

# **LabVIEW PROFIBUS VISA Driver DP-Slave**

Getting Started

V1.35

27.04.2017

**Project No.:** 5303  
**Doc-ID.:** LabVIEW PROFIBUS VISA Driver

## Revision History

<b>Version</b>	<b>Date</b>	<b>Description</b>
V1.35	27.04.2017	Minor changes
V1.34	31.03.2017	KUNBUS Branding
V1.33	16.02.2011	Function Palette location changed
V1.32	09.09.2009	Hot plugging note added
V1.31	02.06.2009	Minor Fixes
V1.30	16.11.2007	RT Installation changed
V1.29	25.09.2007	DPV1 added
V1.23	03.08.2006	Configurator II Download and Monitor/Modify
V1.22	17.07.2006	Link to Configurator II changed
V1.21	13.01.2006	New install tool / Download tool upgrade
V1.2	28.07.2005	Driver modification / Example update
V1.11	13.01.2006	Slave example upgrade
V1.1	28.07.2005	Driver modification / Example update
V1.0	01.06.2005	Initial Version

**KUNBUS** GmbH  
Heerweg 15c  
73770 Denkendorf, Germany  
Phone +49 711 300 20 678  
Fax +49 711 300 20 677

Copyright © 20179 by **KUNBUS** GmbH

This document is protected by copyright. Reproduction, duplication, publishing, transfer or disclosure of the contents of this document are only permitted after prior written agreement has been obtained from **KUNBUS** GmbH.

## Contents

1	Introduction.....	4
1.1	Prerequisites:.....	4
2	Installation .....	4
3	Profibus menu and example .....	6
3.1	Profibus menu .....	6
3.2	Profibus example.....	7
4	Profibus DP-Slave Express VI .....	10

## List of Figures

Figure 1: Driver installation .....	4
Figure 2: Driver directory.....	5
Figure 3: Measurement and Automation Explorer .....	5
Figure 4: Profibus DP-Slave menu .....	6
Figure 5: Profibus DP-Slave Express menu .....	6
Figure 6: Profibus DP-Slave example-DP-Slave Properties .....	7
Figure 7: Profibus DP-Slave example-Monitor/Modify .....	8
Figure 8: Profibus DP-Slave example-Status Info .....	9
Figure 9: Profibus DP-Slave example block diagram .....	9
Figure 10: DP-Slave Express Profibus .....	10
Figure 11: DP-Slave Express Configuration .....	11
Figure 12: DP-Slave Express Monitor/Modify .....	12
Figure 13: DP-Slave Express VI.....	12

This page is intentionally left blank !

# 1 Introduction

This document describes the set into operation procedure of the DF PROFI II board as DP-Slave.

## 1.1 Prerequisites:

- A DF PROFI II and **KUNBUS** LabVIEW VISA driver for Windows 2000/XP on CD.
- The National Instruments LabVIEW Development System installed on the Windows PC.
- Installed NI-VISA standard driver on the Windows-System.

## 2 Installation

- Install the DF PROFI II board in the PC-System.

**Please note, if a DF PROFI II CPCI board is used, the board does not support Hot Plugging. If installing/uninstalling the board the Compact PCI system must be switched off and the power supply must be interrupted.**

- Switch on the PC-System.
- Start the Setup from the **KUNBUS** driver CD delivered with the package.
- Install the board driver software via the Windows “New hardware”- dialog which is popped up automatically after the board was installed. Select the option to install the driver from the specify directory:

