

Ixxat SG-gateway WEB-PLC Release Notes
4.04.0450.20200



WEB-PLC Release Notes

WEB-PLC v19.2.20 (2019-09-25)

Component: General

(4 matches)

Ticket	Type	Summary	Description	Solution
#2543	Defect	EtherNet/IP type 1 reset does not reset QoS	Power to ABCC module is cut too early causing QoS settings to not have time to be reset when an EtherNet/IP type 1 reset is handled.	Fixed
#2549	Defect	IEC 61850: crash when input values without quality fields are used	If a configured input value lacks the quality field, the firmware crashes. The only way to restore the device is a hard reset.	Fixed
#2552	Defect	Web server security issue	A security issue has been fixed in the internal web server.	Fixed
#2557	Defect	Linux kernel security issue	Three security issues have been fixed in the Linux kernel.	Fixed

Component: Run Time System

(2 matches)

Ticket	Type	Summary	Description	Solution
#2471	Defect	IEC 61850 client: problems with multiple connections after reboot	IEC 61850 problems with multiple connections after reboot	Fixed
#2545	Defect	IP change to 0.0.0.0 in the ABCC must not be stored in the gateway configuration	The ABCC sets its internal IP to 0.0.0.0 in case of IP conflict or lost link. In these cases, the gateway must not store that IP in the configuration.	Fixed

WEB-PLC v19.2.7 (2019-07-03)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: Editor

(9 matches)

Ticket	Type	Summary	Description	Solution
#2258	Defect	Missing DataType conversion unit to 64 bit float	The Editor menu is missing the 64 bit floating converter unit.	Fixed
#2114	Defect	Editor shows changed time switch configuration before it is active	To accept changes to the time switches configuration the device must be rebooted. However, the editor provides the changed time switches configuration in its menu before the device has been rebooted	Fixed
#2118	Defect	I/O mapping: autocomplete selects the first possible option without showing it on the select box	We assume that we have IOs and variables, that share partly the same name. i.e. "Variables.var1" and "Variables.var2". After typing the first letter of the name of an existing IO on the select box, the auto completion enters the common part of the name. In this case "Variables.var". Then, if the user does not select from the drop down list and clicks anywhere else, the system will assume that the first option on the list is selected but will not complete the name. In this case, "Variables.var" won't change to "Variables.var1" (we assume that this is first on the list). This selection will pass on the IO mapping list if we hit ok.	Fixed
#2273	Defect	Time switch dialog is not initialized correctly	After opening the time switch configuration dialog all trigger fields are uninitialized so if the trigger type remains trigger values that are valid are shown invalid.	Fixed
#2274	Defect	Constant dialog allows negative numbers beyond the 64-bit signed integer limit	The maximum negative 64-bit signed integer number supported by the WEBPLC firmware is -9223372036854775808, but numbers less than it are allowed by the constant dialog, for example -9223372036854775809. If such a constant unit exists in the diagram when the program is stored, the following error message will appear "Diagram: Hash mismatch".	Fixed
#2300	Enhancement	Unit to convert between time stamps and strings	The WEB-PLC should provide units that can be used to convert a timestamp to a string and vice versa.	Implemented
#2302	Defect	I/O mapping dialog missing input interfaces	The I/O mapping dialog is created based on the number of output interfaces. Unequal number of input and output interfaces may lead to Javascript errors and missing I/O values.	Fixed
#2345	Defect	The constant dialog will allow a 32-bit floating point with value 3.40282e+38	The constant dialog will allow a 32-bit floating point with the value of 3.40282e+38 and higher but only for 5 digit decimal part (i.e. 3.402821e+38 will change to 64-bit floating point, but 3.49999e+38 will pass). The PLC will be saved and will start but, upon activation of the live view, the error "Live View: inf is not defined" will appear.	Fixed
#2498	Defect	Local clock unit does not respect summertime	The local clock unit does not respect summertime.	Fixed

Component: General

(36 matches)

Ticket	Type	Summary	Description	Solution
#1530	Enhancement	PROFINET IO device: optionally include IP configuration and station name in export	When exporting the PROFINET IO Device configuration, it should be possible to optionally include the IP configuration and the station name.	Implemented
#1613	Defect	Detect whether DHCP configuration is still valid on switch link change	Currently the Ixxat SG-gateway renews its DHCP configuration on Ethernet 1 when link has been lost and re-established. For devices with switch this means that link must have been lost on all ports. If the link to the DHCP server is lost, but there is still another port that has link, the DHCP configuration is not checked. If any port loses link, the DHCP client should check whether the DHCP server is still reachable. If not, it should restart DHCP configuration when any port gets link.	Fixed
#1746	Defect	Unwanted scrolling in Google Chrome	If there is a long list of configuration parameters in the WEB-PLC configuration website (e.g. Modbus configuration), the website will scroll automatically on the selected element while clicking on it. Because of this it is not possible to edit a parameter by double click. This behavior only happens in Google Chrome.	Fixed
#2075	Defect	NaN and infinity values break the GUI	Drivers can produce float values that are NaN or infinity. We use JSON to communicate those values to the GUI and JSON does not support NaN or infinity. This leads to errors on the GUI like "Communication error: inf is not defined".	Fixed
#2085	Defect	Fatal error after adding too many I/O values through configuration update package	If an error occurs while starting any I/O driver (e.g. too many values), the firmware will still run anything that is not related to the I/Os. Additionally, twice as many I/Os are allowed while starting up all the drivers. So, if you accidentally add too many I/O values through an update package, the drivers will still be started and can still be configured through the website. But the PLC will not run. Beware that too many values can still impose a high load on the system.	Fixed
#2271	Enhancement	Modbus TCP server: allow up to 32 connections	The Modbus TCP server should allow up to 32 connections.	Implemented
#2294	Enhancement	HTTP client: support TLS 1.1, 1.2, and 1.3 – do not support SSL 3	The HTTP client currently supports SSL version 3 and TLS version 1.0. It should no longer support SSL version 3. Therefore, it should support TLS 1.1, 1.2 and 1.3. The HTTP client is used for: <ul style="list-style-type: none">- Establishing the connection to the HMS Hub.- Downloading update packages.- Connection supervision of the cellular modem.	Implemented
#2305	Defect	IEC 61850 client polling blocks client connection status query	IEC 61850 Client task first polls data from the servers and then checks the connection status, so if polling data takes more time than the configured check, the server interval will be violated.	Fixed
#2306	Defect	ID of some SIM cards cannot be read	For some SIM cards the SIM ID cannot be read. This seems to be a timing issue. We should add a retry to read the SIM ID.	Fixed

Ticket	Type	Summary	Description	Solution
#2323	Defect	Messages configuration cannot be imported	Since the maximum number of messages was increased from 10 to 25 (see #2214) configuration update packages including the messages configuration can no longer be imported.	Fixed
#2328	Enhancement	Enable/Disable update via HMS Hub and micro SD card	It should be configurable if the device will accept updates from the HMS hub and its micro SD card.	Implemented
#2330	Enhancement	Update Open VPN version to 2.4.6	The WEB-PLC firmware should include OpenVPN version 2.4.6.	Implemented
#2335	Enhancement	Local data logging	The local logging interface should be able to monitor values based on trigger modes set by its webconfig page. The configuration form should also support the generation of reports based on the logged values. A direct connection to the underlying SQL database should be available in the diagnostics website.	Done
#2336	Enhancement	Failsafe update	If the device is reset during an update, the firmware should stay in a consistent state so that the update can continue later. Similarly, if the device is reset during a factory reset, the firmware should stay in a consistent state so that another factory reset can be performed later.	Implemented
#2343	Enhancement	Digital outputs power supply status should be available in the editor	Currently local I/O extensions that monitor their digital outputs report their status via event log messages. This should be extended to be available as an input so that the user can act on this information. These I/O extensions can support it: DIO8 and MBUS	Implemented
#2350	Enhancement	NAT: allow 1:1 mapping	The NAT component should allow 1:1 mapping between an internal IP address - or a block of internal IP addresses - to an external IP address - or a block of the same number of internal IP addresses.	Implemented
#2370	Enhancement	Enable DNS cache	The DNS cache should be enabled to reduce the number of name lookups.	Implemented
#2373	Defect	IEC 61850: quality encoded wrongly	The quality of values transmitted through IEC 61850 is encoded wrongly.	Fixed
#2376	Enhancement	EtherNet/IP adapter: fix dates/times and add firmware version number to EDS file	The EDS file exported for the EtherNet/IP adapter should contain fixed creation/modification dates/times to ease certification. Also, it should contain the actual firmware version number.	Implemented
#2377	Enhancement	PROFIBUS DP Slave: add firmware version to GSD file	The GSD file exported for PROFIBUS DP Slave should contain the actual firmware version number.	Implemented
#2378	Enhancement	PROFINET IO device: add vendor name to device description in GSDML file	The device description in the GSDML file for PROFINET IO Device should be prefixed with the vendor name.	Implemented
#2386	Enhancement	HTTP server: support TLS 1.2 and 1.3	The HTTP server currently only supports TLS version 1.2. It should support TLS 1.2 and 1.3.	Implemented
#2387	Enhancement	Add support for microsecond timestamps	Timestamps should have microseconds resolution instead of just seconds resolution. For backward compatibility it should still be possible to use seconds resolution timestamps.	Implemented

Ticket	Type	Summary	Description	Solution
#2395	Enhancement	Increase HMS Hub TX queue size to 32k entries	The transmit queue for the HMS Hub communication should be increased from now 8192 entries to 32768 entries.	Implemented
#2397	Enhancement	Add support for GPS addon	The firmware should support the new generation of GPS addon modules.	Implemented
#2425	Enhancement	UDP configuration server: prevent usernames being guessed independently from passwords	When a user account (username and password) is identified in the UDP configuration server (used by chiptool and IP-tool) and the username is correct, but the password is wrong, the server leaks this information to the user by only asking for a password. Ask for both username and account if either one is wrong.	Fixed
#2434	Defect	Message form will not load without rights to the HMS Hub variables	If the user has only the rights to view/modify the "Messages configuration" without the rights to view/modify the HMS Hub variables, the form will not load, and the overlay message box will always be visible.	Fixed
#2435	Defect	PROFIBUS DP slave: reloading form fails silently	After clicking the reload button nothing happens.	Fixed
#2444	Defect	Legacy cup files with OpenVPN configuration cannot be applied to Reloaded	Legacy CUP files that contain an OpenVPN configuration cannot be applied to SC1x5 processor based Ixxat SG-gateways.	Fixed
#2452	Enhancement	PROFINET IO device: update GSDML file	The PROFINET GSDML file must be updated in several places: <ul style="list-style-type: none"> - RT_CLASS_2 should be removed from supportedRT_Classes. This is legacy. - IM4 should be removed from Writeable_IM_Records: It is not writeable in newer versions of the ABCC module. - PowerOnToCommReady should be removed from DeviceAccessPointItem, because Fast Startup is not supported. - DCP_HelloSupported should be set to false in InterfaceSubmoduleItem, because Fast Startup is not supported. - ParameterizationSpeedupSupported should be removed from DeviceAccessPointItem, because Fast Startup is not supported. 	Implemented
#2461	Defect	Retain HMS Hub variable values are not cleared	When the HMS Hub variable configuration is changed, the values for the variables stored in the retentive area of the device must be cleared. This functionality is broken.	Fixed
#2241	Defect	IEC 61850 server/client: crash when not supported data types are used.	If the IEC 61850 datatypes "VisString32, VisString64, VisString129, ObjRef, VisString255, Unicode255 EntryTime" are used, the firmware will crash with the following error message "IEC 61850 driver: Invalid data type"	Fixed
#2476	Enhancement	Support LTE cellular modem	The firmware should support devices with an LTE cellular modem.	Implemented
#2509	Defect	Deactivate TCP SACK to avoid SACK panic vulnerability	Several vulnerabilities around TCP selective acknowledgement (SACK) have recently been discovered in the Linux kernel. See CVE-2019-11477, CVE-2019-11478 and CVE-2019-11479. Until we can provide a firmware with a fixed kernel, we should deactivate TCP SACK. This should not break any communication. Worst case it may reduce throughput.	TCP SACK deactivated for the time being

Ticket	Type	Summary	Description	Solution
#2516	Defect	Local data logging can only start an export once per system start-up	After the first export all other exports will fail. Trying to start a second export may also result in a system crash.	Fixed
#2522	Enhancement	Devices with two Ethernet interfaces may hang on boot	Devices with two Ethernet interfaces may hang on boot.	Fixed

Component: Run Time System (27 matches)

