finger lakes engineering

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An FLE Publication

FLE Has A New Office

Finger Lakes Engineering has relocated to Dryden, New York.

Our new address is

Finger Lakes Engineering
15 West Main Street, PO Box 28, Suite A
Dryden, New York 13053

Get Your Free IP at
www.FL-ENG.com

Our new office location provides 2000sq feet of engineering design facilities, along with a fully wired conference system for remote video, white-board, and design file sharing with our clients.

Finger Lakes Engineering has released a new Xilinx IP Core to allow direct connection between the Xilinx Microblaze processor and the ST25PXX series of Serial FLASH devices.

The new core, FLE-ST-FLASH, can be found at www.fl-eng.com under the Free-From-FLE Microblaze Cores. The core release provides the VHDL source code, and basic firmware driver to allow for a complete chip erase, sector erase, page mode write cycles, and individual read/write cycles.

The FLE Ethernet 10/100 MAC Core has been updated with improved performance and transfer rates of up to 500KB/s within a Microblaze embedded design.

The Ethernet MAC Core Block RAM requirements have been reduced to only 5 Block Rams which helps make the FLE Ethernet MAC Core the ideal solution for Spartan 3 and 3E targets.
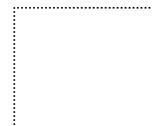
The FLE Ethernet MAC core supports the Spartan 3, 3E, Virtex 4 and Virtex 5 Xilinx FPGA.

The core is available in three versions, a FREE version, a Trial, and a full-speed Commercial version.

FLE FUSION IS COMING

Learn More at
www.FL-ENG.com

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Xilinx Spartan3E-500: FLE FUSION Demonstration

Steve Spano, President and Principal Consultant

Take a look at any PC today and you will see a variety of connectors: Ethernet, Video, USB, and Firewire for example. What's not seen are reams of software, IP stacks, user layers, kernel layers, and virtual memory mapping sitting between a running application (like Internet Explorer©) and that little connector.

Everyone today wants to be 'connected'; to check work related emails or getting directions on an iPhone while looking for the best campground. Whatever the reason, wanted to be 'connected', creates demand for products with the ability. Bringing connectivity to a product not only fulfills customer demands, but it can allow for reduced service calls and a better overall experience.

Let's consider a simple example: Your company has deployed a new product and has an install base of 1500 units. After a few weeks (or days!) service call requests begin to come in because a bug exists in the product and your customers need a fix – fast.

If your product is a based on a 'classic' embedded processing architecture, there may be no alternatives except an expensive factory recall or forcing users to sludge through difficult 'update' steps.

However, if your product was 'connected' – the customer would never even have known that a bug existed in the first place – it could have been automatically fixed without any user interaction or service call requests.

Most developers have heard of the 'myth of remote updating' and being able to fix bugs in-the-field. Remote updating is now a reality with technology being pioneered by Finger Lakes Engineering and our FUSION technology.

The FLE FUSION Technology is a combination of the Linux Operating System, Xilinx FPGA technology, and several software and hardware IP solutions developed by FLE. Leveraging this technology allows product developers to easily embedd a "PC-Class" operating system (Linux) into your product.

What is the benefit of putting Linux into your product? The benefit is 'connectivity' which means a better and easier experience for users of your products. The FLE FUSION technology is embedded with robust internet protocols, web-serving capabilities, and file-transfer capabilities that can allow your products to access the Internet, automatically download updates, bug-fixes, and new features purchase by your customers.

FLE has produced a basic reference design that allows a demonstration of remote updating, internet access, and the FLE FUSION uCLinux O/S. The reference design runs on the Xilinx Spartan3E-500 Eval board and is available as part of the Free-From-FLE program on www.FL-ENG.com.

Try it out today and see if connectivity and a better user experience would help your company's products.

FLE FUSION Technology Provides
- PC-Class Internet Functions (web-server, ftp, tftp, ssh, telnet, intranet, extranet access)
- PC-Class Filesystems (accepts DOS/Windows, Macintosh files)
- PC-Class Video Graphics Performance (16bit and 24-bit Graphics and 'Windows' GUIs)
  Look for our upcoming FLE FUSION reference design for the Xilinx ML501 Eval Board
  Featuring the VIPER technology for embedded Video processing

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Don't' Forget – FREE Xilinx FPGA Cores at www.FL-ENG.com

Finger Lakes Engineering: Vision, Mission, Values

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Vision: To be the first choice engineering service provider for the most innovative companies in the world, to provide an ethical and flexible work environment for our staff, and to continually invest in our community.

Mission: To develop relationships with companies who use electronics technology and help them achieve a superior marketplace advantage by providing complete hardware design services from concept through production on a fixed cost quote.

Do you have an Idea for a topic that you would like to see FLE discuss?

Email your suggestions to steve@fl-eng.com

Values:
- o Treating each client as if they are our most important customer
- o Open and timely communications with our clients and employees
- o Maintaining the confidentiality and security of client information
- o Treating our employees with fairness, respect, and accountability
- o Continued business growth through reinvestment of profits