

August Meeting Tour of the Amana Furniture Company Saturday, August 19, 2000 - 3:00 p.m. Facilitated by Vern Mc Cormick

We are scheduled to tour the furniture factory at 3:00 p.m. on Saturday August 19th. I've made arrangements for dinner at 5:00 p.m. at the Brick Haus Restaurant (right across the street within walking distance). The only way they would do a large group (thirty or so) is to serve their Three-meat Entree Banquet Special that includes the following: Fried Chicken, Amana Ham, and Swiss Steak served family style - Bread, cottage cheese, lettuce salad, sauerkraut salad, and Amana Pickled ham followed by sauerkraut, potatoes and gravy, corn, and beans. They offer a choice of beverage of coffee, tea, milk, and lemonade. Dessert is a choice of fruit, pie a la mode, cheesecake, strawberry shortcake, or ice cream. Total cost is \$16.88 per person and includes meal, tax, and 15 % tip. We can pay individually but we should try to have the correct change (\$17.00) to make it easier on the waitress if using cash. I hope the above is OK. If it's too pricey for anyone I guess they eat at a different table. I think the price is OK considering all you get. They wanted to know if anyone has a problem with stairs. If not, they will put us downstairs in our own room. I told them I didn't think so ...

I need to give the restaurant an idea how many will be eating - which I will do at the start of the factory tour.

Remember to invite your spouse, significant other, or friend along to the meeting. If that person isn't interested in the tour, they can join together and visit the many shops in the area.

Also keep in mind that August 18-20 is Holtzfest in Little Amana (by Interstate 80) where many vendors will be showing their woodworking products and materials.

Help!

Our favorite membership coordinator has been assigned to an intense program at work and will not have time to serve the Guild next year. On the other hand, Kelley has volunteered in this role for several years and we all appreciated her contribution. The 2001 membership drive will begin soon and we need a replacement right away!

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Last Meeting

The July meeting was held in the 35th Street cafeteria with 32 members and guests present. Larry Lacy opened the meeting while president Krepcik fetched pizza and pop to feed the attendees. The topic of the evening was Steam Bending presented by Larry Tjaden. He brought his steaming assembly and several practice boards for demonstration. The equipment was setup an hour or so earlier to allow fully-heated boards to be bent. A view-cell presentation outlined some of the background and fundamentals of bending wood with steam. Larry based his demonstration on preparing bent chair backs. The three boards bent at the meeting basically matched those prepared earlier. Larry was getting about 3/4 inch bend-back using kiln dried lumber. It was noted that air-dried lumber is best for bending because the lignin has not been cured yet.

On a follow up --- Dave Huovinen loaned Larry a couple of air-dried boards (Oak and Ash) and when bent under the same heat and cool-down time had less than 1/4 inch bend-back. Air-dried is best! Photos on page 2. In other business: The Amana Furniture Factory tour will start at 3:00 Saturday August 19th - Dinner at 5:00.

Ed Kalous, Scott Knotts, Steve Harmining, and John West won the Door prizes.

Indian Creek Nature Center

Dave Huovinen, and the Guild, has been searching for projects where we can contribute to the community. As we know, the Indian Creek Nature Center is one of Dave's favorites. It turns out that the Center has a cabinetry project that fits the talents of most of our members. What is needed is a glass-paneled display case for a natural science diorama. A professional museum exhibit designer is under contract to build the diorama and design the case. The budget for the project is pretty small and warrants a volunteer group to build the display case. The club will need to complete the blueprints, compute the material list, and prepare an estimate first. If we take on the job, Dave hopes to distribute the construction tasks to share the work with several members. Ask Dave for the details...



Photo by John Cox



Left, Larry's boiler is made from plastic pipe fittings with an electric heater element. The steam chamber is a length of 8" diameter plastic well casing. The two are coupled with a radiator hose.

Below, One of the demonstration boards is clamped firmly into



Photos by John Cox

Using Sheet Layout 7.0.3

By: mark Clark

I've taken the plunge. I've decided to add power tools to my shop and include manufactured boards in my arsenal of project materials. I'm currently working on a project that includes three separate plywood cabinets with drawers and doors, large flat work surfaces to sit on top of the them and a couple of torsion boxes. The project calls for 113 separate plywood parts, in 3/4 in., 1/2 in. and 1/4 in. thicknesses.