Ticket	Type	Summary	Description	Solution
#2139	Defect	Floating point NaN transmitted to HMS Hub continuously	When a floating point value that is transmitted to the HMS Hub is NaN, it is transmitted continuously.	Fixed
#2181	Defect	Diagnostics console: RTOS tasks command does not show overall CPU duty cycle	The RTOS tasks command in the diagnostics console never shows the overall CPU duty cycle. It always shows "n/a".	Fixed
#2299	Enhancement	Support for MQTT	The Ixxat SG-gateway firmware should support MQTT. MQTT messages should be sent and received similar like SMS messages.	Implemented
#2317	Enhancement	IEC 61850 client: cyclic connection check should only log on status change	When the option "Check client to servers connection status" is enabled, messages should only be added to the event log when the connection to a server has been lost or re-established.	Implemented
#2331	Defect	IEC 61850: garbage enumeration values	The IEC 61850 driver treats enumeration values as 16-bit integers although they are transmitted as 8-bit integers. This leads to garbage values.	Fixed, enumeration values are now treated as 8-bit integers.
#2332	Defect	IEC 61850: quality not updated on error	When the IEC 61850 driver cannot get a value from the stack, the quality of the corresponding input is not updated.	Fixed
#2352	Defect	IEC 61850: crash when 64-bit integer values are used	When 64-bit integer values are used in the IEC 61850 client or server, the firmware crashes.	Fixed
#2374	Defect	Changing priority of one HMS Hub data point affects all data points	When a high priority flag of an HMS HUB data point is changed, the queued values of all data points will be moved to the other priority queue.	Fixed
#2393	Enhancement	PROFINET IO device, EtherNet/IP adapter: optionally save changes to IP configuration from external tools	The Anybus module IP configuration can be manipulated from external tools. These changes will be dropped once the devices reboots. A checkbox should allow the user to store these settings so that they do not get lost after a reboot.	Implemented
#2402	Defect	UTC clock timer unit works with local time	The UTC clock timer unit works with local time instead of UTC time.	Fixed

Ticket	Type	Summary	Description	Solution
#2407	Defect	Analog trigger does not work correctly for 64-bit unsigned integer values	The analog trigger unit does not work correctly for 64-bit unsigned integer values.	Fixed
#2450	Defect	I/O mapping: wrong timestamp and quality	When mapping an input to an output the quality of the output is always set to 'good' and the timestamp is always set to the current timestamp, which is what happens when mapping a variable to an output.	Fixed
#2451	Defect	IEC 61850: value, quality, and timestamp not assigned atomically	The IEC 61850 driver does not assign value, quality and timestamp atomically. So, when transmission is based on changes (reports), a new value could be transmitted several times. And the first transmission may have wrong quality and timestamp.	Fixed
#2459	Defect	OPC UA server: quality not translated	Qualities are not being translated between OPC UA server I/Os and other I/Os. Good quality should be translated to 0, bad quality to 0x80000000.	Fixed
#2318	Defect	IEC 61850 client: false success message when polling values	When the option "Poll data from servers" is enabled for the IEC 61850 client, after polling a value has failed and an appropriate error message has been emitted to the event log, the client will immediately emit a success message afterwards.	Fixed
#2472	Enhancement	IEC 60870-5-104 client: set bad input quality on connection loss	When the IEC 60870-5-104 server driver loses connection to a server, it should set the quality of all corresponding input values to bad.	Implemented
#2474	Defect	DNP3 outstation: output values assigned wrongly	The DNP3 outstation driver assigns output values wrongly. Depending on the I/O data structure they may be assigned to inputs or different outputs.	Fixed
#2458	Defect	OpenVPN configuration option key-direction is not allowed	The option key-direction is blacklisted from the webconfig, this should not be so.	Fixed
#2488	Defect	IEC 61850: polling does not work	Activating IEC 61850polling does not work.	Fixed
#2494	Defect	IEC 61850: unallowed 61850 file access possible	Via 61850 protocol there is a file access to directory A: possible. This security issue must be disabled.	Fixed
#2497	Defect	Editor: diagrams containing Unpack elements may produce HTTP 500 error when saved	When saving diagrams that contain an Unpack elements the device might crash.	Fixed
#2499	Defect	EtherNet/IP adapter: IP cannot be configured from the EtherNet/IP network	The IP of the EtherNet/IP ABCC module cannot be configured from the EtherNet/IP network due to the IP being set by the gateway when ABCC is in state setup.	Fixed
#2500	Defect	IEC 61850 client: false task cycle violation message	The cycle of the IEC 61850 client driver is shown as being violated despite being correct.	Fixed
#2501	Defect	EtherNet/IP adapter: reset request from network not supported	If there is a request to reset the device from an EtherNet/IP network it is ignored by the gateway. This must be changed so that reset requests actually reset the device.	Fixed
#2504	Defect	EtherNet/IP adapter: generated .eds file is not conform to ODVA standard	There are missing Object_Name and Object_Class_Code on all objects in the .eds. The IconContents field has a trailing '='. The [Port] is missing declaration of routing capabilities.	Fixed

Ticket	Type	Summary	Description	Solution
#2505	Defect	IEC 60870-5-104: update IEC 60870-5-104 lib	Exchange the IEC 60870-5-104 library from Systemcorp because of some reported issues of customers. Some API adaptations are necessary.	New stack version implemented. OK
#2506	Defect	Update packages containing PROFINET or EtherNet/IP configuration cannot be applied	If an update package contains PROFINET or EtherNet/IP configurations, it cannot be applied.	Fixed

Component: Website

(28 matches)

Ticket	Type	Summary	Description	Solution
#6	Enhancement	Show diagram description on homepage	The diagram description entered in the WEB-PLC editor should be shown on the homepage.	Implemented
#677	Defect	Wrong information on homepage after reboot	When the Ixxat SG-gateway is rebooted while the homepage is active, the homepage will not recognize the reboot and may display outdated information (e.g. I/Os that are no longer present).	The problem no longer occurs, because now when the device has reboot the user must re-login and the data will be reloaded.
#1251	Defect	Event Log: scrolling jumps, if entry has been selected	If an entry has been clicked in the Event Log and is scrolled out of view, the scrolling jumps back to the selected entry after some seconds.	Fixed
#1558	Defect	Switching language in one window disables language switching in other windows	When the language of the website is switched in one window, it cannot be switched to the same language in other windows. The problem appears when a second window is opened for the help system.	Fixed
#2088	Defect	Dialog buttons cut	In some dialogs the buttons at the bottom are cut, because the dialog is slightly too small.	Fixed
#2112	Defect	New variables invisible	On the form where you can define the variables, the 27th entry will not be shown in the table when added.	Fixed
#2266	Defect	User cannot be exported	When exporting the user management configuration, the actual users are not exported at all. The .cup file only contains the password policy including the blacklist.	Fixed
#2269	Defect	Scrolling area for settings is too high	The area on the settings website, in which the configuration forms are shown, allows to scroll down beyond the end of most forms, because the scrolling area has the size of the longest form. Furthermore, when you have scrolled to the end of a long form and switch to a shorter form, the area does not scroll up automatically. You must manually scroll up to see the new form.	Fixed

Ticket	Type	Summary	Description	Solution
#2272	Defect	IEC 60780-5-104: erroneous check for relation between T1 and T2	For IEC 60870-5-104 server and client the T2 timeout value must be smaller than the T1 timeout value. However, the constraints of the 2 timeout values are wrong. On #2230 the T1 constrains were corrected. But the T2 must have a limit of 254.	Fixed
#2277	Enhancement	For user with no access rights it is difficult to log out	A user with no access rights can log out through GUI only on the homepage. On the attempt to reach any other page than home, after the dialog message of no rights appears, there is a redirection to the previous page of browsing history.	Implemented
#2279	Defect	IEC 60870-5-104 client: redundancy not documented	The connection redundancy feature of the IEC 60870-5-104 client is not documented.	Fixed
#2287	Defect	Messages: documentation still states we only allow 10 messages	We now allow up to 25 messages (see #2214), but the help topic still states that we allow only 10 messages.	Fixed
#2325	Defect	No paragraphs on the help page on TRC and OPC UA event log messages	There are neither relevant paragraphs on the viewport nor highlighted ones when the following event log messages get clicked: <ul style="list-style-type: none"> - Run Time System: RTC: RTC not found - OPC UA server driver: the interval has been violated. - OPC UA server driver: the interval is being maintained again. The help page is normally opened on another tab upon clicking.	Fixed
#2326	Enhancement	User management: hide site link buttons if the user has no access rights to them.	If a user has no access right to the one of the devices website or function, update, home reboot etc. Hide it or grey it out to inform or prohibit the user from clicking it.	Implemented
#2341	Defect	Cancel button of change password dialog does not work	The cancel button inside the change password dialog does not work.	Fixed
#2344	Defect	Show confirmation dialog before clearing diagram or I/O mapping list	Before clearing the diagram or the I/O mapping list, a confirmation dialog should be shown in case the user misclicks and has not saved their work, yet.	Fixed
#2346	Defect	EtherNet/IP adapter: download EDS file throws error	If changes are made to the configuration and then are discarded because the user reloads the form, trying to download the EDS file will generate the error "save or discard any changes before you can download the EDS file."	Fixed
#2347	Defect	User cannot change their own password through user configuration form	The logged-in user cannot change their own password through the user configuration form. Changing your own password requires the old password, but the user configuration form does not query for the old password. The password of the logged-in user can only be changed via the user menu.	Fixed
#2362	Enhancement	IEC 61850: do not automatically expand SCL tree view	On the configuration form for IEC 61850, the SCL tree view should not expand automatically as this can take quiet long for large SCL files.	Implemented

Ticket	Type	Summary	Description	Solution
#2400	Defect	Help related to the HMS Hub is sometimes not displayed correctly	Help topics that relate to the HMS Hub are not displayed correctly sometimes.	Fixed
#2412	Defect	PROFIBUS DP Slave, PROFINET IO device; cannot download GSD(ML) file in Firefox	Since version 65 (not totally sure, it is not mentioned in the release notes) the Firefox browser no longer allows to start several downloads at once. Only the last download is started. For PROFIBUS DP Slave and PROFINET IO device this means that only the image is being downloaded, but not the GSD(ML) file.	Fixed, the image file download is now started a second later so that the Firefox browser does not discard the GSD(ML) file download.
#2419	Defect	Help system corrections	Corrections in content, context, and functionality of the help system.	Fixed
#2423	Defect	Diagnostics console: only capture file (sniff) can be downloaded in Firefox	Since version 65 (not totally sure, it is not mentioned in the release notes) the Firefox browser no longer allows to start several downloads at once. Only the last download is started. For the sniff command of the diagnostics console this means that only one capture file is being downloaded when sniffing on multiply interfaces.	Fixed, the file downloads are now started with a delay of one second so that the Firefox browser does not discard the file downloads.
#2430	Defect	CODESYS network variables: constraints for list HMS Hub name not checked	The constraints for the HMS Hub name of a CODESYS network variable list are not being enforced.	Fixed
#2455	Defect	IEC 61850: unsigned integer data types shown wrongly	For unsigned integer values the data type is shown wrongly on the configuration form. 8-Bit-Unsigned is shown as 16-Bit-Unsigned, 16-Bit-Unsigned as 32-Bit-Unsigned etc.	Fixed
#2486	Defect	Open VPN webconfig error codes are not translated	The OpenVpn webconfig error objects are shown when an error occurs instead of the translated texts.	Fixed
#2491	Defect	IEC 60870-5-104: wrong maximum value for IOA	The maximum configurable IOA is 16777216, but it should be only 16777215.	Fixed
#2492	Enhancement	IEC 60870-5-104: single byte IOA fields with calculator	It should be possible to edit IEC 60870-5-104 IOAs as single bytes.	Implemented

WEB-PLC v18.2.14 (2018-07-19)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: Editor

(14 matches)

Ticket	Type	Summary	Description	Solution
#2162	Defect	CODESYS network variables: parsing lists from CODESYS 3.x is not working	The CODESYS network variable list parser cannot parse lists from the 3.x version. But since version 2.7 has the same structure it interprets them as such. This works without issues except if comments are used "", "*/" "/*" or the data types are declared in lowercase "string etc". The list settings are ignored.	Fixed
#2208	Defect	DNP3 outstation: wrong static or event variation when editing the first value after loading the website	When editing the first DNP3 outstation value after loading the settings website, the static or event variation shown in the value dialog may be wrong.	Fixed
#2209	Defect	Modbus Slave: wrong data type when editing first value after loading the website	When editing the first Modbus Slave after loading the settings website, the data type shown in the value dialog may be wrong.	Fixed
#2211	Defect	DNP3 outstation: CROB commands queueing does not work	The DNP3 outstation driver does not queue CROB commands correctly. If a new CROB command is received while another one is still pending, the new CROB command could be ignored or it could be repeated endlessly.	Fixed
#2219	Defect	Wrong progress indication while extracting update package	While an update package is being extracted, the progress indication shows a wrong percentage value.	Fixed
#1862	Enhancement	Variable and I/O reference mixed up if a value is deleted	If a variable or I/O value is deleted from the configuration, the references inside the WEB-PLC editor are mixed up because these values are references by their position internally. This behavior should be improved.	Implemented
#2034	Defect	Editor: documentation for input and output arrays does not match behavior	Connection I/O arrays of different lengths does not work as described in the I/O array help.	Fixed
#2117	Defect	Line break in in duty cycle bar	Duty cycle bar icon and percentage status should be shown in one line.	Fixed
#2119	Defect	Edit menu option of pack and unpack units context menu should be removed	The edit button on the right click popup menu of pack and unpack units does nothing and is replaced by the pack7unpack drop down buttons. It should be removed.	Fixed
#2124	Defect	Negative processing order values can be selected	Negative processing order values can be selected. Upon clicking the OK button, the negative value is not accepted though.	Fixed

