R566 Software Release Content

VarioString (1.5.24)

- Added functionalities :
 - New parameter for battery undervoltage {14216} that is able to create a message, create a blinking in the ERROR LED and can be used as event for the AUX relays.
 - New parameter for maximum charging current on VS-70 {14217}

VarioTrack (1.5.32)

- Added functionalities :
 - New parameter for battery undervoltage {10334} that is able to create a message, create a blinking in the ERROR LED and can be used as event for the AUX relays.

RCC and Xcom232i (1.5.74)

- Improvements:
 - Better management when changing all parameters to a new user level.
 - o If the Xtender flash memory is empty, a software update can help to solve the problem.

Xcom-SMS (1.5.22)

- Improvements:
 - The event configuration by category was not saved in the flash memory, therefore they were not saved when restarting or upgrading the software.
 - When saving event configuration, the report configuration might be deleted.

SCOM documentation (1.5.32)

- Improvements:
 - Modification in the tables (new parameters)
 - o Added comments for « ENUM type » parameters

Xtender Data Analysis Tool (1.5.36)

- Improvements :
 - Better management of the VarioTrack/VarioString running mode visualisation for week, month and year visualisation

Xtender Settings Manager (1.5.36)

- Improvements:
 - o French and Italian version of the menu adjusted

Xtender (1.5.32)

BSP (1.5.10)

• No change

Xcom MS (1.5.4)

R564 Software Release Content

VarioString (1.5.22)

- Added functionalities :
 - $\circ\quad$ Remote entry inside the unit and new settings for this function
 - New conditions for AUX relay settings:
 - Time schedule
 - Event remote entry status

Xtender (1.5.32)

No change

VarioTrack (1.5.30)

No change

BSP (1.5.10)

No change

RCC and Xcom232i (1.5.72)

No change

Xcom-SMS (1.5.18)

No change

Xtender Data Analysis Tool (1.5.34)

No change

Xtender Settings Manager (1.5.34)

No change

SCOM documentation (1.5.30)

No change

Xcom MS (1.5.4)

R562 Software Release Content

Xtender (1.5.32)

- Improvements:
 - Better management during upgrade process

VarioTrack (1.5.30)

- Added functionalities :
 - Possibility to limit the charging current depending on BSP settings
 - o Remote entry inside the unit and new settings for this function
 - o New settings for auxiliary relays: Time schedule condition
- Improvements:
 - o Improvement in the way of storing temperature values below 0°C to avoid the unit stop working with negative temperatures

VarioString (1.5.20)

- · Added functionalities:
 - o Possibility to limit the charging current depending on BSP settings
- Improvements:
 - Improvement in the way of storing temperature values below 0°C to avoid the unit stop working with negative temperatures

BSP (1.5.10)

- Added functionalities :
 - New parameters to adjust battery charging current on VarioTrack & VarioString depending on BSP current measurement.

```
{6058} " Battery current limitation activated "
```

{6059} " Max battery charge current "

Xcom-SMS (1.5.18)

- Improvements:
 - CSV Files saving method improvement

RCC and Xcom232i (1.5.72)

- Improvements:
 - Adaptation to new settings of the different products

Xtender Data Analysis Tool (1.5.34)

- Improvements:
 - \circ New charging mode added (limited by BSP parameter) beside VarioTrack and VarioString graphics.
 - o Better visualisation of negative temperatures.

Xtender Settings Manager (1.5.34)

- Improvements:
 - o Updated parameter lists

SCOM documentation (1.5.30)

No change

Xcom MS (1.5.4)

• No change

R560 Software Release Content

VarioTrack (1.5.28)

- Improvements:
 - o In case of earthing error, message giving that alarm, the VT will continue to charge the battery. There will only be an alarm on RCC and VT's display.

