

[PRODUCTION LINE]]]]]

Success by design

Custom design woodworking shop combines art with function

By Brooke Baldwin Wisdom

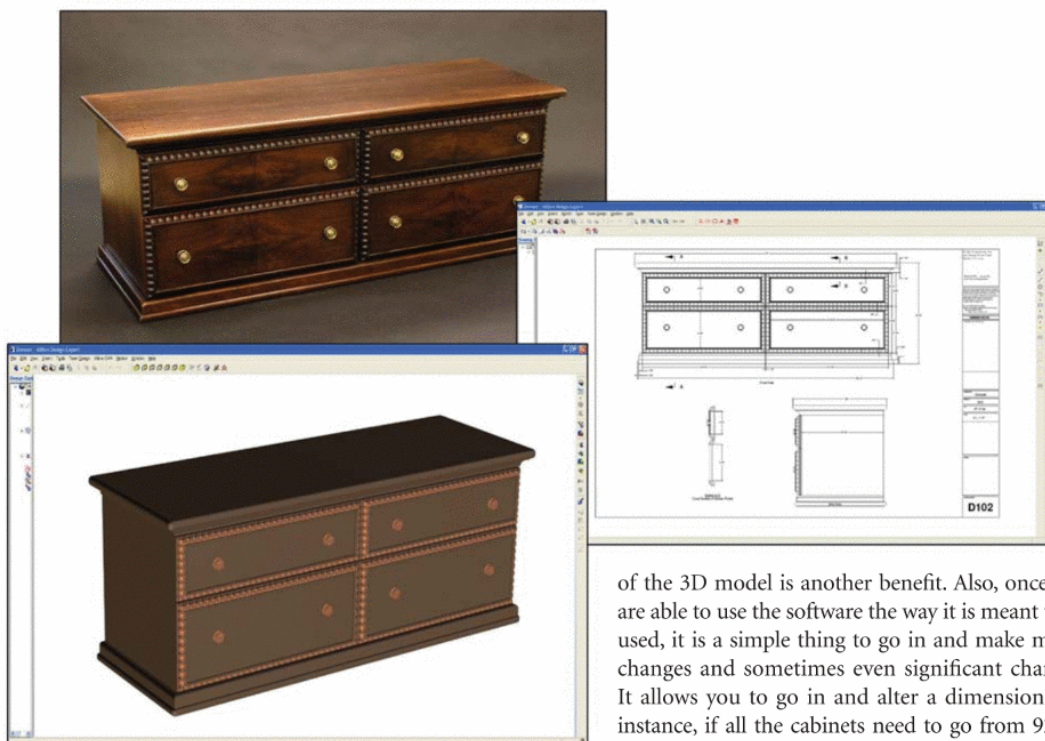
With a reputation for producing one-of-a-kind pieces for any sort of application that requires high quality woodworking and inspired attention to detail, Cullen Grace Joinery successfully combines art and function throughout all its projects. And it is the company's expertise in design that brings to life those encompassing visions from interior designers, architects, general contractors and homeowners. Currently a four-man shop, the Becket, Mass.-based company does its own shop drawings, fabrication, finishing and installation for projects in the New York/New England area. It also has shipped projects throughout the country and overseas.

What distinguishes Cullen Grace Joinery is its total involvement in the initial design of each project. "Rarely do we get a fully articulated, highly dimensioned, well thought-out concept from a client," says Ken Smith, president. "We will ultimately end up working on the design. It comes to us initially in a wide variety of forms. Sometimes it's what we refer to as a cartoon, which would be a simple rough sketch. Sometimes it's even just a concept or an idea. I can't think of the last time that we just took something that somebody else had drawn and built to it. In fact, we are currently working on a project where we were asked to build a project for another workshop that had taken on more than it could finish on time. The contractor told us the shop drawings were already done and all we would have to do was build. As it turned out, not only did the drawings not have all the information we needed, they also contained inaccuracies. One elevation



showed one measurement for the cabinets and another elevation showed a different measurement. We had to resolve that. More significantly, we started to ask the client about specific needs and wants, and the design underwent significant changes due to our questions."

A key factor in resolving those kinds of issues involves the software program Cullen Grace Joinery implemented about two years ago. "We base our shop drawings on the solid modeling software from Alibre," explains Smith. "One of the nice things about the software is that since we're building in virtual 3-D, we don't have that discrepancy between two elevations. When something is drawn in two dimensions, the agreement between one elevation and another is completely dependent on the person who is doing the drawings. One of the real advantages for us is not only to know that it is reconciled, but also that we are also provided with a way to resolve questions such as how is this going to fit, will it collide with this, will it interfere with that, etc."



The benefits of 3D

Before purchasing the Alibre software, Cullen Grace joinery had been designing in CAD, but the impetus for searching out a new way to do things came about when a huge project for a Park Avenue apartment involved too much computer time. “We track our projects very carefully, and we like to keep the specification process of each project – which is everything we need to do to get ready to cut the first piece of wood – below 28 percent,” says Smith. “The apartment’s worth of work found us spending 34 percent of our time on the specification process, and that was just too much. We needed to spend that time in the shop rather than at the computer. We knew there must be a faster way to do this.”

Smith says the goal became to find a software system that was dynamic and readily adaptive to any specific instruction technique. Alibre’s solid modeling software was chosen as the best fit for Cullen Grace. Although he says making the transition from CAD to solid modeling was something that took some time and was not always easy, the company already has experienced some real benefits.

What are those benefits? “Wowing the client with a solid model that is accurate and seeing even architects who have been reading blueprints for years appreciate being able to see the designs in three dimension are certainly some,” says Smith. “And that goes even more so for the homeowner who may be unfamiliar with reading technical drawings. The ability to pull section views from any point automatically off

of the 3D model is another benefit. Also, once you are able to use the software the way it is meant to be used, it is a simple thing to go in and make minor changes and sometimes even significant changes. It allows you to go in and alter a dimension. For instance, if all the cabinets need to go from 92” to 96” high, it can be a straightforward, very efficient thing to do if everything is set up properly.

“We’ve stayed the same size yet increased our productivity and that is due in part to our work with Alibre. It also has a lot to do with how we work as a team. Using the solid modeling has definitely helped us figure things out in a way that would have been much more difficult before we had the software. We have a project now where we have a wall of cabinetry that’s broken by a circular stairway. The client wants us to have a curved wall go from finished floor to finished floor that is a part of our cabinetry and surrounds the spiral staircase. The wall is to have display niches cut in it that align with the railing. Being able to do that three-dimensionally on the computer is far easier than doing it two dimensionally or building a mockup.

“We started out 14 years ago with the intent of having a group of regular customers, so we targeted architects, contractors and designers, and while the list has evolved over the years, the approach has remained the same. We have typically four to six regular customers who keep coming back to us. So when the architectural firm or the interior design firm or the general contractor is busy, so are we. They effectively do our marketing for us. If we look back at how much the production process has changed in the last five or 10 years, it’s been a pleasure to have the challenge of figuring out the most efficient way of building a project.” **MW**

For more information, circle: #380 for Alibre on the Reader Service Card.