

eCabinet Systems

VOLUME 1, NUMBER 3

MEMBER MAGAZINE

SOMETHING NEW

Nested Face Frames with Puzzle Joints

CHANGE...

Is it good? Is it bad? Must we do it?

Raised Panel Doors with eCabinet Systems

eCabinet Systems in Turkey

Häfele - How Their modern systems support direct distribution



eCabinet Systems

VOLUME 1, NUMBER 3, JANUARY 2007

MEMBER MAGAZINE

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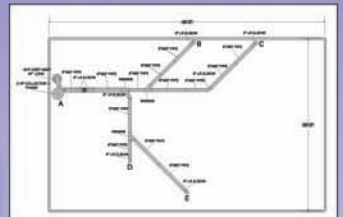
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Change

By Ken Susnjara

The theme of this issue of the Member Magazine is “Change”. We often hear that the only thing that is constant is “change” and they say it like it’s something good. Of course, change can be good, but sometimes it’s not. Regardless of whether change is good or bad, one thing that all change has in common is that it is uncomfortable.

There are really two types of change. The first kind is “change” that happens to us. We have no control. Changing markets, changing customer preferences, changing economic conditions, changing competition, changing costs – these are all changes that happen TO us. This type of change can be either good or bad, depending on how we react to it. If your market changes, you must change to meet it or your business falls off. If your competition embraces new techniques, new equipment or new software that makes them more competitive, you either change to the same or similar technology or your business suffers. Both of these examples are defensive change, that is, you change because something else changed and you must react to it or lose business. As a general rule, if we don’t do anything this type of change will be bad, which brings us to the second type of change, that is, change we intentionally cause ourselves.

Here we have control over what changes and, in most cases, how we handle this determines just how successful we will be. We can call this “offensive change”. Here, you change something because you believe the changes will benefit you and make you more competitive and profitable. If you are successful, competition will need to change to try to counter your advantage. Although you do have control here, this type of change is a bit more uncomfortable.

It is uncomfortable because you really don’t have to change. Everything is going fine. You are comfortably cruising along and now you are going to spend time and/or money changing things that already work and the new stuff might not work as well. There is some risk involved; after all, you could make things worse. There is also effort involved. At least at the front end the new approach will almost certainly take more effort than the old as we move through the learning curve. This type of change determines where you will be long term. The short term is already set. It was determined by decisions you made in the past. Your current business is the result of decisions and changes you made in the past. Decisions and changes you make today will define your business in the future.

This type of change needs to be made based on intellect, not emotion. You must use logic and reason to decide the right course of action. Emotionally, for most people this type of change is difficult, and many people avoid it.

A great example is a new software version. When new features are added, some Members jump on the new version quickly, dealing with the inevitable start-up problems and embracing the changes. Others wait, clinging to the comfortable old version, even if it has more problems and less capability than the new. Eventually the old version expires and then they are forced to change. Then, they must change all at once without the luxury of time that better planning would have offered. This is usually a painful approach and the effect of any problem is magnified.

In this example, change has become defensive. One characteristic of defensive change is that it must generally be done quickly and the penalty for error is high. When you are initiating change intended to make you better or more competitive, you can try and if it doesn’t work at first, you adjust and try again until it does work. At that point you are more competitive and should enjoy the reward for having made the change. Errors in this process don’t really have much consequence.

If you are reacting to changes in markets or competition it is not nearly as safe. You change to counter a new problem and normally you discover this problem because you start to lose business. If your reaction to it doesn’t work you lose even more business. Each time your counter doesn’t work you lose more business, after all that’s how you find out it doesn’t work. You don’t get too many tries this way. When you initiate change you learn it works when your business grows, otherwise things stay about the same. This way, you can try and then adjust over and over until you get it right. Then your competition must try to counter you while you are looking for even more changes to make you even more competitive.

Some shops face a lot of competition, others have the market pretty much to themselves. If you have to compete, it is best to be seeking out and trying new things that will make you more capable and competitive. If you don’t have serious competition today and you don’t constantly change to make yourself more competitive, you are presenting a juicy target. A new shop with new ideas could enter your market and change your world overnight.

Change is difficult. Change is uncomfortable. Change can be frustrating but change is necessary in today’s business world. I believe the best way to handle change is to be changing all the time. Don’t get comfortable, don’t settle into doing things a certain way and constantly challenge everything you are doing. Treat everything you do as a temporary method until you find a better way and assume there is a better way to do everything, you just haven’t found it yet. When you embrace this attitude, you get security and comfort from the knowledge that you are good, really good at handling change. ■

The Adventures of Hardware Man & Whisper-Ride

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CONSTRUCTION REPORT

In the last Member Magazine we gave you a glowing, optimistic report about our construction project. As soon as the magazine was mailed it started raining, and raining, and raining.

We would get a day of drenching rain, then clean up for a day, get one day of work done and then it rained again. We are over 20 inches above normal for the year and it seems like it all came after we starting building.

Through a great deal of determination we did finally get the production building under roof and closed up but lost almost a month from our expected schedule. We began moving storage items into the new facility in December and expect to begin moving production into it during January.

The front office, training and showroom building had its own problems. We core drilled the foundation to verify we had a solid ground at footing level but, we very skillfully missed the old buried pond. When we began digging the foundation we found it about four feet below about a third of the footing. It was about six feet thick. In about a third of the building the footing, which is supposed to be a foot thick, is actually twelve to fourteen feet thick! That's a lot of concrete.

We finally got it out of the ground and got the structural steel up. The pre-cast concrete walls are next and the building is finally moving forward at a good pace. We are hoping to finish it this spring.

We will keep you posted on our progress but have learned not to be too optimistic in our reporting.



Outbound shipping area from our new production building ◀



Steel structure of our new office/showroom waiting for cast concrete walls. ▼



We were able to get some paving done before really cold weather set in. ◀

Interior of our new production area waiting for lights ▼



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Gen-II SuperControl

The quiet revolution

Thermwood has a new control. No, I mean a REALLY, REALLY new control. In fact, we have been shipping this new control, Called “Gen-II SuperControl”, since September, 2005.

The earlier 91000 SuperControl was first developed in 1993 and, according to knowledgeable users in aerospace, was one of the fastest and most powerful CNC controls in the world. This same control, used on cabinet and wood-working machines as well as aerospace, has been used by the government, defense industries, the space agency and many, if not most major aerospace companies. Over the years it has undergone continuous refinement, although the basic configuration and structure have remained pretty much the same. As we moved into the new millennium it became increasingly clear that a fundamentally better platform was possible.

Earlier microprocessors were too slow to run high performance servo controls except at a very crude level. To create a high-performance control using a microprocessor, Thermwood developed an interface board, called the SIO Board, which utilized high speed electronics and custom chips. This board supplied high-speed servo control while taking instructions from a Windows based PC front end. It was a type of hybrid control that worked very well considering the technology at the time.

The disadvantage to this approach is that every few years it was necessary to redesign the SIO Board, eliminate any parts that became obsolete and incorporate the newest and best. This was a very expensive proposition, and upgrading for customers required changing this expensive board as new ones became available.

Changes in two areas pointed to the need for a new approach and platform. First, microprocessors became fast enough to properly control high speed servo systems. Second, servo drives were becoming digital which offered better control and easier interface.

Creating a new CNC control platform, even with our three decades of experience and the old platform to work from, is a daunting task. Trying to develop a control that is again better than anything else in the world is a monumental task. We had our work cut out for us.

The first problem is that PCs today use the Windows operating system and Windows is not a good “real time” operating system. It is not a good system to run servos which

require precise control timing and constant attention.

To address this we entered a joint development effort with Siemens AG, a large German electronics company that has supplied our AC servo drives for years. We combined their proprietary Windows and digital servo technology with our core system to create the new Gen-II system.

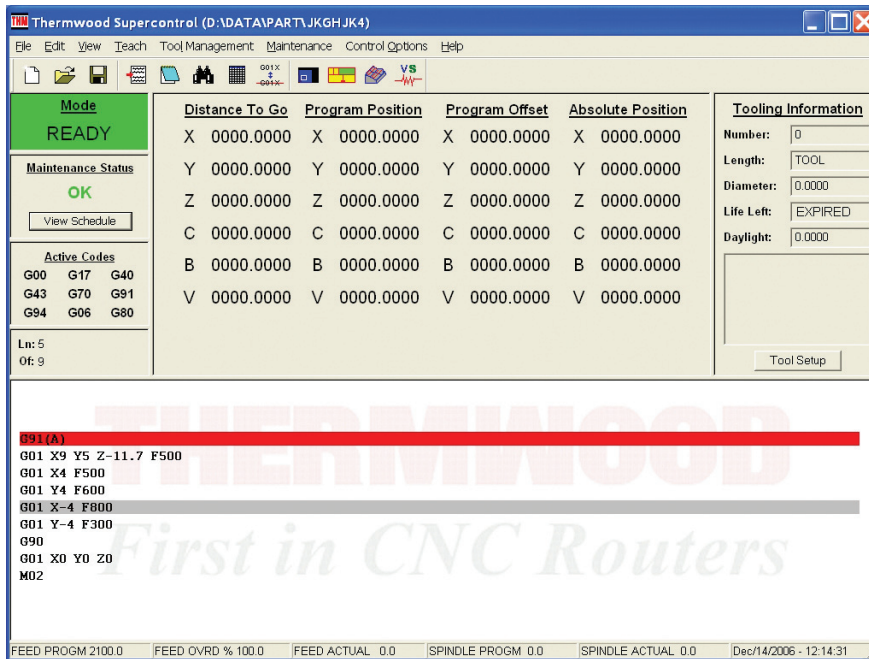
The result is a powerful package on which to build future capability with many major advantages. Our old system was considered one of the fastest available, even today, but block processing speed of the new system is over twice as fast. We have an integrated programming language that executes as a part program called the Advanced Function Language. It is used to create a lot of functions within the control (it is also used by sophisticated users to make the control do things no other control in the world can do). These functions now execute fully ten times faster in the Gen-II SuperControl. Rotational resolution has increased from 16,000 to 3.5 million counts per revolution. We can resolve down to one three and a half millionth of a revolution on every servo motor. That's really tight!

Gen-II has allowed us to develop a new motion engine. This makes machine motions faster and smoother than previous systems and also gives us powerful tools to tune machines for special applications. This is the first really fundamental change in how machines move in over 15 years.

