

IO-Link Master EIP Application Base History (1800414)

Revision: 1.5.28

What Changed: web ui 1.5.0.37 -> 1.5.0.38

* Don't convert "xsi:type" attribute into "type" attribute when the value is "EventDescT". This prevents collision with the node's "type" attribute.

* Catch exceptions thrown by SimpleXMLElement() inside XML parsing callbacks: log the error to syslog and discard the node's data.

* Web Help content updates.

Date: 11/19/18

Revision: 1.5.27

What Changed: opcua 1.5.1.11 -> 1.5.1.13

* Fix bug causing crash when 0 is written to ISDU/Request.

* Fix handling of Writes to ISDU index/subindex by clients that include status along with value (e.g. Ignition, freeopcua-python). Was causing random index/subindex to be used, which usually caused read/write to fail.

* When 0 is written to ISDU/Request, clear 32-bit data node to 0 (other data nodes were already being cleared).

* web help content updates.

Date: 09/19/18

Revision: 1.5.26

What Changed: Changes since application base 1.5.24:

_webui 1.5.0.33 -> 1.5.0.37

* Fix handling of conditional submenus: it didn't work right when there were multiple instances of a submenu with different condition.

* Fix handling of standard variables V_ProcessDataInput and

V_ProcessDataOutput variables in v1.1 IODD files.

* Add '*' to access column for items that are excluded from data storage.

_iolink-driver 1.5.0.12 -> 1.5.0.13

* Fix IOLinkEmcResetCounters(-1) call that is used to reset counters for all ports. It was broken by change at r8278. Only affects EMC utility used by HWE during testing.

Date: 09/10/18

Revision: 1.5.24

What Changed: web-user-interface 1.5.0.32 -> 1.5.0.33

* Fix handling of condition values greater than 9 or with bit widths greater than 8.

iolinkutils 1.5.0.46 -> 1.5.0.046

* Fixed pulse-stretching problem.

Date: 08/28/18

Revision: 1.5.23

What Changed: Changes since application base 1.5.18:

_web-user-interface 1.5.0.29 -> 1.5.0.32

- * Add new HW models.
- * Modify port names for Leuze version.
- * Add some missing German translation strings for IODD Port page.
- _application-manager 1.5.0.2 -> 1.5.0.3
- * If attempt to unmount /apps partition fails during app-base update, write to syslog a list of apps that are still using /apps partition.
- _configuration-manager 1.5.0.3 -> 1.5.0.4
- * Change directory to '/' so that we don't start up the dhcp client with cwd in the /apps partition (it prevents app base updating until unit is rebooted).
- * Fix one of the error checks in config_put_object_by_path() that detects when path doesn't exist.
- _iolink-driver 1.5.2.11 -> 1.5.2.12
- * Clear shared and internal PDO valid flags when devicelost happens.
- _event-log 1.5.0.1 -> 1.5.0.2
- * Add declaration for eventlogGetTimestamp() to eventlog.h.
- _web-help 1.5.0.2 -> 1.5.0.3
- * Update to "1.5.14" version of contents.

Date: 07/02/18

Revision: 1.5.18

What Changed: ethernetip 1.5.0.21 ->1.5.0.023

- * Fix NS and MS LED states.
- * Toggle the PDO when a sensor is disconnected and reconnected.

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* Fix IO-Link State Reset problem.

modbus 1.5.0.019 -> 1.5.0.020

* Improve throughput performance.

Date: 05/23/18

Updated: 12/4/2018

Revision: 1.5.17

What Changed: opcua 1.5.1.8 -> 1.5.1.11

* When in SIOInput mode, read PDI via iolinkutils library instead of directly from driver so that filtering/stretching works.

* Allow PDO read/write when in SIOOutput mode. Allow PDI read when in SIOInput mode. Make PDI/PDO byte count values return valid values in SIO modes.

* Change value rank of most nodes from -2 (Any) to -1 (Scalar).

Date: 05/10/18

Revision: 1.5.16

What Changed: discovery 1.5.0.0 -> 1.5.0.1

* When network settings are saved, restart profinetio application (even if settings are unchanged).

iolink-driver 1.5.2.5 -> 1.5.2.11

- * Add logic to avoid cutting off slave responses with a new command when the rx polling has been delayed.
- * Add a new command line app.
- * Don't change shared-memory copy of pdo valid unless the SetMode() call to the stack to change it was successful.
- * In diagnostic output, show PDI/PDO data when in SIOInput and SIOOutput mode.
- * Fix bug that prevented the tx messages to be sent out each cycle.

