PRESS RELEASE pls02-2018-E

Testing and debugging environment for computation-intensive automotive applications:

PLS' UDE enables real multicore debugging for NXP's S32V234 automotive processor

Lauta (Germany), June 14, 2018 – With support of NXP's S32V234 automotive multicore SoCs by the Universal Debug Engine (UDE), PLS Programmierbare Logik & Systeme now provides also optimized testing and debugging tools for 64-bit processor platforms for the first time.

The high-end controller, which is based on the ARMv8-A architecture, is equipped with four powerful Cortex-A53 cores, a Cortex-M4 boot core and additional accelerator units. Originally designed specifically for image recognition and processing for advanced driver assistance systems (ADAS), the device is also suitable for other computation-intensive applications in the automotive sector due to the Cortex-A53 platform. It also meets the ASIL C requirements of the ISO 26262 standard for functional safety.

Using the powerful hardware-based debugging functions of UDE, both the Cortex-A53 cores and the Cortex-M4 core of the S32V234 are accessible and controllable within a common, consistent user interface. Among other things, the multicore run control management of the UDE, already established for 32-bit multicore systems, is also available for this device. It allows the user to stop almost synchronously either all or a user-defined set of the Cortex-A53 cores either manually or via breakpoints, whereby the Cortex-M4 boot core is always stopped due to the hardware. From this point, a synchronous single stepping is possible or the execution can be continued completely. For shared code executed by multiple cores, the UDE provides multicore breakpoints for simplifying debugging. Multicore breakpoints always take effect regardless of which core is currently executing the particular code.

The UDE supports both the AArch32 and AArch64 execution modes of the Cortex-A53 cores. UDE considers the current execution modes even if individual cores are working in different modes. This enables simultaneous debugging of AArch32 and AArch64 code.

A combined target adapter is provided for the access devices of PLS' Universal Access Device (UAD) family which enables the debug access to the various available S32V234 development boards. It ensures reliable and fast communication with the SoC via JTAG or the ARM-specific Serial Wire Debug (SWD) interface. For challenging environmental conditions, this adapter is also optionally available with additional galvanic isolation.

###

PLS Programmierbare Logik & Systeme

PLS Programmierbare Logik & Systeme GmbH, based in Lauta (Germany), is a manufacturer of debuggers, emulators and trace solutions for embedded systems. Thanks to PLS's innovative test and development tools, the company has developed into a technology leader in this area since its foundation in 1990. With its key product Universal Debug Engine® (UDE®), PLS combines powerful capabilities for debugging, testing and system-level analysis of multi-core systems and deeply embedded microcontrollers with efficiency and ease of use. The devices UAD2/UAD3+ of the Universal Access Device (UAD) product family complete UDE's full featured debug solution with a fast, flexible and robust access to the target embedded systems. Please visit www.pls-mc.com for further information about the company, products and services.

For media-related inquiries, please contact:

PLS Programmierbare Logik & Systeme GmbH
Jens Braunes
Technologiepark
02991 Lauta, Germany
Phone +49 35722 384-0
Fax +49 35722 384-69
Email jens.braunes@pls-mc.com
Internet www.pls-mc.com

3W Media & Marketing Consulting
Werner W. Wiesmeier
Preisingerlohweg 2
85368 Moosburg/Aich, Germany
Phone +49 8761 759203
Fax +49 8761 759201
Email werner.wiesmeier@3wconsulting.de