



Jim Lai, founder and chairman of GCC.



GCC President & CEO, Leonard Shih, with one of many R & D teams for the SignArt Nautilus thermal transfer printer.



GCC headquarters in Taipei, Taiwan.

THE GCC Story

By Jessica Haessler

Located 99 miles off the coast of mainland China, Taiwan is a relatively small island that packs a big punch economically. Over the past 50 years, Taiwan has developed from an agriculture-based economy to a high-tech economic powerhouse. Taiwan is currently the world's 14th largest exporter, with a large portion of those exports involving technology. That high-tech revolution has touched this industry, due in a large part to an innovative company by the name of Great Computer Corporation (GCC).

Headquartered in Taipei, Taiwan, GCC has evolved from a maker of PC products to a major manufacturer of laser engraving machines and sign making systems. GCC's versatile product line includes the LaserPro family of laser engraving machines, which ranks second in worldwide laser system sales. Their sign equipment line includes the SignPal line of vinyl cutting plotters, the SignArt Nautilus thermal transfer printer and the brand new CardExpress ID card printer.

Under the guidance of Leonard Shih, GCC's president since 2000, the company is constantly striving to upgrade its products, its technology and the company as a whole. In addition to the Taipei headquarters, GCC has distributors in

over 60 countries and has branch offices in Los Angeles, Rotterdam (Holland) and Shanghai (China). GCC's products have been the recipient of the "Symbol of Excellence" award in Taiwan every year since 1996. In 2003, the company won the prestigious National Outstanding Award, presented each year by the President of Taiwan to the small- or medium-sized business with the most growth potential. And in 2004 GCC went public on the Taiwan stock exchange. The company currently has over 330 full-time employees and shows no signs of slowing down.

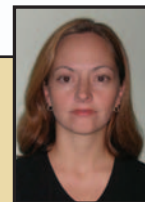
An Initial Investment

GCC was founded in 1989 by Jim Lai, who originally approached the business as an investment. Jim didn't have a background in either sign making or engraving. Rather, he was an investor who wanted to create a high-tech business. He studied abroad, receiving an undergraduate degree in mathematics and an MBA in finance at California State University, Long Beach. Motivated by the incredible growth in the computer industry during that time and his own background in mathematics, Jim returned home to Taiwan and founded Great Computer Corporation.

About the author:

Jessica Haessler, is a former managing editor and advertising account rep for **EJ**.

Jessica can be reached by E-mail at jhaessler@engraversjournal.com.



The company's initial product focus was two-tiered. It included personal computer products such as mainframe boards and computer peripherals, namely ink pen plotting systems for mechanical drawing and CAD (Computer-Aided Design) applications.

This was a very competitive period in the computer industry, and by 1992 Jim decided that if his fledgling company was to succeed, he would need to focus on either computer hardware or computer peripherals. GCC's president, Leonard Shih, says, "GCC found that it was not competitive enough in the PC industry because their skills were not developed enough. So the company decided to refocus on computer peripherals."

A New Type of Plotter

In 1992 Jim hired Leonard Shih to join his R&D team. Leonard had also been educated in the United States, receiving a PhD in engineering from the University of Wisconsin. Jim felt that Leonard's research background would help GCC transition into the digital age.

When Shih joined the company it had just gone through its first major change: focusing its efforts on computer peripherals. There were only about 25 employees at GCC at the time, and they were still working on ink pen plotter technology. These pen plotting systems recreated complex mechanical drawings from a CAD system by literally using an ink pen to "draw" high quality, permanent copies of the CAD drawing for use as blueprints in the manufacturing process.

"When I first joined the company in '92," says Leonard Shih, "I was helping to develop more advanced pen

plotters. We never even had a chance to launch that because inkjet plotters were coming in."