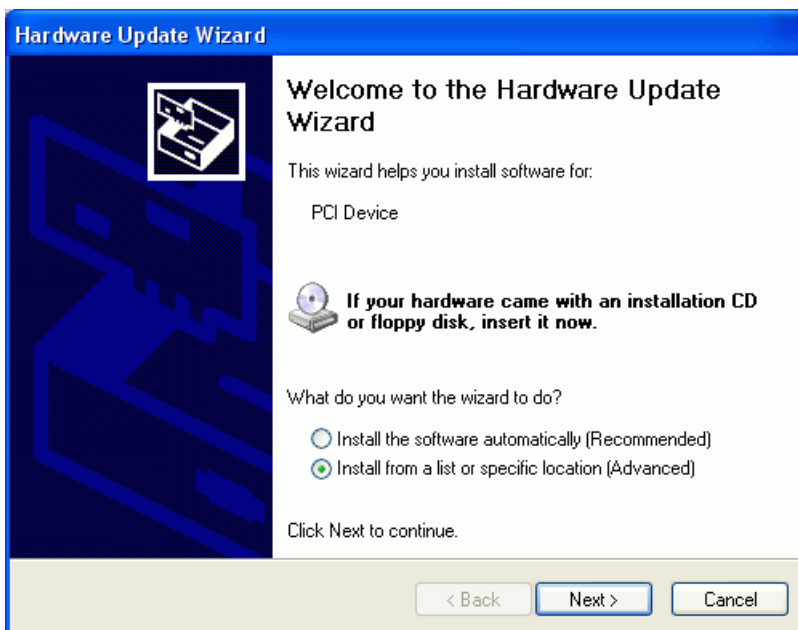


Figure 1: Driver installation

- Select the install directory of the driver software:

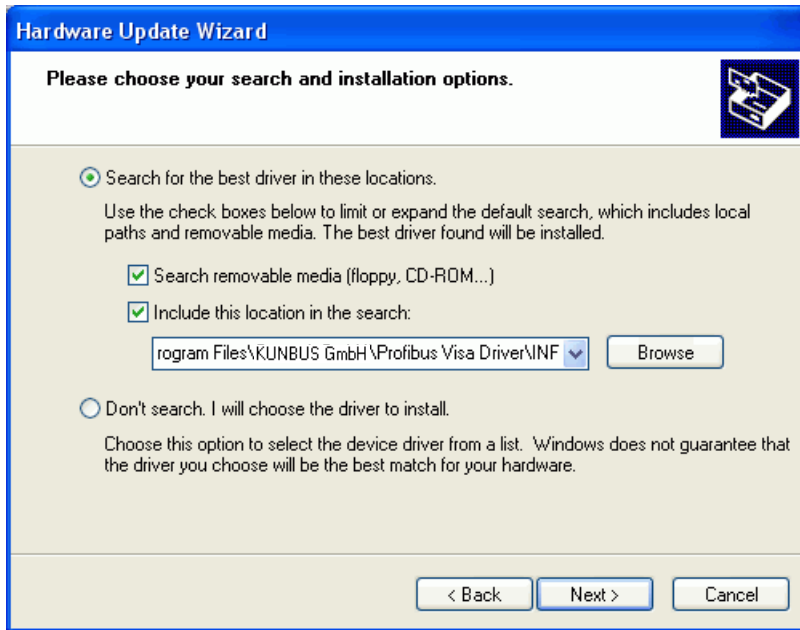


Figure 2: Driver directory

- Check by the NI MAX (Measurement & Automation explorer) the proper installation of the DF PROFI II board:

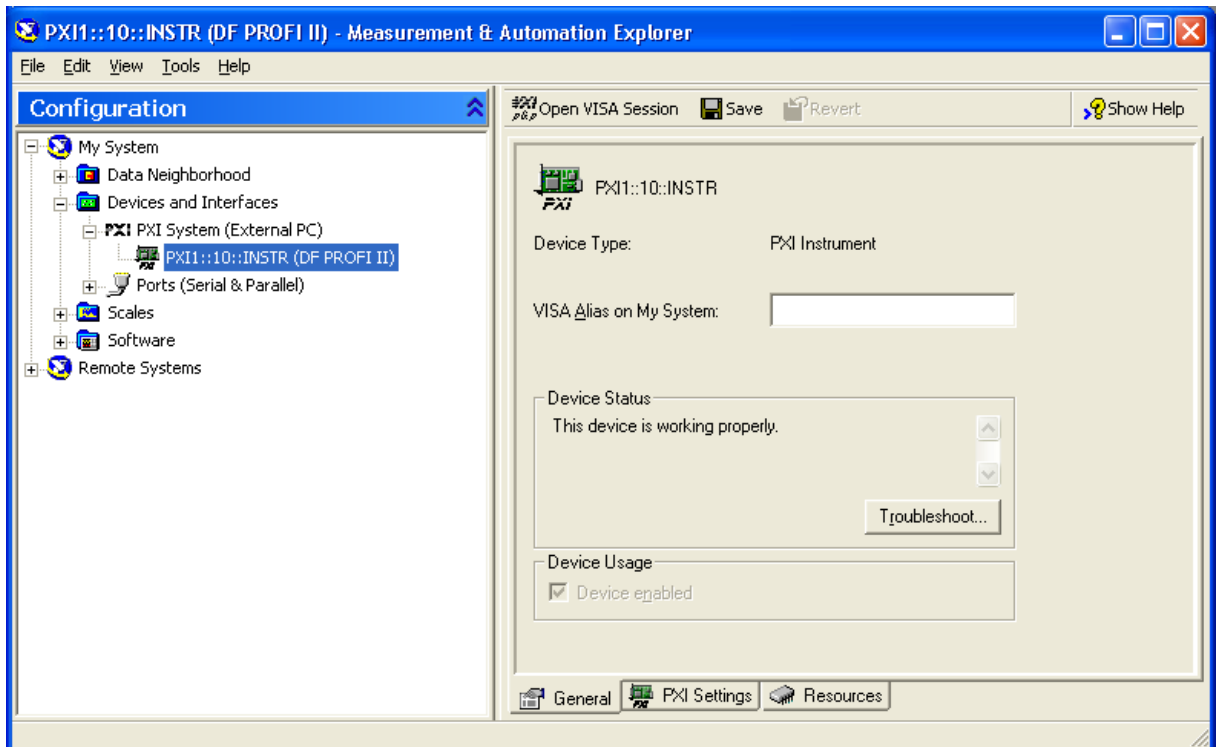


Figure 3: Measurement and Automation Explorer

### 3 Profibus menu and example

The delivery package includes VI's to initialize the DF PROFI II as DP-Slave. Refer to the LabVIEW Context Help for details.

#### 3.1 Profibus menu

The **KUNBUS** DF PROFI II menu can be found under:

- KUNBUS Library

- Profibus VISA Driver 

- DF PROFI II DP-Slave 

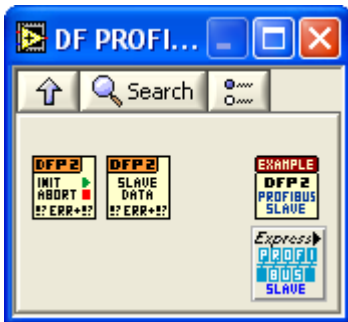


Figure 4: Profibus DP-Slave menu

For an easy access an Express VI is available. The Express VI can be found in the **KUNBUS** DF PROFI II menu under:

- DP-Slave Express 



Figure 5: Profibus DP-Slave Express menu



## 3.2 Profibus example

Before the *DFP2\_DP-SlaveExample* sample program can be run select within the DP-Slave Properties-Tab the *DFP2ResourceName* of the DF PROFI II board to be used. Additionally select the Address, the Baud rate and a slave module from module list. These parameters must correspond with the Profibus master configuration. Run the *DFP2\_DP-SlaveExample.vi*:

