

[An exclusive interview with a technical leader]



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Thomas H. Reslewic has served as president and CEO of LeCroy since January 2002, when he was also named to the company's board of directors. Joining LeCroy in 1990, Reslewic previously served the company as executive VP and COO. From 1993 to 1998, he held key sales and marketing functions, helping to increase oscilloscope revenues from \$43 million to \$105 million. Prior to his tenure at LeCroy, Reslewic spent eight years in sales and marketing management with another leading oscilloscope manufacturer. Reslewic earned a bachelor's degree in physics from the College of the Holy Cross and an MBA from the University of Oregon.

Contributing editor Larry Maloney conducted a phone interview with Reslewic on the performance challenges facing vendors of high-end test and measurement devices.

Race quickens on scope performance

Q: What are today's engineers demanding from oscilloscopes?

A: In high-level applications particularly, they're looking for speed, which can be defined in two forms: the responsiveness of the instrument and measurement throughput. In addition, they're looking for long-waveform-handling capabilities. We feel that our toolset is second to none in meeting all these demands. The user interface is also very important, and LeCroy is a pace-setter in digital scopes when it comes to form factor, layout, and displays.

Q: What are the key advancements in your WaveMaster digital scopes?

A: The new WaveMaster 8 Zi Series gives engineers the raw horsepower they need to capture the signal. Incorporating our new Apollo chipset, featuring IBM's silicon-germanium technology, these oscilloscopes provide up to 30 GHz of bandwidth, 80 Gsamples/s of sample rate, 512 Mpoints of analysis, and greater than 15-GHz edge triggering. The new line delivers 10 to 100 times faster analysis processing time versus our previous high-performance scopes and other scopes on the market.

Q: Any other important changes in these new scopes?

A: Both our WavePro and WaveMaster 7 and 8 Zi embody the second generation of our streaming architecture, called X-Stream II. It's a unique waveform-processing architecture that enables high data throughput, even when the scope is analyzing eight 256-Mpoint waveforms. This architecture uses variable waveform segment lengths to improve the use of CPU cache memory, which substantially decreases processing time. X-Stream II also leverages the new 64-bit Vista operating system for additional performance.

Q: What applications need this type of performance edge?

A: At the root of virtually everything we do with our instruments are applications involving high-speed serial-data standards.

This embraces the latest developments in computers, servers, semiconductors, and consumer-electronics devices. Many demanding applications involve data-transport rates of 6 Gbps, and the underlying signals have harmonics that require oscilloscope bandwidths between 15 and 20 GHz.

In fact, there's no shortage of engineers who are intrigued with oscilloscopes that offer 30-GHz solutions. They are already looking ahead to the next generation of high-speed serial-data standards, such as PCI Express 3.0 and USB 3.0—the so-called SuperSpeed USB. Within the next year and a half, USB 3.0 will very likely be the most widely deployed standard in the 5- to 6-Gbps range. Beyond that, we see a future where there will be widely deployed 10-Gbps serial-data standards.

Q: Won't the economic slowdown hamper the pace of innovation?

A: I believe that technology developments stemming from these new data standards are somewhat immune from the economic slump. One reason is that many engineers interested in adopting SuperSpeed USB are involved with mass data-storage applications, and they're looking forward to at least a 10 times improvement in transfer rates between mass storage devices and PCs. That can be a very big competitive advantage for companies that get to market first.

Q: Looking forward, where will LeCroy focus its growth efforts?

A: We'll continue to attack three primary markets: computers/consumer electronics, automotive electronics, and data storage. In all these segments, we try to identify areas of technical change and emerging applications that will create more challenges and opportunities for us. T&MW



Thomas Reslewic answers more questions on how real-world demands are changing measurement devices in the online version of this interview: www.tmworld.com/2009_04.