Omron – Hostlink

Driver Documentation

Connect Ideas. Shape solutions.

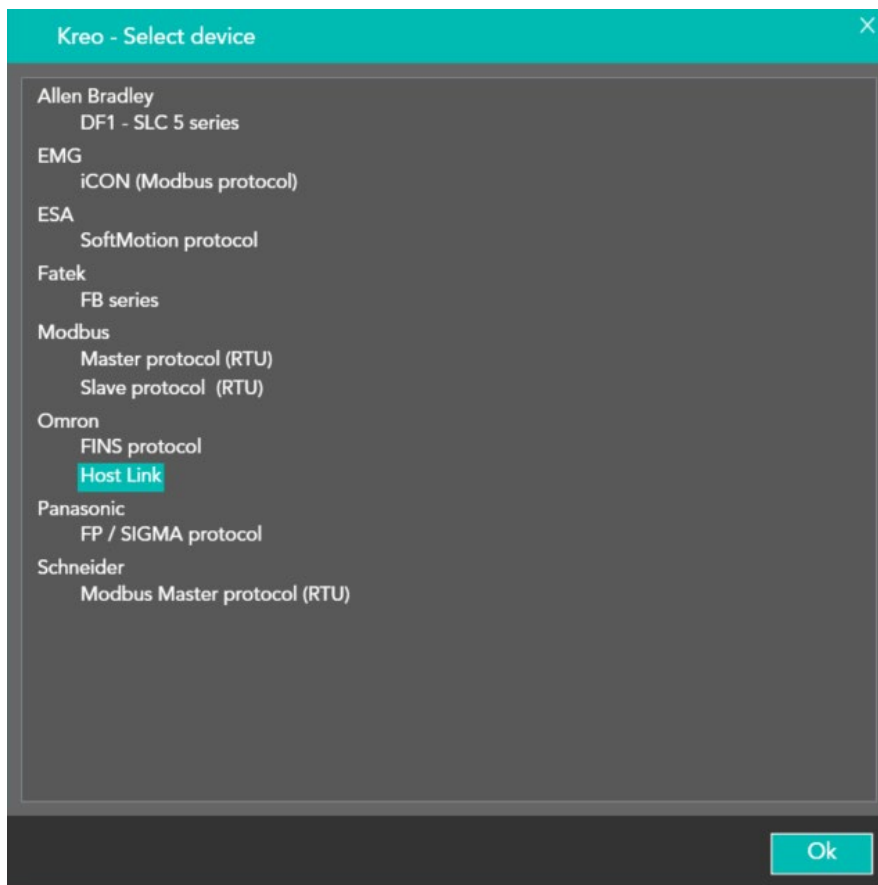## Sommario

Document description

This document is dedicated to the programming and functionality of the Omron Hostlink driver with serial communication (RS232 – RS485).
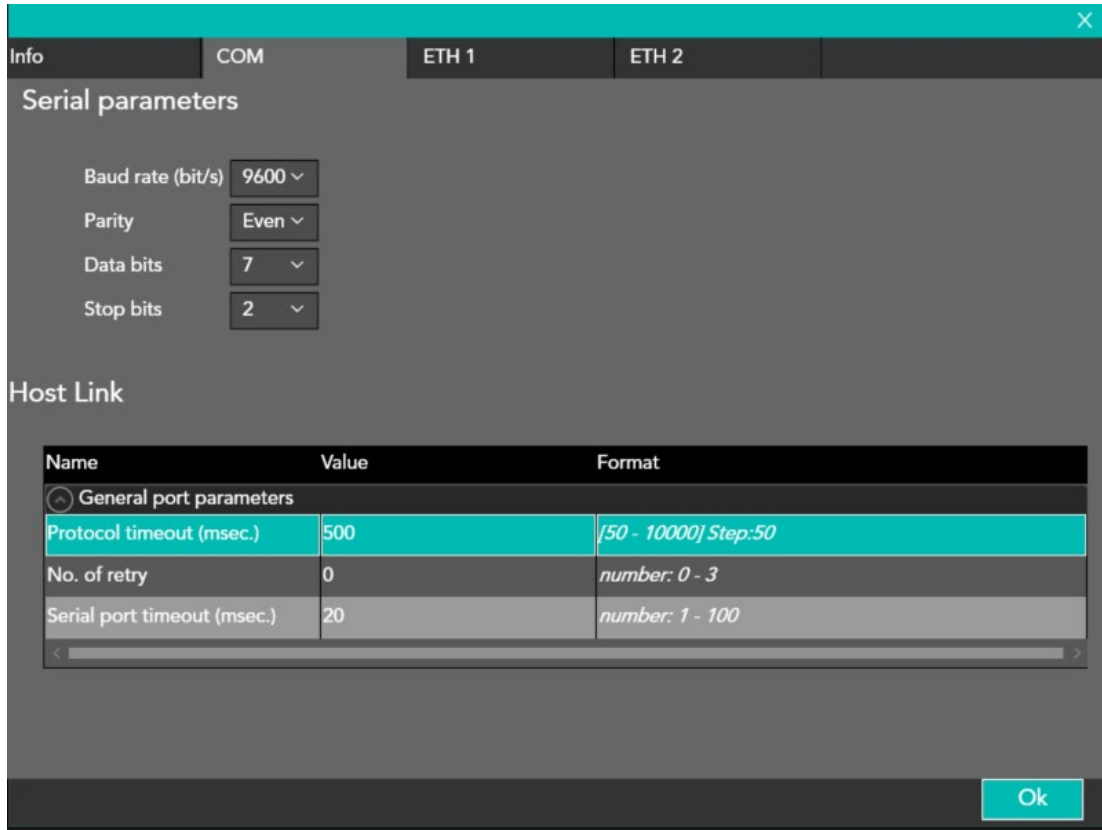
Driver Selection

