IQ² Development

IO-Link components
simple, individual, uncomplicated

www.iq2-development.de

> iqInterface®

Your easy access to IO-Link devices

iqInterface® is a versatile development and production tool for IO-Link Master and IO-Link Device components. Instead of establishing laborious system installations with controls, fieldbuses, and IO-Link gateways, you can use a simple connection via RS232, USB or Ethernet of iqInterface® in order to communicate with your IO-Link products during development, testing, approval, or production.

Simple

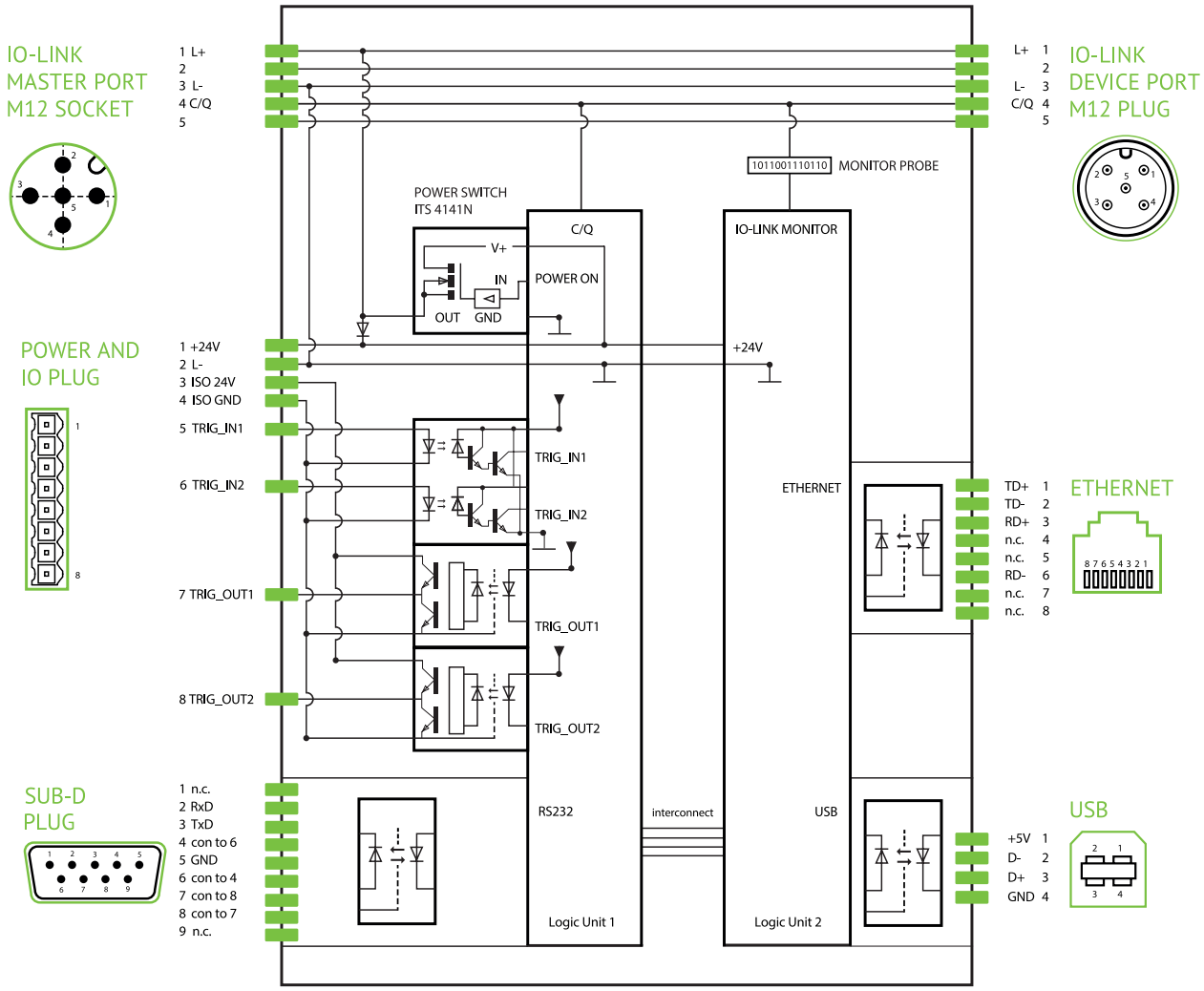
iqInterface® provides easy access to all IO-Link devices with a high-performance, intuitively designed graphic user interface. In order to guarantee the seamless integration of iqInterfaces® with your testing environment, we have disclosed the serial as well as the Ethernet iqInterface® protocols.

