



# 2023.1 Software Release Highlights

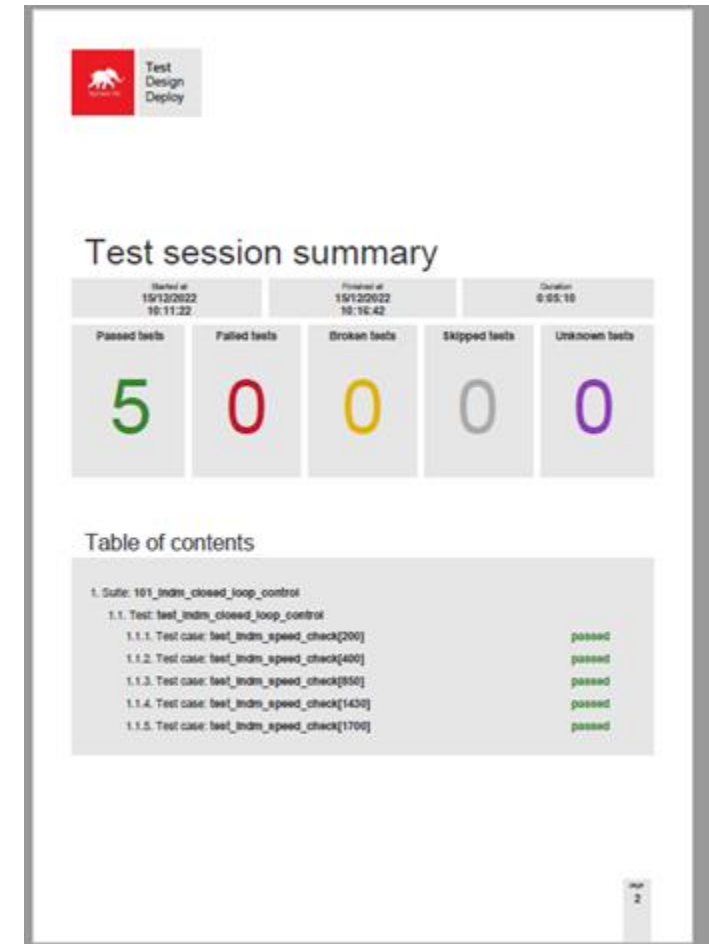
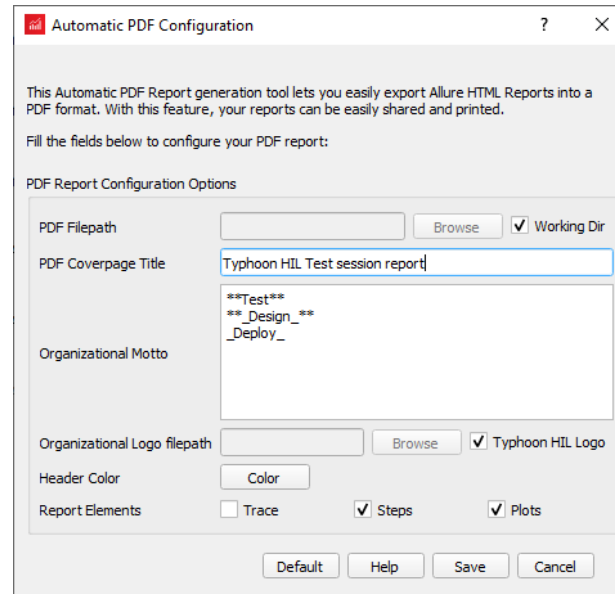
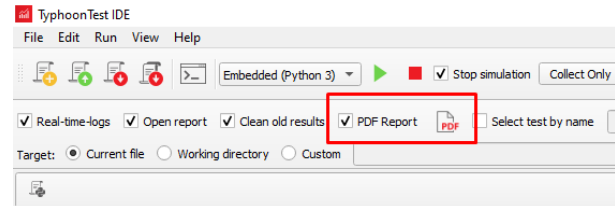
- Automatic PDF Report in TyphoonTest IDE
- ISO 15118 PnC option – certificates
- Package manager
- SPI protocol support over GPIO
- 50 ns resonant converter model
- Additional features
  - Signal View configuration file
  - Quick Insert in Schematic Editor



