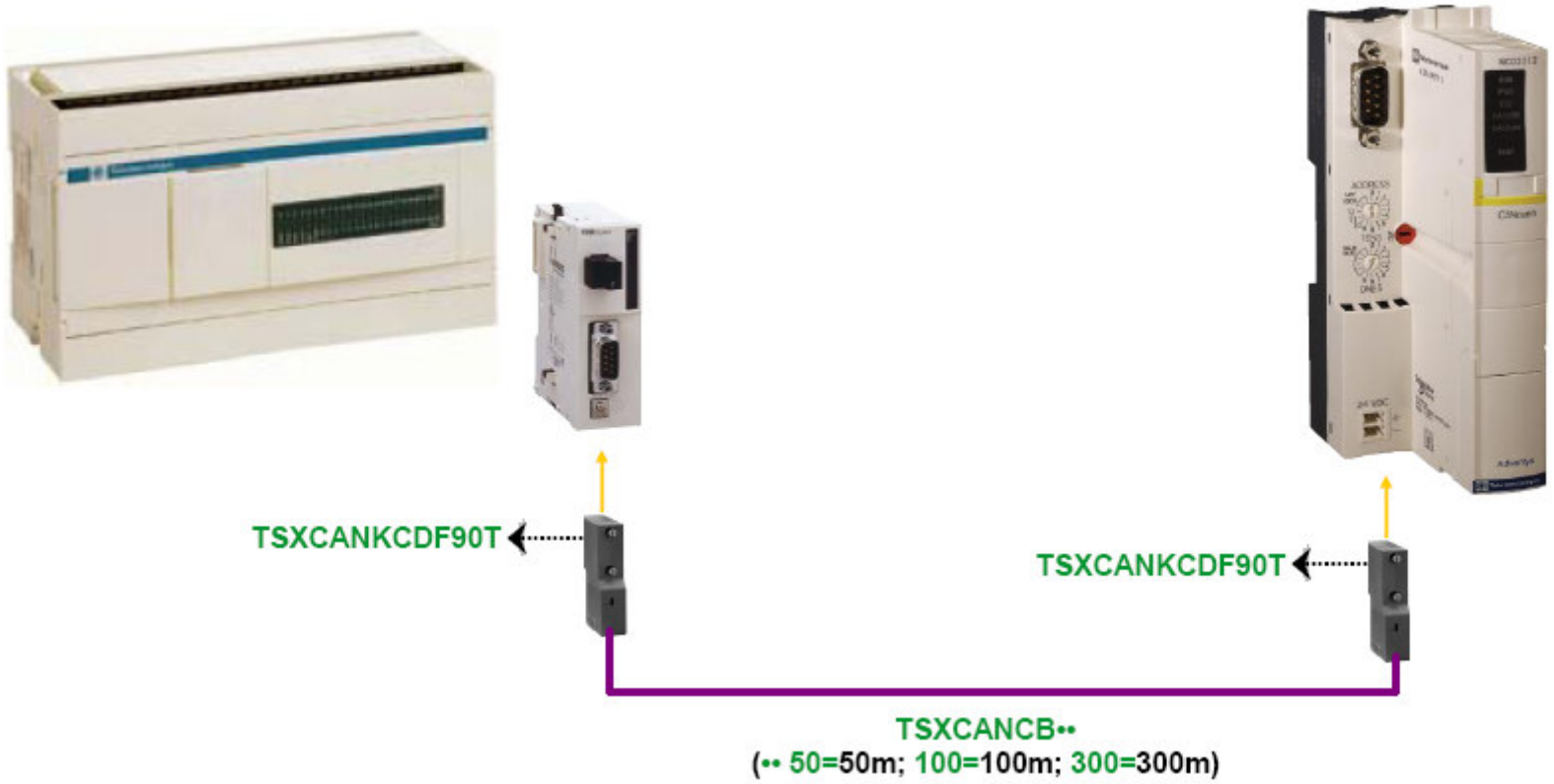
Advantys STB

Exemplo comunicação Twido *(TWDLCAE40DRF)* e Advantys STB *(STBNCO2212)* via CanOpen.

Schneider Electric

Arquitetura

- Esquema de conexões:

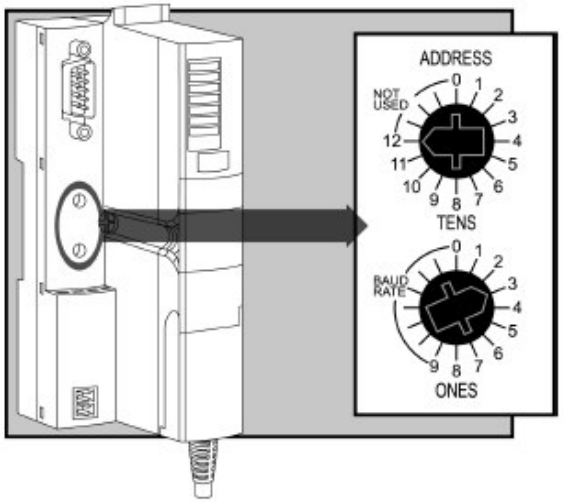


Advantys

- Endereçamento e Baudrate:

Rotary Switches: Setting the Baud and Network Node Address

Summary	The rotary switches on the STB NCO 2212 CANopen NIM are used to set the Advantys STB island's node address and baud.
Physical Description	The two rotary switches are located on the front of the CANopen NIM, below the fieldbus connection port. Each switch has sixteen positions.



