PLECS WORKSHOP

Real-Time Simulation Using the PLECS RT Box
Plexim GmbH, October 12, 2017

Time	Topic
08:30	**Registration and Installation of Necessary Features**
09:00	**Overview and Introduction to RT Box Workflow using PLECS** ▶ PLECS overview ▶ Ideal switch concept ▶ From PLECS offline models to RCP and HIL ▶ Code Generation
09:30	**RT Box Introductory Exercise** ▶ PLECS RT Box features Exercise: Introductory exercise using I/O ports
10:00	**RT Box Specs and Library Blocks**
10:15	**Break**
10:30	**Real-time Simulation of a Voltage Source Inverter (VSI)** ▶ PLECS model creation using the target blocks library ▶ Deployment on the RT Box Exercise: Voltage Source Inverter (VSI)
12:00	**Lunch**
13:00	**Timing Overview and Step Size Selection** ▶ Example of a Buck Converter using continuous, switched implementation ▶ Step size and calculation time ▶ Motivation for sub-cycle averaging using PWM capture module ▶ Example of a Buck Converter with sub-cycle averaged configuration
13:45	**Model Optimization** ▶ Sub-cycle averaging and power modules ▶ Model separation Exercise: Model splitting using a DTC example
15:00	**Break**
15:15	**Virtual Prototyping** ▶ Concept of virtual prototyping ▶ Extension of VSI with controls Exercise: Virtual prototyping
16:00	**Q&A - End of Workshop**
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Location	**Plexim GmbH, 3rd Floor, Zeppelin Wing, Technoparkstrasse 1, 8005 Zurich, Switzerland**
Note	**This workshop addresses to anyone who already has experience with the simulation software PLECS.**