I'd been thinking about this project for a while and one of the things that kept worrying me was the problem of figuring out how much plywood to buy. At around \$60 a sheet for 3/4 in. birch plywood, I'd rather not waste very much or buy more sheets than I actually need. But how would I figure the needed stock?

I knew there were computer programs that could calculate the best way to cut linear materials such as lengths of pipe or structural steel but what about two dimensional optimization? I turned to the Internet and the World Wide Web for the answer and before long I had discovered *Sheet Layout*.

Sheet Layout is a program that runs on a PC under Microsoft Windows. According to the developers, Sheet Layout will:

- calculate the optimum use of your materials;
- generate and print cut lists and diagrams for each piece of material;
- generate and print labels for each part; and,
- generate and print complete materials lists, including finishing materials, hardware, labor, and cost reports.

I decided to take a look to see whether it fit my needs so I downloaded the free version for evaluation. The free version has all the same features as the licensed versions but it won't store very many parts in a project. Still, it was enough to let me evaluate the functionality. I installed Sheet Layout and set up a project. This seemed easy enough and soon I had open the parts list window and was adding some parts to be harvested from plywood panels. The material to use for each part is selected from a drop down list which in my case was empty. I looked around and soon realized that I had not defined any resources.

Resources (materials) are added in a separate window. They can be sheet materials, lineal materials, items/components, volumetric materials or labor types. You can keep track of each standard and odd-sized piece of material you have on hand or expect to buy. You may also keep track of the grain direction on each piece and whether that is important in calculating layouts. You also define the usual tool you use to cut each type of material. Each tool has a kerf width that may be modified to match your particular situation and a margin of safety may be specified around the edge of the material if you need to contend with damaged edges.

I quickly became convinced that Sheet Layout would save me a lot of work over time and would probably pay for itself in my current project. I decided I would license the product, but at what level? There are two separately-licensed components available, Sheet Layout and Lineal Layout, and each has four different license categories, Hobbyist, Small Shop, Commercial and E-Commercial. Each license category will manage and optimize progres-

sively larger projects at progressively higher cost. I decided to license both Sheet Layout and Lineal Layout at the Hobbyist level.

The Hobbyist level limits a layout project to no more than 20 unique part types and no part type may have a quantity greater than 10. At first I thought that would be too restrictive but then I realized that layout optimization could not involve more than one type of material at a time in any case and it might be reasonable to create a separate project to hold all the parts to be cut from the same material. This strategy proved successful and I was able to set up the projects so that each material layout was optimized without running into the limits built into my version of the program.

As you define parts to be laid out on sheets of material, you can tell the program which way the grain must run on the finished part or, if you don't care, that grain direction is not important. Each item is automatically numbered as you enter it and you may specify dimensions in fractional or decimal units as you prefer. Once you have the parts defined, simply open the layout window and click the run button. The parts will be laid out using as many sheets of the designated resources as are needed. Look over the result to be sure everything is there and turned the right way and you're done. You now have the information needed to optimize the use of material you have on hand or the information needed to buy the right amount of material at your local lumber yard.

Another feature of the program that I found very useful was the ability to print labels for each part to be cut. The program is all set to print sheets of Avery labels available at office supply stores. Just load the labels in

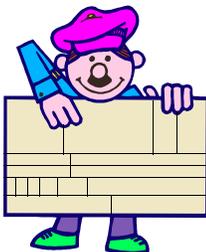
(Continued on page 4, Sheet Layout)

(Continued from page 3, Sheet Layout)

your printer and start the print label function. Then keep the labels beside you as you cut out your parts according to the printed layout diagrams. As each piece is cut, you place the proper label on the newly cut piece. This makes it easy to cut a large number of odd sized parts during one working session without losing track of their identity and without having to make pencil marks on your work.

The program is still being steadily improved with each new release but there are still a few quirks. The layout diagrams are not capable of rotating the part descriptions to correspond to the way the part is positioned. No matter what the layout, the text is always horizontal. I found that in some cases there was not room on the layout for a part's description and I had to deduce the identity of the part from its apparent dimensions and its relative grouping on the layout.

My experience with Sheet Layout has convinced me it is a program I don't want to be without. The effortless layout and optimization combined with the label printing feature mean it saves me real money in materials and a lot of time and hassle as



well. If and when I need to lay out materials for larger projects, I'll very likely license Sheet Layout at a higher level to ease the burden of managing the project. If you cut a lot of plywood and have an IBM compatible computer at home, I recommend this product. You can try it out at their Web site: <http://www.sheetlayout.com>.

