



COMPAS CHANGELOG



Your Power Solutions Partner

Note: Only revisions with a code SOFT were released in production. The other versions were distributed to customers for upgrade when necessary.

Legend:

- + Added feature
- * Improved/changed feature
- - Bug fixed
- ! Known issue / missing feature

Revision 2.89.0.3 (31/10/2025) - SOFT_000031_126,SOFT_000146_67

- + Official support of MCU0x48 with OLED Display, with ACE104 & ACE105
- * Reworked inventory feature for better support of ACE105
- * Updated encryption libraries for compliance with latest standards
- * Support for PIC firmware update with more than 64k memory
- * Improved MCU firmware upgrade experience

Revision 2.88.0.3 (09/07/2025) - SOFT_000031_125,SOFT_000146_66

- + SNMP MIB now support enumerations for data
- * PMS Power Planning - display actual Intraday and Day Power
- * PMS Power Planning - Support for up to 16 consumers and 16 producers (previously 12 and 4)
- * PMS Power Planning - improve periodicity accuracy of the heartbeat
- * New PLC Function to read an uint32 as a float
- * Add MCU0948 led support for SP123 specific configuration

Revision 2.87.0.3 (21/02/2025) - SOFT_000031_124,SOFT_000146_65

- Fix rectifier auto-removal for ACE104. Bug introduced in 01/2024 with support of ACE105 with inventory mgmt.
- + Add support for Schneider PowerTag

Revision 2.86.0.3 (12/12/2024) - SOFT_000031_123,SOFT_000146_64

- * HTTPS WebServer - Restrict files api - Certificates cannot be downloaded for security reasons as it contains private key. It will return 403/Forbidden

Revision 2.85.0.3 (11/12/2024) - SOFT_000031_122,SOFT_000146_63

- Fix DE1 Site Number change that can break partially the equipment tree (reboot was the only way to fix)
- Fix possible startup issue on PXA300 in case of time series migration from version < 2.77.0.3 (avoid watchdog reset during upgrade)
- + Dynamic generation of the OpenAPI Json documentation for WEB API. File accessible at openapi.json and via Files->JSON Description

Revision 2.85.0.3 (11/12/2024) - SOFT_000031_122,SOFT_000146_63

- + CompasCF (win CE) - allow to set http port to 0 if you want to restrict to https
- * Modbus master - When detecting inchoherent request/response on gateway, re-start the connection

Revision 2.84.0.3 (27/09/2024) - SOFT_000031_121,SOFT_000146_62

- + Cybeseurity: Implement trust store for XML posting over TLS. If at least one CA is configured, post will be canceled if the server is untrusted.
- * Fixed timing issues with Modbus RS485 on communication with some third party devices like Drago

Revision 2.83.0.3 (31/07/2024) - SOFT_000031_120,SOFT_000146_61

- + XML Posting - Support for HTTPS on windows CE platform
- Fix MCU30110 configuration with 96V rectifiers
- Fix wrong value in time series fifo consolidation when data not available (NaN)
- * HTTPS Webserver - Improved live changing of configuration/certificate
- + Modbus Agent - Add support for writing string enum types when convertible to short
- + HTTPS Webserver - Add UI page to upload certificate
- + HTTPS Webserver - Add UI page with installed certificate information
- + HTTPS Webserver - Support for upload of private key before the certificate (For managing certificate requests)
- Custom Website - fix broken api calls in release 2.82.0.3

Revision 2.82.0.3 (29/01/2024) - SOFT_000031_119,SOFT_000146_60

- + PLC data - Add support for Unit
- * PLC data - Display only first 2 decimal when float
- * Modbus write - fix write error when unit is percent and target data is uint and not float
- * Webserver - Improvement of large file upload, remove the need of temporary storage
- * Webserver - Improvement of large file download from user-upload folder
- * Webserver - Global performance improvements
- * ACE105 - Improve inventory mgmt, keep last state of AC-Fail alarm
- * Web UI - Filter group/subgroup dropdown list are now sorted by alphabetic order
- * Get MQTT broker ip from DNS on each connection attempt. Was run only once previously. This was an issue if server ip changed.

Revision 2.81.0.3 (08/10/2023) - SOFT_000031_118,SOFT_000146_59

- * Display group/subgroup of events in equipment dashboard
- Fix possible exception when adding event from another thread
- * site.xml generation - do not include data records of disabled data
- * Faster init of controller extension features when modified

Revision 2.79.0.3 (03/10/2023) - SOFT_000031_117,SOFT_000146_58

- * Improvement of the connected assets features
- * Improvements of the track circuits UI
- * Improvements of the T4S and T2S support
- * Add support for CSV data record consolidation by period
- + Add a quick setup controller web page
- * Specific - Track Circuit wording changes

Revision 2.78.0.3 (26/04/2023) - SOFT_000031_116,SOFT_000146_57

- + Initial Support of MCU0X48 with Oled display (300W)
- + PLC equation - new random function \$random(min,max)
- Fix support for SNMP write for legacy license 'asset'
- * Improvement of the network mask validation

Revision 2.77.0.3 (27/02/2023) - SOFT_000031_115,SOFT_000146_56

- + New protection against brute force authentication attempt
- + SNMP V3, adding CF70 for extra dedicated credentials
- * Web Server: Add X-Frame-Options to prevent IFrame Injection
- * ADIO10 - do not display invalid temperature and current values when sensors not connected
- SNMP - Fix CANOpenBusNodelds read, was returning 0
- + IOT Connection - Support for redundant connection Primary/Secondary
- + Internal optimizations of datetime (ToString,Parse,ToLocal)
- + Use UTC datetime internally
- + ISO8601 Datetime format is used for Local and UTC datetime
- + HTTP request support parameter 'timezone' to retrieve datetime in utc or Local time (XML,CSV,TXT,JSON)
- Fix broken Alarm Ack checkbox in Std Web UI
- MCU3048 - Fix rescue branch module count calculations

Revision 2.76.0.3 (16/08/2022) - SOFT_000031_114,SOFT_000146_55

- * SNMP - Improved MIB generation with special characters in element names
- + Add possibility to select dashboard elements to display
- + Support for SP0123 with MCU0948M4, specific id 3

Revision 2.75.0.3 (25/05/2022) - SOFT_000031_113,SOFT_000146_54

- MCU1X6 - Fix digital inputs 5->8 alarm severity configuration not being reloaded after restart

Revision 2.74.0.3 (19/05/2022) - SOFT_000031_112,SOFT_000146_53

- * Snmp - Improvement of SNMP walk / get next support for moving from one equipment to another
- * Snmp - Remove disabled elements in MIB generation
- * Snmp - Improved MIB-2 support

Revision 2.74.0.3 (19/05/2022) - SOFT_000031_112,SOFT_000146_53

- * PLC - Key are now case insensitive, allowing to use DAxx or daxx for example
- * Add FAN Warning for CAR30100TPA
- * Fixed json generation with special characters in site api
- * Bootloader - fix race condition allowing to start twice the bootload procedure with some firmware

Revision 2.73.0.3 (04/02/2022) - SOFT_000031_111,SOFT_000146_52

- * Snmp - Improved tables to have index matching element id. This allows to use permanent oid instead of reading all table.
- + Initial support for SP0123 with MCU specific id 3
- * Snmp - Datetime for Alarms and Event are now in YYYYMMddTHHmss format
- + Fixed not available Minimal SNMP Version for SET, for some specific license
- * Snmp - In tables, Name is now replaced by Group / Subgroup / Name
- + Https - Add configuration parameter CF28 to define minimal TLS version required
- * Alarm Set/Clear Delays allowed up to 200000 seconds, vs 10000 previously
- Fixed HTTP over MQTT communication with Armada when HTTP redirection to HTTPS enabled
- + Initial support for Data Record distribution statistics (disabled by default)
- * CSV export, use headers with name only by default instead of Group/Subgroup/Name concatenation, for some specific license

Revision 2.72.0.3 (21/12/2021) - SOFT_000031_110,SOFT_000146_51

- Error in permission of route /ws/site/set, security to be managed at lower level (Introduced in 2.71.0.3).