The Baud	The NIM detects a new baud selection in the rotary switches only during power up. The baud is written to nonvolatile Flash memory. It is overwritten only if the NIM detects a change in the baud selection switches during a subsequent power up. In all likelihood, you will rarely change this setting because your system's baud requirements are not likely to change over the short term. On the lower switch (BAUD RATE), positions 0 through 9 are labeled incrementally on the housing. Setting the lower switch to any of the last six unmarked positions allows you to set a particular baud with the upper switch (ADDRESS).

Advantys

- Endereçamento e Baudrate:

Setting the Baud Instructions for setting the baud are in the table.

Step	Action	Comment
1	Bring the power down on the island.	The NIM will detect the changes you are about to make only at the next power up.
2	With a small screwdriver, set the bottom rotary switch to any position after 9 (BAUD RATE).	Setting the switch to any of these unmarked positions prepares the NIM to accept a new baud.
3	Decide on the baud you will employ for fieldbus communications.	The baud setting is according to your system and network requirements.
4	Determine the upper switch position that corresponds to the selected baud.	Use the baud selection table below.
5	With a small screwdriver, set the upper rotary switch to the position that corresponds to your selected baud.	Use the switch position you selected in the last step.
6	Power up your island to employ the new setting.	The NIM reads the rotary switch settings only during power up.

Baud Selection Table When the lower switch is turned to any one of its baud rate positions, the baud is defined by the position on the upper switch. Only positions 0 through 7 are used to set the baud.

Position (Upper Switch)	Baud
0	10,000 bits/s
1	20,000 bits/s
2	50,000 bits/s
3	125,000 bits/s
4	250,000 bits/s
5	500,000 bits/s
6	800,000 bits/s
7	1 Mbits/s

Note: The default baud in Flash memory for a new STB NCO 2212 CANopen NIM is 1 Mbits/s.

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- Endereçamento e Baudrate:

The Node Address

Because the CANopen fieldbus master sees the Advantys STB island as *one* network node, the island has a single fieldbus network address. Unlike the baud, the node address is not stored in Flash memory. The NIM reads the node address from the rotary switches each time the island powers up.
The address can be any numeric from 1 to 127 that is unique with respect to other nodes on the network. The fieldbus master and the island bus can communicate over the CANopen network only while the NIM's rotary switches are set to a valid address (See *Valid CANopen Node Addresses, p. 32*).

Setting the Node Address

Instructions for setting the node address are in the table.

Step	Action	Comment
1	Be sure you have set the desired baud (with the procedure above) *before* setting the node address.	If you set the baud *after* setting the node address, the system will not read a node address from the rotary switches at the next startup.
2	Bring the power down on the island.	The changes you are about to make will be detected only at the next power up.
3	Select a node address that is currently available on your fieldbus network.	Your list of active fieldbus nodes indicates whether a particular address is available.
4	With a small screwdriver, set the lower rotary switch to the position that represents the digit in the ones position of your selected node address.	For example, for a node address of 96, set the lower switch to 6.
5	With a small screwdriver, set the upper rotary switch to the position that represents the two digits in the tens and hundreds position of your selected node address.	For example, for a node address of 96, set the upper switch to 9.
6	Power up Advantys STB.	The NIM reads the rotary switch settings only during power up.

Using the Node Address

After configuring the island's fieldbus network address, it is best to simply leave the rotary switches set to that address. In this way, the CANopen network always identifies the island as the same node address at each power up.

