



2026.2 Release Highlights

- Licensing model updates
- Advanced plotting system
- Active Clamp Forward converter UltraCore solver support
- SMBus protocol support
- Grid Modernization communication updates
- e-Mobility communication updates



Licensing model updates

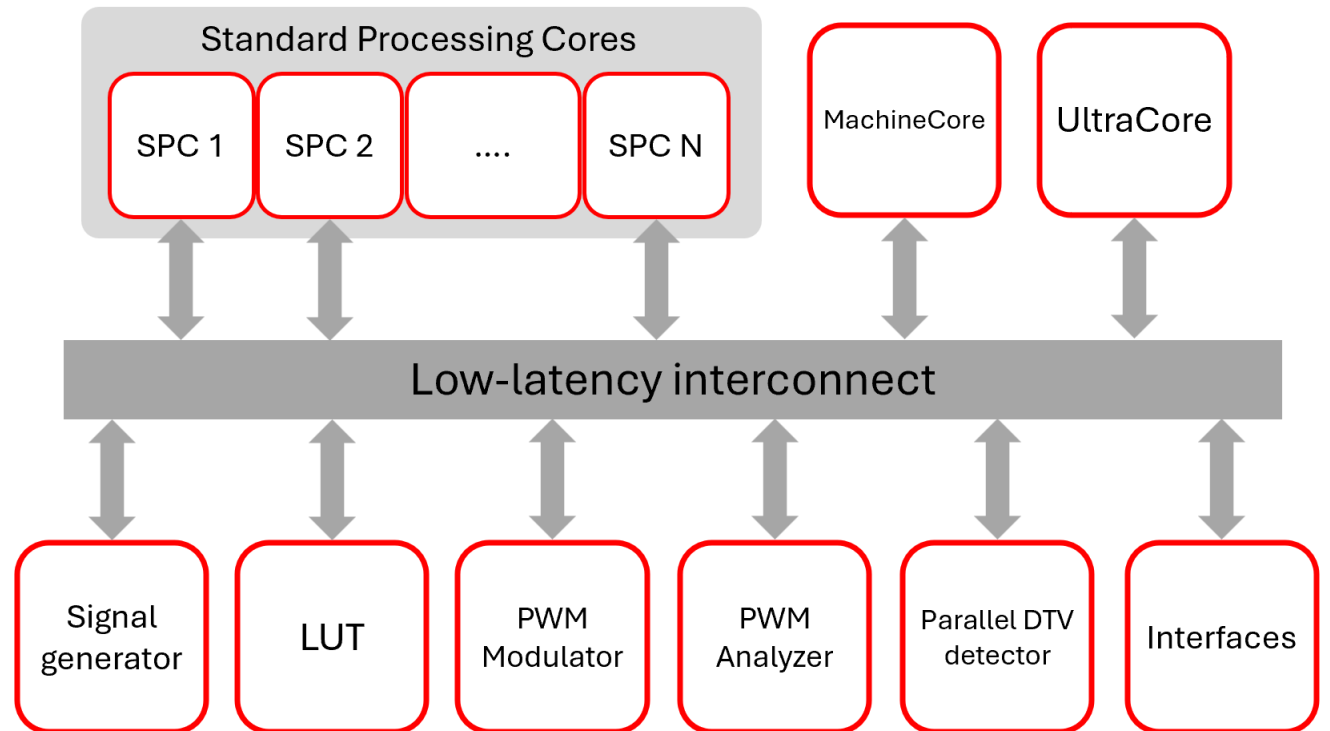
Licensing model now significantly streamlined

- Toolboxes replaced with licensable products, and significantly streamlined
 - Introduced new HILCore Pro and HILCore Max real-time modules, including new firmware/HILCore configurations
 - Power Systems and Microgrid Library replaced with Grid Resources and Grid Protection libraries
 - Power Loss Calculation and Nonlinear Machines features are now available on all suitable firmware/HILCore configurations
- Improved transparency on licenses in THCC via License Information dialog

