### These release notes describe updates from Perception (including GEN series firmware)

### V7.12.17178 to V7.14.17314

### Supported/Tested on latest Windows versions including all updates until 23th October 2017:

- Windows 7 Ultimate SP1 (64 and 32 bit)
- Windows 8 Pro (64 and 32 bit)
- Windows 8.1 Pro (64 and 32 bit)
- Windows 10 Pro (64 bit only)

#### Notes:

Perception is no longer supported on Windows XP and only tested on Windows Vista for GEN5i use Perception 32-bit version is no longer actively distributed. Perception 32-bit version can be downloaded from the HBM website

#### Installation requirements:

- Dot Net Framework V4.6 (distributed with the install CD and available for download on the internet)
- Microsoft Direct3D® capable graphics card.

### Supported/Tested Genesis High Speed platforms:

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

Note: Setup and recording data with LIBERTY, BE256 and MultiPro is no longer supported by Perception.

### Supported/Tested QuantumX Modules:

- MX1609KB
- MX1609TB
- MX471B
- MX809B

Note: Perception includes and only works with the following QuantumX software components QuantumX firmware: V4.10.4.0 HBM QuantumX API: V4.3.1.171 HBM common API: V2.0.1.2

Patents no: 7,868,886



### Perception is available in 3 paid versions:

- 1-PERC-VA-01-2 Perception Viewer Enterprise
- 1-PERC-AD-01-2 Perception Advanced
- 1-PERC-E64-01-2 Perception Enterprise

### Perception supports the following application extensions:

- 1-PERC-OP-EDR eDrive application (setup, live and efficiency mapping table)
- 1-PERC-OP-STL Advanced High Voltage/High Power analysis according STL standards
- Including 1-PERC-OP-HHP HP-HV Automated Analysis
- 1-PERC-OP-HIA High Voltage Impulse Analysis
- 1-PERC-OP-CSI-2 CSI Runtime extensions (Customized Software Interfaces)

## Perception upgrade notes

1-PERC-ST-01-2 Perception Standard no longer requires a key

The following options are now included in any Perception Version

- 1-PERC-OP-IF SOAP & RPC Interface
- 1-PERC-OP-SEQ Sequencer (BE3200) setup and control

Existing paid Viewer licenses are automatically upgraded to Viewer Enterprise.

Existing Perception Standard licenses are automatically upgraded to Perception Advanced when one of the following options is found in your license key:

- 1-PERC-OP-AN Analysis (Formula database)
- 1-PERC-OP-RP Reporting & Word Reporting
- 1-PERC-OP-MEX Multiple Exports formats
- 1-PERC-OP-VP Video Playback
- 1-PERC-OP-MWB Multiple Workbooks
- 1-PERC-OP-IS Customized Info sheets

Existing Perception Professional licenses are automatically upgraded to Perception Enterprise when one of the following options is found in your license key:

- 1-PERC-OP-MMF Multiple Mainframes
- 1-PERC-OP-BFFT Basic FFT
- 1-PERC-OP-SDB Sensor Management



## New or improved features:

New	<b>Remote support:</b> Enable automatic and manual diagnostics and user file (eg recordings/VWB files etc) uploads to HBM cloud based server.
New	System control: Setup and control for the new GN1202B optical receiver card
New	<b>System control:</b> Control the digital output pins of the activating mainframe digital/event timer counter connector(s) from User key
Improved	System control: GN110 to GN113 serial number of channels are not visible in Perception
Improved	RPC programming: SetChannelEnabled() does not support marker channels & TimerCounter channels
Improved	Recording export: Reduced time to show the settings dialog
Improved	Recording export: Allow export to Excel without having Excel installed
Improved	Recording export: Removed 65k values Excel limit for newer versions of Excel
Improved	Recording export: Export selection "all channels" didn't work
Improved	Recording export: Export fails on sweeps with 100% pretrigger
New	Navigator: Mainframe property tooltip information in hardware navigator
New	Y-t display: Allow AUTO Y-AXIS ALL and RESTORE Y-AXIS ALL from display context menu to set Y-scale of all traces with 1 mouse click.
New	Y-t display: Enable setting cursor at specific time when displays are in ReviewSweep mode
Improved	Y-t display: Perception becomes unresponsive when replay is activated with main and zoom window shown
Improved	FDB: Wrong units returned for @CycleCrestFactor() function
New	<b>FDB and RTFDB</b> : Enable skipping the definition of one or more optional arguments in formulas example @CycleDetect(Mysignal; 0.1 ; ; 1)
Improved	RTFDB: Incorrect meter data when using technical unit multiplier in channel setup
New	eDrive: Enable speed/angle measurement using a frequency and direction signal instead of ABz (Quadrature) encoder signals
New	eDrive: Enable automatic setups of different 6 phase engines
New	eDrive: Automatic motor mapping table with CSV export to eg Matlab.
New	eDrive: Add Timeout argument to CycleDetect en CycleEvent
Improved	eDrive: Optimized DSP mathematic to allow more real time math
Improved	eDrive: Added number of polepairs entry field to enable correct calculations
New	eDrive: Added a "Read more" link to open the CT wiring requirements PDF
New	eDrive: Sensor database setup for 1.5 kV and 5 kV probes
Improved	eDrive: Perception 7.12 (eDrive enabled) on GEN3i stops responding when switching to Instrument Panel
Improved	eDrive: Motor-Generator setup on GEN3i/GEN3t causes problems
Improved	Instrument Panel: Entering numerical values gives rounding problem



Improved	Macro manager: Duplication of a macro fails
New	Support import dataformats: Saturn Data File (sdf) recording loader for loading AMO data files
Improved	BE3200/Sequencer: Pulse start time changes not handled correctly.
New	<b>STL:</b> New STLX_SignalStart() and STLX_SignalEnd() functions. STL define SignalStart and SignalEnd at 3% full scale level crossing. The STLX functions first use the defined STL function and then search for the actual zero crossing.



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