Ticket	Type	Summary	Description	Solution
#2129	Defect	Unpack units shows wrong output value when PLC not running	Unpack unit shows the wrong output value when the PLC is not running.	Fixed
#2150	Defect	Variable input unit not updated before next PLC cycle	If a value is assigned to a variable through a variable output unit, a variable input unit for the same variable will not reflect the same value before the next cycle.	Fixed
#2159	Defect	CODESYS status LED indicates the Config application state	The CODESYS run state LED indicate the state of the Config application. The help website should document this.	Fixed
#2244	Defect	Compare unit returns equal when difference is greater than maximum of signed integer data type	If the compare unit is used on a signed integer data type and the difference between the two values is greater than the maximum value representable in this data type, the compare unit will falsely set the equal output port.	Fixed

Component: General

(21 matches)

Ticket	Type	Summary	Description	Solution
#2175	Defect	IEC 60870-5-104 Server: pulse commands lead to a system crash	Short or long pulse commands lead to a system crash.	Fixed
#1745	Defect	HMS Hub communication fails if nearly the maximum of I/Os and variable have been defined (step 1)	If a lot of I/Os and variables are defined (near to maximum), data cannot be exchanged with the HMS Hub. Synchronization of the node structure works, but when the device is started the next time the CPU is 100 % busy and the device reboots after some time.	Performance improved, problem not completely solved
#1770	Defect	Configuration files are not deleted by update package	If an update package with an empty e.g. Modbus or CODESYS network variables configuration is installed on a device with a previous Modbus or CODESYS variables configuration, the old configuration will not be deleted/overwritten.	Fixed
#1922	Enhancement	64-bit integer numbers	The WEB-PLC should support 64-bit integer numbers.	Implemented
#2035	Defect	Update: packages with empty files cannot be applied	If an update package contains an empty file it cannot be applied. This may happen for example if you export the OpenVPN configuration with an empty configuration file.	Fixed
#2084	Defect	IP configuration password not changed by configuration update package	When a configuration package is applied that contains login information, the password for the IO configuration through the @CHIPTOOL is not changed.	Fixed
#2109	Enhancement	Add more CA certificates	The firmware should contain all popular certification agency certificates so that it can connect to any HTTPS web server as client.	Implemented
#2128	Defect	Crash and reboot after Kolibri write/commit timeout errors	The device crashes after a lot of Kolibri write/commit timeout errors due to the gateway being changed from one interface to another (e.g. ETH to CellModem)	

Ticket	Type	Summary	Description	Solution
#2140	Enhancement	Use CellModem functionality to offer location services without GPS	Telit offers a service over which the CellModem can know its location via base station triangulation. Use this functionality to read the location of the device.	Implemented
#2152	Defect	Do not set HMS Hub scaling/offset for sting values	HMS Hub scaling and offset properties should not be set for string values.	Fixed
#2157	Defect	M-Bus: correct German translation	The up/down translation in German is wrong.	Fixed
#2164	Defect	I/O mapping list variable miss match does not trigger the convert diagram dialog	If the diagram is empty and the variable configuration changes the convert diagram dialog is not shown when loading the website.	Fixed
#2167	Defect	CODESYS network variables: group variables by list cannot be set	The CODESYS network variables option group by list cannot be set.	Fixed
#2180	Defect	Update (website) shows "Communication errors: Timeout exceeded" but continuous in the background	Update (website) shows "Communication errors: Timeout exceeded" but continuous in the background	Fixed
#2192	Enhancement	MicroBrowser: generated variable list might become too large for the driver to handle.	The MicroBrowser generates a variable list. The list has a maximum size of 16384 Bytes.	Fixed
#2200	Enhancement	Open VPN: support tls-auth option	The open VPN option tls-auth should be supported.	Implemented
#2203	Defect	Reset PLC retain variables area on factory reset	When the user performs a factory reset, the PLC variables retain area must be reset as well.	Fixed
#2213	Defect	Opening help topic in new window does not work in Chrome	When opening a new window for the help system in Google Chrome the requested topic is not shown. If the window is already opened, the requested topic is shown.	Fixed
#2221	Defect	Messages: variable references might be assigned to the wrong variable	This can happen if the name of one variable is the first part of the name of another variable and it is positioned after the mentioned variable. For example: Idx: 0 name: uint8Max idx: 1 name: uint8 IF a reference is created to the variable "uint8", it will be assigned to "uint8Max"	Fixed
#2224	Defect	The diagnostics console does not work after stopping a sniff	When starting a sniff from the diagnostics website and stopping it, the console on all diagnostic features does not work	Fixed

Ticket	Type	Summary	Description	Solution
#2228	Defect	I/O mapping list: I/O manager emulator does not correctly assign the output value indexes	If a diagram is loaded to a device that has not the same interfaces with it, the I/O emulator will try to fix the interfaces indexes in order to run the diagram. If this is successful, the I/O mapping list uses only the new input interfaces indexes and reassign them to both input and output values. Most of the time, this is not an issue but if the devices have an even number of interfaces (namely M-Bus) it can lead to a corrupted program.	Fixed

Component: Run Time System (7 matches)

Ticket	Type	Summary	Description	Solution
#2036	Defect	Messages: cannot send directly after start-up	Directly after the device is started up the first short message cannot be sent. The error message "Message manager: Sending message <message index> failed (-1)." Appears in the event log.	Fixed
#2057	Defect	Modbus RTU Slave: serial port not freed when serial port is changed	When an Ixxat SG-gateway has more than one serial port and the port for the Modbus RTU Slave driver is changed, the previously used port will not be freed to be used by other components.	Fixed
#2136	Defect	CODESYS network variables string values error	Reading and writing values using strings at CODESYS network variables does not work properly and affects the data exchange.	Fixed
#2198	Defect	IEC 61850: client may crash on non-GOOSE update	The IEC 61850 client may crash the firmware when a value is updated, but only if the update is not caused by GOOSE.	Fixed
#2207	Defect	DNP3 outstation: timestamps are incorrect	Timestamps transmitted from the DNP3 outstation driver are incorrect.	Fixed
#2215	Defect	DNP3 outstation: inputs cannot be read back	DNP3 outstation inputs (outputs from the master's point of view) cannot be read back by the master. The master always reads the initial value.	Fixed for binary inputs (outputs from the master's point of view) with complementary two-output model the master can only read back whether any of the two inputs/outputs is set
#2235	Defect	IEC 61850 server: crash on setting group without DOs in IED section	The IEC 61850 server may crash the whole firmware if there is a setting group where there are no instances of the Dos in the IED section of the ICD file.	Fixed

Component: Website

(15 matches)

Ticket	Type	Summary	Description	Solution
#1564	Defect	Update without SD card and then updating again with SD card but without reboot does not work	Updating via the website's update tab without an SD card does not work. If an update via the website's update tab is tried without an SD card and then tried again with an SD card (with the necessary folders) the error message "The file has been rejected" is displayed on the tab. (The update only works if the device is rebooted before inserting the SD card.)	Fixed
#1607	Defect	IEC 61850: negative intervals allowed	The IEC 61850 configuration form allows negative intervals. A valid input range should be defined. Probably there is also an upper limit.	Fixed
#1619	Defect	Upload hangs in IE when external medium is not accessible	In Microsoft Internet Explorer uploads will hang instead of time out when the external medium is not accessible.	
#1737	Enhancement	User management	<p>The WEB-PLC should provide an elaborate user management. It should be possible to create several users and assign the following access rights to each of them:</p> <ul style="list-style-type: none"> • View the homepage • View configuration (per configuration group, e.g. network, HMS Hub, Modbus Client/Master) • Reboot • Edit configuration (per configuration group) • Edit users • Export the configuration • Apply an update package • View the editor • Start/stop the PLC • Edit the program <p>Additionally, it should be possible to allow/disallow to apply an update package directly from the SD card via the reset button and to allow/disallow/set the password for IP configuration via the IP tool.</p>	Implemented
#1775	Enhancement	CODESYS network variables: configure IP address, port and interval per list	For CODESYS network variables it should be possible to configure the peer ID address and port and the send interval per list.	Implemented
#1873	Defect	Error on homepage if any string contains control characters	If a string value on any I/O interface contains a control character (e.g. line break) the homepage will stop to update the I/O values and show HTTP error 500.	Fixed
#2049	Defect	NAT's popup window allows IP field to be empty	NAT's popup windows to add entry and edit entry allow IP address input fields to be empty when clicking OK.	Fixed
#2110	Defect	Diagnostics: ping allows too many data bytes	The ping command on the diagnostics page allows up to 65535 data bytes, but only up to 65507 work. If 65508 data bytes or more are used the message "ping:sendto: Message too long" is shown.	Fixed

Ticket	Type	Summary	Description	Solution
#2135	Defect	Fix localization error in the IEC 61850 help page	Swap the English and German localization strings for "Server SCL file path".	Fixed
#2161	Enhancement	Improve DNP3 help text	The style of the help text should be improved.	Implemented
#2186	Enhancement	CODESYS network variables: edit name and HMS Hub name	For CODESYS network variables it should be possible to edit the name and the HMS Hub name of each list and of each variable.	Implemented
#2214	Enhancement	Messages: allow up to 25 messages	The messages functionality should allow up to 25 send/receive messages.	Implemented
#2230	Defect	IEC 60870-5-104: erroneous check for relation between T1 and T2	For IEC 60870-5-104 server and client the T2 timeout value must be smaller than the T timeout value. However, the check is done incorrectly leading to false positives and false negatives.	Fixed
#2231	Defect	PROFIBUS DP Slave: module ID 255 should not be allowed	When adding or editing a PROFIBUS DP Slave module the module ID 255 can be entered. But when the configuration should be saved an error message is shown, stating that the module ID is out of bounds.	Fixed
#2234	Defect	Help icon on settings website does not open help topic for settings website	When the help icon on the settings website is clicked, the help website is opened but not the help topic for the settings website (like for other sites).	Fixed

WEB-PLC v18.1.13 (2018-03-19)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: General

(4 matches)

Ticket	Type	Summary	Description	Solution
#2130	Defect	IEC 61850: SCL upload fails if the filename is the same as the previous SCL file	SCL upload fails if the filename is the same as the previous SCL file.	Fixed
#2133	Defect	IEC 61850: Timestamp is not transmitted if the value is 0	IEC 61850 transmits the timestamp value only if the value has also changed, because the initial value is 0 no timestamp is transmitted until the value changes.	Fixed
#2144	Defect	Devices without a second Ethernet interface cannot store their network configuration	The network configuration cannot be saved if the device does not support a second Ethernet interface. AN error message is shown but no field is marked as false.	Fixed

#2145	Defect	M-Bus: cannot scan	The scan functionality of the M-Bus driver is not working. After executing a scan, the following error message is generated "Unknow method!".	Fixed
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WEB-PLC v18.1.8 (2018-02-13)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: Editor

(3 matches)

Ticket	Type	Summary	Description	Solution
#2060	Defect	Unpack unit may reboot the device	Using unpack unit in live view or when starting the diagram may lead to reboot loop	Implemented
#2082	Defect	Help page for Pack and Unpack units	Help page is missing that pack and unpack units are able to handle up to 32 bits	Fixed
#2093	Defect	Processing order changed to 0 when dialog cancelled	The change processing order dialog sets the processing order of the corresponding element to 0 when clicking cancel.	Implemented

Component: WEB-PLC - General

(10 matches)

Ticket	Type	Summary	Description	Solution
#1142	Enhancement	Support strings for Ininet's MicroBrowser interface	The interface for IniNet Solutions' MicroBrowser should be able to exchange string values.	Implemented
#1484	Enhancement	DNP3 Outstation	The WEB-PLC should feature a DNP3 outstation driver. The driver will require a separate license on the device. TLS, Secure Authentication and serial mode will not be supported in this version.	Implemented
#2040	Enhancement	Run in demo mode if there is no license	If the device does not have a valid license, the PLC should run in demo mode for four hours.	Implemented
#2042	Defect	IEC 60870-5-104 Server: HMS Hub node creation error	The event log message "Could not create node. (Error Code 5)" is generated.	Fixed
#2047	Defect	MicroBrowser: variables cannot be written	Variables can no longer be written through the MicroBrowser interface. The message "! Variable or I/O value not found." is returned.	Fixed
#2052	Defect	WLAN: connection loss if access point is shortly not visible	If the access point is not visible after a successful connection, the WLAN driver is not able to re-establish the connection	Fixed

Ticket	Type	Summary	Description	Solution
#2062	Defect	IEC 61850 Server GOOSE subscription not working for complex data structures	Using IEC 61850 Server GOOSE subscription with complex data structures crashes the WEB-PLC.	Fixed
#2073	Defect	Network configuration cannot be changed through configuration update package	The network configuration cannot be changed through a configuration update package exported by the Ixxat SG-gateway itself. If a configuration update package includes the network configuration, the package cannot be applied.	Fixed
#2078	Defect	Diagrams with pack/unpack units cannot be loaded after update to version 11.0.7	If a diagram contains pack/unpack units and the device is updated to the version 11.0.7 it will not load anymore.	Fixed
#2094	Defect	Adding/removing variables causes memory exceptions in PLC task	If the Variable list is modified in any way, and then the device description is exported the PLC task will throw an exception stop its execution.	Fixed