Revision 2.71.0.3 (02/11/2021) - SOFT_000031_109,SOFT_000146_50

- + Element Control: displays the reason why the command is not accepted, or other relevant info when command executing
- + Element Configuration: when value not accepted, displays the accepted range, or other relevant info
- + Optimization of startup speed, significant for PXA300
- + Support of ACE105
- Fixed UCC RS485 inventory string broken in 2.70.0.3
- Some float record could be corrupted when saved in XML (bug in ToString optimization -> new algo Ryu)
- + Support Http to Https redirection with CF27
- + Improved support for Polarium Batteries

Revision 2.70.0.3 (23/09/2021) - SOFT_000031_108,SOFT_000146_49

- + Support for CANOpen T2s with 110V TSI modules
- + Support for rectifier CAR30110TPA
- + Add generic PLC entries at energy system level
- * Support of PLC variable in LUA scripting
- Fix formatting issue in data record (float)

Revision 2.70.0.3 (23/09/2021) - SOFT_000031_108,SOFT_000146_49

- Fix ECOR1048TN Service Time limited to 16bits
- Removal of the Z at the end of datetime in UI
- Extended range for Extra Low voltage parameter for MCU30110 with 96V rectifier

Revision 2.69.0.3 (15/06/2021) - SOFT_000031_107,SOFT_000146_48

- Fix introduced bug for data record in days at 2.67.0.3

Revision 2.68.0.3 (25/05/2021) - SOFT_000031_106,SOFT_000146_47

- Fix 24V config template issue introduced at 2.58.0.3

Revision 2.67.0.3 (16/04/2021) - SOFT_000031_105,SOFT_000146_46

- * Extended api for data_records.csv
- Data record disabled by default could not be reloaded correctly after reboot
- * Improved Mib generator (sensors and actuators not part of es1)
- * Ready for future support of battery test low load timeout
- * New API to manage license and https certificate
- * Support for enable or not modbus write
- * Fixed possible http timeout on very slow connections
- * Support for up to 5760 minutes (4 days) battery test
- * Support for PLC equation with @(s_...) without site id
- * Add DE10 Location at site level, better support of snmp std sysLocation, sysContact, sysName
- * Reworked DC System dashboard to support rectifier with DC Input
- * Reworked DC System dashboard to support system without battery
- Data record CSV export was buggy when using fifo of different size, after a reboot

Revision 2.66.0.3 (19/02/2021) - SOFT_000031_104,SOFT_000146_45

- Depending on the size of the encrypted password, it was reloaded as a sha512 hash
- * Renaming various string to be more generic
- Increased timeout condition for CANOpen bootloader, and generating event on failure

Revision 2.65.0.4 (29/01/2021) - SOFT_000031_103,SOFT_000146_44

- * Energy meter - Removed specific debug files generation

Revision 2.65.0.3 (28/01/2021) - SOFT_000031_102,SOFT_000146_43

- * Renamed various Name/Group/Subgroup to be more generic
- * OS Upgrade reliability improvement for PXA300
- * Rectifier: hiding frequency if not available
- * Improving SNMPv3 compliance

Revision 2.63.0.3 (17/12/2020) - SOFT_000031_101,SOFT_000146_42

- * Adaptation of group/subgroup elements for rectifier
- * Improved support of ECOR1048TN in DC/DC mode

Revision 2.62.0.3 (15/12/2020) - SOFT_000031_100,SOFT_000146_41

- * SNMP - bulk request improved support
- WebServer - fixed bottom page time not refreshing with older browser
- * Improved Support of Bender IsoGen423
- * Reworked string management
- + WebServer - store some resource in memory only on first use
- * Improved performance for data_record.xml generation (up to 4x faster)
- * Usage of object pooling and cache to improve performance
- * Keep Modbus updated while preparing for shutdown
- + SNMP - site CF79 allows to add a standard Read community if more convenient than using users
- + WebServer - use of gzip for transferring all embedded resources to reduce network usage
- MCU-Dc System Default relay configuration was set to 0 for some alarms

Revision 2.61.0.3 (09/11/2020) - SOFT_000031_99,SOFT_000146_40

- * Http Server - adding connection and keep-alive in response header
- * Http Server - improved socket management
- * Data record, managing the float format according to data definition
- * ECOR1048TN - adding support for frequency measurement if hardware supports it
- * Implementation of alarms for Bender IsoGen423
- * Reworked network manager to support multiple interfaces
- * Updated encryption lib for MQTT TLS
- + Specific - MCU300 - Periodically sending modbus read counter to MCU for eth com monitoring

Revision 2.60.0.3 (07/10/2020) - SOFT_000031_98,SOFT_000146_39

- + Support of debug modbus_serial_entries.txt with SAM0X48
- * Updated XSLT ES202336 to convert site.xml to xls
- + Support of Smart Isolator V2
- Removing energy meters B21 extra debug causing many files creation
- * Improvement of some Html Tables
- * Improvement of modbus config elements support
- + Initial Support of Bender IsoGen423
- Fixed diagnostics.zip not containing site.xml from version 2.59.0.3

Revision 2.59.0.3 (08/09/2020) - SOFT_000031_97,SOFT_000146_38

- * Improved generic modbus support
- ADIO10 - fixed data id changed by mistake in previous release
- + Support for Hashed and Salted passwords
- * Improved Smart Isolator support

Revision 2.59.0.3 (08/09/2020) - SOFT_000031_97,SOFT_000146_38

- Initial Support of another vendor rectifiers
- + Improved Json API
- * Custom Power Planning Feature
- Fixed detection of legacy analog rect type
- Support of Keep-Alive to improve web server performance
- Fixed broken https feature since v2.56.0.3 + updated security libs
- Snmp V3 - When privacy key was set, it was not possible to remove it, only to change it

Revision 2.58.0.3 (17/06/2020) - SOFT_000031_96,SOFT_000146_37

- Fixed web basic authentication cancel issue, and logout
- * Reworked html generator to solve some html compliance issues
- * Creating new slow priority task manager to guarantee performance of the other critical tasks
- + Initial support for Smart Isolators
- * Updated javascript and css libraries and reworked file organization
- + New Menu (Controller->Configuration) allowing to upload user configuration or to apply template
- Fixed recently broken feature: Dc System Smart Remote off with ECOR1048

Revision 2.56.0.3 (19/05/2020) - SOFT_000031_94,SOFT_000146_35

- * Reworked MIB generator to support other types of equipment
- + Adding Log capability on RS485 for remote device investigation
- + Adding SOH calculation for ARTS batteries
- * Renaming some elements
- + Adding rectifier model in treeview
- + Support of https certificate upload with web interface
- + CDCWI/1048TN - Improved support allowing 8 modules with 2 shelves
- * Various CANOpen and CAN improvements for segmented transfer

Revision 2.55.0.3 (23/04/2020) - SOFT_000031_93,SOFT_000146_34

- OS/Bootloader upgrade did not work from 1.7.X version to another 1.7.Y
- * Optimization of thread management
- Zipped content of *.xml.zip was like site.xml.zip instead of site.xml
- Web UI: Fixed strange behavior of the waiting spinner when downloading files

Revision 2.54.0.3 (09/04/2020) - SOFT_000031_92,SOFT_000146_33

- + Snmp Agent: adding AuthFailure/Read/Write request counter DA61-63
- + Modbus Agent: adding Read/Write request counter DA155-156
- * Threads: better priority mgmt to avoid that any user interface could slow down critical core refresh
- * Logger: improved live configuration for investigation in the field
- Apply LAN configuration command was broken in previous release (2.52.0.4)
- * Web Server User Customization: support of querystring

Revision 2.54.0.3 (09/04/2020) - SOFT_000031_92,SOFT_000146_33

- * Web Server: Support of low priority processing. Heavy request like diagnostics.zip could lead to modbus unresponsiveness
- * Reworked CANOpen layer to fully support segmented transfer
- + Support of CANOpen node upgrade with Eafu file format
- + Support of bootloader/OS upgrade for VF platform
- * Moved Alpha DC system battery test controls from the 'System' to the 'battery' group (CT1 to CT4)
- + NiMH: Support for battery state of health features (impedance test & related)
- IOT MQTT: Fixed high CPU leak when broker refuses credentials - critical with Mosquitto broker

Revision 2.52.0.4 (19/03/2020) - SOFT_000031_90,SOFT_000146_31

- + NiMH - Initial support of impedance measurement and test for battery SOH
- + Adding pre-crash exception write to debug.txt to allow understanding unexpected application crash
- + Support of VF50 OS 1.7.X
- + Modbus - Support of numerical control element with holding registers starting at 5000
- + Support of debug log by feature for remote diagnostics
- + Adding crash test simulation support to validate hardware watchdog
- + Support for ECOR0348TN-2A
- * General improvement of task, threads and exception management
- * Internal code re-organization to support feature extension inside the CE+T group
- + Adding buzzer support if hardware supports it
- + Adding OpenAPI Http interface, with Yaml documentation
- + Rework of the Http Server to support token authentication with login page and web extensions

Revision 2.51.0.4 (13/11/2019) - SOFT_000031_88,SOFT_000146_29

- * Support of very slow connections for file upload (better socket timeout management)
- * Rewrite of the web server in full asynchronous mode
- * Electronic Node LVD: Description of the device is reloaded after bootloader upgrade
- * Inventory Management
- * Internal class re-organization to support Linux Platform
- + DC System: added CF78 : Battery Test Disable Low Voltage Alarms
- + DC System: added DA3 : Minutes Since Last Mode Change
- + Modbus: Support of new device id for Dc Converter System (21-24) and Energy System (91)
- + Site: Support of secondary IP address on the same Ethernet
- + Display of Digital Input Counters in ADIO10 linked to DC System
- IOT Mqtt: fixed cpu usage issue when Ethernet is not connected on startup
- IOT Mqtt: fixed exceptions issue when login/password is invalid
- + Dc Systems with UCC-ADIO10: support of Standard and Latched LVD
- + Initial support for CE+T Inview Gateway (Sierra, Iris)

