

# **Cirris Systems Corporation Celebrates 25 years**

By Jamie Young

In 1984, the first Apple Macintosh went on sale, Sony and Philips marketed the first commercial CD Players, and Cirris Systems Corp. introduced its first cable tester, the Signature 1000. Twenty-five years of business has brought Cirris much success and some humor too. When the British Broadcast Corporation (BBC) called Cirris to get a prototype of their featured X-Ray Vision glasses (designed for “seeing” errors in a cable) to be demonstrated in one of their children’s science programs, Cirris had to apologize. Even people who don’t use cable testers have been entertained, or confused, by one of Cirris’ annual April Fools videos. Although, Cirris has a playful side, they are serious about their products, their people, and their customers.

## **History**

Before founding Cirris in Salt Lake City, UT, Marlin Shelley was employed at a dot-matrix printer manufacturing company. Shelley was often frustrated as various printers continually had problems relating to bad cables. Through his struggle, Shelley saw an opportunity to give companies that were building cable assemblies a better way to test their products by building an easy-to use continuity tester. He founded Cirris Systems Corp. to provide people “a simple, fast, and effective tester offered by a company committed to its customers.”

## **A World Wide Company**

For three years Cirris grew substantially in the U.S. market, then started to expand internationally; first into Mexico and Europe, then into China and the rest of the world. Cirris has sister divisions in Germany and the U.K., two direct offices in China (Shanghai and Shenzhen) and a vast array of reps and distributors throughout the world.

## **Omnitester Acquisition**

In 2006 Cirris acquired Omnitester Corp., a competitor that was going out of business. “By acquiring Omni, we were able to provide a “softer landing” for their customers” said Brent Stringham, long-time director of Sales and Marketing at Cirris. “Rather than service and support ending abruptly, we have kept Omni customers happy by providing spares and service.” The acquisition is paying off now as Omni customers transition from their old Omni equipment to new Cirris testers. “The best part of the Omni acquisition however, is that we hired Ray Mumma, Omni’s sales manager.” Mumma is now part of the Cirris sales/support team giving us a direct person on the east coast.

## **Cirris Innovations**

### **Signature Matching**

In developing his first cable tester, Shelley discovered that, if a tester was programmed incorrectly before testing, a bad cable could test as good. To verify correct programming, he pioneered the use of Signature matching in cable testers. The tester learned the wirelist of an attached cable and

mathematically derived a “Signature” code for the good cable. Once properly programmed, testing could proceed as fast as operators could plug and unplug cables.

### **High Speed Scanning**

One key aspect to Shelley’s perception of a “good” cable was that it had to pass the “wiggle test.” When developing the first Cirris tester, Shelley established a high-speed scanning algorithm so that opens, shorts, or miswires were instantly detected and reported to the operator. Most cable testers at the time only did a “one time pass” of the assembly, so intermittent problems were often missed.

### **Low-Cost Benchtop Hipot Testing**

After several years, Cirris’ low voltage testers were quickly becoming the industry standard for high-volume cable assembly houses. However, as cable complexity grew customers were asking for high-voltage (hipot) testing. In 1988, Cirris introduced the Signature 1000H, a benchtop hipot cable tester that sold for \$3000. The 1000H revolutionized the industry. Prior to its release, multi-point hipot testers were in the \$30,000 + price range. They were generally used only in the high-end military/aerospace industry.

### **Guided Harness Assembly**

In the mid 1990’s much of the high-volume cable assembly work was moving offshore. Cirris found that many of their traditional customers were now building more complex wiring harnesses in addition to simple cable assemblies. To accommodate this difference, the easy-wire CR was developed. The CR is a PC based tester that offers visual guided aid to the harness assembler in a “test as you build” approach. It blinks LED’s at the from/to connector location and provides on-screen graphics of the connectors, showing the exact cavity for the next wire to be inserted. SPC Data collection and a superior reporting package make the easy-wire CR a popular choice among customers who build complex multi breakout wire harnesses. The CH2 tester is capable of high-voltage testing while running the same easy-wire software as the CR. Cirris’ most recent innovation in the guided harness arena is Pin-Sight, a camera-based device that gives operators real-time video of the connector as they insert wires into cavities. It also performs a “pull back” test to assure contacts are properly locked in.