Date: 05/03/18

Revision: 1.5.15

What Changed: __config manager 1.5.0.0 -> 1.5.0.3_

- * Add library calls: config_default_object(), config_default_array()
- * Add library call: config default set().
- * Add 'config default' command.
- * Removed handling of switchposition==888. That's now done earlier in the startup sequence. Requires system 1.29.

iolink-driver 1.5.0.3 -> 1.5.1.1

- * Change shared memory condition variables so they use CLOCK_MONOTONIC instead of the default CLOCK_REALTIME (to avoid problems when date/time is stepped).
- * Add IOLinkLockPDO() and IOLinkUnlockPDO() calls to libiolink. Change IOLinkWritePDO() to return specific error status when PDO is locked by somebody else.

- * Generate a newly defined event (S_MODE_CHANGE) when IOLinkSetMode() is called by clients.
- * diagnostics-iolink: In "port status" string, don't include "PDI Valid" if there are no PDI data.
- * monitorPorts utility: Flush stdout after each line so that it's more useful when redirected to a file or pipe.
- * If it doesn't exist, create config field "InvertAux" based on old "InvertIO" field if it exists -- if it doesn't, default to false.
- * Use new config field "InvertSIO" to control SIO invert mode instead of old "InvertIO" field. If new one is missing, create it with value from old one.

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_opcua 1.5.0.5 -> 1.5.1.5_
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- * Switch to using libiolinkutils for reading DIO, Aux, and SIO.
- * Return data for PDI/PDO reads even when they are invalid. Value will have status of "NODATA", but if a value is readible, then you have to return read data in order to allow writes.
- * Any time PDO is written set PDO state to valid.
- * Write back default settings to config file if any are missing.
- * Add special handling for the error returned by the iolink library when we try to write PDO when it's locked by another application.
- * Add 8/16/32 bit integer representations for ISDU read/write data (in addition to existing bytesting representation).

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_modbus 1.5.0.8 -> 1.5.0.17_
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- * Always use proper port index for examining json.
- * Use the proper port index when reading "PdiDataBlockSize".
- * Moved a variable from local to global to prevent 4port from crashing.
- * Modbus would keep running after clearing config, now it won't.
- * New timing for NTP.
- * Support for more modbus polls.
- * Added an unlink call at the beginning of main so that modbus can bind to a socket after the IPK is installed. Without this, you would have to reboot for the bind to work.
- * Uses linux sockets.

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_iolinkutils 1.5.0.11 -> 1.5.0.37_
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- * Only expose symbols needed by protocols.
- * Switched away from wall clock (due to NTP).
- * Improved pulse stretching algorithm.
- * Fix for switching from DO to DI back to DO.

- * Digital IO Diagnostics status row wasn't correct for Digital Outs.
- * The dio diagnostics code needed to return a boolean instead of a string for the invert IO option.
- * Fixed an issue where a configuration update would change D2,D4 digital outs, even if there was a PLC connection. Now that change won't be applied until there is no PLC connection.
- * Have the Invert option on the digital IO diagnostics page display true/false instead of on/off.
- * Added support for inverting SIO inputs.
- * Better digital output handling.
- * Calling unlink in the init function so we can bind without needing a reboot.
- * Only primary protocols will have a thread running that checks for diagnostic messages.
- * linux sockets, digital IO transitions.
- _webui 1.5.0.10 -> 1.5.0.21_
- * Config page edit-mode: Change boolean fields from checkboxes to true/false dropdowns. That way the field always gets posted. With checkboxes an unchecked box doesn't get submitted, and the UI either leaves the value as/is or uses the default.
- * Fix bug on configuration table pages that have both per-port and global items, where saving the global items forces all of the per-port integers to 0 and Booleans to false.
- * Add more statistics data for DIO, SIO and auxiliary input to PNIO diagnostics page.
- * Add help links for iothub, opc ua, config load/save, config clear.
- * Change OPC UA PDO write enable from global to per-port.
- * Advanced/Accounts page: Move "current admin password" entry row and relabel it to make it more obvious that you must enter the current admin password in order to make any changes.
- * Allow config POST request to create new fields (we used to ignore new fields that were present in request but not in current config).
- * Fix handling of attached-devices/port page manual ISDU read operation so that it ignores value/status shown by previous operation. 'Get' operation used to fail if there was anything other than hex values displayed in the right-hand textbox.
- * When checking modbus pdo write status, allow write if modbus isn't running and returns empty diag data.
- * Change digitial IO diag "invert" field type to boolean.
- * Change required system version to 1.29 due to changes in config/rootfs that move check for switch position 888 to a point earlier in startup.

