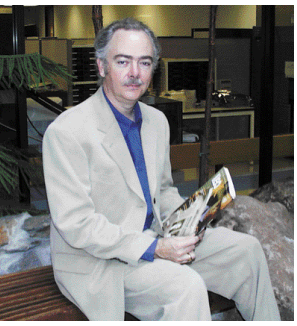
FROM THE EDITOR



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Xilinx Online - The End of Single-use Hardware

We are on the verge of an exciting new paradigm in logic design—one that could forever change not only how you design but also change what you design.

A computer can "become" a word processor, a communication terminal, a calculator, a video game, or an almost unlimited number of other machines, simply by loading in a new machine description or "program." It is this reprogrammable aspect of computers that make them so useful. Now imagine that the hardware of your computer (or any other device) is just as programmable as the software; that the machine itself can "morph" into almost any function, instantly adapting to new requirements, and eventually becoming things not yet dreamed of. Imagine that this upgradable system is connected to the Internet, allowing it to be automatically modified, remotely, as often as needed. The implications are staggering; the possibilities are unlimited; it's called Xilinx Online™.

This futuristic capability, a combination of several technologies, has just arrived, yet it's already beginning to have a dramatic impact on the way new systems are designed. These enabling technologies include:

- Device Architecture - The Xilinx Virtex™ FPGA family now has the speed, density, and system-level features you need to create complete systems in programmable logic, systems that are easily modified remotely.
- Process Technology - With our latest deep sub-micron manufacturing technologies, Xilinx programmable logic devices are not only much more capable, they are much less expensive as well, opening many new applications that once required custom, inflexible ASICs.
- Development Tools - With our tools you can create very large, complex designs, and then simulate and debug them quickly and easily. Plus, with our new team-based design capabilities, multiple designers, in separate locations, can easily collaborate.
- Intellectual Property - Many new cores are being developed every day, giving you a low cost headstart on your next design. Xilinx LogiCOREs and third party AllianceCOREs also give you the advantage of fast, predictable performance, no matter where the cores are placed, in any combination, saving you a lot of time and effort.
- Networks - The Internet is everywhere, which means that you have a standard, built-in, infrastructure for remotely reprogramming your designs. Through the Internet (or any communication medium) you can repair, upgrade, or enhance existing equipment, saving you and your customers a lot of time and expense.
- Software Enabling Technologies - The Java™ language enables Xilinx to create universal applications for remotely programming, testing, and verifying your designs. These tools make it easy for you to manage your systems in the field.

Xilinx Online presents the obvious next step in the evolution of logic design, and this issue of Xcell shows you what it's all about.