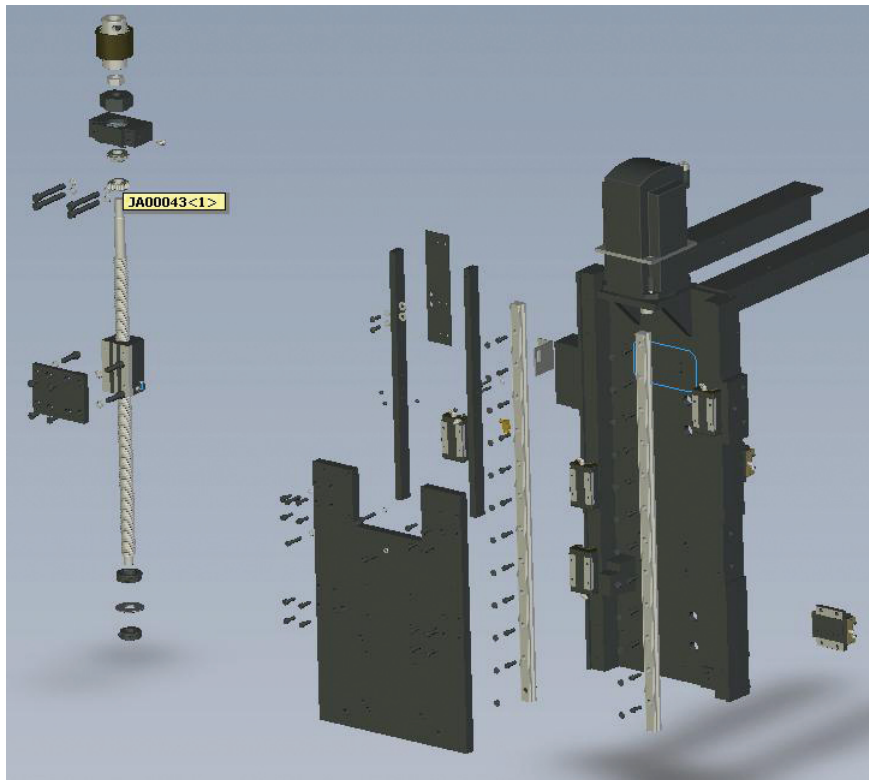
The new architecture is much easier to de-bug and to add features to and should be much easier and less expensive for owners to upgrade. Hardware upgrades will take advantage of commercial boards developed for markets numbered in the millions. These will certainly be more timely and lower cost than the past where we needed to develop new interface boards every few years.

The display has been changed to an LCD flat screen and soon we will offer a new graphic user interface to replace the current operating screen. The new interface is much more “Windows like” and anyone skilled in using Windows will find the new interface intuitive (even hot keys are the same). Anyone with a GEN-II control will be able to easily switch to the new interface when it becomes available.

Another great new feature that is shipping with all Model 45 (CabinetShop) machines after the first of the year is a CAD Graphic display of every assembly in the machine. You can load a module, a Z axis assembly for example, and then move, rotate and explode it to see how it



The new Gen II SuperControl user interface is much more “Windows like” making it easier for users familiar with PCs



CAD Graphic display of every subassembly for a CabinetShop 45 will be part of all shipments after January 1, Note this can be added to existing machines with Gen II controls - give us a call

is assembled. Pausing the cursor over any part pops up the part number, which will make it easier should you ever need to talk to a service rep which you can also do right on the screen using Virtual Service. The display for every machine is tailored for that machine and shows exactly how it is built including any options installed.

The biggest advantage of the new system however, is that it offers a great platform for new technology and advances. Our control philosophy is to have the user send the design to the control and then have the control automatically perform all the tedious functions needed to create a program to machine the design. This dramatically simplifies the user's job.

For example, with controls today, you must know exactly what tools are available at the machine before you can create a program to machine a part. With our approach, you don't care. The control develops a program using whatever tools happen to be available. This also means that the same part can be run on any machine equipped with about any tools, making design sharing even easier. You can look forward to even more advances in this type of thinking with the Gen-II SuperControl.

There are four fundamental features you want from a CNC control, speed, precision, smoothness and ease of use. The Gen-II SuperControl is the best Thermwood ever offered in each of these areas...in fact it may very well be the best available anywhere.

As a footnote, we are developing an interface board for the older servo drives that will allow them to function with an upgraded Gen-II SuperControl. This will eliminate the need to change drives when upgrading an older machine, making upgrades to Gen-II much more practical and economical. For more information on upgrading your machine give us a call.

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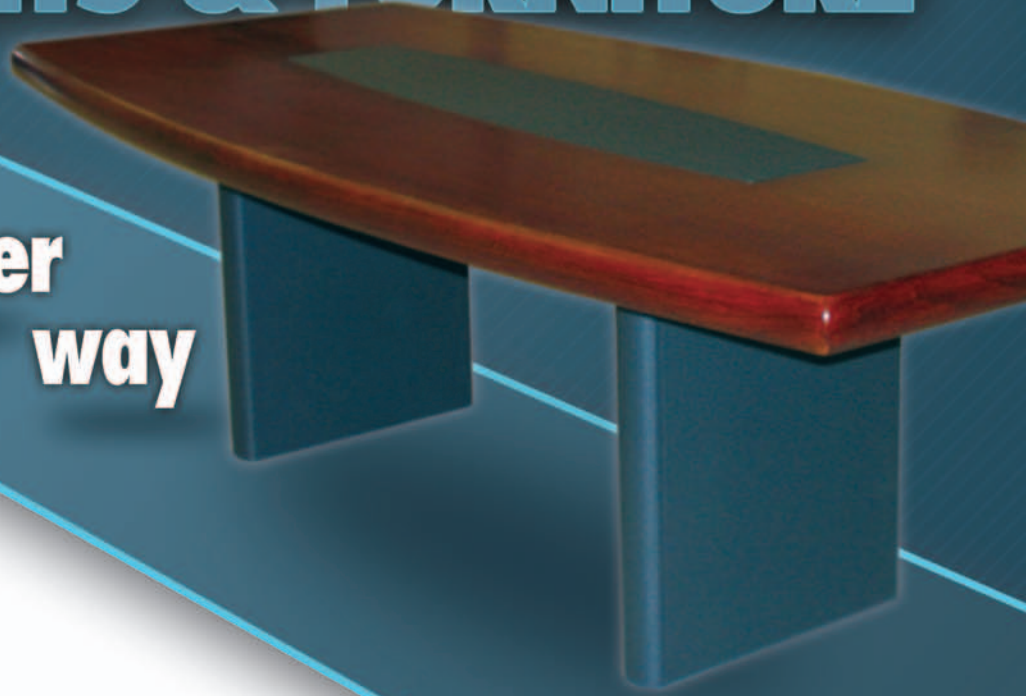
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ASSEMBLING CABINETS & FURNITURE

There is
a better
way

The bull nose moldings on this table present a special challenge that the new bonding techniques make easy.



As we seek out ways to improve operations, most shops look to CAD software, CNC machines and other primary processing efforts. When it comes to assembly, shops pretty much do whatever they have been doing, after all how many ways are there to stick two parts together?

Actually, as technology improves the primary processes, assembly is rapidly becoming the single biggest labor effort. Perhaps it is now time to see if there are better ways to assemble.

As we at Thermwood work at building sample cabinets and furniture, we are not burdened by knowledge, skill and cabinet-making experience. We don't have an understanding of the proper way to assemble. We have pretty much an open mind and as a result have developed some rather innovative ways of assembling. We will now try to share these techniques with you, because they seem to work pretty well.

We started with white glue and clamps, but we didn't like that. It seemed to take just too long to dry. We normally work on only one item at a time so standing around

waiting for glue to dry didn't seem that productive. We needed a better approach.

Where this finally led is actually two different technologies that we use together, but let's take it one step at a time.

Our first step was to try to find a way to get the white glue to dry quicker. We knew of the large RF systems used by high production shops that could cure the glue on an entire cabinet almost instantly. These are too big and expensive for our use, require set up and are intended to process large batches of identical cabinets. We needed something smaller, less expensive and more flexible.

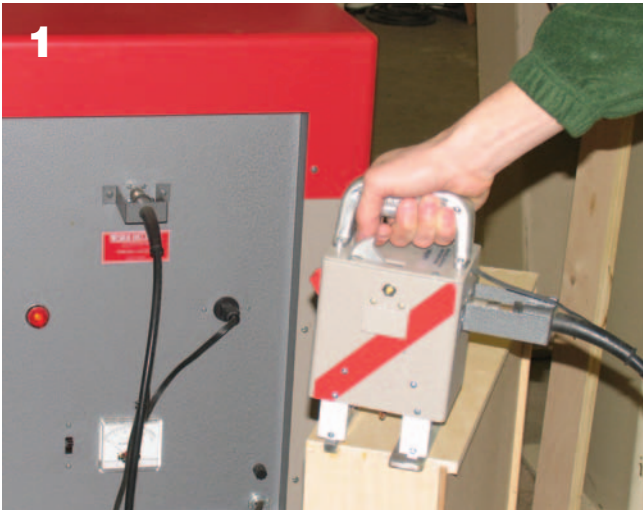
We found a small company, WorkRite Inc., that made a hand held RF system that looked ideal for a cabinet shop. The process is pretty simple. Use Titebond II white glue, available almost everywhere, clamp the parts together and then use the RF unit to stitch weld the joint. The unit processes about a six inch length each six seconds. Six seconds equates to about a half hour drying time.

We found that we could glue

together and clamp a cabinet case and then RF four to five areas along the joint. In a few minutes we can remove the clamps and continue. We even found that with blind dado joints we could just press the joint together using the RF gun and set it without using clamps at all.

The joints are not completely set at that time, but the areas that are cured hold it together well enough that clamps are not needed. The remainder of the glue then sets normally. You can then move to the next case or you can continue working on the case you just processed as long as you don't get too aggressive with it. This was a great first step.

Our next problem was attaching



1 Hand held RF gun being used to cure dovetail drawer without clamps.



2 HiPURformer gun being used to attach a short molding - note the heat cradle at the upper left.



3 Hand pressure for a short time is all that is necessary for a permanent bond.

moldings and carvings. The traditional approach is to use the same white glue and clamp or pin nail the part to hold it until the glue dries. Perhaps we could use the RF gun here too, but that didn't work well.

Many times we couldn't get a clamp on the piece or the clamp got in the way of the RF head. If we could get clamps to fit, the glue smeared all over during the process and we didn't want to nail through the

front of the part where it could be seen. We needed something better.

We had some past experience with the rather expensive electric hot urethane glue systems. These used a rather large heated

gun that was connected to a power source by a heavy, clumsy cable. The arrangement was awkward at best but, the glue was great. It came in different formulations and you could get glue that set in 15 to 30 seconds and was stronger than the wood. There was no clamping or nailing, just hold the part in place until the glue set. It would be perfect if we could just get around the size, cost and limited shelf life of the glue.

With a little searching, we did. We found a product by Franklin International called Titebond HiPURformer Advanced Bonding System that seemed to address all the shortcomings but kept the great glue.

