

# RELEASEnotes

## 1 Version 7.50

### 1.1 Update information:

These release notes describe changes between Perception (including GEN series firmware) versions V7.40.19176 and V7.50.19343

### 1.2 Mid- and long-term support roadmap

#### Windows 7 support

Microsoft stops safety updates for Windows 7 early 2020.  
Perception V8.xx releases will no longer work on Windows 7 based PCs.

#### Windows 8/8.1 support

Microsoft officially ended support for Windows 8 end of 2016. It is highly recommended to upgrade to Windows 8.1.

Microsoft stops safety updates for Windows 8.1 end of 2023.  
Perception V8.xx releases will no longer work on Windows 8/8.1 based PCs.

#### Perception V7.xx and Windows 7/8.1 support

HBM will support Perception V7.xx for Windows 7 and Windows 8.1 both as 32 bit as well as 64 bit version.

A reasonable amount of effort will be spend on any V7.xx data integrity and/or data loss issues to investigate and possibly fix the issue. Cosmetic issues and new features will be not be addressed for V7.xx.

### 1.3 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

#### 1.3.1 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

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1.4 New Features

Phasor display	Perception now supports phasor displays. The display visualizes angles and amplitudes of up to 20 phasors per display.
eDrive	CAN channels are now supported as part of More Meters.
Digital filtering	Digital filtering is automatically applied to reduce noise when selecting a digital torque or speed transducer.
User keys	Conditional If and While actions have been extended with evaluation of “starts with”, “contains” and “ends with”.

1.5 Improvements

RT-FDB	<p>RT-FDB channel names starting with a number are now supported.</p> <p>@CycleEvent ‘cycles’ argument is now properly evaluated, in version 7.40 it was fixed to 50.</p> <p>Resolved a deployment issues in certain setups when @CycleDetect storage was disabled.</p>
eDrive	<p>Publishing to Excel performance is improved.</p> <p>eDrive names can now contain special characters like ‘-’, ‘+’ sign.</p> <p>Resolved issue that prevented pVWB files to be loaded when Perception was set to Japanese language.</p> <p>It is now possible to replace Greek characters (like Α) with ASCII characters when generating eDrive Creator formulas. This allows better integration with some other third-party systems and tooling.</p> <p>User defined RTFDB formulas can now be added to more meters in eDrive Creator</p> <p>Added support to shunt and zero torque sensors in eDrive Creator</p> <p>Added support for measuring mechanical differential in eDrive Creator; this allows two mechanical measurements and automatically calculates the total torque and speed average and difference between the two measurements.</p> <p>Setpoint map now also allows negative values.</p> <p>eDrive Creator now shows message when trying to start when disk is full.</p> <p>eDrive Creator RPC API was created, new functions available are:</p> <ul style="list-style-type: none"><li>- GeteDriveCreatorConfigStrings</li><li>- SeteDriveCreatorConfigStrings</li><li>- GeteDriveCreatorValues</li></ul> <p>Note: Existing eDrive RPC calls are <b>not</b> (yet) forwarded to eDrive creator.</p> <p>eDrive Creator now supports FFT</p>