Component: Run Time System (6 matches)

Ticket	Type	Summary	Description	Solution
#2048	Defect	Configuration website not available	After an indefinite time (> 1 day) the configuration website is not accessible anymore. This problem occurs only under special circumstances. One TCP connection must be established, while other TCP connections are created over and over, E.g. when the device is connected to the HMS Hub and a Modbus TCP client is configured and at least one Modbus TCP server is not reachable.	Fixed
#2053	Enhancement	IEC 61850: Extend command execution interaction with PLC logic	IEC 61850 commands have the optional attributes "opOk" and "opRcvd". The following applies if the command's "ctIVal" is selected: If "opOk" is present and selected the PLC logic uses it to allow/disallow reception of this command. "opOk" == true indicates readiness to accept the command. "opOk" == false causes the IEC 61850 driver to refuse the command with an error return message to the IEC 61850 client. If "opRcvd" is present and selected the IEC 61850 driver generates a short high pulse detectable by the PLC logic upon command reception.	Implemented
#2058	Defect	MicroBrowser: cgi-bin/ILRReadValues.exe may return random data	If the CGI function cgi-bin/ILRReadValues.exe of the MicroBrowser interface is called without any arguments it returns random data.	
#2096	Defect	IEC 61850: Reporting problems on server after connection loss	When a client enables reporting and the network connection is temporarily lost, reporting cannot be re-enabled afterwards.	Fixed
#2097	Enhancement	IEC 61850: Timestamps for unchanged objects should be marked invalid	If an IEC 61850 object has not been changed, yet, the timestamp flags should indicate that the timestamp of the object is invalid.	Implemented

#2100	Enhancement	Update IEC 61850 library to V2.7.59	<p>The IEC 61850 should be updated to the latest version (2.7.59) that addresses the following issues:</p> <p>New features</p> <ul style="list-style-type: none"> • Segmentation of reports is now supported • Stack now send MMS initiate error PDU if the MMS association max PDU size is under 65000 • Added support for DbPos as a basic type (btype) in the SCL file • Select or Operate Commands sent with orCat set to ORCAT_NOT_SUPPORTED (0) will now automatically be rejected • Added support to update a data point of type IEC61850_DATATYPE_ENUMERATED with Unsigned8 and Integer8 data types • Stack now supports MMS minimum PDU size negotiation – Minimum supported PDU size is 1000 bytes, Maximum is 65000 (32000 on SC1x3) • Stack no longer required private IDs on remote DAIS for goose subscription to work with external references (input groups) • External References can now contain dot sub notation for DA elements e.g. daName="phsCA.cVal.mag.f" <p>Bug Fixes</p> <ul style="list-style-type: none"> • optField services (dyn, conf, fix) are now loaded correctly • fixed issues where long report ID may end up with corrupt data on the end • Improved Edition 2 Conformance support • Improved handling of fragmented packets on unstable TCP/IP streams • Improved support for Controls that contain structured Control/Status/Feedback values • Improved support for floating point controls • Changed how memory allocation works in the controls structures, to minimize the size of a contiguous memory block being allocated • Improved memory management which could possibly memory corruptions • Fixed issue where server threads would not shut down correctly • Fixed issue where buff time would always be set, and the queue purged even if the new bufftime is the same as the old one • Fixed issue where an MMS Read with Optional flag VariableAccessSpecification set to true would not return the full Object reference MMS dollar string • Fixed timestamp sometimes being out by 1 day • Added check to ensure Setting groups have valid DAs • Fixed possible crash when a functional constraint has no item name • Fixed decoding issue on MMS initiate-RequestPDU messages • Fixed bug when decoding structures via alternate access requests • Fixed bugs in the server when processing File Attributes requests 	Implemented
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Component: Website

(6 matches)

Ticket	Type	Summary	Description	Solution
#826	Defect	IEC 61850 configuration form may store inconsistent configuration	The configuration form of the IEC 61850 interface may store an inconsistent configuration. If the upload of the SCL file fails, the interface will not show an error message and still store other parts of the configuration. The inconsistent configuration will prevent the IEC 61850 driver to start.	Fixed
#1478	Enhancement	Provide more configuration options for M-Bus	<p>The configuration form for the M-Bus module should provide more options:</p> <ul style="list-style-type: none"> • Change the option <i>Request main page only</i> to the more general M-Bus <i>max multipage</i> • New <i>M-Bus mode: Reverse secondary scan</i> • New option: <i>Secondary address mask</i> • New option: <i>M-Bus timeout</i> • New option: <i>M-Bus idle timeout</i> • New option: <i>M-Bus full timeout</i> • New option: <i>M-Bus request mode</i> • New option: <i>M-Bus reset mode</i> <p>The default values for the new options are backward compatible.</p>	Implemented
#1988	Defect	Update package cannot be applied	Sometimes installing an update package fails. The message "It seems like the update package could not be applied successfully." is shown. The probability of failure increases with the size of the update package. Since version 11.0.7 the size of update packages has reached a critical limit. The problem did not appear before. The update fails before anything is actually installed. So, nothing bad happens to the device. You just cannot install the update.	Fixed
#2011	Defect	Network configuration form allows empty IP address and netmask	When DHCP is not being used, the network configuration form still allows the fields for IP address and IP netmask to be empty.	Fixed
#2067	Defect	Messages variable reference list is empty	When configuring a send/receive message the "Add variable reference" list is empty.	Fixed
#2087	Defect	Cellular modem: signal strength icon always shows no bars	The icon that indicates the signal strength of the cellular modem always shows 0 of 4 bars.	Fixed

WEB-PLC v11.0.7 (2017-12-19)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC – Settings Website (5 matches)

Ticket	Type	Summary	Description	Solution
#2	Enhancement	Processing order of elements should be adjustable	It should be possible to set the order in which the elements on the diagram are processed. Currently they are processed in the order in which they have been added to the diagram.	Implemented
#1662	Defect	Numerical units should not support boolean data type	The following units should not support boolean data type: <ul style="list-style-type: none">• Addition• Compare• Division• Maximum• Minimum• Multiplication• Subtraction	Fixed
#1768	Enhancement	Pack and unpack units should be able to handle up to 321 bits	The Pack and Unpack units in the WEB-PLC editor should be able to handle up to 32 bits. It should be possible to add/remove input/output ports as is e.g. with the And unit.	Implemented
#2022	Defect	Editor: Erroneous information in tooltips for I/O elements	In the editor tooltips appear when hovering over an I/O element providing additional information on the I/O. There are several errors in these tooltips: <ul style="list-style-type: none">• The data type is only shown for I/O arrays not for plain I/Os.• The data type is labelled <i>Value index</i> instead of <i>Data Type</i>.• The data type for string values is shown as <i>Invalid Data Type</i>.	Fixed
#2024	Enhancement	Increase size of diagram	The size of the diagram's canvas should be increased.	Implemented

Component: WEB-PLC - General (8 matches)

Ticket	Type	Summary	Description	Solution
#362	Enhancement	Support 187500 baud for Modbus RTU	A baud rate of 187500 should be supported for Modbus TRU.	Implemented
#1486	Enhancement	OPC UA Server	The WEB PLC should feature an OPC-UA Server driver.	Implemented
#1927	Defect	Confusing error message when time zone is not using daylight saving times	Some time zones countries do not use daylight saving time rules. The error message "Could not read daylight saving time file." Is shown in these cases, which is misleading.	

Ticket	Type	Summary	Description	Solution
#1981	Defect	Wrong error message when timeout during TCP connect to HMS Hub	When a timeout occurs during the TCP connect to the HMS Hub, the WEB-PLC will misleadingly log the error message "HMS Hub module: Could not connect: Could not send HTTP request".	Fixed
#1992	Enhancement	IEC 61850: Support SBO (select before operate)	The IEC 61850 driver should support SBO (select before operate)	Implemented
#1994	Enhancement	IEC 61850 driver tree presentation leaf label name data attribute	The leaves of the tree representation of SCL files previously named the parent of the data attribute.	Implemented
#1999	Defect	Modbus TCP Client: Wrong error codes in event log message on connection failure	The error codes shown in the event log message the Modbus TCP Client emits when connecting to a server failed don't match the codes shown in the corresponding help topic.	Fixed
#2007	Enhancement	Wait for IP configuration through DHCP endlessly	The Ixxat SG-gateway should wait to get an IP configuration through DHCP endlessly instead of just 1 minute.	Implemented

Component: Run Time System

(5 matches)

Ticket	Type	Summary	Description	Solution
#1963	Defect	String arrays not correctly transmitted to HMS Hub	When an I/O driver (e.g. PROFINET IO DEVICE) defines an array of strings, the string values are not correctly transmitted to the HMS Hub. Let's assume the first string is "Hello", then the second one will be "ello", the third one will be "llo" etc.	Fixed

Ticket	Type	Summary	Description	Solution
#1986	Enhancement	Update IEC 61850 library to V2.7.37	<p>The IEC 61850 should be updated to the latest version (2.7.37) that addresses the following issues:</p> <p>New Features</p> <ul style="list-style-type: none"> • Services for ReportSettings, LogSettings, GSESettings and SMVSettings are now set to FIX by default, cid file will need to specify DYN to allow a client to configure the Control Block • DAs in a control structure that have FC=DC or CF are now set as read only if no valkind is set, including ctlModel • Integrity reports now get put in the buffer after association loss • Report control block datasets can now be switched dynamically • stSeld will be set automatically by the stack if the control is selected and unselected • Goose MinTime in the CID file is no longer halved <ul style="list-style-type: none"> ○ MinTime is the delay in ms between the First GOOSE packet on data change and the first retransmission ○ MaxTime is the ceiling time period that the retransmissions will cap out at if no data change occurs <p>Bug Fixes</p> <ul style="list-style-type: none"> • Fixed bug where incorrect gooseID can be transmitted if gooseID is at max length • Fixed error when decoding reports when the Sequence Number is greater than or equal to 65535 and the data is sent as 3 bytes with a leading 00 padding, this error resulted in the client disconnecting • Fixed bug that may lead to reports not being generated for data points in a GOOSE and Report control blocks. • Fixed bugs where reports would be triggered when the updated value was the same as previous value and the data change trigger option was set • Fixed issue where some reports would not be enabled in the client if not all IEDs had report control blocks in them • Fixed issue where GOOSE packets without VLAN tags would not be received by the BECK SC1x3 chip 	Implemented
#1993	Defect	IEC 61850 client: no more than 16 connections allowed	<p>The IEC 61850 client driver cannot connect to more than 16 servers at once. On purpose it should be possible to connect to up to 32 servers on SC1x3 processor based Ixxat SG-gateways and to up to 128 servers on SC1x5 processor based Ixxat SG-gateways (See #1520). However, 128 servers are not even possible due to resource limitations.</p>	Fixed
#2006	Defect	IEC 61850 client: crash on fallback	<p>On Misconfiguration, the IEC 61850 driver falls back to a default configuration. However, loading the default client configuration makes the WEB-PLC crash.</p>	Fixed
#2028	Defect	SNMP Manager: IP address variables not parsed from traps	<p>When a trap message contains an IP address variable, the value of the variable is not applied, and also further variables are not processed.</p>	Fixed

Component: Website

(12 matches)

Ticket	Type	Summary	Description	Solution
#510	Defect	Gateway only valid for Ethernet (0) interface	The gateway IP address that can be configured through the network settings form is only valid for the Ethernet (0) interface.	Fixed
#1809	Defect	IEC 60870-5-104 client: device dialog does not mark IPs and ports grid in case of an error	In the IEC 60870-5-104 Client's device dialog, if there is any error inside the list of IP addresses and ports (e.g. IP address/port combination is used twice), the label for this field is not marked as the labels of other fields are in case of an error.	Fixed
#1892	Enhancement	Show task list in diagnostic console	The diagnostic console should provide a task list including the CPU load.	Fixed
#1934	Defect	Login: no error message when password and username are incorrect	If both fields are invalid when changing the login information, no error message is shown.	Fixed
#1961	Defect	NAT Routing external port cannot be used twice (different protocols)	The external port in NAT routing cannot be used twice with different protocols (TCP/UDP).	Fixed
#1965	Defect	Varying I/O name constraints	Name constraints vary between the I/O drivers. All (device, value, ...) names should consist of 1 to 64 printable ASCII characters. HMS Hub names should consist of 1 to 64 alphanumeric ASCII characters, underscores, dots or hyphens and the first character must be alphanumeric.	Fixed
#1984	Defect	Dialogs sometimes don't resize when a message box is shown	Dialogs sometimes don't resize correctly when a message box is shown.	Fixed
#1996	Defect	Missing translation of communication error on IEC 61850 configuration form	When a communication error occurs on the IEC 61850 configuration form, the error message is prefixed with 'undefined' instead of 'Communication error: ' or an appropriate translation.	Fixed
#1998	Defect	Modbus master edit value dialog validation issues	When selecting a function that doesn't support boolean and the 8-bit int data types (i.e read holding registers) the data type select element doesn't automatically switch to the first selection available (that would be 16-bit unsigned int)	Fixed
#2000	Enhancement	Add field for second DNS server	Add field for second DNS server	Implemented
#2004	Defect	PROFIBUS DP Slave: wrong constraints for value length	When adding or editing a value for the PROFIBUS DP Slave, the dialog allows a maximum length of 255. However, when committing the dialog, an error message appear stating that no more than 244 are allowed.	Fixed
#2021	Defect	IEC 60870-5-104: Erroneous check for relation between T1 and T2	For IEC 60870-5-104 server and client the T2 timeout value must be smaller than the T1 timeout value. However, the check is done incorrectly leading to false positives and false negatives.	Fixed

