

CANopen configuration

IEC-line series

update: 16-06-2017

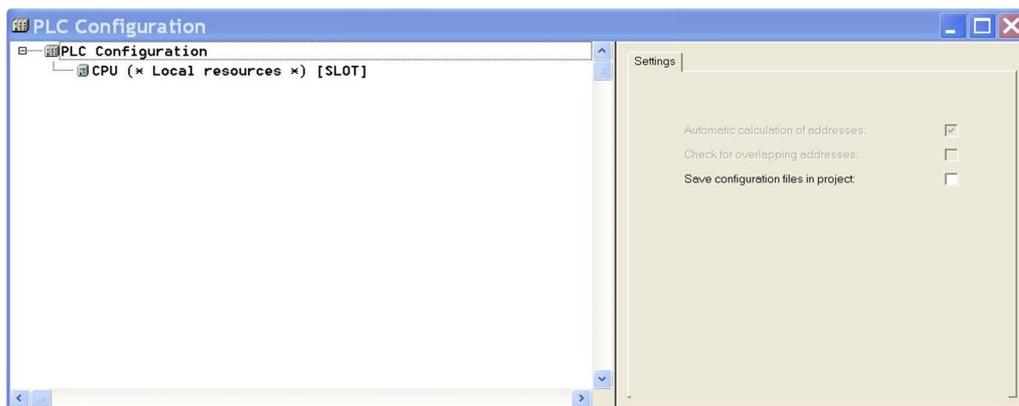
CANopen configuration

1. CANopen interfacing

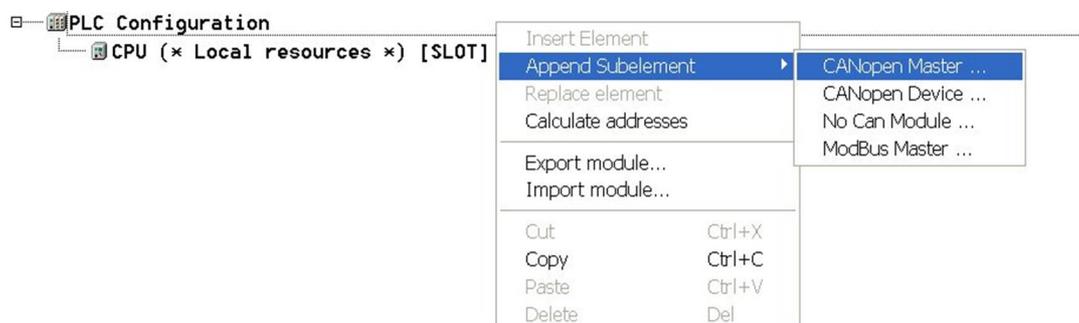
The PLC has a CANopen interface for connection to the I/O expansion using this standard. The CoDeSys programming environment incorporates all the software, the master side, necessary for the communication with all the I/O slaves so that are automatically available in the "PLC Configuration". You can also use the PLC in device mode to operate as a slave expansion of a different master system. For the electrical connection of the CAN interface, refer to the specific PLC documentation.

2. Configuration of the PLC

The CANopen expansion requires loading of master module for communication. For this you need to enable the "PLC Configuration" tab under the "Resources" in CoDeSys:

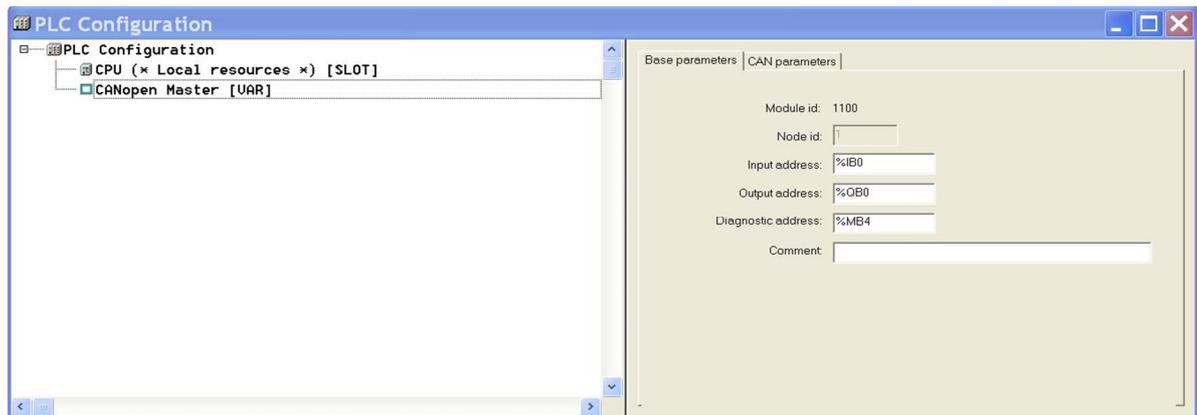


The "CPU (* Local resources *) [SLOT]" contains all the I/O resources available directly on the CPU. Refer to the specific PLC documentation if some local I/O resources are available. To manage remote resources on a fieldbus with CANopen protocol you must first load the master software by placing the mouse cursor over the "PLC Configuration" item and clicking with the mouse right button:



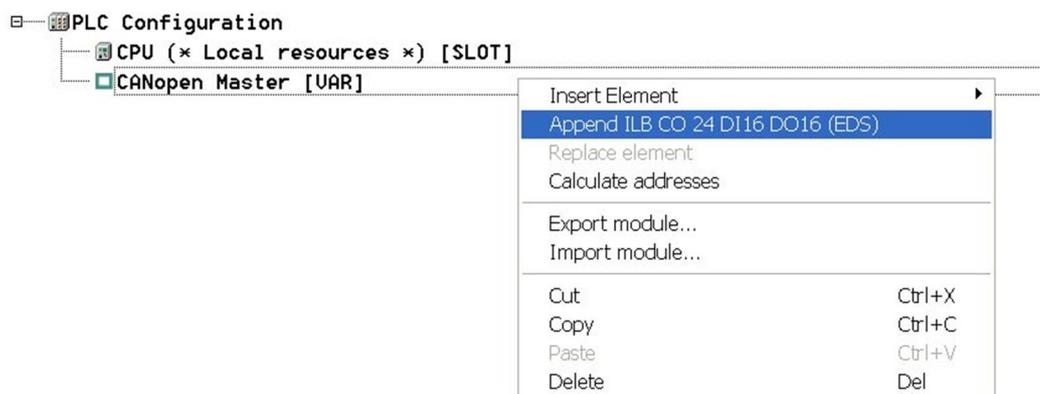
With the "Append Subelement" menu select the "CANopen Master" module to load the software of CANopen master:

CANopen configuration



At this point you must install all the slave modules that you intend to use. Each slave module is equipped with a configuration .EDS (Electronic Data Sheet) file which contains all the information on its resources. These files are provided with the specific CAN expansion interfaces and must be available in CoDeSys. Use the CoDeSys main menu "Extras>Add configuration file" to copy the EDS file into "IOCONFIG" folder of the specific target installation.

For insertion in the current configuration of a slave module named "ILB CO DI16 DO16 24", place the mouse cursor on the "CANopen Master [UAR]", click the right mouse button, select "Append Subelement" (if there is only one module type the identification name is presented directly after the Append item) and then choose the specific slave to insert:



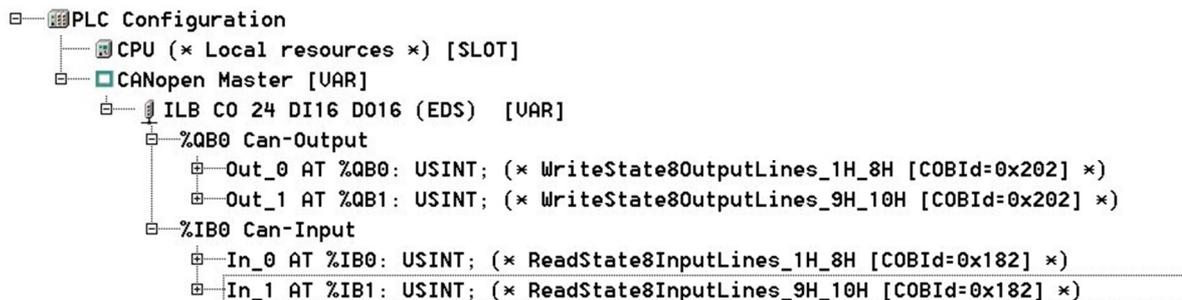
Inserting of the slave modules will be presented the complete structure of I/O resources. Under the master module will be listed all the slave modules each of which contain the specific resources of the expansion:

CANopen configuration



The slave module of the example has 16 outputs and 16 digital inputs associated respectively to addresses %QB0-1 and %IB0-1.

Double-clicking on the left of "AT" text of the I/O addresses is possible to associate symbolic names to be used in programming:



With regard to the CANopen interface there are several other parameters that can be set in the "PLC Configuration" as the communication speed and update frequency. For more detailed information refer to the CoDeSys standard documentation.