

Direct-Link® PROFINET Multi IO-Device driver is a comprehensive solution for the sharing of process data between a PC-based system and PROFINET controllers



Direct-Link® PROFINET multi IO-Device is a Windows 32-bit software driver (library DLL) that allows the user to develop applications to connect a PC-based system to a PROFINET network.

The Direct-Link® multi IO-Device uses a PC's Ethernet communication port(s) to exchange real-time data with PROFINET controller(s); the PC behaves as a slave I/O Device. Typically, this solution is used to share process data between PC-based visualization systems (HMI, Scada, and Control Panel) and a PROFINET controller. Process information can be displayed, operator commands can be sent and online diagnostics monitored (communication status, PROFINET alarms); features which are important for the availability and the stability of the whole system.

The uniqueness of the Direct-Link® solution is the capability to emulate up to 32x IO-Devices at the same time using a single PC platform. This permits the design of industrial applications such as Slave IO simulation to test systems, machines controlled by DCS/PLC and test bench for PROFINET controller development/ production.

The product software suite includes a graphical configuration tool to set up the IO-Device parameters (name, IP address, slots, data type, etc) and generate the appropriate GSD file(s) for import into the IO-Controller engineering console. The software package also includes development libraries to access IO-Device memory mapping (input, output, alarms, status, etc) and browse process variables by name.

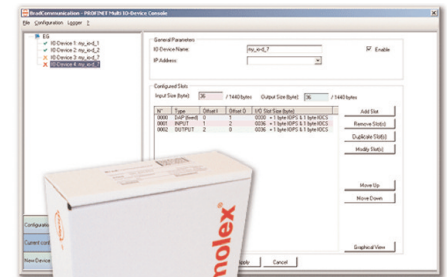
Direct-Link® Multi IO-Device

PROFINET Multi-Slave Driver for PC-Based Windows applications



FEATURES AND BENEFITS

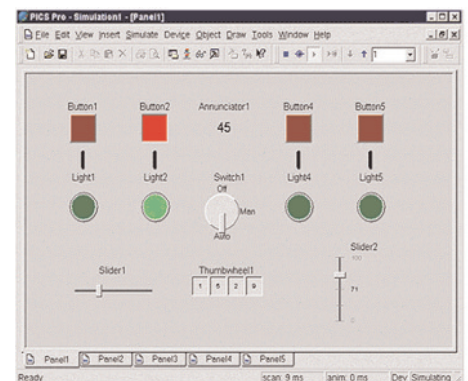
- Connects a PC running Windows to PROFINET network
- Uses standard PC Ethernet port(s)
- Supports PROFINET IO Real-Time (RT) communication according PROFINET v2.2 specifications
- Supports multi-slave functionality; Emulate up to 32x IO-Device connections on a single PC by using multiple Ethernet ports
- Compatible with Windows 32-bit: 7, 2008 Server, Vista, 2003 Server, XP
- Includes graphical configuration console and diagnostic tool
- Product package includes Windows development library (DLL); compatible with applicomIO fieldbus cards allow user to switch to Multi IO-Device solution
- Allows to define and start a user application after running the Multi IO-Device application
- Supports PROFINET alarms
- Product package includes Windows development library (DLL)



Direct-Link® PROFINET Multi IO-Device

MARKETS AND APPLICATIONS

- Visualization system; Data exchange of I/O process data between a PROFINET controller and a PC-based visualization system (HMI / Scada / Supervision)
- Operator panel interface; allow an operator to send commands through a PC panel
- Data sharing / Data concentrator; low cost solution to share I/O process data between multiple distinct PROFINET networks using multi-slave capability
- Test bench; can be used to fully load PROFINET controller connections or to conduct benchmarking instead of buying expensive real devices
- Device I/O simulation; when used in conjunction with I/O simulation software, the product can emulate multiple PROFINET slave devices to test control systems (PLC, DCS, Scada, etc) before going online



