



[Company Info](#) | [Products & Services](#) | [ShopBot In Use](#) | [Support](#) | [Features](#) | [Forum](#)

JAMBOREE 2005 - April 28-30

A record number of ShopBotters gathered in Durham, NC for the 2005 annual ShopBot Jamboree. They came to see the new equipment and products available, learn techniques from the experts, and take advantage of the opportunity to exchange ideas and experiences with old friends and new acquaintances. Thanks to the following companies for their generous support of the 2005 ShopBot Jamboree: Bishop-Wisecarver, DelCAM, EMCO, Fastenal, Holmes & Cottrell, Graphic - Vector Art, Kevin Oxford, Machine Control, Onsrud Cutters, Oriental Motor, Parker Hannifin, Precision Drive Systems, Roadway, and USA Dutch.

Meet a few of the attendees -



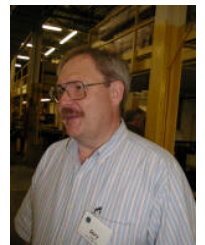
Paul N. owns an early PR ShopBot and has been to every Jamboree. He always brings examples of his fine crafts for the Show and Tell session. See his current work in solid surface material at [Show & Tell](#).

Tom F. was one of the newest ShopBotters present. He's had his machine for 6 weeks and already has jobs lined up. He brought the machine into the house on Sunday and cut his first piece on Tuesday. "If you have a ShopBot and don't make money, it's your fault!" [Show & Tell](#)



Jenifer W. is at her first Jamboree while awaiting delivery of her new PRTalpha. Jenifer is an experienced woodworker with hand tools; after a long session with a hand router she told her husband "There HAS to be a machine that will do this." He pointed to a magazine ad for a ShopBot She signed up for the Women's Workshop to get a head start on learning the software. Jenifer says "It's nice to deal with a company that doesn't just sell you the machine and leave you hanging out there alone."

Gene S. doesn't own a ShopBot and had second thoughts about making the two-day drive to come to the Jamboree . Currently he sells a kit for making a child's pedal airplane. The kit includes hardware, decals and plans for cutting the plywood. He's had requests for a kit that includes the precut wooden pieces and wanted to know if/how a ShopBot would do the job. "It was definitely worth the trip," he said.



Business seminar

The Business Seminar Special Session held Thursday before the Jamboree was a huge success. Dane Byers, CPA (shown above) covered steps from incorporating your business to commonly missed deductions at tax time in the Taxes/Accounting section. Brady Watson and Chris Burns covered the considerations and pitfalls in "How to Price your Products"



In his "Marketing Your Product" presentation, Jeremy Gwaltney of Smith and Associates reminded listeners that the least expensive advertising may not be the cheapest. You have to consider how to reach the right audience. To be worth anything, an ad must reach someone who might have an interest in buying your product.



Commonly Missed Deductions

- Rent facilities to your corporation
- Mileage deduction
- "Loan" money to start the corporation, pay back loans rather than salary
- Fund a retirement plan

Show and Tell

Jay Meadors produces full-size wooden oars on his 4-axis machine. Based a specific design from Okinawa, these paddles or eaku are used in a form of martial arts fighting. Jay wrote the sbp file by hand using M4 commands for the handle and M3 for the blades. He brought along the support blank he designed in AutoCAD to hold the oars during cutting. The blank uses roller blade wheels from the local second-hand sporting goods store! He also brought along a large walnut bowl. The basin was designed in Rhino, then toolpathed in Visual Mill. The walnut carving took about 1 hr to rough out the inside. Total milling time was 4 hr.



