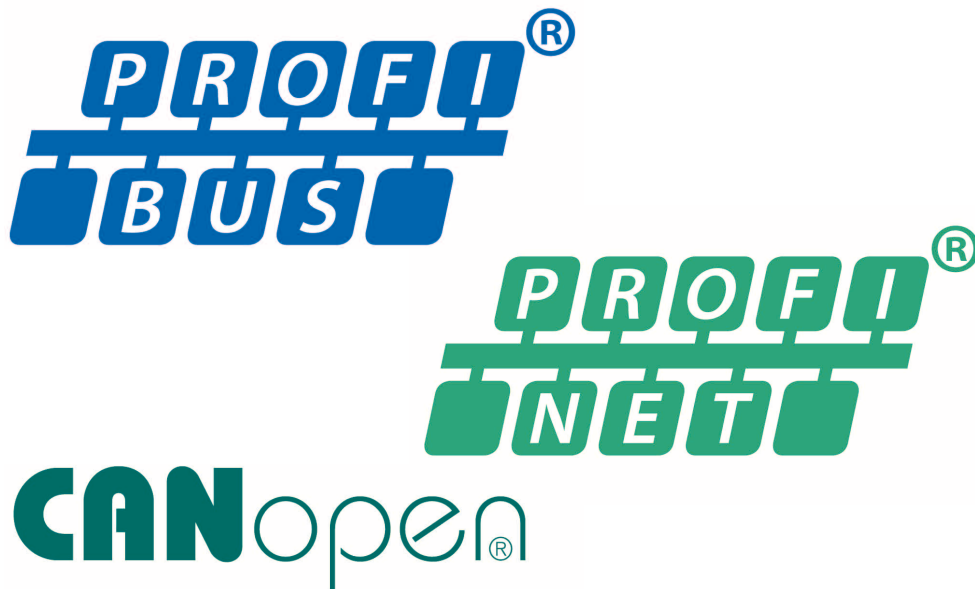


» Linux Toolkit for Hilscher netx «



Access via Userspace I/O

- » Supports Profibus Master DP V0 and V1
- » Supports Profibus Slave DP V0 and V1
- » Supports CANopen Master
- » Supports PROFINET Controller
- » Supports PROFINET Device
- » Supports Linux UIO interface, DPRAM of netx mapped into Userspace
- » Demo source code for every fieldbus protocol included

Linux Toolkit for Hilscher netx

Access via Userspace I/O

This Linux toolkit is designed to enable immediate functionality for the supported Fieldbus protocols of the Kontron ThinkIO-Duo with netX, which is Profibus DP Master and Slave, Profinet Controller and Device and CANopen Master.

It provides the original Hilscher library for using the Hilscher API controlling the data exchange with the netX DPRAM. Through the use of the UIO subsystem of the kernel,

there is a significant advantage in data exchange, because there is no data copying from user space to kernel space necessary.

The package contains a number of user manuals, describing general usage of the toolkit and the access to the process data in the DPRAM of the netX. There are also demo applications, which can be used as a first start to use the Hilscher API.

Supported Features

Profinet Controller Features

Max. number of total cyclic input data	3072 bytes
Max. number of total cyclic output data	3072 bytes
Max. number of cyclic input data	1024 bytes per device (= IOCR data length)
Max. number of cyclic output data	1024 bytes per device (= IOCR data length)
Max. number of configured devices	32
Acyclic communication	Read/Write Record
Minimum cycle time	1ms (independently configurable per IO-Device)
Baud rate	100 MBit/s, Full-Duplex mode
Data transport layer	Ethernet II, IEEE 802.3

Profinet Device Features

Max. number of cyclic input data	1024 bytes
Max. number of cyclic output data	1024 bytes
Max. number of all submodules	80
Acyclic communication	Read/Write Record, max. 1024 bytes/telegram
Minimum cycle time	1ms, can be configured with different cycle times
Conformance	Class A
Baud rate	100 MBit/s
Limitations	DHCP, IRT, Multicast communication and RT over UDP are not supported

Profibus DP Master Features

Max. number of supported slaves	125
Max. number of total cyclic input data	3584 bytes
Max. number of total cyclic output data	3584 bytes
Configuration data	Max. 244 bytes per slave
Parameterization data per slave	7 bytes standard parameters per slave Max. 237 bytes application specific parameters per slave
Acyclic communication	DP V1 Class 1 Read/Write, DP V1 Class 1 Alarm
Baud rate	Fixed values ranging from 9,6 kBits/s to 12 Mbit/s

Supported Features

Profibus DP Slave Features	
Max. number of cyclic input data	244 bytes
Max. number of cyclic output data	244 bytes
Configuration data max.	244 bytes
Parameter data	237 bytes application specific parameters
Acyclic communication	DP V1 Class 1 Alarm, DP V1 Class 1 Read/Write, DP V1 Class 2 Read/Write/Data Transport
Baud rate	Fixed values from 9,6 kBits/s to 12 MBit/s, Auto-detection mode
CANopen Master Features	
Max. number of supported slaves	126
Max. number of total cyclic input data	3584 bytes
Max. number of total cyclic output data	3584 bytes
Max. number of rec./transm. PDOs	512
Acyclic communication	SDO Upload/Download, max. 200 bytes per request
Baud rate	Fixed values ranging from 10 kBits/s to 1 Mbits/s

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