

## I/O magazine

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# Making Sense of the Complex

Welcome to the second edition of *I/O Magazine*, the premier educational journal of I/O technology from Xilinx. This magazine was created for practicing engineers in the semiconductor and electronic design communities, with an emphasis on design challenges and solutions.

Gone are the days when FPGAs were used only for glue logic functions. Today's FPGAs perform central functions in a majority of systems in the communications, computing, storage, consumer, and automotive industries. Following Moore's law, advanced devices such as Xilinx® Virtex™-4 FPGAs are shipped with integrated 10 Gigabit transceivers, Ethernet MACs, and thousands of I/Os, able to morph from LVDS to HSTL to LVCMOS with the flip of a bit and making these advanced technologies available at a cost point previously unthinkable. If the past is any indication, next-generation FPGAs will bring even more capabilities to the design community.

Designing with such advanced technologies is incredibly exciting and always challenging. Rather than completing only a digital design, most designers now must deal with PC board and connector design and signal and power integrity issues. To successfully complete your projects, you must constantly update your knowledge – and what better way to do that than to learn from the people who designed these technologies? Xilinx and its partners are committed to helping you learn – and *I/O Magazine* is an excellent way to achieve that goal.

In this issue, you will find articles on relevant design issues such as PCI Express, memory interfaces, signal integrity, and PC board design. You will also find useful information about tools, IP, and training classes that can help you complete your design on time.

Thank you and happy reading!



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