Mike Shirilla from Ann Arbor, MI uses his PRT96 to experiment with relief carvings in limestone. His idea is to create a fireplace surround using ancient architectural detail as source materials. He created a cutting file by using a 1/8" probe on an English cast iron relic found in a German antique shop. Probing time was 48 hours and produced a file with 240,000 points! The dust produced was a problem until he developed a closed dust collection system from a small plastic deli container and PVC tubing around the bit. After watching his cutter bit turn red at the edges from heat buildup, he switched from a steel to a spectra coated carbide cutter and used an infrared temperature sensor to determine the optimal speed to keep heat down. To eliminate the cutter marks around the outside edges left from the roughing cut, he plans to try coating the probe tip in plastic to provide a little additional offset for the rough cut file.

Tom Fiddler has been running his PRTalpha for 6 weeks and has a total of 7 bits in his shop. He bought his ShopBot with the idea of making decorative clocks. But, he agrees with other presenters who stated "When you buy a ShopBot you automatically become a signmaker!" Located in the middle of Virginia horse country, he's making signs from Color Core polyethylene for horse stalls. He also makes decorative door kickplates.





Dave Noble from Florida was a professional racing sailor who now creates the trophies for international boating events. Dave left a stressful job as a quality control engineer with the space program only to go through one fire and two hurricanes in his woodworking shop. He uses a mechanical digitizing probe and an old, unusual custom-built ShopBot. For the trophy shown, he carved a 10in hull by hand, probed it and reduced the size to 5in in the software. In addition to his ShopBot, he uses a Laser Engraver in a controlled environment to add text and fine details.

Dan Edward's most unusual job was to repair a skeleton, but a simple piece of decorative millwork has been a big moneymaker for him. He uses Trupan Ultralilte, a roundnose bit and a parametric sbp cutting file to make trim pieces to customize bookcases, vanities, cabinets and doorways. All this work is custom and made just for the job. The sample he brought was cut on a PRT in under 10 min and took 5 minutes of working time to apply and sand his milk paint finish.



Paul Nielson from Georgia takes discarded solid surface sink cuts from a local cabinet shop and turns them into plaques and trivets. With his PR ShopBot, he V-carves the letters, paints them with acrylic paint, sands the top and finishes with a clear coat. His biggest problem is that the material is slippery and hard to hold down. Paul has also found that, when cutting trivets, pocketing out the areas he wants to remove turns the material into dust. Cutting out those same areas has a tendency to fling small pieces around the shop.

Lonnie Prince makes up to 3 propellers a day during his busy season. He starts by gluing together hard maple wood and finishes with a carbon fiber and an automotive clear coat. Originally he was going to buy a more expensive machine but decided on a cable-drive ShopBot as a training machine. Then ShopBot came out with the probe and he found he had all he needed. Eventually he did upgrade to a PRT for increased stability and precision. Lonnie reminded the group to protect their computer data files against loss. Because he hires someone to write the files, he knows how much it would cost to replace them. He also said that he now charges 50% overtime if it's needed to finish a rush job. He follows up on ALL of his jobs and instituted the rush pricing upcharge after he found that many of those ASAP jobs he'd done as a courtesy were not put into use for several months after delivery.



CNC wood working project for women

Saturday morning's class for women only was taught by Sallye Coyle. This year's project was a small, wooden step stool. Participants used Part Wizard software to customize the top with clip art and text, then watched the ShopBot cut out their designs as shown below. Each took home the newly-cut parts to put together and finish later.



Part Wizard, Insignia, ArtCam PRO Demos

There was standing room only at the three software demo sessions conducted by Jennifer Granger from DelCAM.

- Part Wizard - the design/toolpathing software that comes with every ShopBot. With its user-friendly interface and ability to import graphics and output sbp cutting files, this program allows you to get up and cutting with your ShopBot.
- ArtCAM Insignia - When you feel the need for more options, DelCAM's 2D software program Insignia allows you to route products directly from 2D vector artwork quickly and efficiently.
- ArtCAM Pro - DelCAM's complete design and CNC routing software solution for three-dimensional for signmaking and woodworking.



Vacuum Holddowns/Jigs by Bill Palumbo

"Much of what I covered during the "vacuum/hold down" session revolved around the idea that it was very possible to use smaller vacuum setups, including "pods, pucks, and gaskets" to hold down a variety of parts on one's table.