Xcom-SMS (1.5.16)

- Improvements:
 - o Synchronisation with RCC software

RCC and Xcom232i (1.5.68)

- Added functionalities:
 - o Compatibility with VS-70

Xtender Settings Manager (1.5.32)

- Improvements:
 - o Updated parameter lists

VarioString (1.5.18)

No change

Xtender (1.5.30)

No change

BSP (1.5.8)

- Improvements:
 - o Internal changes for factory after sales service

Xtender Data Analysis Tool (1.5.32)

No change

SCOM documentation (1.5.30)

No change

Xcom MS (1.5.4)

R558 Software Release Content

VarioString (1.5.18)

- Improvements:
 - o improvement in battery voltage regulation
- Added functionalities:
 - o new MPPT algorithm, better in low power situation(LSF) {14043, 14176, 14046}
 - o PV earth and Bat earth floating control. When PV or BAT are grounded an alarm is generated (when activated with params {14040,14041,14042,14175})

SCOM documentation (1.5.30)

- Improvements:
 - Modification of menu VarioString.

VarioTrack (1.5.26)

No change.

Xcom-SMS (1.5.14)

No change.

RCC and Xcom232i (1.5.64)

No change.

Xtender (1.5.30)

No change

BSP (1.5.6)

No change.

Xtender Data Analysis Tool (1.5.32)

No change.

Xtender Settings Manager (1.5.28)

No change.

Xcom MS (1.5.4)

R556 Software Release Content

VarioString (1.5.18)

- Improvements:
 - o Calibration adjustment on a PV current measure

VarioTrack (1.5.26)

- Improvements:
 - o Improvement in user information treatment.

Xcom-SMS (1.5.14)

- Improvements:
 - o Bug fix in reports management and values
 - Bug fix : support of PIN Code as long as 6 characters

RCC and Xcom232i (1.5.64)

- Added functionalities:
 - o Possibility to choose a different value stored on 4 track in the datalogger {5123}
- Improvements:
 - o Better management of the SCOM stability and error information.

Xtender (1.5.30)

No change

BSP (1.5.6)

No change.

Xtender Data Analysis Tool (1.5.32)

No change.

Xtender Settings Manager (1.5.28)

No change.

SCOM documentation (1.5.26)

No change.

Xcom MS (1.5.4)

R554 Software Release Content

Xtender (1.5.30)

- Improvements:
 - Better management of charging current with high grid voltages (>245Vac)
 - o Better management of remote entry functionality when Xtender alone.
 - Better accuracy on battery voltage ripple

VarioString (1.5.14)

- Improvements:
 - o Better management on the communication bus
 - o MPPT algorithm improvement
 - Voltage measurement correction between -Bat and PE (was reversed)
 - Better management of the message n°156

Xcom-SMS (1.5.8)

- · Added functionalities :
 - o New command that return the language used: "lang?". Not yet in the manual.

RCC and Xcom232i (1.5.60)

- Added functionalities:
 - The 3rd DEV column in the CSV files is now used to store the first message of the minute.
 - If the number of units in the system increase (add new device) the datalogger will erase the data stored (of all units) until that moment in the day. Don't forget that all changes should be done with the units switched off.
- Improvements:
 - o Correction of the individual access to VT information while on multi-system.
 - Correction of the XT max power information in the datalogger (was not summing the units in parallel)
 - Better management of the complete system reset {5121}

Xtender Data Analysis Tool (1.5.32)

- Added functionalities :
 - New graph options

Xtender Settings Manager (1.5.28)

- Improvements:
 - New BSP parameters.

VarioTrack (1.5.24)

BSP (1.5.6)

• No change.

SCOM documentation (1.5.26)

• No change.

Xcom MS (1.5.4)

R552 Software Release Content

VarioString (1.5.12)

- Improvements:
 - o Better management of the fan

VarioTrack (1.5.24)

- Improvements:
 - When relay open due to an error, Night mode or other reason, a 1min 30 second delay is added.

Xcom-SMS (1.5.6)

- Added functionalities :
 - New user information to see type and level of phone coverage
- Improvements:
 - Add values and type in big report (r2)
 - o Improved management of SIM and SD card when starting

RCC and Xcom232i (1.5.56)

- Added functionalities :
 - o New user information to see type and level of phone coverage
- Improvements:
 - o Adaptation to BSP new information.

