IO-Link
IO-Link Master Stack V1.1.2

Overview
Modern sensors and actuators are equipped with small but powerful microprocessors that make possible to introduce advanced features like remote parameterization and diagnostics. However, those features are normally not accessible from the top-level fieldbus infrastructure.

IO-Link, the new bi-directional, digital, point-to-point communication standard (IEC 61131-9), offers a standardized mapping of advanced sensor and actuator features into the control engineering tool environment.

Our IO-Link master software stack gives control system and machine tool providers an easy way to integrate state-of-the-art IO-Link technology into their products.

Specifications
- Compliant with the latest IO-Link communication specification
- Multi-port support. The number of ports is only limited by hardware resources
- Cycle times: 0,4 ms @ 230,4 kBauds
  2,3 ms @ 38,4 kBauds
  18 ms @ 4,8 kBauds
- Footprint: RAM ~8 kByte + 2 kByte/Port + ~2 kB for every OS-Task (3 tasks are currently used)
  Flash ~30 kB Stack
  ~2 kB OS
- System max load: 20 MHz/Port
- (COM3-speed)
- Software interface via shared parameters
- Control and test API
- Supported development platforms:
  Keil, IAR, GCC, LPCXpresso, KSDK
- Currently available drivers:
<table>
<thead>
<tr>
<th>Processor</th>
<th>PHY</th>
</tr>
</thead>
<tbody>
<tr>
<td>STM32</td>
<td>L6360</td>
</tr>
<tr>
<td>ATSAM91</td>
<td>E981-12</td>
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<tr>
<td>LPC43xx</td>
<td>LLT2874</td>
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<tr>
<td>Kinetis KL43/17</td>
<td>MAX14824</td>
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<tr>
<td></td>
<td>CCE4510</td>
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<td>CM3120</td>
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Designed and manufactured by TEConcept GmbH

www.teconcept.de
Description
The IO-Link master firmware library provides full access to all features and services defined in the IO-Link Communication Specification V1.1.2. The stack supports all the important features like ISDU, Interleaved Mode and diagnostics handling with event details.
FreeRTOS is used.

Additional Services
- Evaluations boards
- Software/Hardware design support
- Conformance tests (Master Tester)

Deliverables
- Development license including IO-Link Master stack source code
- Manufacturing license
- Documentation with installation manual and hardware adaptation description
- API user guide
- Demo application
- Compiler and linker example setups
- IO-Link configuration tool with IODD interpreter