- * Remove config page note about pulse stretching being unsupported on PNIO models.
- * Create separate config settings for inverting SIO and Aux inputs.
- * Add input hold time to digital I/O diagnostics page.
- * Enable pulse-stretching items for Profinet build.
- _ethernetip 1.5.0.6 -> 1.5.0.17_
- * Fix handling of timeouts to avoid lockups cause when NTP (or other) steps system time.
- * No longer zero out the PDO before setting the port mode to invalid.
- * Use libiolinkutils for digital IO and C/Q digital output handling.
- * json diagnostic issue.
- * Slightly modified the state machine for IOLink mode so that Aux input is accurate, even without a sensor attached to the port.
- * Better handling of port mode switching.
- * Call unlink so we can bind after being installed, no more needing to reboot.

web help

Date: 04/04/18

Revision: 1.4.28

What Changed: webui 1.4.1.30-opcua-r7170

opcua 1.4.0.19-internal-test

Date: 01/03/18

Revision: 1.4.27

What Changed: Fixed an issue in handling command buttons that have a subindex.

Fixed a problem where the SPDU write was being done with the incorrect

subindex.

Date: 08/08/17

Revision: 1.4.26

What Changed: Add code to iolink driver where it handles port mode setting so that when a port

mode is being set to RESET, it will also abort any pending client requests. This

prevents port from going permanently "busy".

Date: 06/12/17

Revision: 1.4.25

What Changed: Fix bug that killed IO-Link comms on all ports when switching a port from SIO-

input to IO-Link mode.

Date: 06/01/17

Revision: 1.4.24

What Changed: New EIP packaging

Date: 05/16/17

Revision: 1.4.23

What Changed: Added iolink manager to the ulmage

Date: 05/16/17

Revision: 1.4.22

What Changed: Better settle and hold time

Date: 05/16/17

Revision: 1.4.21

What Changed: Update iolink-driver: increases cycle time margin to avoid connection issues on

sensors with large PDI/PDO size compared with minimum cycle time.

Date: 05/12/17

Revision: 1.4.20

What Changed: Roll back Ethernetip to a version that includes Modbus.

Date: 03/09/17

Revision: 1.4.19

What Changed: Fixed many IODD-related web UI problems.

Fixed HTTP API for iodd and datastorage.

Fixed diagnostic page table resize problem.

Fixed problem caused by quote in hostname.

Fixed handling of invalid sensor serial number strings.

Added SIO/Aux input settling/hold times.

Added 10 & 20 byte options for PDI/PDO block sizes.

Added configurable byte-reversal for PDI/PDO.

Upgrades to EtherNet/IP stack for ODVA conformance testing. Changes to handle the EtherNet/IP network specific configurations now being stored with the

EtherNet/IP settings instead of the Network settings.

Date: 03/09/17

Revision: 1.4.18

What Changed: iolink-driver 1.4.2.17: fix cycle-time problem when sensor is unplugged and then

reconnected.

Date: 02/01/17

Revision: 1.4.17

What Changed: Change location in service loop where we change port cycle times -- fixes

problems during startup of certain sensors with long frame formats.

Fix problem that was causing idle ports to stop sending wakeup sequence after

several days.

Fix problem where on startup EIP application wouldn't read initial PDI value until

it had changed.

Fix showSensors output to ensure that it is legal UTF-8. Some sensors have illegal characters in their serial numbers and it caused iolink diagnostic web page

to be blank.

Add 'setpdo' command to allow PDO value to be set from command line.

Add 'monitorPorts' command app that can be used to monitor PDI, SIO,aux,

events.

Date: 01/23/17

Revision: 1.4.16

What Changed: Made major improvements in the IODD handler to work with newer sensor

models and support all the features that were not there previously.

Included IO-Link driver 1.4.2.10

Included IO-link manager 1.4.2.45

Fix problem where DS subsystem was consuming a writeCon() that should go to

the user application code.

Fix IOLinkPDFormatLength() macro that was broken for PDI/PDO length==32

and was returning 0 instead.

Implement support for the "last PDO" field in the data returned by the

IOLinkGetModeExt() call.

Fix bug on devices that have PDO data: on iolink diagnostics page, PDO data

bytes were being shown as most recently received PDI data.

Implement the "last pdo data" field in diagnostics-iolink output.

Fixed a race condition that could result in the PDO valid flag being set incorrectly

on some IO-Link devices.

Updated the Ethernet Link Object to support all three Ethernet ports- one internal

and two external.

