Further products:

POWERLINK For CODESYS

POWERLINK For CODESYS

"Two standard technologies brought together"

POWERLINK
For CODESYS

Integration package of the standard Industrial Ethernet protocol POWERLINK into CODESYS.

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ETHERNET POWERLINK

About POWERLINK

POWERLINK is one of the most used real-time Ethernet protocols in Industrial Automation. Its standardization, promotion and further development is managed by the Ethernet POWERLINK Standardization Group (EPSG). Further information at: www.ethernet-powerlink.org

Maximum performance

POWERLINK provides highest performance with below 100ns system synchronization and shortest cycle times. Such figures make of POWERLINK the technology of choice for motion control, CNC and robotics applications.

Absolute openness

POWERLINK is fully compliant with IEEE 802.3 and IEC 61784-2 and is a patent-free technology. openPOWERLINK is public, free and available under BSD license at: sourceforge.net/projects/openpowerlink

Complete system support

The complete automation system can be managed by a single POWERLINK network. Besides the automation devices like PLCs, sensors, drives, I/O modules, safety components and HMI displays, POWERLINK keeps a fixed time slot for the transfer of user data in its asynchronous phase. This allows communication with other devices like video cameras and other systems on a single bus without interfering with the real-time data dedicated to the automation system.
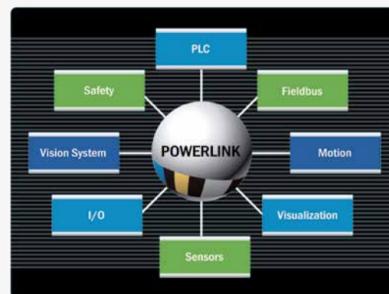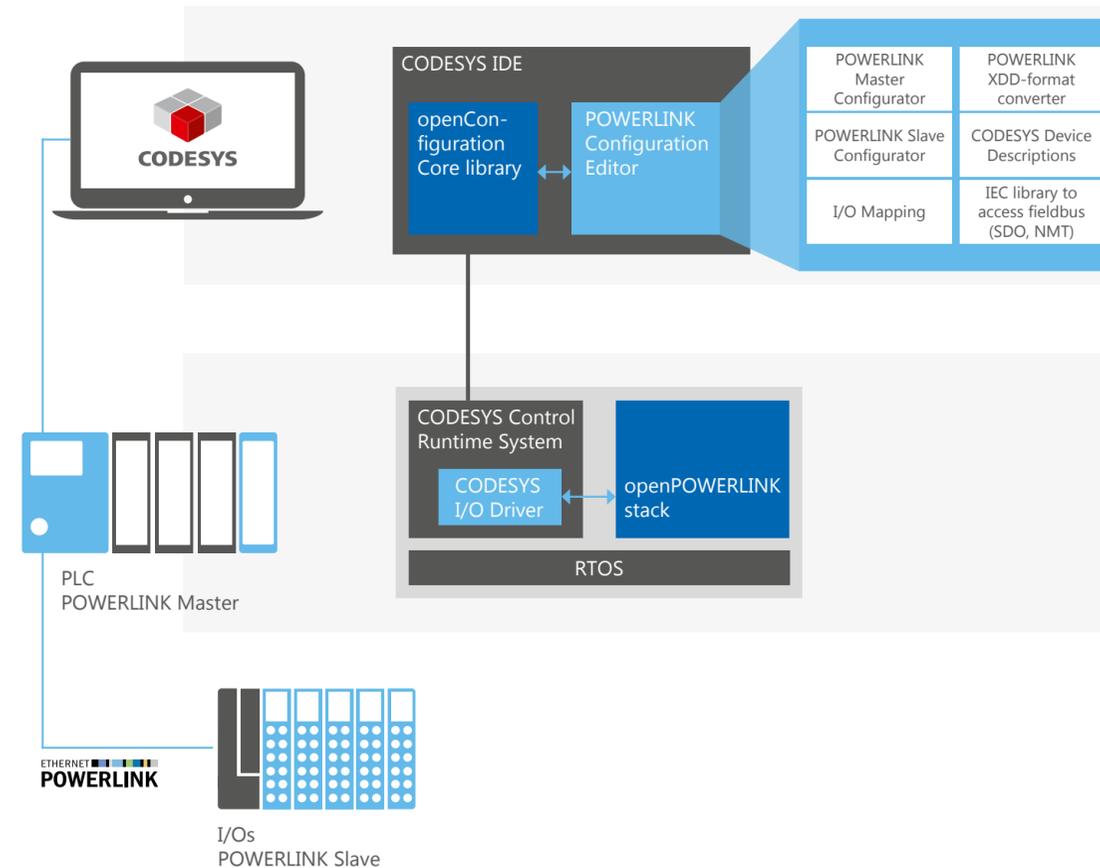
CANopen over Ethernet