WEB-PLC v10.11.11 (2017-11-21)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC – Settings Website (2 matches)

Ticket	Type	Summary	Description	Solution
#1958	Defect	Gateway lost when no link at startup	If a static (no DHCP or the like) gateway is configured and the corresponding network interface does not have link at startup. The WEB-PLC will lose the gateway.	Fixed

WEB-PLC v10.11.9 (2017-10-19)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC – Settings Website (2 matches)

Ticket	Type	Summary	Description	Solution
#1977	Enhancement	Mention downloadable open source package in online help for SC1x5	For SC1x5 processor based Ixxat SG-gateways the sources of open source components licenses under the GPL or LGPL are provided in the download section of our website along with update packages. This package should be mentioned in the device's online help.	Implemented
#1978	Defect	pppd missing in list of open source components and libarchive license incomplete for SC1x5	For SC1x5 processor based Ixxat SG-gateways the open source component pppd is not mentioned in the list of open source components. Also the license for libarchive is incomplete.	Fixed

WEB-PLC v10.11.8 (2017-10-16)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC - General (1 match)

Ticket	Type	Summary	Description	Solution
#1974	Defect	Improve open source software documentation	Iptables is missing in the open source software documentation. Also the written intent required by the GPL is missing.	Fixed

WEB-PLC v10.11.7 (2017-08-22)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC - General (1 match)

Ticket	Type	Summary	Description	Solution
#1941	Defect	HMS Hub: Cannot connect after connect failed once on SC1x5	On SC1x5 processor based Ixxat SG-gateways, the HMS Hub module will not reconnect to the HMS Hub after establishing the connection has failed once, e.g. because the HMS Hub server had been down for a short time. The message "HMS Hub module: Could not connect: Connect error (-3)" will be shown in the event log.	Fixed

Component: WEB-PLC - Run Time System (1 match)

Ticket	Type	Summary	Description	Solution
#1933	Defect	IEC 60870-5-104 Client: Crash due to value with range > 1	When a value with a range greater than 1 is defined for the IEC 60870-5-104 Client, the firmware may crash.	Fixed

WEB-PLC v10.11.4 (2017-07-21)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC - Editor (1 match)

Ticket	Type	Summary	Description	Solution
#1908	Defect	Double-tapping elements is not working on Touch Devices.	On touch devices double-tapping an element does not show its context menu.	Fixed

Component: WEB-PLC - General (12 matches)

Ticket	Type	Summary	Description	Solution
#513	Enhancement	Create directories on insertion of external medium	The WEB-PLC should create the directories it expects on the external storage medium when the medium is inserted.	Implemented
#1824	Defect	OpenVPN: Cannot handle custom device names	When custom device names (e.g. dev tun765) are set in the OpenVPN configuration, the WEB-PLC will be unable to run certain services on the interface, e.g. NAT.	Fixed The configuration form now only allows 'tun' or 'tap' (without suffix) for the 'dev' option.
#1840	Defect	PROFINET, EtherNet/IP: Groups without values generate errors.	The Following error is generated if a group is defined in the PROFINET or EtherNet/IP but has no values. Anybus CompactCom base driver error. (Error code 7, Info 2945720)	Fixed
#1845	Defect	IEC 60870-5-104 Server: No reply to read command	The IEC 60870-5-104 Server doesn't reply to the read command (C_RD_NA_1, 102).	Fixed
#1860	Defect	Cellular modem's connection supervision produces false-positives on SC1x5	On SC1x5 processor based Ixxat SG-gateways the connection supervision of the cellular modem driver produces false-positives and thus closes the connection every time the connection supervision is executed (i.e. when there has been no traffic). When the cellular modem is used as a fallback connection, it will also be activated even if the normal connection is still OK.	Fixed

Ticket	Type	Summary	Description	Solution
#1864	Defect	Event log timestamps not updated if HMS Hub is active	When the WEB-PLC first synchronizes its system time (e.g. from the RTC or via SNTP), it fixes the timestamps of event log messages that have occurred before and have an invalid time (typically 2015-01-01 00:00 UTC). However if the HMS Hub is active, it may happen that the WEB-PLC synchronizes its clock with the Kolibri Broker immediately after synchronizing it with the RTC or via SNTP. It then 'forgets' to update the timestamps inside the event log.	Fixed
#1883	Enhancement	IEC 60870-5-104: Improve standards compatibility	Parameter of measured values should not be longer sent spontaneously on update (as per the standard) Cyclic transmission of measured values should not include timestamps (because this is an invalid cause of transmission for those types)	Implemented
#1888	Enhancement	Update OpenVPN to version 2.3.17 on SC1x5	For SC1x5 processor based Ixxat SG-gateways OpenVPN should be updated to version 2.3.17.	Implemented
#1893	Defect	Cannot download update package via TLS/SSL on SC1x3	On SC1x3 processor based Ixxat SG-gateways update packages cannot be downloaded via TLS/SSL.	Fixed
#1903	Defect	Cellular modem may not be initialized on SC1x5	Depending on the concrete hardware it may be impossible to initialize the cellular modem on SC1x5 processor based Ixxat SG-gateways.	Fixed
#1917	Defect	Update without SD card and then without reboot with SD card does not work on SC1x5	If an update using the website's update tab is executed without an SD card and then executed with an SD card (with needed folders) and without a reboot is not possible. The error messages on the tab are: On SC1x5: The update package is not valid for this device	Fixed
#1920	Defect	Firmware can be manipulated during firmware update	It is possible to manipulate the WEB-PLC firmware during a firmware update.	Fixed

Component: WEB-PLC - Run Time System (5 matches)

Ticket	Type	Summary	Description	Solution
#1831	Defect	IEC 60870-5-104 Server: Device hangs when a lot of values are defined	When a lot of values are defined for the IEC 60870-5-104 Server (near to the maximum), the device will hang, because it takes too long to update the values and the interval in which the values are updated is fixed to 200 ms. The interval should be configurable to adapt it when a lot of values are desired. Also see ticket #1871 .	Fixed
#1867	Enhancement	Modbus Server/Slave: Allow access to several values in one request	Currently the Modbus Server/Slave only allows to access one value with one request. For example if you have defined a 16-bit value at address 5 and a 32-bit value at address 6, it is not possible to read all three registers at once. It should be possible to access several consecutive values within one request if all values consist of either registers or coils.	Implemented

Ticket	Type	Summary	Description	Solution
#1882	Defect	Modbus RTU Master cannot handle partial frames	The Modbus RTU Master cannot handle partial frames. It will wait for the rest of the frame endlessly. Partial frames may appear for example when the slave is shut down while sending a frame.	Fixed
#1890	Enhancement	Skip current cycle on interval violations	When the interval of any I/O driver has been violated, the current cycle should be skipped to avoid a very high load. If for example the Modbus Client/Master has an interval of 10 seconds, but it takes 12 seconds to query all servers/slaves (e.g. due to timeouts), the cycles will start at 0,12, 24, 36 etc. seconds. The driver will be 100% busy querying the servers/slaves and will not leave any time for data exchange with the PLC. Instead the I/O driver should skip a cycle each time the cycle has been violated, so cycles would start at 0, 20, 30 etc. seconds.	Implemented
#1918	Defect	M-Bus: Crash when values of device without values are requested	When the M-Bus driver requests values from a device for which no values were found during scan, the Ixxat SG-gateway may crash.	Fixed

Component: WEB-PLC - Settings Website (19 matches)

Ticket	Type	Summary	Description	Solution
#377	Enhancement	Diagnostics page on SC1x5	<p>On SC1x5 processor based Ixxat SG-gateways the WEB-PLC should feature a diagnostics website. It should provide the following functionality:</p> <ul style="list-style-type: none"> • Detailed network information: <ul style="list-style-type: none"> ○ IP settings ○ Routing table ○ DNS settings • Ping • DNS lookup • Sniff network traffic <p>Later:</p> <ul style="list-style-type: none"> • WebSockets • traceroute • NTP • OpenVPN (TCP/UDP) 	Implemented
#710	Enhancement	Prevent overwriting of file paths in OpenVPN configuration	The OpenVPN configuration contains the paths of files (e.g. ca "ca.crt"). Since the files cannot be moved or renamed by the user, the paths in the configuration should also be fixed and be prevented from being overwritten.	Implemented
#1794	Defect	PROFIBUS DP Slave: Only up to 48 modules can be defined	The PROFIBUS DP Slave can only handle 48 modules even though 128 modules are allowed on SC1x5 targets. However implementation details of the Anybus CompactCom Module limit the number of modules to 48. The limit should be clearly documented.	Fixed
#1800	Enhancement	Update HTTPS server certificate	The certificate for the Ixxat SG-gateway's HTTPS server still uses SHA1 which is considered insecure nowadays. It should be replaced by a certificate using SHA256.	Implemented
#1835	Defect	IEC 60870-5-104 timeout constraint	The timeout T2 must be less than T1. The IEC 60870-5-104 Client or Server will refuse to start if it is not. The configuration website should enforce this constraint.	Fixed
#1843	Defect	IEC 60870-5-104 Client: Value dialog allows to increase range although maximum is reached	The value dialog of the IEC 60870-5-104 Client allows the range of a value to be increased although the maximum number of values has already been reached. When storing the configuration the message "Too many values" is shown. Also the configuration form does not correctly count their sum of all array sizes and all scalar values when deleting a device or value and when editing a value.	Fixed

Ticket	Type	Summary	Description	Solution
#1853	Enhancement	IEC 60870-5-104 Server: Support clock synchronization command (C_CS, 103)	The IEC 60870-5-104 Server should optionally support the clock synchronization command (C_CS, 103).	Implemented
#1855	Defect	CODESYS Network Variables: Parser does not show v2.7 error messages.	CODESYS Network Variables Parser shows only errors generated while trying to parse v3.5 list, errors that are generated from v2.7 list are suppressed.	Fixed
#1857	Defect	CODESYS Network Variables: Parser should invert the write, read flags.	If a list is exported as read from the CODESYS program, the parser should treat it as write and so on.	
#1861	Defect	Confusing error message when SIM card not present	When the SIM card is not present, the cellular modem driver emits a confusing error message: "Invalid PIN or SIM card locked (code 10)"	Fixed
#1863	Enhancement	Diagram should support Copy+Paste of Elements	The diagram should support copying and pasting of elements via the buttons ctrl+c and ctrl + v	Implemented
#1871	Enhancement	IEC 60870-5-104: Interval should be configurable	For IEC 60870-5-104 (both client and server) the interval at which values are updated should be configurable. Currently it is fixed to 200 ms.	Implemented
#1872	Enhancement	OpenVPN: Forbid unsave options	The configuration form for OpenVPN should forbid options that are unsave, i.e. that may access arbitrary files or run arbitrary shell commands or negatively influence the system in any other way.	Implemented
#1875	Defect	IEC 61850 saved configuration cannot be loaded to the website.	Currently saved IEC 61850 configuration cannot be loaded to the website.	Fixed

Ticket	Type	Summary	Description	Solution
#1885	Enhancement	IEC 60870-5-104 Server: Transmit values of type Integrated Totals cyclically instead of spontaneously	The IEC 60870-5-104 Server should transmit value of type Integrated Totals (15, 37) cyclically instead of spontaneously.	Implemented For existing configurations a cyclic transmission time of 0 seconds will be assumed for types 15 and 37, which means that the corresponding values will not be transmitted at all. You should rework your configuration.
#1886	Defect	Missing Open Source license files	When trying to view one of the Open Source licenses in the online help, the web server returns a "404 - file not found" error.	Fixed
#1906	Defect	Event log help topic: List of messages is empty	In the help topic for the event log there should be a list of all possible event log messages, but this list is empty.	Fixed
#1910	Defect	IEC 61850 configuration still cannot be downloaded on SC1x5 in Google Chrome	On SC1x5 processor based Ixxat SG-gateways the IEC 61850 SCL File still cannot be downloaded in Google Chrome. It works in Mozilla Firefox. The download link now works (see #1849), but the contents of the file are still not correctly loaded into the form.	Fixed
#1912	Defect	EtherNet/IP: IP and netmask field not disabled when DHCP is active	On the configuration form for EtherNet/IP the fields "IP address" and "IP netmask" should be disabled when the "Use DHCP" checkbox is checked. However this does not happen when loading the form for the first time or when reloading the settings.	Fixed

Component: zzz COD (1 match)

