



Release Information

CompactCom 40 PIR

7258 - CompactCom 40 PIR
Application
Version 2.04
2023-01-20

This release contains:

Type	File	Label	Updated since release V.2.3
HIFF	ABCC_40_PIR_7258_2_04_01.hiff	7258_2.04.01	Yes
Config file	GSDML-010C-0010-CompactCom-40-PIR.bmp	7258_2.04.01	No
Config file	GSDML-V2.42-HMS-CompactCom-40-PIR-1P-20220330.xml	7258_2.04.01	No
Config file	GSDML-V2.42-HMS-CompactCom-40-PIR-20220330.xml	7258_2.04.01	No
Config file	GSDML-V2.42-HMS-CompactCom-40-PIR-ISOM-20220330.xml	7258_2.04.01	No
Config file	GSDML-V2.42-HMS-CompactCom-40-PIR-MD-20220330.xml	7258_2.04.01	No
Config file	GSDML-V2.42-HMS-CompactCom-40-PIR-S2-20220330.xml	7258_2.04.01	No
Config file	GSDML-V2.42-HMS-CompactCom-40-PIR-SAFE-20220330.xml	7258_2.04.01	No
Config file	GSDML-V2.42-Vendor Name-Product Name-20220330.xml	7258_2.04.01	No
License information	LICENSE.txt	SW V.2.80 Build 01	No
ABP file	abp.h	SW V.2.80 Build 01	No
ABP file	abp_eco.h	SW V.2.80 Build 01	No
ABP file	abp_eme.h	SW V.2.80 Build 01	No
ABP file	abp_etn.h	SW V.2.80 Build 01	No
ABP file	abp_fsi.h	SW V.2.80 Build 01	No
ABP file	abp_fusm.h	SW V.2.80 Build 01	No
ABP file	abp_mdd.h	SW V.2.80 Build 01	No
ABP file	abp_nwetn.h	SW V.2.80 Build 01	No
ABP file	abp_nwpnio.h	SW V.2.80 Build 01	No
ABP file	abp_pnam.h	SW V.2.80 Build 01	No
ABP file	abp_pnio.h	SW V.2.80 Build 01	No
ABP file	abp_safe.h	SW V.2.80 Build 01	No
ABP file	abp_sntp.h	SW V.2.80 Build 01	No
ABP file	abp_soc.h	SW V.2.80 Build 01	No
ABP file	abp_sync.h	SW V.2.80 Build 01	No
ABP file	abp_time.h	SW V.2.80 Build 01	No
This document	Release information	-	Yes

Package history:

Release	Update
First release	-



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Reason for release:

Maintenance release.

Affected functionality

		Description
Affected functionality	<input checked="" type="checkbox"/> Network conformity <input type="checkbox"/> Application interface <input checked="" type="checkbox"/> Network interface <input type="checkbox"/> IT-functionality <input type="checkbox"/> Security <input type="checkbox"/> Stability <input type="checkbox"/> Other	Refer to table "Updated in version 2.04".

Field update recommendation

		Description
Field update recommendation	<input checked="" type="checkbox"/> Update required for conformance testing <input checked="" type="checkbox"/> Only devices in the field showing problems <input type="checkbox"/> All devices in the field	

Compatibility:

Hardware

The firmware may be downloaded to products with the following Hardware-IDs:

Hardware-ID (48 bits)
0x040303000001
0x040303000002
0x040303000005

Host application firmware

No updates necessary due to this release.

Device description file (DDF)

The GSD files within this delivery are compatible with product version 2.00 and higher.

- **The updated switch introduced in 2.00 needs updated GSD files for IRT devices.**
- For product version 2.00 and higher it is important that `MaxBridgeDelay="2910"`
- For product version between 1.19 to 1.59 it is important that `MaxBridgeDelay="2760"`
- For product version 1.26 and higher I&M4 is no longer supported. The following attribute should be updated accordingly: `Writeable_IM_Records="1 2 3"`. In addition legacy attributes `ExtendedAddressAssignmentSupported` and `SupportedRT_Classes "RT_CLASS_2"` were removed. (These changes were introduced in GSDML-V2.32-HMS-ABCC40-PIR-20161006.xml)
- In product version 1.27 the ident number for the safety module was changed. Therefore it is important that a safety application is based on GSDML-V2.32-HMS-ABCC40-PIR-SAFE-20161104.xml or later where attribute `ModuleIdentNumber` is updated accordingly.



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- In product version 1.30 the I&M5 functionality was added. The following attribute should be added accordingly: `IM5_Supported="true"`. (Introduced in GSDML-V2.32-HMS-ABCC40-PIR-20161117.xml)
- In product version 1.38 several of the default identifier text strings (ProductFamily, OrderNumber etc.) were changed, as well as the GSDML file name itself. Note that these changes only affect the sample applications without vendor-specific branding.
- The latest safety example GSD file requires product version 1.41 and a SAFE T100/PS supporting PROFIsafe 2.6.1.
- The S2 GSD file is valid for firmware version ≥ 1.49 . Note that the attribute `MinDeviceInterval` was increased from 8 to 32 (corresponding to a change from 250 μ s to 1ms in minimum cycle time) to account for the increased load of two concurrent connections with large data sizes. In an application with smaller data sizes a lower setting may be possible.

How to upgrade from previous versions:

Firmware upgrade:

1. If not already installed, download and install the latest versions of Firmware Manager II and Anybus Transport Provider package from anybus.com/support/.
2. Mount the Anybus in a development board. Make sure that RAMLoader (RL) mode is activated and that the board is recognized by the host computer.
3. Import the HIFF file into the Firmware Repository.
4. Select your Anybus in the list of available devices and click the "Update Module" button.
5. Follow any instructions from the utility. Please make sure that the firmware download is not cancelled and that power to the Anybus is not disrupted during the firmware upgrade process as this may damage the Anybus.

Known limitations:

Title	Description



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Updated in version 2.04:

Severity	Summary for release notes	Issue#
Bug	Due to the alarm handling in some PROFINET controllers, the AlarmSpecifier.SequenceNumber field must be incremented by 1 between alarm transmissions. A previous fix optimizing the alarm queue left gaps in the sequence number series when deleting alarms from the queue.	A8027-506
Bug	For a fragmented DCE RPC request/response, the serial number should be incremented for every new fragment transmitted. This fix may improve interoperability with certain PROFINET controllers.	A8027-507

Updated in version 2.03:

Severity	Summary for release notes	Issue#
New Feature	Added attribute in the PROFINET IO host object which enables a host application to set the DAP module ident in the default, ADI-based real identification mode. Through the use of this attribute the application can implement a device family, where related devices with different characteristics are provided in the same GSD file.	A7258-272
New Feature	Optimize PROFINET alarm list by removing queued alarms for diagnosis that disappears before the appears alarm is transmitted.	A8027-505

Updated in version 2.02:

Severity	Summary for release notes	Issue#
Bug	An error in the calculation of rate compensation factor (RCFpeer) gave incorrect values for cable delay. Invalid cable delay could desynchronize the module.	A8027-502
Bug	Reduced cable delay measurement time at link up	A8027-503
Bug	The conditions for validation of station name length in a DCP set request were faulty, with the result that a too long write request would still be handled and possibly writing outside the intended buffer.	A8027-501
Bug	The APIData record shall contain API:s where one or more modules are plugged. This implementation has previously provided all registered API:s which under certain conditions may lead to conformance issues. For example: a PROFIdrive application will have registered API:s 0 and 14848 - if only a non-PROFIdrive telegram is plugged at API 0 the empty API 14848 would still have been provided in the APIData record.	A8027-499
Bug	A possible interoperability issue with the DCP protocol implementation was corrected. Instead of silently dropping DCP requests for unknown or invalid options/suboptions an adequate error response is provided.	A8027-500
Bug	Reception of invalid formatted LLDP frames could lead to a crash.	A8074-106
Bug	Fatal in socket object. A fatal was triggered if the remote closed a tcp connection while the ABCC was still processing the accept.	A8045-83
Bug	Fatal in socket object. When creating a listening socket an extra socket instance is reserved to handle the incoming tcp connection. Accessing this instance could affect unrelated connections and trigger fatal events.	A8045-84
Bug	Fatal in socket object. High network load may exhaust all resources in the tcp/ip stack. Out of memory was not correctly handled when trying to accept an incoming tcp connection.	A8045-85



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Updated in version 2.01:

Severity	Summary for release notes	Issue#
Bug	If the identification for the safety module changes after the creation of diagnosis, no disappear alarm is sent to the PLC when the diagnosis is removed. This may happen if you implement PROFIdrive with PROFIsafe, where the safety module is a submodule in the PROFIdrive telegram.	A7258B-853
Major bug	Increased stability under extreme interrupt load.	A8003-123
Bug	Improved trim performance of empty sectors in the file system	A8063-12
Minor bug	ACD state could be stuck in "Conflict" even after IP address is recovered.	A8074-105
Bug	A timeout of a ftp connection during high load could sometimes cause a fatal event.	A8023-48
Bug	Fix FATAL when parsing ftp.cfg extension file	A8031-715
New Feature	Reduced energy consumption	A8003-121
New Feature	Firmware adaptation for compatibility with future hardware revisions.	A9203-70

Updated in version 2.00:

Severity	Summary for release notes	Issue#
New Feature	Config example files updated to GSDML 2.42	A7258-340
Bug	Solved an issue where the module could enter fatal if diagnosis was created and deleted faster than they could be transmitted to the PLC, causing an "AR out of memory" abort	A8027-496
New Feature	Added support for DP83826 and ADIN1200 PHYs No effect on the functionality of the product.	A7258-329 A9203-68
New Feature	Updated internal network switch. No functional change. Keyword MaxBridgeDelay in GSDML shall be increased to 2910 if IRT (class 3) is supported. MaxPortTxDelay can be decreased to 89, but should be kept as 129 to be compatible with old fw versions.	A7258-178 A8027-473
Minor bug	It is now possible to map and plug bit aligned data types such as BITX, with the limitation that each ADI must start byte-aligned. To map several BITX to one byte, use structs.	A7258B-668
Minor bug	Mapping an unsupported data type will now return an error.	A7258B-720
Bug	Handling of sync frames was temporarily blocked during parameter end, causing downstream devices to loose sync. If the PLC first connects to the downstream device we could end in a loop where the IRT networks fails every time the PLC tries to connect to the ABCC.	A8027-488
Bug	A "Remote mismatch, peer PTCP mismatch" alarm was incorrectly sent if the neighbor was not yet fully synchronized.	A8027-487
Bug	Fixed size validation in SNMP SET implementation making giving a "tooBig" response if value is to big.	A8027-482
Minor bug	Improved network performance during high network load.	A8027-480



