Embedded magazine

EDITOR IN CHIEF Carlis Collins
editor@xilinx.com
408-879-4519

MANAGING EDITOR Forrest Couch
forrest.couch@xilinx.com
408-879-5270

ASSISTANT MANAGING EDITOR Charmaine Cooper Hussain

XCELL ONLINE EDITOR Tom Pyles
tom.pyles@xilinx.com
720-652-3883

ADVERTISING SALES Dan Teie
1-800-493-5551

ART DIRECTOR Scott Blair

www.xilinx.com/xcell/embedded

Xcell Publications

Xilinx, Inc.
2100 Logic Drive
San Jose, CA 95124-3400
Phone: 408-559-7778
FAX: 408-879-4780

Welcome to the inaugural edition of the new Xilinx *Embedded Magazine* and the Embedded Systems Conference 2005.

In this, our first edition of *Embedded Magazine*, we have assembled a host of articles representing a wide range of embedded processing applications. During the last few years, Xilinx®, our partners, and our customers have developed and shared a vision to build and assemble all of the elements required for a complete and robust range of embedded processing solutions for FPGA technologies.

Included in this magazine and at the Embedded Systems Conference 2005 are examples and demonstrations of state-of-the-art commercial applications, real-time operating systems, multi-processor debugging environments, testing of complex hardware modules, and high-speed Internet communication protocols.

Last year, we made significant strides in the embedded processing arena. In July, we announced the formation of the Embedded Processing Division, reinforcing our commitment to the increasingly diverse and evolving embedded systems market. This division brings talent and technology together in an organization that intends to accelerate development of an even wider range of embedded system solutions, optimizing the full capabilities of our silicon architectures at multiple performance and price points.

In September, Xilinx launched our breakthrough Virtex™-4 family of products, featuring embedded processing solutions with PicoBlaze™ and MicroBlaze™ soft-processor cores and PowerPC™ (available on all Virtex-4 FX devices). The Virtex-4 FX device includes the new PowerPC Auxiliary Processor Unit (APU) controller to easily connect the CPU to the FPGA fabric, enabling the implementation of acceleration hardware for virtually any application. Once only the domain of high-budget ASIC and ASSP design teams, the Virtex-4 FPGA's architectural ability to combine application-specific hardware acceleration with the high-performance PowerPC and MicroBlaze processor shatters the traditional barriers of cost, time to market, and risk.

In February 2005, our Xilinx Platform Studio (XPS) embedded tool suite received top honors at the inaugural International Engineering Consortium (IEC) DesignVision Awards. Judged by independent industry experts, XPS was selected in the FPGA/PLD Design Tools category for its innovation, uniqueness, market impact, customer benefits, and value to society.

We have an exciting lineup of events at the conference, showcasing both Xilinx and our partners' latest solutions. The Xilinx booth (#1525) will feature our award-winning Xilinx Platform Studio, as well as the latest Virtex-4 FX solution; our flexible PicoBlaze and MicroBlaze soft processors with Spartan™-3 devices; and our high-performance DSP solutions.

I hope you find the conference and our first edition of *Embedded Magazine* informative and inspiring. We invite you to unlock the power of Xilinx programmability. The advantages will change the way embedded systems are designed.

Mark Aaldering

Vice President
Embedded Processing
& IP Divisions