BSP (1.5.6)

- Added functionalities :
 - New parameter to compensate end of charge level depending on Temperature, {6048}
 - o FID number available on scom communication
 - New parameter to fix the battery system voltage, {6057}
- Improvements:
 - Different way of calculating SOC
 - Modification of {6022} default value, from 80% to 90%.
- Deletions:
 - Relative capacity is not shown anymore

Xtender Data Analysis Tool (1.5.30)

- Improvements:
 - New tables for VarioTrack and VarioString

Xtender Settings Manager (1.5.26)

- Improvements:
 - o Bug fix when generating the files

SCOM documentation (1.5.26)

- Improvements:
 - Modification of menu and user info for new BSP software
 - New messages for Xcom-SMS
 - o Change on writing AC-In and AC-Out

Xtender (1.5.28)

No change

Xcom MS (1.5.4)

R550 Software Release Content

Xcom-SMS (1.5.4)

New product

VarioTrack (1.5.22)

- Improvements:
 - Internal changes for factory tests

VarioString (1.5.10)

- Improvements:
 - o Better recognition of Hardware PCB version

RCC and Xcom232i (1.5.52)

- Added functionalities :
 - o Compatibility with Xcom-SMS.
- Improvements:
 - o Priority on BTS temperature value when BTS and BSP on the system.
 - When changing the real time information screen from a device to another, the old values are not displayed. The values will appear after the refresh time (between 0,5 to 1,5 sec).

SCOM documentation (1.5.26)

- Modification in the tables :
 - New Xtender parameters: 1632.
 - Improvement of Xtender parameters: 1627, 1628 and 1629
 - o Improvement of Xtender user information: 3049, 3155, 3158 and 3159.
 - New VarioTrack parameters: 10200 and 10201.
 - New VarioTrack user information: 11009.
 - Improvement of VarioString parameters: 14005, 14009, 14017, 14021, 14182, 14051 and 14052.

Xtender Data Analysis Tool (1.5.30)

- Added functionalities :
 - New tables with max or min values for VarioTrack and VarioString

Xtender Settings Manager (1.5.24)

- Improvements:
 - New parameters compatibility

Xtender (1.5.28)

BSP (1.5.4)

• No change.

Xcom MS (1.5.4)

R548 Software Release Content

VarioTrack (1.5.20)

- Improvements:
 - \circ Better stability on the real time clock.

Xtender Data Analysis Tool (1.5.28)

- Improvements:
 - o The combo choice for VarioTrack/VarioString begins with VarioTrack as it is the most used.

Xtender (1.5.28)

No change

VarioString (1.5.8)

No change

RCC and Xcom232i (1.5.44)

No change.

BSP (1.5.4)

No change.

SCOM documentation (1.5.20)

No change.

Xtender Settings Manager (1.5.20)

No change.

Xcom MS (1.5.4)

R546 Software Release Content

Xtender (1.5.28)

- Improvements:
 - o Charge phase synchronisation issue solved.
 - o AC source synchronisation message from slave avoided when master not in synchronisation.
 - Software compatibility check enhancement.
 - New message to mention AC cabling error.

VarioTrack (1.5.18)

- Improvements:
 - LED blinking time when checking unit reduced from 45 to 7 seconds (it allows to see the working status after location of the right product).
 - o Modification on the date information send between the units.

VarioString (1.5.8)

- Improvements:
 - LED blinking time when checking unit reduced from 45 to 7 seconds (it allows to see the working status after location of the right product).
 - Modification on the date information send between the units.
 - o Improvement in the message notifications.

RCC and Xcom232i (1.5.44)

No change.

BSP (1.5.4)

No change.

SCOM documentation (1.5.20)

No change.

Xtender Data Analysis Tool (1.5.26)

No change.

Xtender Settings Manager (1.5.20)

No change.

Xcom MS (1.5.4)

R542 Software Release Content

VarioString (1.5.6)

• Improvement in the tracking algorithm

RCC and Xcom232i (1.5.44)

No change.

Xtender (1.5.22)

No change.

VarioTrack (1.5.16)

No change.

BSP (1.5.4)

· No change.

SCOM documentation (1.5.20)

No change.

Xtender Data Analysis Tool (1.5.26)

No change.

Xtender Settings Manager (1.5.20)

No change.