During the early 90s inkjet technology had begun making its mark in the plotter industry. Inkjet plotters were less expensive than standard pen plotting systems and could reproduce full-color CAD designs more quickly. Inkjet systems were also gaining popularity because of their relatively low prices. Once again, Jim chose to follow the market and GCC began researching inkjet systems.

As GCC studied the inkjet process, they quickly learned about another plotter system, namely sign cutting plotters. Both inkjet plotters and sign cutting plotters were a good fit for GCC's existing technical expertise. Jim Lai only had the resources to focus on one of the two technologies if he wanted to keep his company competitive in the high-tech market. After a great deal of research into both processes, GCC made its second major change: they decided to develop a sign cutting plotter and leave ink pen plotters behind.

"Moving into signage was a major decision," says Leonard Shih. "Inkjet plotting was gaining popularity in the market and wiping out the pen plotter position completely. Both sign cutting plotters and inkjet plotters had a lot of overlap with our existing ink pen plotters. But in the end, we weren't sure we'd be able to immediately compete with the big inkjet companies such as HP and Cannon. The final decision came down to marketing."

GCC devoted itself to creating a signage system. At the same time they began recruiting distributors for their new system. The company's first distributor, Giant Corporation (Taipei, Taiwan), became involved with GCC in 1994 and is still affiliated with the company, now carrying the complete signage and laser engraving lines. GCC admits that without such devoted and hardworking distributors, the company would not be as successful as it is today.

After three years of research and product development, in 1995 Great Computer launched its first sign cutting plotter, SignPal. It was introduced at trade shows in China and Taiwan. This was a very exciting time for the company and marked its transition from being a computer peripheral provider to a sign equipment company.

GCC had already established a willingness to follow technological trends. Shih was not afraid to integrate entirely new products if he thought that those products had a bright future. This flexibility has made the difference in the company's success. Leonard admits that "The first generation of SignPal vinyl cutters were converted pen plot-



GCC America's U.S. office in Walnut, CA, handles U.S. sales, marketing, customer service and distribution.

ters. The features weren't well tailored to a sign maker's needs, but we had some cost advantages that gave us growth opportunities. As we learned what sign makers needed, we started to develop the second generation of sign cutting plotters. We made extensive design changes in the second generation and, luckily, the redesigned cutter received a very good response."

Leonard Shih was also taking steps to advance GCC. In 1995 he moved from a dedicated R&D role into marketing, sales and finance within the company.

From Signage to Lasers

GCC began marketing its new sign maker heavily at trade shows throughout Asia, Europe and America. Along with promoting their product and educating new users, GCC focused on learning. Trade shows provided an opportunity to not only make sales but to learn about new growth opportunities.

One exciting trend that Jim and his team noticed right away was the relatively young laser engraving market. With the successful launch of SignPal, GCC was now making a profit and could devote more money to developing new products. Laser engraving seemed like the perfect fit.

"The reasons we picked up lasers are many fold," says Leonard Shih. "One reason is that the technology re-



Along with the two staff members from GCC America, GCC managers gather in the lobby at the Taiwan headquarters. Tony Lee (front) is the sales manager of GCC China.

quired in laser engraving had a large overlap with our core technology. We were already familiar with the X,Y tables, so all we needed to do was develop the optical module and then we could build lasers. We also saw that the laser market had great potential and that the competition situation was not insurmountable. The other companies selling laser engraving machines were not much larger than we were at that point. From a marketing viewpoint, we had a very good chance."

From 1995 through 1997, GCC worked on upgrading its sign cutting plotter line as well as developing a unique laser engraving system. The company's goal was to provide innovative, reliable products at reasonable prices, backed up by impeccable service. As part of this process, the company was also spending time cultivating new distributors for their laser engraving line. GCC's first laser engraving distributors were many of the same companies that were already selling the company's signage products. Benjamin Jiang, vice-president of GCC America, says, "It was natural for the sign machine distributors to pick up laser engraving as well. There is a lot of crossover between the two markets."