Ticket	Type	Summary	Description	Solution
#1889	Defect	Only one TLS/SSL connection	The WEB-PLC cannot open more than one TLS/SSL connection. Opening a second connection not only fails, also the first connection is messed up. This may for example happen when the device is connected to the HMS Hub and an update package should be downloaded via HTTPS.	Fixed

WEB-PLC v10.5.4 (2017-05-22)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC - Settings Website (1 match)

Ticket	Type	Summary	Description	Solution
#1851	Defect	Settings website doesn't load on devices with M-Bus	The settings website doesn't load on devices with an M-Bus interface. An error message is shown.	Fixed

WEB-PLC v10.5.3 (2017-05-18)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC - Editor (5 matches)

Ticket	Type	Summary	Description	Solution
#1537	Defect	Value of negated output ports not negated in editor's live view	The live view of the WEB-PLC editor does not show the negated value for negated output ports.	Fixed
#1778	Defect	Timer doesn't handle interval 0 correctly	The timer unit does not handle the value 0 on its interval input port correctly. Instead of toggling its output port in each cycle, it toggles it after 2147483648 ms and then immediately back.	Fixed
#1815	Defect	Minimum and maximum Accumulator unit perform reset different to average unit	The minimum and maximum accumulator units perform the reset different to the average unit. The average unit first resets the average and then accepts the new value from the In input port. The minimum and maximum accumulator units first accept the new value and then perform the reset. To harmonize the behavior all units should perform the reset first.	Fixed
#1816	Defect	Maximum accumulator unit cannot handle negative floating point numbers	The maximum accumulator unit cannot handle negative floating point numbers. The minimum floating point number it will put out on its Act and Prev output ports is 0.0.	Fixed
#1827	Defect	Constant unit don't correctly support scientific notation for 32-bit Floats	For 32-bit floating point values the displayed constant may differ from the constant entered by the user. Examples: 1.175494e-38 -> 0.0, 3.402823e+38 -> "3.402823e+38"	Fixed

Component: WEB-PLC - General (15 matches)

Ticket	Type	Summary	Description	Solution
#1146	Enhancement	Support booleans and strings for PROFINET IO driver	The PROFINET IO driver should be able to exchange boolean and string values.	Implemented
#1513	Defect	IEC 60870-5-104 Server: Type 37 is sent as 15 after Counter interrogation command	If the IEC 60870-5-104 Server has the type "37 Integrated totals with time tag" and receives a "101 = Counter interrogation command" with "Qualifier of interrogation" = 5 (General counter interrogation) and object address 0, it answers with type 15 instead of type 37.	Fixed
#1596	Enhancement	IEC 60870-5-104 Client and Server on SC1x5	IEC 60870-5-104 Client and Server should be available on SC1x5 based Ixxat SG-gateways.	Implemented Due to the excess resource consumption of the IEC 60870-5-104 stack, the IEC 60870-5-104 client does not support 128 devices on SC1x5 processor based Ixxat SG-gateways (as stated in ticket #1520). Instead we must stick to a maximum of 32 devices as on SC1x3 processor based Ixxat SG-gateways. Only the maximum number of values could be increased to 4096, with a maximum of 8192 array elements.
#1692	Enhancement	IEC 60870-5-104 Server: Change Cyclic Transmission Time from milliseconds to seconds	Change the cyclic transmission time from milliseconds to seconds. Inform the user in the event log about it, if the cyclic transmission is used.	Implemented
#1732	Enhancement	System Time Manager: Don't log success messages	The system time manager should not emit a success message to the event log every time the clock has been synchronized. Instead it should only emit a success message after an error had occurred. Also the HMS Hub module should only emit a message when it has synchronized the clock with the Broker.	Implemented
#1739	Enhancement	Update meter library to V1.23	<ul style="list-style-type: none"> • mbus issues <ul style="list-style-type: none"> ○ decode alarm protocol header ci=0x71/0x75 ○ add "seek version/medium/manufacturer" message to indicate long secondary scan 	Implemented

Ticket	Type	Summary	Description	Solution
			<ul style="list-style-type: none"> ○ add config parameters <ul style="list-style-type: none"> ▪ add mbusconfiguration parameter iFcbBitFirstN ▪ add mbus ignorelength field ▪ include "status byte" within mbus headeras value ▪ add iDisableDescription in mbus interface ○ removed vif-reverse-string compatibility mode(config version prior 5) ○ removed var err-value-separate compatibility mode regarding (mbus valuetype=error) ○ avoid sending a select request having no values to set/send ○ unsupported timestamp fields are treated as standard values (Reserved) • resolved vardata length 0 decoding issue • resolved buffer overflow having no buffer size upon DIFE-decoding <ul style="list-style-type: none"> ○ resolved confdata load issue ticket #122 ○ resolved buffer overflow upon data decryption (decrypting blocks according to block count and data length) ○ add flag to indicate unconfigured devices after scan (devices saved to xml or bin config are treated as configured) • source code <ul style="list-style-type: none"> ○ treat pUnitStr correctly upon copy fail ○ replaced datatype long by int32 to resolve issues regarding 32 bit architecture ○ replaced unsigned return values "~0UL" by "(uint32)-1", same behavior for paradigm ○ adjust includes / case sensitivity replaced ++ by += and replaced if(!..) by if(..=0) upon mbusdecode ○ removed useless include "io.h" for binary config mode ○ removed useless check for eInterface upon write application header (codesonar) 	

Ticket	Type	Summary	Description	Solution
#1767	Enhancement	Check date of TLS certificates on SC1x5	On older processors it was not possible to check if the date of a TLS certificate is valid. On SC1x5 processor based Ixxat SG-gateways this is possible and should be implemented.	Implemented
#1798	Defect	M-Bus: HMS Hub format string cuts decimal places when scaling	When M-Bus values are scaled on the HMS Hub, they may get decimal places although they were integer values originally. However the decimal places are cut. This is because the format string identifies them as integer values. The format string should identify them as floating point numbers if they are scaled.	Fixed
#1803	Defect	Invalid export options	The configuration export provides the M-Bus and messages configuration even if the device does not support them.	Fixed
#1805	Defect	Message manager sends empty messages on SC1x5	The Message manager, does not use the configured messages templates instead it sends an empty string to the configured receiver or ignores incoming messages.	Fixed
#1817	Defect	Website can be manipulated through file upload	Due to a misconfiguration of the WEB-PLC's web server it would be possible to overwrite the files that make up the WEB-PLC's website.	Fixed
#1819	Defect	Cellular modem: "Network lost" message when used as fallback connection	When the cellular modem connection is used as a fallback connection. The message "Network lost (code <x>, network status <y>)" may be emitted several times while establishing the network connection. This does not influence the connection itself.	Fixed
#1820	Defect	Diagram with certain 32-bit floating point constants cannot be loaded	If a diagram contains a constant with a 32-bit floating point value, it can be saved, but may not be loaded.	Fixed
#1838	Defect	Cellular modem connection doesn't work if DNS server is unreachable on SC1x5	On SC1x5 processor based Ixxat SG-gateways the data connection on the cellular modem cannot be established, if a DNS server is configured that is unreachable.	Fixed
#1847	Defect	Active CheckBox is not correctly updated when Editing Messages	When Editing Messages, the Active CheckBox is not correctly updated.	Fixed

Component: WEB-PLC - Run Time System (8 matches)

Ticket	Type	Summary	Description	Solution
#1242	Enhancement	PROFINET IO Device: Allow more data	The PROFINET IO Device driver currently allows up to 512 bytes of data in each direction. It should allow more. The Anybus module allows up to 1440 bytes.	Implemented
#1545	Enhancement	CODESYS Network Variables: Group variables by list	The CODESYS network variables should be grouped by list as well in the editor as on the HMS Hub. For backward compatibility the new behavior should be enabled through a checkbox on the settings website.	Implemented
#1587	Enhancement	I/O driver should indicate interval violation only once	I/O drivers with a fixed interval, should only log a message to the event log once when the interval has been violated, not for every cycle. They should log another message when the interval has been maintained again.	Implemented
#1663	Defect	PLC task cycle violation on SC1x5 and SC1x8	On SC1x5 and SC1x8 processor based systems from time to time the task cycle cannot be maintained. The message "PLC Driver: Task cycle has been violated." appears in the event log.	Fixed
#1682	Defect	Quality of outputs on HMS Hub not set	The quality of the output values transmitted to the HMS Hub is always "valid". The WEB-PLC should set the HMS Hub quality according to the quality assigned to the output in the program.	Fixed
#1766	Enhancement	Don't autostart PLC without retentive data	The PLC should not be automatically started at device start-up if the device features a power fail circuit, but the power fail handling could not be initialized or the retentive data (e.g. variables) could not be loaded.	Implemented
#1833	Defect	Modbus TCP Server only processes one request per Client every 100 ms	The Modbus TCP Server can only process one request per client every 100 ms.	Fixed
#1894	Defect	IEC 60870-5-104: 32-bit values not decoded correctly on SC1x3	On SC1x3 processor based Ixxat SG-gateways received 32-bit values are not correctly decoded by the IEC 60870-5-104 client/server, if the value is greater than 65535.	Fixed

Component: WEB-PLC - Settings Website (21 matches)

Ticket	Type	Summary	Description	Solution
#567	Enhancement	Support NetVar lists from CODESYS 3.x	The CODESYS network variable driver should be able to parse variable lists from CODESYS 3.x.	Implemented
#1311	Defect	CODESYS Network Variables missing SD card shows no timeout error	No timeout error appears in CODESYS Network Variables tab when trying to upload list to the device while SD card is missing.	Fixed.

Ticket	Type	Summary	Description	Solution
#1526	Defect	Modbus TCP Server cannot handle keep- alive counter greater 127 on SC1x5	On SC1x5 processor based Ixxat SG-gateways the Modbus TCP server cannot handle a keep- alive count greater than 127 due to operating system constraints. The configuration form should respect this limit.	Fixed. The configuration form now does not allow a keep- alive count greater than 127. Note that it is still possible to apply a configuration update package that was created on a SC1x3 processor based Ixxat SG-gateway and that thus includes a greater keep-alive count. The illegal keep-alive count will prevent the WEB-PLC from running in this case. The message "Modbus Slave driver: Invalid TCP keep-alive count" will be shown in the event log. A factory reset will be required.
#1654	Defect	Edit time switch is not cleared	Clicking at cancel button does not clear the Edit time switch window and same errors appear when it is reopened.	Fixed.
#1679	Defect	Correct Kolibri error codes in help	The Kolibri error codes in help at each driver have wrong numbers. "Out of memory" should be -2 instead of -10. "queue has overflown" should be -3 instead of -12.	
#1706	Enhancement	IEC 60870-5-104 Server: Remove CTT and IROG on types that don't have it	Do not show cyclic transmission time and interrogation group on types, that don't use them.	Implemented
#1715	Defect	CODESYS Network Variables driver: Error message does not disappear when new list is uploaded	When a new CODESYS network variables list is uploaded, an error message that was caused by any previous operation does not disappear.	Fixed
#1718	Defect	Modbus Master allows RTU address 0 and TCP port 0	The Modbus Master/Client allows to configure an RTU slave with address 0, which should not be possible according to the given constraints. It also allows a TCP server with port 0, which is OK according to the constraints, but makes no sense.	Fixed
#1722	Defect	IEC 60870-5-104 Client: Duplicate IPs and/or common addresses lead to fatal error	The settings of the IEC 60870-5-104 client allow to configure devices with same common addresses or IPs, which then leads to a fatal error upon restart. Do not allow duplicate common addresses and IPs on website.	Fixed
#1733	Enhancement	Password policy	The WEB-PLC should have a password policy. Details to be clarified.	Implemented
#1734	Enhancement	Force change of password at first login	The WEB-PLC should force the user to change its password on first login.	Implemented

Ticket	Type	Summary	Description	Solution
#1769	Defect	OpenVPN: TUN may use netmask instead of remote IP	For OpenVPN there is an entry in the grid that displays either a netmask or a remote IP address. It states that the entry holds a netmask for TAP and a remote IP address for TUN. This is not always true. Depending on the configured topology the netmask may also be valid for TUN.	Fixed
#1789	Enhancement	IEC 60870-5-104 Server: Help states that 0 values can be defined	The help topic for the IEC 60870-5-104 Server states that up to 0 values can be defined	Fixed
#1792	Defect	EtherNet/IP Adapter: Wrong error messages	When you try to add more groups than possible on the configuration website of the EtherNet/IP Adapter, the error message shows the maximum number of values instead of the maximum number of groups.	Fixed
#1796	Defect	Website loads very long on SC1x5	On SC1x5 processor based Ixxat SG-gateways, the websites of the WEB-PLC often take very long to load.	Fixed
#1799	Defect	Decimal digits accepted for integer values	The settings website of the WEB-PLC accepts decimal digits where only integer values should be allowed.	Fixed
#1811	Defect	IEC 60870-5-104 client: Interrogation group names not translated to German	The interrogation group names shown on the configuration form for the IEC 60870-5-104 server are not translated to German.	Fixed
#1813	Defect	PROFINET IO Device, PROFIBUS DP Slave, EtherNet/IP Adapter: Adding value to previously selected module/group (cloned)	If the 'Add value' button is clicked and only the 'Inputs' or 'Outputs' group is selected, the form doesn't show an error message indicating that a module/group must be selected, but instead adds the value to the previously selected module/group, if any.	Fixed
#1823	Defect	Higher baud rates not supported on SC1x5	Ixxat SG-gateway devices based on the SC1x5 processor only support up to 250 kbaud on their serial ports. Still the settings website allows to configure higher baud rates.	Fixed
#1829	Enhancement	IEC 60870-5-104: Improve Overlapping Object Addresses Error Message	If an overlapping Object Address is configured the current error message is not so helpful "At least one Information Object Address is used more than once." The user will probably search for the same Object Address.	Implemented
#1849	Defect	IEC 61850 configuration cannot be downloaded on SC1x5 in Google Chrome	On SC1x5 processor based Ixxat SG-gateways the IEC 61850 SCL File cannot be downloaded in Google Chrome. It works in Mozilla Firefox.	Fixed