Xcom MS (1.5.4)

R540 Software Release Content

VarioString (1.5.4)

New product

RCC and Xcom232i (1.5.44)

- Added functionalities :
 - o Compatibility with VarioString.
 - o ON/OFF per type of units on respective information screen.
 - The ON/OFF possibility on the clock screen will now switch ON/OFF all the system (all units connected to the communication bus).
 - New preset to apply ARN 4105 parameters (to select in {5045}).
 - New parameter in the RCC settings; {5121} Reset all devices of the system.
 - When the upgrade is finished and after quitting the message of this process, a message « Error (091): Please update SW of other RCC or Xcom-232i » could be displayed if another device in the communication bus is still not updated. This can happen with Xcom + RCC as one cannot update the other.
 - When selecting a value of an individual unit member of a multi-unit system, all LEDs of that unit are blinking together. The blinking will stop automatically after some seconds.
 - New message when a device is lost in the communication bus after some seconds;
 - New user information regarding FID msb and lsb for VarioString, VarioTrack and BSP (by Scom access).

Improvements:

- o Folder name's adaptation to improve clarity in the SD card CSVFiles.
- When the AUX2 is as generator control mode, this is indicated in the "Events relay AUX2" screen.
- o If a system is modified (new device, replacement device or a device less), the datalogger will erase the data of the day when you restart the system.
- In the datalog files .csv :
 - o New column for all solar power sum.
 - New column for all VarioTrack solar power sum.
 - New column for all VarioString solar power sum.
 - o New columns for VarioString data
 - New columns for the following information: AUX1 relay status, AUX2 relay status, transfer relay status, battery cycle status, running mode and remote entry status.
- o Information n.a. (not available) shown when the user information requested returns NaN.
- The number of messages is not shown, but only the time and date remains.
- Modification on the messages windows appearing in the RCC:
 - The message box is not shown if the message has a user level higher than the RCC.
 - In this case, the information of the message is not shown. Only the number of the message will remain in the event log and .csv file.

 While checking Xtender parameters by number, the SET option to enter the parameter will not be available if the parameter is at higher user level than the RCC.

Xtender (1.5.22)

- · Added functionalities:
 - Compatibility with VarioString.
 - Management of the grid feeding current depending on the frequency to follow ARN 4105 rule.
 Activation with parameter {1627}.
 - New user information {3158} and {3159} to see current limitations while grid feeding.
 - New user information {3154} to see Frequency on ACin with better precision (need for ARN 4105).
 - New parameter to accelerate the charger/injector regulation ({1615} in QSP user level).
 - New WatchDog (WD) in the Xtender. This is useful for Systems with Scom communication and without saving parameters ({1550}=no). So when there is no communication between the SCADA system and the Xtender (no requests) in a period of time {1629} if this WD is activated {1628}, the Xtender will do a RESET.

Improvements:

- Better management of the SOC values. In case of 99,99% it will mention 100%.
- Better management between grid feeding and battery priority :
 - o If both functions are activated at the same time, the battery priority is prior.
 - If battery priority is deactivate by command entry, the second function becomes prior with his own regulation voltage.
- Better management for the battery regulation when battery priority function used.
- Better management of forced grid feeding. It is now possible to force the grid feeding thru midnight (i.e from 22h to 6h).
- Better management of the charger/injector behaviour, smoothing transitions.
- Better management of auto restarts after short circuits or overloads.
- Correction of value sent by scom. If not available it remains always 0.
- The remote entry status is now sent to all the units. Before this correction, the software activation of remote entry was not communicated to all the units.
- Better description of the activation/deactivation conditions in the AUX user information display.

VarioTrack (1.5.16)

- Added functionalities :
 - Compatibility with VarioString.
 - New user information about VarioTrack state {11069}.
 - New user information to obtain FID (only accessible by scom).
 - \circ New parameters {10198} and {10199} to activate the AUX relays depending on VarioTrack events.

Improvements:

Better management of Real Time Clock with multi-VarioTracks and ARM-02.

o Possibility to set an unlimited activation time of AUX relay during night mode.

BSP (1.5.4)

- Added functionalities :
 - o Compatibility with VarioString.

SCOM documentation (1.5.20)

- Added functionalities :
 - o Compatibility with VarioString.
- Modification in the tables :
 - o New Xtender parameters: 1627, 1628, 1629, 1630 and 1631.
 - New Xtender user information: 3154, 3155, 3156, 3157, 3158 and 3159.
 - New RCC parameters: 5121.
 - Improvement of RCC parameters: 5073, 5076, 5077, 5078 and 5091.
 - New VarioTrack parameters: 10198 and 10199.
 - New VarioTrack user information: 11067, 11068 and 11069.
 - New VarioString parameters and user info: all.

