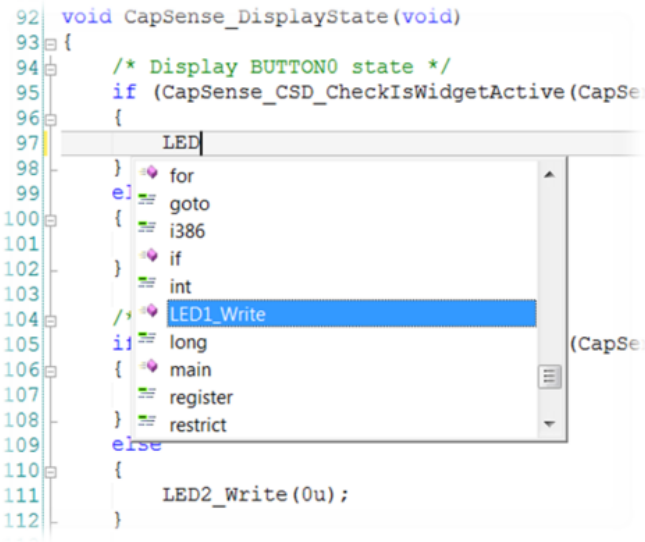
Cypress's New PSoC Creator Simplifies Concurrent Hardware And Software Design

WDD Staff



Cypress Semiconductor [1] (San Jose, CA) has introduced version 3.0 of its PSoC Creator Integrated Design Environment (IDE) for the PSoC 3, PSoC 4, and PSoC 5LP programmable system-on-chip architectures. Based on customer requests, Cypress developed PSoC Creator 3.0 to reduce the compiled code size, include significant improvements to the integrated firmware editor, and allow for export to top ARM IDEs. PSoC Creator 3.0 expands the capabilities of PSoC solutions, simplifying concurrent hardware and software design with the ability to create custom PSoC Components using the newly introduced Universal Digital Block (UDB) Editor.

The Windows-based PSoC Creator IDE:

- Includes more than 110 PSoC Components—pre-verified “virtual chips” represented by an icon—that users can drag-and-drop into a design and configure to suit a broad array of application requirements.
- Simplifies the creation of custom digital PSoC Components by adding a full state machine diagramming tool for the UDB datapath.
- Allows creation with Verilog as in previous versions.
- Reduces the generated code size for ARM M-class processors, such as PSoC 4 and PSoC 5LP, by integrating two optimization tools: the GCC version 4.7 ARM embedded compiler and Newlib-nano libraries.
- Streamlines coding with improved editor functions, including an auto-complete feature that lets users utilize the dynamically generated software APIs without needing to open datasheets. Developers can now create their hardware schematic designs in PSoC Creator 3.0, automatically generate a full custom datasheet, and then seamlessly export to IAR, Keil, or Eclipse

IDEs to develop firmware.
- Custom PSoC Components facilitate designs for diverse global teams and enable reuse of encapsulated hardware and firmware for future designs.

PSoC Creator is more than merely an IDE. In addition to a robust compiler and programmer, it allows users to configure PSoC programmable hardware through schematics, Verilog, state machines, and firmware into a one-chip solution. Cypress regularly releases new components that leverage PSoC's hardware programmability to deliver new peripheral functions to existing PSoC devices. In this way, PSoC Components speed time-to-market while adding differentiation to end-products.

For more information, please visit www.cypress.com [1]

Source URL (retrieved on *11/20/2014 - 4:00pm*):
http://www.wirelessdesignmag.com/product-releases/2013/10/cypresss-new-psoc-creator-simplifies-concurrent-hardware-and-software-design

Links:
[1] http://www.cypress.com