Licensing model updates

HILCore concept

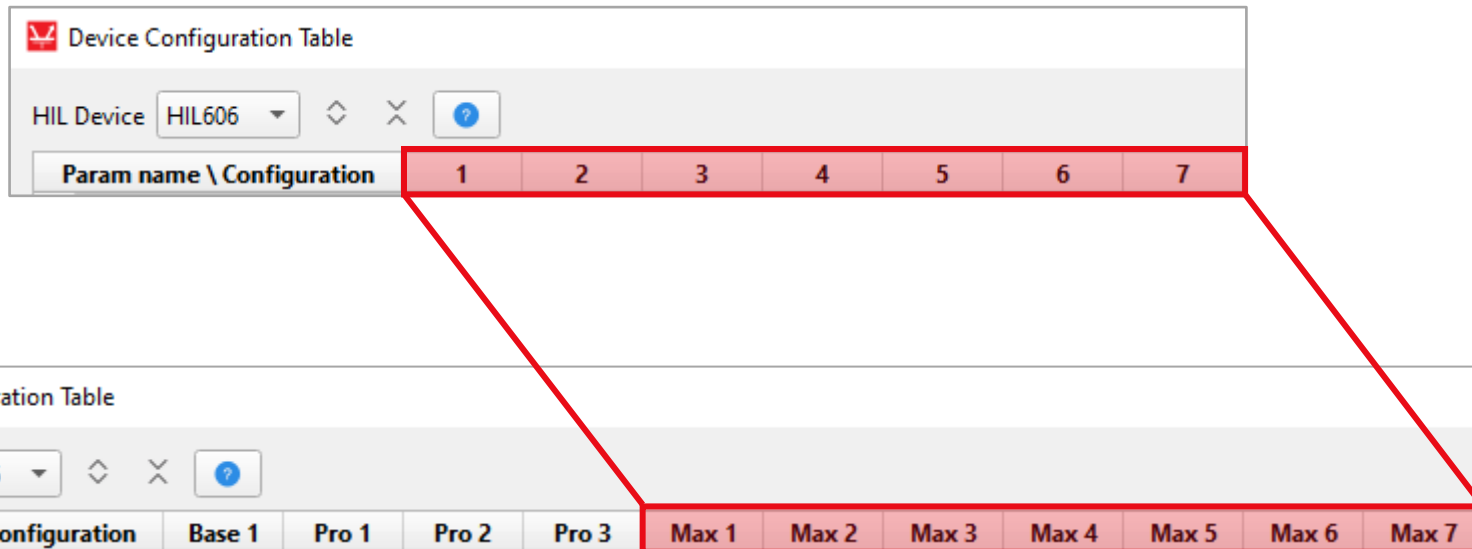
- **HILCore solvers** are scalable, FPGA-based computational elements that allow for versatile combinations and parameterization of functional units
- Includes:
 - SPCs
 - MachineCore
 - UltraCore
 - HILCore Additional Resources



Licensing model updates

New firmware/HILCore configurations

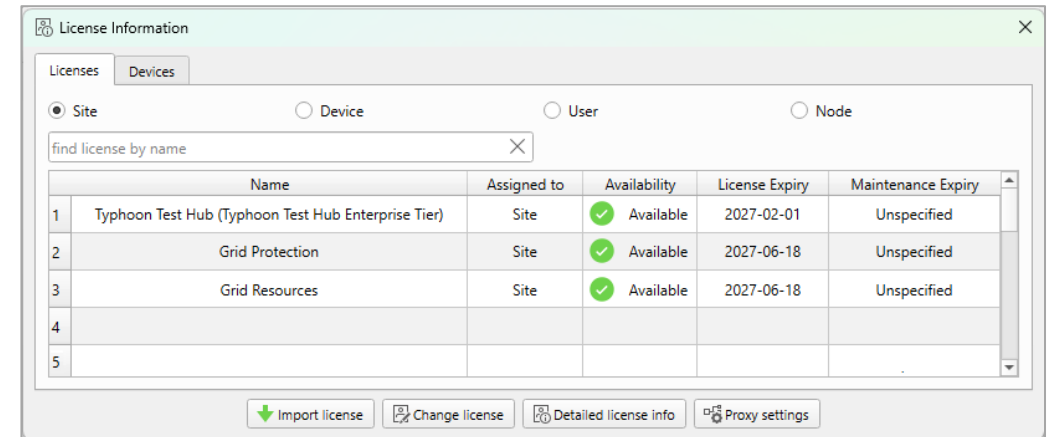
- Configurations are now split into **3 (+1)** distinct categories (tiers) corresponding to HILCore licenses:
 - **Base**
 - **Pro**
 - **Max**
 - Custom
- Previous configurations are inherited as the highest tier for each device:



Licensing model updates

New License Information dialog

- License Information dialog has been redesigned and split into multiple categories:
 - License tab
 - Site
 - Device
 - User
 - Node
 - Device tab



- New .lic file format – v3

License Files

[Download license file v2 \(from 2019.4\)](#)

[Download license file v3 \(from 2026.2\)](#)

Advanced plotting system

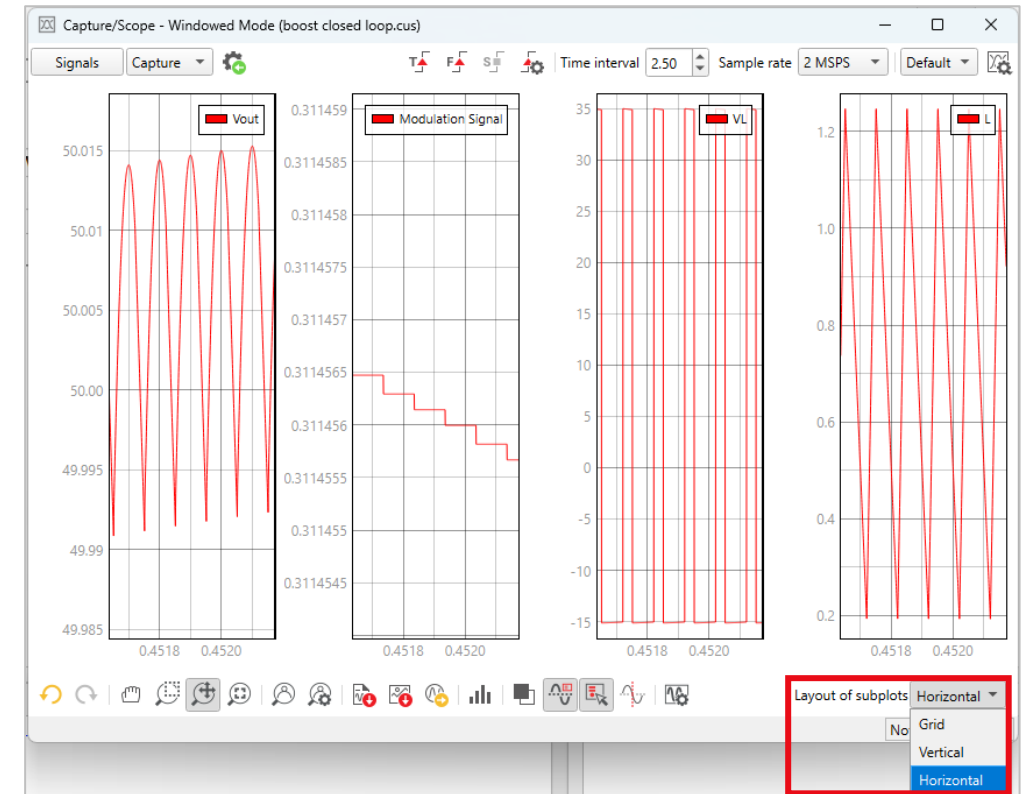
Plotting system overhaul

- New updates to the plotting system used in:
 - Signal Analyzer
 - Capture/Scope widget in SCADA
 - Scope component in the Schematic Editor
 - FFT dialog window

- Maximum number of subplots increased from 4 to 6

Signal	Viewport	Collected	Delete
1 A L	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

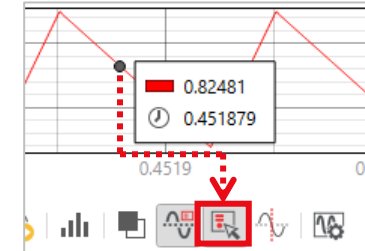
- New Horizontal layout available for subplot arrangement in addition to previously available Vertical and Grid layout



