

HBM SomatXR CX23-R Release Notes (v1.4.7) 20-February-2015

Bugs Fixed / Issues Resolved:

- 1) Extracting the SXR file from SIE file previously failed when the SIE file size exceeded 2 GB. This bug has been fixed.
- 2) The limit on the number of bins for the Time-at-Level histogram DataMode was previously (and incorrectly) limited to 256. The limit is now 10000 bins.
- 3) Storage full handling has been fixed. In the previous release, filling up the SATA drive storage space resulted in the CX23-R stopping the test run and generating erroneous error reports. This has been fixed. When the storage becomes full, the test continues to run until the user stops the test. As such, histogram DataModes continue to accumulate bin counts, run time displays are still available, and the digital outputs continue to operate properly after the storage area is full.
- 4) Shunt scaling accuracy has been significantly improved for the MX1615B-R bridge sensors (most significantly for bridge sensors configured with DC excitation and /or with excitation ranges below 2.5 volts).
- 5) Previously, CAN signals with a bit length of 1 were rejected when the DBC file was imported. This has been fixed. Also, the CX23-R now automatically corrects CAN signal "min" and "max" values that are "out of range" as defined in the DBC file.
- 6) Previously, a test would fail to start if it included only CAN raw message channels and the Test Duration option was used for the test. This has been fixed.
- 7) Previously, the Burst History DataMode did not always work properly when the Classic sample rate domain was used. This bug has been fixed.
- 8) Previously and rarely, some valid Signal Calculator expressions were flagged as invalid in the system code test run validator (even though they were correctly flagged as valid in the user interface). This bug has been fixed.
- 9) Previously, the run time displays created in the Dashboard did not have the correct units associated with the channel data. This bug has been fixed.
- 10) The MX161B-R bridge input sensor modes have been renamed to clarify that excitation is always regulated. The modes provided to support sensor cables that do not use the excitation sense lines (and hence are subject to lead wire resistance desensitization) are now denoted with a "(no sense lines)" suffix.

New Features:

- 1) **Networks configuration page has been reworked for improved usability.** There is the new Default Auto Set configuration which is the factory default and is always available (i.e., it cannot be deleted). This default works as follows. The CX23-R will first attempt to establish a network connection using DHCP. If this fails, then the CX23-R configures itself with a static IP address of 192.168.100.101.
- 2) **Numerous extensions to the run time display functionality including multi-channel strip charts** (stacked or overlay modes). See the online Help for more information. Also, there is (minimal first offering) support for display persistence from one run of a test to another run of the same test.
- 3) **Added a new Test Engine Frame Rate option.** This can be used to optimize data throughput efficiency based on the channel sample rates defined for a particular test. The default rate of 5 Hz is recommended for most tests. (The online Help will be extended to provide more information on this option in the next release.)
- 4) **Added support for the State Mapper and Smoothing Filter computed channels.** See the online Help for details.
- 5) **All computed channels are now supported in the run time displays.**

- 6) **Improved the user interface for selecting channels in the DataMode dialog windows** (e.g., providing the option to sort the channel list by sample rate as well as by channel name).
- 7) **Reduced the set characters that are restricted in channel names.** Invalid characters are now limited to single and double quotes, '\', '@', '#', '&', '<', '>'.
- 8) **Added a new Customer Service interface.** This is intended to be used only in coordination with HBM customer server to resolve serious issues with the CX23-R operation. Note that this can be used to do a factory reset (with the exception that the SIE data files are not deleted); however, this results in all SXR setup files and all system and user preference changes being deleted.

New Bugs / Issues:

- 1) Tests may fail to start on a “first sample timestamp is after test start time” error. This has been encountered only rarely. Also, occasionally, the SIE data for MX module channels can have some “overflow” data at the start of the test (for no more than a fraction of a second typically). Overflow data has a value greater than 1.0E+015. To circumvent these problems, the user can set the “Test Start Delay” parameter (available in the Setup Maintenance window) to 3 seconds (or possibly more if needed).
- 2) The user interface does yet support “progress” or “system busy” indicators. For tasks that take more than a few seconds to complete, this can result in user uncertainty (e.g., “Did I click on the wrong button, or is the system hung?”). In some cases, the user interface will report a “loss of connectivity”. In other cases the web browser may alert the user that the server is unresponsive and suggest killing the session. This has been encountered when importing very large CAN DBC database files, and also when working with SXR files that have several hundred channels.
- 3) Currently, when an SIE data collection test run is started, all MX modules connected at that time are considered part of the test - even if no channels from one or more of the MX modules is used in the test. If one of the unused modules is disconnected or powered down, the test will stop on an error. As such, it is currently recommended that MX modules not used in the test be powered down or disconnected prior to starting the test.
- 4) There is no limit to the number of channels that can be defined in an SXR setup file and no limit on the aggregate sample rate for all channels. As such, the user can define tests that the CX23-R will not be able to keep up with. This is not an issue in itself. However, the current behavior when the system does get into this situation is suboptimal. The error messages may not clearly indicate the reason for the test stopping and the system may be left in a non-operational state. Always reboot or power cycle the CX23-R if this is encountered.
- 5) Although there is a TEDS column in the Channels spreadsheet view, TEDS sensors are not supported in this release.

Previously Reported Bugs / Issues:

(v1.4.0)

- 1) **Supported web browsers.** Although the CX23-R firmware does not restrict the user from using any web browser, it is strongly recommended that either Microsoft IE11 or a recent version of Google Chrome be used with the CX23-R. Using other browser types or versions may be problematic in regard to the run time displays and in regard to SIE file downloads. Quality control currently performs regression tests using only these recommended browsers.
- 2) **Downloads of SIE files may be interrupted on some web browsers.** Regardless of the web browser being used, users are strongly advised to always ensure that the SIE download has fully completed before deleting the SIE file from the CX23-R storage. (Note that this is not a known problem with the recommended web browsers, but due to the possible significant repercussions of losing part of an SIE file, we suggest that the user be overcautious in this regard).
- 3) **Extract SXR file from SIE file fails on files over 2 GB.** There is no workaround for this bug which will be fixed in an upcoming release.
- 4) **Cameras are not supported.** The interface for these is not robust yet and so we have inhibited cameras from being discovered in the hardware discovery process (i.e., even if a camera is connected to a CX23-R expansion port or an EX23-R port, it will not appear in the GUI “available channels” tree view).