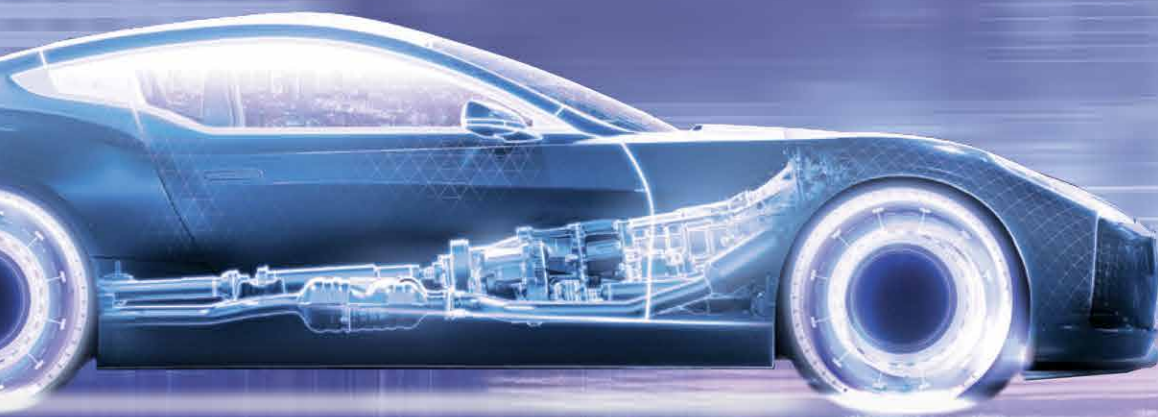


QTronic User Conference 2019 Virtual ECUs and Applications

Conference Program

December 2nd and 3rd, 2019

Harnack-Haus, Berlin



Overview

Following the great success of the QTronic UserConference 2018, QTronic invites to the second conference on virtual ECUs and Applications in automotive software development.

The conference takes place on December 2nd, 2019 at the Harnack-Haus in Berlin, with presentations given by leading car manufactures and suppliers. The presentations will be given in German or in English. German talks will be simultaneously translated into English.

In addition, we offer a free tutorial day for Silver and TestWeaver on December 3rd, 2019.



QTronic User Conference 2019 – Virtual ECUs and Applications

Program	Day one: December 2nd, 2019 – Conference Day two: December 3rd, 2019 – Tutorial sessions for Silver and TestWeaver
Participation fee	Participation is free of charge – but you need to register and to get accepted for participation
Registration	Registration via email to vECU-2019@qtronic.de Deadline for registration: November 18th, 2019
Location	Harnack-Haus – conference venue of the Max Planck Society Inhnestr. 16-20 – 14195 Berlin, Germany
Presentations	Presentations will be about 20 minutes, followed by 10 minutes discussion time. Simultaneous translation from German to English will be provided.
Contact	QTronic vECU-2019@qtronic.de www.qtronic.de Phone +49 30 30364868

