RELEASEnotes — SOMAT XR

July 2015
Version 1.6.2

Thank you for choosing HBM for your test, analysis and measurement task.

This document shows the released product package of SomatXR. Please always check whether an updated version is available at: http://www.hbm.com
Please note that the firmware has been optimized. We recommend installing the latest firmware on all existing modules.

What's new?

Modules

- **Newly Supported Modules**
  - None.

Accessories

- **New Accessories**
  - None.
- **Modified Accessories**
  - None.

Firmware

- CX23-R Firmware Version 1.6.2 (Build 1489)
- MX Module Firmware Version 4.2.28.0
  - Included in CX23-R firmware to update from the Web Interface

Documentation

- **New Documents**
  - NTX003 Module User Manual   Version 1.1
- **Modified Documents**
  - CX23-R Data Sheet (English / German)   Version 1.1 / 1.0
  - EX23-R Data Sheet (English / German)   Version 1.1 / 1.0
  - CX23-R / EX23-R User Manual   Version 2.0
  - CX23-R Quick Start Guide   Version 2.0
  - MX Modules Quick Start Guide   Version 2.0
  - SomatXR Accessories Data Sheet (English / German)   Version 2.0
  - MX1601B-R Data Sheet (English / German)   Version 3.0
  - MX1609KB-R Data Sheet (English / German)   Version 3.0
  - MX1615B-R Data Sheet (English / German)   Version 3.0

A complete listing of all supported modules, accessories, and documentation of the SomatXR line is available at the end of these release notes.

Notes about the CX23-R firmware v1.6.2

- **Bugs Fixed / Issues Resolved**
    - **User Action Required. Large offset when using MX1615B-R configured for a bridge quarter 3 wire (no sense lives) sensor input mode).** When the MX1615B-R is configured for the bridge quarter 3 wire (no sense lines) sensor input mode, the signal conditioner has an inherent large offset (i.e., typically about -2 mV/V for 350 Ohm and -6 mV/V for 120 Ohm). In this and all future releases, that large offset is internally compensated for in the CX23-R firmware. As such, any SXR file channels defined and zeroed with this sensor input mode using previous releases of the CX23-R firmware will have a large offset and will need to be zeroed.
    - **"admin" user account and "Administrator" profile can no longer be modified or deleted except for the "admin" user's password.** In prior releases the user could delete the default "admin" user account and the default "Administrator" profile. However if the "admin" account was deleted, then the user account could not be reset to system defaults via the factor reset option using the front panel switch. Note that if a user has deleted the "admin" user account, it will be restored automatically when the CX23-R is updated with this firmware release.
    - **On rare occasions plots which persisted on restart of test after a system reboot would show no data updates.** When live data displays are running for a test, and a test interruption occurs, the system reboots, and on reboot the persisted data displays would on rare occasions show no data updates. This issue has now been fixed.
    - **The "Copy to" function did not reliably copy output units onto the newly copied channel.** In all previous releases, the "Copy to" function did not correctly copy the output units into the newly created channel. Instead, the electrical units of the source channel was incorrectly copied into the output units of the new channel. This issue has now been fixed.
    - **On rare occasions CAN ports could stop functioning properly.** After running high channel count CAN tests, the CAN ports on rare occasions would stop functioning properly. This issue has now been fixed.
    - **Significantly optimized time taken on mass changes to setups with large channel counts.** In prior releases, making mass changes to setups with large channel counts (i.e. setups defined with 1000 CAN channels) would take a significant amount of time to complete. The time necessary to complete this operation has been significantly reduced.
    - **Incorrect shunt scaling when zero offset defined prior to scaling.** Previously when performing a shunt scaling task where there was an existing zero offset defined for the channel(s), an erroneous value for the electrical zero resulted. This could be compensated for a by running a subsequent Zero operation. This issue has now been fixed.