Revision 2.51.0.4 (13/11/2019) - SOFT_000031_88,SOFT_000146_29

- SAM0x48 - Energy Meter B21 : Fixed random corrupted read values
- + Modbus: Support of configuration element write with holding registers
- * Internal string Management cleanup for translation

Revision 2.50.0.3 (01/08/2019) - SOFT_000031_87,SOFT_000146_28

- File Manager - Move of file was broken since version 2.48.3
- + File Manager - Allow deletion of records and other files
- Website - Missing blank in header Cache-Control could be an issue for old browser
- * IOT - Improvement of connection management + new Alarm with id 25
- * IOT - Upgrade to latest encryption libs
- + Initial Support for FID module
- + DC System - Support of conditional forced remote off with PLC condition
- Remote Off was not working correctly with CAR30110
- + Dc System with Nimh Batteries: support of new EndOfCharge Mode
- + IOT - Support of post live event sync (similar to XML Posting)

Revision 2.48.0.3 (21/05/2019) - SOFT_000031_86,SOFT_000146_27

- * Adding debug information for MCU 300V
- * Upgrade of JQuery Javascript library
- * Updated logo of Alpha Innovations SA
- * When using RS485 energy meters with SAM extension, reboot is not required anymore after upgrade
- * Fixed rare exception related to dual access to a CAN Bus queue, by adding an object lock
- * Improved debug logs for better CAN Bus diagnostic
- * Adding root debug.txt in diagnostics.zip generation
- + Initial support of 3kW DC/DC MPPT for solar applications
- * Improvement of the thread priority of the web server to allow reliable Modbus communication during diagnostics.zip download
- + Support of 32V rectifiers with MCU1x6 - Need manual configuration of the dc system parameters
- * Modbus was enabled by default with Premium license - New configuration element added to disable it unless configured, ok contains modbus specific license
- Modbus - registry containing the day information was not updated successfully because of breaking change related to NiMH

Revision 2.47.0.3 (09/01/2019) - SOFT_000031_85,SOFT_000146_26

- + Support Of ECOR3048TN with UCC and ADIO10 with CF93 = es1_dc1(0-0,111)
- + Specific: Support of consumption planing for IOT control
- + Support of extended CAN message
- + Initial Support of Outback MPPT charger

Revision 2.46.0.3 (08/01/2019) - SOFT_000031_84,SOFT_000146_25

Revision 2.45.0.3 (16/10/2018) - SOFT_000031_83,SOFT_000146_24

- + Support Of ADIO DIN 17 - Designed for NiMH battery monitoring
- + Support of NiMh battery for solution based on 1000W rectifier
- + Updated Alpha Innovations Logo

Revision 2.44.0.3 (03/07/2018) - SOFT_000031_82,SOFT_000146_23

- * Support of higher LVD Disconnection voltage configuration for customer specific need
- Saved LSS configuration was not always reloaded correctly after reboot
- + Compas IOT MQTT - New control CT171 to Apply Configuration Change
- + Compas IOT MQTT - Support of specific XML posting
- * Custom: Production planing older than 48h will be cleared when new command received

Revision 2.43.0.3 (19/04/2018) - SOFT_000031_81,SOFT_000146_22

- + Compas IOT MQTT Link with premium License
- + Sensors and Actuators: New features (AL61->AL67, CF46/56) for Access Control with SAM0X48
- + Sensors and Actuators: AL61->AL67 are disabled by default
- + Custom: Support of production planing for Co-generator.
- * MCU300 - Improvement of the alarm sequence at the end of the battery test with 2 batteries

Revision 2.42.0.3 (24/01/2018) - SOFT_000031_80,SOFT_000146_21

- Reload of data saved value like the battery information (Dc System) was broken
- * ARTS NiMh - Default value for some MCU parameters
- + Modbus - Support of PLC Data in Input Registers - Cast as short when possible

Revision 2.41.0.3 (06/11/2017) - SOFT_000031_79,SOFT_000146_20

- + Initial support of NiMh batteries from ARTS with modified MCU0348

Revision 2.40.0.3 (12/09/2017) - SOFT_000031_78,SOFT_000146_19

- Remote: alarm OVT available for remote type 14-15 - bug fixed

Revision 2.39.0.3 (06/09/2017) - SOFT_000031_77,SOFT_000146_18

- Fixed \$canid(node_id) plc function that was broken
- * PLC: \$canid(node_id1,node_id2,node_idX,...) function supports now multiple arguments. The function return the number of node that are really available
- * Support up to 30 PLC Alarms and Data by Equipment (20 previously)
- * Remote: alarm OVT available for remote type 14-15

Revision 2.38.0.3 (01/08/2017) - SOFT_000031_76,SOFT_000146_17

- * Inverter System (T2S) - New control element to reset the Fan Life Elapsed alarm

Revision 2.38.0.3 (01/08/2017) - SOFT_000031_76,SOFT_000146_17

- + Initial support of MCU0348NG
- + For a specific customer, 2 new description element (SP151)
- Fixed Signed temperature bug on SP172

Revision 2.37.0.3 (26/06/2017) - SOFT_000031_75,SOFT_000146_16

- * Improved dashboard of ADIO10- Adding data for temperatures, shunts, voltages
- * Clear All Data Records is now deleting also the \User\data_records.xml file, not only RAM records
- + Initial support of remote down converter type SP172 (remote type 14-15)

Revision 2.36.0.3 (16/05/2017) - SOFT_000031_74,SOFT_000146_15

- * Improvement of the CAN Bus Missing Nodes Alarm (missing LSS nodes, like T2S, can now generate the alarm)
- * Fixed some warnings for MIB validation
- + Support of Remote Sub-rack SP173 with LPS Remote
- * Re-branding to Alpha Innovations
- Inverter System - Alarm Id List: Filter now false specific alarm (244) - avoid false alarm
- 300W Solution - Fixed bug introduced in 2.35.0.3 - Impossible to change the battery current limitation (set to 0.7A) and battery capacity (set to 7Ah)

Revision 2.35.0.3 (17/03/2017) - SOFT_000031_73,SOFT_000146_14

- After upgrade to 2.34.0.3, Ethernet driver was switching in half-duplex mode, an additional reboot will be required if the issue is detected. (If the switch/router did not support half-duplex, the ethernet connection did fail)
- Fixed some SNMP entries related to Up Converter systems returning 0
- * Added description information about Electronic LVD Module at the DC system model (if present)
- * Added dashboard description/data for inverter system level

Revision 2.34.0.3 (01/12/2016) - SOFT_000031_72,SOFT_000146_13

- * Default rack for remote power feeding system is defined as CES48. This configuration element has to be configured for the CP053
- * Improvement of memory usage for cloud connection over ssh
- Under heavy can bus condition (T2s on the bus for instance), MCU could lose some messages. Control command could be lost, like the scheduled battery test.
- * Scheduled Battery Test - Event is generated when the scheduled battery test is canceled (due to recent power failure for instance)
- * Remote power feeding - Improvement of LPS36 Support

Revision 2.33.0.5 (25/10/2016) - SOFT_000031_71,SOFT_000146_12

- * Add custom function allowing to launch manually a new process on the Compass.
- Deactivate LSS if LSS range ID is 0-0.

Revision 2.33.0.5 (25/10/2016) - SOFT_000031_71,SOFT_000146_12

- Log-out button has been corrected for IE and chrome. For Firefox, you still need to close the browser.
- Correct an issue when uploading very small files.
- When deleting user folder on live system, it was not re-created which leads to a lot of problems.
- When a name is empty or not specified inside an XML post, it is not updated anymore to empty.
- When uploading a new FtpServer or starter to user-uploaded files, they were detected as a Compas release.
- * Visual Dashboard: Minor corrections inside DC systems and Inverter Systems.
- * Adding events when launching a battery test.
- * Improve the check of the OS before the update.
- * Improve support of OS 1.3 of our next-gen processor. The OS 1.3 is now installed by default.
- * Hide site -> CF9 with VF50, it is not implemented. - Obsolete feature.
- * Starter Embedded Version is now 2.26.0.3
- * It is now possible to update the FTP Server directly from Compas with File Manager.
- * FTP Embedded Version is now 2.33.0.3
- + Initial support of Cordex CXC HP 6I ADIO. This ADIO has supports up to 6 shunts measurements. Fields are subject to changes.
- + Initial support of Cordex CXC HP HV-ADIO. This ADIO has supports up to 6 high voltage output relays, 4 digital inputs, 2 temperatures, 2 voltages (+/- 300V DC), 1 shunt measurement, 1 ground default. Fields are subject to changes.
- + Adding Site-> CF150: Automatic restart of the controller using a Cron rule and a wizard.
- + Automatic reboot if memory is saturated.
- * Inverter System: communication reliability has been improved for version < 3.91 .
- * LSS: Better re-detection when a node was lost then recovered.
- + Initial support of Cordex CXC HP L-ADIO. This ADIO has supports up to 12 outputs relays, 8 digital inputs, 4 temperatures, 4 voltages (+/- 60V), and 4 shunts measurements. Fields are subject to changes.
- * For Specific Customer: New control to configure alarm set/clear delays by Track Circuit.
- * LSS: Faster discovery of systems.
- * Update of third-party drivers and modules is now automatic at start-up. You may be asked to restart Compas after an update in order to finalize the update.
- * It is now possible to update the Starter directly from Compas with File Manager.
- * FileManager shows more folders : root and AutoRun.
- * FileManager shows only non-empty folder.

