

2023.1 Software Release Highlights

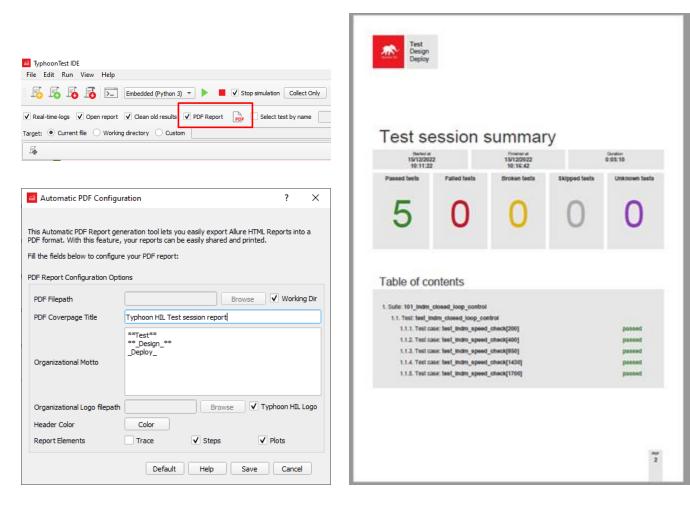
- Automatic PDF Report in TyphoonTest IDE
- ISO 15118 PnC option certificates
- Package manager
- SPI protocol support over GPIO
- 50 ns resonant converter model
- Additional features
 - Signal View configuration file
 - Quick Insert in Schematic Editor

Typhoon HIL Control Center 2023.1	Typhoon HIL (
	Typhoon HIL Control Center
	Version 2023.1 Aelejou 5053°4

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

Connection options		-	harg	e parameters				
Connection type:	nnection type: Secured connection 🔻		ltem name		Value	multiplier		r Includ
Medium type:	Ethernet 🔹		1	Departure Time	0			✓
			2	Maximum Current limit	10	0	*	
Service and payment			3	Maximum Voltage limit	100	0	•	
Service category:	External Payment		4	Maximum Power limit	1000	0	*	\checkmark
Payment option:	Contract		5	Energy Capacity	1000	0	-	
inergy transfer mode			6	Energy Request	1000	0	~	
Energy transfer mode: DC core 💌		7	Full SoC	100			\checkmark	
			8	Bulk SoC	80			✓
Welding detection		9	Bulk Charge complete	from input terminal				
Perform Welding detection:	\checkmark		10	Target Current	from input terminal	0	-	
oltage accuracy			11	Target Voltage	from input terminal	0	*	
Pre-charge voltage accuracy: 5	E	%	12	Time to Full SoC	from input terminal	0	~	
	5 %	70	13	Time to Bulk SoC	from input terminal	0	Ŧ	
Execution rate				· · · · · · · · · · · · · · · · · · ·		P		
Execution rate:	100e-6							

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

Device Manager			Examples	📕 Help 🛛 Lic
	Schematic Editor	HIL SCADA	TyphoonTest IDE	
		Additional tools		
Waveform Generator	Signal Analyzer	Script Editor Test and Calibrat	LUT Extraction Tool Pac	kage Manager
Package Manager Package example 1 Package example 2	Uninstall	Package examp Autior: Typhoon HIL Version: 1.0.0 Install date: 2022-12-23, 17:49	ole 2	- C Reinstall Uninstall Details Open in file explo
Package example 3	Uninstall	An example package.		
		Lorem ipsum dolor sit amet, consectetu Nunc venenatis sapien id quam fringlia, placerat, iacuis dolor ac, ulamcorper lee alquet nisi, in bibendum sapien nunc ve dam quis lectus fringlia bibendum velt. velt. Ut est sapien, malesuada consecte amet dui consequat rutrum. Maecenasi aptent tacti sociosqu ad itora torquent quis dolor sed lacinia. Alquam ulamcorp Phaselus porta, sapien at portitor volul Suspendisse elementum suscipit sapien pharetra blandit solicitudin. In at placera eu. Vivamus tempor justo at purus plac dictum imperdiet.	ac portititor massa ultricies. Alquam t.us. Morbi eleffend, enim eget biben hisi. Praesent a efficitur eros. Nula ex. Ut sit amet ex ut sem luctus euis etur mi et, fermentum ornare dolor. Ibero odio, rhoncus in felis in, molis per conubia nostra, per inceptos hi er accumsan eleffend. ttpat, sapien tortor placerat ex, a so sed imperdiet. Nulla congue eu dui s at hisi. Mauris lobortis nibh enim, ver	eu ligu ^T a elit. Sed ac er dum egestas, augue er at molestie mi. Vivamus smod. Donec a vestibu linteger eget metus sit uitamcorper arcu. Cass imenaeos. Proin elefeno dales lorem metus et q adels forem metus et q ed fringilla. Integer nicula sagitts quam iacu

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



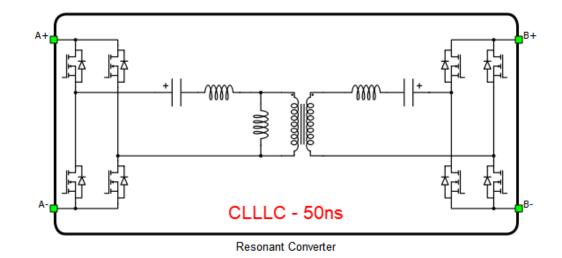




Resonant converter with 50 ns resolution

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

🥘 Signal Analyzer
Import Help
Imported Data (signals 1.csv), used Signals view configuration (signals 1.svc)
Signals

find component X	τ F	Root	
Basic Electrical Circuit Breakers Communication Converters Dev Power Components HIL Connect Interfaces Machines Machines Macongrid Model Partitioning PHIL Interfaces Passive Components Signal Processing Sources System Test Test Suite Tansformers		Inverter PV inverter (Average) (core) Microgrid.Distributed Energy Resources.PV Power Plant.Legacy.PV inverter (Average) NPC PV inverter (core) Microgrid.Distributed Energy Resources.PV Power Plant.Legacy.NPC PV inverter Battery inverter (core) Microgrid.Distributed Energy Resources.Energy Storage.Legacy.Battery inverter Battery inverter (Average) (core) Microgrid.Distributed Energy Resources.Energy Storage.Legacy.Battery inverter (Average) Simple Battery inverter (Average) (core) Microgrid.Distributed Energy Resources.Energy Storage.Legacy.Battery inverter (Average) Simple Battery inverter (Average) (core) Microgrid.Distributed Energy Resources.Energy Storage.Legacy.Simple Battery inverter (Average) Three Phase T Type Inverter (core) Converters.Three Phase T Type Inverter Three Phase T two Level Current Source Inverter with DC Link Diode (core) Converters.Three Phase T two Level Current Source Inverter with DC Link Diode	×

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

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