CAST Introduces SOC Kernels, Combining Essential IP Cores and Software for Easier System Development

DESIGNCON, Santa Clara, CA, January 30, 2007 — Semiconductor intellectual property (IP) provider CAST, Inc. today described a new line of "SOC Kernels" aimed at developers of 32-bit System-on-Chip products.

These Kernels combine multiple IP cores for basic system functions with boot code, drivers, and other underlying software in a pre-integrated, pre-verified package. This provides a significant head start for complex systems, and, together with the designer's choice of 32-bit processor, is the quickest route to beginning actual hardware and software co-development. Because the designer need not select, integrate, and verify the essentials of a new system, starting with an SOC Kernel means a faster time to market and a lower development cost.

The SoC Kernel technology is processor agnostic and technology independent. SoC Kernels for a variety of processors and buses will be available; pricing starts at $8,000.

SoC Kernels are available in HDL source code, or as optimized netlists for specific FPGAs and structured ASICs. Additional IP cores and integration services are also available to further meet the needs of any particular customer.

An AMBA-based SoC Kernel for popular 32-bit processors is available today, and an ARM926EJ version of this SoC Kernel was recently announced in partnership with eASIC for their Nextreme device family.

The new SoC Kernels product line encompasses the pre-expanded PIP platform products already available from CAST for specific ARM processors, e.g., the PIP7-TDMI for ARM 7 family processes and the native TDMI bus. The SoC Kernels and PiPs are developed by CAST partner SoC Solutions, 32-bit system experts who have used the associated hardware and software to successfully develop systems for many customers over several years.

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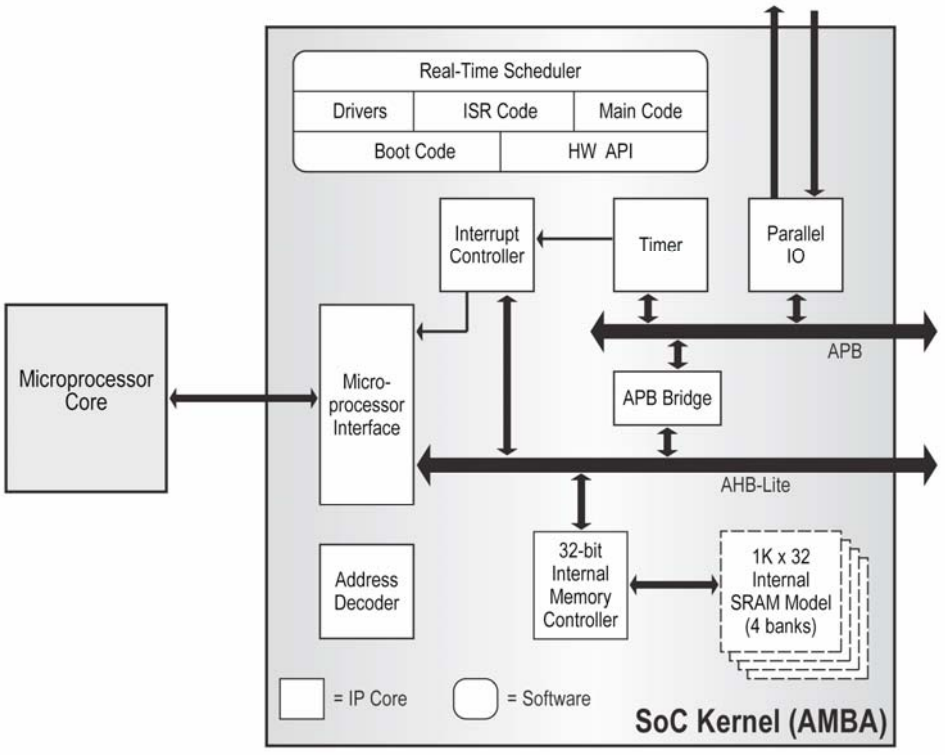
A custom SoC Kernal development board is available now, and further options for easier development and testing of SoC Kernel systems are expected over the next year. See the CAST website for more details at www.sockernels.com.

About SOC Kernels

Each SOC Kernel provides a skeleton system and starting point for a particular 32-bit processor and main system bus. A Kernel serves as a completely integrated and verified platform, including the bus system, memory system, and basic peripherals.

As shown in the block diagram below, an SOC Kernel includes the IP cores common to most 32-bit systems: interrupt controller, timers, interface for parallel inputs and outputs, address decoder, an internal memory controller (with a memory model), system bus interface elements, and a microprocessor interface.



Basic software functions in C or Assembly code are also provided so that an SOC Kernel is ready to use out of the box. These include a real-time scheduler, various drivers for peripheral devices, interrupt service routines (ISR), main code, basic boot code, and a hardware level programming interface (API).

SOCk System Development Boards

FPGA-based development boards offer the quickest way to start developing an embedded system with an SOC Kernel. These cost-effective boards implement the IP cores and run the software of a Kernel, and also provide elements including additional peripherals, memory and memory connectors, LCD display and VGA monitor interfaces, USB ports, JTAG interface, and a straight forward means to integrate the designer's custom logic. One example of a SOCk development board is that for the ARM926EJ™ processor offered by eASIC for their Nextreme™ structured device family.

About SoC Solutions, LLC

Founded in March 2000, CAST partner SoC Solutions is a team of embedded system engineers from VLSI Technologies, Philips, Motorola, Boeing, Rockwell and other companies with ARM-based experience going back to the ARM2 in 1986. Today they focus on creating state-of-the art system on chip development platforms, design reuse methodologies, and rapid development tools to service the fast-growing system-on-chip market. They work directly with processor manufacturers and system design houses, as well as provifing innovative solutions and consulting design services for customers of CAST. See their web site for more information, www.socsolutions.com.

About CAST, Inc.

CAST provides over 100 popular and standards-based IP cores for ASICs and FPGAs. Privately owned and operating since 1993, CAST has established a reputation for high-quality IP products, simple licensing, and responsive technical support. The company is headquartered near New York City, partners with IP developers around the world, and works with select sales consultants and distributors throughout Europe and Asia.

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