In 1998, GCC launched its first laser engraving system, the "LaserPro." This first system had many innovative features that are mainstays of the current LaserPro line. The LaserPro used a DC servo motor to drive the laser, which allowed it to deliver greater precision at higher engraving speeds than a stepper motor of the same size. LaserPro had specially-designed front and back doors to handle long work pieces. It also had a red-spot alignment beam, upgradeable laser source and came equipped with both parallel and serial ports.



One of GCC's R & D labs where the power of the laser tubes is being tested.



The production line of LaserPro laser engravers being assembled at the Taiwan headquarters.



The production line of LaserPro laser engravers at the Taiwan headquarters.

LaserPro's initial introduction actually shared booth space with GCC's sign equipment division at a trade show in Taiwan. From there, they attended regional sign and engraving shows in Europe and Japan to increase LaserPro's brand recognition. These shows were very effective in growing the product. Laser engraving was still relatively new in many of these areas, so GCC was making a strong first impression.

The U.S. market, however, was quite a challenge to them. The other major laser engraving machine manufacturers were based in the U.S., and GCC knew that they were well established in the American market. Experience had also taught GCC that U.S. buyers could be wary of foreign technology, especially if they didn't have a local resource to contact for support.

Ben Jiang says, "The U.S. market was tough. People were worried about communication problems coming up, but they were also worried about the technology. They were unfamiliar with Taiwan's high-tech resources and with GCC's growing worldwide reputation."

Because of these potential customer concerns, GCC opted to enlist

the help of U.S. based distributors to debut the LaserPro line in the U.S. market. The first was Western Engravers Supply (now Vision Engraving Systems), Phoenix, AZ, who began selling LaserPro equipment under their own name in 1999. Then in 2000 Grayson Business Computers (a.k.a. Sign Warehouse), Denison, TX, began selling the LaserPro line, this time under the GCC name. By the end of 2000, GCC had six U.S. distributors and a well-established presence in the North American marketplace.

The late 90s were a time of rapid growth for Great Computer Corporation. They now had two distinct divisions: one producing sign cutting plotters and the other producing laser engraving systems. After three years, sales of sign cutting plotters had taken off and GCC had added the SignPal Jaguar and SignPal Puma to their plotter line. GCC's research team was hard at work developing new laser engraving machines as well.

The Products Today

Since the introduction of that first LaserPro system, GCC has significantly expanded its laser engraving line. The LaserPro Mercury system, launched in 1999 and available in 12, 25, 30, 35, 40, 60, 75, 100 and 120 watt models, is the company's most popular laser engraver.

In 2000, GCC launched the LaserPro Venus, one of the most compact laser engravers on the market (see *Product Review: GCC's Venus Laser System* in the April 2003 issue of **The Engravers Journal**). The Venus uses much of the same technology as GCC's larger laser engravers, and offers engraving resolutions up to 1000 dpi (dots per inch). Driver functions include 3D effects, grayscale settings and a "rubber stamp" feature.

The LaserPro Neptune was also introduced in 2000. It's a large format system with a work area of 49.6" x 36.6". It has a uniquely engineered cutting table allowing precise positioning for engraving and vector cutting. The Neptune also features a highly rigid linear motion system which should provide enhanced durability and minimum maintenance.

In 2002, GCC unveiled the LaserPro Explorer. This system is larger than the Mercury with faster engraving speeds. It pioneered many new capabil-



Leonard Shih (center) with Alex Wu, V.P. of sales & customer service, two technical managers from Taiwan and two customer service staff from GCC America. From left to right; Mark Chu, Allen Chang, Jonathan Su, Leonard Shih, Alex Wu, John Dobbs, and Dan Lopez.

ities, including QSM (Quality Speed Mode) technology that allows the Explorer to maintain quality engraving output at high (100%) engraving speeds. The Explorer also has a built-in USB port and Bluetooth capabilities, which allow the laser to communicate wirelessly with a compatible computer, PDA or even a cell phone.