Xtender Data Analysis Tool (1.5.26)

- Added functionalities :
 - o Compatibility with VarioString.
 - Possibility to choose the time of start/stop when looking to data of the day.
 - New graphics showing status of VarioTrack.
- Improvements:
 - o Total solar power data import has been corrected.

Xtender Settings Manager (1.5.20)

- Added functionalities :
 - o Compatibility with VarioString.

Xcom MS (1.5.4)

R536 Software Release Content

RCC and Xcom232i (1.5.34)

- Added functionalities :
 - o The datalog files are downloadable through the Xcom-LAN/GSM
- Improvements:
 - o Better management of the AUX relay events visualization in the Xcom Portal.
 - o Better management of the messages shown on Xcom Portal.

Xtender (1.5.18)

- Improvements:
 - Better management of current settings between physical or software option while using an XTS.

Xtender Settings Manager (1.5.18)

- Improvement:
 - The parameters {1497} and {1498} indicate error where changed to AND. This is now corrected.

Xtender Data Analysis Tool (1.5.16)

- Improvement:
 - Since the RCC software version 1.5.26 (R530), there was a column containing the sum of VarioTrack solar power in the datalogger .csv file. While importing the data with old "Data Analysis Tool" versions, this column data overwrites the VarioTrack 1 solar power. This is now corrected.

SCOM documentation (1.5.18)

- Improvements:
 - New flag "is_datalog_supported" (BIT5 of byte frame_flags on SCOM).

VarioTrack (1.5.14) BSP (1.5.2) Xcom MS (1.5.4)

R534 Software Release Content

RCC and Xcom232i (1.5.30)

- Added functionalities :
 - o New message when the SD card is removed.
- Improvements:
 - o Better management for saving and restore parameters.

Xtender (1.5.16)

- Improvements:
 - o Better management of current in charging/grid feeding mode.
 - o Active filtering can now be connected at any moment.

Xtender Settings Manager (1.5.16)

- Improvements:
 - o Update of the Xtender parameters

Xtender Data Analysis Tool (1.5.14)

- Improvements:
 - o After pressing Generate button, the sheet switches to the graphs sheet on L1.
 - o Import data modified if L1 is not present in the CSV files.

SCOM documentation (1.5.16)

- Improvements:
 - o Modification of the parameters {1622} {1623} format.
 - Modification of the parameter {5073} level.
 - Text "minute avg" added to info BSP {7030} {7031} {7032} and {7033}.
 - Text "minute avg" added to info Xcom-MS {9018}.

VarioTrack (1.5.14) BSP (1.5.2) Xcom MS (1.5.4)

R532 Software Release Content

RCC and Xcom232i (1.5.28)

- Improvements:
 - o Correction for datalogger of Xtender Energies (ACin & ACout)

Xtender (1.5.14)
VarioTrack (1.5.14)
SCOM documentation (1.5.12)
Xtender Settings Manager (1.5.14)
Xtender Data Analysis Tool (1.5.12)
BSP (1.5.2)
Xcom MS (1.5.4)

R530 Software Release Content

Xtender (1.5.14)

- Improvements:
 - o Better management of forced grid feeding with multi-Xtender.
 - Better management of phase shift (steps of 0.01 instead of 0.05).
 - Stabilisation of XTS functions.
- Deletions :
 - o Function to control the external transfer.

VarioTrack (1.5.14)

- Improvements:
 - Correction of user info "total produced Energy" in kWh instead of MWh as it was calculated in kWh.
- Deletions:
 - Message of Battery undercurrent (136) as it is useless and can overload the event log.