WEB-PLC v10.0.15 (2017-03-16)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC - Editor (4 matches)

Ticket	Type	Summary	Description	Solution
#1650	Defect	Diagram with certain 32-bit floating point constants cannot be loaded	If a diagram contains a constant with a 32-bit floating point value, it can be saved, but may not be loaded.	Fixed
#1671	Defect	Crash due to Demultiplexer unit	When the demultiplexer unit is used and its Store input port is 0, the device may crash. This is especially the case, if string values are demultiplexed.	Fixed
#1678	Defect	Inaccuracy when converting floating point number to string	When a floating point number is converted to a string, at most 6 digits are printed even if the floating point number has more digits. This problem occurs in the WEB-PLC editor, in the interface for iniNet Solutions' MicroBrowser and when writing a floating point value to a short message,	Fixed
#1685	Defect	Error when converting from 8-bit signed integer on SC1x5, SC1x8 and SC2x3	On SC1x5, SC1x8 and S2x3 processor based Ixxat SG-gateways conversion from an 8-bit signed integer value to another signed data type may produce wrong results.	Fixed

Component: WEB-PLC - General (7 matches)

Ticket	Type	Summary	Description	Solution
#1637	Defect	Firewall blocks outgoing UDP traffic on SC1x5	The firewall blocks outgoing UDP traffic on SC1x5 processor based Ixxat SG-gateways. For example OpenVPN cannot be used, if a host name is used, because the name cannot be resolved through DNS.	Fixed
#1638	Defect	Configurable clock synchronization interval doesn't work	The interval in which the system clock is synchronized (from the RTC or through SNTP) can be configured (see ticket #1477). But still the default interval is being used.	
#1648	Defect	OpenVPN cannot resolve server name when DHCP is used on SC1x5 and SC1x8	On SC1x5 and SC1x8 processor based Ixxat SG-gateways OpenVPN may fail to resolve the server's host name, if the DNS server's address is gotten through DHCP.	Fixed

#1649	Defect	OpenVPN cannot be stopped on SC1x5 and SC1x8	On SC1x5 and SC1x8 processor based Ixxat SG-gateways OpenVPN cannot be stopped.	Fixed
#1652	Defect	OpenVPN warns concerning secret file access when configuration was imported	When an OpenVPN configuration has been imported from another device, OpenVPN emits warning into the event log that the secret key file can be read by any user (meaning operating system level users). This is not actually a security risk, because there is only system user. But still the message should not appear.	Fixed
#1665	Defect	Error interval should always be used when an error occurs during clock synchronization	The System Time Manager uses the error interval (5 min) if all of its components fail to acquire a valid time, it should be used if any fails.	Fixed
#1673	Defect	Crash when messages are used on SC1x5	When the messages functionality (short messages) is used on SC1x5 processor based Ixxat SG-gateways the device may crash when loading the configuration into the web form.	Fixed

Component: WEB-PLC – Run Time System (12 matches)

Ticket	Type	Summary	Description	Solution
#534	Enhancement	Support strings for CODESYS network variables	The WEB-PLC's CODESYS network variable driver should be able to exchange string variables.	Implemented
#1644	Defect	Reboot loop if clock timer's interval is 0	If the interval of a clock timer unit (local or UTC) is 0, the device will crash and reboot. Since the program will be automatically started, the device will be caught in a boot loop.	Fixed
#1646	Defect	Modbus TCP Client cannot support max number of devices on SC1x5 and SC1x8	On SC1x5 and SC1x8 processor based Ixxat SG-gateways when the maximum number of devices is configured in the Modbus TCP Client, a resource ceiling is met and error messages will appear. After that if another component relies on a TCP/IP connection (for example Modbus TCP Server) a fatal error will appear.	Fixed
#1659	Defect	Crash if Time Switch defined but not used	If at least one Time Switch is defined, but none is used (and also no other unit that uses clock time), the Ixxat SG-gateway may crash.	Fixed

Ticket	Type	Summary	Description	Solution
#1661	Defect	IEC 61850 timestamp is not getting transmitted correctly in CDC 'ACD'	In CDC 'ACD' the timestamp gets written in the quality	Fixed
#1667	Defect	CODESYS Network Variables driver cannot handle packets with more than 236 bytes data	The specification for the CODESYS Network Variable protocol states that a packet can hold up to 236 bytes of variable data. In fact packets can hold up to 256 bytes of variable data. The CODESYS network variable driver cannot handle packets with more than 236 bytes of variable data. Variables beyond the 236th byte will contain nonsense data.	Fixed
#1669	Defect	CODESYS Network Variables driver cannot handle packed data that spans more than one packet	When exchanging packed data the CODESYS Network variable driver assigns variable data that does not fit into the first packet wrongly. Variable data will be messed up.	Fixed
#1677	Defect	SNMP Manager driver checks wrong community string for traps	When the SNMP Manager driver receives a trap from one of the agents, it checks for the agent's community string instead of the trap community string.	Fixed
#1684	Defect	CODESYS Network Variables driver sends some data types with wrong endianness on SC2x3	On SC2x3 processor based com.to ms the CODESYS Network Variables driver sends variables with the wrong endianness if variables are packed. The first variable inside a packet always has the wrong endianness if the size of its data type is greater than 1. 32 and 64 bit data types also have the wrong endianness	Fixed
#1688	Defect	CODESYS Network Variables driver cannot send more than 256 variables per list	The CODESYS Network variable driver cannot send more than 256 variables (packets) per list.	Fixed
#1690	Defect	CODESYS Network Variables driver cannot send list with COB-1D > 255	The CODESYS Network variable driver cannot send variables from a list with a COB-ID that is greater than 255.	Fixed

Ticket	Type	Summary	Description	Solution
#1705	Defect	8-bit signed integer value transmitted to HMS Hub too often on SC1x5, SC1x8 and SC2x3	On SC1x5, SC1x8 and SC2x3 processor based Ixxat SG-gateways an 8-bit signed integer value with trigger mode 'on any change' or 'on change by at least N' may be transmitted all the time, no matter if the value has changed or not.	Fixed

Component: WEB-PLC – Settings Website (7 matches)

Ticket	Type	Summary	Description	Solution
#1640	Defect	IEC 61850 configuration cannot be stored on SC1x5	On SC1x5 processor based Ixxat SG-gateways the IEC 61850 configuration cannot be stored.	Fixed
#1642	Defect	Error message 'undefined' when storing IEC 61850 configuration fails	When storing the IEC 61850 configuration fails, the form shows the error message 'undefined'.	Fixed
#1651	Defect	IEC 61850 configuration cannot be loaded	The IEC 61850 configuration cannot be loaded.	Fixed
#1653	Defect	Dialog closes while showing error message	In several places a dialog may close while showing an error message.	Fixed
#1658	Defect	CODESYS Network Variables file parsing error	If a CODESYS Network variables file does not have any white-space characters bet ween the colon and the data type (variableName :DATATYPE), the file cannot be parsed. Wrong or invalid data types are detected.	Fixed
#1711	Enhancement	Use digest authentication for web server on SC1x5 and SC1x8	On SC1x5 and SC1x8 processor based Ixxat SG-gateways digest authentication should be used to authenticate with the web server. This is not available on SC1x3 and SC2x3.	Implemented after updating from a previous WEB-PLC version you must close and reopen your web browser when the website shows error 400 "Bad request".
#1724	Defect	Update indicates wrong progress on SC1x5 and SC1x8	On SC1x5 and SC1x8 processor based Ixxat SG-gateways the progress is not indicated correctly during a firmware update	Fixed

WEB-PLC v10.0.10 (2017-02-17)

This version is only available for SC1x5 processor based Ixxat SG-gateways.

Component: WEB-PLC - Editor

(18 match)

Ticket	Type	Summary	Description	Solution
#1004	Enhancement	Data type conversion units	The WEB-PLC editor should features units to convert the data types of values.	Implemented
#1008	Enhancement	Average unit	The WEB-PLC should feature a unit that calculates an average. The unit should have a reset input port.	Implemented
#1010	Defect	Dragging elements does not work on touch devices	When the WEB-PLC editor is used on a touch device like the iPad, elements cannot be dragged.	Fixed
#1304	Enhancement	Constants with specific data type	It should be possible to explicitly specify the data type of a constant. Currently the WEB-PLC editor will automatically select the smallest data type that can represent the constant.	Implemented
#1314	Enhancement	Quick 1/ 0 mapping mechanism	The WEB-PLC editor should provide a mechanism through which inputs can be connected to outputs quickly.	Implemented
#1315	Enhancement	Load profile unit	The WEB-PLC should feature a load profile unit. This unit has two inputs and two outputs. The first input is a trigger the second one takes a counter value. When the unit is triggered, it stores the current counter value. The counter value is put out on the second output until the unit is triggered again. When it is triggered again, the difference between the current and the previous counter value is calculated and put out on the first output.	Implemented
#1364	Enhancement	Analog Trigger	The WEB-PLC should feature an analog trigger unit. It stores its input value on request and then compares its input value to the stored value. When the value has changed by a certain threshold, the unit will trigger also providing the difference between the stored and current value as an output.	Implemented
#1365	Enhancement	Start value for counter unit	The counter unit should have another input port which can be used to define the start value. Sometimes you need to define a start value, but also want the option to reset the counter.	Implemented
#1401	Defect	Internet Explorer scrolling jumps to top when diagram clicked	The scrolling of the WEB-PLC Editor jumps to the top when an element or empty space in the diagram is clicked. Internet Explorer 11.0.9600.18314.	Fixed

Ticket	Type	Summary	Description	Solution
#1416	Defect	Ixxat SG-gateway BASIC 11 and RADIO-UMTS 11 transmit degree character wrongly	The temperature values transmitted by the Ixxat SG-gateway BASIC 11 and RADIO-UMTS 11 are shown wrongly on the HMS Hub, because the degree character is not encoded correctly.	Fixed
#1499	Enhancement	Clock Timer Local/UTC unit	The WEB-PLC should feature a Timer unit.	Implemented
#1500	Enhancement	Add Average, Min and Max Accumulator unit	The WEB-PLC should provide a minimum and maximum accumulator unit. The minimum accumulator pools its input port each cycle and stores the minimum value in an output port. When the reset port is triggered the current minimum value is stored in another output port and the first output port is reset. The maximum accumulator does the same for a maximum value.	Implemented
#1501	Enhancement	Stop Watch unit	The WEB-PLC should feature a Stop Watch unit.	Implemented
#1548	Enhancement	Allow arrays of different data types and lengths to be connected in diagram	The WEB-PLC editor does not allow to connect two arrays that have different data types or length in the diagram. This should be allowed.	Implemented
#1571	Defect	Description field is always updated for the Values and the Interface node at startup.	The option to not update the description field for the I/O drivers, should also affect the underlining Value nodes and the Interface node. This option should also be documented in the help website.	Fixed
#1590	Defect	Editor shows changed variable configuration before it is active	To accept changes to the variable configuration the device must be rebooted. However the editor provides the changed variable configuration in its menu before the device has been rebooted. If the changed configuration is used in the diagram, a wrong variable may be accessed or the diagram may not run at all. The error message "PLC Driver: Invalid variable index" is shown in this case.	Fixed
#1600	Enhancement	Variables and outputs should be reset when a new program is saved	When a new program (diagram and/ or I/O mapping) is saved, all variables and outputs should be reset (set to zero or empty string). So when the new diagram is started it behaves the same way as when it starts after a reboot.	Implemented
#1621	Defect	Editor does not accept string constants with more than one double-quote	The WEB-PLCs editor does not accept string constants that contain more than one double-quote ("). The message "Diagram: Hash mismatch" is shown.	Fixed

Component: WEB-PLC – General

(15 matches)

