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Version 1.20.1

Thank you for choosing HBM for your test, analysis and measurement task. This document shows the released product package of eDAQXR. Please always check whether an updated version is available at: <http://www.hbm.com>. This is the first firmware release supporting the release of the eDAQXR.

eDAQXR System Overview

The following information defines the scope of the eDAQXR system relative to the TCE/eDAQ system. Functionality that is not supported in this first release is noted.

Legacy eDAQ layers

The following legacy eDAQ layers are supported, with restrictions noted where applicable. Layers not listed are not supported.

NOTE: It is critical that you verify that the latest firmware is loaded on your existing legacy eDAQ layers before removing the legacy eDAQ processor. There is no ability to upgrade firmware with the new EXRCPU.

- **EBRG – Layer Firmware v1.3**
 - AOM file format for analog out is not supported in this release
 - Option to “Enable analog output inversion” is not supported in this release
- **EHLS – Layer Firmware v1.12**
 - AOM file format for analog out is not supported in this release
 - Note that the SMITC is not supported in this release
 - Option to “Enable analog output inversion” is not supported in this release
- **EDIO – Layer Firmware v1.10**
 - GPS port will not be supported
 - Vehicle Bus modules will not be supported
- **EITB – Layer Firmware v1.5**
- **ENTB – Layer Firmware v1.0**

eDAQXR processor “EXRCPU”

- Axis cameras are supported (limited to the officially supported list).
- **EGPS-200 modules are not supported in this release**
- Serial Bus modules are not supported.
- The following MXB modules are supported
 - MX1615 B / BR
 - MX1601 B / BR
 - MX1609 KB / KBR
 - MX840 BR
 - MX411 BR
 - MX471 B / BR
 - MX878 B (Limited Functionality – See Help System)

Channel and Test Setup

This section lists current functional issues that TCE/eDAQ users will likely view as deficiencies. Most of these (and possibly all) will be addressed in future releases.

- There is currently no support for multiple runs. All test runs are currently treated as autonomous runs. A new SIE file is generated for every test run.
- There is currently no support for locking sensor scaling “calibrations” (e.g., after a shunt scaling task is executed, the user needs to be careful to not change the parameter values associated with this experimental task).
- The eDAQXR currently supports Zero and Shunt scaling tasks in an interactive mode only. The user needs to be patient and wait for all channel readings to become stable for each step in the task.
(See the Known Issues and Advisories section below for critical information on using the Zero task!)
- There is currently no support for automatic zeroing before the start of a test run.
- There is currently no support for “back calculating” lead wire resistance.
- There is currently no provision for assigning data types to channels. All legacy eDAQ and MXB channels are sourced and stored in the SIE file as 32 bit floats. All other channels are sourced and stored in the SIE file as 64 bit floats (including CAN, GPS, and digital input channels).

Networking

Networking is handled much differently in the eDAQXR compared to the eDAQ. There is currently only one networking mode supported. Mode 1 networking is a “seamless” mode where the test is setup and executed using only one node that we call “master”. The other nodes on the network source data only and we call these nodes “slaves”. Normally, the user only connects to the “master” node for all test setup and test control tasks.

- Currently only one “slave” node and the “master” node configuration is supported
- MX modules are not yet supported with a networked system
- SMSTRB4 modules are supported on the master node only.
- AOX files that contain the scaling information for the EHLS and EBRG analog output signal must be downloaded from each network node independently.
 - Computed channels and DataModes:
- Some of the eDAQ computed channels currently have no use in the eDAQXR and are not supported (e.g., Engineering Scalar and Integer Scalar).
- Power Saver computed channel is not supported.
- Time at Level (multi-dimensional) DataMode is not supported.

Incremental Bug Fix Release v1.20.1

- **Issue with SDB sensor dropping causing error reset.** When dropping an SDB bridge sensor onto an SMSTR channel and running live updates, an error reset condition would result. This issue has been corrected.

Known Issues And Advisories

- **Critical issue with the Zero task.** This is limited to EBRG and EHLS channels only. This is also limited to the situation where the channel signal is outside the measuring range of the channel based on the user defined Range min/max parameter settings. If the Zero task is performed in this relatively rare situation, the system will **NOT** zero the channel on the first attempt at least. Worse yet, the user interface will incorrectly show that the channel is zeroed! As such, the user needs to rerun the Zero task at least once to see if all channels were actually zeroed. The Zero task may need to be run multiple times in the very rare situation where the input channel signal grossly exceeds the Range min/max settings.
- **Excel Import/Export of channel information.** This functionality is very limited at this point. This will be implemented in future releases
- **Sensor Database support.** The database format is based on what Catman uses today. This has limited functionality at this time, but will evolve over time.
- **Web browser exceptions.** The web browser interface will sometimes lock up or not properly reflect the actual states of the hardware or test. Refreshing the browser will usually correct this.
- **Two point experimental scaling.** This scaling mode is not supported in this first release of the eDAQXR.
- **SIE file naming issue.** The “Save data file as” option in the Test Control page persists from one test run to the next only in the Normal test run mode. It does not persist in the Cyclic or Remote control run modes.
- **Recommended browsers.** The recommended browsers when using the CX23-R web interface are up to date versions of Chrome and Firefox. The web interface may work on other browsers but may result in degraded or undesirable operation.
- **Setups utilizing multiple video channels from a multi-channel video encoder is not supported.** Although the eDAQXR will allow the user to specify multiple video streams from a multi-channel encoder, using more than one channel from a multi-channel encoder is not supported, and configuring a test with this configuration may in not as-configured results, and is at the user's own risk. It is recommended the user only use one channel on a multi-channel video encoder.
- **Live video displays when using the Axis m7001 video encoder.** The Axis m7001 encoder can be used, but there are limitations on video display capabilities with this old and now discontinued Axis product. Video frames will be properly stored in the SIE file; however, viewing of the video frames is supported in the Hardware view only. As such, video frames cannot be displayed when the SIE test is running.
- **Caution when using Netgear networking interfaces.** Certain Netgear switches and routers have been known to not work reliably when connected to the Host port of the eDAQXR. The problem will manifest as the Netgear networking interface showing the eDAQXR is not connected when in fact it is. In certain situations, a power cycle of the Netgear networking interfaces can correct the problem. For these reasons, it is strongly recommended that for any high availability or high assurance test platforms, that Netgear networking interfaces not be used to connect to the eDAQXR Host port.
- **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 eDAQXR system for more information.