



Board Drivers

Introduction

The board driver is an operating system specific device or kernel driver. It runs the communication between the application software and the board.

The driver software provides functions for initialisation and start-up of the hardware, such as software setting of I/O addresses and interrupts or the

download mechanism for the firmware of the boards. The following operating systems are supported:

Windows

The board driver is implemented as Windows kernel device driver and is equipped with a protocol-independent device-interface (OPEN, READ, WRITE, CLOSE). For synchronization of the available driver commands, Windows standard mechanisms are supported, enabling a trouble-free integration of

the driver into the Windows – multitasking / multithreading concept:

- Synchronous (waiting) driver commands can be executed in separate threads, as no CPU load is required in the waiting mode.
- Asynchronous (non waiting) driver commands use system event flags.

Therefore, they can be easily integrated into event controlled environments.

All intelligent COMSOFT PCI boards as well as the FNL and SNL2-E are supported.

Scope of delivery

- Board Firmware: Real-time operating system and protocol driver
- Fully graphical 32 Bit software tool for start-up and testing of the board
- Executable 32 Bit DOS console programmes for testing of the board
- Complete source code for all example and test programmes
- DLL on demand

Linux

The CharacterDevice Driver was developed as a loadable module and is automatically loaded during the start up of the Linux operation. Following system calls are supported: open() / close() / read() / write() and ioctl(). Synchronous as well as asynchronous

calls are possible. Asynchronous calls are acknowledged with SIGNAL mechanism. Synchronous calls can be executed in parallel through threads. Select() cannot be supported. The distributions of Novell (openSUSE, SUSE Linux) and RedHat (i.e. WS4 and

Fedora) are supported; others on request.

All intelligent COMSOFT PCI boards as well as the SNL2-E are supported.

Scope of delivery

- Board Firmware: Real-time operating system and protocol driver
- Software tools for loading of firmware onto the board
- Software tools for parameter assignment of the protocol drivers
- Executable test programs in C-Source Code