Contrary to the use of larger 15 HP regenerative blowers, I've been using Shopvacs/Fein vacuums, and much smaller vacuum pumps. Vacuum cleaners generate a larger air flow (CFM) but less vacuum suction (measured in inches of mercury), so they work better on larger panels. The Fein vacuum has the added advantage of a double fan, so you can't burn out the motor using the machine in this application. Plus it's much quieter, and has almost double the vacuum force of the Shopvac. The disadvantage is that it costs almost 3 times as much as a comparable Shopvac unit.

For pods/pucks I'm using a 1/4 HP rotary vane vacuum pump, All Star gasketing material, and generating 25" of mercury. This vacuum holds for hours without the pump having to turn on again, and it's virtually impossible to move an item being held by that much vacuum. I have a vacuum switch calibrated to turn the vacuum pump on whenever I leak down to the point of 18" of mercury. This usually takes a few hours, so the pump rarely runs more than 30 seconds every 5 hours. You can buy rotary pumps such as this on Ebay from \$50 to a few hundred bucks. Larger pumps will evacuate the air faster. I'm also using a "surge tank" which captures about 3 gallons of vacuum so I can release it all at once to hold down a very badly warped piece of material.

I also showed a smaller 1/6 HP reciprocal pump (both pumps were from the Surplus Center www.surpluscenter.com that is used for pods AND vacuum bagging. This pump is extremely quiet and can run continuously without the need for vacuum switches. It generates less vacuum (19" in this case) but that has proven strong enough to crush a metal coffee can placed in the vinyl vacuum bag. A simple foot switch acts as the on/off control and makes it easy to get the parts arranged properly in place.

Vacuum jigs can be made out of scrap shop materials, and reused indefinitely. They eliminate the anxiety of hitting clamps, or wasting edge material to allow the use of said clamps. With a little ingenuity you can make jigs which are adaptable for a variety of uses, and this will also save considerable time. I have pictures of one of the vacuum pump rigs on my web page - www.baycraftdesigns.com, under the "Shopbot" page.

After I spoke John Murphy of All Star Adhesives gave a brief talk about choosing gasketing materials. In essence he stated two

major points: - "thinner is better than thicker", meaning that a thin material will NOT allow the "jello effect" when a part can "move" as the gasket material is not compressed enough. Thinner gaskets also mean smaller areas of air to evacuate before the clamping effect takes over.

- "harder is better than softer", which again points to the fact that a gasket needs to have enough integrity to avoid the loss of air through it's porous "sides" (such as using an insulation tape from a hardware store). There are also sheets of gasket material available for people cutting very small objects where clamping would be almost impossible.

He then showed a variety of ways to apply gasket material, and suggested that people can go to his web page for more info on the types of products available - www.allstaradhesives.com



Creative Resins

The first demo in the U.S. of a ShopBot fitted with a Creative Resins Conversion Kit attracted a great deal of attention. George Hook and Lee Harrison from the UK explained the steps in producing colored resin designs on glass panels which can be used both inside and outdoors. The system takes a design (your own creation or a clip art image) and converts it into a machine-ready file for the computer that runs the ShopBot. The applicator lays down an outline bead of desired color and width. This is allowed to dry then in-fill coloring and texturing are done by hand.

You can see the setup that was running during the Jamboree in the picture below. One of the finished panels is shown on the lower left. The door at lower right is an example of how such a panel be used in a customized door. The Creative Resins Conversion Pack is now available from ShopBot.



Gold Leafing Technique Demonstration by Dale Kerr



Copyright 2006 by ShopBot Tools, Inc. All rights reserved. All information is correct to the best of our knowledge but prices, descriptions and typos may change without warning.

ShopBot Tools, Inc 3333B Industrial Dr. Durham, NC 27704
919-680-4800 or 888-680-4466 (phone) 919-680-4900 (fax) [info @ shopbottools.com](mailto:info@shopbottools.com) (email)