Device Driver Linux (NXDRV-LINUX)

Releases

Current release:

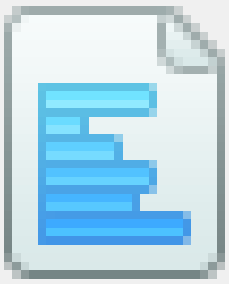
- V2.0.0.0 (NXDRVLINUX)

For previous versions see version history.

Supported Operating Systems

Operating System	Linux Kernel 2.6		Linux Kernel 3.x		Linux Kernel 4.x	
Architecture	**x86**	**x64**	**x86**	**x64**	**x32**	**x64**
Status	✔	✔	✔	✔	✔	✔

General Information



Features

- Based on the cifX Toolkit source
- x86 and x64
- Unlimited number of cifX boards supported
- Support for NXSB-PCA or NX-PCA-PCI, netPLC, netJACK boards included
- Interrupt notification for applications
- Support of 2nd Memory Window for PCI based device (e.g. MRAM)
- Setting the device time during start-up if time handling is supported by the device
- DMA data transfer for I/O data (only PCI based cifX PC cards)

Limitations

	• No Interrupt support for NXSB-PCA and NX-PCA-PCI boards • On Big Endian machines the user is responsible for converting send/receive packets from/to Little Endian. This is **NOT** automatically done inside the driver / toolkit. • Interrupt support only available for devices handled through uio_netx kernel module • Only one application can access a card simultaneously. For multi-application access to a single card, a special application needs to be implemented by user. • Online diagnostics access via SYCON.net needs a TCP/IP Server functionality integrated into the user application. An example stand alone server is offered with the linux driver For more details click here.	

Description

The cifX Device Driver for linux, is splitted in a kernel module and a user space library. The kernel module is based on the generic uio module and

is responsible for cifX hardware detection and preparation to allow mapping the device memory (DPM) to user space.

The User space driver libcifX is an user mode driver providing the whole device specific functionality.

The user space library offers the same API as the cifX driver API for Windows.

For more details click here.

Road map

For more details click here.

Starting with V1.2.0.0 the support of autotools build method is to be discontinued. Future releases of the cifX Device Driver for Linux will not longer support the autotools build method. Starting with this release of the cifX Device Driver for Linux, CMake is supported instead.

Documentation

Page	Document type	Document title	Content	Date	Language	File type
cifX API (Revision 8)	Programming reference guide	cifX API	Description and usage of the standard cifX API.	2019-12	English	PDF
cifX Device Driver - Linux (Revision 11)	Driver manual	cifX Device Driver - Linux	Installation and usage of the Linux cifX Device Driver.	2019-09	English	PDF
cifX netX Toolkit (Revision 11)	Toolkit manual	cifX/netX Toolkit	Description and usage of the cifX C-Toolkit.	2019-04	English	PDF

News

Blog Posts

- cifX Device Driver V2.0.0.0 for Linux released created by Robert Mayer cifX Device Driver 2019-10-08
- cifX Device Driver V1.1.4.0 for Linux released created by Robert Mayer cifX Device Driver 2018-03-29
- cifX Device Driver V1.1.0.0 for Linux released created by Robert Mayer cifX Device Driver 2015-08-10

FAQs

- Does the driver work under RTAI
- Does the driver work under XENOMAI
- Which Kernel versions are supported
- Failed to create a Virtual Ethernet Interface
- How to enable an automated load of the uio_netx kernel module at system start

more FAQs ...