Updated the TCP Object to support the Rockwell DHCP/Bootp utility tool.

Updated Web Help

Date: 09/13/16

Revision: 1.4.13

What Changed: V1.4.10:

Updated IO-Link driver: Increased timing margins for minimum cycle time.

Updated Web Help: Updates to reflect UI changes.

Updated Web UI:

Enhanced the IODD handling process.

Date: 01/20/16

Revision: 1.4.6

What Changed: webui 1.4.0.14: Added warning in PNIO version when user is changing IP

address, PLC is not connected, but current IP was set by PLC.

Date: 11/11/15

Revision: 1.4.5

What Changed: Add a read-only "Status" section at top of network config page that shows current

values for ip address, netmask, gateway and DNS server.

When editing network config, disable (grey-out) static configuration values fields

if "DHCP" is selected.

Include hostname in DHCP request.

Add new "DNSmode" configuration value that allows you to use manual DNS

setting when DHCP is enabled.

Retry IO-Link wakeup sequence twice before pausing for the 0.5 - 1.0 second

delay and starting over.

Updated web help. Switched to iolink driver with shared-memory API for PDI data

and events.

Disabled some routine syslog messages to reduce log file clutter

Changed system logging from logging every out of sequence received class 1 message and only log the cases when two out of sequence messages are

received in a row.

Fixed problem with DR8 models where access to the 4-pin digital I/OI block on

the EtherNet/IP and Modbus/TCP interfaces was disabled.

Add code to set port status LED to solid red when IO-Link sensor is connected

reporting PDI is invalid.

Add capability to send arbitrary events to applications for testing purposes.

Add warnings to network config page regarding PLC communications

interruptions.

Added retries when read ISDU operations cannot be completed because the IO-

Link drivers are busy.

Date: 10/11/15

Revision: 1.3.22

What Changed: Editorial updates.

Enhanced DHCP handling.

Updated Web Help

Date: 08/19/15

Revision: 1.3.20

What Changed: Editorial updates.

Fix ISDU write attempt count field on IOLink diag page.

Fix handling of inverted sio input value.

Fix calculation of cycle time for longer frame lengths.

Fix for ODVA product code handling.

Fix ISDU sub-index handling.

Fix Modbus/TCP to allow single register reads from anywhere in the PDI data block.

Optimize for both latency and CPU bandwidth.

Very minor update to IO-Link driver that eliminates syslog message when an app re-initializes the library API.

Date: 06/22/15

Revision: 1.3.18

What Changed: Major overhaul of WebUI to improve performance and usability.

When DS_FAULT_IDENT happens, change LED state to blinking red.

When clearing Data Storage data, restart port if it is configured for IOLink mode but is offline.

Fix problem that caused sensor which mismatches stored config to go online if un-plugged and re-plugged.

Add 'Hardware Version' line to support info that shows TLA number and revision.

Moved Event info up above ISDU statistics. Added a "ISDU Statistics" subheader about the ISDU statistics. This is intended to provide a natural break between IO-Link port specific diagnostics and the operational ISDU statistics.

Add MAC address to support info.

Add "download" button to support info page that returns a text/plain file containing same info.

Fix code that's supposed to skip showing application base package as an installed package.

Fix LED flash on/off commands in discovery protocol handler.

Show 0.0.0.0 address via discovery protocol if eth0 does not have an IP address.

Add ModelRev field to discovery reply that contains TLA rev letter.

Add IO-Link port state value to IO-Link diagnostics web page.

Fix IO-Link DS state machine for case when sensor requests an upload with UploadEnable=False DownloadEnable=True.

Updated web help subsystem.

Date: 05/07/15

Revision: 1.3.12

What Changed: Fixes for IOLink sensor startup issues.

Performance improvements in EIP. Fix IO-Link diag counter. Fix web UI bug that prevented installation of .ipk package files.

Update web help system.

Fix blank Modbus/TCP diag page. Fix missing column headers for signal table

on Digital IO diag page.

Date: 03/31/15

Revision: 1.3.1

What Changed: Fix formatting error in response to http://<host>/api/config/directory request.

Fix error in the way that cycle times are encoded/decoded by IOLinkCycleToMicrosec() and IOLinkCycleFromMicrosec().

Add support for DR 8-port model.

Add IODD handling and sensor config web app.

Add auto-adjust for sensor cycle times.

Web page performance improvements and fixes.

Added data storage support.

Added support for IO-Link "device validation" features.

Date: 01/12/15

Revision: 1.2.0

What Changed: Initial release.

Date: 01/25/14