Device I/O Simulation

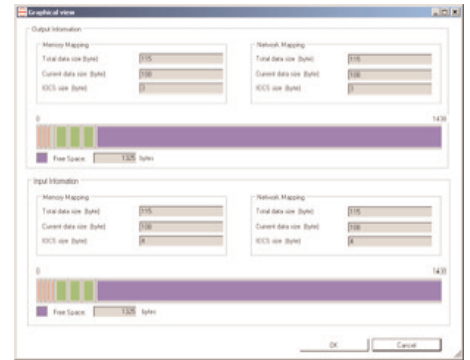
SPECIFICATIONS

Product Package

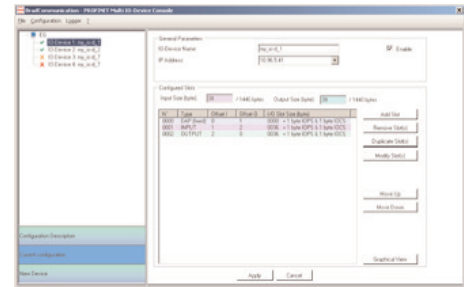
- Engineering Tools
 - Configuration console
 - Manage multiple user projects (Import/Export)
 - Hide/Show PROFINET production status in IO-Device memory
 - Multi IO-Device application engine
 - IO-Device diagnostic view
 - Log view
- Electronic documentation including example of integration into Siemens Step7™
- Development Libraries:
 - MS Visual (C#/VB/C++/C)
 - Borland / Delphi
- Supported OS: Windows (32-bit & 64-bit): 7, 2008 Server, Vista, 2003 Server, XP
- Software Key protection

Protocol Specifications

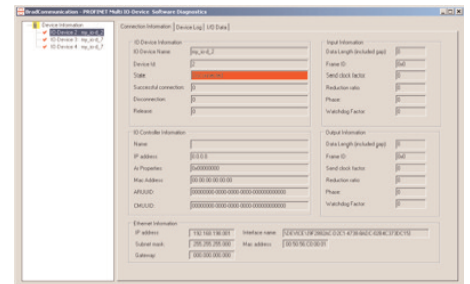
- PROFINET IO RT Class-1
- Minimum refresh period: 32ms (Windows limitation)
- Conform to PROFINET IO v2.2 specifications
- Emulate up to 32x PROFINET IO-Devices (Slave)
- Support up to 1438 bytes Input and 1438 bytes Outputs process data per IO-Device context
- Support up to 64 modules (slot) Input or Output per IO-Device context
- Support PROFINET Alarms
- Process data format: Little Endian (Intel)



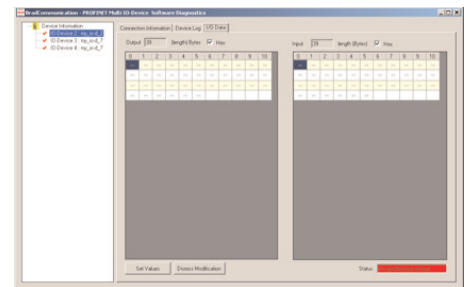
Configuration console



Device I/O mapping view

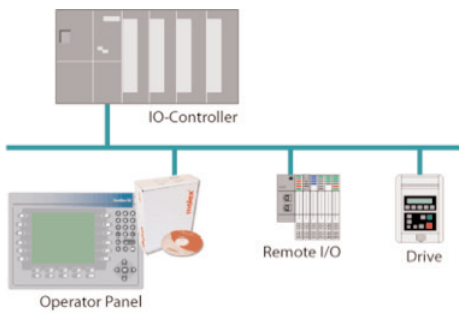


IO-Device diagnostic view

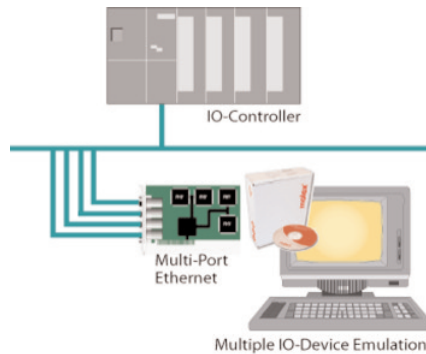


IO-Device process data view

Typical Architecture



Multi IO-Device Architecture



ORDERING INFORMATION

Order No.	Engineering No.	Protocol	Description
112027-5007	DRL-EPN-SWF-S	PROFINET	Multi IO-Device driver for Windows

Also available in Molex product portfolio: PROFINET IO-Controller and IO-Device protocol stacks, PROFINET network interface card.