This system takes a whole different approach. While the first system we described seems to address a production line, where you need to continuously dispense glue, Franklin's approach is more batch oriented.

The dispenser gun, which is not connected to the power source at all, fits into a holder which powers and heats the glue. The gun contains a thermal mass that stores heat so you can remove the gun and use it without an attaching cord. In fact, you can use the gun for up to twenty minutes before it cools enough that you need to replace it to reheat.

This system has worked great for us. Glue comes in different setting times, 30 seconds, 60 seconds and 75 seconds. The gripping power is almost unbelievable. When you put two parts together, they are together permanently. This is the greatest feature and the worst feature of the product. You see, sometimes you need to take it apart again.

Fast setting glue is great if you get the parts on right but, if it sets before you've got them properly aligned, you've got a problem. Sometimes the slower formulations are a better choice.

As you might expect, we finally got some carvings on crooked and needed to find a way to take the pieces apart again, which you are not supposed to be able to do. Remember that hand held RF system we just talked about. Guess what, it works great for reheating the urethane glue and taking the pieces apart. It can be a challenge on larger pieces because you can

only reheat a small section at a time, but it does work.

This experience got us looking for other ways to use the two systems together. The latest project presented another challenge. We are building some conference tables for our new office. These have a three inch high molding that must be bent around a curved edge of a conference table. The molding is three quarter inch thick and so it required a lot of force to bend it and hold it in place. We were concerned that the Titebond II glue wouldn't be strong enough. We knew that the urethane was strong enough but there was no possible way to glue and set the long edge in the time allotted for even the slowest setting formulation. We decided to use a combination of the two systems.

We started by gluing about a one foot length at one end using the urethane glue. We clamped this area firmly in place. Then we applied the Titebond II glue along the remainder of the edge except for the last foot on the other end. We then applied urethane glue to that final foot, bent the molding around the edge and clamped the urethane glued end. Then, we added clamps along the center until the molding was securely positioned. Remember that while the urethane sets very quickly, the white glue remains workable for enough extra time to get the center clamps firmly in place. We then used the RF gun to help set the Titebond II. Because the joint was under so much stress, we left the clamps on until the urethane achieved maximum strength, which took about 30 minutes for the particular slow formulation we used. We then did the other side.

There might be

other ways to do this but this approach worked pretty well and was fairly easy. We used the characteristics and limitations of each glue system to achieve a great final result.

The real benefit to these systems is that they seem to be a lot faster and more flexible than traditional methods. As small shops try to build a wider variety of products, anything that helps speed things up is a change for the better.

Editor's Note: eCabinet Systems Members can buy both the WorkRite Hand Held RF system and the Franklin Titebond HiPURformer Advanced Bonding System as well as the Franklin Adhesives for the system through the eCabinet Systems Member Store. ■

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**SOMETHING NEW
FROM ECABINET SYSTEMS...**

NESTED FACE FRAMES

**Building quality
face frames used
to take real effort.**

For those who wanted traditional face frame cabinets, there was no choice but to put forth the effort. Most use butt joints and pocket screws, which means clamps, screws and glue. The real gunners go for mortise and tenon, which means extra equipment and even more effort, but they believe they are building a better, stronger end product that will sell better. In either case it is time consuming.

Now there is a new way that promises to be faster requiring less effort than either traditional approach and this new approach produces face frames which are arguably higher quality than mortise and tenon. It is called “Nested Face Frames” and will soon be available through eCabinet Systems software.

The key to nested face frames is a joint we call the “Puzzle Joint” because it looks like the joints that hold pieces of a puzzle together. The puzzle joint is very strong and easy to assemble and the great thing about it is that it can be machined in the flat on a CNC router. This means that face frame components can be nested together and machined from flat board stock or sheet stock. Face frames can even be machined from veneer covered plywood and then edge banded, providing low cost, straight, dimensional-

ly stable wood frames.

The new face frame interface in the software adds the puzzle joint as a selection in the Face Frame Editor. It's just that easy.

The new eCabinet Systems interface to make face frames also includes the ability to use standard joints (full dado, blind dado or KD/RTA) to attach the face frame to the cabinet. You can specify joinery for the entire face frame, however, since rails are machined in the nest face up and stiles are machined face down, it is best to place joinery on the stiles only and use a butt joint on the rails. This eliminates flip machining operations while providing accurate alignment for the cabinet sides which are generally the most difficult areas.

There are several considerations when making and using these new face frames.

When machining, you must consider hold down. Face frame parts can be relatively small and machining them using universal vacuum can be a challenge. The parts are small enough that they are almost always machined in two passes. In the first pass, the tabs and sockets are machined and the exterior is machined leaving a thin skin. Then, on the second pass the skin is machined away. Even though cutting this thin skin produces

very low cutting force, parts can still move. Luckily, if they do move, they generally only move at the very last cut as the part is freed from the nest and the result is a small tip that can be sanded away in a few seconds.

If the design requires flip operations, a separate mechanical fixture is needed. The same fixture used on the five piece doors works well for this (see the article in this issue on five-piece doors). Thermwood also offers a clamp fixture that uses an expanding hose to clamp the part. It is a low cost approach to this type of hold down.

Traditional solid wood face frames can be made directly from board stock by creating a sheet material that is actually the board stock. When you create the sheet material set the size as the size of the board (ie 10" by 8") and the face frame parts are nested and machined directly from the board.

If you plan to make your face frames from solid board stock, there is a really simple approach to holding the parts that some may consider crude, but it works really well. The approach is two side sticky tape. That's right, carpet tape.

You simply tape the board stock to the table, cut the parts and peel the tape off. Lest you think this is not “professional”,



Puzzle joint face frame with mid stiles and mid rails

understand we first learned of this technique from aerospace companies that taped down honeycomb to machine parts for the F111 fighter jet. We use this technique a lot at Thermwood to hold down material for carvings because it is cheap, easy, flexible and works well.

We are working with some edge banding machine companies to try to develop easy ways to edge band plywood face frame parts. You can, of course, hand apply edge banding but it appears that with some changes to typical edge banding machines, the edge banding may be able to be applied automatically. We will keep you posted as these efforts continue.

When you specify edge banding in the software, the software reduces the width of the face frame members by twice the thickness of the edge band material. In this way after edge banding is applied the final width is correct. It also extends the length of rails, mid-stiles and mid-rails to allow for the narrower width of the adjoining part. Nested stiles and rails attach directly to each other without a thickness of edge banding between them. The outside and inside edges are all that is edge banded, but not between the

joints.

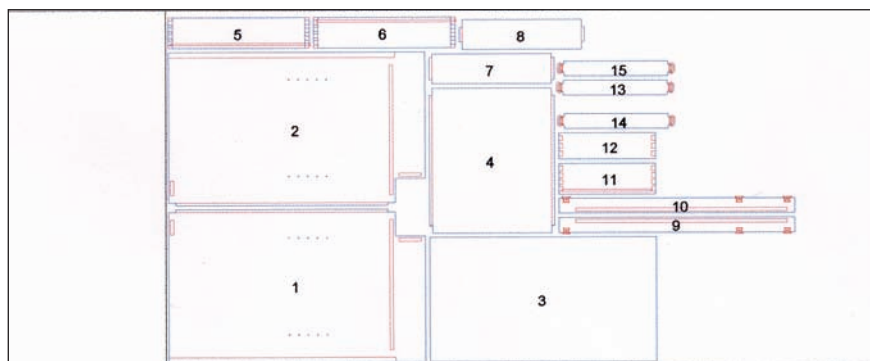
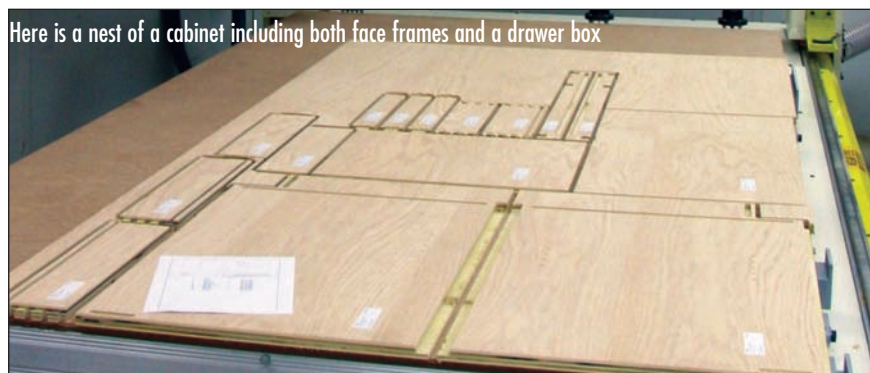
Another consideration for plywood frames is that you need to use longer screws to hold hinges to get the same



Face frame puzzle joint from the rear

holding force as standard length screws in solid frames. Our tests have shown that you can get the same holding force as solid frames by simply using screws that are about twice as long.

The advantages of nested face frames are many. Those that use a CNC router to make cabinet boxes quickly discover that a great deal of savings come from not having to deal with component size and measurement. The machine just cuts the

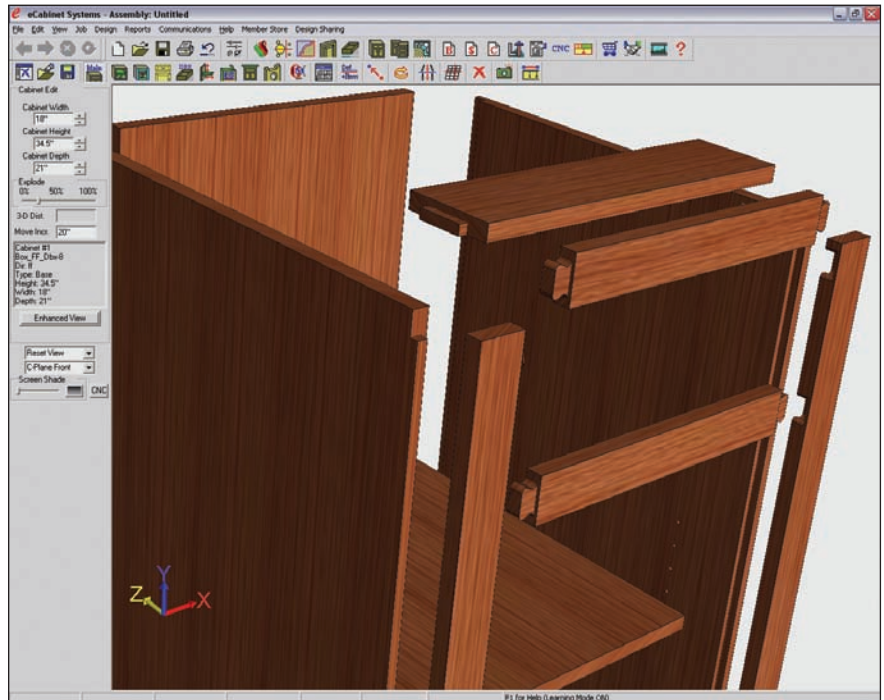


Here is a diagram of the nest showing the face frame parts - stiles 9 & 10 and rails 13, 14 & 15

right sized parts and you don't need to become mentally involved with each part. Now, this same advantage is available for face frames. The system knows the size and configuration of each face frame component, nests and cuts it (it also prints a label so you know which part you are dealing with). Face frame assembly is also much easier. There are no fixtures, clamps or pocket screws. Parts fit precisely, assemble quickly and are square, true and accurate. They exactly fit the cabinet box since there are no hand-measured, hand-cut tolerances to deal with.