Most of the industrial control systems used to support and still support CANopen. POWERLINK is the protocol of choice for manufacturers opting for an Ethernet based network protocol for their controllers of newest generation since POWERLINK's application layer is a carrier of CANopen functionality. POWERLINK uses the same object dictionaries and communication mechanisms (PDOs, SDOs, NMT) as CANopen.

➤ **POWERLINK is a patent-free, manufacturer-independent and available as a free open source solution.**

BE.services

BE.services is an embedded software solutions and services provider in Industrial Automation and has developed POWERLINK for CODESYS, composed of a configuration editor (CODESYS IDE plug-in component) and a CODESYS runtime system component (I/O driver). BE.services also offers openPOWERLINK stack integration services.

CODESYS IDE
- openConfiguration Core library
- POWERLINK Configuration Editor
  - POWERLINK Master Configurator
  - POWERLINK XDD-format converter
  - POWERLINK Slave Configurator
  - CODESYS Device Descriptions
  - I/O Mapping
  - IEC library to access fieldbus (SDO, NMT)

CODESYS Control Runtime System
- CODESYS I/O Driver
- openPOWERLINK stack
- RTOS

PLC POWERLINK Master

ETHERNET POWERLINK

I/Os POWERLINK Slave

Features

- Configuration of POWERLINK MN and CN parameters
- PDO Configuration
- Access to device specific parameters
- Support of Poll Response Chaining and polling mode
- POWERLINK cross communication support
- POWERLINK modular devices support
- Scan for devices
- Standard and advanced POWERLINK diagnostics
- Access to NMT and SDO functions from application
- For platforms without Operating System, with Windows, Linux or VxWorks. Others on request

CODESYS

About CODESYS

CODESYS is an IEC 61131-3 programming environment developed since 1994 by 3S-Smart Software Solutions GmbH, a software company based in Kempten, Germany. CODESYS has established itself as the standard programming environment in Industrial Automation and specifically in Factory Automation and Mobile Automation. It is used by hundreds of manufacturers as the development system for their industrial control systems. Further information at: www.codesys.com

Learning CODESYS has never been any easier. A complete online course is available in several modules and a total of 45 hours of training on BE.educated®, the e-learning platform for Industrial Automation Software. This course is PLCopen certified!

More information under www.be-services.net/education

Complete IDE

CODESYS provides a user interface for the programming of control applications with 6 programming languages (LD, ST, IL, FBD, SFC, CFC), debugging and monitoring features, editors for the configuration of direct I/Os and fieldbus protocols, an editor of HMI masks, programming and configuration of complex motion and CNC applications as well as the programming of Safety applications for SIL2 and SIL3 according to IEC 61508.

Platform independent runtime system

The execution of the application program is managed by the CODESYS Runtime System. This software is installed and adapted by the industrial controller manufacturer. The runtime system is compatible with many hardware platforms, from low-end ARM architecture up to multi-core x86 platforms. CODESYS generates native code thanks to proprietary compilers. The runtime system runs as single task on embedded platforms or in a multitask mode in combination with several standard Operating Systems like Linux or VxWorks.

Extension friendly

Additional features are available from the CODESYS Store, an online market place where application developers can access tools and libraries in order to ease their development tasks.

Extensions in the runtime system, adaptation to other Operating Systems, integration of software tools as runtime components, extensions of the IDE are services provided by BE.services GmbH.
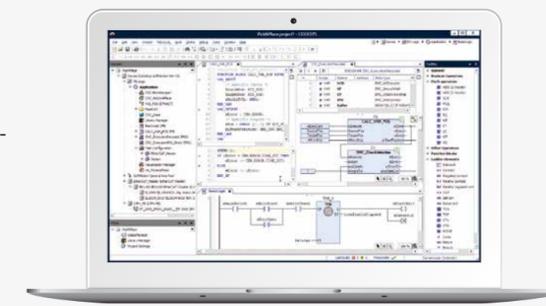
➤ **The complete CODESYS IDE is available free of charge on the CODESYS Store at store.codesys.com**