Individual

Using the Direct Mode of the iqInterface® you can use your existing IO-Link interface in order to create your own protocol. Fast calibration and firmware update processes in production are thereby possible without the IO-Link protocol overhead.

Flexible

Our extensive Python test automation library is particularly aimed at firmware developers for IO-Link devices. The library is conducive to creating complex and extremely flexible testing procedures for protocol, software module, and black-box tests.



Technical data for iqInterface®

- 24V power supply and Trigger-I/Os with a standardised industrial plug
- RS232, USB and Ethernet interfaces
- freely configurable Trigger input and output (two each)
- all communication and Trigger connections are galvanically isolated
- separate connections for IO-Link Master Port and IO-Link Device Port via M12 socket and M12 plug respectively
- 24V power supply on both IO-Link Ports, activated/deactivated via software
- possibility of mounting with wall and top-hat rails

COMMUNICATION INTERFACES

Feature	Device functionality
B	RS232 and USB
E	Ethernet

SOFTWARE OPTIONS

Feature	Description
D	Device functionality
M	Master functionality
U	USB activation
O	Monitor functionality *

* available from 3Q/2014

Product code

IOL1 - B - DMU - W - CP001

ADDITIONAL FUNCTIONS

Feature	Description
-	none
H	top-hat rail adaptation
W	wall mounting

CLIENT VERSION

Feature	Description
CP001	Customer project with identification 001

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Possible applications in production and testing

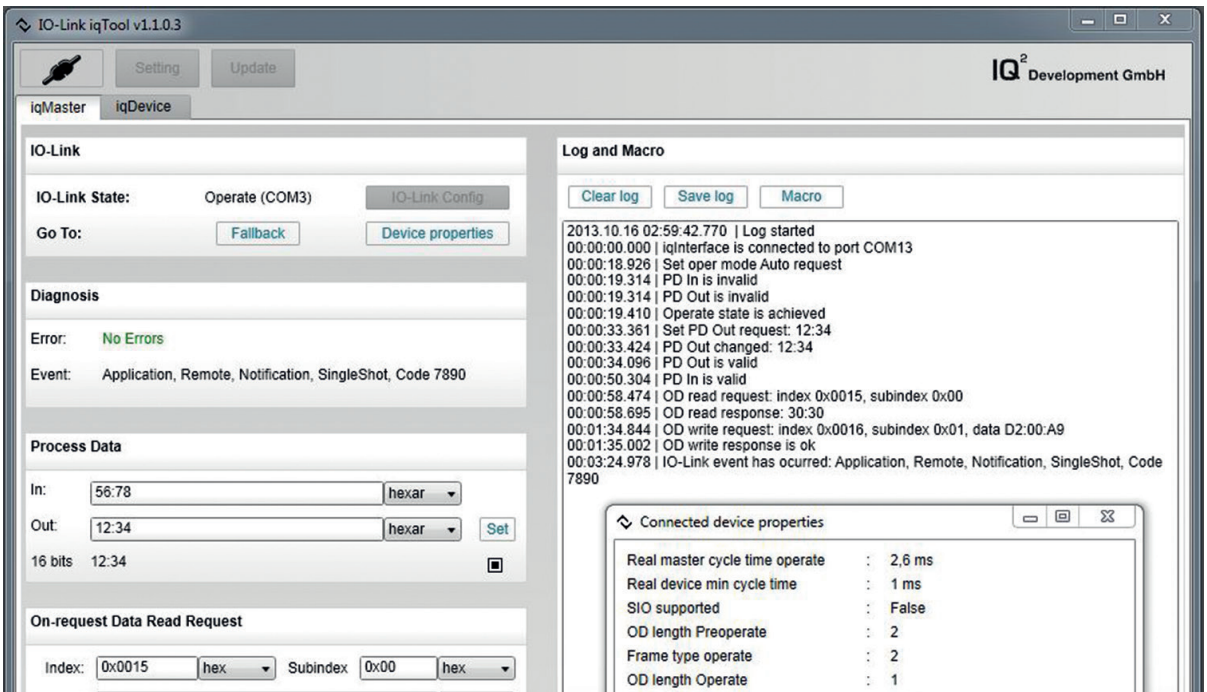
- high-performance GUI for fast implementation and tests accompanying development
- simple and uniform serial communication protocol
- specification for the serial communication protocol is disclosed
- communication DLLs (.NET and ANSI C) for connecting iqInterface® to the testing environment
- disclosure of the DLL source codes, making it possible to extend and reuse .NET and ANSI C projects in client applications at will
- possibility of directly using the IO-Link hardware on hand in order to realize any client-specific serial protocols (e.g. calibration mechanisms, bootloader implementation)
- extensive Python test automation library for creating complex and extremely flexible testing procedures for protocol, software module, and black-box tests

