ESA

Siemens – Logo Cpu 0AB8

Driver documentation

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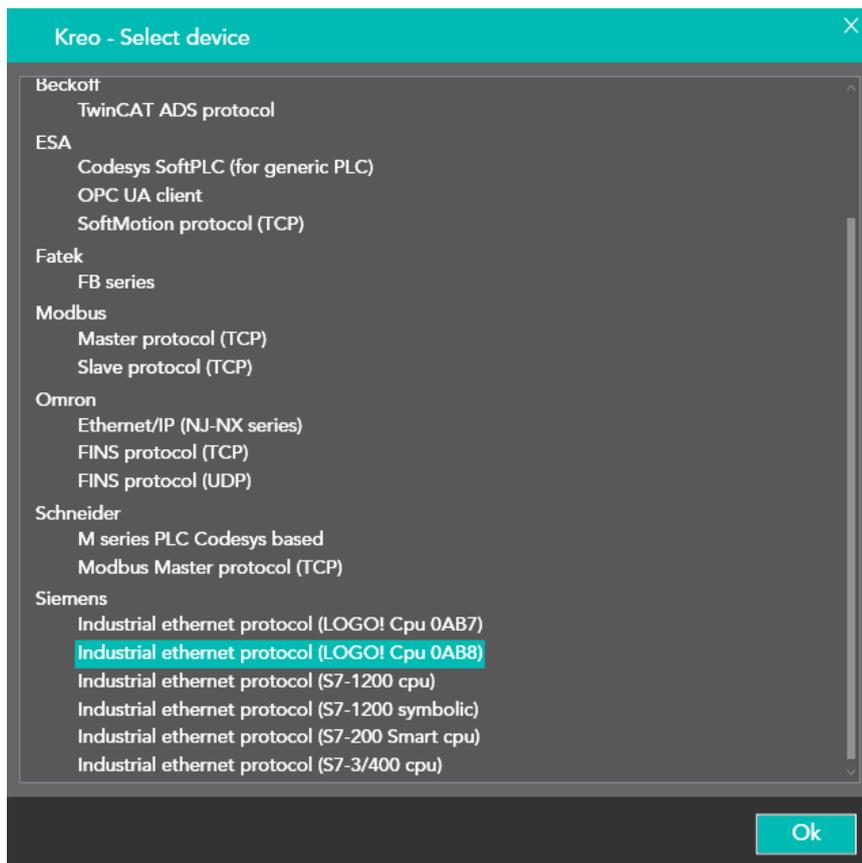## Table of contents

Document description

This document is dedicated to the functionalities and programming of the Siemens driver for Logo CPU 0AB8.
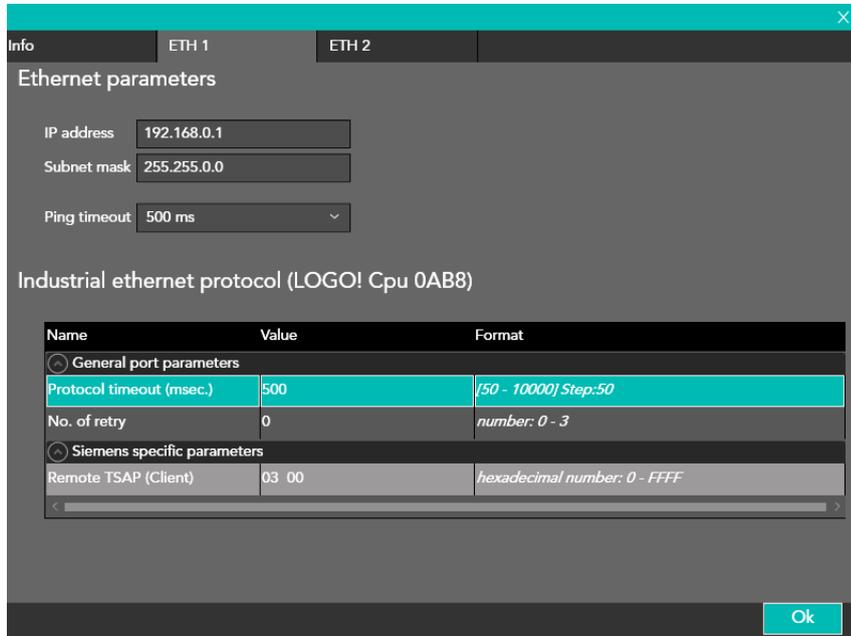
Driver selection

In the Kreo HMI driver portfolio select Siemens – Industrial ethernet protocol (LOGO Cpu 0AB8).
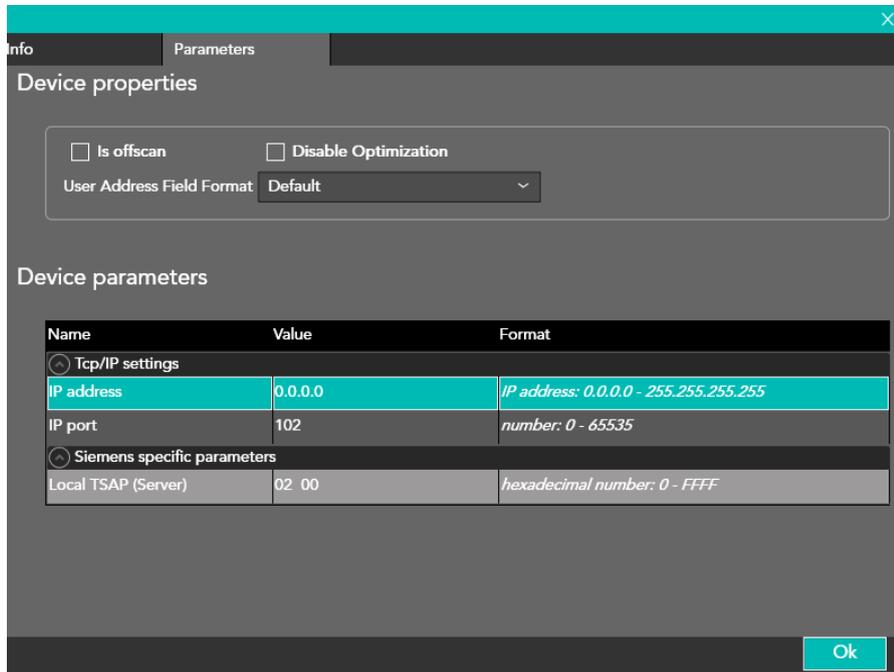
Communication parameters

