RELEASEnotes

Version 8.34

1. Update information

These release notes describe changes between Perception (including GEN series firmware) versions V8.30.22203 and V8.34.22308.

2. Mid- and long-term support roadmap

Starting with Perception V8.00 some legacy features, mainframe and card support are no longer present. (A Perception V7.6x maintenance version is available for critical bug fix support.)

Supported on latest Windows versions

Including all updates until June 2022:

- Windows 10 Pro 1607 and higher (64 bit only)
- Windows 11 Pro

Installation requirements:

- Dot Net Framework V4.8
  (distributed with the install CD and available for download on the internet)
- Microsoft Direct3D® capable graphics card.

Downgrade

Perception V8.34 can be downgraded to the following versions.

> ⚠ **Note**: When an EtherCAT card is installed, a downgrade to any version before V8.28 must go through version V8.28 first. ⚠

- Perception V8.3x
- Perception V8.2x
- Perception V8.1x
- Perception V8.0x
- Perception V7.6x
- Perception V7.5x

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3. Perception versions

Version	Description	
	Perception Standard	Free
1-PERC-AD-0x	Perception Advanced	Paid
1-PERC-VA-0x	Perception Viewer Enterprise	Paid
1-PERC-E64-0x	Perception Enterprise	Paid

Perception supports the following application extensions:

Version	Description	
1-PERC-OP-EDR	eDrive application (setup, live and efficiency mapping table)	Paid
1-PERC-OP-STL	Advanced High Voltage/High Power analysis according STL standards	Paid
1-PERC-OP-HIA	High Voltage Impulse Analysis	Paid
1-PERC-OP-CSI	CSI Runtime extensions (Customized Software Interfaces)	Paid

4. Known Issues

Below table lists known issues.

GN310B Card	The GN310B card supports Power Calibration. Currently Perception fails to show the correct power calibration date. The date shown maps on '12/30/1899'.
Perception settings	Mainframe settings changed via the Fieldbus remote control are not updated in the UI. Reconnecting to the mainframe will show the changes.

5. New Features

Perception – General new Features

FDB	The FDB has been extended with the IntegrateGated function, which is the counterpart of new IntegrateGated function in the RTFDB. This function allows integrating a signal over a user-specified time interval. The integration interval is started when a user-specified signal goes from zero to one. See also 'RTFDB functions' below.

Perception – New ePower Suite Features

New Features for Hardware

EtherCAT control	The GHS mainframe settings and acquisition control can be controlled via EtherCAT. The protocol and commands are the same as CAN remote control. Sending command SDO triggers execution of the command with provided parameters.
RTFDB functions	The RTFDB has been extended with the functions IntegrateGated, OneShotTimer and SetScalarFromFieldbus. Together, those functions allow integrating a signal over a user-specified time interval which is started at a user-specified time. Both the integration time and the start time can be controlled from the fieldbuses by, for the integration time, defining the appropriate value on the fieldbus and, for the start time, causing a signal transition on the fieldbus at the moment the integration should start.
GEN4tB	Support for a second source CPU module is added.

6. Improvements

Improvements in Perception

Async live data	Improved stability of async live stream by avoiding unneeded buffering which could result in an out of resources.
Export data	Fix for exporting segments where FDB does not detect any cycles.
Display traces	Fix for incorrect initial display range causing flipped display traces.
RTFDB traces	Resolved scaling issue for @CycleHarmonicRMS/Phase function result

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Usability	Added an UI control to open the PDF describing the Fieldbus Remote Control.
G082 EtherCAT	Calibration software shows mainframe in use when an EtherCAT card is installed. Fixes SUPEPT-195
Spectral display	The spectral display always gives the spectral representation between the cursors. This is true for Review as well as ReviewSweep. Using this functionality in ReviewSweep allows the user to compare spectral content of sweeps even if they are not completely aligned in time. Fixes SUPEPT-197
Phasor display	The phasor display is populated with available data. Fixes SUPEPT-194
Trigger arm	When trigger arming is used the arming state is reported to the user in Perception.

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Improvements in the Perception ePower Suite

Workbench loading	Fixed issue with loading the setpoint table resulting in missing results.
FDB cut-off frequency	The FDB converted RTFDB HWFilter function is mapped onto the same filter characteristics. Fix issue SUPEPT-191
Setpoint file	Fix for using Greek letters in setpoint XML file. Fix issue SUPEPT-193

Improvements for CAN and GEN DAQ API

Improvements for Hardware

Internal disk support	The following disks can be used within the GHS mainframes. • M.2_Samsung SSD 980 PRO 500GB • Samsung SSD 860 PRO 1TB
Samba share	The Samba file sharing has been fixed.
EtherCAT	List of SDO for EtherCAT Control are added in ESI file.
GEN DAQ API	GenDaqAPI - improve error codes on ConfigBoot
Fieldbus	Naming of fieldbus signals is user selectable.

7. Deprecated support

The following is no longer supported within Perception.

- GPS2750

8. Supported Genesis HighSpeed Mainframes

The following Genesis HighSpeed Mainframes are supported:

- GEN2tB
- GEN3t
- GEN4tB
- GEN7tA
- GEN17tA
- GEN3i
- GEN3iA
- GEN7i
- GEN7iA
- BE3200

9. Supported QuantumX Modules

Note: The support of QuantumX Modules in Perception will stop with future versions of Perception!

QuantumX modules can be integrated in systems with tethered mainframes using the CAN-interface together with a QuantumX MX471C.

The following QuantumX models are supported:

- MX1609KB
- MX1609TB
- MX471B
- MX809B
- CX27B as single network access point only, no setup or control of CX27B

Data streaming is available for all other B type QuantumX modules.

Note: Former Release notes mentioned to support MX471B / MX471C, but this should have been only the MX471B. The MX471C might work in some cases, but this is not guaranteed.

Note: Perception includes and only works with the following QuantumX software components:

- QuantumX firmware: V4.12.32.0
- HBM common API: V4.0.0.56

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