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Severity	Summary for release notes	Issue#
Minor bug	Fixed bug that could cause record "read query" to fail.	A8027-472
Bug	IP address could still be used for existing TCP connections while a new IP address was being requested from a DHCP server.	A8074-58
Bug	DHCP removed server id for INIT-REBOOT/RENEWING/REBINDING state.	A8074-56
Major bug	Fixed problem that could cause the module to crash (FATAL) if web pages are constantly being refreshed.	A8024-78
Minor bug	Fixed issues with login on web pages for some configurations. Generally login to pages configured for "basic" authentication method would not work.	A8024-76
Minor bug	Increased size of web server RX buffers for better performance.	A8031-713
Bug	It is now possible to enter an empty server/hostname and this also makes it possible to change the other configurations without first setting a server/hostname.	A8031-699
Bug	Better adherence to IEEE specification in how the Ethernet PHYs are configured. Does not affect functionality.	A9217-2 A9203-67
New Feature	Added support for Ethernet PHY DP83826 & ADIN1200. Allows this firmware to run on future hardware generations. No effect on the functionality of the product.	A9217-3

Updated in version 1.59:

Title	Category	Description	Issue(s)
Socket interface	Bug fix	Corrected fatal (soc_lwip.c) related to use after free when deleting sockets.	A8045-79
	Bug fix	Memory leak when deleting a listening socket with ongoing accept	A8045-80
GSDML	Improved functionality	Upgraded GSDML to 2.41	-

Updated in version 1.58:

Title	Category	Description	Issue(s)
Socket handling	Bug fix	Limited amount of rx buffers that the socket interface can hold	A8027-463
Long RPC fragments	Bug fix	Now respects the MustRecvFragSize of 1464 bytes when transmitting	A8027-464
MRP topology change	Bug fix	The fdb flush after a topology change could be delayed for 10-20ms.	A8027-466
MRP switch over	Bug fix	Improved MRP switch over time when link is lost	A8027-467
Cycle counter change	Bug fix	When synchronising to PTCP master during an active RT connection the cyclecounter could change to a lower value, indicating old (invalid) frame. This could trigger watchdog timeout from the PLC. The previous fix didn't cover all cases(see A8027-441)	A8027-470
Improved fatal logs	Other change	More detailed fatal logs in profinet stack	A8027-471



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Updated in version 1.57:

Title	Category	Description	Issue(s)
Fatal during Netload	Bug fix	Improved network storm throttle.	A8074-53
Missing snmp	Bug fix	Conformance issue: With some neighbours some snmp entries was corrupted.	A8027-463
Nvs	Bug fix	Some non-volatile parameters did not reset correctly upon factory-default reset.	A8015-34
Fast startup	Bug fix	First DCP Hello was sometimes sent before link was fully established. Added a small initial delay.	A8027-408
	Bug fix	Improved timing of DCP Hello packets	A8027-455
ActivityUUID	Bug fix	Conformance issue: The ActivityUUID has to contain the MAC address of the device	A8027-444
Lost tx resources	Bug fix	Memory leak in ethernet driver	A8027-456
S2 missing Appl.Rdy / Out of AR resources	Bug fix	S2: If connection to the first PLC was lost during the connect phase the second PLC connection could get stuck in a bad state where no application ready was sent or the connection couldn't be completely closed, blocking new connection attempts with "Ar out of resources".	A8027-457
Connect rerun	Bug fix	Solves an issue where a Connect rerun was not handled correctly if all Ar resources was already occupied.	A8027-458
RPC	Bug fix	If the RPC connection timed out at the same time as application ready the module could stop responding.	A8027-459
Appl.Ready	Bug fix	Immediately abort AR on error response to application ready. Some error responses was previously dropped.	A8027-450
RPC fack	Bug fix	The NO_FACK bit is now set in all unfragmented RPC responses to avoid unnecessary fragment ack in some implementations.	A8027-451
DHCP	Bug fix	A new DHCP xid is now generated after link re-connect and for DHCP release packets.	A8074-46
	Bug fix	Fixed issue that no DHCP discover was sent after lease time had expired	A8074-42
TCP	Bug fix	Reduced number of TCP retransmissions to get faster connection timeout of faulty connections.	A8074-39
FTP	Bug fix	FTP operations could sometimes crash the module.	A8023-45



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Updated in version 1.56:

Title	Category	Description	Issue(s)
S2 Conformance	Bug fix	DHT Alarm of missing primary controller was delayed by the sending of ABCC messages to application. This caused problems with the conformance test of system redundancy when using a serial host application. This has now been fixed.	A7258B-827
PROFIenergy fatal error	Bug fix	Acyclic read/writes to PROFIenergy could in some cases cause a fatal error.	A7258B-829
Inconsistent synch data	Bug fix	Isochronous sub-modules that contained both inputs and outputs caused inconsistent sync data.	A8027-446
Web server	Bug fix	Fixed issue that could crash web server if CGI processing takes more than 3 minutes.	A8024-74
BOOL/BOOL1 struct	Bug fix	Fixed BOOL/BOOL1 struct ADI set/unset bug on the website.	A8031-694
SSI	Bug fix	SSI. Missing arguments in PrintF or ScanF could trigger fatal.	A8031-695
JSON updated	Bug fix	Fixed issue which could result in a crash if metadata.json or metadata2.json requests takes more than 3 minutes to complete	A8031-667
JSON updated	Bug fix	Fixed so that metadata.json and metadata2.json is aborted when a connection closes.	A8031-668



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Updated in version 1.55:

Title	Category	Description	Issue(s)
DCP dos	Bug fix	A malicious formed dcp packet could take a long time to process	A8027-443



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Updated in version 1.54:

Title	Category	Description	Issue(s)
Conformance issue	Bug fix	Include all API:s of a targeted AR in record "ARData for one API". This issue affects conformance test for devices with multiple API:s (e.g. PROFIdrive).	A8027-440
Station name change	Bug fix	The module could stop if the station name was change by application switch 2.	A7258B-822
Switch drop prio	Bug fix	In an overload situation the switch will now first drop unpritoritized packets.	A7258A-23
CycleCounter problem	Bug fix	When synchronising to PTCP master during an active RT connection the cyclecounter could change to a lower value, indicating old (invalid) frame. This could trigger watchdog timeout from the PLC.	A8027-441



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Updated in version 1.53:

Title	Category	Description	Issue(s)
Web server cannot be disabled	Bug fix	Fixed so that the web server can be disabled.	A8031-665

Bugs that are found in this software release should be reported back to HMS support department. Report product, software version, configuration, how to reproduce behaviour, and the effects of the bug.



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Updated in version 1.52:

Title	Category	Description	Issue(s)
GSD template	New functionality	Added GSD template for Modbus Serial GSDML-V2.35-Vendor Name-Product Name-20200611.xml	A7258-283
IO configuration for Modbus ACI mode	Improved functionality	Changed IO configuration for Modbus ACI mode. Now packs as much data as possible into a single module	A7258B-814 A8026-316
Io configuration for Auto init (loopback) mode	Improved functionality	Changed Io configuration for Auto init (loopback) mode. Now uses 32 bytes of input and output	A7258B-794
Safety Module missing diagnosis	Bug fix	In Custom Configuration mode (manual plugging) the Safety Module could lose reference to diagnosis channel if plugged in state SETUP.	A7258B-816
Switch frame priority	Bug fix	Fixed bug where a small number of prioritized packets sometimes were dropped during full load	A7258A-22
Parameterization, CombinedObject Container	Bug fix	Parameterization involving a Combined Object Container (used with System Redundancy-capable devices) could be incorrectly handled in certain circumstances, with the consequence that the controller would abort the connect request.	A8027-438
Web login	Bug fix	Fixed issue causing web access file containing path to other access file not working	A8031-661
File system	New functionality	The Anybus object Reset command can now format the file system of the Anybus module.	A8031-576
Ethernet Host object	New functionality	Ethernet Host object attribute 16, IP Configuration, is being written if DHCP is disabled, even if no parameters in attribute 16 is changed. This is done in order for application to get a notification that DHCP is changed even if DHCP isn't included in the attribute. Applications may use this as an indication and then read the actual DHCP configuration from the Network configuration object.	A8031-538

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Updated in version 1.51:

Title	Category	Description	Issue(s)
PTCP follow up frames	Bug fix	Sometimes PTCP follow up frames was not transmitted by the module	A8027-435
IRT and 2 API:s	Bug fix	When two API:s was used for modules with IO data in combination with an IRT connection incorrect data offsets was used for modules in the second API when copying to/from the process data buffer.	A8027-436

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Updated in version 1.50:

Title	Category	Description	Issue(s)
Handling of repeated PrmEnd requests	Bug fix	PrmEnd requests are now only processed in states where they are expected. Unexpected PrmEnd requests could lead to corrupted configurations.	A8027-431

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Updated in version 1.49:

Title	Category	Description	Issue(s)
GSDML updates	Other change	GSDML and PNIO version updated to V2.35 for all example GSDML files.	A7258-202
	New functionality	Example GSDML file demonstrating S2 System Redundancy has been added.	A7258-201
S2 System Redundancy added	New functionality	Added support for S2 (single NAP) System Redundancy. When S2 support is enabled by the host application the device accepts redundant controller connections of the IOCAR-SR type. As part of this feature, support for CombinedObjectContainer and the PrmBegin/PrmEnd sequence has been added. One ARset is supported, consisting of two equivalent ARs. Note: To enable the feature, set attribute "S2 Enable" of the PROFINET IO host object to TRUE. Please refer to the network guide for further information on required changes to host application and GSDML files.	A7258B-790
	Other change	When the module acts as a segmentation client it will no longer include any data in commands after the first command during a segmentation session. According to the specification only the destination object, instance number, command number and command extension 0 have to match for all commands during a segmentation session. Previously undefined data was sent in subsequent commands.	
MaxAr attribute handling	New functionality	Exception information regarding invalid settings of MaxAr attribute in PROFINET IO Object was added.	A8041-97
PROFINET conformance issue DCP Reset Mode 2	Bug fix	Conformance issue: Dcp "ResetToFactory mode 2" no longer power cycles the application.	A7258B-771
Remap 128 module	Bug fix	Now possible to remap 128 modules.	A7258B-749



