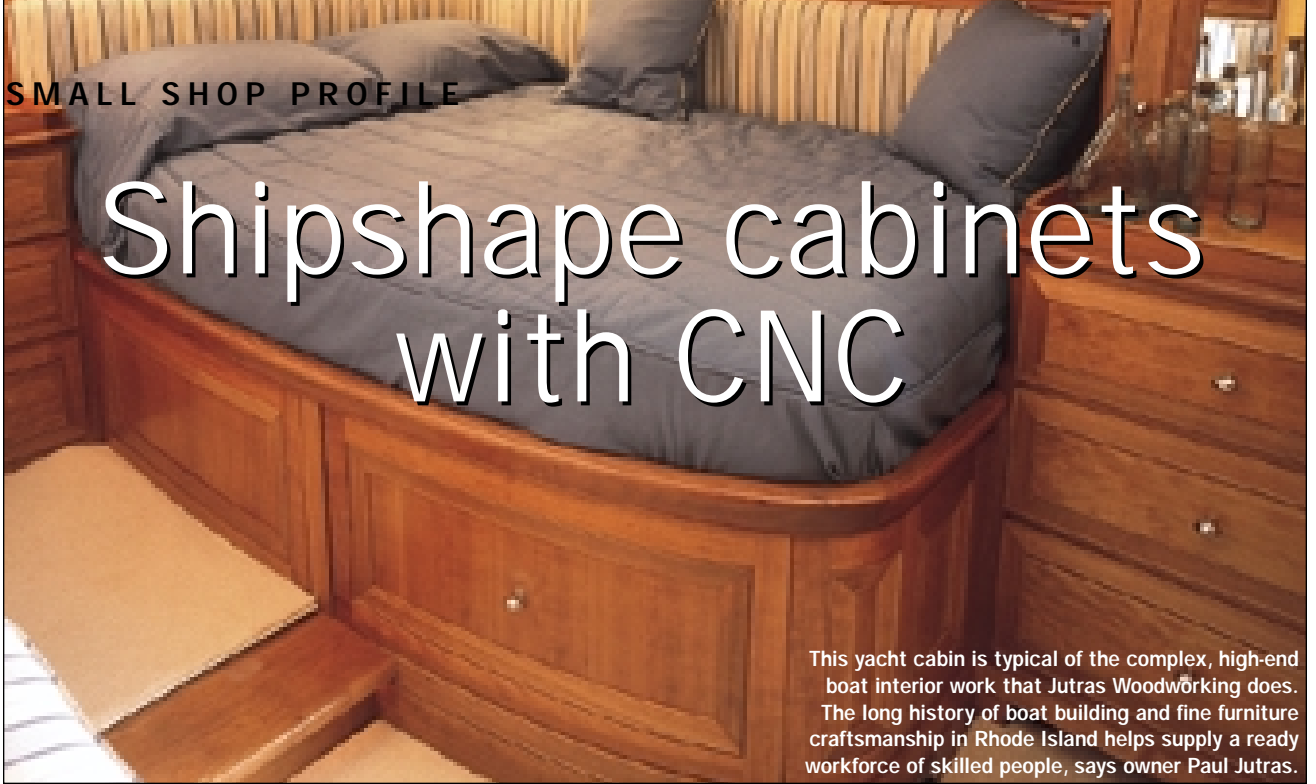


## SMALL SHOP PROFILE

# Shipshape cabinets with CNC



This yacht cabin is typical of the complex, high-end boat interior work that Jutras Woodworking does. The long history of boat building and fine furniture craftsmanship in Rhode Island helps supply a ready workforce of skilled people, says owner Paul Jutras.

Rhode Island shop relies on CNC router and skilled craftsmen to do challenging boat interiors, kitchens and commercial casework

by William Sampson  
wsampson@chartcomm.com

**W**hile many small shops turn to automation almost in desperation because they cannot find good help, that's defi-

nately not the case at Jutras Woodworking in Smithfield, R.I. In fact, owner Paul Jutras says the key to his company's successful use of a CNC router is having a highly skilled operator backed up by other highly skilled craftsmen in the shop.

Although across the nation shops complain of the difficulty in finding skilled workers, Jutras says the centuries-old Rhode Island heritage of fine furniture craftsmanship and boat building creates a good pool of skilled craftsman. So, rather than

## Shop Snapshot

**Company:** Jutras Woodworking Inc.

**Location:** Smithfield, R.I.

**Proprietors:** Paul, Joe and Rick Jutras

**Founded:** 1980

**Primary products:** Architectural millwork and boat interiors.

**Employees:** 18 in shop, 4 in office

**Annual sales:** \$2 million

**Shop size:** 36,000 square feet

**Key equipment:** SCM Routech R130 CNC router, five-head Weinig moulder, Martin shaper, Martin table saw, Griggio vertical panel saw, Holz-Her edgebander, Costa two-head widebelt sander, Kundig sander, DeWalt cordless tools, Porter-Cable routers, Bosch routers, Cabinet Vision software, ProjectPak estimating software.



