

GLOBAL SHOP SOLUTIONS CASE STUDY

Calnetix Technologies

If you think that keeping a major manufacturing operation running smoothly from day to day is a hard thing to do, try running four major manufacturing operations at the same time. This is the challenge for *Calnetix Technologies*, a Cerritos, California, company that is a world leader in developing and manufacturing high speed electric motors and generators.



Calnetix designs and manufactures high speed, high efficiency motors and generators for turbocompressors, energy storage flywheels, micro turbines, expanders, laser systems, medical and other industrial applications.



CFO Ian Hart and Global Shop Solutions Founder Dick Alexander looking at a Shop Floor Data Collection station on the shop floor.

Much of the technology that Calnetix uses in their products is the result of their own significant research and development (R&D) efforts into the development of frictionless magnetic bearing technologies, known as high-speed permanent magnet machines. The result has been the spin-off a variety of technologies into their own stand-alone companies as subsidiaries or affiliates of the parent company. These affiliates include Vycon (flywheel energy storage systems), Direct Drive Systems (high speed permanent magnet motors and generators), and, their newest entity, TurboGenix (waste heat recovery and power production).

From the start, Calnetix knew it would need a special software to manage the tremendous amount of business information generated by their continually expanding company. Within a year of their 1998 inception, Calnetix turned to *Global Shop Solutions* for ERP software capable of making this information stream an asset, not a detriment, to their growth. Mike Baca, the Purchasing Manager at Calnetix, remembers the series of events that delivered ERP to his company.

“We started using QuickBooks as our purchasing and accounting system, and everything else on Excel spreadsheets and even Word documents,” says Baca. “It was quickly apparent we needed to find a software that would allow us to control *inventory*, track the *sampling time*, a complete platform that could become the backbone of our manufacturing system.”

“Around 1999, I asked a good friend of mine, Tom Lewis, the President of Wilshire Precision, what system he was running,” continues Baca. “He told me it was Global Shop Solutions and that it was the best he’d ever seen. So, I went over to his facility and he showed me how easily a work order was generated and parts purchased, and how he could *schedule parts*.”

“Afterwards, I brought the idea of acquiring Global Shop Solutions ERP software back to our Calnetix President,” says Baca. “The Global Shop Solutions salesman came out and demonstrated the details of the system, and, I’m happy to say, we’ve been using it ever since.”

For Baca, the integration of Global Shop Solutions ERP software has meant greater efficiencies in work order generation, [purchasing](#), [tracking work orders](#), reading [shop orders](#), looking at open orders, and tracking inventory.

“Being in purchasing, and needing to know what my forecasting looks like, I really use the Global Shop Solutions Supply & Demand screen quite a bit,” Baca states. “But, perhaps most important, Global Shop Solutions helps us meet due dates, keeps us on track, and keeps us delivering on-time.”

Multiple Affiliate Management Through ERP Software

Calnetix’s growth has been so dynamic that it nearly tripled its employee base in 18 months. The growing pains associated with rapid expansion also cropped up in executive management. Controlling time and attendance, costing, scheduling, and other factors, was much easier with 20 or 30 employees rather than 90 or 95. Potential problems are compounded exponentially as affiliates spin-off and come online.

Working across multiple databases with dozens of schedules out of sync defined the need for a single ERP software capable of bringing all of the data under one single-view “home base” control. For Calnetix’s executive management, the Global Shop Solutions [Dashboards](#) is the best way they’ve found for centralized ERP and MRP control.

Calnetix has continued its success due to the flexibility Global Shop Solutions ERP software has afforded them over the years. According to Calnetix CFO Ian Hart, the flexibility built into Global Shop Solutions ERP software interfaces very well with their own highly dynamic and flexible business model.

Hart explains, “With Global Shop Solutions, the bottom-line for management is the Dashboard. Everything is in one place, under one roof. We don’t have to work with multiple software companies, and for CFOs, the Global Shop Solutions Dashboard is a powerful tool. As we develop this business model of affiliate development further, we’re going to have more volume and we’re going to spread it around the world. Also, with Global Shop Solutions ERP software, we can sort our [financials](#) for all of our affiliates immediately. And Global Shop Solutions allows us to work through the [customization](#) of the software in a way no other software company can match - it’s all about meeting our needs.”

Since Calnetix is so heavily driven by R&D, the less time spent in back-office management means more time dedicated to their business mission: scientific research and product development. To this end, Hart finds great advantage in the automated management capabilities of Global Shop Solutions ERP software. The ability to roll a variety of shop data into one, easy-to-manage integrated software system offers the advantage of labor/time optimization for the company in general, and financial management specifically.

“We are increasing the use of the automated aspects of our Global Shop Solutions ERP software,” Hart points out. “For example, with [Automated Work Order Generation](#), the level of detail Global Shop Solutions ERP software provides is simply incredible. For drilling down and keeping track of project costs for job cost tracking, Global Shop Solutions is great.”



Manufactured parts on the shop floor at Calnetix headquarters in Cerritos, California.

"We balance our labor every day, and Global Shop Solutions has significantly cut the time it takes to accomplish this," continues Hart. "Overall, Global Shop Solutions helps us think more about our R&D and production, and less about our back-office work that needs to be done to make R&D flow. The software provides the information that I need to feed to project engineers. This is absolutely key for us in containing costs and managing several research projects at the same time. In short, Global Shop Solutions helps us marry the various accounting areas for our four businesses into one easy to use and easy to understand system that fits in nicely with what we do at Calnetix."

A Powerful Machine in the Global Market

As needs for alternative means of power generation increasingly become a front burner issue, Calnetix is well-positioned to take advantage of emerging markets for a variety of cost-of-business and environmental reasons. Whether the solution is found in more efficient motor operation, accessible stored energy, or waste heat recovery, Calnetix is on the leading edge of R&D into this global problem. Working along with them, their Global Shop Solutions ERP software is there 24/7 to make their life easier and the company more productive. For Calnetix COO Brad Garner, the relationship with Global Shop Solutions is a natural one, based upon the unique capabilities of both companies.

"Because the need for alternative, more efficient energy-producing solutions we're facing on the planet, here's going to be a continual driver for alternative power solutions for the infrastructure," states Garner. "Our focus in Calnetix is on incorporating a best practices model in the efficient manufacturing and assembling of these alternative solutions. With our Global Shop Solutions ERP software, it's easy to see what we're looking for in the information provided by their Dashboard. Global Shop Solutions impresses me more than any other software manufacturer I've seen in my 20 years as a business professional. They're understanding and flexible and they know exactly what we're going for. Most other systems are usually complex and difficult to understand. Global Shop Solutions is a much easier platform to use. At Calnetix, we're all about finding creative solutions to resolve problems, and Global Shop Solutions is all about finding flexible solutions."

Calnetix faces a bright future for their power products. As they continue to spin-off affiliates, their needs for ERP management will expand as well. Having Global Shop Solutions there to grow with them is a business decision that will make expansion and growth a positive and painless experience in the years to come. For Hart, it is Global Shop Solutions ERP software's ability to grow and expand with them that is at the core of the Calnetix success.

"Global Shop Solutions has helped Calnetix become the business we are today because of the ease of use and the flexibility of the software, says Hart. "We are a complex multi-entity shop, and Global Shop Solutions is the one company that has finally made it easy to track the operations of our affiliates."