We have been cutting these frames for some time now as we developed the driving software. By the time you receive this magazine the new software should be in beta testing and in the next month or so it will be available for everyone.

Nested face frames yet another change, but a definite change for the better. ■



The new nested face frames integrate directly in eCabinet Systems software



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5 PIECE

RAISED PANEL DOORS

**NOW THEY ARE EASY
WITH ECABINET SYSTEMS**

Version 5.1 (due out soon) has two major new additions, face frames with puzzle joints, which you can read about in another article in this magazine, and the ability to send five piece doors from the software to a Thermwood CNC router and make them. And, making them is easy. Let's look at the process we use.

There are two additions to a standard CabinetShop machine that are needed to make raised panel doors and they are tooling and fixtures. Both are available

through the program and neither is particularly expensive.

Let's start with tooling because we do not use standard raised panel door tooling. In putting this program together, we quickly found that solid stock for stiles and rails was not always a consistent thickness. When assembled we wanted the face of the door to be as close and even as possible and wanted any thickness variations to show up on the back. We wanted shops without a belt sander to be able to assemble and sand acceptable doors using just a

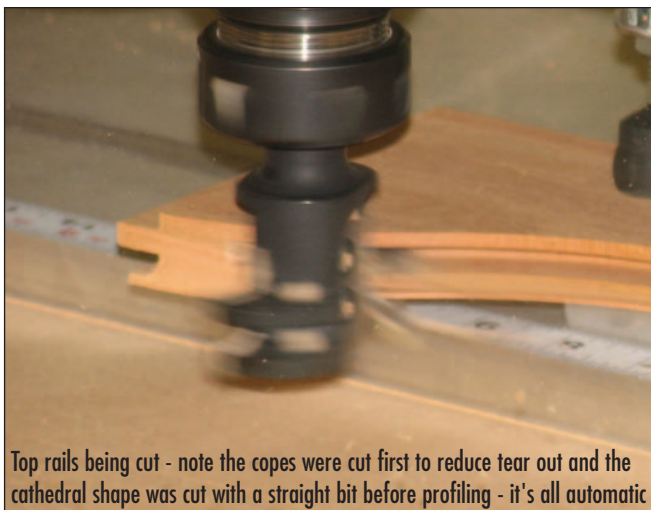
hand sander. To do this, they must be pretty close when first assembled.

This means we need to reference the face of the stiles and rails when we mount them for machining. The easiest way to do this is to mount the faces down against a clamp type holding fixture but that means that the raised panel tooling needs to be made upside-down from the norm. This is exactly what we did.

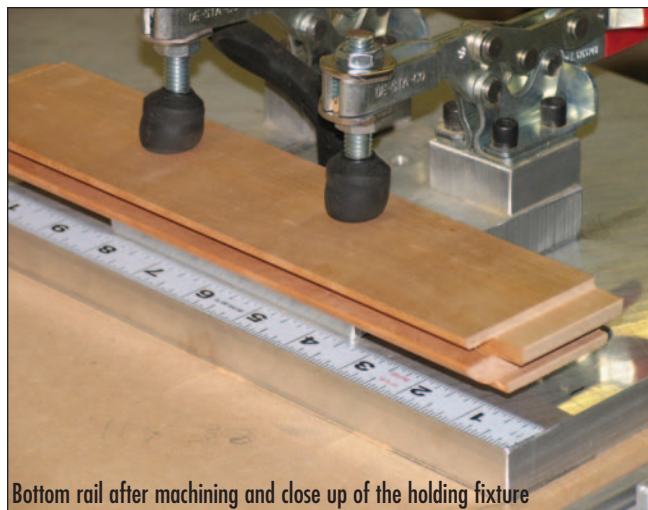
For the stile and rail fixture we developed a simple adjustable clamp and the software tells you where to position the



Inside bead on stile being machined - note that the shape is upside-down from what you normally see.



Top rails being cut - note the copes were cut first to reduce tear out and the cathedral shape was cut with a straight bit before profiling - it's all automatic



Bottom rail after machining and close up of the holding fixture

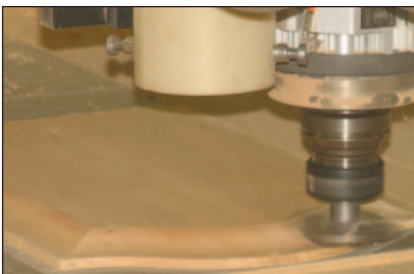
clamps as each door is processed. Let's look at how we process the stiles and rails first, and then we will look at the raised panel.

Stiles and rails start with a blank size that is slightly larger than the finished piece. The software tells you which size blanks you will need. These are mounted, one at a time, in the clamp. The inside bead is cut on the stiles. For the rails, the inside bead is cut as well as the end copes and, if there is a curve or cathedral on the top rail, it is also cut. The outside bead is not cut on any of these parts just yet.

To hold the raised panel we use a 1/4 inch handling sheet that has been laminated with a special rubber membrane. This does a great job of holding hardwood panels using the standard table vacuum.

Once all the parts have been machined, the door is assembled and returned to the rubber laminated handling sheet to have the outside bead machined.

Although it may sound involved, the process is actually pretty easy and the control guides you through each step. The real advantage is that without any major investment, you can now use your Thermwood CNC router to make quality solid raised panel doors in addition to cabinet boxes, dovetail drawers and face frames. For a lot of shops, the savings in making rather than buying doors can pay for the machine. ■



Center panel outline is first cut with a straight bit and then the raise is machined in several passes - all automatic



The outside edge is first cut with a straight bit and then the outside profile is added

Completed Door ▼



eCabWorld

By Dan Epps



Change Brings Value

The fact that eCabinet Systems saves you time designing cabinets, creating cut lists, nest diagrams and stunning 3D presentations is undeniable. Just as bringing eCabinet Systems into our businesses was a change that provided value, changing other methods so that we can better compete in a changing industry can provide value as well.

We as an industry must be open to new methods and technologies that can bring value to our businesses. Adopting new methods and technologies means change and one thing we humans are good at is resisting change.

Let's examine just what change is, why we are so resistant to it and how we can use change to be more competitive in the marketplace.

Understanding Change

The American Heritage Dictionary gives these definitions for change:

1. To lay aside, abandon, or leave for another; switch
2. A transformation or transition from one state, condition, or phase to another

Note that the first definition, and the one where most people stop reading, says that we have to lay aside and abandon the way we do things. I prefer the second definition of change being a transformation from one phase to another.

There are three influencers of change:

- Governmental influences (laws, regulations)
- Cultural influences (trends, fads)
- Competitive/Economic influences
- ...and three degrees of change:
- Subtle
- Moderate
- Radical

Resistance to change naturally grows as we move from subtle to radical. Subtle changes are those we understand and readily adapt to, but unending radical changes turn our world upside-down.

Some changes are forced upon us by governmental

influences in the form of laws and regulations dictating how we must act or do certain things.

Other changes are forced upon us if we want to remain part of the “in-crowd” and choose to comply with the latest trends or fads.

Still other changes, and the most compelling, are forced upon us by the survival instinct—change or die. No matter how much we might not like new methods, we are often forced to adopt them because our competitors have adopted them and they have now risen to trend or fashion status.

Why Do We Resist Change?

We are creatures of habit. We want stability in our lives which creates a comfort zone we want to live in. Any proposed change to this comfort zone is greeted with suspicion. Why is that?

- Fear of the unknown
- Ignorance (lack of information)
- Human emotion
- Combinations of the above

It doesn't have to be this way. Information can reduce the fear and ignorance. When the level of fear and ignorance is lowered, emotion begins to move from negative toward positive.

Managing Change

Changes must be managed or you will end up in chaos. Taking control over the implementation of change is essential in order to move from a reactive management style to a pro-active style. In other words, we must take control of change as opposed to allowing change to take control of us.

Change is a fact of life. It is in our nature to change—to aspire to bigger, better things; to seek perfection and to evolve.

Change impacts our lives and affects our emotions and insecurities. To implement change requires an understanding of how it will improve your livelihood. If the change is misunderstood or if it is perceived as something having an

adverse effect on the status quo, our nature is to steadfastly resist it. Managed properly however, not only will change be welcomed; fear and mistrust will be overcome.

Here's something else to consider—in every spoken language around the world there are about three times as many pessimistic adjectives as positive ones.

This better equips us to focus on what could go wrong rather than what could go right when we consider making a change.

This phenomenon is a relatively recent one, right? Read what Machiavelli said in "The Prince", written in 1513, and form your own conclusion:

"It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old institution and merely lukewarm defenders in those who would gain by the new ones."

Make Change Positive

The first step to making change positive is to educate yourself: What is the industry doing? Where is the industry going? Why are ready-made cabinet manufacturers successful?

Armed with these answers you can begin to look at your own business and analyze what you can change to be more competitive. Make a list of what the industry is doing and compare it with what you are doing. Are there differences? Can you make changes that will reduce or eliminate the differences?

Earlier I spoke of moving from a reactive management style to a proactive style. To accomplish this, changes must be strategic or long term in nature. Tactical or short term changes are reactive and must be reserved for special situations.

Planning for Change

This is a major element that many people skip and the primary reason that changes fail or are resisted (fear

of the unknown?). How can you possibly implement changes designed to make you more competitive if you don't know what they are or when they are to be implemented?

Here are some key points for planning changes:

- What is the change expected to achieve?
- When is the change going to be implemented?
- What are the expected results of the change?
- How are you going to measure the results?
- What is the alternate strategy if the change doesn't provide the expected results?

Happy New Year! I hope this was informative and helps you to be more competitive in 2007. May everyone have a Happy and Prosperous New Year! Please send questions or comments to depps@ecabworld.com ■

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eCABINET SYSTEMS

in Turkey



Editor's Note: We have an enthusiastic dealer in Turkey who has translated the eCabinet Systems software and documentation into Turkish. They are having some success in building an eCabinet Systems user base as well as selling machines. We thought the rest of the world might like a glimpse of this part of the world so we asked them to write an article about their country and market. Notice their spelling of Turkey (Turkiye) is a little different than ours and also that the word "furniture" encompasses both furniture and cabinets.