Mike McCabe was a skilled CNC router operator before he took the reins of the SCM Routech R130 CNC router at Jutras Woodworking Inc. in Smithfield, R.I. Owner Paul Jutras says that gave the company a leg up on integrating CNC into the business.

treating his SCM Routech R130 CNC router as a replacement for manpower, Jutras sees it as simply a very sophisticated tool that allows his skilled staff to work more efficiently and tackle complex projects with aplomb. With a mix of high-end cabinetry, architectural millwork and first-class boat interiors, Jutras Woodworking has plenty of challenging projects for that skilled staff.

### Love of craft

For Paul Jutras and his two brothers, Joe and Rick, who all run Jutras Woodworking, the business is an outgrowth of two generations of craftsmanship. “We grew up always building things,” says Paul. He described how their father loved being a cabinetmaker. “He always says what he does for a living most people are only fortunate enough to do for a hobby.”

Paul and Joe started Jutras Woodworking in 1980 with an old broken-down van, focusing on residential remodeling work. At first they didn't even build the cabinets they installed, but little by little they started building more cabinets themselves.

“At some point, the cabinet part of the business started growing,” says Paul. By the time the business was 10 years old, the focus was strictly on cabinet building, and Rick had joined the company as an installer.

In the complex projects that Jutras Woodworking now tackles, Paul says that time spent in the remodeling business has really paid off. He says they are better prepared for typical job-site challenges like out-of-plumb walls.

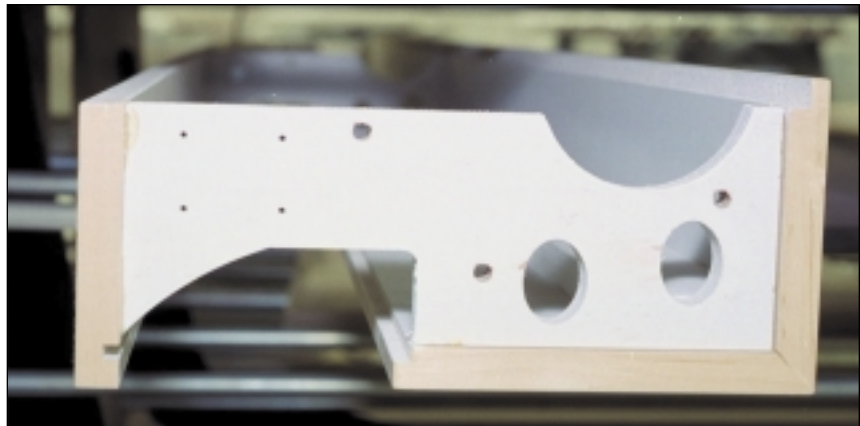
### No right angles

Remodeling vintage Rhode Island homes may have also helped prepare the Jutras brothers for the added challenge of building yacht interiors. That work started when they connected with NEBW, a boat building company in Portsmouth.

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The SCM CNC router at Jutras Woodworking is used to machine many complex parts, often for boat interior projects. They also use the machine to make complex jigs and templates, and they even machine special forms like this one for better holding of complex parts for machining on the CNC itself.



The CNC router makes quick work of detailed parts like this interior part for a light valance. Owner Paul Jutras notes that being able to do all the machining on a complex part on one machine is inherently more accurate than taking the part to five different machines for five different operations.



A large, fully air-filtered spray booth area is at the center of the 36,000-square-foot Jutras Woodworking facility. Here an employee sprays contact cement before laminating parts.

# Shipshape cabinets



Well lit and with lots of space, the 36,000-square-foot shop is designed to handle both large and small jobs efficiently. All jobs are treated as individual projects with a single craftsman or team assigned from start to finish.

“We built all the furniture on a boat,” says Paul. Adding to the boat interior work, they expanded their contacts and relationships in that industry.

Building boat interiors presents a new dynamic for the cabinet shop used to right-angle work. Not only are there almost no right angles in a boat, but there are also dramatically different materials and construction techniques required, says Paul. They have to work with honeycomb materials and no fasteners. Parts are epoxied together using West Systems epoxy. This complex arena is where the CNC router excels, says Paul.

“Some projects we couldn’t do

without CNC,” he says. “It’s just fabulous for any kind of radius work.”

Paul says the CNC router has added precision to their projects not only because the machine itself is precise, but also because multiple operations can be done on the one machine with that same precision. “When you take a part to five different machines, there is an opportunity for error,” says Paul. They also use the CNC router to make complex jigs and fixtures used to put together or machine complex assemblies. They even use the router to machine special fixtures to help the router work more efficiently. Rather than relying entirely on the machine’s



Project manager Peter LeBlanc (left) and owner Paul Jutras go over plans in the front office. Jutras says the shop works as a project shop rather than a production shop even on big jobs.

vacuum hold-down, they make special spoil boards with shaped pockets to hold parts securely for machining.

They also use the router to machine templates for use in assembly and secondary work on the job site. For example, they’ll cut templates to give to the drywall installers on a job to make it easier for cabinet installation later.

