

moving to midsize

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Enterprise planning isn't only for big guys. By Jean Thilmany, Associate Editor

More and more of late, small to midsize engineering and manufacturing operations are taking a page from their larger counterparts by bringing enterprise resource planning systems into their operations.

ERP systems link design and manufacturing with business processes like new orders, purchasing, credit, accounting, supply chain management, and planning. They stretch from business headquarters across production facilities, warehouses, and sales offices. By linking these operations, ERP helps executives understand and forecast all the factors—from sales and purchases to asset utilization and hiring—that might affect profits, according to Jay Deakins, president of Deacom Inc., an ERP system provider in Wayne, Pa.

Enterprise resource planning software is distinct from a product lifecycle management application, which is where engineers store information about the product they've defined. As Richard Bourke, principal of Bourke Consulting Associates in Laguna Woods, Calif., describes it, PLM manages all forms of product data, which could include CAD files, text files, or anything having to do with the product.

This differs from an ERP system, which coordinates production, after engineers have defined the product, so engineering and manufacturing firms usually need to have both in place. The two can be integrated to allow managers access to information kept in both technologies.

Today, small-volume manufacturers usually have some sort of overarching system in place that carries out some of the functions of an ERP system, said Frank Scavo, president of the information technology research firm

Computer Economics in Irvine, Calif.

"Maybe they're running QuickBooks or an accounting system," Scavo said. "So even though they don't have anything that could properly be called ERP, those systems function in ways like ERP."

But within the last several years those kinds of home-grown cobbled-together systems are being cast aside by these same manufacturers in favor of fully developed ERP systems, Deakins said. A disjointed system of QuickBooks and spreadsheets makes it hard to get an overall picture of the business, he said.

An ERP system offers control over all areas of the business in one centralized place. According to Deakins, several developments are helping smaller companies make the transition: costs for ERP systems are coming down; implementation is becoming easier, and systems are targeted to smaller players.

Time Is Ripe? /// But when does it make sense for a small or midsize manufacturing operation to purchase an ERP system? The answer varies according to manufacturer and industry.

ERP systems help you behave like a bigger business, said analyst Dan Miklovic. He's research vice president for the manufacturing industry at Gartner Group, an industry analysis firm in Stamford, Conn.

Yet many companies still resist. A mid-year 2010 Aberdeen Group survey of 579 small-to-midsize businesses of all types found that nearly 70 percent had no ERP system in place. Aberdeen Group, of Boston, conducts research studies and surveys.

Many survey respondents said their businesses were too

small to support ERP and that they'd been able to function without it just fine. Others dreaded the headache and costs of implementation and training, and were put off by the prospect of shopping for ERP systems, the survey found.

Executives at these operations often think about implementation of some kind of advanced management system only after their businesses experience growth or some type of disastrous event—such as a failure to meet regulatory standards. That's when managements realize that spreadsheets and QuickBooks can no longer manage the businesses, wrote Cindy Jutras, research fellow and group director of enterprise applications at Aberdeen Group in a report tied to the survey.

Executives and managers at these small-to-midsize

Arctic makes commercial trailers used to transport logs. But the current construction decline has dampened sales, Stunder said. So managers have stepped up reliance on the ERP system.

"With Syspro, we're getting more accomplished, with fewer people than has ever been possible before," he said. "Our inventory control has tightened considerably, without having to add additional people or increase anybody's workload."

The company also uses the system to track overall expense. A work-in-progress database, for example, can track labor costs on a particular job as well as stocked and non-stocked parts costs, he said.

"We can set up a piece of equipment in the work-in-



ERP systems link design and manufacturing with business processes like purchasing and planning.

businesses shouldn't ignore the cost and effort of not implementing ERP, she wrote in the report.

Many of the smaller players think they'll have difficulty finding an ERP application, said Eric Kimberling, president of Panorama Consulting Group of Denver. But all major ERP providers—with names like Oracle, SAP, Syspro, Microsoft Dynamics, and Epicor—make specialized offerings for small and midsize companies, he added.

Many other vendors cater exclusively to the small to midsize market, he said.

"When ERP is done right, the number-one benefit is streamlining your processes and making them more efficient than doing data entry and keeping track of stuff in spreadsheets and digging for data," Kimberling said. "ERP makes those things more flexible."

Bottom Line /// Take Solaicx of Santa Clara, Calif., which implemented an ERP system in mid-2009 when the company moved from the development to the manufacture of ingots and wafers for the solar industry. It recently opened a manufacturing plant in Portland, Ore.

"We were running QuickBooks and some miscellaneous packages," said Jeff Osorio, Solaicx's chief financial officer. "In the research and development stage that works fine. But in commercial applications, with the volume of transactions that would be going through manufacturing, we needed more."

Solaicx now houses its financial and manufacturing data within the new ERP system, from Syspro of Costa Mesa, Calif. Integrating the information makes for greater visibility into all aspects of the company, Osorio said.

Meanwhile, in Prince George, British Columbia, Arctic Manufacturing is riding out a decreased demand for forest products by leveraging its own ERP system, also from Syspro, said Blair Stunder, the company's general manager.

progress database and track its maintenance throughout the year," Stunder added. "Similarly, at the end of the each month we can look at our building maintenance and cleaning costs, and it gives us an almost live look at our real expenses."

Stunder also credits the system with improving the company's relationships with suppliers and customers. The company has moved from phone to e-mail when it comes to placing purchase orders.

"Not only has that cut down on long-distance phone calls, it's greatly reduced the number of order entry errors," he said.

Arctic executives are now looking to implement bar codes and scanners in conjunction with the ERP system to aid part tracking in the factory.

Making It Mine /// Purchasing and implementing an ERP system is no small task, said Miklovic of Gartner Group. Consultant, vendor, or other outside help is often needed here.

And the real value to small and midsize companies comes in the way they customize and configure the core product to their own particular industry and individual needs, Miklovic said.

But ironically, that kind of customization can be harder for smaller operations to find. For example, he said that businesses located in areas without a pertinent systems integrator or reseller, who can essentially make a house call, could face challenges in customization.

An automotive supplier in California, for example, will have a tougher time finding a reseller with pertinent automotive expertise than will a similar-size supplier in the Detroit area, he said.

"But the good news is, ERP systems are affordable and can radically improve your business," Miklovic said. ■