Revision 2.32.0.3 (16/09/2016) - SOFT_000031_70,SOFT_000146_11

- For Specific Customer: Flag internal OK was updated for the new symmetry value reading.
- * ADIO SP0151 - Integration time max value is now 60s instead of 20s.
- Improvement of modbus slave protocol for writing coil. Now, a command is done directly even if there is no reading.
- + WEB-UI: New popup button feature to view the dashboard schematic.

Revision 2.32.0.3 (16/09/2016) - SOFT_000031_70,SOFT_000146_11

* Upgrade of the visual Libraries. Improvements are mainly made on the CP053 and remote site view.

Revision 2.31.0.5 (26/08/2016) - SOFT_000031_69,SOFT_000146_10

- No changes. This release is used as production release for 2.31.0.3.

Revision 2.31.0.3 (24/08/2016) - SOFT_000031_68,SOFT_000146_09

- Prevent Cordex UCC system to regulate the current if there is no declared battery.
- Correct a race condition inside smart energy on Cordex UCC systems.
- Do not trim extension in custom website when using the drop-zone.
- * ADIO SP0151 - Support of alternative methods to detect Free/Busy state
- Lua: When global scripting status was disabled on live systems, active scripts were not showed anymore.
- * Add support for OS 1.3 of our next-gen processor. This OS corrects minor bug with RS485 and improve the overall speed of the device.
- * SNMP: Updating the MIB with the new Alpha-Technologies address.
- * Lua: download link is corrected.
- * Lua: better management of the Garbage Collector.
- * By default, the Pulse Counter 4 (MCU DC system -> DA204) is not recorded anymore. Since the default configuration of version 2.0.0.3 to 2.8.0.3 was to store hour data for one year, we added an automatic configuration update that will reduce the number of hours records to two days. Day records are untouched.
- * Update of the graphical libraries for custom Website.
- * Add a delete link inside custom Website.
- * Add support of the drop-zone (Scripting, Custom website) for Internet Explorer.
- + For Specific Customer: reading computation of the equation needed for alarm "Discharge resistor Failure". Configuration needs to be upgraded to take in account this PLC.
- + Cordex DC system using UCC can support more than 2 ADIO10 for current measurement.
- + Adding tools in order to act manually on the CanBus remotely.
- + New Visual Dashboard for solar systems.
- + New Visual Dashboard for inverter systems.
- * Update of the DC system visual dashboard. This new dashboard must reduce wrong interpretations of the data.
- * Improve bandwidth usage when browsing through the web interface.

Revision 2.30.0.5 (23/05/2016) - SOFT_000031_67,SOFT_000146_08

+ Add initial support for CXRF48-350 rectifier.

Revision 2.30.0.3 (17/05/2016) - SOFT_000031_66,SOFT_000146_07

- * Custom Website: Edition is now done in another window.
- HTTPS (beta): Correcting a regression preventing https to start if it has never been started before. The bug was introduced on version 2.26.0.3.

Revision 2.30.0.3 (17/05/2016) - SOFT_000031_66,SOFT_000146_07

- * PLC equation now supports the usage of short data and alarm designators. These two syntax are now supported : @(data1) @(da1).
- * ADIO10: Refresh speed of digital inputs has been increased.
- * License: On SAM extension, a meter can be added directly after a license update/reload (without reboot).
- * ECOR1048TN: Efficiency curves have been updated in order to have a good calculation of SmartEnergy.
- * ECOR1048TN: SmartEnergy supports a new mode allowing remote off the rectifiers without cutting down the power. This allows the use of SmartEnergy without batteries.
- * For a specific customer, renaming some fields.
- * Lua: Timeout support for snmp request (GET/SET).
- * Lua: Edit of script is done in another window. This allows easier development with multiple scripts.
- * Lua: The function running callbacks inside the script returns now the number of executed callbacks.
- * Lua: New debug file for Lua scripts (included in diagnostics.zip).
- * Lua: Display script list inside the file manager.
- + Custom Website: It is now possible to add/update a file using drag and drop.
- + Lua: New function allowing the deletion of an equipment.
- + Lua: compas.http_request is now available and can be used inside lua script to make an http request.
- + Lua: SNMP Set is now available.
- + Lua: Automatic upload of a script, with a drag and drop of the file directly on the scripting zone.
- + ADIO8 - New Alpha product supporting Impulse relays, Digital input, Voltage input, 4-20mA measurement, Relay, Temperature.

Revision 2.29.0.3 (14/04/2016) - SOFT_000031_65,SOFT_000146_06

- Correcting a small issue with encoding inside the emulator.
- Remote Alarm Possible power feed reduced is corrected.
- + Beta release of Lua Scripting API V1.0
- * Email Link for support requests.
- * Diagnostics.zip contains more information.
- * XML Posting: The system now consider a successful post as a successful heartbeat.
- * Automatic recovery in case of some sub-process errors. This corrects an error with the event poster.
- * Upgrading VisualDashboard library (an animated arrow is now available).
- * In some rare circumstance, a request could use ipv6 and not ipv4 as expected.
- * A minimum of 10Mb is now required before starting a web remote upgrade.

Revision 2.28.0.3 (08/03/2016) - SOFT_000031_64,SOFT_000146_05

- * For a specific customer, define alarm set and clear delay to 0 by default
- * For a specific customer, replace 65535 value by -1 for nicer charts
- * For a specific customer, removal of some charts when related data is not enabled
- * For a specific customer, display additional information in charts (subgroup)

Revision 2.28.0.3 (08/03/2016) - SOFT_000031_64,SOFT_000146_05

- For a specific customer, it was impossible to set the severity type on ADIO7 using configuration file
- * CompasLua: Showing more of the stack inside the debug output.
- + Adding the possibility to use a GemproxP5 Badge reader on the RS485 BUS (UCC only)
- * DC system: It is now possible to set battery string capacity with one decimal.
- * Reset the up-time if the value is negative. (could happen with SNTP time refresh)
- * Refresh speed of ADIO7 digital inputs has been improved.
- + CompasLua: Automatic restart of a Lua script if it takes too much processing time.

Revision 2.27.0.5 (01/02/2016) - SOFT_000031_63,SOFT_000146_04

- Lua Correction of time function and edition of data
- Specific customer license detection added

Revision 2.27.0.3 (28/01/2016) - SOFT_000031_62,SOFT_000146_03

- * Configuration exchange processes have been reviewed and is now much more efficient.
- In some circumstances, upgrade all firmware button were only upgrading the first device.
- Specific customer flag "Internal OK" is set only if all the system was tested
- * Refuse to set radius server if license is not premium. (command_cancel message is given)
- * Adding a cancel bootloading link on inventory page (visible only if the bootloader is active).
- * Speed control of messages on the can CAN have been improved.
- * Unlock CompasLua API with ultimate License.
- * Add a better check on the SNTP refresh time parameters.

Revision 2.26.0.3 (06/01/2016) - SOFT_000031_61,SOFT_000146_02

- When Peukert is not set (equals to 1), we have to consider the time-out as a battery test fail.
- Correcting DC System -> DA82: Minutes since last battery test: showing correctly the total number of minutes (before, it worked only the first hour).
- Correcting DC System -> DA73: Battery test discharged capacity ratio was always 0.
- In some circumstances, DC System -> AL13: Battery Last Test Failed was triggered when the test was success.
- In some circumstances, a firmware file could not be uploaded through the web interface
- Correcting a view compatibility with Armada.
- Minor corrections for compatibility with the new generation of processor
- Correction of a small memory leak inside visual dashboard.
- API - ProcessXml.cgi : Data elements were not correctly saved.
- Specific customer flag "Internal OK" has been corrected
- DC system and Inverter system will no longer include severity of child.
- In some circumstances, a license file could not be uploaded through the web inter-

Revision 2.26.0.3 (06/01/2016) - SOFT_000031_61,SOFT_000146_02

face

- * Adding automatic reset of communication when another equipment than Compas send NMT Request
- * Details of previous battery test is now available (DC System -> Data).
- * Diagnostic file contains more information's.
- + Support a new bootloader for our next generation of high performance rectifier.
- * Many improvements in the WebServer.
- * Use 2048 bits by default for HTTPS system.
- * Automatic correction and update for some parameters. When a correction is done, an event is added inside the related equipment and AL15 is triggered at site level.
- * Many UI improvements.
- * API - ProcessXml.cgi : record_conf is now available inside the API
- * Adding the duration of the battery test inside data (DC System -> DA76).
- * Prevent a bad DC system configuration: It is now impossible to configure the battery test end voltage below the low voltage disconnect (LVD).
- * More information are available about software system (Site-> Description).
- * Add help text inside the renaming page.
- * Adding a page allowing easy configuration of FTP server V2.
- * Adding a wizard in order to calculate the Peukert Number.

