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STMicroelectronics Attracts Linux Users to Free Embedded Development on STM32 Microcontrollers

Free high-productivity tools now available on Linux and Windows platforms, making STM32 an easy choice for fans of all major software OSes

Geneva, February 9, 2016 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has extended opportunities to design free of charge with its popular STM32 microcontrollers for Linux system users including professional engineers, academics, and hobbyists.

Most Linux distributions are free, and open-source application software makes the Linux world attractive to technology enthusiasts. Until now, however, most development tools for embedded computing have been available only for Windows® PCs.

The STM32CubeMX configurator and initialization tool and the System Workbench® for STM32, an Integrated Development Environment (IDE) created by Ac6 Tools, supported by the openSTM32.org community, and available at www.st.com/sw4stm32, are now both available to run on Linux OS.

ST's latest move means Linux users can now start their own embedded projects on STM32 devices, free of charge, without leaving their favorite desktop environment. By welcoming these innovators to choose STM32, ST expects to further extend its lead in the market for advanced microcontrollers based on 32-bit ARM® Cortex®-M cores.

“The Linux community is known to attract creative free-thinkers who are adept at sharing ideas and solving challenges efficiently,” said Laurent Desseignes, Microcontroller Ecosystem Marketing Manager, Microcontroller Division, STMicroelectronics. “We are now making it ultra-easy for them to apply their skills to create imaginative new products, leveraging the features and performance of our STM32 family.”

ST's commitment means users can now benefit from free software for configuring microcontrollers and developing and debugging code, together with manufacturer-supported low-cost evaluation boards, allowing greater focus on product development. Tools installation is very easy and fast, which contrasts with

established practice in the Linux world, where users often have to create or adapt their own tools with minimal support.

“Since the launch of the System Workbench for STM32 in early 2015, its popularity has grown both on Windows and Linux platforms,” said Bernard Dautrevaux, Ac6 Tools Chief Technical Officer. “ST’s new tools for Linux both validate and complement our work and the openSTM32 initiative, and we plan to further support ST with major upgrades to System Workbench for STM32 in the future, including the support of OS/X as a development host.”

Further Technical Information:

System Workbench for STM32 supports the ST-LINK/V2 debugging tool under Linux through an adapted version of the OpenOCD¹ community project. Each of these tools can be used in conjunction with ST’s low-cost development hardware including STM32 Nucleo boards, Discovery kits, and Evaluation boards, as well as microcontroller firmware within the STM32Cube embedded-software packages or Standard Peripheral Library.

The STM32 microcontroller family contains devices for almost any embedded application, from extremely energy-conscious or cost-sensitive projects to sophisticated designs that demand high performance and high feature integration. The range supports all ARM Cortex-M cores from the entry-level M0 to today’s highest-performing M7 core, as well as devices based on the M0+, M3 and DSP-extended M4 cores, creating the industry’s largest portfolio in the Cortex-M class.

In all, over 500 STM32 variants are currently available, with choices including high memory density up to 2MB Flash, versatile package styles and sizes, integrated features such as USB, Ethernet, or CAN controllers, audio interfaces and accelerators, precision analog peripherals, general-purpose or precision timers, PWM generators, and cryptographic modules. In addition, the ultra-low-power STM32L0, L1, or L4 series feature extensive power-management options, dynamic voltage scaling, and special adaptive accelerators for applications where minimum energy consumption is the prime concern.

¹ OpenOCD: Open On-Chip Debug. A free and open project to develop software debug for ARM-based embedded systems, designed to run directly on-chip.

About STMicroelectronics

ST is a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life. ST's products are found everywhere today, and together with our customers, we are enabling smarter driving and smarter factories, cities and homes, along with the next generation of mobile and Internet of Things devices.

By getting more from technology to get more from life, ST stands for life.augmented.

In 2015, the Company's net revenues were \$6.90 billion, serving more than 100,000 customers worldwide. Further information can be found at www.st.com.

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About Ac6

Ac6 focus is on embedded systems training, expertise, engineering and software tools with a dual expertise on both hardware and software.

Through its partnerships with STMicroelectronics and the ARM community, Ac6 provides its customers with the guarantee of a deep knowledge of the newest embedded products, SoCs and software. Ac6 also develops Eclipse-based tools for embedded application development either on bare metal, RTOS or Linux.

Each year more than 800 engineers are trained by Ac6, all over the world. More details can be found at www.ac6.fr