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PSoC Creator™ Software Delivers Revolutionary Design Environment for New Cypress PSoC® 3 and PSoC 5 Architectures

Combination of Classical Schematic Design Entry and Powerful Software Development Tools Enables Customers to “Design the Way They Think”

- *Design – Schematic design entry and libraries of peripheral functions allow custom configuration of the perfect chip for any application*
- *Develop – Easy and error-free software development with APIs generated from common and custom peripherals*
- *Debug – Built-in debugger for fast, non-intrusive control of all PSoC 3 and PSoC 5 devices*
- *Reuse – Designs can be encapsulated and reused to minimize re-work and maximize efficiency*

ESC Boston 2009

SAN JOSE, Calif.--([BUSINESS WIRE](#))--Cypress Semiconductor Corp. (NYSE: CY) today introduced the PSoC Creator™ Integrated Development Environment (IDE) for the new PSoC® 3 and PSoC 5 programmable system-on-chip families (see related release “*Cypress Revolutionizes Embedded Design with High Performance, Low Power PSoC® 3 and PSoC 5 Programmable System-on-Chip Architectures*”). The unique new design software 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 layout 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. More information and free downloads of PSoC Creator are available at www.cypress.com/go/psoccreator.

PSoC Creator combines a state-of-the-art software development IDE with a revolutionary graphical design editor to form a uniquely powerful hardware/software co-design environment. It provides a rich library of dozens of pre-configured analog and digital peripherals that can easily be dropped into the schematic design canvas and combined into powerful systems. The tool automatically routes all on-chip signals and can even direct I/O to the optimum pins if desired. Each peripheral component is carefully parameterized so that the implementation can be optimized to fit the developer’s needs perfectly with no wasted resources. The build process generates a consistent, easily remembered set of APIs for each component that allows the software developer to control the hardware without worrying about the underlying implementation. Customized designs, and their associated APIs, can even be saved in a library for future reuse and easily shared within an organization.

Cypress also offers fully functional, free compilers with no code size limitations for both the PSoC 3 and PSoC 5 device families. The Keil CA51 Compiler for PSoC 3 and the GNU GCC-ARM Compiler for PSoC 5 are both bundled with the PSoC Creator distribution. PSoC Creator also includes a built-in debugger to support the on-chip debug and trace functionality provided in all PSoC 3 and PSoC 5 devices. Real-Time Operating Systems (RTOS) supported include Keil™ RTX51Tiny, Micrium mC/OS-II™, and SEGGER emboss. PSoC Creator is expandable so new compilers, editors and Real-Time Operating Systems can be added in the future.

“Embedded designers finally have a tool that works the way they think, allowing them to create solutions without the constraints of

specific devices or limitations between software and hardware designs,” said Norm Taffe, executive vice president of the Consumer and Computation Division at Cypress. “Our lead customers are just as enthusiastic about the PSoC Creator design methodology as they are about the PSoC 3 and PSoC 5 families themselves.”

“PSoC Creator is unlike other embedded design tools we have seen,” said Rich Wawrzyniak, Sr. Analyst, ASIC and SoC at Semico Research Corp. “It combines the speed and convenience of pre-built peripheral functions with the flexibility to create and re-use customized IP.”

Availability

PSoC Creator is available today at no cost from www.cypress.com/go/psoccreator. A high-resolution screen shot of the software is available at www.cypress.com/go/pr/creatorphoto.

About PSoC 3 and PSoC 5

The PSoC 3 devices are based on a new, high-performance 8-bit 8051 processor, while the PSoC 5 devices include a powerful 32-bit ARM Cortex-M3 processor. The new products provide designers with a seamless, programmable design platform, enabling easy migration from 8 to 16 to 32 bits. In addition to the powerful, industry-standard MCU cores, the new PSoC 3 and PSoC 5 architectures include high-precision programmable analog capability (up to 20-bit resolution for an Analog to Digital Converter) and expanded programmable digital resources to go along with ample memory and communications peripherals. The addition of these new features dramatically expands the applications and markets that PSoC can address, including automotive, portable medical, industrial and many more.

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 and free online training is at www.cypress.com/psoctraining.

About Cypress

Cypress delivers high-performance, mixed-signal, programmable solutions that provide customers with rapid time-to-market and exceptional system value. Cypress offerings include the PSoC® programmable system-on-chip, USB controllers, general-purpose programmable clocks and memories. Cypress also offers wired and wireless connectivity technologies ranging from its CyFi™ Low-Power RF solution, to West Bridge® and EZ-USB® FX2LP controllers that enhance connectivity and performance in multimedia handsets. Cypress serves numerous markets including consumer, computation, data communications, automotive, and industrial. Cypress trades on the NYSE under the ticker symbol CY. Visit Cypress online at www.cypress.com.

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