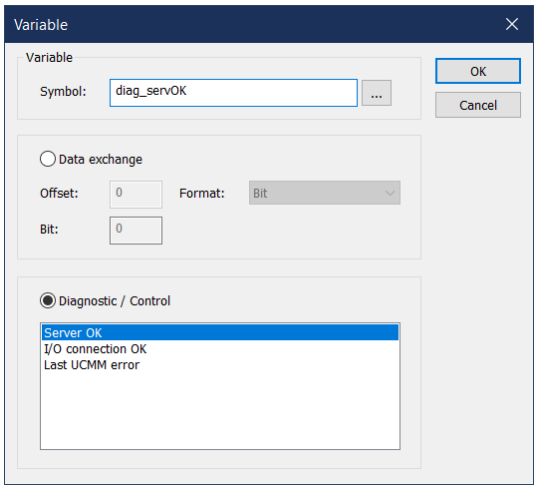
The last step is the variable configuration. Click on "Insert variable" while selecting the Input or the Output block. The variable dialog will open:



Select the variable datatype using the list on the format option.

The offset is the byte offset of the fieldbus.

If you select a Bit datatype, you can also choose which bit you need in a byte using the Bit option.



You can also select Diagnostic/Control variable types.

1.4. Function Blocks for explicit messaging

For the Ethernet/IP IO Scanner two function blocks are available:

eipReadAttr

Function Block - Ethernet/IP explicit messaging - read single attribute.

This function block sends an explicit message (UCMM) to an Ethernet/IP adapter, for reading a single CIP attribute.

The description of the function block including a sample program can be found in the online help. (IEC 61131-3 Programming Environment -> Fieldbus configuration -> Ethernet/IP IO Client -> eipReadAttr)

eipWriteAttr

Function Block - Ethernet/IP explicit messaging - write single attribute.

This function block sends an explicit message (UCMM) to an Ethernet/IP adapter, for writing a single CIP attribute.

The description of the function block including a sample program can be found in the online help. (IEC 61131-3 Programming Environment -> Fieldbus configuration -> Ethernet/IP IO Client -> eipWriteAttr)