Advanced plotting system

Plotting system overhaul

- ❑ Toggleable tooltip showing signal values at cursor position



- ❑ Signal Data dialog enhancements:
 - Added $1/\Delta X$ and ΔY cursor calculations
 - Added option to show or hide individual calculations

A screenshot of the Signal Data dialog window. It features a table with columns for Cursor 1, Cursor 2, ΔX , $1/\Delta X$, Minimum, Maximum, Mean, and RMS. The $1/\Delta X$ column is highlighted with a red box. To the right of the table is a settings menu with checkboxes for various calculations: ΔX , $1/\Delta X$, ΔY , Minimum, Maximum, |Maximum|, Mean, and RMS. The menu is also highlighted with a red box.

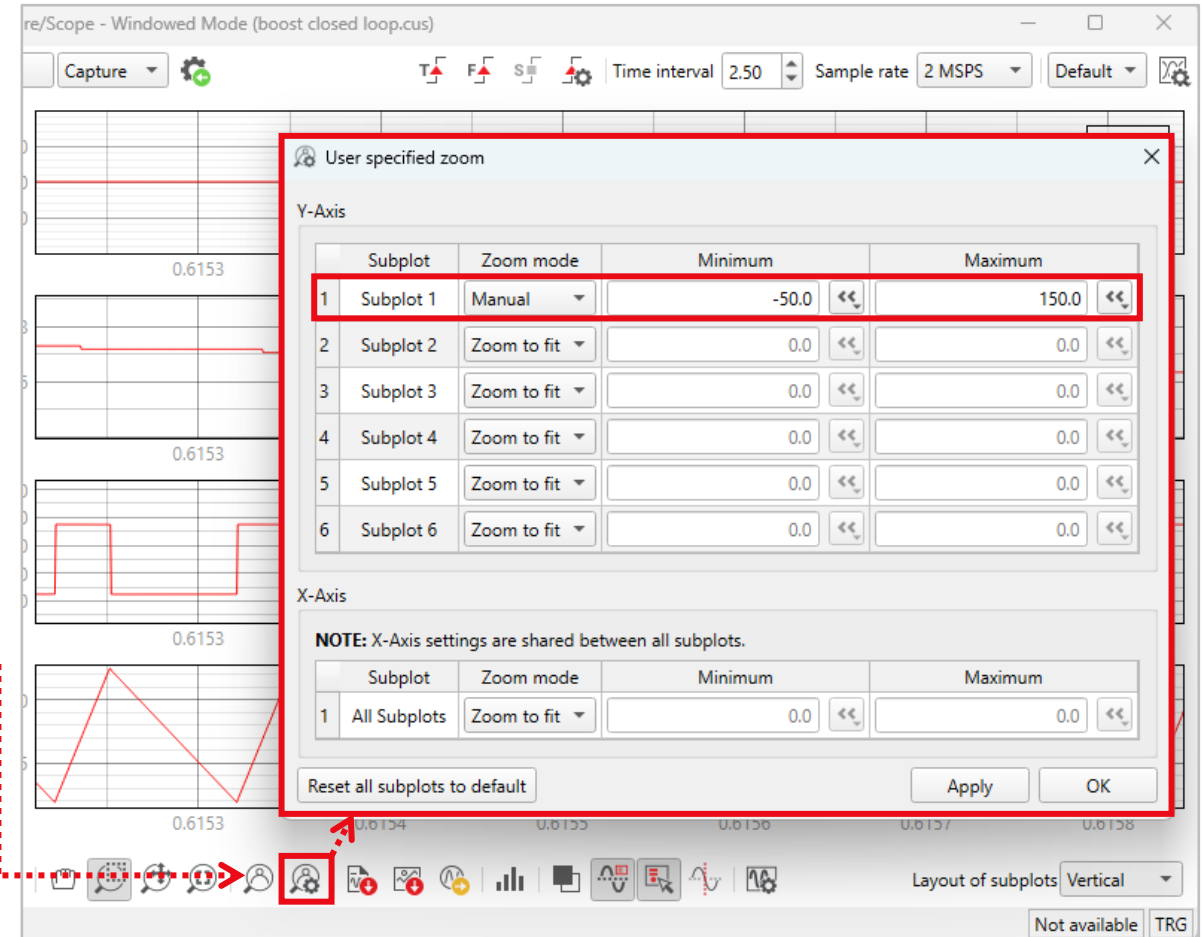
Cursor 1	Cursor 2	ΔX	$1/\Delta X$	Minimum	Maximum	Mean	RMS
0.615378s 50.00746	0.615475s 50.00643	9.7e-05	10309.2783505155	49.98912	50.012054	50.004047	50.00405
0.615378s 0.31145707	0.615475s 0.31145692	9.7e-05	10309.2783505155	0.31145692	0.31145707	0.311457	0.311457
0.615378s -15.092197	0.615475s -15.095701	9.7e-05	10309.2783505155	-15.114963	34.98068	0.64561135	23.226217
0.615378s 0.8398034	0.615475s 0.88515234	9.7e-05	10309.2783505155	0.19322194	1.2464596	0.7150382	0.778434