# Automatic PDF Report in TyphoonTest IDE

Sharing your test reports just got a lot easier

- ❑ Option to create a PDF report alongside your Allure (HTML) report
- ❑ Useful for sharing, storing, or printing report
- ❑ Several options for report customization:
  - Report Title and color
  - Organization logo
  - Include or exclude different report elements: traces, steps, and plots



# ISO 15118 PnC option - certificates

Test the state of the art in EV charging communication

- ❑ Added support for the Plug & Charge (PnC) feature in ISO 15118-2 EVCC communication
- ❑ PnC allows **secure, automated communication and billing processes** between the EV and the EVSE without the need of any external identification
- ❑ Test secured communication over TLS (Transport Layer Security) using certificates
  - Import your certificates directly to the HIL device via the provided script

ISO 15118 EVCC1

Connection options

Connection type: Secured connection

Medium type: Ethernet

Service and payment

Service category: External Payment

Payment option: Contract

Energy transfer mode

Energy transfer mode: DC core

Welding detection

Perform Welding detection:

Voltage accuracy

Pre-charge voltage accuracy: 5 %

Execution rate

Execution rate: 100e-6

Charge parameters

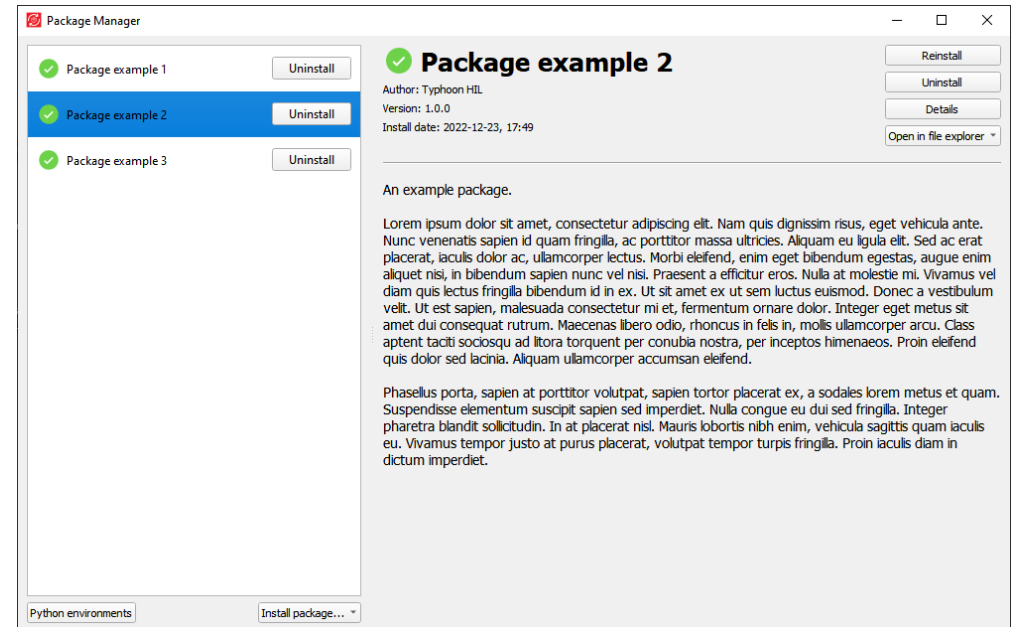
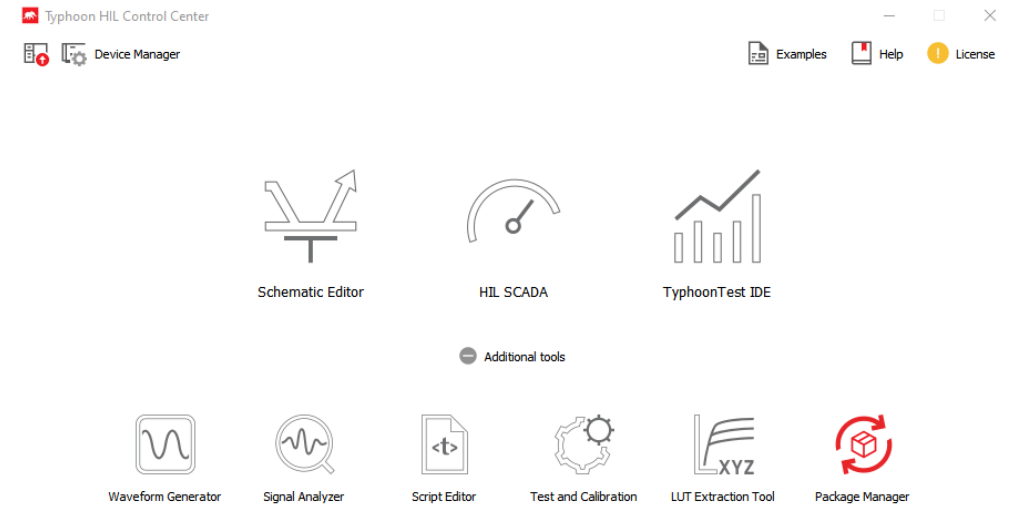
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1	Departure Time	0		<input checked="" type="checkbox"/>
2	Maximum Current limit	10	0	<input type="checkbox"/>
3	Maximum Voltage limit	100	0	<input type="checkbox"/>
4	Maximum Power limit	1000	0	<input checked="" type="checkbox"/>
5	Energy Capacity	1000	0	<input type="checkbox"/>
6	Energy Request	1000	0	<input type="checkbox"/>
7	Full SoC	100		<input checked="" type="checkbox"/>
8	Bulk SoC	80		<input checked="" type="checkbox"/>
9	Bulk Charge complete	from input terminal		<input type="checkbox"/>
10	Target Current	from input terminal	0	<input type="checkbox"/>
11	Target Voltage	from input terminal	0	<input type="checkbox"/>
12	Time to Full SoC	from input terminal	0	<input type="checkbox"/>
13	Time to Bulk SoC	from input terminal	0	<input type="checkbox"/>