Turkiye lies between Asia and Europe, serving as a bridge geographically, culturally and economically. Its location on two continents gives the country the advantage of serving the markets of Europe, the Middle East and North Africa.

The area of Turkiye is 774,815 square kilometres. 97% of Turkiye lies in Asia and 3% in Europe. The seacoasts of Turkiye stretch for 8,210 kilometres along the Mediterranean in the South, the Aegean in the west and the Black Sea in the North. There is also Sea of Marmara in the north-west.

With 81 administrative provinces, Turkiye is divided into seven geographical regions. Turkiye's population is over 70 million today. More than 50% is below the age of 25. 35.4% of the working population is employed in the agricultural sector,



18.3% in industry, 46.3% in the service sector.

From the establishment of the Turkish Republic in 1923 until 1980, Turkiye was an insulated state-directed economy. During the 1930's, development strategies were based on rapid industrialization through State Economic Enterprises (SEE) and import substitution. During these years, priority was given to capital-intensive investments, manufacturing basic products and large public investments were realized through SEE.

Furniture production in Turkiye dates

back to 19th century and was historically done in small workshops. In Turkiye today, furniture is produced in both small workshops and big manufacturing facilities. The small workshops have an important role in the production of hand carved and handmade furniture. Many small workshops have enough capacity to expand their production in order to supply larger orders. Big facilities produce standard models using mass-production techniques.

According to the recent General Census of Industry and Business Establish-

Since the 1980's, Turkiye's development has been based on a free market economic strategy. Many structural reforms had been introduced in the Turkish Economy, including:

- Liberalization of foreign trade, currency and investments
- Free floating exchange rates
- Elimination of price controls
- New interest rate policy to enhance saving
- Strictly controlled government expenditures
- An open and flexible foreign investment policy

Additionally, liberal economic policies were initiated by the governments after the 1980's such as:

- Turkiye has invested heavily to build its infrastructure in telecommunications, energy, transportation (highways) and tourism
- Turkiye has taken the necessary steps to develop its financial system and the institutional framework for capital markets, presented new financial instruments along with liberal trade policies to promote exports and removed barriers on imports
- Turkiye has established a well regarded and respected Central Bank as well as developed a strong banking sector
- Duties were abolished for imported materials used to manufacture exported products
- All taxes and duties were removed on a very large list of imports needed to prepare Turkish Industry to meet the challenges of international competition
- Realistic and flexible exchange rate policies were initiated
- The Quato System was eliminated resulting in more liberal foreign trade policies



Looks like a Thermwood showroom anywhere until you look at the words under the Thermwood sign.

ments, the furniture sector employs 92,567 people and the industry has almost 30,000 companies manufacturing various furniture products. The Union of Chambers of Commerce and Commodity Exchanges of Turkiye reports 23 companies who have over 250 employees and 78 companies who have over 100. The Istanbul Chamber of Commerce list of the top 500 industrial establishments of Turkiye include five furniture companies.

In Turkiye, furniture production is classified by the material used, such as wooden furniture, metal furniture and others. Wooden furniture has a major share of total furniture production.

The types of wood used include ash, beech, oak,

pine, linden and mahogany.

Turkish furniture factories use modern technology in producing furniture. Since 1990 the application of advanced technology, and the use of CNC machines in the

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eCabinet Systems Seminars & Training Schedule



February 2007

Five-Day Training Class

29 January-2 February at Thermwood Corporation

Three-Day Training Seminar

12-14 February at Greensboro, NC

Five-Day Training Class

26 February-2 March at Thermwood Corporation

March 2007

Five-Day Training Class

12-16 March at Thermwood Corporation

Three-Day Training Seminar

26-28 March at Edson, NJ

April 2007

Five-Day Training Class

15-20 April at Thermwood Corporation

May 2007

Three-Day Training Seminar

1-3 May at Kansas City, MO

Five-Day Training Class

TBA at Thermwood Corporation

All courses conducted at Thermwood are 5 days and all seminars are 3 days.

To enroll in a Seminar or Training Class sign up online through the Member Store. You can access the Member Store through the eCabinet Systems software or at www.ecabinetsystems.com.

Please visit the Member Store for the latest information on course schedules, cost and availability. Additional seminars will be scheduled for 2007.

Dates are subject to change or cancellation.

For further info you may call us at 1-800-221-3865

Seminars

During these three days you will learn how to:

- Create a material library and review cost methods
- Modify and profile cabinet parts
- Design cabinets both frame and frameless
- Design and use a profile tool

- Work with different joinery techniques
- Create cutouts on parts
- Combine cabinets into assemblies
- Generate Cut Lists
- Create furniture
- Maintain Buy List/Bill of Material
- Design a room and install cabinets
- Generate photo-realistic views
- Create line drawings
- Electronically purchase for a job
- Create sales proposal
- Save and exchange cabinet/job files

Seminars are held from 8 am-4 pm (beverages and lunch are provided). Seminars are limited to no more than 25 students. Cost will be determined before each seminar - payable in advance by major credit card. Sign-up online.

To get the most from the seminar, students should have a computer (preferably laptop/notebook due to space limitations) with the latest version of eCabinet Systems registered and functioning.

Note: Seminars are conducted in English only.

Training Classes

During these five days you will learn how to:

- Create a material library and review cost methods
- Design a variety cabinets both frameless and framed
- Incorporate a variety of joinery techniques and materials
- Modify cabinet parts to create specialized cabinets, such as a clipped corner cabinet
- Design a profile for a cutter and add profiles to a part
- Design and apply cutouts on a part for such as items as wire loom installations
- Attach and design cabinet parts and

- display items
- Create furniture from simple cabinets
- Create assemblies
- Incorporate hardware with your door or drawer installation resulting in accurate bills-of-material
- Design a room and install cabinets via the Custom Layout features
- Create special objects for a room, such as curved walls
- Modify cabinets after they've been installed
- Review and print a variety of reports, i.e., buy lists, cut lists, cost sheets, including a nested diagram of the parts to be cut on each sheet and individual part diagrams
- Create specialized drawings, such as plan and elevation views, orthographic projections of a cabinet and part drawings
- Generate sales proposals
- Create sales materials for photo-realistic presentations, as well as generate a slide show
- Purchase your materials from a single source.

The training at our facility also transitions the cabinet project(s) to the machine - You will have smaller class sizes which enables more one-on-one assistance with the instructor.

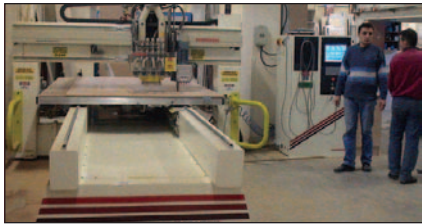
Training Classes are held at our facility in Dale, IN from 7:00am-4:00pm.

Beverages and lunch are provided.

Training Classes are limited to no more than 10 students.

The cost is payable in advance by major credit card. Please register for the class online.

Note: Training classes are conducted in English only.



Demo machine at Tervelli in Turkey

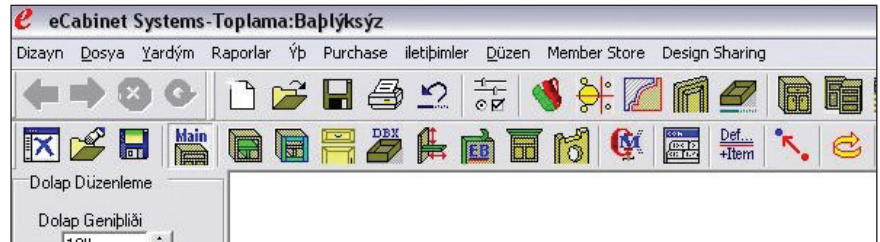
Turkish furniture industry has been increasing. Most of the large facilities in the sector use CNC routers. Most companies are equipped with modern machinery which allows the production of good quality products.

In 2005, Turkiye exported furniture to more than 150 countries. The main markets were Germany, Iraq, France, the Netherlands, Greece, the UK, Iran, the USA and Romania. Today, Turkiye is among the most promising furniture suppliers in the world.

THERMWOOD IN TURKIYE

The use of computers and rapid industrialization are increasing competition in the CNC market in Turkiye. Today, Italian and German CNC manufacturing companies dominate the market. Thermwood technology was introduced to the market two years ago by Tervelli (our dealer in Turkey). Since Thermwood machines have considerable differences from the others, the introduction to the market was remarkable. The Turkish market likes Thermwood router's ability to machine parts quickly with less cost and less labor. This is changing the market and is already affecting the profile of other products shown at the Istanbul Woodworking Fair this year. Small machines with just the capacity to machine cabinet doors were shown for the first time.

Today, there are 750-850 Italian or German CNC routers in the Turkish market. The use of technology is becoming more common among furniture producers. There are almost 350,000 carpenters or small workshops in Turkiye, who are working with old machines and whose production is based primarily on labor. However, rapidly increasing labor costs are



forcing them to turn to technology. In the next few years the CNC market in Turkiye will be very active. Our role is to explain Thermwood's technology to the producers and expand the use of eCabinet Systems software.

Based on our 20 years experience in the woodworking industry and feedback from customer visits, magazines advertisements and the fairs that we attended, we are planning a large installed base in Turkiye by the end of 2010. Turkish producers are very interested in eCabinet Systems and CNC routers. The fact that Turkiye is embracing the globalization trend is positively affecting the economy

and this is showing us that CNC router sales will increase. This is forcing us to expand our company organization. An important point is that Turkish customers now recognize that all goods and spare parts from everywhere in the world, even from overseas countries like the US, can be easily found in our market. The world is not too big anymore.

Konya, an important Turkish city located in Central Anatolia, is an important furniture production center. We are planning to attend Konya Woodworking

Machinery Fair eCabinet Systems in Turkish in 2007. By the end of 2007, our sales effort will expand to nearby markets outside of Turkiye.

Marketing activities, demonstrations and eCabinet Systems and machine training and are conducted in our facility and offices. As in the US, customers have the opportunity to see and test Thermwood CNC routers in our facility. This brings us important advantages.

With the advantage of the eCabinet Systems software program and the capabilities of Thermwood CNC routers we believe that we will be leader in the Turkish CNC router market. ■

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Editor's Note: Häfele is a major industry supplier of furniture and cabinet hardware and the only one that sells direct rather than through a network of stocking distributors and dealers. In the past they very successfully focused on selling large companies. Today they are expanding their market by constructing state-of-the-art distribution facilities that allow them to efficiently sell to small and medium sized shops like eCabinet Systems Members. They are a major vendor in our program and a great source for everything you need.