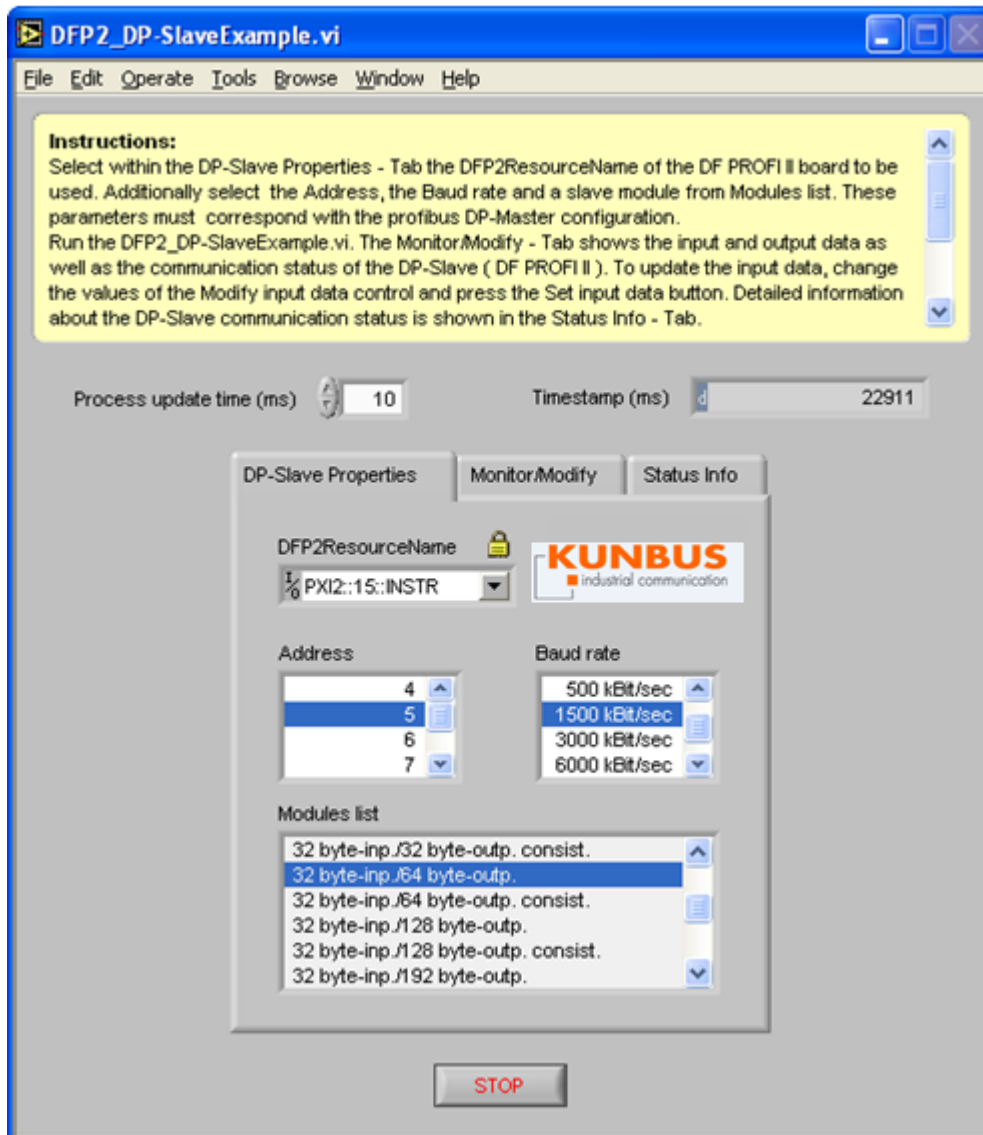


Figure 6: Profibus DP-Slave example-DP-Slave Properties

The Monitor/Modify-Tab shows the input and output data as well as the communication status of the DP-Slave. To update the input data, change the values of the Modify input data control and press the Set input data button:

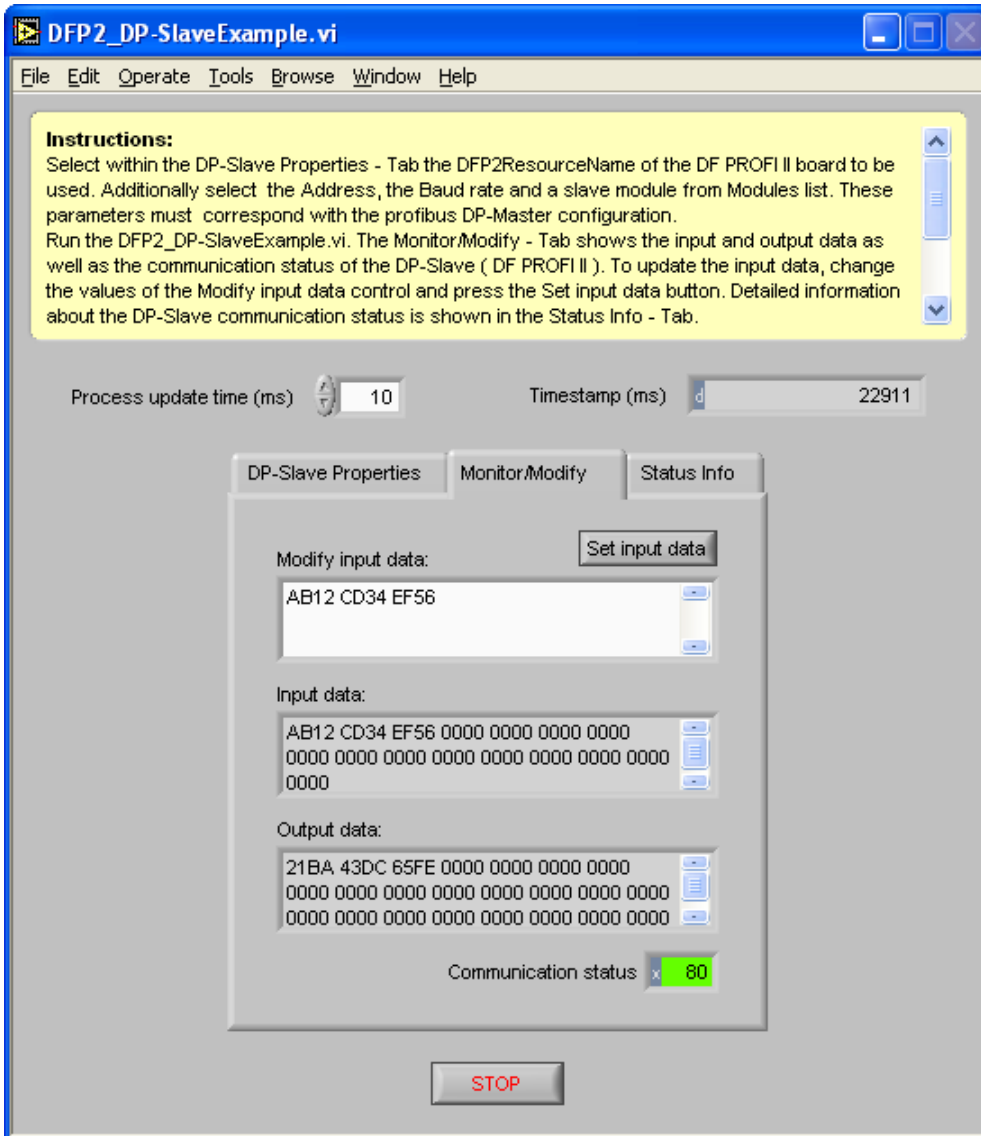


Figure 7: Profibus DP-Slave example-Monitor/Modify

The Status-Tab shows the DP-Slave communication status in detail:

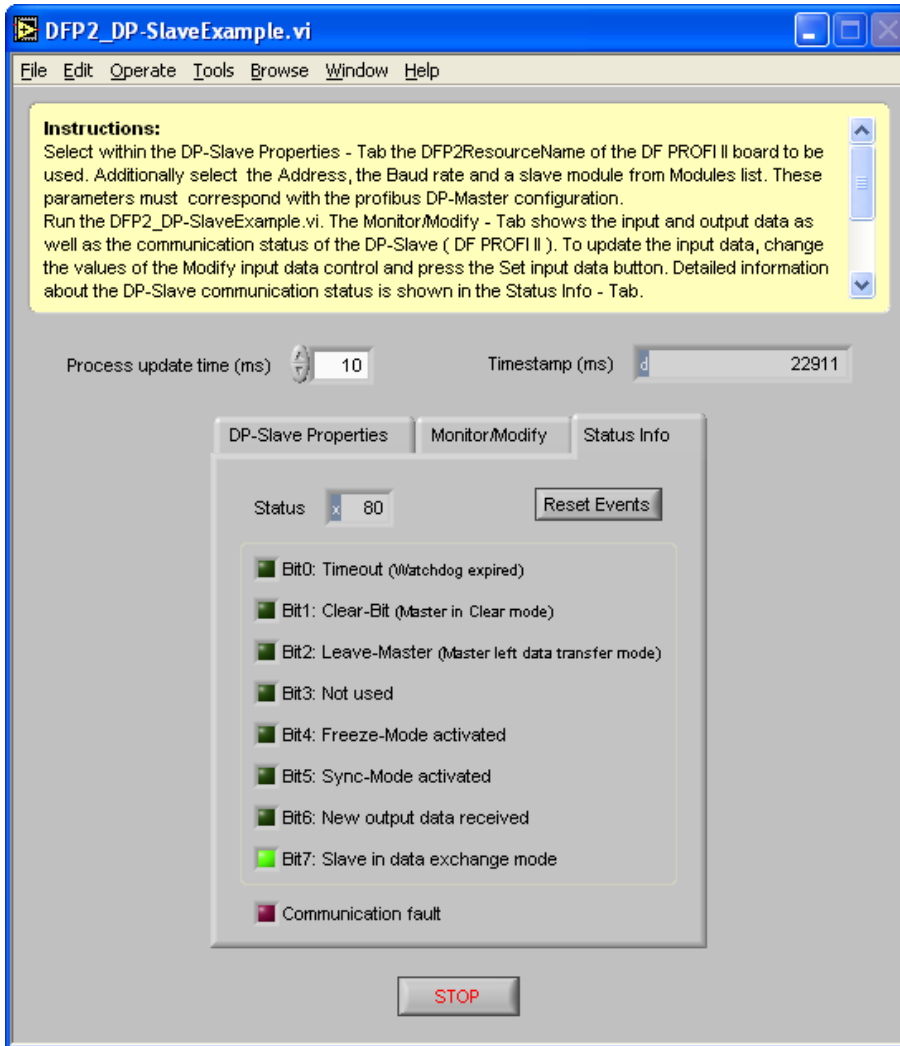


Figure 8: Profibus DP-Slave example-Status Info

The VI's block diagram shows the simple steps how to access the DF PROFI II as DP-Slaves.

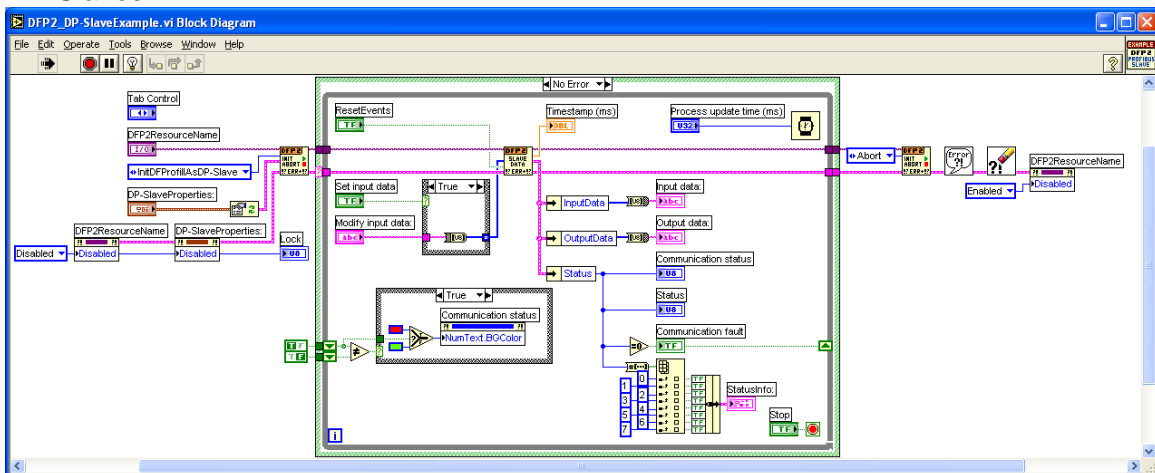


Figure 9: Profibus DP-Slave example block diagram

## 4 Profibus DP-Slave Express VI



For an easy access a Profibus DP-Slave Express VI is available. If dropping the Express-VI to the block diagram a dialog opens to configure the DP-Slave. Select the DF PROFI II board, the Profibus address of the DP-Slave and the Baud rate:

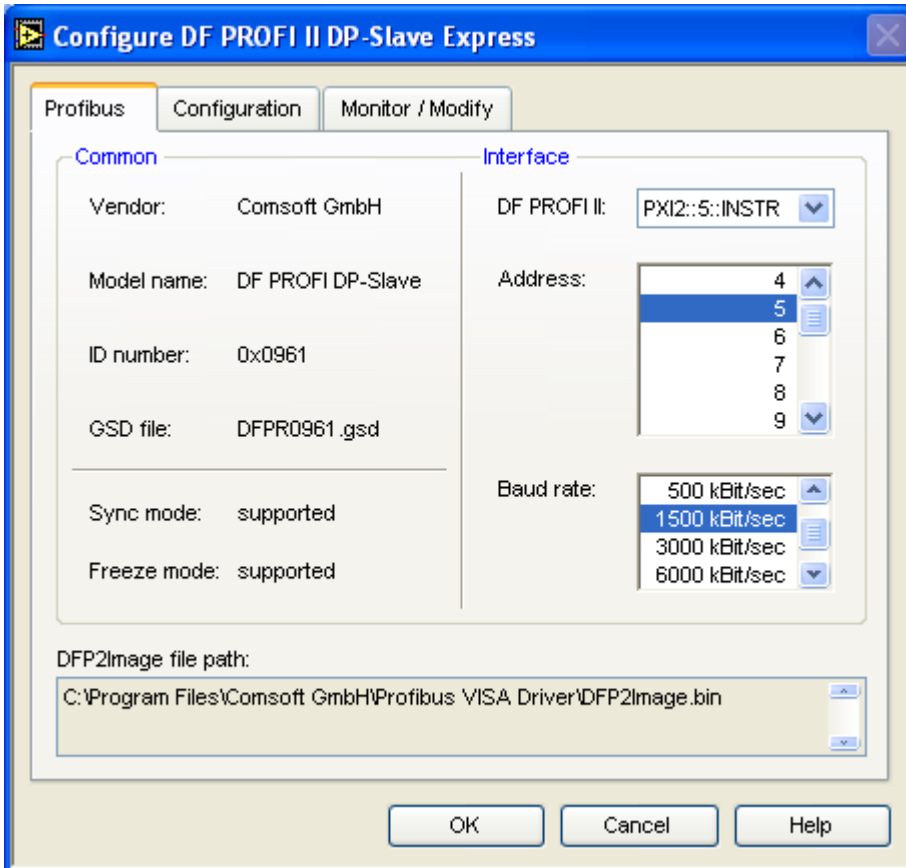


Figure 10: DP-Slave Express Profibus

The Configuration-Tab shows the supported slave modules. The selected module must correspond with the Profibus master configuration:

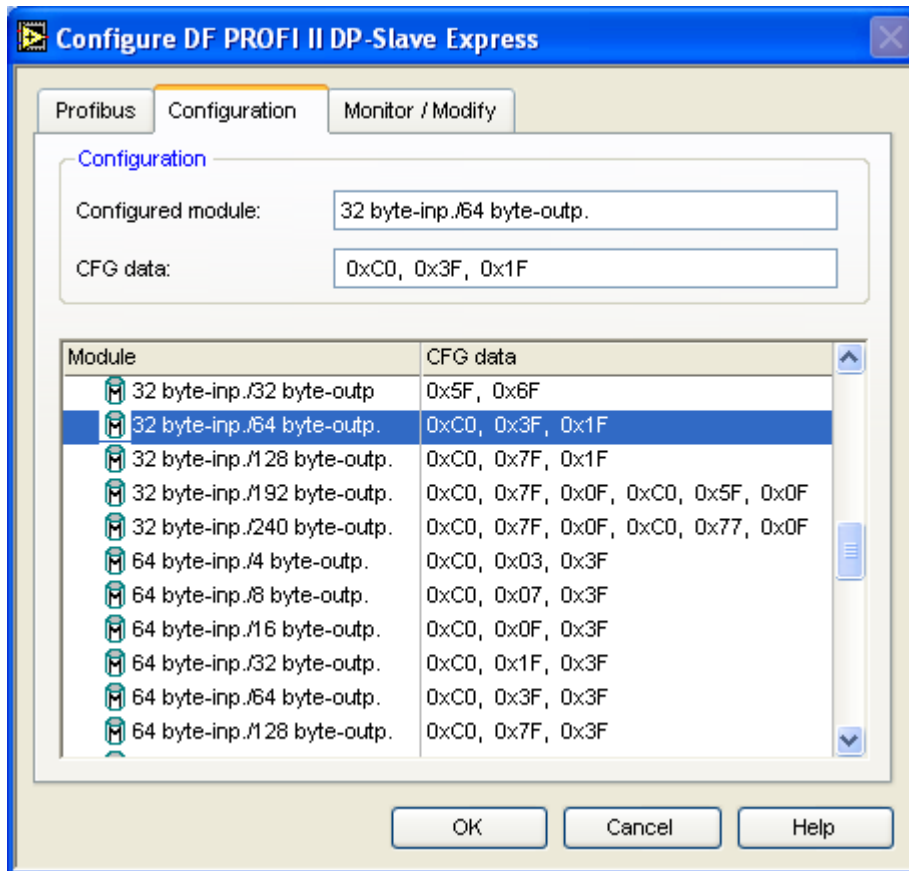


Figure 11: DP-Slave Express Configuration

*Note:* Before using the monitor/modify-mode a available DF PROFI II, a valid Profibus address, the Baud rate and the module must be selected.