The LaserPro StellarMark laser marking system was introduced by GCC in 2003 for high productivity marking applications including textile marking, bar coding and packaging. It features engraving speeds of up to 300 characters per second and comes with GCC's own G-Mark engraving software which, among other capabilities, allows users to reproduce images with their laser at up to 1000 dpi.

The LaserPro line also includes the G-Soft and LaserType laser engraving software packages. Says Ben Jiang: "Our engravers who tended to use CorelDRAW and AutoCAD for their laser outputs were too often suffering from longer production times and decreased productivity. We felt we should offer LaserPro users a better solution, so we created software with dedicated functions to meet distinctive laser engraving requirements."

In 2003, GCC launched a new thermal transfer printer. The SignArt Nautilus boasts up to five years of proven outdoor durability and features four printing heads for creating lasting full-color outdoor signage. GCC has since added an additional thermal transfer printer to its line, along with two soft-

ware packages.

In mid 2004 the company added yet another new product to its product line: The CardExpress ID card printers which print monochrome or full-color cards, tags and badges complete with photos, text and bar codes. The CardExpress printers opened up a broader customer base for GCC. Along with small engraving and sign shops, these printers are perfect fits for the security industry, schools, hospitals, etc. This technology was another innovation that was inspired by watching the market. Shih says, "This industry is spread widely. There are so many different applications and many different channels we get to explore because of that."

A Global Vision

As GCC's product lines grew, it became apparent that they needed more

local resources to support their distributors and especially their customers. Therefore, in early 2001, GCC opened its U.S. headquarters in Walnut, CA. GCC America has eight full-time employees devoted principally to the United States and Canada. To coordinate the company's European distributors and better serve regional customers, GCC Europe was established in the Netherlands in 2003.

The Taipei, Taiwan, location includes 72,000 square feet of office and manufacturing space. This is the home base for GCC president Leonard Shih and company founder and chairman Jim Lai. It is also the current manufacturing facility for the LaserPro line of laser engraving machines.

The Company also built a manufacturing facility in Shanghai, China in 2001. This 160,000 square foot factory is where the sign cutting plotters are manufactured. Says Shih, "China has very low manufacturing costs."

It can be complicated to manage a company with operations in so many countries. Shih admits, "That can be both good and bad, of course. In a multinational organization, there can be more communication problems, but on the other hand, we're able to stay close to the market and offer rapid response to customer requests. We can also utilize different resources in different places. For instance, GCC receives electronics and professional manufacturing capabilities from Taiwan and laser tubes and optics from the United States."

The GCC Team

In just 16 years, GCC has grown



GCC managers gathered in the lobby of the Taiwan headquarters shortly after a weekly meeting.

from Jim Lai's investment concept to a multinational organization with a strong reputation in the engraving and sign industries. The company could never have come so far without a group of dedicated employees. GCC now has 334 full-time employees in four countries.

Leonard Shih, as president, runs GCC and sits at the head of GCC. Founder, Jim Lai, is retired from day-to-day operations but still functions as an advisor. Shih tries to maintain a hands-on approach at GCC. He attends almost every major show GCC has exhibited at since the launch of SignPal. Shih has a technical background and knows how to use all of the products that GCC sells. In fact, Ting Kao, GCC's marketing and communications director, told **EJ** that, "Leonard is our best salesperson."

Shih is also joined in management by Alex Wu, vice-president of sales and marketing, who has been with GCC for seven years. Kai Liu is the technical director of the LaserPro line and has been at GCC for six years. Both Dr. Fiona Chu, the director of the Optics division and Ting Kao, the LaserPro product manager, have been with GCC for four years.

The company has been able to capitalize on the rapid growth in Taiwan's high-tech market because of the company's research and development staff. Over 30% of GCC's workforce is made up of R&D team members and the company invests roughly 10% of its yearly revenues in R&D. The headquarters R&D staff includes over 70 engineers with college or post-graduate degrees. And because of his own engineering background, Shih tries to keep a special watch over this part of his team.

