



# Playing catch

**Custom woodworking company's designs advance with fast-paced consumer electronics industry**

*By Jeff Crissey*

The ever-evolving consumer electronics industry has designers and manufacturers of custom entertainment centers constantly looking over their shoulders. Beacon Custom Woodwork, a cabinet company catering to high-end homeowners in and around the metro Atlanta area, has seen its entertainment center designs change seemingly overnight after 18 years of business.

"I haven't been doing as many entertainment centers with TVs built in because now most of my clients' TVs are mounted on the wall," says David Buchsbaum, president. "It used to be that clients would want me to build a big box to cover up their big TVs."

Beacon's design approach changed with the advent of flat-panel TVs and other home theater advancements.

"Instead of building large entertainment center cabinetry, I'm doing more wall units recently where we'll do a lot of applied moldings and dress the wall up, creating a framed area around the flat panel TV," says Buchsbaum.

Most of the home theater components in a modern high-end home theater design are now tucked in a closet with wires running inside the walls, eliminating the need for big clunky cabinets.

"It was a real challenge to figure out how to get 12 components in a wall unit along with a large TV," says Buchsbaum. "Doing away with that gives a designer a lot more creative freedom, either to not have an entertainment center at all or to not be bogged down with all this equipment that has to be shoved in the cabinets."

With the proliferation in the number and variety of electronic components found in today's home theaters -including DVD players, pre-amps, A/V receivers, DVRs and cable boxes, just to name a few - accommodating the necessary wiring and electrical needs almost requires a degree in electrical engineering.

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"Where there used to be six or eight sets of wires and connections, there are now between 20 and 40," says Buchsbaum. "Things have gotten so much more complicated. I used to think nothing of coming out to deliver a unit to pull the wires off the old components and re-wire it myself. Now, people just about have to hire an A/V technician to do that."

With the complex array of equipment for many of its high-end customers, incorporating the wires and connections layout early into its entertainment center design has become a requisite for Beacon.

"We have to think about where the components are going to be and where the wires are going to have to get from one place to another," says Buchsbaum. "At the very least, I drill the holes in the parts before I build the cabinets so that I'm not out on the jobsite with a hole saw drilling and getting dust everywhere. Often we'll leave extra space in the back of cabinets, behind the drawers and shelves, creating vertical chases for the wiring between the various components."



Beacon Custom Woodwork's Shopbot CNC router allows it to machine complex parts, such as this speaker housing.

### Turning to automation

Beacon Custom Woodwork got its first look at automation about six years ago, when it teamed up with another small cabinet company with which it shared production space to build an order of 150 computer kiosks for an Internet company. The two companies initially approached the job with the idea of outsourcing the CNC work, but they discovered ShopBot Tools and explored their options.

"When we realized that we could gain control over tweaking designs and building prototypes, we made the plunge and purchased an early version of the ShopBot CNC router," recalls Buchsbaum. "That one job paid for the machine, and after that, anytime I had a project that had some unusual parts, the ShopBot was right there ready to go."

Five years later, Beacon's shop partner moved on, and Buchsbaum decided to sell the old router and upgrade with a new ShopBot PRTalpha 96 CNC router with a 4' by 8' table and a 6" Z-axis height.

"The new router has opened up a world of possibilities for machining unusual shapes and difficult machining," says Buchsbaum. "I've done some nice solid wood projects that I didn't have any practical way to do previously. For example, I made a dining table out of a solid slab of Bubinga that was 60" wide and nearly 10' long. We cut it down the middle so I could machine the two halves separately. I used the ShopBot to surface it flat. I have a widebelt sander, but by surfacing it on the ShopBot first, everything was uniform and the sanding process goes more quickly. The slabs came out dead flat. It's like having a 48" wide surface planer.

"The low investment cost of the ShopBot let me get in the game of automation. I was already CAD proficient, doing all my designs using DesignCAD software, so I felt like I had a head start toward automation." Buchsbaum converts CAD drawings into a tool path using ShopBot's Part Wizard CAD/CAM software.

The purchase of the ShopBot CNC router has helped Beacon Custom Woodwork remain flexible in its design approach and target a greater number of customers.

"One thing I pride myself on is not having a set style that I have to go out and find customers who are interested in a certain style I produce," says Buchsbaum. "I've been lucky to have lot of contemporary projects, and I do a lot of traditional work as well."

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