

# RELEASEnotes

## 1 Introduction:

These release notes contain:

- Update information
- What is new
- What is improved
- Supported Windows platforms
- Supported Genesis HighSpeed platforms
- Supported QuantumX modules
- Licensing information

**NOTE: Perception is no longer supported on Windows™ Vista.**

## 2 Version 7.40

### 2.1 Update information:

These release notes describe changes between Perception (including GEN series firmware) versions V7.30.18324 and V7.40.19176

### 2.2 New Features

<b>eDrive Creator</b>	Perception's new eDrive Creator offers full control and flexibility for testing electrical machines and inverters.
<b>Wake-on-LAN</b>	Wake-on-LAN offers the possibility to remotely turn mainframes on and off again.
<b>Digital signal filter</b>	<p>It is now possible to select the minimum width of pulse on a digital signal before it is accepted. This allows filtering of spikes on noisy signals by increasing the minimum pulse width. This option is available for:</p> <ul style="list-style-type: none"><li>• External start</li><li>• External stop</li><li>• External trigger detection</li><li>• External clock</li><li>• Timer/Counter channels</li></ul>
<b>Pulse detect/reject</b>	<p>It is now possible to trigger (detection) or to deny a trigger (rejection) on pulses overlaying the signal. This feature is now available for the input cards:</p> <ul style="list-style-type: none"><li>• GN1202B</li><li>• GN610B</li><li>• GN840B</li><li>• GN1640B</li></ul>

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## 2.3 What is improved:

<b>Mainframe stability improvements</b>	Improved mainframe software stability (in some rare cases, making changes to a formula setup and/or using a CAN dongle caused instabilities)
<b>EtherCAT</b>	The GEN series EtherCAT slave now recovers to operational state after loading configured boot settings.
<b>CAN</b>	<p>Now supporting 1000Hz updates to CAN Bus</p> <p>Removal of a USB CAN dongle in an operational mainframe allowed, without effecting the behavior of the mainframe.</p> <p>Renaming a CAN channel no longer duplicates that channel.</p>
<b>QuantumX support</b>	<p>Fixed case where QuantumX units sometimes reported a false 'no sensor attached'.</p> <p>Now reading units from QuantumX unit instead of reporting [V] always</p> <p>First connection after upgrade could show incorrect number of channels, this is fixed.</p> <p>The lowest sample rate for MX1609B and MX809B is now 100Hz. This will avoid missing data with shorter sweep lengths.  <b>Note:</b> If a workbench saved with a sample rate lower than 100S/s is loaded, the sample rate will automatically be adjusted to 100S/s. Other settings are not adapted.</p> <p>MX471B/C data is now sampled at 1kS/s instead of 25 kS / s to reduce redundant data overhead.</p>
<b>Word reporting</b>	In reporting, bookmarks for bitmaps now resize correctly
<b>Print Settings</b>	Printing settings to PDF no longer causes Perception to crash
<b>Formula database</b>	<p>Improved performance of TrueRMS function</p> <p>Improved responsiveness of displaying data from the formula database</p> <p>Improved cursor readout stability when moving cursor in combination with certain formula database entries.</p> <p>The following new functions were added:</p> <ul style="list-style-type: none"> <li>• NumberOfSweeps</li> <li>• SweepSource</li> <li>• SweepNumberAtTime</li> <li>• SweepStartTime</li> <li>• SweepEndTime</li> </ul>
<b>eDrive</b>	<p>FFT data was not always shown, this has been improved.</p> <p>eDrive now supports setup of sweeps with up to 5 s sweep lengths.</p>
<b>Real-time formula</b>	Using a multiple mainframe setup in combination with RTFDB sometimes caused

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<b>database (RTFDB)</b>	<p>problems in deploying the formulas to the mainframes.</p> <p>Improved syntax error feedback simplifies root cause error tracing in the RTFDB</p> <p>Cycle detect hysteresis is now available using relative (to span) hysteresis</p>
<b>Review while recording</b>	<p>Timer-counter channels in review while recording could cause Perception to exit prematurely.</p>
<b>Digital filter</b>	<p>The following issue has been resolved: In some rare cases the anti-aliasing filter was not enabled. This caused step-shaped signal distortion (repeating samples) when zooming in to the sample level.</p> <p>Applies to:</p> <ul style="list-style-type: none"> <li>• GN1202B</li> <li>• GN8101B</li> <li>• GN8102B</li> <li>• GN8103B</li> </ul>
<b>Sweep visualization</b>	<p>When recording sweeps longer than two seconds, the display did not always refresh data more than two seconds into the sweep in review while recording.</p> <p>Fixed showing live sweep on high zoom level. When showing sweeps on a live display, the display did not show a sweep on the first trigger. Subsequent sweeps 'N' would then actually show data for sweep 'N-1'.</p>
<b>Sensor support</b>	<p>Now supporting non-linear sensor linearization for current and voltage probes.</p> <p>Now supporting any resistance type sensor.</p>
<b>New user key actions</b>	<p>New user key actions were added:</p> <ul style="list-style-type: none"> <li>• Export to; Exports data directly in a variety of popular formats like ASCII</li> <li>• Increment user data source;</li> <li>• Display color inverter; Allows inverting a selection of the colors of a display</li> <li>• Auto scale active pane y-axis; All traces in the active pane will be scaled so they are visible</li> <li>• File copy / move;</li> </ul>

## 2.4 Mid- and long-term support roadmap

Direct GEN DAQ NAS drive storage (iSCSI) is no longer tested with Perception V7.40. It is expected NAS storage is still fully functional. NAS storage will not be available with the next major Perception release (expected V7.50).

HBM suggests the mainframe embedded drive storage as the alternative solution. This option allows for faster data storage and more reliability as no external cabling is present. Contact your HBM sales engineer for adding this option to your system or if alternative storage options are required.

Microsoft stops safety updates for Windows 7 early 2020. As a result, HBM will no longer be able to safely operate the Windows 7 based test PC. HBM will try to safely test a last Windows 7 version of

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Perception in the first half of 2020. If this fails, the Windows 7 support ends with the release of this V7.40. New Perception releases in the second half of 2020 will no longer work on Windows 7 based PCs.

Microsoft stops safety updates for Windows 8.1 end of 2023. HBM will abandon Windows 8.1 support for Perception soon after this date.

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

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## 2.5 Supported/Tested on latest Windows versions

Including all updates until January 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.

## 2.6 Supported/Tested Genesis High Speed platforms:

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

**Notes:**

IM1 modules are no longer supported. Perception 7.30 or higher will notify you if this applies to your hardware.

## 2.7 Supported/Tested QuantumX Modules:

- MX1609KB
- MX1609TB
- MX471B / MX471C
- MX809B

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: V4.0.0.42

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

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**2.8 Perception licenses:**

Version	Description	
1-PERC-ST-01-2	Perception Standard	Free
1-PERC-AD-01-2	Perception Advanced	Paid
1-PERC-VA-01-2	Perception Viewer Enterprise	Paid
1-PERC-E64-01-2	Perception Enterprise	Paid

**2.8.1 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-2	CSI Runtime extensions (Customized Software Interfaces)	Paid

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