You may already know that Häfele hardware is ideal for custom shops that are in the eCabinet Systems program. They offer a huge selection that includes handles, pulls, storage racks, drill guides, clamps, ornaments, onlays, door bumpers, latches, hinges, wing clips, plates, rafx connectors, connecting bolts, sockets, fasteners and much, much more.

But even more amazing is how Häfele keeps eCabinet Systems Members happy with high quality and fast service on this huge product offering!

To find out more about Häfele and how they operate, we spoke with three representatives at their high-tech Distribution Center in Archdale, NC: Tommy Hazelwood, Distribution Center Manager; John Stuart, Operations Manager; and Pepi Stahlmann, Customer Service Director.

TW: Pepi, let's start with you. How would you describe Häfele's relationship with Thermwood and eCabinet Systems?

Pepi: It's very complimentary. Since



Orders from one part to a truckload are no problem for Häfele's efficient warehouse

Thermwood and Häfele target the same customer-- small to medium cabinet shops-- it makes sense for Thermwood to offer our hardware in your eCabinet Systems program. We both know this customer very well, and together we can fill every need. With Thermwood and Häfele, there are two different skill sets coming together in a way that benefits the customer. Our companies have been working together for more than five years, and the relationship runs like a dream.

TW: Why do you think Thermwood chose Häfele as our first major furniture and cabinet hardware supplier?

Pepi: Probably for the same reasons that cabinet shops across the country

come to us - we're the best place to do one-stop shopping. Thermwood could have approached any of five or six other suppliers with products similar to ours. But you'd have to do business with all five to equal our selection. It was easier to deal with one source that can offer all those products, with the ability to ship them directly to the customer, on time and accurately.

TW: Talk about Häfele's approach to quality.

Pepi: I think Thermwood and Häfele are at the same level in terms of quality. Whatever the product you always get the quality you expect, or better. Neither of us seeks to be "lowest cost supplier" all the



Häfele's automated high rise storage has the same capacity as a quarter million square foot warehouse but is far more efficient

time. But for the end customer, we definitely provide the best value.

TW: John and Tommy, what advantage does the Häfele Distribution Center bring to the relationship?

John: It's a huge advantage, and it goes back to Pepi's point about being complementary companies. Häfele is equipped to sell in any quantity your customers need, from a box of screws to a truckload of drawer slides. With our Distribution Center automation, quantity doesn't matter; it's all easy to do. That fact alone makes us rather unique. Many suppliers out there are excellent at shipping orders of an entire pallet or more. But for most cabinet shops, that's usually not the right quantity to buy.

Tommy: We have two US distribution centers - one here in Archdale, North Carolina and the other in Torrance, CA. So no matter where you are in the US, you're within three or four days of a standard UPS delivery. That's an advantage for eCabinet Systems Members who rely on Häfele products. Not only is our selection large, it's also easily and quickly available, in any quantity.

TW: Let's hear more about your Distribution Center. Could you give us a quick tour?

John: It's a very modern storage facility with a high-density inventory and an automatic storage and retrieval system.

Look up, and you'll see a rail-guided crane that's 300 feet long and 60 feet high. There are 12 high-rise aisles, and the computer system lets us go directly to the exact location and pick the product. We also have conventional low-bay distribution for bulky items and smaller quantities.

TW: How large is the facility?

John: The low-bay distribution area is 125,000 square feet. With the 12 automated high-rise aisles, it's a 35,000 square foot footprint, but has the equivalent storage capacity of 250,000 square feet. We're currently finalizing plans for our next expansion in anticipation of an increase in both product offering and number of customers. We're investing now for what we think we'll need in 2008 or 2009, to keep our customers and

eCabinet Systems Members happy.

TW: With thousands and thousands of different products, how do you keep track of everything?

Tommy: With our Oracle software, we can trace and pinpoint where inbound

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Häfele can efficiently handle orders for small parts, large parts, small quantity or large quantity



and outbound products are anywhere within the Distribution Center. Oracle gives us better control of our batch releases, and allows us to pick batches in an efficient manner and move them to a consolidation area. Oracle also lets us make sure the picks match the correct customer order, and check it before it goes into the box. Then we perform another verification at the manifest stage, based on weight of the order. So we do quite a few checks, including system checks that scan barcodes and record specific data, plus manual checks along the way. With all those safeguards, it's hard to get an order wrong!

TW: Where do you source all those products?

Tommy: We're a manufacturer at heart, so our own Häfele connectors, stampings, metal products and plastic components make up a good part of our inventory. The rest we source globally. Much is from domestic suppliers, but we receive several containers every day from offshore sources. When we sense a demand for something new, we go find it. Häfele has always been aggressive about staying ahead of the market.

TW: And how are orders for those products processed?

Tommy: Typically, the sales represen-

tative specifies the product together with the customer, goes over the drawings and helps decide what Häfele products are right for the application. Once the order is placed, our Customer Service department makes sure it's filled correctly, and Shipping makes sure it gets there on time.

TW: Sounds like everyone works together to keep eCabinet Systems Members supplied with all the hardware they need.

Tommy: Absolutely. And we treat each customer the same regardless of how much they buy from us. Everybody gets outstanding service. We pride ourselves on getting the order out as fast as possible, but also making sure our quality level is uncompromised, so they'll want to keep doing business with us.

TW: What's the key to Häfele's reputation for virtually no returns and no delays getting products to the customer?

Tommy: That's an easy one. We have good people and powerful processes in place. Our company motto is "Finding Better Ways," and we all try to do just that. We're always looking to improve. And in the end, customers--eCabinet System's and Häfele's--benefit.

TW: Most folks know about your big, hardbound catalog. Where else can we

explore the Häfele products selection?

Pepi: There are several ways. First, you can find Häfele products in the eCabinet Systems software and at the eCabinet Systems Member store (reached through the software). Häfele also has year-round showrooms in New York and San Francisco that are popular destinations for architects, interior designers and members of the woodworking industry. And we have a strong presence at all the Kitchen/Bath and woodworking trade shows. Last but not least, Häfele's Mobile Design Center is a 'showroom on wheels' that's packed with furniture/cabinetry and architectural hardware. We invite everyone to tour the MDC when it visits their area!

TW: Gentlemen, thanks for your time today--we've learned a lot. Any last word to share with our mutual customers who will be reading this?

John: How about this one: "Partnership." We need each other. Without a dependable source of quality hardware, eCabinet Systems wouldn't have as complete a product offering. And without satisfied customers, Häfele wouldn't have a big, modern distribution center. Our companies have developed a strong partnership where everyone wins. Especially the customer. ■



Top: Outbound shipping are waiting for UPS, Fed-x, and pretty much every other freight company to pick up the days shipments



Bottom: Häfele offers a wide variety of moldings they can package and ship to you quickly and safely

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Kerry's Corner

I don't like change.



By Kerry Fullington

I like furniture to stay in the same place and if a paint color was perfect ten years ago, it is still perfect today. I think many of us view our cabinet design software this way. We get comfortable doing things the same and fail to take advantage of new products and features or look for a better way. My thoughts on this subject were fueled by a recent thread on the eCabinet Systems Cabinet Makers Forum where the question was asked, "Does it take longer to design a kitchen and get an estimate using eCabinet Systems Software than other software?" The answer determined in this thread was yes, and no. It all depends how you tackle the job and the quality of the end result you want to achieve. I discovered many months ago that it was not the eCabinets software that was slow it was my method of using it.

eCabinet Systems Software by design, is extremely versatile, it lets every user choose how much or how little detail is included in an estimate and allows you to use several different methods to get results. I know that some members place empty boxes into a room, quickly size these boxes to fit the space and later edit each one for doors, drawers and materials making very quick work of the initial design layout. Others develop extensive libraries of cabinets incorporating all of their decorative details and construction parameters and simply drop cabinets from these libraries into a room to create the design. If you don't need drawings to go along with your estimate you can forgo the room completely and add library cabinets to a "Batch Job" to get costs and cutlists without having to lay out the room at all. If you don't have time to build your own cabinet library, by participating in Design Sharing, a new feature of eCabinets, you can purchase ready made libraries of cabinets to create your drawings. The libraries can be used as is or modified to fit your construction needs. As the Design Sharing program grows, there should be many libraries to choose from making this a very attractive option.

Thoroughly learning the software is the key to making eCabinets work. It has been my experience if I found a specific area of the software

difficult I avoided it. For me, this was the Line Drawing Editor. In the beginning I found it very tedious to use, so much so that I abandoned it. Recently when the subject of auto-dimensioning came up I took a second look and found once again, the problem was not the software, but my approach. I discovered if I bring a drawing into the editor and immediately hide all of the unnecessary parts I can quickly and easily pull all of the dimensions I need for my shop and customers use. If I want, after all the dimensions are in place, return the hidden items making a very attractive line drawing. Getting familiar with the tools and developing your own system for working in each of the eCabinet editors is very important. One hot tip, use the "Hot Keys" in each editor of the software. Learn what they are and use them to really speed things up.

I have always encouraged new members to learn eCabinets when they are not under the pressure of a deadline. Take time to explore every editor in the eCabinet software before you try to design a job using it. The added pressure of the deadline only causes frustration. For practice load a cabinet in the Cabinet Editor and simply click on the buttons to see what happens. This was extremely helpful to me early on in areas such as corner cabinets and the Molding Editor. Experimenting in all editors and watching the changes happen in real time will go a long way towards explaining how each of them behaves. Try to identify problem areas and visit them again. The Shape Manager and the Part Editor are two more places that it never hurts to spend a little extra time. You will be amazed at how much you will learn no matter if you are an eCabinets novice or Pro.

Over the last few months I have received emails from people who would like to switch to eCabinets from other software but are hesitant to make the change. I have also heard from some that tried earlier versions of eCabinets and somehow found it lacking and are now reluctant to invest the time to learn the software. My answer to both of these groups is that the eCabinet Systems Software has matured and is fully featured. It is unique in how closely its crafters

have worked with the end users to create the best cabinet design and manufacturing software available on the market today. As one of the guys at eCabinets told me on the phone recently "We try to give them what they want". If you are considering switching to eCabinets software all that is required are an open mind and an investment of time. If you are a current user of eCabinets Software and aren't quite satisfied with the results you are getting, maybe it is time to take a look at your methods. You may, as I did find that it wasn't a problem with the software but the way you are working with it.