Help OK Cancel

# Package manager

Manage, version, and share your content from one place

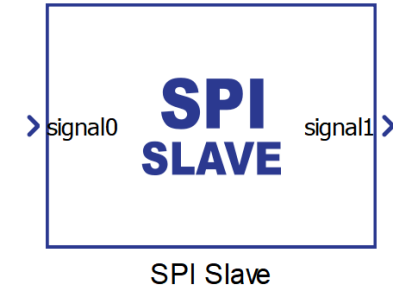
- New tool available in Typhoon HIL Control Center
- Easily create, publish, share, and download packages
- Packages can include:
  - Schematic libraries
  - SCADA libraries
  - Documentation
  - Examples
  - Additional SCADA Python libraries
  - Additional resources
- Create your own packages that can be versioned and shared safely both within and outside of your organization



# SPI protocol support

New communication protocol supported at the model level

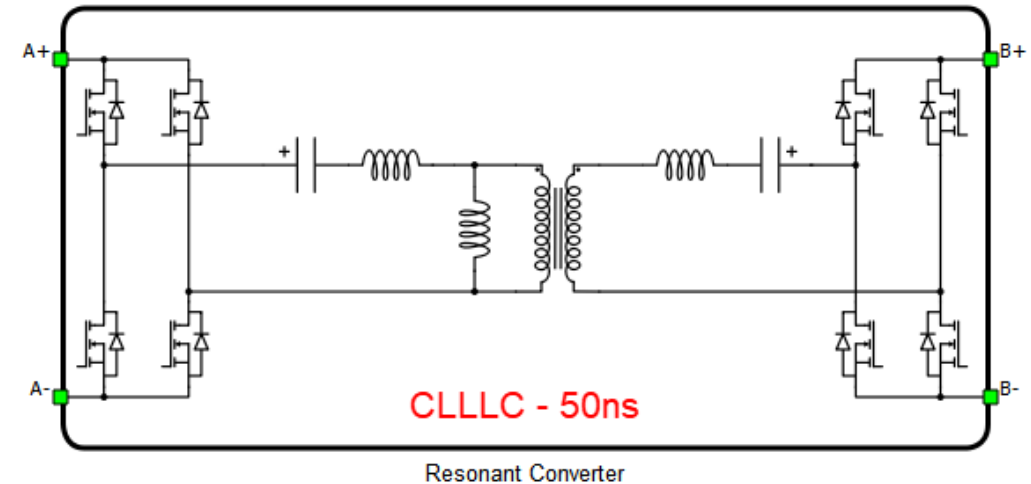
- ❑ New Serial Peripheral Interface communication support available in THCC
- ❑ SPI Slave available on HIL404 and HIL606 devices
- ❑ Protocol interfaced through the GPIO connector



