



From pencil and paper to integration

Software purchase allows reorganization of shop and manufacturing process.

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plant facts

Walbridge Woodworks Inc.
Walbridge, Ohio

- ☛ **Employees:** 20
- ☛ **Annual sales:** \$1.5 to \$2 million
- ☛ **Plant size:** 14,000 square feet
- ☛ **Product:** Casework, store fixtures

In the past five years, Walbridge Woodworks moved from store fixtures toward architectural work, and from paper drawings to an integrated software package. These changes, in addition to the purchase of a new panel saw, helped the company become a more diverse manufacturer with a better product line.

At the time of an *FDM* article on his bidding strategies (April 1999) Walbridge president Greg Luettker was battling a number of competitors. That situation eased somewhat, since one of his major competitors, who had been consistently bidding too low on jobs, has gone out of business.

Luettker says Walbridge practically went from pencil and paper to a full package of Pattern Systems products (AutoCAD was used during an interim period). Until recently, drawings were done manually and previously outsourced. Walbridge also added a Selco EB70 panel saw and changed the plant and office layout.

"Our Biesse Rover 322 point-to-point machining center has performed as expected and we have grown into a more diverse manufacturer with a better product line because of it," Luettker says. "Our latest move has waited for a while due to my need of proof that our economy and this business of wood and plastic laminate products would support a larger investment."

Training received

Project Coordinator/Designer Jeff DeTray and designer John Owens received training on Pattern Systems' Product Planner (for part listing), which coordinates the other programs. They also were trained on the new StudMaster program (for placement of

continued



A Biesse Selco panel saw with labeling capability was recently added, and is the new key piece of equipment at the company.

FDM

software integration

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studs on reception desks and nurses stations), RapidEngineer (engineering and production), DrawPower (automated drafting), Drill-Mate (machining) and Cut Planner (panel optimizing). Walbridge purchased almost everything except the labeling program.



Walbridge president Greg Luettker, left, project designer/coordinator Jeff DeTray and designer John Owens in front of board showing current projects for the Walbridge, Ohio, company.



Walbridge plans to do more high-end millwork for libraries, schools and health care customers.

“The biggest factor in choosing Pattern Systems over other software companies was the fact that they are so versatile with all equipment manufacturers,” DeTray says. “If one day we choose to replace the Biesse Rover with a different machining center, we don’t want to have to spend another \$20,000 on software to run it. I also believe that Pattern Systems is geared

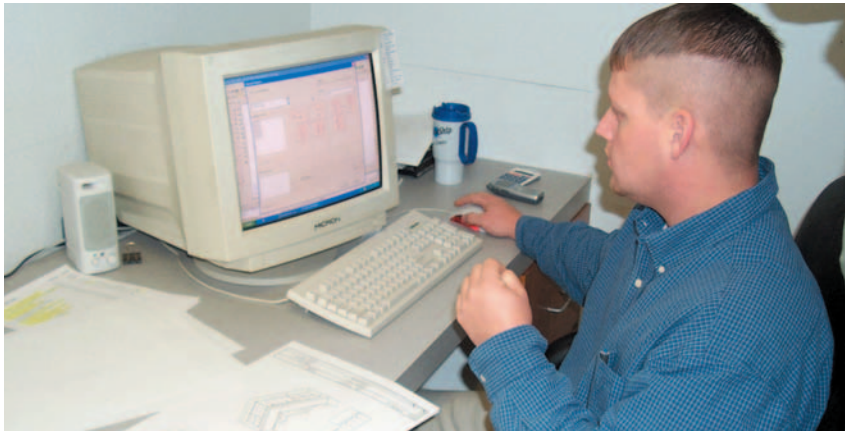
more toward custom shops.”

DeTray says Product Planner is the backbone of all the software, and it’s the program that requires most of the work setting up. But it also provides the fastest results as far as speeding up production and becoming more efficient.

“We spent six to eight weeks setting up our catalog of products that we manufacture,” he says. “By doing this, we could generate optimized cutlists along with labels and materials required for a specified job. Basically, this eliminated a person having to hand write cutlists and trying to figure how much wood, laminate and hardware was needed to order for each specified job, and the saw operator no longer has to hand write a label for each part he cuts. I feel that we can plan and cut at least twice as much work as we could before, and this will only increase as we become more efficient with the software.”

Programs tied together

The programs are tied to each other. First, the job is drawn in DrawPower and/or RapidEngineer. Custom products are done in Rapid Engineer, standard products are done



Designer John Owens at the computer. Walbridge Woodworks purchased a package of new software programs to completely redo the manufacturing process.

with DrawPower. The drawings are linked with Product Planner, where product information is kept. The drawing tells Product Planner which products and how many of them to assign to the job. Product Planner then passes this information on to Cut Planner and Drill Mate. Cut Planner then generates optimized cutlists and label files and sends them to the saw. Drill Mate creates CNC programs and sends them to the Rover.

In Product Planner all the information required to make each cabinet is stored. Also included is a list of variables to create cutlists.

Walbridge manufactures 75 percent custom casework and 25 percent store fixtures. Primary customers include libraries, universities, restaurants and general contractors. The company limits store fixture work to providing wood products that a plastic manufacturer cannot produce, and loose fixtures and laminated panels for a general contractor.

Moving to millwork

Luettker plans to do more high-end architectural millwork and casework, and will be making furniture and millwork for a new college campus. Libraries, health care and schools are strong markets. He says Walbridge will consider nesting in a year or two.

"We could see the demise of the store fixture contractor we worked with over the years and gradually did more architectural millwork through

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the bidding process to general contractors," says Luettker.

"For the architectural market Walbridge Woodworks can provide a design and build service with our new Pattern Systems software."

In the shop

Workflow in the new shop layout starts at a new Biesse Selco EB70 panel saw, which replaced two other saws in May. Labels are generated at the saw and applied to cut pieces by the operator. Walbridge starts with 5 x 9 sheets of particleboard with melamine on both sides.

Labels on each cut piece provide instruction on the next process to be performed, which is usually banding on a Brandt KD 820 Optima edgeband-

der or boring on the Biesse Rover 322. Walbridge uses an Ayen horizontal boring machine for construction boring, and the company has a Time-savers sander.

Walbridge uses all-dowel construction along with a custom-built case clamp. The company recently switched to Blum hardware. Workers apply precatalyzed lacquer on solid wood components, such as mouldings and table edges, in a finishing booth.

Laminating is one of the last steps. Workers lay up plastic laminate or veneer after boxes are assembled and edgebanding applied.

Luettker says the company outsources stainless steel and glass work, but does its own solid surface fabrication. He sees growing demand for solid surface countertops, especially from medical and photo labs. The company cuts standard 1/2-inch solid surface material on the Rover.

Bidding still important

Bidding is still important for Walbridge. Luettker says if he doesn't win the job, he tries to find out the price of the winning bid.

"I still compare pricing post-bid to keep in check with the competition," Luettker says. "I use the F.W. Dodge service online to see the current status of projects and who is bidding.

"You have to be very careful not to take off your profit, but maybe reassess the time it takes to produce simple items that technology has made easier to make.▲"

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Altendorf America
Brandt KD 820 Optimat edgebander
616/698-8456 www.altendorfamerica.com

Biesse America, Selco EB70 panel saw
Biesse Rover 322
704/357-3131 www.biesseamerica.com

Blum Inc., Hardware
704/827-1345 www.blum.us

Pattern Systems International Inc.
Software
973/770-3800 www.patternsystems.com

Timesavers Inc., Sander
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