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	<p>eDrive Creator allows printing of the connections between the DAQ system and device under test.</p> <p>Improved performance of eDrive combined with MX471B/C</p>
<b>EtherCAT</b>	<p>When using configured boot with EtherCAT, the channel offset is now applied to timer-counter channels.</p>
<b>CAN</b>	<p>CANdb files generated from an eDrive Creator setup could contain ".". These are not valid in a CANdb file, now these characters are replaced with an "_" character.</p> <p>No more blocking message when creating CANdb file if some of the systems do not have CAN-out support from Perception.</p>
<b>QuantumX</b>	<p>MX471B/C could start dropping live meter values approximately 1 minute into the recording due to CAN bus timestamp jitter.</p> <p>MX471C now supports up to 200 signals per node.</p> <p>Multi sweep recordings with some disabled channels now automatically stop recording after the requested amount of sweeps are recorded.</p> <p>Forcing units to decimal samplerate domain on connect, this reduces risk of potential timedrift between signals from QuantumX and other mainframes. If the unit was not set to this samplerate domain, the first connection may take longer than normal as the unit is restarted to work with the new setting.</p>
<b>Other</b>	<p>Diagnostic information cleaning now done only on date of files, previously some relevant diagnostics could be removed to save space.</p> <p>The Macro manager could clear a macro in some rare case, this has been resolved.</p> <p>PT100 settings are now properly loaded when using mainframe configured boot.</p> <p>Some cards could show a 1PPS problem after booting, this was related to the digital IO link detection. This is now resolved.</p> <p>Performance in showing data in meters and display is improved, giving better response setups with lots of meters and displays.</p> <p>IEPE sensor detection now also works when no TEDS information is available.</p> <p>Datasource formatting now stored system wide and reused where possible.</p> <p>Datasource formatting now allows use of unit prefixes.</p> <p>Improved Perception responsiveness when working with workbenches containing display markers combined with heavy FDB mathematics.</p> <p>Function to get coefficients of the exponential function for getting DC component of an asymmetrical current signal has been modified. A first minor crest may now be found sooner as the detection level has been decreased. To skip unwanted first minor crests, adapt the calculation start point.</p> <p>NextLvlCrossing has been modified to be more robust against position rounding</p>

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issues.

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## 1.6 Supported on latest Windows versions

Including all updates until July 2019:

- Windows 7 Ultimate SP1 (64 and 32 bit)
- Windows 8.1 Pro (64 and 32 bit)
- Windows 10 Pro 1607 and higher (64 bit only)

**Notes:**

Perception 32-bit version can be downloaded from the HBM website

**Installation requirements:**

- Dot Net Framework V4.7.2  
(distributed with the install CD and available for download on the internet)
- Microsoft Direct3D® capable graphics card.

## 1.7 Supported Genesis High Speed platforms:

- GEN2i
- GEN2tB
- GEN3i
- GEN3t
- GEN5i
- GEN7i
- GEN7t
- GEN7tA
- GEN16t
- GEN17tA
- ISOBE5600
- BE3200

## 1.8 Supported QuantumX Modules:

- MX1609KB
- MX1609TB
- MX471B / MX471C
- MX809B
- CX27B as single network access point only, no setup or control of CX27B

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

**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

**Patents no:** 7,868,886

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## 1.9 Perception V8.xx (Expected release date Feb 2020)

Starting with Perception V8.0 some legacy features, mainframe and card support will no longer be present.

(A Perception V7.xx will be available for critical bug fix support)

### 1.9.1 Features removed in V8.0

- Windows 7
- Windows 8.1
- 32 bit Windows versions
- External Timebase
- Binary Timebase
- Direct GEN DAQ NAS drive storage (iSCSI), Perception can still use NAS drives
- Complex backplane trigger-bus setup
- SOAP software interface

### 1.9.2 Mainframe & card support removed in V8.0

Check with your local sales contact for possible trade-in programs.

Part nr	Name
GEN2i	2 slot integrated mainframe
GEN5i	5 slot integrated mainframe
GEN7t	7 slot tethered mainframe
GEN16t	16 slot tethered mainframe
G040	Master/Slave card
G060	IM2 interface card
G001	IRIG option card (Built-in)
G002	IRIG/GPS option card (Built-in)
	<b>DAQ cards</b>
GN810	Basic 200 kS/s
GN811	Basic 1 MS/s
GN812	Basic ISO 1 MS/s
GN813	Basic XT ISO 1 MS/s
GN814	Basic XT ISO 200 kS/s
GN401	Optical receiver multi-mode fibers
GN402	Optical receiver single-mode fibers
GN410	Bridge ISO 200 kS/s
GN411	Bridge ISO 1 MS/s
GN412	Diff 100 MS/s
GN413	Diff 25 MS/s
GN440	Diff/IEPE ISO 200 kS/s
GN441	Diff/IEPE ISO 1 MS/s
GN4070	Optical Event marker
GN6470	Event marker

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