As a final note, one of the goals of this magazine is to reach the members that don't use the "Online Community" on a regular basis. It is true that out of 20,000+ members very few actually take advantage of the online forums. I would like to invite all of you reading this magazine to join us online and participate. There is a wealth of knowledge there now but that would multiply exponentially if we could get everyone involved. I would also encourage each of you to visit the eCabinet systems website www.ecabinetsystems.com, the Thermwood site www.thermwood.com, and the new member store site reached through the software to check out all of the new things going on. Be sure to look in on the Furniture Network, the Carving Library, and Furniture Finishes for Cabinets, browse the Member Store, check out the location of shops and features in Production sharing and how you can become involved in Design Sharing. These are just some of the ways the eCabinet Systems Cooperative is helping its members make changes to meet challenges. ■

WHAT'S NEW?

IN THIS AREA OF THE MEMBER MAGAZINE WE WILL SUMMARIZE NEW DEVELOPMENTS HERE AT THERMWOOD, WITHIN THE ECABINET SYSTEMS PROGRAM AND WITHIN THE INDUSTRY AS IT AFFECTS OUR ECABINET SYSTEMS MEMBERS.

NEW FURNITURE

We have added several new pieces to the Professional Furniture Program during the last 90 days. You can download these designs and the required CNC programs to make them from our web site. If you don't have a Thermwood CNC router, you can contact nearby Production Sharing shops to machine the parts for you. You will find a list of these shops on our web site.

We reworked the Brittany Entertainment Armoire to make the center cabinet two pieces. It was a single piece and was just too large for moving and setting up. Now it is a much more practical piece.



We developed a Steve Hodges designed home and small office desk. Built around the Holywell theme, it was built in walnut and finished using our Old Walnut furniture finish.

We built the desk with a decorative back for use in the center of a room. If the desk is to be placed against a wall, the back can be flat. We have several other small desk designs and if there is sufficient interest we can develop these designs also.-



The new Holywell home office desk design is shown here in walnut ▲

Brittany Entertainment Armoire is now available with the center cabinet as a two piece assembly making transport and installation easier ◀



The back side of the Holywell desk can be made flat to fit against a wall or styled like here for center room placement ▲

We also added two new carved mirror frames from the master wood carver, Arno Schadt. The first of these is a rectangle which we sampled in walnut. Using the Old Walnut finishing schedule. We added a little extra to the schedule by hand painting the leaves a dark green and then wearing off most of the color before adding a second wash coat. The result is subtle but we believe adds some additional style to the piece.

The second mirror is oval. We increased the size by about fifty percent to make it into a full length carved wardrobe mirror. We carved this from cherry and used the Old English Cherry finish. Both

these mirror frames are now available for download and rent and remember two things. First, you can resize them if needed and, if you don't have a Thermwood CNC you can have them carved by one of our Production Sharing Members.



Rectangular Mirror Frame from Arno Schadt offers intricate grape leaf detail ▲



Oval mirror frame can be re-sized to a tall wardrobe mirror like this one ▲

NEW CARVINGS

We have been adding carving to our rental carving library. We had a boat show to attend since our last magazine issue and so thought that adding some carvings with a nautical theme was appropriate. You will find all the carvings, including the new additions on our web site.

ECABINET SYSTEMS SOFTWARE UPDATES

Build 11 and Build 12 were released since the last issue of the Member Magazine and addressed a lot of issues. Here is a quick list of the major items.

- Cut list board stock summary Incorrect in build 11. (FIXED)
- Cut list sheet stock summary incorrect for certain scenarios when drawer boxes exist (FIXED)
- Change sheet stock dialog contained a few issues pertaining to drawer boxes. (FIXED)
- Corner cabinet shelf will not resize when a certain part editor cut is performed. (FIXED)
- Slab drawer fronts will not resize correctly in certain scenarios when edge banding exists. (FIXED)
- Selecting Change Sheet Stock in elevation views without selecting a cabinet causes a crash. (FIXED)
- Having a back inset for the back of a corner cabinet will cause one set of shelf holes to be missing and one set to be on the wrong side on the left back. (FIXED)
- Loading a DXF containing a full circle will load incorrectly into contour mode or shape manager. (FIXED)
- Offset functionality for arcs not working correctly in shape manager and contour mode. (FIXED)
- Face frame rail gets wider upon returning out of the part editor with a profile cut path added. (FIXED)
- Will not allow a back inset for a cabinet back if it also has a left and or right side inset. (FIXED)
- Dado clearances now apply to the dados created by the part that has the setting. i.e. Setting a 1/16" Dado Fit Clearance value in the Top's Construction Parameters will cause the dado in a Right End to be wider (not longer) by 1/16" if the Top is Blind or Full Dado into the Right End. (ALTERED)
- Ability to adjust the font type, size and color for dimensions added in the Constraint Manager. (ADDED)
- Displays Conestoga's minimum increment next to the door/drawer front sizes for purchasable Conestoga doors/drawers. <pop-up part display and buy list> This will help alleviate confusion as to why some doors/drawers do not add on or show at the users specified dimension. (ADDED)
- Constraint Manager: Variable dimensions will not get converted correctly when switching dimension modes from metric to inch or visa versa. (FIXED)
- Resolved several issue where regenerating a cabinet with part editor cuts would result in a message "Error creating route bodies" (FIXED)
- Part Editor: Resolved several issues where it would give a message "...violates ideal tenon and dados..." when leaving the part editor. (FIXED)
- Stretcher Editor: Certain steps would cause the Adjust Stretcher area to display incorrect values. (FIXED)
- Cut List: Assembly and room level display boards do not show the material in the board stock summary area. (FIXED)
- Stretcher will move when performing an equalize in the shelf/partition editor. (FIXED)
- Cut List: Changing the quantity of a cabinet in batch after it is added will cause the door/drawer quantity to be incorrect. (FIXED)
- MDF doors will not have hinge hole patterns in the nest/CNC output. Will require regeneration of an existing cabinet to resolve the issue. (FIXED)
- Edge Banding: Does not allow edge banding on the back edges of corner cabinet left and right backs when the corner gap is set to zero and Not set to miter 90 degree corner. (FIXED)
- Cut List: Display moldings in the cabinet editor do not show when a selective cut list is performed. (FIXED)
- Edge Banding: Top Stretcher fronts and backs for a corner cabinet will not show the edges correctly when setting edge banding. (FIXED)
- Dado missing on a left back and right back of a corner cabinet when using the part editor to trim the back edges off for center back to fit without miters. (FIXED)
- KD fittings on a corner cabinet float off the front of the cabinet when loaded and become worse after regenerating the cabinet. Requires regeneration of a cabinet to resolve existing issues <via con-settings, OK>. (FIXED)
- Certain size 5 piece drawer fronts will not display the top and or bottom rail. (FIXED)
- DXF file containing an ellipse will not load into Contour mode area of the part editor. (FIXED)
- Shape Manager: Trouble trimming circles with a certain customer's layout. (FIXED)
- Shelf settings not remaining after switching from fixed to adjustable shelf. (FIXED)
- Door/drawer sections are incorrect for a certain scenario when the cabinet's deck is turned off. (FIXED)
- Doing an edit molding automatically with a copy paste will put the modifications at the original location instead of the copied to location. (FIXED)
- Resize/equalize will shift cabinets to one side when done in the elevation view. (FIXED)
- Display moldings in the cabinet editor do not seem to show in the cut list. (FIXED)
- Crash situation when removing parts that contain part editor cuts. (FIXED)
- Certain scenarios cause door/drawer front sections to disregard a fixed shelf. (FIXED)
- Display Panel will not select after it is associated to a cabinet when the cabinet was taken from a room layout. (FIXED)
- Show Hide problem: Cabinets get hidden when turning lights back to show. (FIXED)

- In a certain scenario, doors change height when it should not when a drawer is added above it. (FIXED)

This is quite a list in just 90 days.

ADDITIONS AND CORRECTIONS TO CONTROL NESTING

Since our last issue the following fixes and additions have been made to the Control Nesting Software:

- DXF drill operations recognized for drill bank. If holes are in line of X or Y axis and have spacing of 32mm or 64mm they will be recognized for drill bank use if the drill bank is available. (ADDED)
- Settings for No Outline and No OffFall cuts in CNC. (ADDED)
- If Control Nesting starts on a very small arc in an outline or chain operation it causes cutter compensation to cut into part due to start entity alterations for radius of tool. (FIXED)
- Export was saving file in the parent directory of selected directory. (FIXED)
- DXF drill operations recognized for drill bank. If holes are in line of X or Y axis and have spacing of 32mm or 64mm they will be recognized for drill bank use if the drill bank is available. (ADDED)
- Settings for No Outline and No OffFall cuts in CNC. (ADDED)
- If Control Nesting starts on a very small arc in an outline or chain operation it causes cutter compensation to cut into part due to start entity alterations for radius of tool. (FIXED)
- Export was saving file in the parent directory of selected directory. (FIXED)
- Blind Dovetail Male Tenons getting cut into with outline tool when the part thickness is equal to or greater than value specified in Blind Dovetail Settings due to cutter compensation on inner angle. The arc is removed for the outline tool to do the 'hogging' out for relief to smaller tool cleanup. (FIXED)
- Flip Operation barcode not appearing on label for part requiring flip operation due to profiling only. (FIXED)
- More circle cases not pocketing. (FIXED)
- Perform Through Cuts Last causing the second outline pass to cut in the wrong direction causing part to be cut too small due to cutter compensation. (FIXED)
- Double Pass occurring with both passes at full depth when part area is equal to the value entered as Double Pass Size. (FIXED)

CHANGES AT THERMWOOD

We have completed an important restructuring at Thermwood. When the eCabinet Systems program and eCommerce were first established they were placed in the care of our marketing group. Both programs have now successfully grown to the point where they can exist within Thermwood as independent entities. As of the first of December we offi-

cially separated eCabinet Systems and eCommerce from marketing.

Jason Susnjara, who many of you have talked to in his previous position managing eCabinet Systems membership, has been named Vice President, eCabinet Systems.

Jason and his people will focus on coordinating the various aspects of the eCabinet Systems program including determining strategies and tactics for software features, blending software features with machine capabilities, developing processes and procedures for machine use, developing Thermwood Furniture Network furniture designs and rental carvings and coordinating design sharing libraries. He will also manage strategic development of the finishing program.

The service and support work that he and several others did has been moved to our Technical Service Division. These are the folks that support Thermwood machines as well as other software products we sell. They are the ones that put on eCabinet Systems training classes and seminars. Many of their people are quite experienced with eCabinet Systems software and they are hiring additional people who will concentrate specifically on servicing eCabinet Systems.

Our web stores and catalog sales have been separated into the eCommerce Division and Duane Marrett, who many of you have also talked with, has been named Vice President of the eCommerce Division.

Duane and his people will manage the eCabinet Systems Member Store, the Woodworker's Wholesale store and Thermwood's CNC Router Catalog program.

