A broader vision for industry pioneer (continued)

Test Measurement World Staff - February 28, 2005

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T&MW: What’s the outlook for the machine vision industry in 2005?

Testa: Overall, the industry has come back nicely. At Cognex, we saw growth in 2004 in nearly all the segments we target—from electronics and semiconductors to automotive, health care, and packaging. As we move further into 2005, we think the industry is going to continue to grow. However, we expect some softening in semiconductors and electronics in the early part of this year. We started to see that sector leveling off in our OEM business late in 2004. Looking back to the semiconductor boom of 2000, that year really was an anomaly, with the huge build-up in inventories. It shouldn’t have been as high as it was. We had the whole Internet craze and the surge in telecommunications, and this, in turn, created a big increase in orders for capital equipment.

T&MW: What is the impact of globalization on Cognex?

Testa: Cognex is a global company, with 65% of our business coming from outside the US. We provide sales, support, and engineering services throughout Europe, Japan, and Asia. In China, certainly a lot is going on. As manufacturers open new plants there, Cognex vision systems are part of the equipment that our traditional customers sell into that market. We also have opened an office in China and are developing system-integrator partners to work with local Chinese manufacturers to build vision solutions.

T&MW: How are advances in microprocessors driving new applications?

Testa: The big benefit is our ability to deliver high-performance vision capability at lower costs. Vision technology is really a software process: You collect an image and bring it into a computer, and it’s the software algorithms that determine how well you can find something, measure something, or identify something. To run the robust software that Cognex has pioneered, you need a lot of processing power, and it’s been a great benefit to us and ultimately our customers to see microprocessor and DSP costs come down, while performance has increased tremendously.

T&MW: What are the chief obstacles to future growth?

Testa: Our markets are both price elastic and ease-of-use elastic. That is, as we make progress in bringing down costs and also make our technology easier for customers to use, then the more
opportunities we are going to have. One of the real challenges is breaking through this ease-of-use barrier. Vision technology incorporates a variety of elements. To form an image, you have to select the right optics, have proper lighting, and acquire and process an image. You also need to set up the system, make sure it does the right thing, and cope with the results. Oftentimes, the cost of the vision system itself is just a fraction of what this total integration might be. To the extent that vision systems can incorporate more intelligence in setup and image formation, we will be more successful. We also are doing more to integrate technology, such as including lighting components into our new vision sensors and ID readers.

_T&MW:_ Do you also need to do more in the area of training?

_Testa:_ It depends on the type of system we sell. OEM applications typically require board-level hardware and a vision tool library that is programmed in C++ or Visual Basic. In these cases, there is a need for classroom training. But much of the factory-automation market prefers to configure a vision application without using formal programming languages. For example, our In-Sight product line uses a spreadsheet, very similar to Microsoft Excel, to build vision applications. We offer both classroom training and electronic training for In-Sight, focusing on the application of the tools and use of lighting. Other products, such as the new Checker sensor and ID readers, are more specific in terms of the applications addressed and require no programming or training.