Revision 2.25.0.3 (03/09/2015) - SOFT_000031_60,SOFT_000146_01

- Fix a rare bug that can generate bad messages on the can bus with SAM.
- On rare condition event log where not well reduced.
- * Better validation of armada Post url.
- + SNMP server is now supporting several server using a coma.
- + Initial support of our new generation of processor.

Revision 2.23.0.3 (18/08/2015) - SOFT_000031_58,SOFT_000VYB_01

- Wizards are not always working as expected when site id was not 1
- Add "disabled" in mib alarm severity
- Sync with my computer was not working as expected in some rare cases
- * Implement alarm severity type and level change via SNMP
- Custom Json Get/post fixed
- * Support fallback server in radius authentication
- * Renaming page : List of all renamed elements.
- Remote site addresses bug is now corrected

Revision 2.22.0.3 (23/06/2015) - SOFT 000031 57

- * Better firmware files check before a firmware update
- * Better language multi-language support
- * Responsive design improvement
- * Improvement of the SVG API
- * Improvement of emulation capabilities
- Fix javascript bug introduced in version 2.21.0.4
- * Wizard Sync With My Computer

Revision 2.21.0.4 (05/06/2015) - SOFT 000031 56

- Battery test : Alarm is no more active during the test (with more than one battery string)

Revision 2.21.0.3 (02/06/2015) - SOFT 000031 55

- * Identity of user is now registered when there is an alarm acknowledgement
- * Add a link to the default page on logout
- * Memory size estimation improved into the record configuration wizard
- * Defining a start-up language is now possible by changing the default page
- + Beta support of remote system with LPS36
- + Beta support of linking ADIO7 in Remote Power Feeding System
- * Improvement of the SVG and JSON API - to be documented soon
- Fixed voltage alarms on specific systems with CAR rectifier and no MCU

Revision 2.20.0.3 (29/04/2015)

+ Support of Https XML Posting

Revision 2.19.0.3 (23/04/2015) - SOFT 000031 54

- * Track names improved
- * New production Release using BSP 4.2
- * Memory Usage Optimization (2)

Revision 2.18.0.3 (01/04/2015) - SOFT 000031 53

- In some case, a rectifier in remote off can trigger AL10 (One Rectifier Failure)
- * Update OS now visible in file system
- * Download a file to user-upload folder directly in file manager
- * States (of data) can be saved automatically to be kept after reboot (used for Battery test end voltage and Discharged Ratios)
- * Checking and creating user folders at startup
- + Beta Radius Authentication Support (with new Premium License)
- + Beta release of HTTPS (SSL) (with new Premium License)
- IE11: file upload box now with right size
- * DC System -> DA82 (Minutes since last test battery) is reset when a battery test is ended
- IE11: Inventory update is fixed
- XML post event enable parameter (site-> CF41) is now working as expected
- IE11: Upgrade of compas is fixed
- IE11: Alarm ack spinner blocked if double click is fixed.
- + Support of new rectifier using SOFT 000133 XX
- + Support of ECOR1048TN
- + Possibilities to change the green/red led behavior on UCC
- * DC System -> AL20 (Battery Temperature Sensor Fail) now also triggered if the battery probe is shorted

Revision 2.18.0.3 (01/04/2015) - SOFT 000031 53

- * Site -> AL2 (CAN Bus Addressing Error) now trigger the alarm AL11 (Controller Re-boot Required)
- * Visual validation of changes : Orange if modified, green if saved, red if not saved.
- * Default value of CF92 LSS id : 50-80
- * Memory Usage Optimization

Revision 2.17.0.5 (17/03/2015) - SOFT 000031 52

- Battery - Last test failed alarm now working when used with Peukert test.

Revision 2.17.0.3 (30/01/2015) - SOFT 000031 51

- + Added wizards for admin and user configuration (login/password) - was not very user friendly
- Fix Chrome display error (control button)
- * Improved string validation of some configuration elements
- * Energy Meters - Summary is now available in dashboard
- + SNTP - Time Server - New configuration element to change the refresh time and refresh time recovery (CF15-16)
- Records - Recording was disabled when the can node was removed for some time (rare condition).
- + Diagnostics.xml - site.xml - only site level was saved - now all levels
- + Excel - site.xml.xls - XSLT conversion supports now inverter systems, remote power feeding systems and energy meter
- Excel - site.xml.xls quick link in top bar was returning site.xml.zip
- Excel - site.xml.xls (excel conversion of site.xml) had some compatibility issues with Excel. Fixed.
- + Records - Records wizard added to help you to understand and configure the record system.

Revision 2.16.0.3 (03/11/2014) - SOFT 000031 50

- + Web Interface - New tab - Controller -> Licenses gives information about your licensing options
- + New Metering License - Support Different Energy Meters over RS485, with UCC or SAM0X48 boards - See User Guide
- Web Interface - Equipment in 'critical' alarm were not in red in the site tree, warning, minor, major were correctly managed.
- + Modbus Interface - Support for Inverter System, Site, Sensors and Actuators (Only Dc Systems previously)
- Fixed possible deadlock when manually clearing the events.
- * Improvement of 300V DC system features with 2 strings and 2 LVDs
- * Minor improvements of the Modbus Interface
- + Changes for Operanet Project
- + License - Multiple licenses can be installed. This allows to buy upgrade more easily
- Dc System - Bug introduced in 2.14.3 canceled all control executions
- Fixed small memory leak in rare circumstance (when adding and removing a device 100 times a day)

Revision 2.15.0.3 (02/10/2014) - SOFT 000031 49

- * Remote Power Feeding - Changes to display Power instead of Current with new Remote All In One
- + Documentation - documentation.xml.xls allow to get the documentation of a live system in Excel.

Revision 2.14.0.3 (25/09/2014)

- + Support of CAR30300TP
- + Support of Controller 300Vdc
- + Support of PMM0824FP02
- Remote Power Feeding - Remote Site - Number of Configured Power Lines was always 0
- * Remote Power Feeding - Remote Site - Record of current enabled by default
- + DC-System : Better Algorithm for Battery Autonomy Calculation - New configuration parameters: CF30,38,39
- + Dc-System: Battery Test - When Peukert number is configured, the battery test is done by defining a time instead of a ratio of the capacity
- + Support of Remote All In One - 250W

Revision 2.13.0.3 (02/09/2014)

- + Initial Support of PMM0824FP02
- + Support Of Remote All In one - Rev1
- + Initial Support of Controller 300Vdc
- + Initial Support of CAR30300TP

Revision 2.12.0.3 (20/08/2014) - SOFT 000031 48

- + Initial Support of SAM0348

Revision 2.11.0.4 (24/07/2014) - SOFT 000031 47

- Event name was not correct for alarm related events. 'Alarm Clear/Set/Ack :' was missing - Bug introduced in 2.9.0.3.
- The fix introduced in 2.9.0.3 about event memory leak had broken the correct behavior of the event_flat.xml log cleaner.
- * Boot-loader - Improved 'Upgrade All' Bootloading reliability. (The sequence could get stuck with a race condition on the node reset)
- * Bootloader - Improved Can Bootloading reliability on old hardware without interrupt line for the can driver
- * Bootloader - No need to reboot after Cordex Rectifier Upgrade
- + New alarm 'Running CAN Firmware Upgrade' (AL5) at site level during any CAN Bootloading
- + New events are generated with information about the bootloading start and stop.
- + New description 'CPU Info' (DE93) at site level to help support in case of investigation

Revision 2.10.0.3 (16/07/2014) - SOFT 000031 46

- * Edit mode is not anymore accessible for rectifier and inverter equipment (Because change is not saved)
- * Removed unused alarms for 300W rectifier

Revision 2.9.0.3 (11/07/2014) - SOFT 000031 45

- Memory - Fixed small memory leak critical for systems generating many events (> 5000/day)
- * Emulator - Each emulator option store now 'flash files' in a subfolder corresponding to emulation id
- * Emulator - Possibility to define the FlashPath for integration and unit testing

Revision 2.8.0.5 (26/06/2014) - SOFT 000031 44

- + Web Interface - Waiting popup is now shown for long operations (Save Configuration, Upload file, Send mail, etc). It avoids clicking somewhere else when request is not complete.
- Memory - Fixed memory leak when equipment's are powered and un-powered many times a day, like with alternative energy sources. (Could slow down or event reboot the Compas after a few weeks)
- * Debug - Internal generic object counters allows detecting possible memory leaks at runtime.
- * File Manager - Displaying now 'Write Time' instead of 'Creation Time'.
- Web Server - 'ContentEncoding: gzip' was sent in header when downloading .xml.zip files. This was an error. (Fix issue with IE, it was ok with firefox and Chrome)
- + Support - New zip file 'diagnostics.zip' can be generated on the fly for investigation by Alpha Innovations SA in case of issue. (Available in Files menu)
- * Bootloader - Support of 'Upgrade All Compatible' with file format with comments like 'SOFT_0000YY_XX_some_comments.txt'
- Email Support - Automated mail was sending too many emails
- + Data Records - Start/Stop Auto Refresh of the charts.(to allow zooming)
- + Data Records - Support of Zoom in/out and span in charts.
- Site Alarm 'XML Heartbeat Post Failure' was not working as expected.
- Data Records - Sometimes, the tooltip displaying the value on mouse over did not disappeared when mouse was removed.
- XML Event Posting - Fixed memory leak if XML POST is configured to inexistant server for a long period of time, with a small timeout
- Web Interface - Elements Entries under development, with license 'underdev' where shown in the interface since version 2.X (but not usable)
- * Data records - Support for disabling data record enabled by default, and check for some critical records
- * Data records - Memory Usage optimization, some records vector could be duplicated