IO-Link Device functionality

- configuration of a generic device with any IO-Link communication parameters
- V1.0 and V1.1 IO-Link specification support
- event and error generation
- 2kByte freely configurable permanent parameter memory
- data storage device support
- device settings are permanently stored in EEPROM so the generic device is also applicable autonomously without pre-configuration

IO-Link Master functionality

- easy access to all IO-Link devices via GUI or directly via a serial or Ethernet protocol
- IODD interpreter
- possibility of recording macro sequences for test automation in GUI



iqStack® Device and Master

Your access to IO-Link technology

Reduce the communication gap to the lowest field level – communicate all the way to sensor and actuator level, thereby minimising the variance in existing interfaces. Benefit from the advantages of worldwide standardised I/O technology (IEC 61131-9).

Do you want to switch to IO-Link? Do you want to develop new IO-Link products? Simplify the implementation of the IO-Link codes with our iqStacks®.

Both, iqStack® Master and iqStack® Device, completely comply with the official IO-Link specifications regarding layer structure, service, and terminology. In the source code of every software module you will find detailed notes with cross references to the IO-Link specification chapters. This brings you transparency and consistency for the entire code. Thanks to our integration experiences in different hardware systems we were able to optimise our stacks for maximum efficiency and speed. In the development of the iqStacks®, various requirements have been taken into consideration without making the code more complex. We attach great importance to our high code quality as well as a transparent working process. Our detailed and fully-comprehensible code documentation will help you to quickly port the iqStack® to your application.

Simple & uncomplicated

You obtain our products complete with detailed code documentation as well as introductions for fast start-up and implementation.

Comprehensible & ready-to-use

To evaluate our products you can download them for free as C/C++ source code and test them on your own hardware.

Plug & Play

Our iqStacks® are designed to be seamlessly integrated in new systems – without changing the existing software structure or disturbing the process flow.

The IO-Link specialists

The IQ² Development team specialises in the development and porting of simple, scalable, and structured solutions for IO-Link components. Here, our in-house developed IO-Link stacks, iqStack® Device and iqStack® Master, as well as our hardware component range play a key role.

Based on this, we are able to make existing as well as new products IO-Link compatible. All approved software tools and IO-Link stacks can be downloaded for free as C/C++ source code for evaluation purposes. Thanks to their modular structure, you will be able to easily integrate them into your system and test their quality and functionality yourself.

If you are convinced, we will be happy to make you an offer for an iqStack licence based on vendor ID. Additionally, we will gladly carry out the iqStack porting for your application and provide advice on all further IO-link topics.

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