Ticket	Type	Summary	Description	Solution
#1285	Enhancement	Disable AutoIP	The AutoIP feature should be disabled. AutoIP assigns a random IP address from the network 169.254.0.0/16 if no IP configuration can be assigned through DHCP after about one minute. This functionality is useful when connecting the Ixxat SG-gateway to a development PC through a cross-over cable. However it may cause problems in productive environments when there has been a power outage and the Ixxat SG-gateway is up again before the DHCP server is.	Implemented
#1402	Defect	IEC 60870-5-104 Server: "Transmission cause false" after Counter interrogation command	If the IEC 60870-5-104 Server has the types "15 Integrated Totals" and "37 Integrated totals with time tag" and receives a "101 = Counter interrogation command" with "Qualifier of interrogation" = 5 (General counter interrogation) and object address 0, it answers with Cause of transmission 0. Additionally the type 37 is transmitted as type 15.	Done
#1412	Enhancement	Port to SC1x5	The WEB-PLC should also run on Ixxat SG-gateways based on the SC1x5 processor.	Implemented IEC 60870-5-104 is not available on SC1x5 processor based Ixxat SG-gateways, yet. See #1570
#1428	Defect	Update package with cellular modem configuration produces undefined behavior on device without cellular modem	When a configuration update package that contains the configuration for the cellular modem is applied to a device that doesn't have a cellular modem, the device will still try to initialize the cellular modem. Depending on the hardware of the device, this may produce undefined behavior.	Fixed
#1434	Enhancement	IEC 60870-5-104: Support types 13, 32 and 35	The IEC 60870-5-104 client and server should support the types 13 (M_ME_NC_1), 32 (M_ST_TB_1) and 35 (M_ME_TE_1).	Implemented
#1456	Enhancement	Support other serial ports for Modbus RTU Slave	The Modbus Slave should be able to use other than the first serial line for Modbus RTU.	Implemented
#1463	Enhancement	Support other serial ports for COM server	The COM server should be able to use other than the first serial line.	Implemented
#1465	Enhancement	Use LCD of Ixxat SG-gateway HOME	The WEB-PLC should use the LCD of the Ixxat SG-gateway HOME.	Implemented

Ticket	Type	Summary	Description	Solution
#1518	Enhancement	Different LED behavior on SC1x5, SC1x8 and SC2x3	<p>On Ixxat SG-gateways based on the SC1x5, SC1x8 and SC2x3 processors the behavior of the LEDs should be changed as follows:</p> <ul style="list-style-type: none"> • LED - Run <ul style="list-style-type: none"> ○ Off: No diagramloaded ○ Blink slowly: Diagram loaded ○ On: PLC running ○ Blink fast: Error • LED - HMS Hub <ul style="list-style-type: none"> ○ Off: HMS Hub communication not active ○ Blink slowly: Connection being established ○ On: Logged in to HMS Hub ○ Blink fast: Error • Cellular modem <ul style="list-style-type: none"> ○ Off: Cellular modem not activated ○ Blink fast: Error 	Implemented
#1579	Defect	CODESYS Network Variables: Does not create HMS Hub nodes for all configured values	The CODESYS NetVars driver bundles all lists in one input and one output device and creates the values node path with the following schema "vXXX" where x is the index. Index is however reinitialized for each list, and thus overlapping paths are created and consequently when more than one input or output list is used not all values have a HMS Hub node representation.	Fixed
#1581	Defect	CODESYS Network Variables: List COB-ID property should be a non-negative integer	Currently there is no check that the list COB-ID is a non-negative integer.	Fixed
#1585	Defect	OpenVpn misconfiguration may lead to reboot for SC1x3 and SC2x3	On SC1x3 or SC2x3 processor based Ixxat SG-gateways when the OpenVpn configuration includes files (ca.crt, cert.crt, cert.key etc.) but the files where not uploaded to the device, each attempt to start the OpenVpn Drv will result to a device reboot.	Fixed
#1593	Defect	Update and export don't work on SC2x3	On SC2x3 processor based devices update and export don't work.	Fixed
#1594	Defect	User-generated update packages may manipulate the firmware	User-generated update packages may be able to manipulate the WEB-PLC firmware.	Fixed
#1887	Defect	Cannot download update package via TLS/SSL without proxy	The WEB-PLC cannot download update packages from a TLS/SSL webserver without using a proxy. The HTTP CONNECT that would be sent to the proxy is being sent to the webserver.	Fixed

Component: WEB-PLC – Run Time System (7 matches)

Ticket	Type	Summary	Description	Solution
#1244	Defect	Modbus RTU Slave: Receiving invalid packets	The Modbus slave driver may receive invalid packets in RTU mode, if there are other slaves on the bus.	Fixed
#1437	Defect	The Meter interface of the Ixxat SG-gateway METER 2.1 does not deliver two values and the qualities are always bad	The Meter interface of the Ixxat SG-gateway METER 2.1 does not deliver the values Apparent power+ {LI} and Apparent energy+ {LI} and the qualities of all values are always bad (not the qualities in the HMS Hub).	Fixed
#1452	Defect	Modbus RTU Master and Slave can be configured at the same time	Modbus RTU Master and Slave can be configured at the same time. Since only either the Master or the Slave can use the serial interface, the two functionalities should be inter locked. Also see #1239.	Fixed
#1467	Enhancement	Modbus Client/ Master: Parallel request processing	The Modbus TCP Client and RTU Master should process requests on different serial lines/TCP connections in parallel in order to increase overall performance.	
#1617	Defect	PROFIBUS DP Slave driver does not allow enough array elements	The PROFIBUS DP Slave driver should allow up to 64 values and up to 128 array elements. So in theory you could define 64 arrays with 2 elements each. In fact the driver only allows 64 array elements.	Fixed
#1618	Defect	Retain variables are reset	Retain variables are reset at startup if the variables have been changed at least once. A change is needed to activate retain, so they will be reset all the time.	Fixed
#1632	Defect	Crash due to floating point values on SC2x3	On SC2x3 processor based Ixxat SG-gateways using floating point values may lead to a crash of the WEB-PLC.	Fixed

Component: WEB-PLC – Settings Website (24 matches)

Ticket	Type	Summary	Description	Solution
#1235	Enhancement	Export event log from website	The settings website should provide means to export the event log to a CSV file.	Implemented
#1287	Defect	Show Modbus Master RTU address constraints	The Modbus Master RTU does not show address constraints when adding or editing a device. Also the constraints are not listed in the help.	

Ticket	Type	Summary	Description	Solution
#1300	Defect	Modbus Slave: Cannot save RTU settings if TCP settings are wrong	Cannot save RTU settings if TCP settings are wrong, although these settings are mutually exclusive.	
#1342	Enhancement	Internationalized number format	In spite of the German translation of the WEB-PLC's user interface (see #1167), constants are still only accepted and shown in the English format (e.g. decimal dot). Examples for this are constants and the live view in the editor.	Implemented
#1348	Defect	Help does not work when other site opened in help window	When the help button is clicked on the WEB-PLC's website, a new window/tab is opened for the online help website. If one of the other websites is opened in this window/tab, the help button will not work anymore.	Fixed
#1362	Enhancement	Show cellular modem connection type	The type of the cellular modem connection (e.g. UMTS) should be displayed on the home page and on the HMS Hub.	Implemented
#1367	Enhancement	Up to 256 values for Modbus Server/Slave	The Modbus Server/Slave driver should allow up to 256 values instead of 128.	Implemented
#1369	Enhancement	Modbus TCP Client: Pre-fill default Server port	When configuring a new Modbus TCP Server on the Modbus TCP Client's configuration form, the default port 502 should be pre-filled.	Implemented
#1394	Enhancement	CODESYS Network Variables: Double-click on a list should open the edit dialog	A double-click on a list should open the edit dialog.	Implemented
#1396	Defect	CODESYS Network Variables: Missing comma after the name of the list	There is a comma missing after the name of the list, if the list has a name. The "Unnamed list" has a comma.	Done
#1415	Enhancement	Search help	The online help should provide a search.	Implemented
#1455	Enhancement	Up to 20 static NAT mappings	It should be possible to define up to 20 static mappings on the NAT configuration form on SC1x3. For other platforms see #1520.	Implemented
#1461	Enhancement	Support more than one serial port for Modbus RTU Master	The Modbus Master should be able to use more than one serial line for Modbus RTU.	Implemented
#1477	Enhancement	Configurable clock synchronization interval	The interval in which the system clock is synchronized (from the RTC or through SNTP) should be configurable.	Implemented
#1482	Defect	Nat configuration site showing wrong external interfaces	The network address translation configuration site is not showing the Ethernet (1) interface as an external interface at all. The Ethernet (0) interface is only shown if the device has an Ethernet (1) interface.	Fixed

Ticket	Type	Summary	Description	Solution
#1489	Enhancement	Online help should only contain information on features available on the concrete device	Currently the online help contains information on all functionality that may be available on any Ixxat SG-gateway device. It should rather only show information on features that are available on the concrete device.	Implemented
#1520	Enhancement	Increase several limits on SC1x5, SC1x8 and SC2x3	<p>On Ixxat SG-gateways based on the SC1x5, SC1x8 and SC2x3 processors, several limits should be increased.</p> <ul style="list-style-type: none"> • PLC <ul style="list-style-type: none"> ○ Maximum number of variables: 64 ⇒ 1024 ○ Maximum size of volatile variables: 32 kiB ⇒ 1 MiB ○ Maximum number of elements on the diagram: 256 ⇒ 2048 • Firewall <ul style="list-style-type: none"> ○ Maximum number of rules: 500 ⇒ 1000 ○ Maximum number of static rules: 30 ⇒ 50 • NAT <ul style="list-style-type: none"> ○ Maximum number of mappings: 500 ⇒ 1000 ○ Maximum number of static mappings: 10 ⇒ 50 • I/Os <ul style="list-style-type: none"> ○ Maximum total number of input and output values: 768 ⇒ 8192 ○ CODESYS network variables <ul style="list-style-type: none"> ▪ Maximum number of lists: 32 ⇒ 128 ▪ Maximum number of values: 256 ⇒ 4096 ○ EtherNet/IP Adapter <ul style="list-style-type: none"> ▪ Maximum number of groups: 32 ⇒ 128 ▪ Maximum number of values: 64 ⇒ 2896 ▪ Maximum number of values, counting each array element separately: 128 ⇒ 2896 ○ IEC60870-5-104 Client <ul style="list-style-type: none"> ▪ Maximum number of devices: 16 ⇒ 128 ▪ Maximum number of values: 128 ⇒ 4096 ▪ Maximum number of values, counting each array element separately: 512 ⇒ 8192 ○ IEC60870-5-104 Server <ul style="list-style-type: none"> ▪ Maximum number of values: 128 ⇒ 4096 ▪ Maximum number of values, counting each array element separately: 512 ⇒ 8192 ○ IEC61850 Server <ul style="list-style-type: none"> ▪ Maximum number of devices: 32 ⇒ 128 ▪ Maximum number of values: 128 ⇒ 4096 ○ M-Bus <ul style="list-style-type: none"> ▪ Maximum number of slaves: 32 ⇒ 64 ▪ Maximum number of values: 512 ⇒ 4096 ○ Modbus Client/Master 	Implemented

Ticket	Type	Summary	Description	Solution
			<ul style="list-style-type: none"> ▪ Maximum number of devices/slaves: 32 ⇒ 128 ▪ Maximum number of values: 256 ⇒ 4096 ▪ Maximum number of values, counting each array element separately: 512 ⇒ 8192 ○ Modbus Server/Slave <ul style="list-style-type: none"> ▪ Maximum number of values: 256 ⇒ 4096 ▪ Maximum number of values, counting each array element separately: 512 ⇒ 8192 ○ PROFIBUS DP Slave <ul style="list-style-type: none"> ▪ Maximum number of modules: 32 ⇒ 128 ▪ Maximum number of values: 64 ⇒ 488 ▪ Maximum number of values, counting each array element separately: 128 ⇒ 488 ○ PROFINET IO Device <ul style="list-style-type: none"> ▪ Maximum number of modules: 32 ⇒ 128 ▪ Maximum number of values: 64 ⇒ 1024 ▪ Maximum number of values, counting each array element separately: 128 ⇒ 1024 ○ SNMP Manager <ul style="list-style-type: none"> ▪ Maximum number of agents: 32 ⇒ 128 ▪ Maximum number of values: 256 ⇒ 409 	
#1532	Defect	PROFINET IO Device: undefined error message when downloading GSD file	If the "Download GSD file" button is pressed before saving the PROFINET IO Device configuration to the device, the following error message should appear "Sorry, you must save or discard any changes before you can download the GSD file"	Fixed
#1533	Defect	CODESYS Network Variables: List parser cannot parse lists with nested comments	If a CODESYS NetVars variable list contains nested comments, the parser of the WEB-PLC is unable to parse the list.	Fixed
#1584	Defect	CODESYS Network Variables: Network interface setting has no help entry	There should be help entry for the Network interface setting.	
#1603	Defect	Error pages with missing image	The error pages of the WEB-PLC (e.g. on error 404 "File not found") include a missing imagefile.	Fixed
#1620	Defect	Wrong values in firewall rule edit dialog for "other" service when language is German	When the language is German and a firewall rule with the service "Anderer" ("Other") is edited, the service is shown as "HTTP-Server" in the rule edit dialog.	Fixed

Ticket	Type	Summary	Description	Solution
#1631	Defect	Home page does not display communication error	In some cases the home page may not display a communication error when the device is no longer reachable.	Fixed
#1913	Defect	Exported update package cannot be applied	An update package exported from the WEB-PLC cannot be applied.	Fixed