Revision 2.7.0.5 (13/06/2014) - SOFT 000031 43

Revision 2.7.0.5 (13/06/2014) - SOFT 000031 43

- CAN Bus - New Alarm 'CAN Bus Addressing Error' was too sensitive (race condition).
- * Dashboard - Data records shown for Cordex 4kW and 2.4kW Systems

Revision 2.7.0.4 (11/06/2014) - SOFT 000031 42

- Webpage - DC System - Dashboard diagram box was too big with Chrome Browser
- + Debug - All the debug files can be retrieved in one text file (for issue investigation)
- + CAN Bus - New alarm 'CAN Bus Addressing Error'. This helps detecting configuration problems. The alarm will disappear only if you remove all the node that are related to the duplication. (See inventory to know which one is duplicated)
- + Email Support - On event with a configured minimal severity, summary mail can be sent to multiple recipients. (need 'asset' License)
- + Controller Upgrade - Support of zip file upgrade, with possible MD5 Checksum validation (if file compas.exe.md5 available in zip.)

Revision 2.6.0.5 (17/04/2014) - SOFT 000031 41

- + Alarms - Acknowledgement feature. Each alarm can be acknowledged. This will allow smart filtering in Arm@da between new alarms and managed alarms.
- + Alarms - Acknowledgement feature - Generation of events on ack/un-ack of an alarm (type= alarm ack / alarm un-ack).
- * Web UI : Alarms/Events - Long event names are now split in multiple lines
- Delta Data Record : solved bug in XML generation (Wrong write format used for RAM records)
- PLC equation with @(alarmXX) on relay boolean condition was broken on ADIO10
- * Web UI: Solved top menu Drop Down issue with Internet Explorer 9
- Web UI: Alarms/Events - Event name button link was always referring to site level instead of the right equipment
- * API - ProcessXml.cgi : if clear/set delay, relay, severity_level/type is not defined, the default value is not reset anymore. Only the sent attributes are updated.

Revision 2.5.0.3 (09/04/2014) - SOFT 000031 40

- Web UI - CSS: with some webpage width smaller than 980px but larger than mobile version, some menu was hidden.
- Web UI - javascript: Solved possible race condition on initial load
- Web Server Socket - Under some very rare race conditions, socket could reply twice with the same response to different requests

Revision 2.4.0.3 (04/04/2014) - SOFT 000031 39

- + PLC - support of equations with strings. Example to link dc system relays with inverter system 1, to define in the alternate condition:
@(es1_invs1_severity_type)="major" || @(es1_invs1_severity_type)="critical"
- * Inverter System: Improvement of the group and subgroup strings to have a more user friendly user interface. It is needed to reset default Name/Groups/Subgroups if there is already a saved configuration.
- 1-Wire humidity sensor: under some rare circumstance, corrupted value could be

Revision 2.4.0.3 (04/04/2014) - SOFT 000031 39

read - timing issue solved.

* Data Record - Delta record is now immediately available after configuration change. Previously, a least one append to file was required

- CanOpen - Inventory - LSS CAN id range configuration was broken, required to mix T2S with CAR systems (Mixing static and dynamic CanOpen addressing)

Revision 2.3.0.3 (31/03/2014) - SOFT 000031 38

+ TCP/Ip - New configuration element allows to define the Maximum Transmission Unit (MTU)

* Improved Speed of Can Node type detection

+ SNMP - Possibility to modify the trap content, by sending additional site description.

+ SNMP - Developers have the possibility to link data to alarms, to send them with the trap.

+ SNMP - Some data MIB entries described as Integer32 were transmitted as OctetString

Revision 2.2.0.3 (12/03/2014) - SOFT 000031 37

* New Control element 'Clean and Save XML User Configuration' allows to remove from configuration information about devices that are not present anymore.

* When saving configuration, old element ids of live equipment are removed, this allows to clean if another type of ADIO has been installed, with different features

* Better Factory Testing support for UCC (RS485 and RS232 are now automatically tested)

- XML Post - Seconds between two XML Post was not correctly handled)

* SNMP - Get of site data date and time was returning empty value. (Datetime format was not correctly supported)

* Schneider PM9C and IEM3150 RS485-devices are now seen as Energy Meter in the ETSI structure

- Renaming tool in the web interface was buggy because the page was self-refreshing while editing

* Site --> in tab view, 'All' selection will also select the Description, Data, Alarm, Config and Control to understand the concept easily

+ Dashboard support multiple dc systems

+ Support of \$iif(condition, val if true, val if false) and \$case(condition, val, condition2, val2, ...) functions in PLC equations

+ Support of Data Record on PLC Data

- Logout page link was pointing to old version of webpage

- Web server redirection could loop if the default web page was forced to blank.

* Summary renamed to Reports

Revision 2.1.0.3 (25/02/2014)

* Improved can drivers

* Minor changes

* Refactoring code for future improvements

Revision 2.0.0.3 (19/02/2014)

- * Support of SP0155/01 and SP0155/02
- * Group and Subgroup allows filtering
- * Many other new features
- * New web interface - for old, go to index_old.html
- * FIRST RELEASE OF COMPAS '2.0.' - SUBJECT TO MINOR CHANGES
- * Major CPU and Memory Usage Optimization

Revision 0.126.0.4 (03/09/2013)

- * Emulation - added configuration 54, UCC + 15 x Adio7

Revision 0.126.0.3 (23/08/2013) - SOFT 000031 36

- * ADIO - Support up to 16 ADIO board as sensors and actuators by default
- * XML Posting - Possibility to select which table must be sent on event. (description, alarm, data, configuration, control)
- * Site: Drop-box for the configuration of the Time Zone
- * Sensors and Actuators - SAM0948 - Added hysteresis parameter on some alarms related to temperature, humidity and tilt
- + DC System - Support of scheduled battery test (based on CRON rules)
- CAN Driver is now compatible (was broken for 1 year) with first generation of compas board (blue card)
- + Support of wizards (first used to help defining the cron rule)

Revision 0.125.0.3 (05/08/2013) - SOFT 000031 35

- + Remote Power Feeding: Support of new Module 60W/190V
- Set/Clear delays of alarms were divided by factor 2 because the alarm calculation was called twice.

Revision 0.124.0.3 (28/06/2013)

- + Allow to set MCU specific configuration id. (Done in production, but allow to change in case of misconfigured MCU)

Revision 0.123.0.4 (13/06/2013) - SOFT 000031 34

- * Table documentation generator for T2s (Inverter), Cordex Rectifiers and Cordex Dc System

Revision 0.123.0.3 (30/05/2013)

- + Remote Power Feeding : Support of new Module REC009
- * XML Events and Armada: Alarm table was not sent completely. Real time for alarm clear events is now ok.
- * XML Events and Armada: Alarms are now correctly cleared for CAR rectifier, and sent also in realtime

Revision 0.123.0.3 (30/05/2013)

- * XML Events and Armada: After equipment creation, data sync is done for descriptions, alarms, data, events and configs
- Rack ACE102FALP - Module position issue with 2-slot distribution.

Revision 0.122.0.3 (09/04/2013) - SOFT 000031 33

- * SNMP - New oid entry 'xxxGlobalAlarmSeverityTypeInt' for each equipment level. It is the same as the 'xxxGlobalAlarmSeverityType' but as an integer (critical=4, major=3, minor=2, warning=1, none=0)
- * SNMP - Get next will now work from base oid iso.org.dod.internet
- SNMP - Walk was not going anymore inside the dc system. Broken in 0.113.0.3
- * SNMP - GlobalAlarmSeverityLevel of each equipment is now sent as an Integer (OctetString previously)
- * SNMP - renamed Mitra to Atsa in Mib due to company name change.

Revision 0.121.0.3 (21/03/2013) - SOFT 000031 32

- + Remote Power Feeding: Support of new 120W remote module.
- Cordex DC System: Solved transient dc mode changed to safe mode (bug introduced in 0.120.0.3)

Revision 0.120.0.3 (08/03/2013) - SOFT 000031 31

- * Inverter System - The system id is now saved with the CAN LSS information - allows to keep the same system order after a reboot
- * Cordex DC-System: Check that the voltage measurement has been refreshed recently, before regulating bus voltage.
- * Cordex DC-System: Improved bus voltage regulation - reduce possible 100mV oscillation with ADIO10
- * Inverter System - Optimization of the bandwidth usage to allow more inverter systems (up to 20 T2S - More should be possible after validation)
- * Inverter System - Added a 1 minute delay before creating the inverters to avoid id transient.