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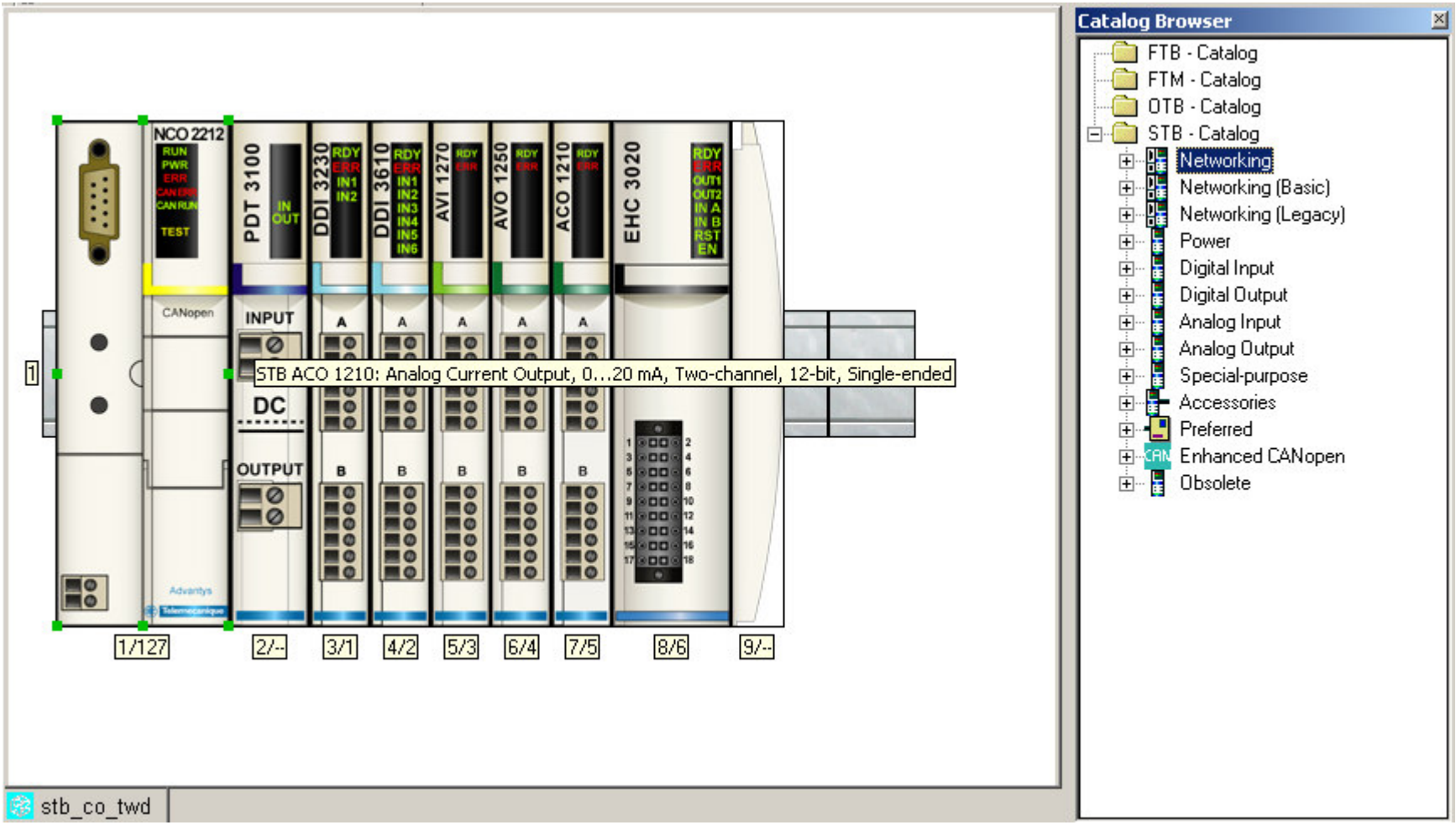
- Configuração:



