RELEASEnotes

1 Introduction:

These release notes contain:
- Update information
- What is new
- What is improved
- Supported Windows platforms
- Supported Genesis High Speed platforms
- Supported QuantumX modules
- Licensing information

NOTE: Perception 7.30 is the last version supporting Windows™ Vista. Perception 7.40 or higher versions will no longer be installable or run on Windows™ Vista.

2 Version 7.30

2.1 Update information:

These release notes describe changes between Perception (including GEN series firmware) versions

V7.20.18075 and V7.30.18324

Highlights:

- BE3200 Sequencer software usability improvements
- Basic GN1202B support within eDrive
- eDrive efficiency mapping heat map generation
- eDrive @ 2MS/s
- GEN DAQ API additions
- Recording file sharing for tethered systems
- RTFDB boolean logic
- RTFDB triggering on signals
- RTFDB supports linearization on physical inputs
- Unified mainframe settings dialog
- FFT export user keys

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2.2 What is new:

eDrive Isolated	An optically isolated setup of eDrive is now possible by using GN1202B acquisition cards.
eDrive efficiency mapping	Heatmaps can now be automatically generated in efficiency mapping.
eDrive @ 2 MS/s	All eDrive configurations* can now be used at 2MS/s. *Enabling advanced optional calculation features may required a lower sampling rate.
eDrive additional math	Space vector calculations can now be added to the eDrive setup.
GEN DAQ API Data streaming	Data streaming has been added. The same principles and restrictions apply as with EtherCAT and CAN output.
GEN DAQ API settings	Retrieval and modification of a subset of mainframe, recorder and/or channel settings is now possible.
Recording file sharing	Mainframe local disk recordings in tethered systems can now be accessed and/or deleted via Windows file sharing. This feature is disabled by default and configurable from Perception.
QuantumX data streaming support	It is now possible to connect and record data from all B or later type QuantumX modules within Perception. Setup for modules except MX1609B and MX809B should be done through the MX Assistant.
CAN Out	It is now possible to publish async RT-FDB results to CAN bus. Both CAN2.0 and CAN FD are supported.
RTFDB	Support for RTFDB on GN1202B and GN810xB cards.
RTFDB boolean logic	The following Boolean functions are added to RTFDB - Equal - GreaterThan - LessThan - InsideBand - And - Xor - GreaterEqualThan - LessEqualThan - NotEqual - OutsideBand - Or - Not
RTFDB triggering on signals	RTFDB supports two functions to generate triggers*. These triggers can be used to generate sweeps and indicate events. - TriggerOnBooleanChange - TriggerOnLevel *Not all signals can be used as input for these new functions, please see the help section or the manual for detailed information.
RTFDB supports linearization on physical inputs	RTFDB support added for polynomial and multi segment linearization of physical inputs.
New User Key actions	Conditional: Do while Acquisition: Start, Stop, Review Acquisition, Manual Trigger Automation: Process Display now, Export FFT spectra using FFT export user key.
STL function	STLX_GetActionTime was added. This function allows retrieval of the action time of an analog or digital trip signal.

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2.3   What is improved:

Sequencer	Loading old TeamSeq SQN files also loads the channel sorting. Added the pulse start and length to the annotation area. Improved usability of channel sorting. Added support for blank lines.
XY-Display	Fixed gaps in signal.
Sweep processing	Performance of sweep processing in automation is increased.
MDF4 export	Exporting of asynchronous (RTFDB) to the MDF4 file format is now supported.
Manually added mainframes	Persistency of manually added mainframes and archive folders configurations is improved.
AMO file reader	Earlier limit of reading only the first 31 channels has been removed.
Mainframe settings	All mainframe settings dialogs in Perception are now unified into a single dialog.
GEN DAQ API	The GEN DAQ API function GHSSetRecordingBaseName has been deprecated. Instead the new API function GHSSetRecordingName shall be used. Besides setting the recording base name, this function also sets the initial recording index. This is in line with the way Perception allows to set the recording name. The GEN DAQ API client side code example has been split into multiple categorized examples. .Net Example drawing was improved (removed flicker) Multiple enable/disable GEN DAQ API calls in a row could lead to a problem in the mainframe.
FFT Export User key action	Problem FFT export via a user key action when time display X-axis is not set to relative time has been solved.
Stop Recording	Stopping a recording could sometimes cause a timeout when using Realtime formulas.
Spectral Display	Now using Nyquist (ratio 2.0 to sample rate) to set limit of maximum frequency to draw spectrum. This used to be a ratio of 2.56 of samplerate.
RPC load settings	When loading settings or a VWB through RPC, Perception is now automatically put into silent mode. This means that all blocking messages, except those deemed critical, are suppressed and the Perception will not await user input. After loading the settings, the silent mode is restored to its previous state.
FDB	Parser did not capture superfluous closing brace. Now this is flagged as a parse error.
RTFDB	Parser did not capture superfluous closing brace. Now this is flagged as a parse error. Change of technical units is now correctly updated. RTFDB channel cursor value readouts were sometimes multiplied with a factor, this is solved.