### **Moving Test “Upstream”**

When Cirris entered the market, the reigning test philosophy was “final test.” Cables were built in production, moved to final test, with bad ones being sent to “re-work,” and then sent back to final test. Large, expensive testers drove this approach. Long ago Shelley was a proponent of moving test as far upstream as possible. “Ideally,” he said, “the person building a cable is the person who should be testing it. That’s why we’ve always built low-cost benchtop testers, so that companies can put testers right at the point of assembly.” “Cell based” and more recently “lean” manufacturing principles have popularized this upstream test philosophy.

### **Operational Excellence**

Two aspects that make up the operational excellence of Cirris focus on how the employees operate and how the company performs. Cirris is heavily involved with local Lean Manufacturing groups

and is often cited as a model for lean manufacturing. They aim to build it right the first time, minimizing the need for end-of-line test and put their focus on the customer. Employees at Cirris follow a unique customer service practice based on the acronym EASY-D. The “E” stands for “Easy to try, Easy to buy, and Easy to use.” The “A” stands for “Assured quality,” both in terms of; the product works when you receive it, and it will effectively find your defects. The “S” means “Ship quick;” Cirris products are usually shipped within 2 business days from the date the order is placed. The “Y” equals “Yet Flexible” which means flexible products and flexible response to customers. The “D” is for “Direct.” For the US market, Cirris deals with direct sales rather than selling through distributors or reps, providing direct communication with customers, which minimizes confusion and saves time in the buying and shipping process.

A key reason that Cirris performs so well to their “EASY-D” philosophy is because they incorporate internal manufacturing. Surface mount pick and place machines, CNC milling, and high-speed routing machines all make up part of this in-house manufacturing capability. Shelley says, “We couldn’t really justify our own pick and place machine based on volume, but we can justify it because it allows us to meet our fast turnaround times.”

Along with servicing their testers well, Cirris services their customers well. Any business can claim their product works, but Cirris gives potential customers a chance to see for themselves. Cirris has a 7-day demo program that gives customers the opportunity to use a Cirris product on their production floor free of charge, and if they purchase a product, they are granted a 30-day money back guarantee. Customers also have the option of receiving a demo/loaner unit while their tester is in for service or repair. Support is available around the clock via an after-hours customer service hotline. These techniques have made Cirris customer service unmatched in the world of cable testing for 25 years.

## **People**

Shelley encourages his employees to always keep learning by providing on-sight classes that teach communication and problem solving skills. These classes not only help the performance of employees in the workplace, but also in their personal lives. Shelley has a strong belief in finding the strengths of his employees and allowing them to improve what they do best. Joe DeLuca of “Cables to Go” serves on Cirris’ board of directors and has been a long-time customer. When asked what he has learned from Cirris that he has incorporated into his own business, DeLuca said, “to control what you can control and be best at what you can do.” Shelley has found that employees are more satisfied at work doing what they are good at.

Cirris employees benefit from a unique culture that promotes a healthy lifestyle, allowing them flexibility throughout the day to participate in various exercise activities. Cirris has put into practice the philosophy that happy employees equal happy customers. DeLuca says, “I’ve met the people who currently work at Cirris; I think it’s a fabulous culture that they have.” As a result Cirris has a remarkable 1% turnover rate and an employee average tenure of 15 years. Three of the four original employees are still working at Cirris, the fourth having retired several years ago. For these reasons and many others, Cirris was recently awarded the Utah Work/Life award as one of the best places work.

## **Web Based Information**

A form to receive a free subscription for Cirris’ monthly electronic newsletter can be found at <http://www.cirris.com/en/support/requestnews.html>. For educational information that can be helpful to

customers visit Cirris' website [www.cirris.com](http://www.cirris.com). The newsletters (81 so far) focus on good quality content and troubleshooting techniques for cable and harnesses manufacturers. They also highlight upcoming products and updates for existing products. The Cirris website contains calculators and tools for the cable assembly industry and is a repository of the content of each newsletter. Many tutorials and videos of Cirris products can be found on their website. For entertainment purposes go to the "e-newsletters and search by "topic." Under the "Humor" topic click on: [http://www.cirris.com/en/support/news/apr\\_2006.html](http://www.cirris.com/en/support/news/apr_2006.html).

## **The Bottom Line**

Meeting customer needs is the bottom line at Cirris. The success of the company has been driven by innovation, strong business philosophies, and dedication to customers. The outcome is products that work and a company that supports them. Cirris looks back on these past 25 years with fondness, and looks forward to another great 25 years in the cable/harness industry.