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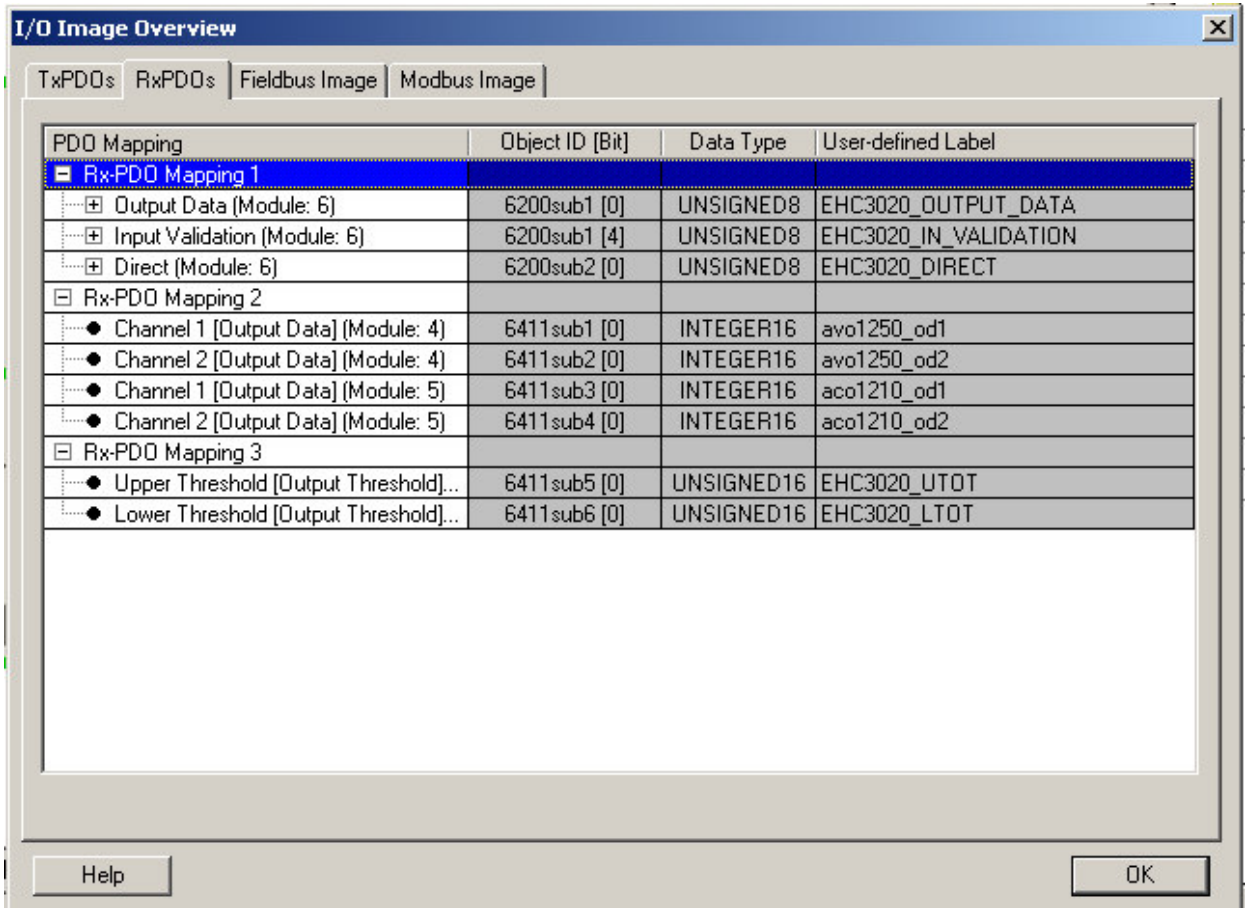
- I/O Mapping:



PDO Mapping	Object ID [Bit]	Data Type	User-defined Label
Rx-PDO Mapping 1			
Output Data (Module: 6)	6200sub1 [0]	UNSIGNED8	EHC3020_OUTPUT_DATA
Input Validation (Module: 6)	6200sub1 [4]	UNSIGNED8	EHC3020_IN_VALIDATION
Direct (Module: 6)	6200sub2 [0]	UNSIGNED8	EHC3020_DIRECT
Rx-PDO Mapping 2			
Channel 1 [Output Data] (Module: 4)	6411sub1 [0]	INTEGER16	avo1250_od1
Channel 2 [Output Data] (Module: 4)	6411sub2 [0]	INTEGER16	avo1250_od2
Channel 1 [Output Data] (Module: 5)	6411sub3 [0]	INTEGER16	aco1210_od1
Channel 2 [Output Data] (Module: 5)	6411sub4 [0]	INTEGER16	aco1210_od2
Rx-PDO Mapping 3			
Upper Threshold [Output Threshold]...	6411sub5 [0]	UNSIGNED16	EHC3020_UTOT
Lower Threshold [Output Threshold]...	6411sub6 [0]	UNSIGNED16	EHC3020_LTOT

