

# XL-Driver-Library

## Driver Library for Vector Hardware Interfaces

The XL-Driver-Library is a universal programming interface you can use to create your own CAN, LIN and MOST applications while accessing Vector's powerful interfaces:

- > XL-Interface-Family (PCMCIA, PCI, PXI, USB)
- > VN2600 MOST interface (USB)
- > IOcab 8444opto on a CANcardXL (PCMCIA)

The XL-Driver-Library (API-DLL) is the consistent enhancement of the proven CAN-Driver-Library.

### Features and Advantages

The XL-Driver-Library provides you with general and bus-specific methods that make it easy to operate the CAN, LIN and MOST interfaces from Vector.

Channels and ports are managed with the general methods. Bus-specific methods are used to configure network nodes and to send or receive messages.

It is easy to assign logical application channels to physical device channels via the XL-Driver-Library or with the user-friendly Vector hardware configuration program.

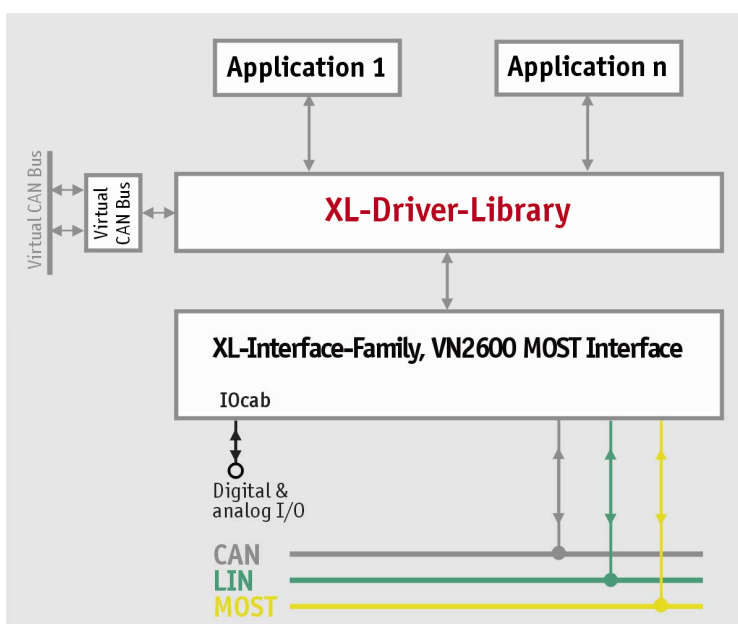
Furthermore, all Vector interfaces for CAN, LIN, MOST and digital and analog I/O can be driven in parallel via the library, e.g. for gateway functions. Simultaneous support of more than one channel for each bus system (multi-channel) makes it possible to implement any desired variation of interface capabilities.

### Application Areas

The XL-Driver-Library lets you utilize Vector CAN, LIN and MOST interfaces effectively and powerfully in your custom applications. It is especially useful in developing specialized tools that are uniquely adapted to a workstation and its local environment, with the goal of maximizing productivity.

Potential applications include:

- > Creating test tools for test benches
- > Integrating Vector interfaces in existing development and testing analysis programs
- > Integrating Vector interfaces in the process control of production facilities
- > Programming and configuring ECUs in production and service



Access to the Vector interfaces  
via the XL-Driver-Library

## Functions

### > CAN

Using the methods of the XL-Driver-Library for CAN it is not only possible to send and receive messages. It is also possible to set the baud rate, sampling points as well as powerful acceptance filter of the CAN controller being used. Additionally, transceiver errors are returned to the application for evaluation and monitoring purposes.

Simultaneous access to one or more CAN interfaces by multiple applications is possible (multi-application). For example, this is how you can use CANalyzer or CANoe in parallel to your own application for the analysis of bus traffic or for debugging.

### > LIN

The XL-Driver-Library supports LIN (Specification 1.3 and 2.0) with Master and Slave network nodes. Consequently, besides the Classic mode, the Enhanced CRC mode, Wake-Up and Sleep functions are also available. This results in an interface that is as realistic as an ECU and compliant to the specification.

### > MOST

The XL-Driver-Library supports both the MOST node and the Spy functions of the VN2600. The node functions allow the hardware to be operated as a complete node on the ring. It can receive messages and packets addressed to it, as well as send out its own messages to other nodes on the ring.

Access to OS8104 registers is also possible.

The XL-Driver-Library's MOST Spy functions are needed to record all messages and packets on the ring. These functions must be enabled by a separately purchased "MOST Analysis Library" license or the .MOST Option for DENoe or DENalyzer. The node functions, however, are provided free of charge.

### > Digital and Analog Input and Output (DAIO)

The XL-Driver-Library also supports the IOcab 8444opto that is connected to the CANcardXL. This allows you to acquire and generate analog and digital signals in addition to CAN, LIN and MOST messages. The data automatically get time stamps and can thus be correlated with CAN and LIN data.

## Included with Delivery

The XL-Driver-Library is supplied with the XL-Interfaces and VN2600 interface. It is included on the driver CD and contains:

- > DLL with headers for Borland C++, Microsoft Visual C++ and Visual Basic.NET
- > Manual (PDF)
- > Sample applications with source code
- > Migration Guide for converting a CAN-Driver-Library to a XL-Driver-Library as an appendix to the manual.