In the Kreo HMI driver portfolio, select Omron – Host Link.
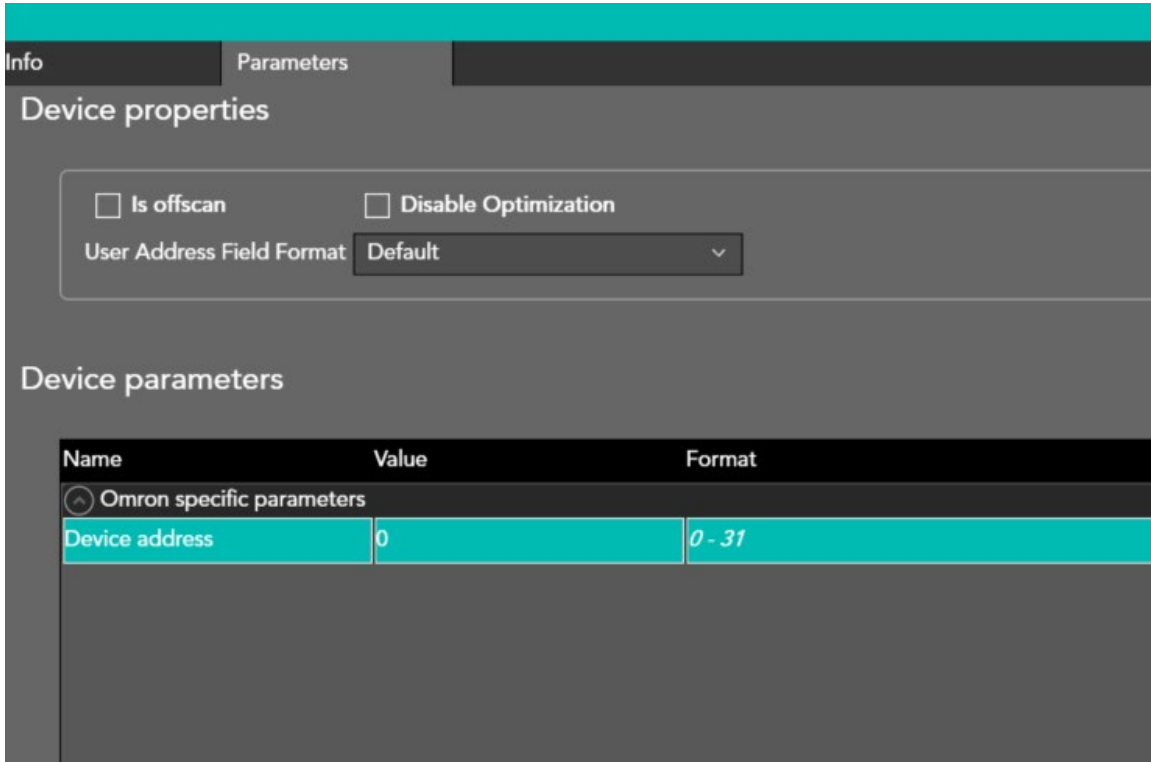
Communication parameters

Double-clicking on the HMI model displays the following page:

Baud rate	Serial port communication parameters
Protocol Timeout	The PLC must respond to requests within the defined timeout .
No. of retry	Number of requests to the PLC failed to force the product into error mode
Serial port timeout	Intercharacter timeout. The PLC must not leave idle characters inside the host link message. The value of this parameter must be increased if the PLC is equipped with a particularly heavy application program that takes up CPU time and therefore delays communication on the serial port.

Double-clicking on the communication driver displays the communication parameters of the Omron Host Link driver.

Is offscan	The defined driver in the project is not scheduled. To re-enable driver scheduling, you must use the functions available at the ST script level: TAG_SETOFFSCANDEV (device, state) TAG_SETOFFSCAN (Tag, state)
Disable optimization	Disables data request optimization. Each variable is requested with a dedicated message
User Address Format	Format of the tag address. the default format is default at the driver configuration level but the user can select the preferred format (decimal or hexadecimal)
Device address	Indirizzo Host Link del PLC

Offscan

Offscan management can be used if a machine module is part of the Kreo HMI application but is not physically connected.