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Updated in version 1.48:

Title	Category	Description	Issue(s)
IRT stability	Bug fix	Solved a race condition when establishing IRT connection. Conformance issue: Netload	A8027-350
Cable delay mismatch	Bug fix	Fixed a problem where sometimes it was not possible to establish an IRT connection over long cables.	A8027-351



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Updated in version 1.47:

Title	Category	Description	Issue(s)
Network overload	Bug fix	When overloading the network interface the ethernet driver sometimes failed to recover. Conformance issue: Netload	A8022-159
Race condition on IRT	Bug fix	During the connect phase of an IRT connection there was a race condition that could lead to a dead lock. Conformance issue: Netload	A8027-339



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Updated in version 1.46:

Title	Category	Description	Issue(s)
LED indication not always reflecting the Anybus state	Bug fix	LED indication was not always correctly updated	A7258B-721
Throttle incoming packets in overload situations	Bug fix	Allow lower-priority tasks to run periodically during an overload situation.	A8022-158
Add notification for DHCP changes	New functionality	Added host application notification to the Ethernet host object instance attribute 16 (IP configuration) when DHCP is either enabled or disabled.	A8022-155
Add factory reset to Anybus object	New functionality	Added a new reset service in the Anybus object. This service allows the host application to factory default multiple objects (e.g. Network configuration object and Anybus Filesystem Interface)	A8026-289
ACD not disabled when FSU is active	Bug fix	Solved an issue where ACD(Address Conflict Detection) was not disabled when Fast Start Up was enabled.	A8027-330



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Updated in version 1.45:

Title	Category	Description	Issue(s)
Lock up at connect/abort	Bug fix	Solved a problem where the module could hang at Connect/abort AR during high network load.	A8027-327
Gateway address and subnet mask may change after link loss	Bug fix	Fixed an issue where subnet mask and gateway address might be reset to a previous value after a link loss. If ACD is enabled and the gateway address or subnet mask is changed these values might be reset to their previous values after a link loss. If a power cycle of the device is performed after the change of these addresses they will be retained also during a later link loss.	A8022-154



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Updated in version 1.44:

Title	Category	Description	Issue(s)
Improved stability	Improved functionality	Increased stability and avoiding potential deadlocks by improving existing semaphore system. Improved error reporting.	
	Bug fix	A deadlock has been observed when running ABCC with Safe T100/PS module - if the F-Address is set to a mismatching value then (sometimes) the ABCC may hang during processing of ApplicationReady.req. Neither ApplicationReady.req nor F-Address mismatch alarm is visible on network.	A7258B-680
Network stability	Bug fix	The risk of transmission errors was reduced through adjustments to transmit buffers. Tests performed at HMS has shown that transmission errors could be detected by SPIRTA when running the full suite multiple times.	A7258B-711
	Bug fix	Two issues relating to cable delay measurements were fixed. In PDPortDataReal the peer's reported LineDelay was reported instead of the locally measured value. If the locally measured value deviated from the peer's measurement the local value was incorrectly reset.	A8027-306
	Bug fix	RPC responses from the device were in some cases ignored by clients due to faulty flag bit settings for non-fragmented responses. This has lead to missing information in faulty client implementations requiring the correct flags (e.g. PRONETA 2.5 and 2.6).	A8027-308
Improved error reporting	Improved functionality	Increased stability in visual LED error indication.	A8026-286
ABCC data type DOUBLE	New functionality	ABCC data type DOUBLE is now supported.	A8026-285



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Updated in version 1.43:

Title	Category	Description	Issue(s)
Support for Modbus serial interface	New functionality	New Modbus serial interface available. See manual.	
Support for one-port mode	New functionality	Added support for disabling and inactivating ports using Ethernet Object (0xF9) attribute 12 and 13.	A7258B-608
Conformance issue	Bug fix	Fixed an issue that could cause a FATAL event when running a particular SPIRTA test case.	A8022-147
Improved error reporting	Improved functionality	Transmit errors is now reported in interface counters for the internal port.	A8022-146
Improved stability	Bug fix	Solved possible lockup during link up/down events.	A8027-301
Improved performance	Improved functionality	Improved performance during high network load.	A8027-304
Improved performance	Improved functionality	Improved performance when writing certain parameters to internal non-volatile storage.	A8027-303



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Updated in version 1.42:

Title	Category	Description	Issue(s)
Combining fast startup with disabled ACD	Bug fix	The wrong IP address (0.0.0.0) was sent in DCP hello requests when using Fast startup while ACD is disabled. A workaround before this fix was to enable ACD; if this workaround was implemented but not desired then ACD can now be disabled again.	A8027-297
Allow UDP client source address to change during an RPC activity	New functionality	The Anybus can now be used with RPC-based tools where the source UDP port changes between requests. Instead of filtering RPC activities based on IP address and UDP port they are now filtered only on IP address.	A8027-298
Padding after AssetManagement	Bug fix	Previously the dynamic padding handling for Asset Management blocks added padding even at the end of the last block. The padding shall only be added between blocks to make the following block Unsigned32 aligned.	A8027-300



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Updated in version 1.41:

Title	Category	Description	Issue(s)
New safety functionality	New functionality	Introduced support for safety modules with multiple SPDU lengths. A use case for this is a safety module with parallel support for PROFIsafe versions 2.4 and 2.6.1, where the length of the CRC in the SPDU differs. Note: When changing to a safety module with multiple SPDU lengths the GSD may need to be updated.	A7258B-613
	New functionality	Attributes 12 and 13, 'Vendor block safe uc1/2' have been added to instance #1 of the Functional Safety Module object. These attributes contain the responses to the safety bootloader command Read_Vendor_Block.	A8026-272
PROFINET conformance issues	Bug fix	Conformance issue: Spirta PerformanceIndicatorCheck03 When releasing an AR and then re-establishing it again a short glitch may cause some IRT frames to not be forwarded	A8027-296
	Bug fix	With ACD disabled the TEDcheck part of the conformance test could fail due to outdated information in the local management address table of the LLDP MIB.	A8027-289
	Bug fix	When activating checks for MAUTypeExtension (on POF) the block is validated incorrectly, leading to an "invalid parameter" error for the port parameterization.	A8027-293
AIDA LED mode improvement	Improved functionality	AIDA LED mode is now indicating bus fault when not connected to a controller.	A7258B-681
DHCP issues	Bug fix	Fixed bug where the module would respond to ARP packets but no other IP packets after a link-down link-up event before response from DHCP server was received. This behavior only occurred with DHCP enabled and ACD disabled.	A8022-127
	Bug fix	If both ACD and DHCP are enabled self conflict may be possible.	A8022-128
Web server stability improvement	Bug fix	Link down during HTTP POST could hang the web-server	A8024-34
Wrong error code when reading safety record	Bug fix	When reading a record from a safety module the error "Resource Unavailable" (ErrorCode1=0xC3) could be erroneously sent if the read buffer was smaller than 2 bytes.	A7258B-641
Safety propagation issue	Bug fix	In some cases the detailed information regarding a safety module entering fail-safe state was not propagated to the network.	A8026-271
Insufficient indications in ModuleDiffBlock hiding length mismatch	Bug fix	Bi-directional submodules could be missing ident information in the ModuleDiffBlock if data lengths mismatch in one direction. The issue could lead to insufficient indications to the user explaining the negative data status.	A8027-288



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Updated in version 1.40:

Title	Category	Description	Issue(s)
Modular device issue	Bug fix	The ABCC should now not enter a fatal state when a configuration with the number of submodules exceeding the maximum supported number of submodules.	A7258B-533
PROFINET conformance issues	Bug fix	The ABCC will now correctly recognize a non-PROFINET capable device as a partner and report to online diagnostic tools.	A8027-271
	Bug fix	Correct value for LLDP-MIB variable lldpLocManAddrIfId is returned.	A8027-272
Stability improvements	Bug fix	Under certain circumstances the ethernet ports could be initialized twice, this is now prevented.	A7258B-635, A8031-400
	Bug fix	Improved checking incoming DCP packets. Drops invalid DCP packets.	A8027-274
AIDA LED mode not working correctly	Bug fix	Fixed issues with AIDA LED mode.	A7258B-576
Security	Improved functionality	Internal change to harden firmware against attacks.	A7258B-580, A8040-40



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Updated in version 1.39:

Title	Category	Description	Issue(s)
Modular device issue	Bug fix	Allow acyclic read/writes to slot 0 when using Modular device concept.	A7258B-578
PROFenergy issues	Bug fix	After an EndPause command the device now indicates destination mode <code>READY_TO_OPERATE</code> .	-
	Bug fix	Default PROFenergy accuracy class changed to a valid value.	A7258B-534
	Bug fix	Changed to use one PROFenergy state machine per established connection.	A7258B-535
Diagnostic object issue	Bug fix	Length of network specific error codes corrected	A7258B-531
Process data not updated when connected to certain PROFINET IO controllers	Bug fix	In applications with multiple API:s, where API 0 has no read process data - as is the case with e.g. PROFdrive - the CompactCom could fail to update the read process data when connected to certain PROFINET IO controllers.	A7258B-536
Stability improvements	Bug fix	SNMP protocol; Prevent reading outside of provided data buffer.	A8027-253
	Bug fix	DCP protocol; Incorrect incoming frames are now dropped.	A8027-270
Web page issues	Bug fix	Boolean ADIs are represented on the Module Parameters web page using checkboxes. The checkbox was not set, even if the corresponding ADIs value was TRUE.	A8031-325
	Bug fix	The whole DHCP status line was removed from the Network Status web page when DHCP was disabled (IP settings set statically). Now the DHCP status line is always shown independent of how IP settings are assigned, statically or from DHCP.	A8031-326
Firmware loader update	Other change	This update shortens the firmware programming time.	A7044-31



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Updated in version 1.38:

Title	Category	Description	Issue(s)
PROFINET conformance issues	Bug fix	I&M5 read request addressed to a non-zero API (e.g. PROFdrive) is now rejected in non-transparent mode.	0019196
	Bug fix	When reading record at index 0xC000, the subslot should not matter, as index is within the slot-specific range. However, when reading record 0xC000 in slot 0, subslot 0 (where the slot is occupied, but not the subslot), the response was invalid slot and the request was rejected.	0019234
	Bug fix	Padding Field after NumberOfIOCARs is not 0 when reading ARData with with IOC-AR startup mode advanced.	0019235
	Bug fix	Fixed Fast startup (FSU) issue where CompactCom does not send DCPHello.req frames when FsHelloMode = 2 (Send DCPHello.req on LinkUp after HelloDelay) in combination with FsHelloDelay = 0.	0019350
	Bug fix	MultipleWrite responses could sometimes be incomplete, carrying only a response to the MultipleWrite block itself and skipping handling of some of the write blocks.	0019355
	Bug fix	Some IRT configurations may result in a parameterization where not all of the phases of a send cycle have a red interval (used for RT_CLASS_3 communication) for a given port. If the send cycle begins with such a phase that does not have a red interval for a port the CompactCom will never mark that port as ready for RT_CLASS_3 communication. The effect of this issue is that a CompactCom itself or the neighbor of a CompactCom may fail to establish an IRT connection.	0018767
Webpage freezes	Bug fix	Fixed that server sometimes incorrectly replied with an "501 Not Implemented" HTTP message to client. The issue was only observed with the Chrome web browser and firmware 1.37.02.	0019249
Sync functionality	New functionality	Channel diagnosis is created in response to the various H_APPSTATUS values. Input time monitoring was added, so that a channel diagnosis is created if input data is not updated within an isochronous data cycle. The input time monitoring is started if isochronous mode is activated for any submodule and the H_APPSTATUS register is set to 0.	0015700, 0019256
	Bug fix	Setting a non-zero value to the H_APPSTATUS register could result in connections not being fully established. In these cases the CompactCom would not start producing I/O frames even though the network is synchronized.	
Stability improvements	Bug fix	Specially crafted DCP packets could cause the CompactCom to stop responding to DCP requests or crash.	0019319, 0019226
SNMP fix	Bug fix	For get-next requests the CompactCom would not append instance id 0 to some scalar SNMP variables.	0019353
Name strings	Other change	Various name strings and default texts in firmware as well as in documentation and configuration files have been updated as part of a harmonization across the Anybus CompactCom 40 family of products.	0019334, 0019025,



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Updated in version 1.37:

Title	Category	Description	Issue(s)
PROFINET conformance issues	Bug fix	SNMP issue implemented in version 1.35 (m#18220) has been reverted. I.e. Writable SNMP MIB2 entries sysName, sysLocation and sysContact are now cleared by DCP command ResetToFactory mode 2 (i.e. reset communication parameters)	0019204
	Bug fix	Fixed remark from ComDec regarding triggering of Watchdog timeout Alarm to early when IO-Controller is disconnected. One extra "Sendclock" was added to the watchdog timeout timer.	0019205
	Bug fix	Fixed conformance issue with latest Test bundle (V2.34.3_RC). Automatic RT tester (ART) does no longer fail test case "Behaviour - Scenario 1-9".	0018217
LLDP frame causing IO connection to drop	Bug fix	Fixed issue with an invalid incoming LLDP frame causing IO connection to drop. This was discovered during Achilles testing (vulnerability testing platform)	0019208
Issues with invalid IP settings in Network configuration (NC) object	Bug fix	Invalid IP settings in NC object does no longer cause DHCP to be enabled.	0015888, 0016842
	Bug fix	Invalid IP-address or Subnet in combination with a Gateway not equal to 0.0.0.0 does no longer cause the ABCC to hang.	0018470, 0014960
Functional safety issue	Bug fix	It is now possible to plug the Safety module into any slot using the PlugSubmodule command.	0016115
Asset Management issue	Bug fix	Invalid LocationType setting in the Asset Management object (0xE5) will now increment the "ABF error counter" instead of logging a fatal event.	0018407
Issue with Station name instance in Network configuration object	Bug fix	Station name text strings both with or without null-termination are now accepted in all ABCC states. Previously a null-terminated string was rejected in ABCC state "Setup".	0018493
Sporadic fatal event when closing FTP connections	Bug fix	The stability of FTP server has been improved. In some rare cases the ABCC logged a fatal event when closing an FTP connection.	0018888
Transmit port not updated when topology change	Bug fix	Previously the "transmit port" could not change once a connection had been established. This means that IO-/Alarm frames will be sent from wrong port if topology change in run-time, causing the connection to drop. E.g. if ABCC is part of a redundant MRP ring without having MRP enabled. This has now been fixed. Please note that if MRP is used as intended this is not an issue.	0019138
Notification when setting a new IP configuration via internal web-page	Improved functionality	Added a note to the popup when changing IP Configuration, that states that the new pending IP Configuration might be overwritten by an external IO controller (PLC)	0018947
GSD update	Other change	All GSDs in the release are updated to v2.34 of the GSDML spec.	0018832
Firmware loader update	Other change	In order to support additional flash memories from multiple vendors the delay after initial reset is increased.	0018896
Firmware compatible with new flash memory	Other change	Starting with this version, the firmware can be downloaded to ABCC40 Generic Ethernet platform with support for additional flash. Refer to compatibility section above (Hardware-ID).	-



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Updated in version 1.36:

Title	Category	Description	Issue(s)
Functional safety issues	New functionality	Added the commands Get_Input_Safety_PDU and Get_Output_Safety_PDU to the Anybus functional safety object.	0018628, 0018695
	Bug fix	When receiving a telegram from the safety module indicating fail-safe state, the ABCC will abort any ongoing message fragmentation to be ready to receive messages related to the state change.	0017750, 0018312
	Bug fix	Fatal events from safety module are now handled on reception.	0018477
	Bug fix	Increase safety error counter for discarded responses when the buffer is too small for the response.	0017995
Incorrect Interface counters	Bug fix	Added proper implementation of interface counters per port. (i.e. octet-, packet-, discard- and error counters)	0014283, 0018557, 0018637, 0018662
	New functionality	Added interface- and media counter to the Network Ethernet object. These counters are now available to the host application.	0018559, 0018586, 0018560
	Improved functionality	Interface counters for the internal port now available on the built-in webpage.	0018611
	New functionality	Updated switch (HDL) in order to read out the number of Rx- and Tx octets per port, as well as the number of RX- and Tx frames per port.	0018053, 0018301, 0018537, 0018636, 0018811
Glitch on sync pin	Bug fix	When the IO Controller (PLC) uses a send clock of 4ms a very short extra pulse appears on the sync pin.	0018215, 0018300
ABCC might stop communicating on the network	Bug fix	Solved deadlock situation that might cause processing of PROFINET packets to stop, e.g. when using PRONETA to monitor the network. This issue has only been observed with firmware version 1.35.	0018596, 0018660
Network configuration object issue	Bug fix	Solved issue that caused NVS parameters to be reset if the actual attribute of the host name or domain name instances in the Network configuration object where read when the ABCC is in exception state.	0018073
Disc CRC attribute removed from file system interface object	Other change	The Anybus File System Interface Object (0Ah) has been updated to version 3, where the attribute Disc CRC (#15) has been removed in an effort to reduce memory usage.	0018259, 0018260, 0018261, 0018273, 0018394
JSON functionality	Bug fix	Fixed so that web server will accept forms sent to server using JSON \$.post() function.	0018250
Webserver issues	Bug fix	Corrected minor alignment issue on status tab of the built-in webpage.	0018271
	Bug fix	Corrected issue with write only ADI:s causing error message on the parameters tab of the built-in webpage.	0017926
	Bug fix	Fixed issue introduced in web server version 5.00.01. Depending on configuration HTTP POST may fail when sending big amount of data, even if that used to work in previous versions.	0018251
NW_INIT exception handling	Bug fix	Solved issue where an exception in state NW_INIT caused a fatal event.	0017342



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Title	Category	Description	Issue(s)
TCP connections might continue to use old IP address	Bug fix	Fixed an issue where if link was lost, and after it was re-established a new (different) IP address is assigned by a DHCP server. Then TCP connections was not closed. Instead they could make retransmissions using the old IP address which are not allowed to be used anymore.	0018286
Initial TCP Sequence number possible to predict	Improved functionality	Updated creation of Initial TCP Sequence numbers to comply to RFC 6528. Issue reported by Achilles/Nessus vulnerability testing platforms.	0016823
TCP/IP stack vulnerable to TCP sequence prediction blind reset spoof attack	Improved functionality	Added protection against TCP RST spoof attacks, implemented according to RFC 596. Issue reported by Nessus vulnerability testing platform.	0017558
Added option to disable DHCP client	Improved functionality	Added attribute to the Ethernet object to allow applications to fully disable the DHCP client functionality.	0016153, 0017948, 0017969, 0017973



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Updated in version 1.35:

Title	Category	Description	Issue(s)
IRT conformance issues	Bug fix	Solved issue with re-configuration of the switch could be delayed for several seconds. This issue might cause problem with SPIRTA conformance test script RedRelay4.	0018101
	Bug fix	Solved issue with loss of synchronization, and reduced time stamp jitter for sync frames and cable delay measurement. These issues might cause problem with SPIRTA conformance test script Syncslave03.	0018158
	Bug fix	Reduced sync pulse jitter at the beginning of IRT connection phase. Corrected "max pll window" calculation.	0018498
Topology conformance issue	Bug fix	Conformance test tool TEDchecker might report inconsistent error when reading MIB variable IldpPnoLocPortPtcpMaster via SNMP. Sometimes MAC address of the active Sync master is returned, and sometimes zeros. This inconsistency have now been fixed.	0018380
RT conformance issue	Bug fix	The writable SNMP entries sysName, sysLocation and sysContact should not be cleared by DCP ResetToFactory command (ResetCommunicationParameter). The not yet released version (2.34.1) of conformance test tool ART reports this issue as "PassWithHint". The official released ART version (2.34.0) does not check this.	0018220
DCP Alias name filtering	Bug fix	Added low-level filtering of incoming DCP Identify Alias name requests to survive storms with Alias name requests injected by some PLCs.	0018473



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Updated in version 1.34:

Title	Category	Description	Issue(s)
Security issues with Profinet DCP protocol	Bug fix	When running fuzz testing tool 'Defensics' the device stopped responding to valid Profinet requests. Fixed security issues with incorrect DCP service id and invalid length fields causing lockup.	0018057, 0018069
Device might occasionally lose IRT connection when loaded with acyclic read requests	Bug fix	When using PROFINET IRT synchronization and in parallel running SIEMENS PRONETA tool, the device occasionally loses synchronization. This configuration- and diagnostic tool repeatedly sends acyclic read requests to the device. Fixed so that acyclic read/write requests no longer interfere with sync frames needed for IRT communication.	0018010, 0018102



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Updated in version 1.33:

Title	Category	Description	Issue(s)
IRT connection may drop due to SNMP packet bursts.	Bug fix	Fixed issue introduced in version 1.31 (m#0017706) where bursts of SNMP requests could cause IRT connection to drop. This was particularly obvious when device is controlled by a "slow" (i.e. long response time to host object attribute accesses) host application, and at the same time running the PRONETA diagnosis and maintenance tool from SIEMENS that generates SNMP packet bursts repeatedly.	0017979



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Updated in version 1.32:

Title	Category	Description	Issue(s)
Fixed PROFINET conformance issues with new test bundle v2.34	Bug fix	IO-tester issue when running script DIFF_ACCESS_WAYS: Default value for I&M parameter I&M0 Profile_Specific_Type changed to expected value 0x0000.	0017769
	Bug fix	IO-tester issue when running script DIFF_ACCESS_WAYS: Implicit read of PROFIenergy record now returns expected error code.	0017770
	Bug fix	TED check consistency issue when executing Standard mode test: MIB2-variable sysDescr now reports the same data as LLDP-MIB variable lldpLocChassisID.	0017774
	Improved functionality	Fixed remark from conformance test center regarding Fast startup. DCP_Hello sequence is now terminated when connection is established	0016900
	Bug fix	Issue with ART when running script Behavior - Scenario 1-8: First scenario - Write request with invalid ARUID is now rejected with expected error code.	0017776
	Bug fix	Issue with ART when running script Behavior - Scenario 1-8: Fifth scenario - Alarm now contains expected abort code when connection is terminated due to absent ApplicationReady response (RPC timeout).	0017777
	Bug fix	Issue with ART when running script Behavior - Scenario 1-8: Eighth scenario - Invalid DataHoldFactor in connect request is now rejected with expected error code.	0017778
	Bug fix	Issue with ART when running Alarm script: Fourth and Fifth Scenario - Corrected number of Alarm re-transmissions	0017783
	Bug fix	Issue with ART when running Alarm script: Fifth Scenario - Alarm now contains expected abort code when connection is terminated due to missing Alarm acknowledgement.	0017787
	Bug fix	Issue with SPIRTA when running script PermanentData: Forwarding of IRT frames now follows the FrameID filtering rules ("RedGuard") written to the device when IRT connection is established. Also IRT frames destined for the device itself are no longer forwarded to the other external port.	0014484, 0017805, 0017809
	Bug fix	Issue with Asset management: Removed AM_FilterData from I&M0_FilterData since this field was deleted in PROFINET specification v2.34.	0017373
Device might not establish IRT connection when connected to certain neighbors	Bug fix	Fixed issue causing the device to not sync up with certain neighbors. This might occur if the neighbor has a large difference between its internal Rx- and Tx delay times (e.g. Siemens IO controller CPU1511).	0017914
Configurable Ethernet LED mode added	New functionality	Added possibility for the host application to activate alternate Ethernet LED behavior a.k.a. "AIDA LED" mode. This mode is activated by new instance attribute #7 of the Application object.	0017796, 0017840, 0017841, 0017843
GPIO pins cannot be set to tristate.	Bug fix	The GPIO configuration attribute in the Anybus object incorrectly returns error "out of range" when the value 3 (tristate) is written. This has now been fixed.	0017779
ADI page not correctly displayed due to missing min/max value	Bug fix	Fixed error on Parameter web page. If application contains 32-bit or 64-bit ADIs without min or max value the page was not correctly displayed. Instead an error "Error: RangeError: Invalid array length" was displayed in top right corner.	0017858



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Updated in version 1.31:

Title	Category	Description	Issue(s)
PROFenergy	New functionality	Added support for PROFenergy class 2 & 3, energy measurements.	0010449
SNMP community strings	New functionality	Added support for custom SNMP community strings.	0017706 http://intranet.hms.se/bugtracking/bt/view.php?id=17706
Possibility to disable I&M5	New functionality	Possible to disable I&M5 with new prio instance attribute.	0017714 0017720
Optimized erase & write of NVS parameters	Improved functionality	Optimized the time it takes to erase & write NVS parameters.	0017653 0017654
Device vulnerable to malformed SNMP requests.	Bug fix	Fixed a bug when resolving malformed SNMP OID address.	0017700



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Updated in version 1.30:

Title	Category	Description	Issue(s)
PROFenergy supported	New functionality	Energy control supported according to PROFenergy profile version 1.2.	0017694, 0017699, 0017704, 0017709
Asset management supported	New functionality	Asset Management; i.e. identification and discovery data for non PROFINET subsystems within the device is now supported. AssetManagementData is acyclically accessed using record index 0xF880.	0015487, 0015971, 0017286, 0017389, 0017482
I&M5 supported	New functionality	I&M5; i.e. additional electronic type plate for the communication interface is now supported. I&M5 data is acyclically accessed using record index 0xAFF5.	0015487, 0015971, 0017499, 0017684
Firmware upgrade of safety module supported	New functionality	Added support for firmware upgrade of safety (ASM) module.	0016761, 0017702
Safety module: At a FatalErrorEntry store the state of the Safety module	Improved functionality	When the host reads the state of the safety module via Functional Safety Module Object (inst. 1, attr. 1) and after the safety module has issued a FatalErrorEntry the state returned from the ABCC is now the stored state from the FatalErrorEntry, the fail safe state, instead of "Invalid state".	0017470
Built in webpages improvements	Improved functionality	<ul style="list-style-type: none"> Disabled spell checker for ADI input fields Added structured ADI support Added metadata tooltip to ADI input fields 	0017655, 0017656, 0017657
SSI commands may result in an out of memory situation	Bug fix	html files with SSIs handling arrays with more than about 20 entries, or many ABCC messages in the same SSI command, may cause the ABCC to log a FATAL event.	0017490
SSI improvements	Bug fix	<ul style="list-style-type: none"> Improved exception handling when processing incomplete SSI tag. Improved exception handling when parsing SSI string. 	0017584, 0017601, 0017609, 0017614, 0017615, 0017616
Webserver cause FATAL event when running security qualification tool	Bug fix	"Long" web request could cause the ABCC to log a FATAL event. This was discovered when running security tool Qualys.	0017241
ABCC40 serial opmode is not fully compatible with ABCC30 serial opmode	Bug fix	The ABCC40 in serial "ping-pong" mode may not respect a cleared R-bit. Primarily affects applications using the ABCC30 serial driver with the number of message buffers set very low.	0017348
I&M4 not forwarded to application in transparent mode	Bug fix	Reading I&M4 was always rejected by the ABCC and never forwarded to the application, regardless of the transparent setting in IM_Options associated with the Network PROFINET IO object.	0017259
Expected_Ident_Ind command was truncated	Bug fix	Expected_Ident_Ind message size has been increased to 2370 bytes. This will allow the largest supported slot/subslot configuration to be sent to the application.	0017703
Problem with initial write record data for Modular device	Bug fix	In general, record data write operations use only the Index part to address an ADI. For modular device, this means that a module with multiple instances will overwrite the same ADI data. Acyclic access to ADIs in modular device mode is now taking the slot number in account: ADI = Slot * AdisPerSlot + Index	0017145



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Updated in version 1.28:

Title	Category	Description	Issue(s)
Alarm state machine issue	Bug fix	Behaviour updates to satisfy PN-AL-protocol specification and AIT test lab expected behavior (Rt-tester case APMR3).	0017359
SNMP Set-command issue	Bug fix	An empty string (value with data length zero) is now allowed for SNMP Set-command. Thus it is now possible to clear sysName, sysContact and sysLocation by writing an empty string from an SNMP client.	0017270



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Updated in version 1.27:

Title	Category	Description	Issue(s)
Transparent Ethernet (RMII) performance improvements	Improved functionality	Transparent Ethernet performance improved as internal Rx queue semaphore lock has been replaced with a critical section solution.	0017040
	Improved functionality	Transparent Ethernet performance improved as Rx semaphore lock has been removed and replaced with an critical section solution to remove task prio inheritance.	0017038
	Improved functionality	Tx/out regulated flow is now implemented. When enabled RMII Tx packets will be allowed to be put on the LwIP Tx queue at the same time. This to prevent RMII from occupying more LwIP Tx resources so PROFINET RT/IO data can be disturbed.	0017043
Modular device functionality implemented	New functionality	The Modular device functionality as defined by the general Anybus CompactCom 40 software design guide has been implemented. Modular device makes it possible to model a structure of the process data on to a number of modules of different types within an application, e.g. for handling digital input or output, analog input or output, or drives.	0009810
Safety module Ident number changed	Other change	Default ModuleIdentNumber for safety module changed from 0x80000001 to 0x00010001 to work with TIA Portal. The safety example GSD has been updated accordingly in this release. Background: Having bit 31 set in the ModuleIdentNumber, the TIA Portal parser does not quite work and will cause the IXXAT SafeT100 CRC generator tool to not work.	0016948
PROFINET conformance issues	Bug fix	When running Netload it could happen that a FATAL event was logged by the MAC task.	0017070
	Bug fix	To avoid failures during heavy netload, resources have been reserved for UDP packets received on ports bound to the PROFINET RPC server.	0016718
	Bug fix	Before this fix the ABCC could log a FATAL event if it was heavily loaded with network traffic (NetLoad) during a failed Connect call. The scenario is now resolve by removing the existance of a unreferenced 'time slot' before the implicit delete is performed.	0017103, 0017111
	Bug fix	The delay between LineDelay measurement bursts was too short causing IRT testing (SPIRTA) to fail.	0016918
	Bug fix	Cable delay is determined by averaging several individual measurements. The time between the individual measurements is defined to be DelayT=200ms. Until now there has been no tolerance defined for DelayT but it is going to be defined to [-0,+100ms] in the next version of the profile specification (MU4). To account for slight deviations between the ABCC's system clock and that of the SPIRTA test system the actual DelayT used must be increased slightly.	0016794
	Bug fix	When applying a Set service on an IM1-4 record with an incorrect payload length that error is returned even if the index itself is not supported. This is now fixed; error code invalid index is returned if IM index does not exist.	0017102, 0017172
	Bug fix	Alarm state machine update: ALPMR state error cases updated according to PN-AL_Protocol specification.	0016740
State EXCEPTION not always indicated on LED	Bug fix	A major change to the NVS data base causes the ABCC to enter state EXCEPTION. This state should be indicated on the Module Status LED (solid red), but it is not in this particular case (other cases causing EXCEPTION is correctly indicated). This is now fixed.	0016239
ABCC could incorrectly reach state PROCESS_ACTIVE after remap.	Bug fix	After performing a remap, mismatches due to I/O size difference between real and expected identification were not handled correctly. An output submodule, though correctly indicated as "wrong" in ModuleDiffBlock, would be marked as owned by the AR. The result is that despite the configuration mismatch the ABCC could reach state PROCESS_ACTIVE.	0016111