- ❑ Signal Properties dialog window updated:
 - Settings mode: Auto / Manual
 - Subplot settings migrated to User Specified Zoom Settings

Advanced plotting system

Plotting system overhaul

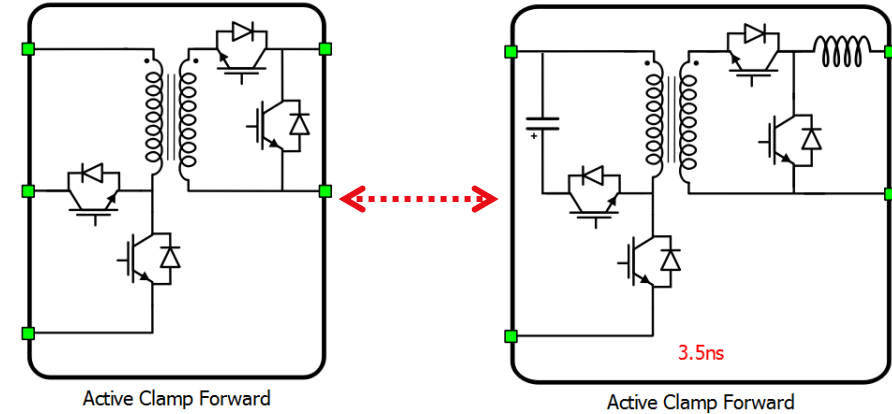
- User Specified Zoom Settings updated:
 - Zoom modes: Zoom to Fit or Manual
 - Configurable minimum and maximum axis values
 - X-axis limits must remain within the data range, while Y-axis limits can be arbitrary
- **“Zoom to user specified range”** added in addition to “Zoom to fit” option
- Scroll Zoom now available in all manual zoom modes
 - SHIFT + Scroll – to zoom the Y-axis
 - CTRL + Scroll – to zoom the X-axis



Active Clamp Forward converter UltraCore solver support

New addition to the Enhanced Resolution converter library

- Active Clamp Forward converter now able to run on 3.5 ns timestep
- Users can choose between solver platform using the **Component properties** window:
 - SPC
 - UltraCore



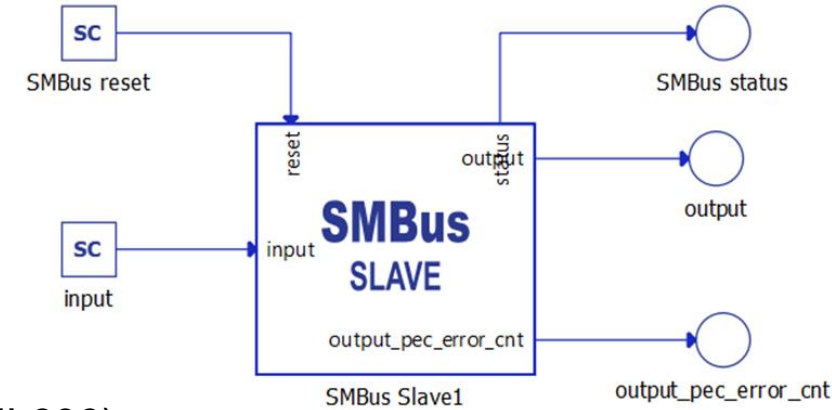
- Solver platform differences:

	SPC	UltraCore
Leakage inductance	x	✓
Switch current measurement	✓	✓
Switch voltage measurement	✓	x

SMBus protocol support

HIL Support for SMBus Slave

- ❑ New component added: **SMBus Slave**
 - One SMBus Slave supported per HIL device
- ❑ Communication over GPIO (supported devices: HIL101, HIL404, HIL506, HIL606)
- ❑ SMBus protocol:
 - I²C based
 - Uses 2 wires: SDA → Data ; SCL → Clock
- ❑ Configurable SMBus parameters:
 - Slave ID (7-bit), clock frequency, GPIO pin allocation
 - Register map configuration
 - Optional PEC (Packet Error Code) support with CRC error counting



Signal name	Register address	Commands	IO type	Signal type	Data type	Length (bytes)	PEC	PEC error cnt port	Endian	Signal value
1 output	0x00	Write/Read word	out	variable	int	2	<input type="checkbox"/>	<input type="checkbox"/>	little_endian	4660
2 input	0xA0	Write/Read byte	in	variable	uint	1	<input type="checkbox"/>	<input type="checkbox"/>	little_endian	From input port
3 const	0xC0	Write/Read byte	in	constant	uint	1	<input type="checkbox"/>	<input type="checkbox"/>	little_endian	65

Grid Modernization communication updates

IEC 60870 Protocol updates

- Support for multiple IEC 60870 Server components
 - Expanded server support, where tens of IEC 60870 Servers are now supported on 4th generation devices

- New IEC 60870 Client component
 - Implements IEC 60870-5-104 client protocol
 - Standardized command handling and real-time data exchange
 - Multiple client instances supported
 - Well-suited for testing and validating power system communication interfaces and interoperability



IEC 60870 Client

e-Mobility communication updates

Message filtering options for the CAN FD Raw Receive component

- ❑ **CAN FD Raw Receive** component now includes filtering capability
- ❑ **ID filter configuration** enables control over which messages are received based on standard and extended IDs
- ❑ Three modes per ID type:
 - **Allow all** - all messages are received
 - **Allow only** - only specified IDs or ranges are received
 - **Block all** - all messages are discarded

CAN FD Raw Receive1

CAN controller

CAN controller: CAN1

Message information

Max data length: 24 byte(s)

Standard ID filter configuration

Standard ID filter mode: Allow only

Allowed standard IDs: [[100:200], 300]

Extended ID filter configuration

Extended ID filter mode: Allow only

Allowed extended IDs: [[70000:80000], 90000]

Execution rate

Execution rate: 100e-6

Help OK Cancel

e-Mobility communication updates

ISO 15118-20 communication without TLS

- ❑ Previously, **ISO 15118-20 EVCC** and **SECC components** supported only the **Secured connection type**
- ❑ Added support for connection without TLS (Transport Layer Security) is now included, enabling early-stage testing before PKI (Public Key Infrastructure) and certificates are available
- ❑ Two connection types are available in the Component properties window:
 - **Secured connection** - encrypted TCP communication (TLS), requires certificates; required by ISO 15118-20
 - **Trusted connection** - unencrypted TCP communication, no certificates required; for early-stage testing only

ISO 15118-20 EVCC1

Connection options

Medium type: Ethernet

Ethernet port: 1

Connection type: Secured connection

Payment

Payment option: External Payment

Certificates

Import folder with certificates: Choose folder

Imported folder path:

e-Mobility communication updates

Extended EVCC V2G message parameter visibility for DIN 70121 and ISO 15118-2 EVCC components

- Previously, **EVCC components** provided limited visibility into **V2G message parameters**
- Additional output terminals added, which enable monitoring more message parameters received from the SECC during simulation.
- Allows for:
 - Easier debugging
 - Improved communication flow





Thank you for your attention!

