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MPLAB® Harmony Version 3.0 Unifies Software Development Framework for PIC® and SAM Microcontrollers

Enhanced tool chain accelerates development with modular software downloads and simplified drivers

CHANDLER, Ariz., March 19, 2019 (GLOBE NEWSWIRE) -- From basic device configuration to Real Time Operating System (RTOS)-based designs, 32-bit microcontroller (MCU) applications vary vastly in complexity and development models. To help developers simplify and scale designs, Microchip Technology Inc. (**Nasdaq: MCHP**) today announced a unified software framework with the release of [MPLAB® Harmony version 3.0 \(v3\)](#), extending support for SAM MCUs for the first time. The powerful development environment is progressively adding support across Microchip's entire portfolio of 32-bit PIC and SAM MCUs, giving developers more options to meet different end application requirements. The new version also adds enhancements to streamline designs, such as royalty-free security software through a partnership with wolfSSL, as well as modular software downloads that allow designers to only download select portions of software based on the needs of an application.

MPLAB Harmony v3 provides a unified platform with flexible choices spanning architectures, performance and application focus, enabling developers to learn and maintain a single environment on their computer. To support varying software development models from basic device configuration to Real Time Operating System (RTOS)-based applications, MPLAB Harmony version 3.0 relieves designers from having to download the entire software suite when they only need to use small elements or components of it. For example, developers can now simply download device drivers or a TCP/IP stack as their application demands, saving time and hard disk space. To further streamline development, the software features simplified drivers and optimized peripheral libraries. This alleviates developers from spending time and effort on lower level drivers, allowing them to focus on differentiating applications.

"Microchip continues to add enhancements that make MPLAB Harmony more flexible, integrated and easy-to-use," said Rod Drake, vice president of Microchip's 32-bit microcontroller business unit. "With the addition of SAM MCUs to the Harmony ecosystem, designers can speed development with the platform's code interoperability, optimized peripheral libraries and extensive middleware support."

To reduce embedded security design cycles for customers, Microchip has partnered with wolfSSL to implement elements of the company's security suite software in MPLAB Harmony v3. The multi-year agreement with wolfSSL provides developers ready-to-use, royalty-free software-based security solutions that emphasize speed, size, portability and standards compliance. Customers can go into production with a free commercial license

anytime during the agreement and will have access to the following elements of wolfSSL's suite: wolfSSL TLS Library, wolfMQTT Client Library and wolfSSH SSH Library.

Development Tools

The Xplained Pro and Ultra evaluation platforms for SAM MCUs are now supported in MPLAB Harmony v3. MPLAB Harmony works closely with the MPLAB X Integrated Development Environment (IDE) to provide customers a unified software development across the company's MCU product portfolios. The PIC32 family of MCUs and associated development platforms, such as Curiosity boards, will continue to be supported under MPLAB X and Harmony development platforms. MPLAB Harmony also seamlessly integrates third-party solutions (i.e. RTOS, middleware, drivers) into the embedded development framework.

Pricing and Availability

MPLAB Harmony version 3.0 is available free to download on Microchip's website. The following families are fully supported today in MPLAB Harmony v3:

- SAM E/S/V7x
- SAM C21/C20
- SAM D21/D20

The following families are beta supported today in MPLAB Harmony v3:

- SAM D/E5x
- PIC32MZ EF
- PIC32MZ DA
- PIC32MK

All other 32-bit SAM and PIC32 MCU families will be supported progressively by the middle of 2019. Support for new families will be added to future MPLAB Harmony versions. For additional information, contact a Microchip sales representative, authorized worldwide distributor or visit Microchip's website.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):

- Application image:
<https://www.flickr.com/photos/microchiptechnology/40347148123>

About Microchip Technology

Microchip Technology Inc. is a leading semiconductor supplier of smart, connected and secure embedded control solutions. Its easy-to-use development tools and comprehensive product portfolio enable customers to create optimal designs which reduce risk while lowering total system cost and time to market. The company's solutions serve more than 125,000 customers across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at www.microchip.com.

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Editorial Contact:
Christie Haber
480-792-4386
christie.haber@microchip.com

Reader Inquiries:
1-888-624-7435



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