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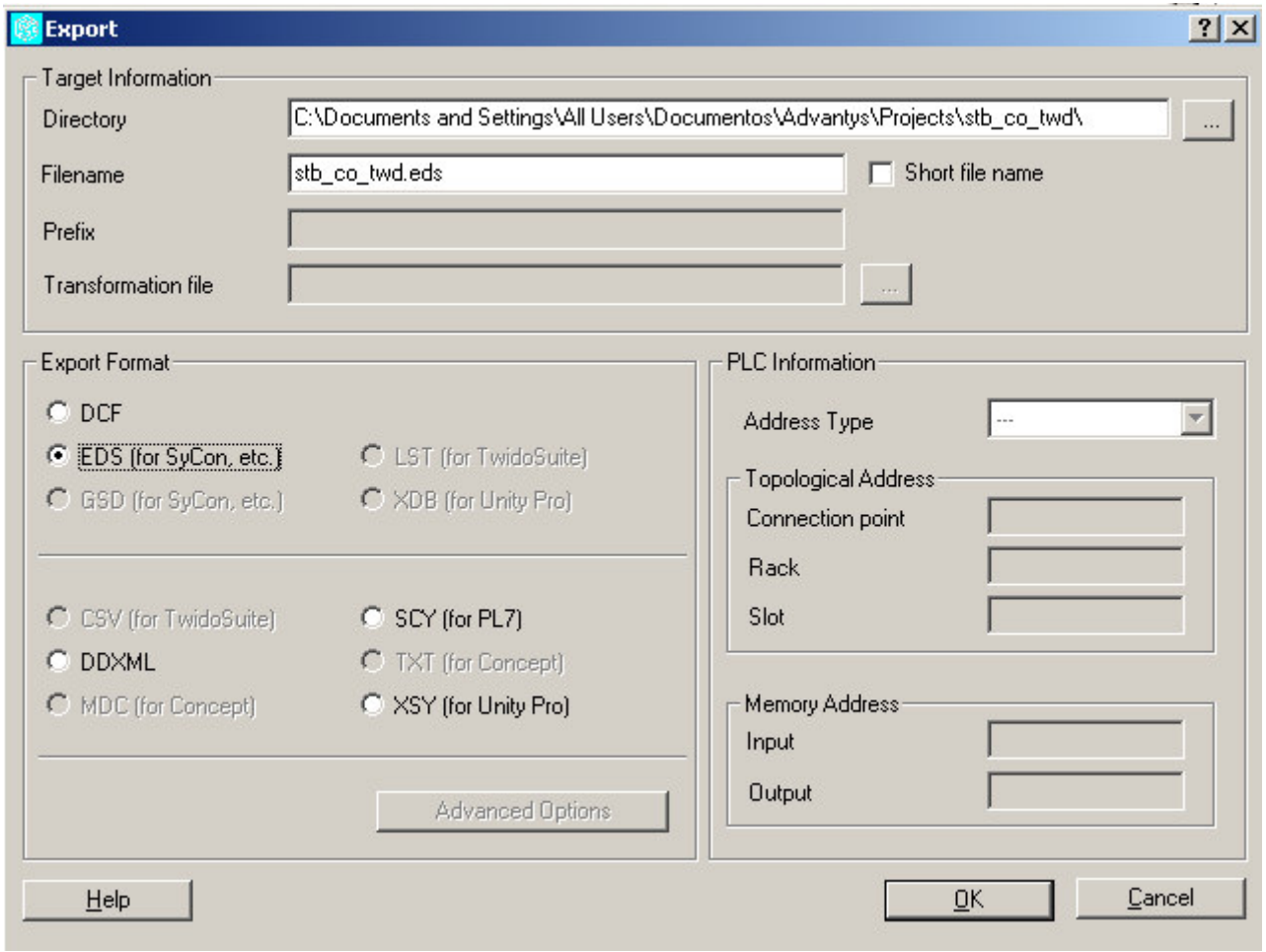
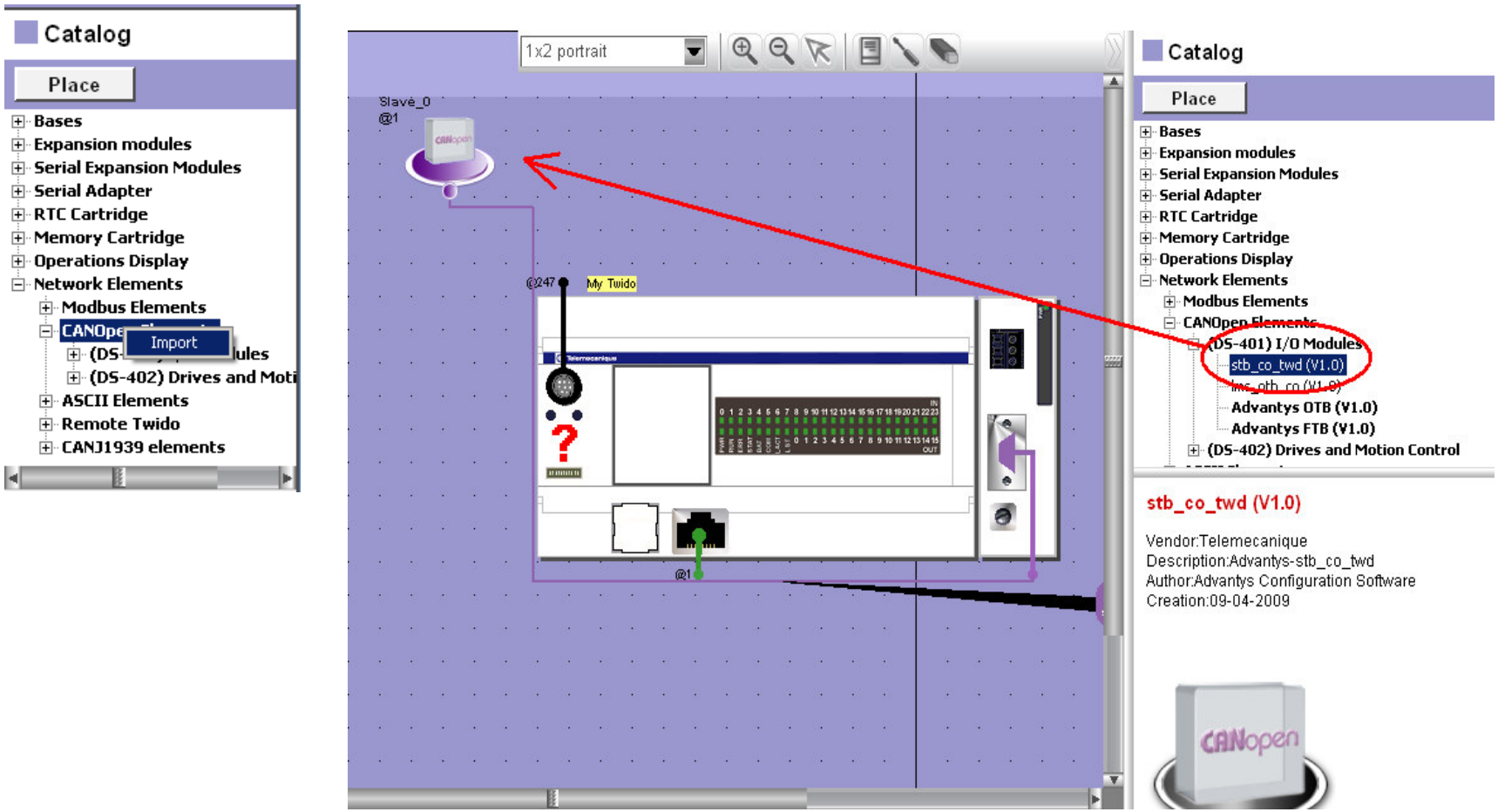
- Arquivo EDS:



TwidoSuite

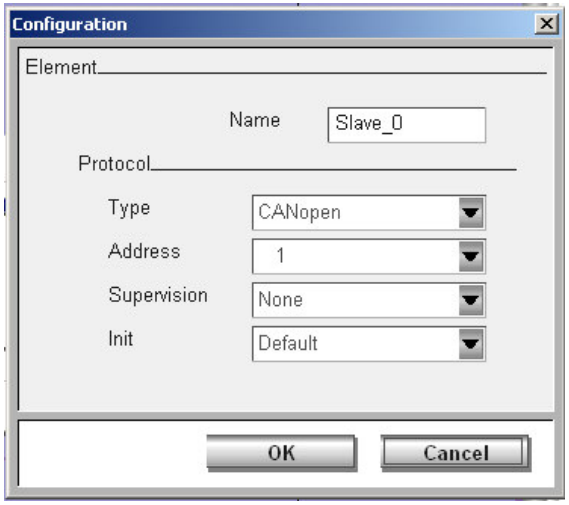
- Importação do arquivo EDS:



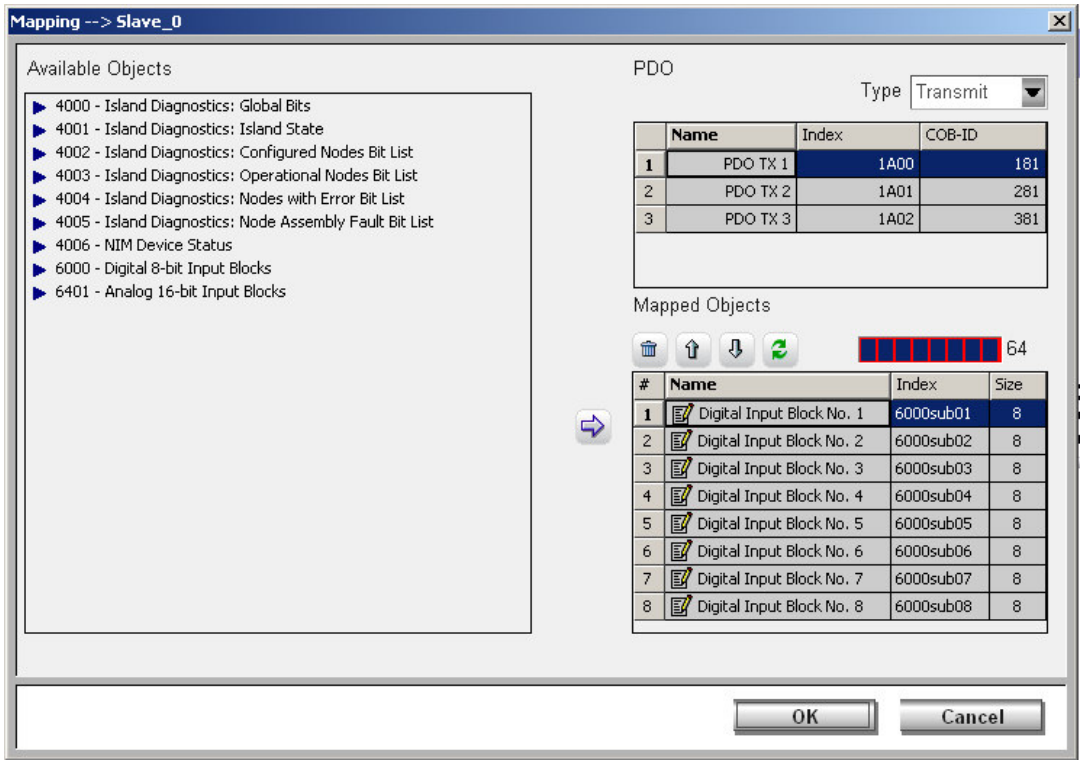
TwidoSuite

- Configuração da rede CanOpen:

