

## In brief

### Library support

Artisan Components, a provider of physical intellectual property (IP), and chip design tool supplier, Magma Design Automation, have announced the availability of Artisan library support of 0.13micron, 90nanometer and smaller processes for Magma's Blast Create, Blast Plan and Blast Fusion products

### ICE for ST10

The Hitex handheld DProbeST10 modular in-circuit emulator for use with the STMicroelectronics ST10 family allows updating of variables and memory cells within the internal memory without any influence on the realtime execution of the embedded system.

### OSE for OMAP

Enea have just released a version of OSE for the OMAP processor that actually provides two kernels, one kernel for the ARM part of the processor and a kernel for the DSP part of the OMAP processor. The solution also provides a message passing mechanism to allow communications between the ARM and DSP.

### Secure collection

Thales e-Transactions CGA has standardised on MontaVista Linux for its advanced and secure electronic car park fare collection system – called Largo WiLi. This system has been operating successfully at Paris Orly airport since May 2003 and at Paris Charles de Gaulle airport since November 2003.

### Power analysis

Version 9.6 of the QuickWorks development software supports the QuickLogic Eclipse II family of FPGAs and includes PowerAware Placer, a tool that minimizes dynamic power by giving priority to power consumption during logic placement.

## NETWORKING

# Software for Ethernet switch stacks

LVL7, a provider of merchant IP software for Ethernet-based products, is deploying the industry's first fully integrated IP stackable software platform. LVL7's FASTPATH 4000 networking software product enables Dynamic Stacking, based on LVL7's Distributed Architecture, that supports next-generation IP-Ethernet switching systems.

Simply adding additional switches to the stack can increase port capability and processing power with single IP address management to support such diverse applications as security, Voice-over-IP and wireless mobility with a lower cost of operation.

OEMs can now introduce stackable switching products by leveraging this integrated, turn-

key production-ready yet customizable software platform and deploy L2+ and L2/L3/L4 featured 10/100/1000+ Stackable Ethernet Switches saving over 9-18 months of development costs.

The FASTPATH 4000 software platform is available on Broadcom's StrataXGS switching silicon family integrated with both VxWorks and Linux OS. The combination of Broadcom's silicon technology with LVL7's Distributed Architecture will lower the risk and speed the development of stackable Ethernet switches while minimizing the support costs for the end user.

The FASTPATH 4000 is the first LVL7 software product family based on the company's recently announced Distributed

Architecture technology. The underlying Distributed Architecture enables full non-disruptive dynamic stacking with integrated management for 10/100 and Gigabit Ethernet stackable switches.

FASTPATH 4240 is a managed Layer 2+ stackable software product that includes advanced Switching and QOS, featuring DiffServ, Access control lists and Bandwidth provisioning. Protocols supported across stackable units include among others VLANs, Port mirroring, Spanning tree and LAGs.

FASTPATH 4340 is a managed Layer 2/3/4 stackable software product supporting Switching, Routing and QOS that also leverages the FASTPATH 310 Multicast and FASTPATH 320 BGP modules.

## PROCESSORS

# StarCore and VaST cooperate on processor

StarCore and VaST Systems Technology are collaborating on a high-performance, cycle-accurate software model of the StarCore SC1200 processor core, which includes the cache subsystem.

The StarCore processor model, when used with VaST's electronic system level (ESL) design tools, will enable customers to design and optimize their system level architecture and develop hardware and software concurrently.

A VaST model of the StarCore SC1200 processor core could be integrated in a reference model for SoC design, or it could be used as the central component of a pre-silicon virtual prototype to develop and tune embedded software.

The model is an executable specification that accurately simulates the functional behavior of the SC1200 processor core and cache subsystem and

can run the actual binary image of the embedded system software. When used with VaST's tools, the model allows StarCore's customers to develop embedded system software before a silicon prototype is available, thus shortening their time to market.

Alex Bedarida, vice president of marketing and sales at StarCore, said, "We expect the virtual prototyping approach to be widely adopted, because of VaST's industry-leading performance and cycle accuracy. The StarCore model in a VaST virtual prototype would be fast enough to support real-time embedded system and SoC development."

Graham Hellestrand, VaST's CEO. "Our studies indicate that products developed using virtual prototypes can experience a 25% reduction in development time and resources and a 67% reduction in project risk.

## CORES

# NewLogic expands IP portfolio

NewLogic Technologies, the supplier of wireless intellectual property (IP) cores and design services has expanded IP cores library. The cores are silicon-proven and include a 10GHz PLL design for CMOS technology. The portfolio also includes high frequency dual A-D and D-A Converters, LVDS driver and receiver, a high frequency quadrature divider and a crystal oscillator. The LVDS driver and receiver are designed for short range communications such as from PCB to PCB at up to 250MHz per serial channel.

Each IP Core license includes documentation and test results. Analog designs are provided as hard-macros (GDSII) for processes including 0.18µm CMOS and can be ported to other processes on request. Digital IP Cores are provided as synthesizable VHDL, with supporting test benches and synthesis scripts.