Images Harnack-Haus by Andreas Muhs



QTronic User Conference 2019 – Virtual ECUs and Applications

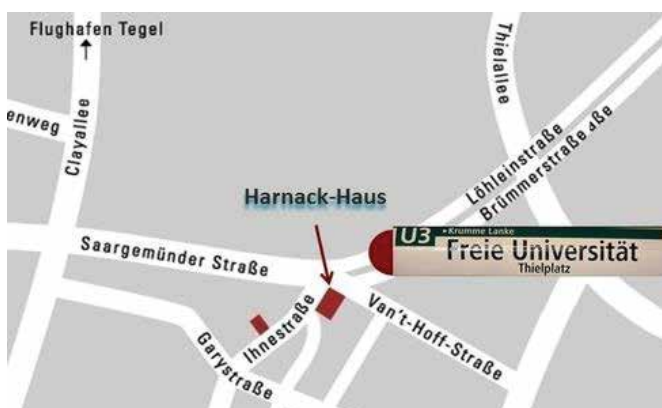
Time	Content	Speaker
08.30	Registration	
09.30	Opening	Dr. Jakob Mauss / Synopsys
09.40	QTronic acquired by Synopsys	Prof. Dr. Andreas Hoffmann / Synopsys
10.00	Virtual ECU powertrain simulation	Christopher Gertzen / BMW
10.30	Virtualization of an engine control unit based on object files	Osman Gencuenal / Daimler
11.00	Virtual based automated testing for automotive body ECUs	Kazumasa Matoba / Aisin Seiki
11.30	coffee break	
12.00	Early verification and testing of a mechatronic active roll control	Dr. Hua Huang / Schaeffler
12.30	Applications of Virtual ECUs in China <ul style="list-style-type: none">• for Electrical vehicles (BJEV, GreatWall)• for Engine Management Systems (SAIC-General Motors)	Lionel Belmon / Synopsys
13.00	break - lunch	
14.00	Development of chassis software components with virtual prototypes	Andreas Schmidt / Audi
14.30	Fahrbarkeitsapplikationen eines virtuellen Steuergerätes in Verbund mit dem Stuttgarter Fahrsimulator	Marco Scheffmann / FKFS, Porsche Engineering
15.00	coffee break	
15.30	Testing, Crafting and Developing a Brand New Powertrain Software in an Agile Environment	Dr. Siegfried Saenger Zetina / Daimler
16.00	What's new in Silver	Dr. Andreas Junghanns / Synopsys
16.30	What's new in TestWeaver	Dr. Mugur Tatar / Synopsys
17.00	Time for discussion with QTronic experts	
17.30	Get-together with mulled wine	
18.00	Dinner	
22.30	End of day one	

Registration is required for participation. Registration deadline: November 18th, 2019



Tutorial Sessions December 3rd, 2019

Time	Tutorial Session	Content
08.00	Registration	
08.15	Opening	
08.20	T0 – Overview on Silver and TestWeaver	This introduction explains how QTronic tools are used to move selected development tasks for automotive powertrains to PC
09.00	T1 – Pre calibration of powertrain controllers	How to connect Canape INCA and ATI Vision to a Silver virtual ECU for online tuning and measurement on PC, without accessing real hardware
09.30	T2 – Requirement modeling with RML	Survey of TestWeaver's Requirement Modeling Language (RML) used to translate given system specifications into executable form
10.00	T3 – Large coverage testing with TestWeaver	TestWeaver's test case generator used to search for flaws and bugs and to maximize test coverage with respect to given coverage goals
10.30	T4 – Processor in the loop with Silver	Connecting Silver with development boards (PiL) allows the execution of SIL tests on the target hardware (shown for Aurix 2G)
11.00	Coffee break	
11.30	T5 – Building virtual ECUs from C code	This tutorial shows how to build a virtual ECU from given C code or object files compiled for Windows PC
12.00	T6 – Building virtual ECUs using chip simulation	This tutorial shows how to build a virtual ECU from given target binaries (hex/s19 or elf file) using Silver's chip simulator for Tricore and PowerPC
12.30	T7 – Running basic software in Silver	Automotive SW accesses sensors, actuators and the real-time OS through well defined interfaces. This tutorial shows how to either run or emulate/replace the low-level software when building a Silver vECU
13.00	Lunch break	
14.00	T8 – AUTOSAR support in Silver	Silver 4.0 provides a powerful RTE generator. This allows to quickly run one or many AUTOSAR Software Components (SwC) in Silver
14.30	T9 – BSimulink support in Silver	Survey of Silver bridges to MATLAB/Simulink Silver-Simulink co-simulation, running Simulink models (mdl, mexw32, mexw64) in Silver, running Silver vECUs in Simulink
15.00	T10 – Continuous Integration	This tutorial explains how to setup test automation with Silver and TestWeaver based on Jenkins, the free web-based open-source tool for continuous integration
15.30	T11 – ADAS and autonomous driving	This tutorial surveys Silver and TestWeaver options to generate, simulate and test traffic scenarios, for instance by connecting to IPG CarMaker
16.00	T12 – Mixed ECU/ vECU applications (real-time)	This tutorial surveys options to simplify HiL setups and test rigs using Silver virtual ECUs, based on Silver's real time execution mode
16.30	Coffee break and end of event	



How to get to the Harnack Haus

The Harnack House is easily accessible by car or public transport. The following link will give you a specific description, whether by car, train or plane.

www.harnackhaus.berlin.mpg.de/11090/Directions