Information Control

Shop floor systems tell you what you need to know when you need to know it.

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What a Shop Floor Control System Can Give You

• Vital historical data to estimate more accurately and maintain quality on repeat jobs.

• A valuable audit trail to save on direct buys and keep a complex assembly on schedule.

• Up-to-date, easily accessible information to improve customer service. Knowledge of which jobs should have priority, their status and ship dates leads to on-time deliveries and better profits.

• User-friendliness. And the easier the system, the more employees will use it.

It used to be that a shop with hustle and plenty of big, fast machines could thrive using a manual system. But no more. Today's economic environment requires more and more in the way of top-notch service and quick turnaround—which frequently means a completely integrated shop floor control system.

The shift toward computerized business management of the office and shop floor can be dicey, but shops that find a system with the right fit reap big rewards.

• Cost control. An effective shop floor control system tracks costs of labor, burden, materials, subcontracted services and any miscellaneous charges that make up the total cost of the job. Actual costs are compared with estimated costs and the variance is calculated. Users can do a reality check on profitability.

• Instant job status information. Computerized job tracking allows an employee to peek into the computer and get a snapshot of the status of any customer order, be it a production- or finance-oriented view. Customers' questions can be answered immediately—exactly what today's nimble shop needs.

• Improved shipping performance. Typically, scheduling is a shop's biggest problem. With a computerized system, the scheduling function shows when a job needs to be at various work centers in order to be shipped on the promised date.

The stories of two gear shops illustrate how such a system can provide a powerful competitive advantage.

Fisher's Gear and Machine

Fisher's Gear and Machine, Los Angeles, CA, is a 12-employee, 20,000 square foot gear and machine shop, which handles 1,000 to 1,500 different orders a year, many of them as small as $500 jobs. Over the years, Fischer's Gear and Machine has developed a niche that keeps the business rolling in: It excels at reverse engineering. "If someone doesn't have a blueprint," says Dave Fisher, president, "if they've got a broken part and don't know how to replace it, we will do reverse engineering and produce it for them."

As early as the 70s, Fisher knew he needed to automate his shop, but the software he needed just didn't exist. He spent hours deciding on the parameters of a system suited to his specific business—and that was the easy part.

Initially, he used a custom-made system. It was costly and cumbersome and failed to meet his needs.

Years later, Fisher bought a time collection system from a company in Utah. "I put it on-line here," says Fisher. "It couldn't do what they claimed. They misled me. I'd bought hardware and software, and all this system did was put time onto a server. I wanted something that audited time and provided increased control over all aspects of the shop floor."

Fisher advises listening to software salespeople very closely. "They will usually tell you the system 'can' do what you want, not that it really does that. I've learned to distinguish between 'can' and 'do.' 'Can' means you're going to have to pay for custom programming."

Finally Fisher believes he's found the system that truly meets his needs—JobBOSS Software (Minneapolis, MN). In 1992, he invested in the accounting portion of the system, liked how it worked and in May of '94, added Job Control, which includes quoting, order processing, material management, scheduling, tracking, costing and shipping.

Though fully implemented only since June of '94, the new system is already proving itself. *Cost control has been a major benefit.* "We do the jobs," says Fisher, "and now we can review them. We now have a better idea of which jobs are really making us money." He hopes to add more software, including a data collection module, in the near future.

Now most paperwork has been eliminated. Instead, the information is all online and available with a few keystrokes, increasing accuracy and saving time and money. "We only have one chance at getting the job right," says Fisher. "There are usually no blueprints, only a broken sample. We have to reverse engineer it, plus be competitive. . . in a timely manner. It's important to document the processes on these jobs, and JobBOSS has filled the bill . . . so we can reproduce the part without mistakes. Before we had to write everything down. We'd lose the paper; different people would write things down differently. Now the computer keeps it all consolidated and accessible. It's helping."

With the help of the new system, the shop is reversing the downward spiral so prevalent throughout California's manufacturing community. Fisher's Gear is now seeking and winning out-of-state business. ". . . we're actually turning it around and should be in a growth mode during the next few years."

G & N-Rubicon

G & N-Rubicon Gear Mfg., Inc., Santa Ana, CA, is a 33-employee shop that produces anything with teeth—gears 15 feet in diameter to parts so small you can hold 30 in the palm of your hand.

By 1990, the shop's manual system was overwhelmed by the volume and complexity of its workload. "It was time for us to automate," says Mel Edwards, president.

Searching for the optimal software package meant finding a system that was high-powered, easy to use and affordable. "There are always cost parameters," says Edwards, "both the initial cost and the cost to operate the system. I find that with computer software, the purchase price is nothing compared to the cost to operate it." He adds, "In the past, we've found ourselves purchasing software that is actually more of a hindrance. It takes a genius to operate it. If that person isn't there, nothing can go on."

After evaluating several systems, G & N chose JobBOSS Software, a system so user-friendly that Edwards could quickly train several of the shop's employees to use it. "Several of us know how to use it. Any of us can write up a P.O., enter an order, print an extra shop paper if someone spills coffee on it. . ."

Though G & N chose not to integrate the new system with its accounting, Edwards considers the system a good investment. "I think this piece of software compares to packages that cost two-and-a-half times as much. There are things it won't do, but for the cost, it does more than enough. It's a good value."

With nine computers and 33 people, G & N employees can go almost anywhere in the shop and find the status of a job at any given time. Being automated also has dramatically cut down on meetings.

Edwards also likes the competitive advantage of having information available when he needs it. "A lot of benefits have resulted. Because it's easier, we all tend to use it more often. Now customer service is easy. If you have a question about a $5 or a $5,000 charge, it's easy to check on it."

Krista Rubio, who handles production control, input and job tracking at G & N-Rubicon, likes the cost control functions, particularly those keeping track of purchase orders on outside services and material purchases. "The system allows us to reference those fairly quickly. It's so much easier than trying to follow the paper trail."

Quality control is another benefit of the system. "If changes are made along the way, those changes are entered into the system and are very valuable for repeat jobs," she says.

In today's hypercompetitive environment, information alone is not enough. You need the information to be available when and where you need it with a minimum of hassle, and a good shop floor control system may be just the tool you need. ○

Specific Shop Floor Control System Features

• Almost immediate credit information, part histories and job research.

• The ability to handle one operator using multiple machines.

• An *inventory* function that pulls multiple parts for one assembly.

• Estimates that originate from specs, a requote or an existing quote and transfer directly to the job.

• Additional fields for adding specs *pertaining to certain* customers.

• Instantly available job history for repeat jobs.

• Estimating that includes a routing—so the job process is developed before the job even hits the shop floor.

• Flexibility. For example, the ability to raise or lower a price when quoting a repeat job.

• Menu-driven and networkable integration.

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