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	RTFDB sweep memory is now guarded against excessive use. RTFDB Sweeps are now discarded if not all data is available and more than 10.000 are queued for processing. Improved handling of back to back sweeps. It is no longer possible to edit RTFDB formulas while the system is storing data as this could result in an unresponsive mainframe.
QuantumX support	Using a CX27 is now supported, please note that when using a setup with a CX27, time synchronization setup for the QuantumX should be done using the MX Assistant, which is available on the website.
PTP Setup	It is no longer required to use a PTP aware switch when using a combined QuantumX and GEN Series mainframe setup.
Sensor database	Now supports omega sensor. Now supports LEM IN1000-S - HBR1
Firmware upgrade	In some rare cases the upgrade of a GEN2i, GEN3i or GEN7i would not stop automatically. This is solved.
eDrive	Sometimes spans would be clipped to value of other sensors when reloading a workbench this is solved. When channels had duplicate names, the eDrive More Meters dropdown would not show content correctly.
Splash screen	GEN3i's no longer show GEN2i on the splash screen information. This was a visualization issue only.
Mainframe setup dialog response	For some systems, calling up the mainframe setup dialog took +-25 seconds. This is solved.
GN840B / GN1640B	In some rare cases these cards could get blocked, this is solved.
Fiber cards	Card could become unresponsive when sample rate was changed at the exact same time as a fiber link status change.
Configured boot mode	Sometimes starting a mainframe in configured boot mode would fail because of an internal timing issue. This has been resolved.

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2.4 Supported/Tested on latest Windows versions

Including all updates until 30th April 2018:

- 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 not actively tested on Windows Vista.
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.

2.5 Supported/Tested Genesis High Speed platforms:

- GEN2i
- GEN2tB
- GEN3i
- GEN3t
- GEN5i
- 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.

2.6 Supported/Tested QuantumX Modules:

- MX1609KB
- MX1609TB
- MX471B
- 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: V4.0.0.7

Patents no: 7,868,886

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2.7 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

2.7.1 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

2.7.2 Perception license upgrade notes

The Perception licensing model was updated since version 7.14 (dec-2017), this may impact your existing license. The table below shows which options are included in which version.

Option	Description	Perception Standard	Perception Advanced	Perception Viewer Enterprise	Perception Enterprise
	Single mainframe control	V	V		V
1-PERC-OP-MMF	Multiple Mainframes				V
	PNRF viewing	V	V	V	V
1-PERC-OP-IF	SOAP & RPC Interface	V	V	V	V
1-PERC-OP-SEQ	Sequencer (BE3200) setup and control	V	V	V	V
1-PERC-OP-AN	Analysis (Formula database)		V	V	V
1-PERC-OP-RP	Reporting & Word Reporting		V	V	V
1-PERC-OP-MEX	Multiple Exports formats		V	V	V
1-PERC-OP-VP	Video Playback		V	V	V
1-PERC-OP-MWB	Multiple Workbooks		V	V	V
1-PERC-OP-IS	Customized Info sheets		V	V	V
1-PERC-OP-BFFT	Basic FFT			V	V
1-PERC-OP-SDB	Sensor Management			V	V

License conversion:

Licenses are automatically updated to ensure existing options are kept:
Existing paid Viewer licenses are automatically upgraded to Viewer Enterprise.
Existing Perception Standard licenses with one or more options are upgraded to Perception Advanced.
Existing Perception Professional licenses with one or more options are upgraded to Perception Enterprise.