Revision 0.119.0.3 (19/02/2013) - SOFT 000031 30

- * Optimized version of the XML posting to Armada. Description, Data, Alarm, Config of the equipment are also sent.
- * Default Post XML timeout changed to 100 seconds (was 2 seconds)
- * Up Converter System: Set/Clear Delay of the slot alarm increased to 15
- Fix bug: element change event where not added to the correct equipment.
- * Remote Site - New control to copy address from the top site level (not the street).
- * Remote Site - Address is copied from Top Site on first creation

Revision 0.118.0.3 (23/01/2013) - SOFT 000031 29

- Fix bug introduced in 0.113.0.3 - If the site id is changed to anything starting with 1 like 11, 1021, etc. A stack overflow can happen at next reboot.

Revision 0.118.0.3 (23/01/2013) - SOFT 000031 29

* Inverter system - Support of ETSI XML posting for real time events in Armada.

Revision 0.117.0.3 (21/01/2013) - SOFT 000031 28

- Fix bug introduced in 0.116.0.3 about the data record xml generation)

* Remote Site: Alarms list is updated depending on remote system (no fan alarm with 60W module for example)

* Remote Power System: Alarms are now grouped

+ Web Server: Display the Site Name as title of the web page

+ Display the Serial Number of Cordex Rectifier and Inverters in the left menu and on top of the element tables, display the reference for systems

Revision 0.116.0.3 (16/01/2013) - SOFT 000031 27

* New parameters for site.xml, allowing to downloading only some resolutions of the records (day, hour, minute, second). By default, it retrieves only daily and hourly data records

+ Implementation of the periodic automatic battery test

* Finalization of the equalize feature for Cordex dc systems

+ Inverter system with T2S - New control element to Turn On/Off all modules

+ When the Site Name is configured, it is now the title of the web page. This needs a complete refresh of the web page (Ctrl-F5)

* New control elements to calibrate voltage and currents on ADIO10

- Fix for relay control problem on ADIO10 (introduced in 0.115.0.3 changes)

- Inverter system with T2S - Save to T2s is now more reliable

Revision 0.115.0.3 (20/12/2012) - SOFT 000031 26

- Reworked relay boolean condition on ADIOs. Possibility to configure normal condition as 'Energized' or 'De-Energized'.

- Some Alarm Set delay were not reloaded correctly after reboot, like the bus voltage sense failure

* Better support of T2S alarms

* Support of the T2S with Media Inverters

* Relay of Alarm 'Missing Rectifiers' can now be saved in MCU

Revision 0.114.0.7 (17/12/2012) - SOFT 000031 25

- PLC functions without arguments like \$second() where broken unless used as \$second(0)

* Better support of zip files generation (site.xml.zip). The files are now fully compliant (before, it was a compressed stream)

* Optimization of the Web Server - Faster and uses less memory when files are posted

- After a 'Clear All Events' or 'Clear Events', the events were not rewritten to flash, and were present again at reboot. (broken in 0.113.0.3)

* More robust and faster startup

* Reboot improved to reply to request, delayed by 10 seconds to allow events to be

Revision 0.114.0.7 (17/12/2012) - SOFT 000031 25

sent to Arm@da

- * Improvement of the DC bus voltage sense failure detection on Cordex
- * Better implementation of the data_record management. Thread safe and faster.
- If events.xml was corrupted, the system could never start without deleting the file
- Randomly, system could reboot at midnight during data records saving
- Digital Input alarm logic was inverted on ADIO 7-8-9-10. If you are using it, care required when upgrading.

Revision 0.113.0.3 (15/11/2012) - SOFT 000031 24

- * CEM03 - Remote Site can now have an id > 100 (up to 1000)
- + Cordex - Initial support of firmware upgrade
- SNMP - Traps content oids were shifted of 1
- * SNMP - Improved MIB compliance - Some oid related name were too long
- * Better implementation of the battery test for Cordex DC Systems
- * Improved RS485 modbus driver allowing different types of device on the same bus
- + Support of energy meter IEM3150 on RS485 bus
- + Initial limited support of Cordex Converters
- + Possibility to rename Name and Group of any element from the web interface
- + Group is now loaded from configuration.xml for any element, allowing total customization of name/group of elements
- + Events are now automatically saved in a flat file : events_flat.xml. events.xml is converted on first boot.
- + Introduced group possibilities for the alarm table
- SNMP walk was not working from top snmp node

Revision 0.111.0.5 (12/10/2012)

- Corrected bugs in Cordex regulation, load sharing was wrong if Can Id did not match rectifier id

Revision 0.111.0.3 (31/07/2012) - SOFT 000031 23

- + Initial support of Alpha CXC over SNMP
- * Allow to limit the request of one CAN message at the time (for T2S)
- + Support of multiple Inverter System (T2S)

Revision 0.110.0.3 (11/07/2012) - SOFT 000031 22

- * Better support of T2S inverter monitoring
- Changed unit of Rectifier Cordex 'Service Time'(s->m) and 'Converted Energy'(KJ->kwh)
- It was no possible to reset to empty the list of required node on the can bus (config Required CAN Bus Node IDs)
- CAN Driver - The can driver was crashing when there was only one node on the bus and it was removed
- CAN Driver - Randomly, a can message was corrupted because of an OS interrupt during SPI communication

Revision 0.110.0.3 (11/07/2012) - SOFT 000031 22

- * Better conversion from XML to XLS. (site.xml.xls) Can be used to generate a system user guide with the request : site.xml.xls?help=true&control=true
- * Remote Power Feeding - Possibility to define the number of CEM03 by rack, in master/slave configuration --> up to 64 racks
- + SNMP - Initial Support of monitoring of SNMP device like the Cordex CXC
- + New alarm at the site level to notify that the last configuration changes are not saved
- + New site control to remove absent equipment's
- + Introduction of 'Absent' status for Cordex Rectifiers
- + Auto detection of the rectifier model for smart energy
- + Support of 850W/1000W systems with embedded distribution.
- + Added possibilities to store a fix information about alarms
- * Remote Power Feeding - Added customer description element at the Remote Power Feeding System level

Revision 0.106.0.3 (22/03/2012) - SOFT 000031 21

- * Changed the versioning method to allow modifications of release - 0.106.0.3 is the version after 0.1.0.104

Revision 0.1.0.104 (15/03/2012)

- Remote Powering System was not detected anymore correctly - broken with 1.0.96
- * Remote Power Feeding system - New alarm is generated 'Configuration problem' when the slot is empty but there is a configuration
- CET Inverter were not detected anymore correctly -broken with 1.0.96

Revision 0.1.0.102 (23/02/2012)

- * Modbus Slave – Do not reply anymore until modbus variable are updated on dc system creation. This avoids to send transient 'fake' data

Revision 0.1.0.100 (15/02/2012)

- Modbus Slave – Socket was closed if the device id did not exist. Compas will now send a Modbus exception according to the standard.
- In remote Site in relation of a remote power feeding system, the latitude position parameter was not set correctly. (And changed the longitude).

Revision 0.1.0.98 (30/11/2011)

- In configurations with multiple independent racks, Modbus data were not correctly updated when multiple request on different racks were processed during one second.

Revision 0.1.0.96 (21/11/2011)

- + Optimization of the CAN and CANOpen layer to reduce cpu usage. Great result achieved, CPU usage reduced by more than 20%. This allows better reactivity through the communications interfaces.

Revision 0.1.0.96 (21/11/2011)

- + Complete support of LSS devices (Dynamic CanOpen node addressing for Cordex rectifiers)
- + Web interface allows minimizing parts of the tables, by group.
- + First official release supporting cordex 4kw rectifier, with new UCC
- + CanOpen Node definition is now managed to avoid any interference between new development and old qualified developments. (Thanks to better use of the polymorphism)

Revision 0.1.0.88 (11/09/2011) - SOFT 000031 20

- * Added debug features to analyze Modbus problems (connection timeout, new sockets, etc.)
- * Support of rack 300W, with specific battery configuration possibilities with the help of the front button (electronic LVD)

Revision 0.1.0.86 (12/07/2011) - SOFT 000031 19

- * The auto-save of records happening at midnight is now running in a separated thread to avoid any loss of communication and any problem in the main loop.

Revision 0.1.0.84 (21/06/2011)

- * Support of up to 4 master racks on the modbus interface. (Previously 4). Modbus id 1-->4 are reserved for the 4 first DC Systems. If a request is sent to another id, the dc system 1 will reply.

Revision 0.1.0.82 (16/06/2011) - SOFT 000031 18**Revision 0.1.0.80 (16/06/2011)**

- + Initial support for Alpha Cordex Rectifiers regulation of the dc system
- + Support of rack CAPTIN 300W
- Modbus Slave communication could fail when there are socket problems. (Cable disconnection, timeout, etc.) - This problems appeared with the new Ethernet drivers of BSP 3.9.
- Problem with reload of current limitation regulation parameter (because development test on going with hard coded values)

Revision 0.1.0.78 (30/05/2011) - SOFT 000031 17

- + Added support of PLC functions for es1 device.