> Endereço do escravo:



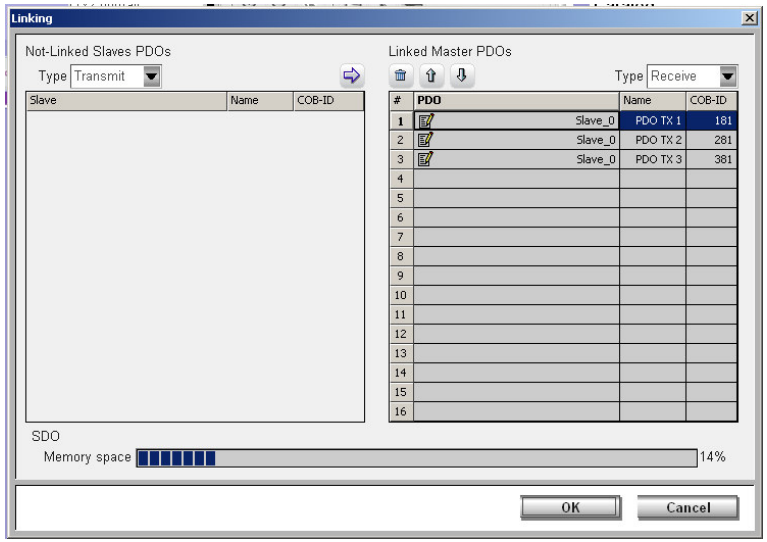
> PDO Mapping:



TwidoSuite

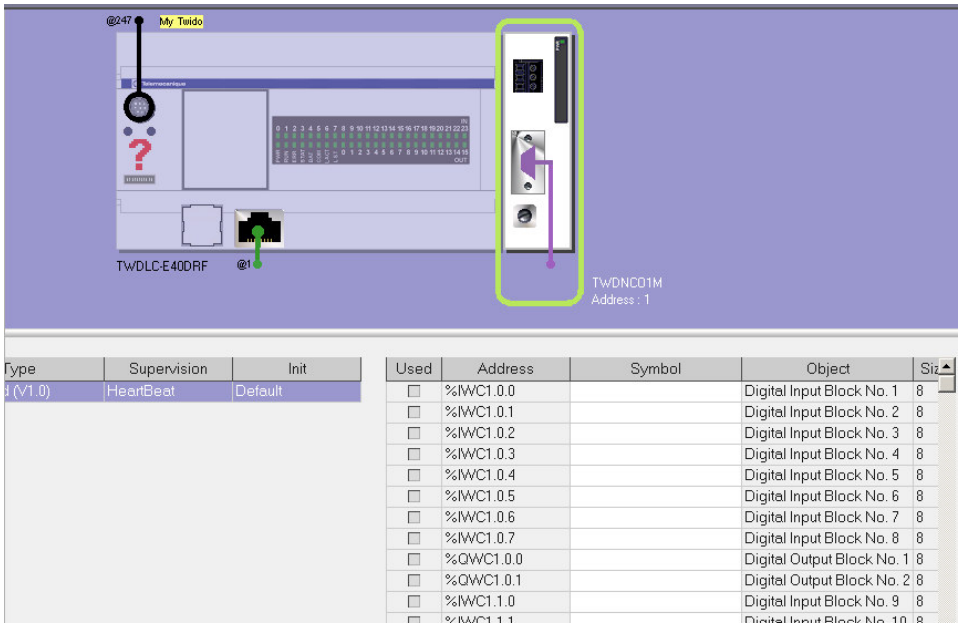
- Configuração da rede CanOpen:

> Linking PDO:



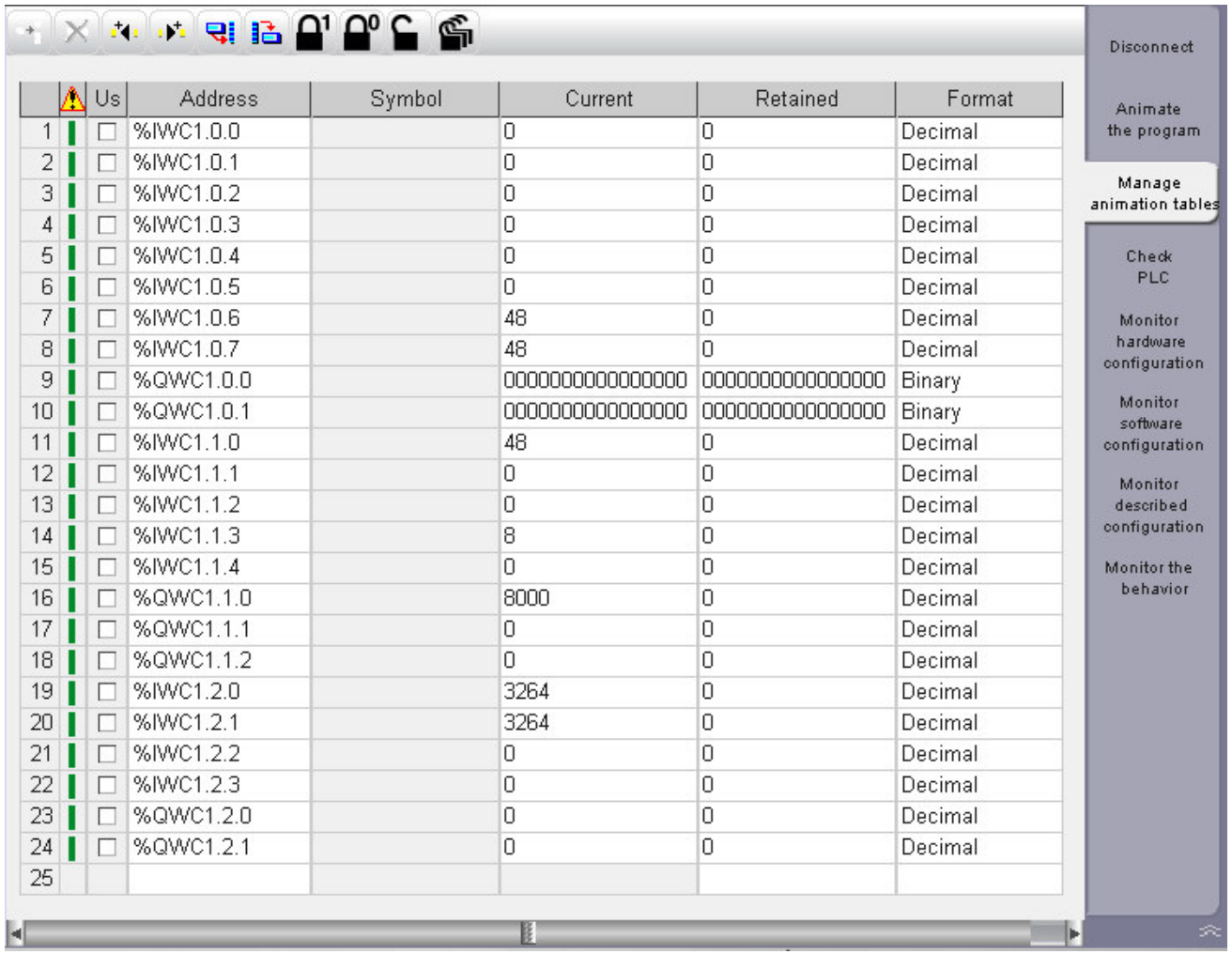
Nota: Através do I/O Mapping no Advantys Software, identifica-se por PDO os registros correspondentes aos módulo de I/O da remota.

> Endereços CanOpen – TwidoSuite:



TwidoSuite

- Animation Tables:



	Us	Address	Symbol	Current	Retained	Format
1	☐	%IWC1.0.0		0	0	Decimal
2	☐	%IWC1.0.1		0	0	Decimal
3	☐	%IWC1.0.2		0	0	Decimal
4	☐	%IWC1.0.3		0	0	Decimal
5	☐	%IWC1.0.4		0	0	Decimal
6	☐	%IWC1.0.5		0	0	Decimal
7	☐	%IWC1.0.6		48	0	Decimal
8	☐	%IWC1.0.7		48	0	Decimal
9	☐	%QWC1.0.0		0000000000000000	0000000000000000	Binary
10	☐	%QWC1.0.1		0000000000000000	0000000000000000	Binary
11	☐	%IWC1.1.0		48	0	Decimal
12	☐	%IWC1.1.1		0	0	Decimal
13	☐	%IWC1.1.2		0	0	Decimal
14	☐	%IWC1.1.3		8	0	Decimal
15	☐	%IWC1.1.4		0	0	Decimal
16	☐	%QWC1.1.0		8000	0	Decimal
17	☐	%QWC1.1.1		0	0	Decimal
18	☐	%QWC1.1.2		0	0	Decimal
19	☐	%IWC1.2.0		3264	0	Decimal
20	☐	%IWC1.2.1		3264	0	Decimal
21	☐	%IWC1.2.2		0	0	Decimal
22	☐	%IWC1.2.3		0	0	Decimal
23	☐	%QWC1.2.0		0	0	Decimal
24	☐	%QWC1.2.1		0	0	Decimal
25						