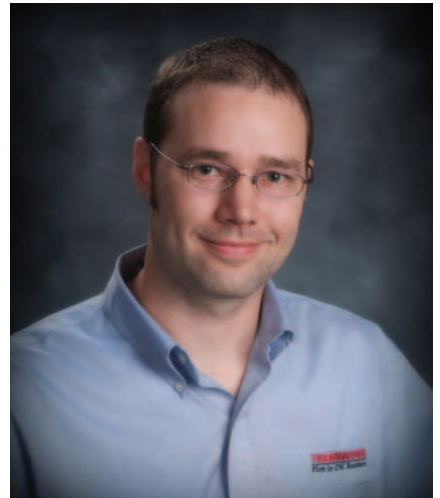
These areas have become very important to Thermwood and these changes will focus even more resources and attention on programs that are very important to us, and hopefully, important to you also.

WOODWORKER'S WHOLESALE PRODUCTS NOW AVAILABLE ON AMAZON

Thermwood has signed an agreement whereby virtually all products available from our Woodworker's Wholesale web store can now also be purchased directly through Amazon.com. Amazon has rather quickly opened this new market to our

products and initial sales have been strong and seem to be continuously growing.

As most of you know, Woodworker's Wholesale, whether direct or through Amazon, targets hobby woodworkers with many of the same products available to eCabinet Systems Members either through the software or through the eCabinet Systems Member Store. While Woodworker's Wholesale prices are competitive when compared to other sites that target this same hobby market, they are not nearly as low as prices available to eCabinet Systems Members. If you are part of the eCabinet Systems program be sure to shop through the software or in the Member Store to get the best possible prices. ■



Jason Susnjara, Vice-president of eCabinet Systems



Duane Marrett, Vice-president of Thermwood's eCommerce Division

WHAT OUR MEMBERS ARE DOING

IN THIS NEW FEATURE AREA WE WILL SHOW YOU SOME OF THE JOBS THAT ECABINET SYSTEMS MEMBERS HAVE BUILT USING THE SOFTWARE. IF YOU HAVE A JOB YOU ARE PARTICULARLY PROUD OF PLEASE EMAIL US SOME COMMENTS AND PHOTOS AND WE WILL TRY TO INCLUDE IT IN A FUTURE ISSUE ... THANKS

WAYNE BURRELL WEST HAMPTON, NY

Wayne has two jobs to share with us. The first is some cherry vanities he designed with eCabinet Systems. Wayne said "It was good to be able to design the cherry vanities with eCabinet software because I kept the outside cabinets the same size and just made the center cabinet different sizes to accommodate different openings."

Wayne's second job was a white wall unit that required eCabinet Systems not only to build but to sell. Wayne said, "To be able to design and display cabinets that are painted white was a must to sell the job. The client had a hard time visualizing what the cabinets would look like". Good job Wayne.



Here is the real thing during construction ▲

Wayne's wall design (upper left) and one side during construction ►



WALLY SCHNEEBERGER CALGARY, ALBERTA CANADA

Wally also has two jobs to show us. The first is an elaborate fireplace surround incorporating a flat panel TV. Wally's comments underscore some of the challenges in this business. "Well.. the granite finally came in for the fireplace surround. The lady changed her mind and decided

eCabinet Systems design for the vanities ◀

to go with the riverstone look all around. Originally there was to be black around the fireplace but I think it still looks alright." Well, we think it looks better than alright...it looks great!

Wally also sent us a shot of bookshelf/credenza that also looks great. Nice work.





Here is Wally's fireplace surround, installed and looking great ▲

T.R.: eCabinet Systems design for the fireplace surround

**PETER WALSH
PALM SPRINGS, CA**

Peter is new to eCabinet Systems but is certainly not starting out small. His very first job was the spectacular oak library shown here. He created the rendering, sent it to the client and had the order within 20 minutes! The client of course made some last minute changes which were no problem for the software.

Another beautiful job from Wally ►

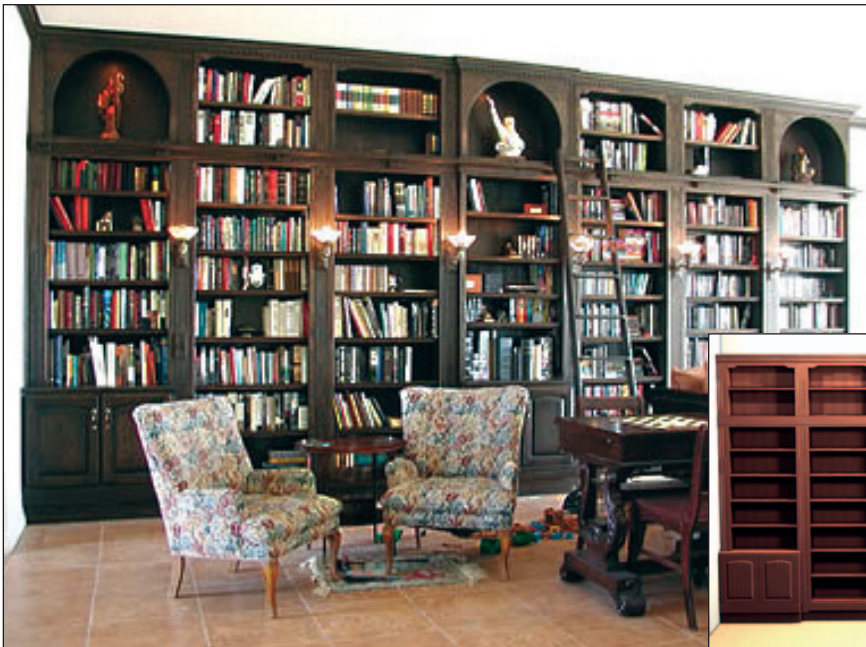
The second job is the cherry library which is shown as an eCabinet Systems rendering. It is being installed right now and perhaps we will get a shot of the finished product when it is complete. Great job Peter, thanks.

Spectacular Oak library was Peter's first eCabinet Systems job ▼



This shows some of Peter's craftsmanship and finishing skill ▲

eCabinet Systems rendering cinched the job in 20 minutes ▼





Peter's current job is a cherry library, can't wait to see the final result ▲



Mike's design for his banker and friend ▲

**MIKE MURRAY
LOGANSPORT, IN**

For 25 years, Mike banked with the same person who has now decided to retire. Wanting some really quality cabinets for his retirement home, he of course turned to his long term client, Mike. They closed the deal, Mike designed and built a beautiful kitchen and got paid, and then they both realized what had just happened. Let's let Mike tell the rest. "What had me smiling wide in the picture was that as he wrote me the check, we both realized that in our 25 yr. relationship, I was always the one writing the checks to him, and in fact this was his first personal check to me....Hit us both as very funny, so much that he whipped out his camera and took the picture, and I promise the Thermwood shirt was not a prop for the picture, I just happened to have it on that day



The final job, looks just great ▲



Something rare - a check from a banker to YOU!

**JAMES MELVIN
KATONAH, NY**

Here is a spectacular archway that James Melvin designed and built using eCabinet

Before quite a challenge for James ▼

eCabinet Systems helped make everything fit ►



Systems. In fact, according to James, it would have been a real problem without the software. "In the "before" picture you can see the huge ugly back of the fireplace that had to be worked around. Thanks to eCabinet Systems it was possible to size every thing perfectly and double check that all units would fit before I began cutting." What a difference from before to after. Great work.



The final job, what a difference



A family owned and run business, Shoreline has been building and repairing custom & spec cabinets and furniture for over 15 years in California.

Trusted by private individuals and large insurance companies, Shoreline has earned and maintained it's highly respected reputation in this industry. We have adopted state of the art computer technology from Thermwood using the e-cabinet software and the CS40 CNC router. This allows us to offer individuals and companies with the software, but without the expensive equipment to have access to precision CNC building techniques.

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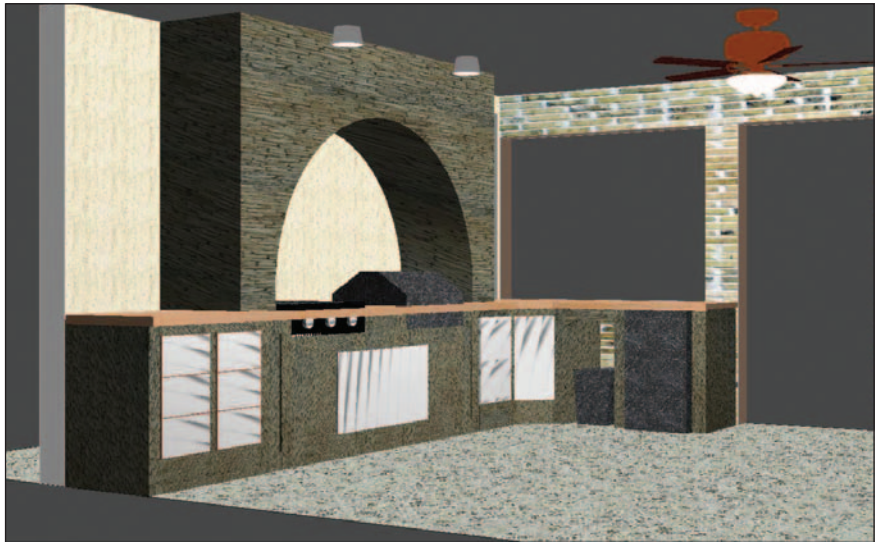
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**GRADY PINKARD
GILBERT, LA**

Grady's job shows that eCabinet Systems is not restricted to designing just wood cabinets. "This is a patio kitchen that I designed with eCabinet Systems software. The customer bought all the stainless parts and grills before I was contacted. After they received all the parts, they contacted me and asked if I could make everything that they had bought work. The result is shown in the photo. The customer is very happy."

**GERON STRICKLAND
SLATON, TX**

Here is a beautiful wine display unit that Geron recently designed and built for a client. "This customer asked us to build him a wine display unit for as many wine bottles as we could. His wife also wanted storage on both sides and under the bot-



Grady's eCabinet Systems patio design ▲

gles. We did two designs and they choose this one. This unit will hold about 150 of the 5000 bottles he has collected."

Finished job showing that eCabinet Systems is not restricted to wood, or even to cabinets - nice work Grady ▼





Geron's skilful design for the wine display case ▲



Finished product looks fantastic, we should toast to a job well done ▲

GRADY ROBERTSON LUBBOCK, TX

Grady Robertson just finished his personal home. eCabinet Systems and his Thermwood CNC router were a big part of the project. Here are some of Grady's comments. "We did all the cabinets in the house with eCabinet Systems. If you notice the trim on the vanity and buffet you will see some of the moldings from the Renaissance Hall table. We also did some of the black worn red finish in the house. This is my personal house." Great job Grady!

Grady's entertainment center was designed using eCabinet Systems ►



Vanity uses moldings from the Renaissance Hall furniture design ►



...nothing but blue skies...



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