

# CoDeSys V3 Ethernet Driver for JMobile

This documents describes how to use the  
CoDeSys V3 Ethernet driver for JMobile platform

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## CoDeSys V3 Ethernet Driver

The "CoDeSys ETH 3" communication driver for Ethernet supports communication switch controllers based on the V3 CoDeSys version.

Please note that changes in the controller protocol or hardware, which may interfere with the functionality of this driver, may have occurred since this documentation was created. Therefore, always test and verify the functionality of the application. To accommodate developments in the controller protocol and hardware, drivers are continuously updated. Accordingly, always ensure that the latest driver is used in the application.

### Settings

The chapter describes settings for the driver to be applied in the Studio software and on the PLC programming software in case anything is required to ensure proper connection between HMI and target device(s).

The protocol is associated with the name "CoDeSys ETH 3" listed in the Protocol Editor.

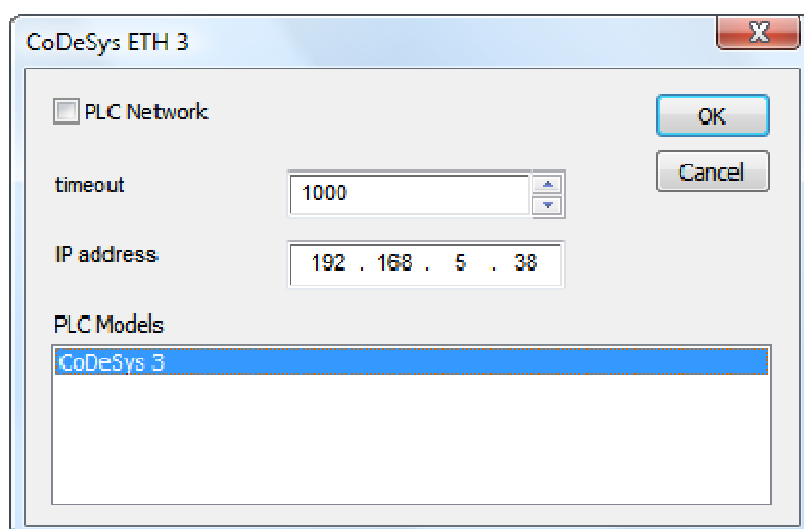


Figure 1

<b>IP address</b>	Ethernet IP address of the controller
<b>PLC Model</b>	Defines the byte order that will be used by the communication driver when sending communication frames to the PLC
<b>Timeout</b>	The number of milliseconds between retries when communication fails.
<b>PLC Network</b>	The protocol allows the connection of multiple controllers to one operator panel. To set-up multiple connections, check "PLC network" checkbox and enter IP Address for all controllers.

In case the panel device needs to be configured to access to a network of controllers, check the "PLC Network" check box and configure the network adding the several controllers as showed in the following figure.