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- **New Features**
  - **Support for MX module firmware version 4.2.28.0.** The CX23-R now supports the latest MX module firmware 4.2.28.0. Details on how to update your MX modules using the CX23-R are contained in the help system.
  - **Support for TEDS sensors on MX modules.** TEDS sensors are now supported on all supported MX modules. See the help system for more information.
  - **Support for HBM sensor databases.** The CX23-R now supports the capability to import and use HBM sensor databases in the test configuration process. See the help system for more information.
  - **Support for configurable charts persistence.** The CX23-R now supports saving and recalling chart configurations for live data displays. Persistent chart configurations are tied to the setup file they are associated with and are automatically exported within the setup file. As such they are also imported automatically with a setup file. Details on configuration are contained in the help system.
  - **Support for user configurable decimal point handling.** User preferences have been added to allow the user to define defaults for all channels based on significant digits and / or a fixed number of decimal digits. Also, there is a new "decimals" channel parameter for each channel that allows the user to override the default and specify the number of decimal digits on a per channel basis. Details on configuration are contained in the help system.
  - **Support for cameras.** The CX23-R now supports using cameras as data channels. Details on configuration are contained in the help system.
  - **Support for Safari web browser.** The web interface is now officially supported when used with the Safari web browser. Browser specific guidance is contained in the help system.
  - **Web interface now displays list of currently logged in users.** The bottom status bar now includes a button which displays all of the users currently logged on the system.
  - **Dashboard and Test Control Panels combined.** In previous releases the Dashboard and Test control panels were distinct pages in the web interface. Their functions have now been combined under the Test and data control panel.
  - **Support for importing / exporting user preferences.** The system now supports user preference importing and exporting via the user preferences dialog. See the Help system for more information.
  - **Support for Max / Min / Range Track computed channel.** The Max / Min / Range Track computed channel is now available for use. Specifics on its configuration and operation are contained in the help system.
  - **Support for Pulse Frequency computed channel.** The Pulse Frequency computed channel is now available for use. Specifics on its configuration and operation are contained in the help system.
  - **Support for Triggered Latch computed channel.** The Triggered Latch computed channel is now available for use. Specifics on its configuration and operation are contained in the help system.
  - **Support for automatic test restarts on system errors.** The user now has the option of enabling automatic test restarts when the system encounters an error requiring an automatic reboot. Specifics on its configuration and operation are contained in the help system.
  - **System log file is cleared on a firmware update.** All messages in the system log file are deleted when the firmware is updated.

o **CAN / Sensor database name and title are no longer editable.** The name and title of any CAN or Sensor database is no longer editable and will remain fixed upon import.

o **Insecure HTTP connection notification.** Upon loading the web interface of the CX23-R, if you are connecting using an insecure http connection, a dialogue box will indicate this state. The dialogue box will only appear once per session. Note that Safari users will not receive any notification regardless of the security of the connection.

o **System log icon matches red LED status.** The system log icon will now match the red LED status. If there is an error state, the icon will be colored red to indicate to the user to review the log. After viewing the log, the icon will return to its normal state, consistent with the red LED.

o **Modified functionality of blue 'SYNC' LED.** The functionality of the blue 'SYNC' LED on the CX23-R has been changed to better indicate the current synchronization state of the CX23-R. The list of states for this and all other LEDs is available in the help system.

- **Known Issues and Advisories**
  o **Caution when using MX1609KB-R module and setting measurement units.** TEDS temperature sensors (e.g., thermocouples and RTDs) are always sourced to have units of °C, even if they are programmed to have some other temperature unit. However, the units can be changed in the CX23-R user interface.

  o **Caution when using SSL connections with Safari web browser.** When using the Safari browser with secure socket layer connections, the live displays and live updates in the web interface may not work properly without special certificate configuration. See the help system topic for more information.

  o **Caution when using Firewire with MX Modules.** In certain atypical usage scenarios, MX modules can lose PTP sync when a test run is restarted after a reboot. See the help system topic that discusses setting up the SomatXR system for more information.

Complete Listing of Modules, Accessories, and Documentation

Modules

- SomatXR: Data Processor with 16 or 64 GB memory   1-CX23-R-xx-2
- SomatXR: Ethernet Switch PTP   1-EX23-R
- SomatXR: Standard Amplifier   1-MX1601B-R
- SomatXR: Bridge Amplifier   1-MX1615B-R
- SomatXR: Thermo Amplifier   1-MX1609KB-R

Accessories

- AC/DC power supply unit (24 V, 120 W)   NTX003-2
- Power supply cable (CX23-R to MX module)   KAB2110
- Power supply cable (low loss) with exposed wires   KAB2115
- Mounting brackets   CASEMOUNT
- Ethernet cable (CX23-R / EX23-R to MX module)   KAB2100
- Ethernet cable (CX23-R / EX23-R to PC / access point)   KAB2106
- Ethernet cable (CX23-R to EX23-R)   KAB2107
- Push-pull sensor cable   KAB183
- Break away sensor cable   KAB184
- Digital I/O cable with exposed wires   KAB2101
- GPS/AUX adapter (CX23-R to EGPS-5Hz)   KAB2102
- CAN adapter (CX23-R to SomatCR KAB292)   KAB2104
- GPS/AUX cable with exposed wires   KAB2108
- CAN cable with exposed wires   KAB2109
- Full-bridge adapter (to eDAQ M8 connector)   KAB2117
  (4 wire - no sense line)
- Quarter-bridge adapter (to eDAQ M8 connector)   KAB2118
  (3 wire - no sense line)
- Voltage adapter (to eDAQ M8 connector)   KAB2119

Documentation

- CX23-R Data Sheet (English / German)   Version 1.1 / 1.0
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- EX23-R Data Sheet (English / German)   Version 1.1 / 1.0
- EX23-R Quick Start Guide   Version 1.0
- SomatXR Safety Manual   Version 1.0
- SomatXR Accessories Data Sheet (English / German)   Version 2.0
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