A device NOT CONNECTED but in ONSCAN state heavily reduces the performance of the product since the continuous communication timeouts slow down the execution of the functions of requests that follow.

Disable optimization:

This option can be used to identify what data displayed on a specific page is causing the communication error.

This value will not be displayed but a series of ????? allows the user to easily identify this Tag.
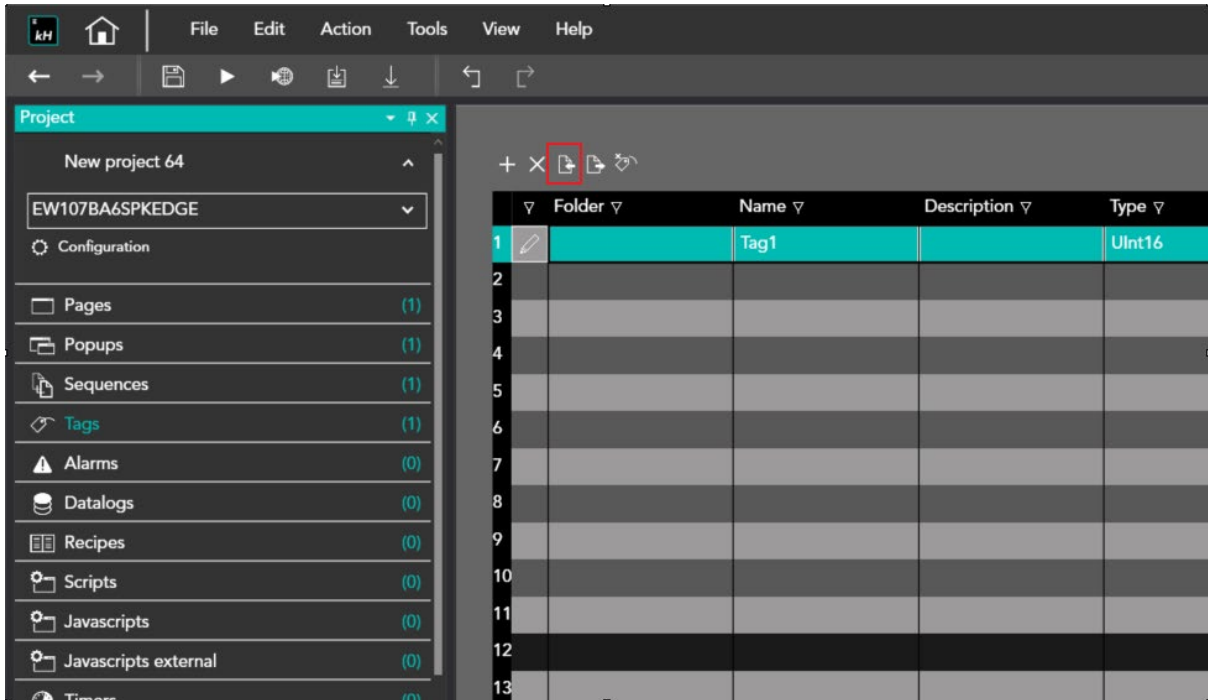
Programming a Tag

The variables have a fixed address mapped to the memory areas made available by the PLC.

Importing Tags

The tag database can be imported from the PLC programming environment by selecting the command shown in the figure.

The following formats are supported:

- Omron Host Link (*.cxr)
- Omron Host Link (*.xls)

Memory areas

Counter	Value (Word)Contact (Bit)	16 1	R/W	Reads and writes areas of the relative area
Data Memory area	WordDwordRealDoubleString	163232648	R/W	Reads and writes areas of the relative area
Relay	Relay, Holding, Auxiliary, Link WordDwordRealDouble			
Hours	Value (Word)Contact (Bit)	16 1	R/W	Reads and writes areas of the relative area

Error codes

The driver may report the following standard error codes in the system variable:

NAME	CODE
DRIVER ERROR	Unable to send prompt message, possible ethernet adapter problem
PROTOCOL ERROR	Generic error of receiving data from the PLC
PROTOCOL TIMEOUT	Timeout error, there was no response to a data request
PLC CODE ERR: XX	See description in the table below
ERROR	Value reported when driver is handled incorrectly

In the case of an error type "PLC CODE ERR: XX" the XX value has a specific meaning as the PLC responded with an error code, which is explained in the table below.

$Code_h$	$Code_l$	Description
0	0	No errors
0	1	Not runable in RUN mode
0	2	Not executable in MONITOR mode
0	3	Not executable with mounted PROM
0	4	Out-of-range address (Data overflow)
0	B	Not executable in PROGRAM mode
0	C	Not executable with mounted PROM
0	D	Not executable in LOCAL mode
1	0	Parity error
1	1	Frame error
1	2	Overrun
1	3	Checksum error
1	4	Formatting error (parameter length error)
1	5	Incorrect setting value
1	6	Instruction not found
1	8	Incorrect frame length
1	9	Not executable
2	0	Incorrect generation of I/O table

Connect
ideas.
shape
solutions.