The page below is displayed by double clicking on the HMI model.

IP address	Ip address of the HMI port
Subnet mask	Subnet mask of the HMI port
Ping timeout	The PING command is sent in order to test the connection stability
Protocol Timeout	The PLC has to reply before this time out window will expire in order not to have communication error
No. of retry	Number of retry before having the communication error
Remote TSAP (client)	Same value defined in the "Local Properties (client)" of the Logo programming software.

The page below is displayed by double clicking over the Siemens communication driver.

Is Offscan	The driver is defined in the project but will not be scheduled.
	In order to enable the driver it is mandatory to use the ST script function:
	TAG_SETOFFSCANDEV (device, state)
	TAG_SETOFFSCAN (Tag, state)
Disable the optimization	Disable the data optimization.
	Each tag will be refreshed with a separate communication message.
User address field format	Tag address format.
	The default format is defined in the driver description but the user can select the desired format (DECIMAL or HEXADECIMAL)
IP address	Ip address of the PLC port
IP port	Communication port
	The default value is 502
Local TSAP (Server)	Local properties server parameter in the Siemens software

IsOffscan

Is offscan management can be used in case a specific machine module will be part of the Kreo HMI project but will not be physically connected.

A NOT CONNECTED and ONSCAN device will reduce dramatically the performance of the page refresh due to the communication timeout.

Disable Optimization:

This option can be used in order to identify wich of the data displayed on a specific page is causing the communication error.

The value will not be displayed but a series of ????? will let the user identify the faulty tag to be fixed.

Tag definition

The Tag address is based on the PLC memory areas mapping.

Memory areas

AREA	TIPO	DIM.	R/W	DESCRIZIONE
Variable Block	Bit Byte Word Dword	1 8 16 32	R/W	Read/Write of registers mapped into the Variable block area
Digital Merker	Bit	1	R/W	Read/Write digital merker
Digital Input	Bit	1	R/W	Read/Wrire Digital Input
Digital Output	Bit	1	R/W	Read/Write Digital Output
Analogic Merker	Word	16	R/W	Read/Write Analogic Merker
Analogic Input	Word	16	R/W	Read/Write Analogic Input
Analogic Output	Word	16	R/W	Read/Write Analogic Output

The memory mapping of the Logo devices is different compared with the devices belonging to the S7 family.

In order to access a specific bit the user does not have to specify both the Byte number and the Bit number <Byte.Bit> but the absolute bit number (for example M1, M9 and so on).

The Analog INPUT, Analog OUTPUT, Analog MERKER a values.reas can be also accessed via analog These areas are available inside the same area of VB but with the below offset (byte):

- Analog input: 1032
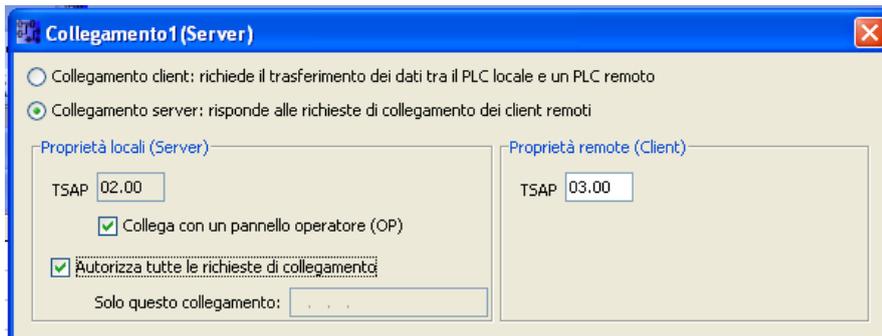- Analog output: 1072
- Analog merker: 1118

Local/Remote TSAP

The TSAP parameters have to be defined in the Logo configurator and the same values have to be used in the Kreo HMI project.

If the PLC is acting as server the device TSAP must be set to the default value 0x200.
The source TSAP must be the same of the TSAP (Client) defined in the Logo configurator.

LOGO! Soft Comfort V7 is the Logo configuration software.

Error codes

CODICE	DESCRIZIONE
DRIVER ERROR	The driver request cannot be dispatched. Hardware problem
PROTOCOL ERROR	Driver generic error
PROTOCOL TIMEOUT	The Logo did not reply in the Timeout window
PROTOCOL OFFLINE	The starting connection procedure is not completed
SOCKET ERROR	The ethernet socket cannot be created
PING FAIL	The PING command is not completed
FORMAT DATA ERR	When writing a value the data format is not compatible with the register format definition
TRANSMISSION ERROR	The TCP message cannot be dispatched
ERROR	Unknown error

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