Cypress’s PSoC Creator 2.0 Design Environment Now Available to All Users

SAN JOSE, Calif., December 13, 2011 – Cypress Semiconductor today announced that Version 2.0 of its revolutionary PSoC Creator Design Environment for the PSoC 3 and PSoC 5 programmable system-on-chip families is available for free download for all users at www.cypress.com/go/psoccreator [1]. Among the hundreds of feature enhancements, PSoC Creator 2.0 introduces support for the production PSoC 5 ARM architecture and devices as well as enabling customers to interoperate with the popular and powerful Keil µVision 4 integrated development environment (IDE). This interoperability enables customers to rapidly draw, configure and design custom device hardware in PSoC Creator and then write the application code in the familiar and feature-rich µVision 4 IDE.

The new version boosts device performance through new, timing-driven routing enabling clock speeds to increase by as much as 20 percent. Enhanced static timing analysis tools utilized during the hardware customization process guarantee performance across temperature variations and simplify design and debug.

“The Beta release to registered Cypress Developer Community users generated very positive responses,” said Jim Davis, Manager of PSoC Software Marketing for Cypress. “We have incorporated customer feedback and suggestions into this general release. The result is a more intuitive and flexible design tool than anything else we have seen in the market.”

PSoC Creator is a revolutionary graphical design tool that allows users to customize the PSoC device to their unique system requirements in minutes. The design environment includes a rich library of fully tested and characterized analog and digital components that can be drag-and-dropped into a design and configured to suit a broad array of application requirements. The tool automatically places components into the PSoC device, routes all on-chip signals and directs I/O to the optimum pins. Each peripheral component is carefully parameterized so that the implementation is automatically optimized to fit the developer’s needs perfectly with no wasted resources. The build process generates a consistently-named set of APIs for each component that allows the software developer to control the hardware without knowing the underlying register set. Customized designs, and their associated APIs, can even be saved in a library for future reuse and easily shared within an organization.

The latest version of PSoC Creator introduces new peripherals, including S/PDIF for digital audio, Serial GPIO for hard disk drive controllers, an advanced and hardware-based fan controller, a voltage power sequencer, and an external memory interface to simplify hardware configuration. PSoC Creator now includes more than 80 analog and digital components in its portfolio.

About PSoC Creator
PSoC Creator is a unique design software that enables engineers to design the way they think, using schematic-based design capture along with certified, pre-packaged peripherals to keep system creation independent of the target PSoC device. Instead of trawling through device documentation and memorizing register maps, users simply lay out the design, just as they would on paper or a whiteboard, and let the tool translate it into the PSoC configuration. With PSoC Creator, customers create designs according to application requirements, not the limitations of the target device. Re-targeting to new devices is as simple as rebuilding an application, so porting designs between PSoC devices becomes a snap, including migrating working designs seamlessly from 8- to 32-bit devices.

PSoC -- Because Change Happens
PSoC devices employ a highly configurable system-on-chip architecture for embedded control design, offering a flash-based equivalent of a field-programmable ASIC without lead-time or NRE penalties. PSoC devices integrate configurable analog and digital circuits, controlled by an on-chip microcontroller, providing both enhanced design revision capability and component count savings. A single PSoC device can integrate as many as 100 peripheral functions saving customers design time, board space and power consumption while improving system quality and reducing system cost.

The flexible PSoC resources allow designers to future-proof their products by enabling firmware-based changes during design, validation, production, and in the field. The unique PSoC flexibility shortens design cycle time and allows for late-breaking feature enhancements. All PSoC devices are also dynamically reconfigurable, enabling designers to morph internal resources on-the-fly, utilizing fewer components to perform a given task. More information about PSoC products is available at www.cypress.com/psoc [2] and free online training is at www.cypress.com/psoctraining [3].

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