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Title	Category	Description	Issue(s)
Irrelevant Port state attributes	Improved functionality	Port state attributes (12,13) are read from the Ethernet host object at start-up. But they have no effect, which makes sense as disabling of ports is preferably controlled by the PROFINET controller. To simplify the user manual and speed up the startup "support" for these attributes have been removed.	0013489
DHCP activation via DCP no longer supported	Other change	Due to issues with preformance test (ART - Dcp script) it was decided to remove the possibility to activate DHCP via the DCP protocol. This means that it is no longer possible to activate DHCP via the PROFINET network, for example by using SIEMENS PRONETA tool or STEP7/TIA.	0016664
Configuration error handling related to safety module changed	Bug fix	If read process data is mapped by the application, which is not mapped by the PROFINET controller, all output was previously locked. Since the safety module I/O and application process data may be updated independently this behavior has been changed. 1. Application process data outputs are not locked because of safety module missing in Expected Identification. 2. Safety module output is not locked because of application process data outputs missing in the Expected Identification.	0016814
Configuration check could cause FATAL event	Bug fix	A FATAL event could be logged if the submodule properties were wrong during the connect phase. IO direction was not part of check, but is now.	0016831
New ABCC40 errcodes now used in NC object instance F-Address	Other change	When setting F-address with values out of range the ABCC now uses the new 40 error codes for too low and too high values instead of the generic out of range error code.	0017110
NC object instance F-Adresse misspelled	Bug fix	F-address instance name in German corrected	0017147



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Version 2.04

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Updated in version 1.26:

Title	Category	Description	Issue(s)
Black channel	New functionality	Added black channel support for PROFIsafe.	-
I&M4 removed	Other change	When implementing black channel for PROFIsafe it was decided to remove the optional I&M4 record. Background for this decision is that I&M4 shall be used in conjunction with PROFIsafe and there is currently no way to write a value to I&M4 from the host application (e.g. T100 module). According to ComDec it is not mandatory to support I&M4 in conjunction with PROFIsafe. Refer to updated GSDML-V2.32-HMS-ABCC40-PIR-20160510.xml; Writeable_IM_Records="1 2 3"	
Alarm handling: QualifiedChannelDiagnostics: SubmoduleState.Advice	New functionality	From v2.33 of the PNIO specification the definition of Qualified Channel Diagnostics has changed and the severity of the fault is classified as Normal,Advice,Maintenance required,Maintenance demanded or Fault . The legacy definition were: Normal, Maintenance required, Maintenance demanded or Fault . The determination of if the new layout is used or not is controlled by ChannelProperties Maintenance mask (0x0600) = QCQ (0x0600). If set the severity is controlled by bits in the QualifiedChannelQualifier member in the following manner: Advice =(QualifiedChannelQualifier & 0x00000078) Maintenance required =(QualifiedChannelQualifier & 0x0001FF80) Maintenance demanded =(QualifiedChannelQualifier & 0x07FE0000) Fault =(QualifiedChannelQualifier & 0xF8000000) Note: With this addon the new definition of the QCQ bit in SubmoduleState in ModuleDiffBlock is now controlled by the Advice classification above.	0014887
DCP: IP conflict indication	New functionality	Profinet DCP (Dynamic Host Configuration Protocol) can indicate in IPParameter suboption block if the device is in an active IP conflict or not. Previously this bit was not populated but with this update it reflects the actual state.	0015770
Potential link down problem	Bug fix	When having an established connection, sometimes when pulling the cable, the module remain in state PROCESS_ACTIVE, with its LEDs still lit (except for link LED), not indicating to the application whatsoever that the link (and therefore the connection) has been broken. This issue is now fixed and link down is detected correctly.	0016554, 0016555
Conformance issues	Bug fix	A profinet neighbour node should be able to indicate that it only wants to receive PTCP Sync frames but does not implement the PTCP protocol fully when its interested to receive the system time. This is done by setting the Delay1ns field to zero in the cable delay response frame. This condition was not detected previously but is now fixed.	0014611
	Bug fix	For Pull/Plug alarms sent to the IO Controller (IOC) a re-parameterization sequence is started by the IOC that involves Prm.End and Appl.Ready(req/resp). A ModuleDiff block is attached to the ApplReady.resp frame sent to the IOC and this block should ONLY contain the affected slot/subslot of the Pull/Plug alarm. If this is not the case the IOC will terminate the connection an restart. This was not previously the case and all slot/subslots of the AR that had diagnostics were added. This has now been fixed to the correct behavior.	0013727



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Title	Category	Description	Issue(s)
	Improved functionality	When reading PExpectedIdentification indexes the returned submodule list was not sorted by lower to higher numbers but instead in the orders they were mapped in the IO Controller. This behavior previously led to inconclusive notices at conformance testing (Rt-tester script DIFF_ACCESS_WAYS). This issue is now fixed and slot/subslots are sorted from lower to higher ordering.	0014523
	Bug fix	Conformance issue related to alarm statemachine. When running preconformance test (Rt-tester script CHECK_PEERS) it was observed that alarns could be sent by the ABCC before the alarm channel was opened, thus violating the PROFINET specification. Alarms triggered before the ApplicationReady response are now suppressed.	0014585, 0013847, 0013837
Firmware upgrade fails occasionally	Other change	The Firmware Loader distributed with the HIFF package has been upgraded (1.13) since it has been observed that the Firmware download sequence sometimes fails.	0016568



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Updated in version 1.25:

Title	Category	Description	Issue(s)
Conformance issues found by AIT test lab	Bug fix	During conformance testing of version 1.21, AIT had some remarks that they requested to be solved before taking new conformance tests. These issues have now been fixed.	16112
Shift register mode causes fatal event	Bug fix	If a value other than 0 is configured for DIP2 in shift register mode, the ABCC logs a fatal event. This has been fixed by increasing stack size of the related task.	16043



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Updated in version 1.24:

Title	Category	Description	Issue(s)
I&M handling for multiple API devices	Bug fix	<p>Firmware has been modified so that returned value for I&M0 parameter IM Supported depends on API. For submodules assigned to a non-zero API the returned value is set to constant value zero, indicating that I&M1-4 is not supported for the submodule in question. As a consequence any acyclic access of I&M1-4 for submodules assigned to a non-zero API is rejected with error code Invalid index.</p> <p>This new handling was introduced due to a conformance issue with multiple API applications (IO Tester script IM_WRITE_EXT failed).</p> <p>This issue can only effect advanced users that create their own configuration based on API_Add, Plug_Module and Plug_Submodule/Plug_Submodule_Ext commands.</p>	16250



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Updated in version 1.23:

Title	Category	Description	Issue(s)
I&M0 in multiple API devices	Bug fix	<p>Firmware has been modified so that the returned values for I&M0 parameters Profile ID and Profile specific type depends on API. For submodules assigned to a 'non-zero' API the returned values are read from the PROFINET object in the host, otherwise constant values are returned (Profile ID = 0xF600, Profile Specific Type = 0x0004). This new handling was introduced due to a conformance issue with multiple API applications (e.g. PROFIdrive that uses API 0x00003A00).</p> <p>This issue can only effect advanced users that create their own configuration based on API_Add, Plug_Module and Plug_Submodule/Plug_Submodule_Ext commands.</p>	-
Factory reset issue	Bug fix	Factory reset from the network might cause the ABCC to get inresponsive from the application side.	16150



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Updated in version 1.22:

Title	Category	Description	Issue(s)
Invalid PDPortDataRealExtended data block	Bug fix	PDPortDataRealExtended block contained neighbor information for an unconnected ethernet port (that obviously do not have neighbors). This data block can be read from the PROFINET network acyclically with index 0x8027, it is also a subset of the PDRealData record that can be read with index 0xF841.	16086



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Updated in version 1.21:

Title	Category	Description	Issue(s)
Application RMII driver reverted	Other change	The Ethernet MAC driver used by the Application RMII functionality was reverted from version 1.02 to 1.00 due to issues found during testing.	-
MAC receive during link loss	Bug fix	HMS MAC can end up with invalid Rx buffer when removing link while receiving frame. When an incomplete frame is detected the link status on the port the frame originated from will now be checked. If there is no link the frame will be discarded.	15854
IP address and station name in shift register mode	New functionality	Set IP address and station name based on DIP switches at startup in shift register mode. Switch 1 is used to set IP address and switch 2 is used to set station name. In both cases, value 0 corresponds to the default handling. For more information refer to the Anybus CompactCom M40 Hardware Design Guide.	-
PROFINET stack updates	Bug fix	Conformance issues with multiple API applications (e.g. PROFIdrive that uses API 0 and API 0x00003A00): <ul style="list-style-type: none">“Expected Identification” (Indices 0x8000 and 0xC000) may contain same submodule twice.Index “AR Data” (0xF820) only contains API 0.	15861, 15862
		Potential conformance issue: DataStatus.StationProblemIndicator in IO data telegram from ABCC did not indicate Problem even though a check error exists when running IO Tester script CHECK_PEERS_DIFF.	15666
New I&M handling for APIs different from zero	New functionality	In previous versions I&M requests destined for an API different from zero were forwarded to the host application, expecting the host to provide a response. From now on the ABCC will by default handle these requests without any interaction with the host application. This new handling was introduced due to a conformance issue with multiple API applications (e.g. PROFIdrive that uses API 0x00003A00). Note that transparent I&M handling can still be activated to handle these record requests within the host application.	15850
Socket interface update	Bug fix	Fixed some stability issues with socket interface: <ul style="list-style-type: none">Memory leak – If there was unread data on a socket that is closed the buffers holding the data was lost.FATAL if unaccepted connection RST – If a connection is established to a listening socket that connection is placed in a queue until accepted using accept(). If the peer closes the connection with RST before the connection is accepted the module will FATAL.	15858, 15859



