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Ron Klas, Sales Engineer at Carlson

Carlson Tool & Manufacturing Corp.

Tool & Die Shop Converts from MES to ERP PDQ

For 15 years, Carlson Tool & Manufacturing Corp., Cedarburg, WI, used a popular manufacturing execution system (MES) to run its various shop floor businesses. With Y2K approaching, they knew that they had to do something about their existing software. They had the choice of upgrading their MES or moving



on to something else. Carlson was very wary of upgrading, because previous upgrades of their MES had turned into difficult and time-consuming projects. In fact, upgrades were such a problem that Carlson hadn’t even used the full capability of the upgraded system; it was simply too much trouble to start up all of the new functions. So, as Y2K approached, Carlson considered a major step: changing over to an entirely new software system. While examining what was available, they came across the Enterprise Business System from Indianapolis-based Made2Manage Systems, Inc. Carlson installed the Made2Manage software to replace their existing MES, and never looked back. Now they even handle upgrades by themselves.

Tooling and Machining

Carlson Tool & Manufacturing was born as a tool and die shop in 1958, and it has since grown to become one of the largest tooling and manufacturing facilities of its kind in North America. It provides mold-making, gun-drilling, deep hole-boring, and contract machining services worldwide and is the largest contract drilling company in the United States.

As the company grew rapidly in the 1980s, Carlson realized that it needed to manage its operations better. About 15 years ago it installed a manufacturing execution system (MES) to manage the flow of materials and jobs through the various shops. Although the software package installed at that time was state-of-the-art, updating it was very difficult. “Upgrades to the MES package were a major undertaking,” says Ron Klas, sales engineer at Carlson. “We really had to get the vendor involved, and it was always a big project.”

Consequently, Carlson never took advantage of all the capability of their MES system. Most importantly, they never used the scheduling function in the MES—although they needed it badly.

“Scheduling was available with the MES, but we never used it,” says Klas. “Instead, we were scheduling offline, either on paper or on a magnetic board. Even then, we had a lot of problems keeping the information straight.” When they started looking for a new software system, Klas says they paid particular attention to the scheduling aspect. “We saw that the Made2Manage Enterprise

Business System used Microsoft Project for scheduling,” says Klas. “We were scheduling offline, basically reiterating everything in Microsoft Project—but we were doing it by hand. We decided that the Made2Manage business system would be an excellent fit because it matched what we were already doing.”



Bob Dries, treasurer of Carlson Tool, also liked the Made2Manage Enterprise Business System’s ability to work with other Microsoft packages. “We could integrate the Made2Manage software with Microsoft Office, Excel spreadsheets, the Access database, Word, and so on.”

Microsoft all the Way

One reason that the Made2Manage Enterprise Business System is so easy to use is that it was expressly developed for the Microsoft environment from the outset. It combines a 32-bit application, an object-oriented structure, a powerful 4GL relational database, and client/server technology. Carlson Tool liked it because they were already familiar with the common Microsoft user interface, and they

already knew how to use the word processing, spreadsheets, e-mail and other Microsoft business tools embedded in Made2Manage.

Carlson’s systems administrator staff also liked the system because all the software exists in a single, common environment that is much easier to support. Also, all the applications work alike—and work together.

The Made2Manage business system includes a large number of individual applications to support sales and distribution, engineering, planning and scheduling, materials management, production, quality management, finance, human resources, and information systems management.

“The strongest point about the package is that it uses Microsoft Project directly,” says Klas, “In the hole-drilling operation, we have schedules that come right out of Microsoft Project for the various work centers, right out on the shop floor. Our people know which order to work on next. It’s a big time savings.”

The new scheduling system is a vast improvement over the old. “Out on the floor, the guys have a workable schedule, so they know what’s coming up and can plan ahead,” says Klas. “They can get their tooling and materials together in plenty of time. We’ve seen a substantial increase in productivity, probably 15 to 20 percent.”

What happens, explains Klas, is that the operators are able to maximize machine setups. The more information they can see about what’s coming up, the better they can manipulate the environment. “If you know what’s coming, and you move the schedule around a little bit, you can run more jobs on a given setup before you have to make major changes on a machine. That leads to much better productivity on the shop floor.”

MES vs. ERP: No Contest

When Carlson installed the new Made2Manage business system, they ran the two systems concurrently for about one month and then switched permanently over to the integrated Made2Manage Enterprise Business System at the beginning of the year. “We were able to do the invoicing and shipping with the Made2Manage system immediately, because the proper documents came right off the system,” says Dries. “We generated the information we needed for payroll, ran the Made2Manage general ledger, and went live with Microsoft Project right off the bat.”

They let the MES complete the fiscal year for a financial statement and then switched all the financials over to the Made2Manage Enterprise Business System.

“One thing that’s really nice is that everything in the Made2Manage business system is stored online,” says Dries. “Instead of having paper copies of shipping tickets and invoices, which have to be filed away in cabinets, they are available to us online. With the click of a button here or there, we can link a sales order to a job order and a job order to a shipping ticket. If somebody calls up looking for information on a job, it’s at our fingertips. We also noticed the reports run dramatically faster than previously, especially reports we’ve written ourselves using the report writer.”



This is a vast improvement over the old MES, where Carlson had to make duplicate entries. “We’d have to type something into one program in the MES and then retype it into another section because the two programs didn’t talk to each other,” says Dries.

The system helps a great deal in shipping, says Klas. “Shipping information starts in the office. When the trucks come in, we finish the shipping order and confirm it, and we make up a bill of lading directly off the Made2Manage business system.” The Made2Manage system also handles receiving. “Purchasing, receiving, shipping, and invoicing are all tied together and integrated with the accounting package,” explains Klas. “This is another major advantage over the MES, because it couldn’t handle shipping. We had to use their report writer to generate a shipping ticket, but none of that information was retained online. The same was true for the bill of lading – those were all hard copies and were hand-typed.”

In the short time that Carlson has had the Made2Manage Enterprise Business System, they’ve upgraded the system four times. “Another of the major differences between the MES and the Made2Manage Enterprise Resource Planning (M2M ERP) is that the M2M ERP application suite is so much easier to upgrade,” says Dries. “In the beginning, the Made2Manage consultants came in to help; but we’ve been able to do the last few upgrades ourselves. It usually involves working on a Saturday when we don’t have a lot of users around. But when we’re done, we feel really good about it, because we did it ourselves.”

Carlson has enjoyed some notable savings as a result of the new Made2Manage Enterprise Business System and has also seen many improvements. Productivity on the shop floor is up 20 percent, the month-end accounting is much easier, and it’s produced small savings everywhere. “In the clerical area, we get the books closed a little bit faster,” says Dries. “We’ve saved another 15 percent easily in clerical costs, because the work is spread out among more people.”

He adds, “I feel more comfortable with the Made2Manage business system. One measure of success is the number of people we have involved in the system, working on projects and helping out. The Made2Manage Enterprise Business System seems better suited for what we’re doing. It seems like we now have more people involved with plant operations, simply because so much more information is widely available.”

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