Revision 0.1.0.76 (27/05/2011) - SOFT 000031 17

- * RS485 communications was corrupted when interrupted by another task with higher priority.

Revision 0.1.0.74 (24/05/2011)

- BSP 3.9 new Ethernet driver is now synchronous to solve problems when communication is very high – Microsoft bug (Modbus fast request in loop for instance)
- * New production tool – display instructions also in English
- * New CAN driver – reduced CPU usage by up to 30%.
- * New operating system – BSP 3.9

Revision 0.1.0.72 (20/05/2011)

- + Added hidden function to clear registry (may be required after OS update)

Revision 0.1.0.70 (10/05/2011)

- + Possibilities to auto save records in xml, download files from web interface, and delete files.
- + Possibilities to rename descriptions, alarms, data, configuration and control elements with the configuration.xml file
- + Initial support of independent LVD
- + Initial support of predefined configurations

Revision 0.1.0.68 (20/04/2011)**Revision 0.1.0.66 (20/04/2011)**

- + Added zip extraction functions : Extract Zip File in user-upload
- Records of the energy system pulse counter were loaded twice with a PM9C device
- Hardware watchdog – forgot to uncomment after test.

Revision 0.1.0.64 (16/04/2011)

- + Added advanced functions in site/control: (used by the manage files web-page) (Flash Binary, Download File From Url, Delete User Uploaded File, Move User Uploaded File)
- + The zip files are analyzed to discover the compressed file. (Only one file by zip is allowed to avoid unmanageable folder structure)
- + New web page accessible from "Advanced" : `manage_files.html`
- + The exe file are analyzed to retrieve the software revision
- + Added description at site level : Operating System Revision
- + Added data at site level: 'CPU Percentage Usage' and 'Free Flash Memory Space', with associated records.
- + Support of remote upgrade of the operating system and boot loader. (very advanced, necessary only for specific new fonctionnalités)
- + Support for the http post of files

Revision 0.1.0.62 (10/04/2011)

- * Support of snmp get bulk
- * Added possibilities to rename all the variable names. Change the name in the xml

Revision 0.1.0.62 (10/04/2011)

configuration file and the related id will be updated on start. (for description, data, alarm, config and control)

- Snmp walk was buggy with some PLC data configurations

Revision 0.1.0.60 (06/04/2011)

+ Added configuration parameters to force the Ethernet mode (10-100Mb – Half-full duplex. (Require OS 3.5 at least)

+ Initial support of snmp get bulk

+ Improved support of default snmp oid (1.3.6.1.2.1.1.4,5,6,9.1.3

Revision 0.1.0.58 (05/04/2011)

- Rewrite of the Modbus RTU Master driver to solve random crash after a few days (windows serial driver bug)

Revision 0.1.0.56 (09/03/2011)

+ Support of additional extensions for Opera Net Project (sensors and actuators)

+ Support of PM9C energy counter over RS485

Revision 0.1.0.54 (21/02/2011)

+ Initial support of Alpha rectifiers

+ CANOpen LSS master implementation

* Added PLC functions to get site level info

Revision 0.1.0.52 (06/01/2011)

+ Initial support of RS485 Modbus Master

* Added entry 151 in Modbus

Revision 0.1.0.50 (29/10/2010) - SOFT 000031 16

* Improved support of 300W rack family

Revision 0.1.0.48 (18/10/2010)

+ Initial support of 300W rack family

Revision 0.1.0.46 (29/06/2010)

* Support of 3 dc-system over Modbus interface

Revision 0.1.0.44 (03/06/2010)

* Added concept of dc system and rectifier models (for smart functions)

Revision 0.1.0.42 (20/04/2010)

- Bug correction of removed rectifiers if not declared in large systems
- * Improved support of CET inverters

Revision 0.1.0.40 (21/01/2010) - SOFT 000031 14

- + Minor support of CET inverters
- * Change of OS, minor security updates (BSP 0.5)
- Correction of Ethernet bug with HUB (drivers was switching of the Ethernet devices if disconnected from hub)

Revision 0.1.0.38 (19/01/2010)

- * Review of the logic for ac fail conditions

Revision 0.1.0.34 (24/11/2009)

- * Increased reliability of the CAN boot-loader reset algorithm

Revision 0.1.0.32 (19/11/2009)

- + Support of large system with CAN regulation (up to 90x2600W rectifiers)

Revision 0.1.0.30 (19/10/2009)**Revision 0.1.0.28 (19/10/2009) - SOFT 000031 13**

- * Added cold start type event (to be able to rediscover the site in XML after power outage – according to ES 202 336 standard change request)
- * Changed remote system type name (3x120w, etc)
- + Support of MCU0548
- Modification of one registry parameter, to disable the “auto sense mode” of Ethernet, which was disabling the Ethernet when connected to a hub.
- * Added support of energy consumption measurement at the energy system level (pulse counter)
- * Data records are reloaded on startup
- * Support of compressed XML file in ZIP (xml.zip)
- * Optimization of the XML file generation
- * Full support of SNMP V3 traps
- * Data records are now stored in XML, and are auto-saved

Revision 0.1.0.26 (16/06/2009)

- * Added support for SNMP V3, with updated libraries
- * Added support of remote power feeding systems
- * Compilation in VS2008
- * Web page layout changed from Cherokee to Mitra E&I
- * Updated version of operation system, with latest windows update and latest drivers. (in production with SOFT 000031 12)

Revision 0.1.0.26 (16/06/2009)

- Bug in the data record queue for last days and last hours records.

Revision 0.1.0.24 (27/03/2009)

* Added support of MCU3048M6

* Optimization of the CAN driver

Revision 0.1.0.22 (01/10/2008) - SOFT 000031 12

- DC System Refresh Task buggy if only one rectifier in current limitation --> nothing was refreshed

* (Updated OS drivers on 25 March 2009, because of new boot-loader on Compas card.)

Revision 0.1.0.20 (01/09/2008) - SOFT 000031 11

* With the Modbus interface, the currents are now given in 0.1A as unit.

* Support of XXXXconfigurationYYYY.xml files in Factory folder. This allows naming easily the configuration files.

- With a very low probability, the application could crash during startup. (It restarted correctly after 5 minutes thanks to the watchdog).

Revision 0.1.0.18 (01/08/2008)

* New configuration parameter: XML Event Posting To Secondary Only If Primary Failure (Set to True by default). This allows sending XML events to the redundant server only if the first fails.

* New configuration parameter: XML Heartbeat Time (minute): Define the time in minutes between two heartbeats. It is now possible to request the monitoring to send heartbeat in order to check the communication availability. This XML heartbeat looks like: <site id="1" status="alarms" severity_type="major" severity_level="6" /> Note that the same behavior with primary/secondary server is used.

* Modbus compatibility improvements

* No current limitation by default (1000A by default, must be set correctly).

* Functional battery test is configured (1000A as discharge current, 0% of discharge capacity, duration of 10 minutes). --> Must be correctly configured with the battery parameters for reliable battery test.

* PLC license is now included in the Asset license.

Revision 0.1.0.16 (01/07/2008)

- The web server function 'ProcessXML.cgi' processed only site level configuration

- On system reboot, the set delay of the alarms was replaced by the clear delay.

- On system reboot, for alarm related events, the datetime is not parsed correctly

- Firmware boot loading may fail under some circumstances

* CSV Log file of battery tests can be downloaded from web interface

* Compas Display Module Support (CDM)

* MCU30110 support

Revision 0.1.0.16 (01/07/2008)

- * New Modbus license option

Revision 0.1.0.14 (28/05/2008) - SOFT 000031 10

- * Web interface compatible with older browser (Internet Explorer 6)
- * Web page generation 4x faster
- + Time Zone support
- + Daylight Saving Time
- The system time could be badly loaded during booting
- XML event posting locked when server answers badly
- Possible web server crash if socket not correctly closed

Revision 0.1.0.12 (14/02/2008) - SOFT 000031 09

- The severity_type attribute in the XML syntax was not correctly encoded
- + PLC module added (customization of data and alarm)
- + Support of multi-language web interface
- + Support of 2x6x1800W DC systems (with 2 MCU1848)

Revision 0.1.0.8 (06/01/2008) - SOFT 000031 06

- * The default value of the minimal number of rectifier is 0, to avoid alarm by default.
- + Support of 3U rack with up to 8 CAR0948TN.
- * Improvement of the logic of the site access control with SAM0948. Any digital input can be associated with a door.
- DC system alarm relay configuration was not saved if configured on '0'.
- Problem with reload of customized alarm related to the digital inputs of the dc system.

Revision 0.1.0.2 (01/11/2007)

- + Support of MCU1848
- * Added alarm "Missing Rectifiers" at DC system level
- * Added configuration parameter "Minimal number of rectifier" at DC system level
- Configuration of the SAM0948 was not kept after system reboot

Revision 0.1.0.1 (01/06/2007) - SOFT 000031 01

- + First official version
- + Support of MCU0948
- + Support of CAR0948TN
- + Support of SAM0948