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Updated in version 1.19:

Title	Category	Description	Issue(s)
Notify application of DCP Signal command	New functionality	Added command Indicate_Device to the PROFINET host object. This command informs the application that a DCP command Set Control/Signal has been received on the network. Primarily used by engineering to physically identify a device on the network by blinking a LED or flashing a display etc.	15498
Clock synchronization for IRT communication	New functionality	Clock synchronization in an IRT domain can take place with or without a so called PTCP FollowUp frame. Previously this frame was not supported, which caused a remark in the conformance test report.	14984
Added MAUTypeExtension according to PROFINET spec V2.32	New functionality	To handle the special case of POF (100BASE-PXFD) MAU type better the MAUTypeExtension has been added, which basically allows the device to say that it is a 100BASE-FXFD with extension POF. This effects LLDP, SNMP and record data indexes.	14612
Load problems (sporadically triggered by netload tests)	Bug fix	Rx/Tx descriptor bug solved that could case fatal problem during heavy traffic load.	15160
	Bug fix	Fixed forced RPC timeout; now handled by timeout system to avoid deadlock of a PROFINET task.	15574
	Bug fix	Fixed AR reference bug in Alarm system. Same AR was in some scenarios dereferenced twice.	15574
Ethernet link problem	Bug fix	By default the ABCC uses Autonegotiation to detect transmission rate and duplexity of its ethernet ports. If a device, explicitly configured to use fixed transmission rate and duplexity (100 Mbit, Full duplex), is connected to the ABCC no link was established. This issue is related to issue m#15643 below.	12640, 14929
	Bug fix	When IO Controller requests the ABCC to adjust to a fixed MAUType, Auto MDI/MDI-X* is disabled. Later removal of the adjust block (re-enabling autonegotiation) did not re-enable Auto MDI/MDI-X, causing no link to be established. *Auto MDI-X capable ports on network interfaces detect if the connection would require a crossover, and automatically chooses the MDI or MDI-X configuration to properly match the other end of the link.	15643
Update of several software modules	Other change	Many non PROFINET common objects have been updated: FATFS, LWIP, FTPD, HWS, SMTP, ABF, ABFIT, FIF, MENU, ABP, FIFFAT, SOC, HMSLIB, SF2ED	-



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Updated in version 1.18:

Title	Category	Description	Issue(s)
RPC fragmentation	Improved functionality	<p>During connection establishment several user specific Write requests might be written to the IO device (if defined in GSD-file). IO Controllers tend to group these Write requests into one big MultipleWrite request.</p> <p>For some applications a MultipleWrite request may contain so many Write requests (>20) that the response does not fit into a single frame. If this happens the IO device must split the response into several frames (i.e. fragmentation).</p> <p>The fragmentation mechanism handled by the underlying RPC protocol was not supported by the Profinet stack, which resulted in a critical FATAL event.</p> <p>The ABCC now supports fragmentation of RPC server responses and RPC client requests.</p>	14898, 15414
Invalid representation of neighbor PortName	Bug fix	<p>The MultipleInterfaceMode setting effects how PortName are represented on the network (i.e.LLDP_PortID). If the ABCC was configured with MultipleInterfaceMode disabled but its neighbor was configured with MultipleInterfaceMode enabled, the ABCC would represent the neighbors port name incorrectly.</p> <p>This affects network conformance.</p>	15382
FATAL event in socket interface	Bug fix	<p>The ABCC could log a FATAL event due to usage of incorrect socket reference.</p>	15371
Temporary IP address incorrectly reset	Bug fix	<p>The ABCC did incorrectly reset its temporary IP address when a Station name was assigned, given that the ABCC had no name before.</p> <p>This affects network conformance.</p>	15401



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Updated in version 1.17:

Title	Category	Description	Issue(s)
Serial host communication timeout	Bug fix	When heavily loaded from the network side (e.g. Netload RT Faulty test) the ABCC could not maintain the serial host communication, which may cause the host to detect a Anybus watchdog timeout (if implemented).	-
Netload test failure	Bug fix	The Netload RT Faulty test could in rare cases cause a FATAL event.	15196



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Updated in version 1.16:

Title	Category	Description	Issue(s)
Discarded DCP-Identify request	Bug fix	DCP Identify requests is sent to PROFINET field devices in order to read out information for identifying a device. In some circumstances this request was discarded by the ABCC because the response payload got to large (buffer overflow). This could for example happen if the user assign his own StationType.	15001
Diagnostics not correctly displayed in TIA Portal	Bug fix	Port diagnostics in SIEMENS commissioning tool "TIA portal" was not displayed correctly in the online view, because read record used to fetch the information was rejected by the ABCC.	15086



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Updated in version 1.15:

Title	Category	Description	Issue(s)
Netload hardening	Bug fix	A deadlock situation between cable delay handling and retention time adjustment was eliminated.	14981



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Updated in version 1.14:

Title	Category	Description	Issue(s)
Omit LogBook block if no entry	Bug fix	The LogBook block of index 0xF830 is no longer provided if there are no entries in the LogBook.	14883



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2023-01-20

Updated in version 1.13:

Title	Category	Description	Issue(s)
Block for re-plugging during connect	New functionality	<p>The Expected_Ident_Ind command now has the response codes Block / Continue. If the application responds Block it may change the Real Identification, using e.g. Pull_Submodule and Plug_Submodule, to fit the Expected Identification received. When all changes are done the application sends Ident_Change_Done command to inform the ABCC that a connect response may be produced.</p> <p>Using this new method, the identification can be adapted without any restarts or time consuming re-parameterizations; The adapted identification is valid all through the initial parameterization phase.</p>	-



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Updated in version 1.12:

Title	Category	Description	Issue(s)
Centrally assigned IP Suite shall be reset when NameOfStation is changed	Improved functionality	If a controller assigns a station name to a device then the device becomes part of another address space (e.g. a device is moved from desktop commissioning to production line, or from one line to another) where its old address is no longer meaningful. Note: MU3 of the specification will contain an exception for locally set IP suite according to following formulation: If this function is issued due to ChangeName or ResetName, then the IP suite may not be deleted if it was set independent from the Name, e.g. by local means. Our interpretation is that a temporarily set IP suite shall be cleared when NameOfStation is changed, while a permanent setting is retained.	14590
Name of IO Controller is no longer truncated	Bug fix	CMInitiatorStationName is no longer truncated if the name of the IO Controller is longer than 20 characters. ABCC now supports full length of 240 characters. CMInitiatorStationName is part of the response to Read index 0xF820 (ARData).	14825
Frame ID ranges updated	Bug fix	Part of the range previously used for RTC3, 0x0700-0x0FFF, is now defined for redundant RTC3 communication. Another large portion of this range, 0x1000-0x7FFF, has been set to reserved.	-
PDPortDataReal: Set PeerPortName acc. to Mult. Interface mode	Bug fix	The PeerPortName shall be extracted and presented according to the active Multiple Interface Mode, or empty if it is not according to the expected format. The same applies for PeerStationName.	-
PortTxDelay adjusted	Bug fix	The PTCP Tx delay was not accounted for in the PortTxDelay values for copper PHYs, this adds 40ns to all the copper PHYs. The PortTxDelay value for POF (polymer optical fibre) has also been updated. GSDML-V2.32-HMS-ABCC40-PIR-20151007.xml has been updated with new values (keyword MaxPortTxDelay).	-
Enter slot/subslot number in PDPortDataReal block	Bug fix	When responding with PDRealData, the slot/subslot of the ports must be added to the block.	-
Deadlock resolution	Bug fix	Abortion of an AR while handling a remotes system data change could cause a deadlock. Abort sequence adjusted.	-
Fast start up (FSU) optimization	Improved functionality	NVS common object updated (CRC check was removed on parameter read). This lowers the startup time with 50 % (i.e. power-on to PROCESS_ACTIVE)	13287



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Updated in version 1.11:

Title	Category	Description	Issue(s)
Sync problem handling issues fixed	Bug fix	When the application indicates "not synchronized" or "synchronization loss" in the application status register DAP submodules' status will no longer be affected and the status in the resulting ModuleDiffBlock is now set correctly.	-
Restore output after adapting Real Identification	Bug fix	If the controller's Expected Identification contains fewer (or mismatching) output submodules compared to the Real Identification created by Plug_Module/Submodule commands all output submodules will be locked by the application (superordinated locked). If the mismatching output submodules are pulled/replaced in the Real Identification the controller will now get ownership of the requested output submodules.	13793
State EXCEPTION if mapping max process data size	Bug fix	The ABCC would enter state EXCEPTION if trying to map within 4 bytes of the maximum process data size.	13608
PROFINET task stack sizes increased	Bug fix	One PROFINET task stack has been noticed to overflow, while another stack was critically low. Both stack sizes have been increased. This fix remedies a seemingly random (and rare) FATAL error observed in testing.	13172
MRP enabled by default	Other change	According to recommended behavior in PROFINET specification, MRP is now enabled by default.	-
Zero-delay copy	New functionality	Added DDOA V2 support	
Remap issues fixed	Bug fix	Remapping would eventually fail if performed several times without power cycling the device.	-
Improved frame transmission jitter (IRT)	Improved functionality	The frame transmission jitter has been improved significantly, making it easier to pass SPIRTA tests.	14302
Channel number in Extended diagnosis	Improved functionality	Channel number is now set to the index of a specified element within the submodule sending the alarm. Example: If a submodule contains elements 4 and 5 of an ADI, a diagnosis created for element 5 would have Channel number set to 1.	13778
Wrong PROFINET error code used for invalid Read record request	Bug fix	When the requested data length in a read record request is too small to fit the actual response data an error code is returned. The correct error code to use is "access / invalid type" or "access / invalid range. The previously used "resource / read constrain conflict" signifies a temporary error and that the read request may be successful when retried later.	14490
IM_Options command rejected	Bug fix	The command IM_Options is no longer responded to with "unsupported command"	14491
Link up events may casue deadlock in network tasks causing the ABCC to become unresponsive on the network	Bug fix	When having multiple IO devices and powering up the network sometimes some device(s) would not establish a connection with the IO Controller (no response to Ping or DCP). It was found that link up events sometimes caused an "out of memory situation", which in turn resulted in a deadlock hanging the network tasks.	13522
Support fully plugged bidirectional config	Improved functionality	Increased resources to allow for a configuration with maximum number of submodules plugged with input and output data.	13068



