



**LabVIEW™**



# LabVIEW™ PROFIBUS VISA DRIVER

## PROFIBUS DP for LabVIEW™

**KUNBUS**  
industrial communication

# LabVIEW™ PROFIBUS VISA DRIVER

## PROVIDING EASY ACCESS AND COMFORTABLE CONFIGURATION

PROFIBUS DP is the leading fieldbus system in Europe and is used in all sectors of the capital-goods and process industry in countless visualization and control applications.

The KUNBUS PROFIBUS VISA Driver equips National Instruments' LabVIEW™ with a real-time PROFIBUS DP 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 PROFI II board, available in PCI, PCIe 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™ PROFIBUS VISA Driver supports DP Master and DP Slave mode. This allows data exchange with any DP Slaves as well as the integration of a complete LabVIEW™ system as DP Slave in an already existing PROFIBUS DP network. The PROFIBUS DP process and diagnostic data can be accessed in a simple manner.

The DF PROFI II board can be operated as DP Master or as DP Slave and the available driver variety (Windows, Linux, LabVIEW™ VISA) as well as efficient add-on software packages, such as FDT 1.2 COM DTM and

OPC server, guarantee a diversified field of application. Additional special features, like the integrated watchdog function with electrical disconnection of the PROFIBUS interface for redundant PROFIBUS DP Master concepts 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 VIs, which also can be used for the immediate start-up of the PROFIBUS. 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 PROFIBUS DP process and diagnostic data into the application.

For the creation of the PROFIBUS DP Master configuration the comfortable full-graphical KUNBUS CONFIGURATOR III is included in the package. Based on DP Slave GSD files a bus configuration can be compiled easily and quickly. This configuration is downloaded to the DF PROFI II 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 (3.3 V and 5 V), PCIe (PCI-Express) and CPCI (CompactPCI) format available
- › DPV0 Master class 1, DP Slave, DPV1 Master class 2
- › Hardware watchdog function
- › Process data image with time stamp and process data access < 1 ms
- › Flashable PROFIBUS configuration with configuration tool based on PROFIBUS GSD files
- › Direct connection between LabVIEW™ and PROFIBUS via virtual instruments (standard and express VIs)
- › Detailed example VIs for handling process and diagnostic data as well as initialization and detailed VI context help
- › PROFIBUS FDT 1.2 Communication DTM and OPC Server available
- › Supporting LabVIEW™ 7.1 and higher

Manufacturer:

KUNBUS GmbH | Heerweg 15C | 73770 Denkendorf | Germany | Tel: +49-711/30020678 | Fax: +49-711/30020677 | info@kunbus.com | www.kunbus.com