CODESYS / TwinCAT Integration



NILAB Gateway can be used in combination with CODESYS / TwinCAT or Schneider Electric Machine Expert PLC solution.
Please use this **ESI Device Description XML for configuration**: :gtw_ethercat:gtw-eth-can-modbus.zip
Note that the BUS Converter is mapped as MDP (Modular Device Profile).
In order to use the ESI File in TwinCAT you have to copy to **C:\TwinCAT\3.1\Config\Io\EtherCAT** directory and then restart TwinCAT.

PDI - Input Data Structure

A maximum of 10 NLi motors can be mapped at the same time.

Address	Data Type	Description
0x6000	UINT16	Status
0x6001	UINT16	Current slave ID
0x6002	UINT64	PDO Slave Node id 1 (Status Word)
0x6003	UINT64	PDO Slave Node id 2 (Status Word)
0x6004	UINT64	PDO Slave Node id 3 (Status Word)
0x6005	UINT64	PDO Slave Node id 4 (Status Word)
0x6006	UINT64	PDO Slave Node id 5 (Status Word)
0x6007	UINT64	PDO Slave Node id 6 (Status Word)
0x6008	UINT64	PDO Slave Node id 7 (Status Word)
0x6009	UINT64	PDO Slave Node id 8 (Status Word)
0x600A	UINT64	PDO Slave Node id 9 (Status Word)
0x600B	UINT64	PDO Slave Node id 10 (Status Word)
0x600C	UINT16	INPUTS (Remote Inputs)

PDO - Output Data Structure

Address	Data Type	Description
0x7000	UINT16	GTW_CONTROL_WORD
0x7001	UINT16	Slave ID
0x7002	UINT64	Synchronization signal

0x7003	UINT64	PDI Slave 1 (Control Word)
0x7004	UINT64	PDI Slave 2 (Control Word)
0x7005	UINT64	PDI Slave 3 (Control Word)
0x7006	UINT64	PDI Slave 4 (Control Word)
0x7007	UINT64	PDI Slave 5 (Control Word)
0x7008	UINT64	PDI Slave 6 (Control Word)
0x7009	UINT64	PDI Slave 7 (Control Word)
0x700A	UINT64	PDI Slave 8 (Control Word)
0x700B	UINT64	PDI Slave 9 (Control Word)
0x700C	UINT64	PDI Slave 10 (Control Word)
0x700D	UINT16	OUTPUTS (Remote Outputs)

SDO Configuration data

Address	Data Type	Description
0x8000	Record	Gateway configuration
0x8001	Record	Pos Table Row 1
0x8002	Record	Pos Table Row 2
0x8003	Record	Pos Table Row 3
0x8004	Record	Pos Table Row 4
0x8005	Record	Pos Table Row 5
0x8006	Record	Pos Table Row 6
0x8007	Record	Pos Table Row 7
0x8008	Record	Pos Table Row 8
0x8009	Record	Pos Table Row 9
0x800A	Record	Pos Table Row 10
0x800B	Record	Slave PDO Mapping
0x800C	Record	Slave PDI Mapping
0x800D	Record	Current Slave Modbus Data

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