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Title	Category	Description	Issue(s)
Topology checking tool fails in "V2.3" mode	Bug fix	The SNMP variables lldpXPnoLocPortNoS/ lldpXPnoRemPortNoS (that belongs to the LLDP MIB) shall reflect interface name (i.e. Station name or MAC address), not the ChassisID. This issue was found by "TEDcheck", which is a tool for testing PROFINET topology, that is used for certification tests. The variables show wrong value when "V2.3" mode is selected in TEDcheck and "Multiple interface mode" is activated on the device under test.	-
Acyclic data object access	Bug fix	PROFINET provides records for standardized acyclic access to data objects abstracted through submodules. If an output submodule is connected to an IOController with valid output data the substitute data shall either be the same as the actual output data with SubstituteDataValid=TRUE or another value (e.g. ZERO) with SubstituteDataValid=FALSE(OD)=0x40. The ABCC uses SubstitutionMode ZERO so the latter option is used.	-
Clear padding in IODRead/WriteResponse header	Bug fix	The padding bytes in IODReadResponse and IODWriteResponse headers are specified to be 0. They are now cleared by the PROFINET stack.	-
PortName in PDPortDataReal	Bug fix	TED Check V.2.32.2.0000 checks OwnPortName in PDPortDataReal according to "Coding of the field NameOfPort", which is defined as "port-xyz" or "port-xyz-rstuv". The NameOfStation part is no longer appended to this field.	-



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Updated in version 1.10:

Title	Category	Description	Issue(s)
Missing interrupt handler for application RMII	Bug fix	An interrupt handler related to the application RMII functionality was missing. It has been added and the new functionality shall now be operational.	-
Common object updates	Improved functionality	Internal components related to IT/RMII functionality have been updated.	



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Updated in version 1.09:

Title	Category	Description	Issue(s)
Wrong port MAC addresses in NWPNI0 object	Bug fix	The MAC addresses for port 1 and port 2 were not correctly reflected in the Network PROFINET IO object (instance #1, attributes #10 and #11) before entering state WAIT_PROCESS.	13582
Wrong endian-ness	Bug fix	The fields in the command Expected_Ident_Ind (PROFINET IO object) were incorrectly represented in big-endian format.	13629
Handling of configuration mismatch	Improved functionality	<p>A controller may choose to connect to fewer submodules than are plugged by the application (plugged explicitly using Plug_Module/Submodule or implicitly by mapping ADIs to process data).</p> <p>Previously, any difference between the expected (controller) identification and real (ABCC) identification would transition the ABCC to state ERROR while informing an end user only through LED indication "Config mismatch". This handling has been improved in three ways:</p> <ol style="list-style-type: none">1. Incomplete output mapping: If the controller tries to connect to fewer output submodules than are plugged by the application, the controller will not be granted ownership of any output submodule. ABCC state is set to ERROR and LED indication "Config mismatch" is activated. Matching input submodules will be owned by controller and work normally.2. Incomplete input mapping: The controller may choose to connect to a subset of the available input submodules without any restrictions. ABCC state is set to PROCESS_ACTIVE and no error is indicated on LED.3. Mismatch of submodule(s): As long as all of the output submodules of the real configuration are present and matching in the expected configuration, the ABCC state is set to PROCESS_ACTIVE. However, if there is any mismatch among the other submodules the LED indication "Config mismatch" is activated. <p>Note: In the case of ADI based Real Identification mode, a remap is first attempted for cases 1 and 3 above.</p>	-
Netload	Bug fix	In some operating conditions, netload tests may fail. This has been noticed e.g. for SPI mode.	-
Conformance issue	Bug fix	Unimplemented record data indices addressing the device (i.e. API/slot/subslot is irrelevant) must be responded to with error "Invalid index" instead of "Invalid slot/subslot".	13585
Diagnosis categorization	Bug fix	A channel diagnosis item with a channel error type within a manufacturer specific range was previously mis-categorized as 'Manufacturer specific diagnosis'. This caused a mismatch between the USI (User Structure Identifier) of alarms and the AlarmSpecifier, where the diagnosis type is specified.	-



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Updated in version 1.08:

Title	Category	Description	Issue(s)
DCP Timeout when assigning IP-address	Bug fix	Speed-up of initial ACD sequence (probing network for IP-adress, before using it). This guarantees a response to DCP_SetIp within 1000 ms.	13425
Incorrect IOCS after pulling/plugging submodule	Bug fix	After pulling and then re-plugging an output submodule in run-time the submodule's IO Consumer Status in the input frame did not return to GOOD (0x80).	13198
No Ar_Abort_Ind message for DeviceAccess AR	Bug fix	When a DeviceAccess AR was aborted the host application did not receive the expected Ar_Abort_Ind message.	13183
Factory Default reset may be denied	Bug fix	If a background write operation to internal non-volatile storage was active, such as after writing a variable via SNMP, a factory default reset request via DCP was denied. Observable in PROFINET IO Tester V2.3.5.23.4427, test case SNMP_MIBS.	-
Index PDInterfaceMRPDataAdjust returns bad data	Bug fix	When reading the acyclic index 0x8051, without MRP active, the response could contain data from previous responses. Observable in PROFINET IO Tester V2.3.5.23.4427, test case DIFF_ACCESS_WAYS.	13191
Invalid data in index ARData	Bug fix	The field ParameterServerObjectUUID within an ARData block was not cleared (shall be NIL if not used).	13190
Error code adjustment	Bug fix	The error code when attempting to read index 0xE040 (MultipleWrite) through an implicit read, targeting an invalid AR, has been changed.	-
I&M handling	Bug fix	Several issues regarding handling of I&M data have been fixed. <ul style="list-style-type: none">DAP submodule (slot0 / subslot 1) is always added to filter data as device representativeWriting of I&M1-4 is blocked for submodules not marked as carrier in filter data.	12724
Sync pulse	Bug fix	The synchronization pulse would appear at the start of each network cycle. If the controller used a ReductionRatio > 1 it would mean that multiple synchronization pulses appeared during each data cycle. This has been fixed so that a synchronization pulse appears only at the start of each data cycle.	13167



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Updated in version 1.06:

Title	Category	Description	Issue(s)
Negative Integer32 values shown wrong in webserver	Bug fix	Negative values of Integer32 datatype were not properly presented on the "Parameters" web page.	12724
Reading RealIdentification	Bug fix	When reading a RealIdentification index through acyclic PROFINET requests, having submodules of multiple APIs within the same module, the response contained erroneous submodules.	13082
Sanity checks for plugging of submodules	Bug fix	It was possible to plug a submodule in slot 0 carrying process data. It was also possible to specify out-of-bounds elements as process data when plugging a submodule.	13078
Only 40 telegrams can be received using RECV_FROM	Bug fix	After 40 telegrams has been received using RECV_FROM no more data can be received even if there are more telegrams sent to the module.	13023
IOPS after PLUG alarm	Bug fix	When pulling a submodule in run-time the corresponding IO Provider/Consumer Status (IOxS) is set to BAD. After re-plugging the same submodule the IOxS must be set to GOOD again.	13099
Command Expected_Ident_Ind added	New functionality	The Ar_Info_Ind command of the PROFINET IO object has been replaced by the command Expected_Ident_Ind. See manual for implementation details.	9873
Ethernet speed/duplexity setting disabled	Improved functionality	The option for the application to change Ethernet speed/duplexity through the Network Configuration object has been disabled. Trying to change this setting via the web interface will return an error. PROFINET will only work with 100Mbit, full duplex links and the configuration of autonegotiation is performed through the engineering tool (e.g. STEP 7).	12769



Release Information

CompactCom 40 PIR

7258 - CompactCom 40 PIR
Application
Version 2.04
2023-01-20

Updated in version 1.05:

Title	Category	Description	Issue(s)
Conformance issues	Bug fix	Several issues related to PROFINET V2.3 conformance have been identified and fixed.	-
Advanced Real Identification (pull/plug)	New functionality	Support for advanced generation of Real Identification (pull/plug) has been added, including support for multiple API:s. Note: Ar_Info_Ind command is not yet implemented.	9805
IRT conformance	Improved functionality	The device does now pass the SPIRTA tests (IRT conformance test suite)	10276
Remap in ADI mode	Improved functionality	The handling of remap in ADI based Real Identification mode has been improved. It is now possible to have gaps in slots and subslots as well as single/multiple submodules per module.	12928
Supervisor AR type removed	Other change	Support for IOSAR (IO Supervisor Application Relation) has been removed. This change does not affect Device Access AR:s, which will continue to be supported.	12954
NetLoad class III conformance	Improved functionality	The device is now capable to pass the NetLoad class III tests.	12927
Fast Startup	New functionality	The Parameter control sum (Application object, instance #1, Attribute #4) is now used to determine if parameterization shall be forwarded to the application during connection establishment with Fast startup activated.	9811
Acyclic read/write	Bug fix	Several issues concerning acyclic read/write have been fixed.	12770 12685 12687 12676 12677



Release Information

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Application
Version 2.04
2023-01-20

Updated in version 1.02:

Title	Category	Description	Issue(s)
Added support for fiber optical interface	New functionality	The software now supports fiber optical hardware.	
Transparent record handling added.	New functionality	Transparent record handling and transparent I&M using Set_Record and Get_Record added. FilterData (I&M carrier, device and module representative) can be set using the command IM_Options.	0011369, 0009802, 0009925
Network PROFINET IO object	New functionality	The instance attributes of the Network PROFINET IO object have been added. The commands of the object will be enabled in a later release.	0009806
Not possible to establish more than 2 ARs	Bug fix	it should be possible to establish 3 ARs in parallel (one IOCAR and two IOSARs with Device Access capabilities). However the third AR establishment attempt is rejected with "Out of AR resources".	0012476