RCC and Xcom232i (1.5.26)

- Added functionalities :
 - o When the SD card is full, the datalogger will delete the oldest 30 days.
 - If there is a problem during the datalogger savings at midnight, it will return a message.
 - On automatic, the datalogger is active in both RCC and Xcom-LAN/GSM, but deactivated in Xcom-232i when used in SCADA systems.
 - Battery phase visualization in the datalogger csv file.
 - Detection of a unit in a system (visible by LED blinkings) from a parameter {5119} using the Xcom and Scom adresses.
- Improvements:
 - When the RCC user level is below the level required to see a message, this one will be displayed as "(nnn): -" where nnn is the message number.
 - The parameter "{5035} Clear messages" is accessible by Scom.
 - Auxiliary contacts events description in the user information display.
- Deletions:
 - User information for multi VarioTrack that are normally only accessible from simple VarioTrack visualization (11016, 11018, 11019 and 11022). They remain accessible on single VarioTrack.

SCOM documentation (1.5.12)

- Improvements:
 - o Update of the parameters list and user information available
 - Upgrade in the frame flags

Xtender Settings Manager (1.5.14)

- Improvements:
 - o Update of the Xtender parameters
 - Restore cell type when applying "Reset all values"

Xtender Data Analysis Tool (1.5.12)

- Added functionalities :
 - o New button to show battery cycle beside battery current graph.
 - o New button to show the running mode beside the battery current graph.

BSP (1.5.2)

• No change

Xcom MS (1.5.4)

- Improvements:
 - o Now compatible with the Xtender Settings Manager

R528 Software Release Content

Xtender (1.5.12)

- Added functionalities :
 - o Possibility to dynamically compensate the new cycle levels {1608}.
 - Better management of the Boost function to avoid overheat in long term high power systems,
 limiting the maximum power added; {1607} in % of P30.
 - New regulation to reduce flickering during grid feeding and charging.
 - Phase shift control for grid feeding current; {1610-1614}.
 - o Information of Auxiliary relays switch conditions on RCC display.
 - New timeout management during files transfer.
- Improvements:
 - o Better management of the Boost function at low voltages.
 - Better management of synchronization between Xtender and VarioTrack.
 - Grid feeding securities in function of input frequency and voltage.
- · Deletions:
 - o Battery Autonomy test function.

VarioTrack (1.5.12)

- Added functionalities :
 - o Protection against external flash invalidation by error.
- Improvements:
 - o Indication of parameters loss by lighting only LED 70-80A.
 - Indication of SPI Flash defective by lighting only LED 50-60A.
 - Better indication of sunshine hours of the day or yesterday.
 - Simplify earthing error while floating

RCC and Xcom232i (1.5.24)

- Added functionalities :
 - Visualization of LAN or GSM type of Xcom in the system information.
 - Visualization of Xtender auxiliary conditions of activation.
- Improvements:
 - Better management of Xcom-GSM; when PIN code begins with 0 and some kind of SIM cards.
 - Better management of steps visualization when modifying a parameter.
 - o Correction for the SOC curve visualization thru the Scom LAN and Scom GSM.

SCOM (actual version 1.5.6)

• Improvements:

o Parameter lists and user information lists update

Xtender Settings Manager (actual version 5.2)

- Improvements:
 - o Parameters update for Xtender, VarioTrack and RCC

BSP

No change

Xcom MS

• No change

Datalogger

R526 Software Release Content

VarioTrack (1.5.10)

- Added functionalities :
 - Use of auxiliary relays (ARM-02)
 - Possibility to deactivate saving the parameters in Flash memory (for control thru Xcom-232i) {10058}
 - Possibility to deactivate SET Button functions {10087}
 - Information 11066: cycle synchronisation state
- Improvements:
 - Information shown in charger mode (I, U, Temp)
 - Information shown on 11038: battery cycle phase
 - Information shown on 11034: type of error
 - Precision on daily counters
 - o MPPT algorithm and regulation speed
 - Detection of battery loss

RCC et Xcom232i (1.5.20)

- Added functionalities :
 - New Timeout management for readings thru SCOM. The possible blocking disappear
 - o AUX relay events shown on screen
 - Information
- Improvements:
 - o Datalog works until all data are saved in SD card
 - o Better management while uploading all master files with parameter {5070}
 - Information shown in charger mode (I, U, Temp)
 - o Reorganisation of the information shown for single VT display
 - The SCOM doesn't stop during datalogger savings at midnight
 - The signal level value is now between 1 and 4 instead of being a dB value.
- Deletions:
 - o Some user information not adapted to multiple VT visualisation

Xtender

No change

BSP

No change

Xcom MS

• No change

SCOM