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 COMSOFT 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 COMSOFT DF PROFI II board, available in PCI, PCIe, CPCI and PC104+ 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, e.g. as a high performance PAC system for time-critical test applications or industrial automation applications.

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.

Providing easy access

The PROFIBUS DP process and diagnostic data can be accessed in a simple manner. 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.

DF PROFI II – Technical Details

- PCI (3.3V and 5V), PCIe, CompactPCI and PC104+ format available
- DPV0 Master class 1 and DP Slave
- DPV1 Master class 2
- Hardware Watchdog function
- Optional real-time Ethernet interface (PROFINET)
- Process data image with time stamp
- Process data access < 1 ms
- Flashable PROFIBUS configuration
- Configuration tool based on PROFIBUS GSD Files
- PROFIBUS 1.2 FDT Communication DTM available
- OPC-Server available

Comfortable configuration

For the creation of the PROFIBUS DP Master configuration the comfortable full-graphical COMSOFT CONFIGURATOR II is included in the package.

Based on DP Slave GSD data 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.

LabVIEW PROFIBUS VISA Driver – Overview

- Via virtual instruments (Standard and Express VIs) direct connection between LabVIEW and PROFIBUS
- Integrated firmware and PROFIBUS configuration loader
- Easy access to process and diagnostic data
- Detailed example VIs for handling process and diagnostic data as well as initialization
- "Getting started manual" for installation and initialization
- Detailed VI context help
- Supporting LabVIEW 7.1 and higher
COMSOFT has been successful in the field of industrial communication for more than 25 years.

We realize individual concepts, look for the best solutions and supply our customers with powerful and flexible products.

COMSOFT develops and manufactures products for the master-slave range as well as provide the implementation, maintenance and diagnostics of PROFINET networks. Moreover, we specialize in the development of new technologies such as PROFINET IO.

The COMSOFT DF PROFI II board is a PROFIBUS board of the newest generation and available in the PCI (3.3V and 5V), PCIe (PCI-Express), CPCI (CompactPCI) and PC104+ format.

The 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 OPC-Server and FDT 1.2 Communication DTM, 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.

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