Leonard gives particular credit to the GCC America headquarters. Even though there are only eight employees at GCC America, they make the difference in satisfying North American customers and supporting distributors.

Ben Jiang, the vice president of GCC America, has handled all business and administrative affairs for GCC America since its establishment in 2001. He assisted in the recruitment of numerous LaserPro dealers throughout North America. His coworkers also say he is always the last person to leave work each day!

Alen Lin is GCC American's business development manager. He has handled print advertising, general public relations, trade show planning and market research for the company as well as assisting GCC in redesigning its Web site. While still handling many of these duties, Alen has also begun recruiting new distributors for GCC America.

When customers call the GCC America customer service department, they typically talk to either Dan Lopez or John Dobbs. Both men are skilled at sample testing and can troubleshoot any technical problems that may arise. John is the lead technician and is the most knowledgeable member of the team when it comes to the hardware and driver configuration of the LaserPro engraving systems.

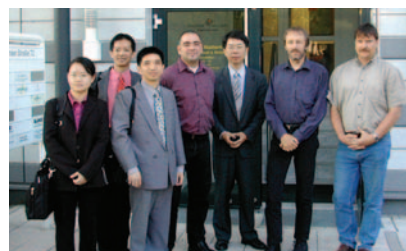
Other key personnel at GCC America include John's wife, Claudia Dobbs, who's in charge of purchasing and inventory management and Keith Andrews who has served as warehouse manager since 2001. The newest member to the team is Jeff Lee, who is the sales manager as of July 2004.

Communicating with Customers

LaserPro systems have found customers throughout the world. GCC has distributors in over 60 countries and is not afraid to expand into new marketplaces. To make itself more accessible, the company strives to provide local product demonstrations and technical support to its customers whenever possible. The company also maintains an active trade show schedule, usually attending over 30 shows per year.

Another way that GCC stays in touch with its customers is by placing ads and press releases in trade publications throughout the world. Leonard said, "Magazines like **The Engravers Journal** are American-based but have a worldwide influence. For instance, Chinese customers also look at the magazine almost monthly to get the newest information and stay up-to-date. Distributors look for the latest technology to pass on to their customers."

The company's most frequent customer contact comes, not surprisingly, through technology. The company is committed to the Internet as a fast, effective way to stay in touch with their customers. GCC has a dedicated general business site, www.gccworld.com



Alex Wu and Bill Jen, Director of GCC Europe, lead a sales and technical support team to visit GCC customers.

and www.laserproi.com which lists information about the company, its product line and its business activities.

For detailed information about the LaserPro family of laser engraving machines and software, look to www.laserproi.com.

Leonard Shih sums up the company's customer communication philosophy by pointing to the GCC slogan, "Innovation with a Human Touch." "That's the GCC spirit," he states, "And we make sure that that's the way every GCC customer is treated!"

E-mail and telephone calls are the other two avenues GCC employs to keep in touch with customers. Liya Huang contacts LaserPro users directly via E-mail in the form of customer surveys; participation is often linked to product promotions.

"Customer feedback and troubleshooting is very important to us," says Leonard. "We normally sort questions into short term, middle term and long term problems. If it's a short term problem we do firefighting work to solve it as soon as possible. If it's a middle or long term problem we put it onto a list for our second generation development."

GCC's Future

GCC has experienced incredible growth since entering the sign and laser engraving markets. The company presently has four major product lines: sign cutting plotters, thermal technology (including the ID card printers and the color thermal transfer printer), laser technology and inkjet plotters (currently under development). Shih says, "These four lines have very bright futures, we'll follow all of them. We have many opportunities for the future, maybe too many." One thing is certain: if history is any indication, we can count on more high-tech innovations from GCC. 