## Integrating CNC

Jutras Woodworking has been using its CNC router for two years, but the company’s computer use goes back farther with the use of AutoCAD for drawings. Still, Paul says bringing the CNC machine onboard came with a “huge learning curve.” Although some shops and machinery salesmen talk about CNC as a replacement for skilled workers, Paul says it was critical to Jutras Woodworking’s success with CNC that they found an employee who was already a skilled CNC operator. “That made all the difference in the world,” says Paul, who says other shops warned him it might take a year to get the CNC up to speed.

“It depends on what you’re doing,” he says. “If you’re making only cabinet parts, you can get up to speed fast. But in the course of day, we set up and break down the router five times.” Still, he says, even with the help of their skilled CNC opera-

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## Project shop vs. production shop

Although Jutras Woodworking Inc. in Smithfield, R.I., handles everything from residential kitchens to custom yacht interiors and huge commercial or institutional projects, owner Paul Jutras says, “We are not a production shop. We are a project shop.”

Each job goes to a worker or team of workers that is responsible for that job until it is finished. But at the same time, many jobs are divided into segments that allow production efficiencies within a unique project.

“We apply the production mode to jobs with lots of parts,” says Jutras. Those parts may be broken into separate projects for handling in the shop. A reception desk may be treated as a separate project within the scope of something larger. For example, the shop is doing the library at Bryant College, which will take a full eight months in the shop.

The company is getting more large jobs like that, which Paul says puts a high demand on organization right from the beginning. He says Tradesoft’s ProjectPak software helps a lot in estimating and getting the job details under control. From there, Paul says it’s a straightforward process: “We engineer, fabricate, finish, load, unload and install.”

# Shipshape cabinets

tor, Mike McCabe, it took the shop two months to get up and running.

## Room to move

Besides drawing in AutoCAD, the company uses a variety of software to make both the CNC and the business as a whole work efficiently. For estimating, Paul swears by ProjectPak from Tradesoft. For nested based machining and other projects, they use Cabinet Vision design software. They also use AlphaCam at the router.

Another difference between Jutras Woodworking and other small shops that adopt CNC technology is the physical size of the CNC machine in relation to the rest of the shop. For many small shops, the CNC machine is the biggest machine around by far and dominates often cramped floor space. At Jutras, the Routech router

is the biggest single machine, but you could almost miss it in the 36,000 square feet of well-lit shop space that the company moved into a year ago.

For projects that aren't all cut on the router, there is a Griggjo vertical panel saw and a Martin sliding table saw. Because of complex requirements and attention to grain matching, Jutras rarely outsources doors or other parts. Instead, they rely on their Weinig moulder, Martin shaper and Costa and Kundig widebelt sanders. A Holz-Her edgebander handles edging chores.

At the center of the shop is a large spray booth and laminating area with full air filtration. Dust collection throughout the shop is handled by a Torit central system. Kraemer portable collectors are used for some machines and assembly areas. All air and power lines are piped overhead throughout the shop.

## Dealing with customers

But having a nice and efficient shop is only part of the story at Jutras Woodworking. From the company's earliest days in the remodeling business, the Jutras brothers have honed their business skills as well as their woodworking and manufacturing skills.

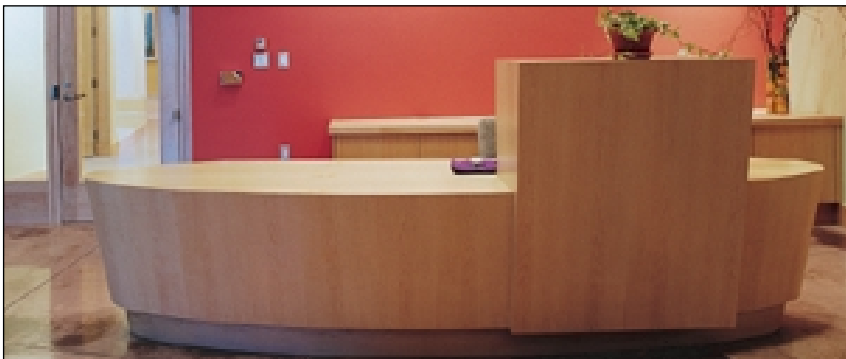
Today, typical jobs begin with a set of plans from an architect, interior designer or contractor. Paul says they don't do design work. They engineer the project and fabricate the cabinets and millwork. But there is a bigger view of the whole.

"The focus of the business is to try to make anything to help with a project," says Paul. "We try to solve problems along the way, which makes our job easier. We don't just fabricate cabinets and ship them off somewhere. We're responsible for our work all the way there."

And even though Jutras Woodworking now handles massive jobs that may require months in the shop, Paul Jutras says the whole business really boils down to a simple philosophy that has stood him and his brothers well for two decades: "Doing what you say you're going to do and showing up on time are everything." □



Although the company started as a residential remodeling operation, high-end kitchens like this one are now only part of what the company does.



This modern reception area is a sample of the demanding commercial architectural millwork that now makes up a big share of work at Jutras Woodworking.

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Edgebander.....	262
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