

Release Notes

Perception & GEN Series Firmware

Version v8.64

Contents

1	Update information	2
2	Mid and long-term support roadmap	3
2.1	Supported on latest Windows versions	3
2.2	Downgrade	3
3	Perception Versions	4
4	Known Issues	5
5	New Features	6
5.1	Perception – General new features	6
6	Improvements	7
6.1	Improvements in the Perception ePower Suite	7
6.2	Improvements for Hardware	7
6.3	Support items and requests	7
7	Deprecated support	9
8	Supported Genesis HighSpeed Mainframes	10
9	Supported QuantumX Modules	11

1 Update information

These release notes describe changes in Perception (including GEN series firmware) V8.64.

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.)

2.1 Supported on latest Windows versions

Including all updates until April 2024:

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

Installation requirements:

- Dot Net Framework V4.8 (distributed with Perception installer)
- Microsoft Direct3D® capable graphics card.

2.2 Downgrade

Perception V8.64 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 V8.6x
- Perception V8.5x
- Perception V8.4x
- Perception V8.3x
- Perception V8.2x
- Perception V8.1x
- Perception V8.0x
- Perception V7.6x
- Perception V7.5x

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

Perception recording	When in Perception -> Settings -> Acquisition all optional storage is disabled, the recording will not stop the normal way. It will stop after a timeout of several minutes.
Split recording and RTFDB functions	When using the option for split recording (in Perception go to File -> Preferences... -> Perception -> Recordings) together with one of the RTFDB functions TimedMean(), TimedStdDev(), NumSamplesMean() or NumSamplesStdDev(), the different parts of the recording will remain locked until the end of the acquisition.
Perception settings	If Perception is connected and mainframe settings are changed via CAN acquisition control, the Perception user interface doesn't update those settings with new values. Workaround: disconnect and reconnect to the mainframe.
Setpoints are not created after generating post-processing formulas	In the ePower suite, a common approach is to generate setpoint maps followed by generating post-processing formulas using the Review Formulas button. Currently, after generating the post-processing formulas, the next time, setpoints are not generated.

5 New Features

5.1 Perception – General new features

Supporting Engineering Prototypes GN800B, P1011-4, P1111-4 and P1121-4	These engineering prototypes may only be used with this release in accordance of mutual signed user agreement.
---	--

6 Improvements

6.1 Improvements in the Perception ePower Suite

Additional step required when changing the default measuring time in the ePower suite	When measuring torque using a digital torque sensor, the measuring time of the Timer/Counter channel is an important parameter, also in the ePower suite. For this reason, in an earlier release, the measuring time could directly be set from the ePower suite. The default value of 1us guarantees that the torque signal is stored in the recording with a very high time resolution. Given a certain time resolution in the recording, it is not possible afterwards to get a higher time resolution, so there is a certain risk in changing measuring time to a higher value. For this reason, when changing the measuring time in the ePower suite, an additional window with a short explanation will pop up after which the measuring time can be changed.
--	---

6.2 Improvements for Hardware

Fast Span Change via fieldbus Remote Control	For fast setpoint measurement, it is important to change multiple ranges very fast via fieldbus remote control. Up until now, the span of channels can only be changed sequentially via remote control. From release 8.64 onwards, there has been improvement made for fast span change, this enhancement will allow changing a set of spans in one go. The fieldbus remote control document may be referred for details of commands for both CAN and EtherCAT.
---	---

6.3 Support items and requests

The speed of batch processing is improved	SUPEPT-307	The speed of batch processing was improved by solving an underlying cache issue.
Unable to open large recording file on FAT file system	SUPEPT-360	In some cases, a recording file can be so large that it cannot be supported by the underlying file system (e.g., when a file is copied to a FAT file system). When this is done from Perception, there is a recovery procedure which did not always work well. This problem is now fixed in this release.
Default setting of the measuring time for torque changed from 50ms to 1us	SUPEPT-367	The measuring time is used for the so-called Timer/Counter channels. In recent releases, in the ePower suite, this time was set to 50ms as a default which is too long for most applications. In this release the default is set to 1us allowing the highest possible time resolution for Timer/Counter signals.
Perception V8.60 cannot read a pNRF file saved by V7.60	SUPEPT-376	In some situations a pNRF file generated using version V7.60 could not correctly be opened by V8.60.

Recording file size increases drastically when load the workbench the first time	SUPEPT-381	A problem causing a large recording file due to a high sample rate when loading a workbench for the first time was solved.
Mainframe is endless rebooting with stored user settings	SUPEPT-385	A problem with an endless rebooting loop using specific user settings was solved.
Filter digital torque and speed values were not saved correctly to the workbench	SUPEPT-389	A problem with not storing the settings for the pulse width filters at the input of digital timer/counter channels was solved.
Perception crash in Preview mode when only one group's storage is enabled	SUPEPT-392	A problem that caused Perception to crash in Preview mode when only one group's storage is enabled was solved.
The data published through XCP over Ethernet to CANape are not corresponding to Perception display	SUPEPT-394	A problem with data publishing through XCP over Ethernet was solved, the data published through XCP over Ethernet to CANape is inline and corresponds to Perception display.
Mainframe alert - ConfiguredBoot file is based on a different version of software than currently used.	SUPEPT-400	A problem causing this unwanted mainframe alert "ConfiguredBoot file is based on a different version of software than currently used" was solved.
Gen3i and sudden restarts	SUPEPT-401	The problem was not reproducible from the log analysis, logs captured were overwritten upon restart. For integrated systems, there has been improvements made to better capture the logs. Functionality to copy all the files in the diagnostics folder to a timestamped subfolder, upon fatal assert has been added. This allows to better investigate the root cause on any future re-occurrence of such problem.
Saving a .txt file as a recording does not work	SUPEPT-403	A text file can never be saved as a Perception recording file (pnrf). When trying to do this anyways, an error message will be given.

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
- GEN7iB
- GEN7tB
- GEN17tB
- 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

Patents no: 7,868,886

©Hottinger Brüel & Kjaer GmbH. All rights reserved.

All details describe our products in general form only.

They are not to be understood as express warranty and do not constitute any liability whatsoever.

Hottinger Brüel & Kjaer GmbH

Im Tiefen See 45 • 64293 Darmstadt • Germany

Tel. +49 6151 803-0 • Fax: +49 6151 803-9100

E-mail: info@hbkworld.com • www.hbm.com