

QTronic User Conference 2018 Virtual ECUs and Applications



Conference program

October 18th and 19th, 2018

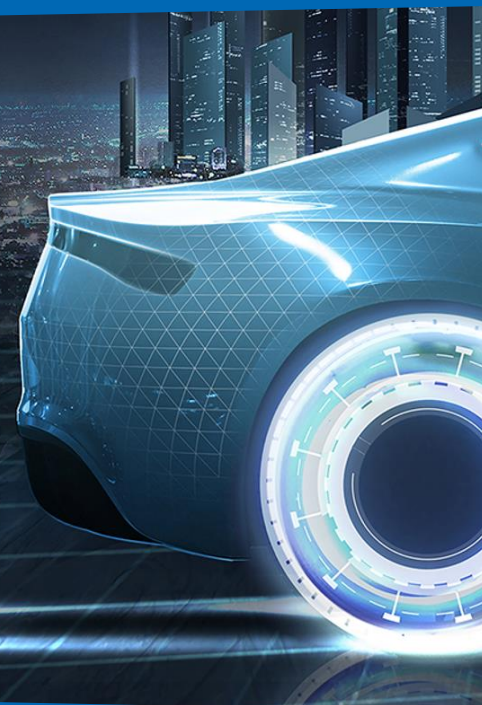
Harnack-Haus, Berlin

Status: Preliminary as of 12.08.2018

Silver and TestWeaver have been on the market for 10 years now. To celebrate this, QTronic organizes a conference on virtual ECUs and applications to automotive software development.

The conference takes place on October 18th, 2018 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.

On October 19th we are offering free tutorial sessions for Silver and TestWeaver.



QTronic User Conference 2018 – Virtual ECUs and Applications

Program	Day one: October 18th, 2018 – Conference Day two: October 19th, 2018 – 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-2018@qtronic.de Deadline for registration: September 28th, 2018
Location	Harnack-Haus – Conference Venue of the Max Planck Society Ihnestr. 16-20 – 14195 Berlin, Germany
Accommodation	A limited number of rooms are available at the conference location via email info@harnackhaus-berlin.mpg.de . They are not free of charge. If you want to make a reservation, please use the following code to assign your booking to the conference: 4558 www.harnackhaus-berlin.mpg.de/10982/Accommodation
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-2018@qtronic.de www.qtronic.de Phone +49 30 30364868

October 18th – Conference

Time	Content	Speaker
08.30	Registration	
09.45	Opening	QTronic
10.00	Silver and TestWeaver for function development for automatic transmissions	Dr. Anton Rink, Alexander Waiss / Daimler
10.30	Virtual ECUs for high performance transmissions	Ewaut Dewinter / Tremec
11.00	Coffee break	
11.30	<Applications of virtual TCUs. Title to be announced.>	Dr. Thomas Liebezeit / IAV
12.00	Automated test of CVT control software using virtual ECUs	Lionel Belmon / Global Crown
12.30	Virtual ECUs and coverage driven testing for electric propulsion	A. Andersson, Daniel Albernaz / Volvo Cars
13.00	Break - Lunch	
14.00	Powertrain system simulation	Frank Uphaus / Daimler
14.30	Continuous integration and continuous validation with explorative tests for propulsion controls and calibration	Johannes Foufas / Volvo Cars
15.00	Virtual ECUs used to develop Renault's Engine Management Software	Dirk von Wissel / Renault
15.30	Coffee break	
16.00	Chip simulation for virtual ECUs	Dr. Yutaka Murata / Honda
16.30	<Presentation to be announced >	
17.00	Get-together	
18.00	Dinner (BBQ)	
21.30	End of day one	

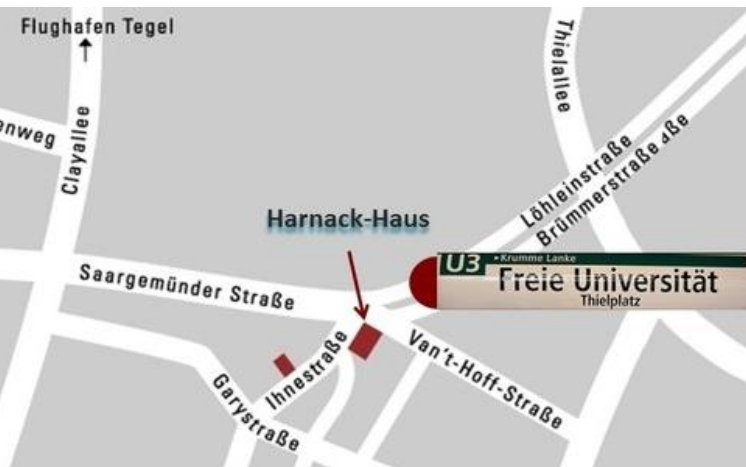
October 19th – Tutorial Day

Time	Tutorial Session	Content
08.15	Opening	
08.30	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.
10.00	T2 – Module Test with Silver and TestWeaver	Module test is a major use case of virtual ECUs. This tutorial surveys options to automate such tests on PC.
10.30	T3 – Requirement modeling with RML	Survey of TestWeaver's Requirement Modeling Language (RML) used to translate given system specifications into executable form.
11.00	Coffee break	
11.30	T4 – Large-Coverage Testing	TestWeaver's test case generator used to search for flaws and bugs and to maximize test coverage with respect to given coverage goals.
12.00	T5 – AUTOSAR support in Silver	Silver 3.6. provides a powerful RTE generator. This allows to quickly run one or many AUTOSAR Software Components (SwC) in Silver.
12.30	T6 – Simulink 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.
13.00	Break - Lunch	
14.00	T7 – 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.
14.30	T8 – 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.
15.00	T9 – 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.
15.30	T10 – 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.
16.00	T11 – Dealing with 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.
16.30	T12 – 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.
17.00	Coffee break and end of event	

Location Harnack-Haus



Images: © by Andreas Muhs



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