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Microchip Technology Announces USB Software Stack With On-The-Go Support for 16-bit MCUs and Advanced Features for 8-, 16- and 32-bit MCUs

Free USB-IF Certified Stack Enables OTG Functionality for 16-bit PIC24F MCUs, While Adding New Features for Microchip's Complete 8-, 16- and 32-bit USB Portfolio

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ:MCHP), a leading provider of microcontroller and analog semiconductors, today announced a USB-IF certified upgrade to its free USB software stack that includes On-The-Go (OTG) support for its 16-bit PIC24F microcontrollers (MCUs), and a variety of new features for its comprehensive portfolio of 8-, 16- and 32-bit USB PIC(R) MCUs. The stack is available for free download now at http://www.microchip.com/USB, including a highly optimized library and full source code, and OTG stack certification for the 32-bit PIC32 family is expected in early Q1 2009. To make implementing embedded USB even easier, Microchip is also offering a hands-on class that is available from its worldwide network of more than 35 Regional Training Centers. All of Microchip's MCUs and digital signal controllers are supported by the free MPLAB(R) IDE, which allows integrated development with the new USB stack. Additionally, a broad range of low-cost and full-featured development tools are available from Microchip and its third-party partners, including the modular Explorer 16 development board.

Embedded engineers are striving to develop scalable designs for complete portfolios of end products. Additionally, the expansion of USB Host functionality into multiple non-PC based applications, such as enhanced reading and writing to portable Flash drives, handheld electronics and POS terminals, requires a complete, USB-IF certified solution that is easy to use. To help enable the flexibility that this design approach demands, Microchip maintains scalability and reuse among its 8-, 16-, and 32 bit USB MCU families, while continuously expanding its offerings--including the new capabilities of its free stack. This becomes critical as USB migrates into many new applications that were once the domain of simple serial communication ports, such as RS232, SPI and I^2C(TM).

"Microchip is dedicated to making it easy for embedded designers to integrate USB using our scalable portfolio of 8-, 16- and 32-bit USB microcontrollers," said Ganesh Moorthy, Microchip's executive vice president. "Our new software stack represents a substantial and continuing investment in accelerating USB adoption into this rapidly growing market. Every day, embedded engineers are finding new applications for USB in their designs."

USB Stack Applications and Features

USB OTG enables the intelligence for a product to determine whether it is required to function as a Host or Peripheral, and then configure itself accordingly without any user input. Additionally, the power-saving features inherent in OTG enable a wide range of portable designs.

Applications such as enhanced reading and writing to portable Flash drives, interfacing to wireless networks, and system updates are all enabled through Microchip's complete, easy-to-implement USB software offering. In addition, several new capabilities have been incorporated, including Printer Host support for PCL5, Postscript and some POS printers, and Communications Driver Class (CDC) Host support for ACM subclass devices.

USB Tools and Support

All of the 8-, 16- and 32-bit USB PIC MCU families are supported by the full suite of Microchip's world-class development tools, including the MPLAB IDE, the MPLAB REAL ICE(TM) emulation system, the MPLAB ICD 3 in-circuit debugger and the MPLAB PM3 universal device programmer. Additionally, separate MPLAB C Compilers are available for all three families.

Owners of the Explorer 16 Development Board ($129.99, part # DM240001) can purchase $25 USB Plug-In Modules (PIMs) for both the 16-bit PIC24F USB family (part # MA240014) and the 32-bit PIC32 USB family (part # MA320002). To enable USB development with the Explorer 16, a USB PICtail(TM) Plus Daughter Board (part # AC164131) can be purchased for $60.00. All are available today at http://www.microchipdirect.com.

Microchip also offers a complete online USB Design Center, located at http://www.microchip.com/USB, where engineers can find everything they need to get started with their USB designs; including tutorials, technical documentation, programming support, development tool and silicon information, circuit diagrams and technical training. In addition to the new USB OTG Stack, designers can download the full source code for Microchip's free USB Host Stack, Device Stack, and Class Drivers (HID, MSD, CDC and Custom). Microchip Provides Free USB-IF Certified Stack w/ On-The-Go

Training

To help embedded engineers take full advantage of its USB Stack, Microchip has developed a hands-on training course that is available now from its worldwide network of more than 35 regional training centers. The course is designed to help attendees learn about the different USB hosting options and how these decisions affect designs electrically and mechanically. Also included is instruction on the FAT file system library and how to manipulate files on a thumb drive, enabling data logging and field firmware updates via a thumb drive. Finally, the course covers the process for developing a generic (Custom class) driver and application that acts as a Host to a simple USB Peripheral.

To sign up for this course--COM3202 "Designing a USB Embedded Host Application"--visit http://www.microchip.com/RTC. Pricing starts at $99.00 for a full-day class and all course materials, with the option to bundle related development tools based on individual design needs.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/USB.

Microchip Customer Support

Microchip is committed to supporting its customers by helping design engineers develop products faster and more efficiently. Customers can access four main service areas at http://www.microchip.com. The Support area provides a fast way to get questions answered; the Sample area offers free evaluation samples of any Microchip device; microchipDIRECT provides 24-hour pricing, ordering, inventory and credit for convenient purchasing of all Microchip devices and development tools; finally, the Training area educates customers through webinars, sign-ups for local seminar and workshop courses, and information about the annual MASTERs events held throughout the world.

About Microchip Technology

Microchip Technology Inc. (NASDAQ:MCHP) is a leading provider of microcontroller and analog semiconductors, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at http://www.microchip.com.

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