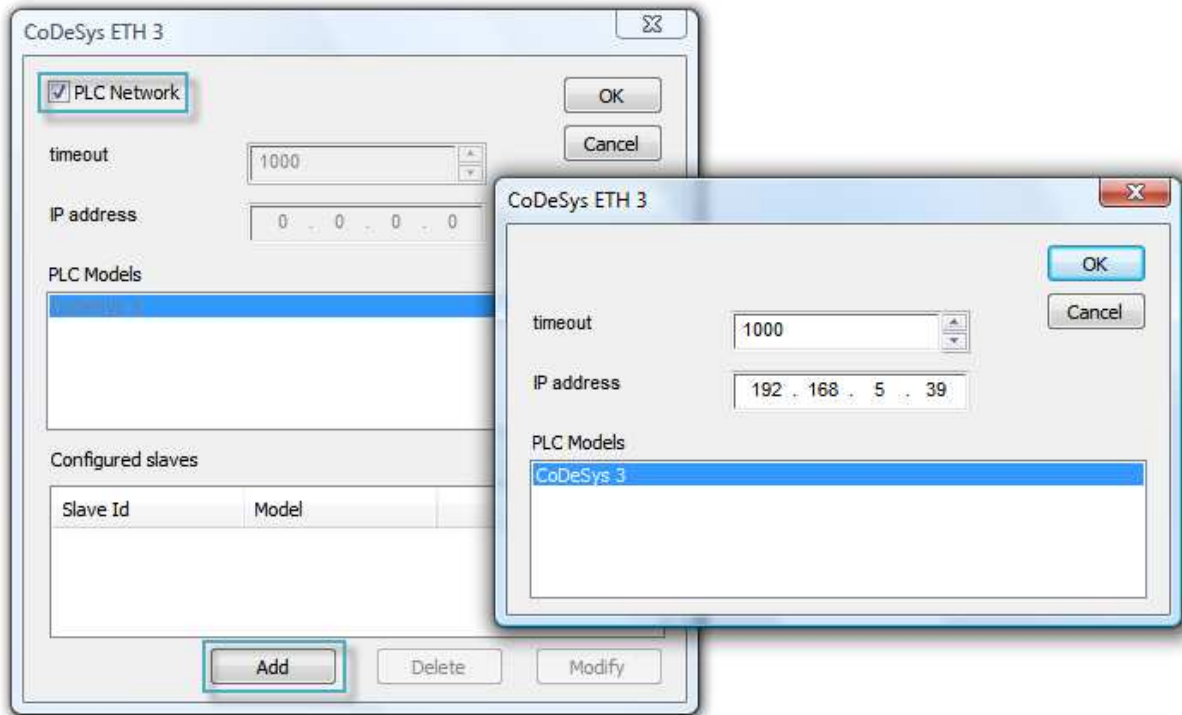


Figure 2

### CoDeSys V3 Software settings

When creating the project in CoDeSys V3, the user will need to properly configure the symbol file to contain the required variables.

The Symbol Configuration tool of CoDeSys is shown in the following figure.

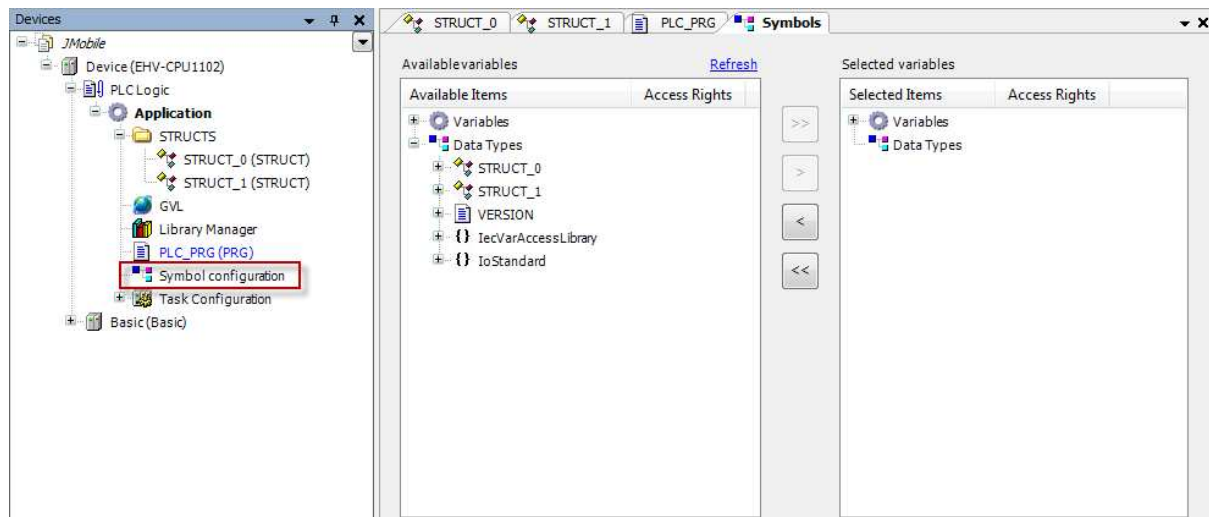
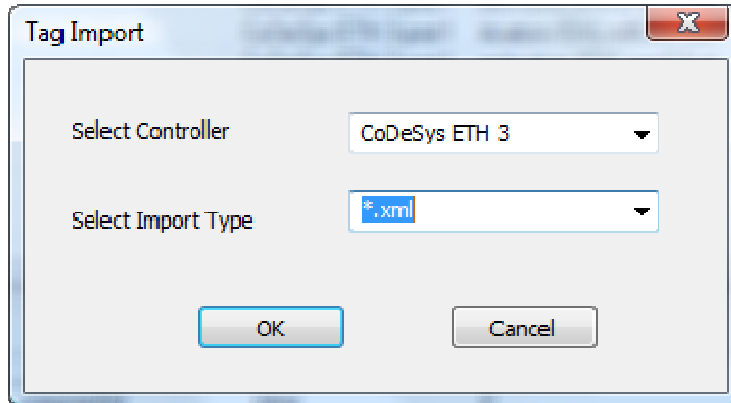


Figure 3

After the symbols have been configured the project download process or the "Generate code" option (Build\Generate code) will create an XML file containing all the variables read to be imported in the Studio Tag Editor.

## Tag Editor

Tags can be imported in Studio using the import facility.



## Data Types

The import module supports variables of standard data types and user defined data types.

### Standard Data Types

The following data types in the CoDeSys programming tool are considered standard data types by the import module:

- BOOL
- WORD
- DWORD
- INT
- SINT
- USINT
- UINT
- UDINT
- DINT

### STRING

- REAL
- TIME
- DATE
- DATE\_AND\_TIME
- TIME\_OF\_DAY

and 1-dimensional ARRAY of the types above.

The 64-bit data types LWORD, LINT and LREAL are not supported.

String length for a STRING variable in PLC should be max 80 characters. Declare a STRING variable either with a specified size (str:STRING(35)) or default size (str:STRING) which is 80 characters.

## Communication Status

The current communication status can be displayed using the dedicated system variables. Please refer to the User Manual for further information about available system variables and their use.