# Resonant converter with 50 ns resolution

Improved capabilities for modeling high-frequency DC-DC chargers

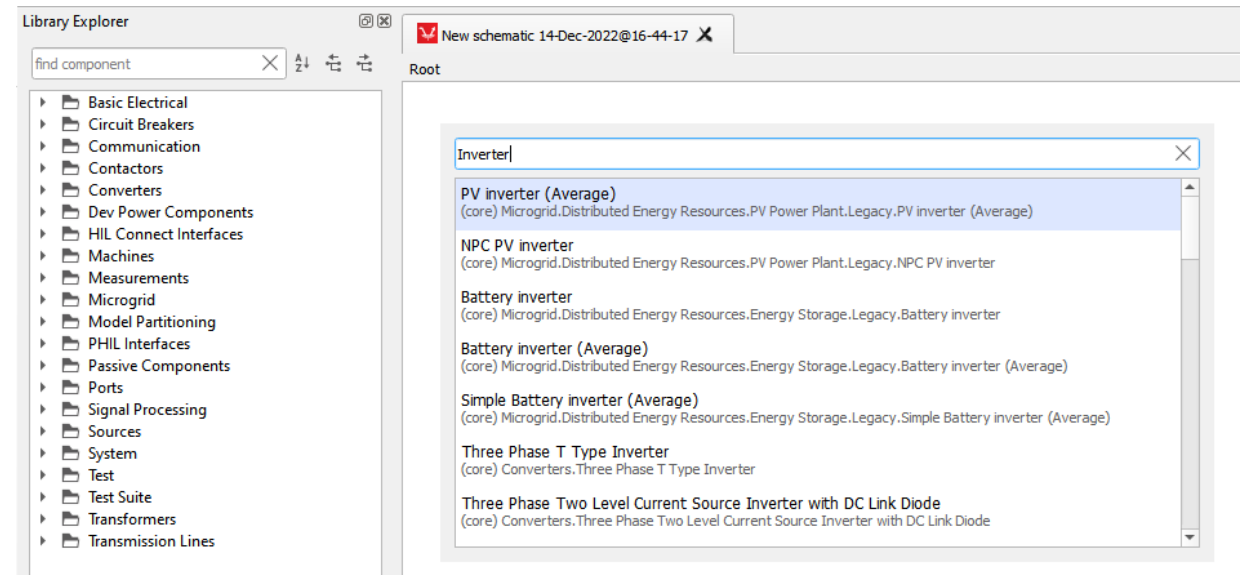
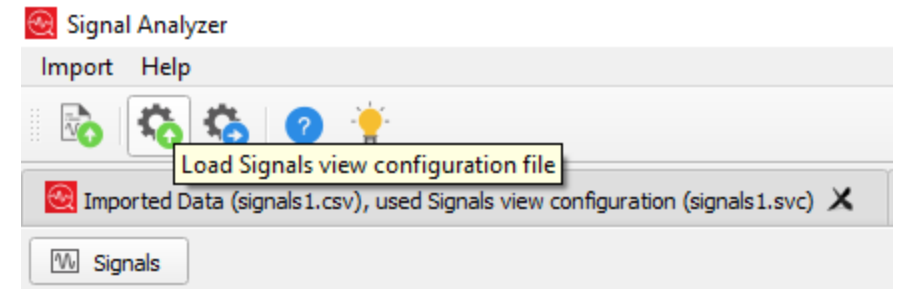
- Schematic component that provides fast calculation of resonant converter topologies with 50 ns resolution
  - LLC and CLLLC topologies supported
- Available on 4th generation devices (HIL404 and HIL606)
- Resonant converter and DAB topology also available on HIL604 with 100 ns resolution
- Powered by the special DC-DC converter solver resource
- Specially designed to fulfill the needs of high frequency DC-DC charger applications



# UI improvements

Build, scale, and share your models even faster

- ❑ Signal View configuration file
  - Automatically save exported signal configuration from Capture/Scope and Signal Analyzer in an .svc file
  - Easily import viewport layout, signal line color, and signal type settings into your model
- ❑ Quick Insert in Schematic Editor
  - Double-click anywhere on the Schematic Editor canvas to quickly search for and insert components
  - Improve modeling productivity





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# Learn More

Visit:

<https://www.typhoon-hil.com/products/2023-1-software-release>

Contact Us:

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