



LabVIEW™



LabVIEW™ PROFINET VISA DRIVER

PROFINET IO for LabVIEW™

KUNBUS
industrial communication

LabVIEW™ PROFINET VISA DRIVER

EASY TO INTEGRATE AND READY FOR THE FUTURE

PROFINET is the open and leading Industrial Ethernet standard from PROFIBUS & PROFINET International and used in countless visualization and control applications. Excellent plant-wide networking, fast data communication and long-term availability are just a few of the many benefits.

The KUNBUS PROFINET VISA Driver equips National Instruments' LabVIEW™ with a real-time PROFINET IO connection providing a powerful extension of the application range in the test and automation sector. The package including hardware and software is based on the KUNBUS DF PROFINET IO board, available in PCI and CPCI format. These different formats as well as the real-time VISA driver concept can be integrated in different LabVIEW™ systems and platform combinations.

An installation in a classical PC system under LabVIEW™ for Windows is just as possible as in a real-time PXI system under LabVIEW™ RT.

The LabVIEW™ PROFINET VISA Driver supports PN IO Controller and PN IO Device mode. Because its efficiency is so huge, the new board achieves operations of 64 PROFINET devices per millisecond in the performance class RT. Among the cyclic data traffic, all acyclic read/write/diagnosis and alarm functions are supported – and of course compatible to the PN IO standard of PROFIBUS & PROFINET International (PI), the umbrella organisation. The size

of the process image of the card's I/O data is 16 Kbyte (8 Kbyte input and 8 Kbyte output data). The available driver variety (Windows, Linux, LabVIEW VISA) as well as efficient add-on software packages guarantee a diversified field of application. Additional special features, like the PROFINET supervisor functionality, extensive download, analysis and control functions as well as the process data image with integrated time stamp correspond to the today's requirements of the automation and process world.

The board initialization and the data handling are demonstrated in detailed example VI's, which also can be used for the immediate start-up of PROFINET IO. The easy to understand "Getting started manual" and the detailed VI context help

will support the user. In addition to the standard VI interface, LabVIEW™ express VIs are available providing a plug and play integration of the PROFINET IO process and diagnostic data into the application.

The comfortable and full-graphical KUNBUS CONFIGURATOR III is included in the package for the creation of the PROFINET IO Controller configuration. Based on PROFINET GSD files the bus configuration can be compiled easily and quickly. This configuration is downloaded to the board's flash memory through the provided download program and is immediately ready for use. Re-downloading is only necessary after a change of the bus configuration, which ensures an optimal system readiness.



TECHNICAL DETAILS

- › PCI and CPCI format available (PCI express format is under way)
- › PN IO Controller and PN IO Device
- › PROFINET IO Performance Class B (≥ 1 ms)
- › Ethernet interface: RJ45 100 Base-T(X)
- › Process data image with time stamp and process data access < 1 ms
- › Flashable PROFINET IO configuration with configuration tool based on GSD files
- › Via virtual instruments (standard and express VIs) direct connection between LabVIEW™ and PROFINET IO
- › Support of all acyclic diagnosis and alarm functions
- › Supporting LabVIEW™ 2012 and higher

Manufacturer:

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