On the Web By: Larry Tjaden

The club website is now up and running on the outside world. We registered the domain name collinsclubs.com to allow other clubs within the company to join us on the outside ... and maybe pay some of the cost. Our club's URL is www.collinsclubs.com/woodworkers. I have most of the old stuff transferred to the site and hope to complete the library check out system soon. The power of Active Server Pages will allow me to add features like placing a book or tool in reservation and be sent an automatic email when the present user checks the item back in. I will be able to monitor the time a user has an item checked out and alert the librarian if it gets too long. I can, and did, make the newsletter distribution list automatically from the membership database. This is so cool!

I've been asked to look into a Buy-Sell-Trade page. After a quick look around the net I noted that an open-to-the-word page needs a manager to review the content of an advertisement, and if it is clean, "release" it. I can imagine a feature where a password is issued to each customer so they can remove their own ad ... before the timer clears it.

I do need a member to help me service the links page, and later, the local lumber source page. Both pages will be editable over the internet using special forms on the administrator's pages.

If any of you have an idea for a cool feature you've seen elsewhere, let me know, I'm always open to a challenge.

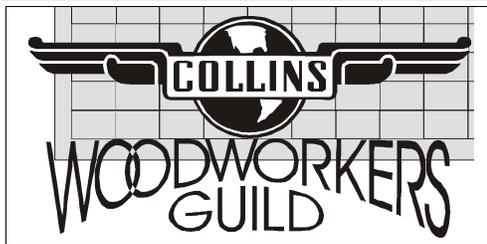
Free to good home:

Delta bench-mount plate joiner model 32-100. Like new, works good. I don't ever use it and have run out of room. The only requirement is that the taker also takes a good 30" aluminum self-storing storm door. Same price, free. Contact Larry Wood at 395-9348 or e-mail elwood140@aol.com.

September Meeting

Next month will be membership drive and election of officers. If you wish to contribute to the club here is a place to do so. In that the club is a subsidized Rockwell Collins, Inc. club, we are required to elect a president, vice-president, and secretary/treasurer. In the past we wait until the last minute of the September meeting to determine our leaders. The task of president basically involves arranging the topic of the twelve meetings and presiding at them. Keep in mind the vice-president is ready to fill-in if you cannot. With enough membership help the twelve, or less, topics are covered and panic is kept to a minimum. Our secretary/treasurer (mostly treasurer) keeps the books, does the banking, and retrieves funds from the Collins system to pay invoices. This person also helps the membership coordinator by helping with and receiving registration forms. The vice-president is in charge of vice.

Several members, along with the above-mentioned staff form an ad hoc planning committee where the meetings and activities are discussed. These meetings are being held in the 35th Street cafeteria so that ALL members can participate in the administration of their club.



Collins Woodworkers Guild Officers and Executive Committee

President:

Emil Krepcik 484-2435 krepcik@netins.net

Vice President:

Mark Clark 5-3872 mwwclark@collins.rockwell.com

Secretary/Treasurer:

Rich Beckett 5-5192 rwbeckett@collins.rockwell.com

Membership:

Kelley Kirtz 5-3554 klkirtz@collins.rockwell.com

Library Staff:

Larry Lacy 5-8471 ldlacy@collins.rockwell.com

Lee Johnson 5-3014 lajohns2@collins.rockwell.com

Toys For Tots Committee:

Bob Flood 5-0341 rlflood@collins.rockwell.com

Emil Krepcik 484-2435 krepcik@netins.net

Guild Photographer:

John Cox 5-3198 jlcox@collins.rockwell.com

Newsletter & Website:

Larry Tjaden 5-8024 ldtjaden@collins.rockwell.com
larry@tjaden.net

Joseph Gorman 5-3030 jegorman@collins.rockwell.com

Steering Committee: (in addition to above mentioned)

Wayne Hanson 5-5893 wghanson@collins.rockwell.com
hanson.wayne@mcLeod.net

Scott Nesseler 5-2278 shnessel@collins.rockwell.com

Ted Hess 5-4476 tfhess@collins.rockwell.com



Membership in the Collins Woodworkers

Guild is open to all

Rockwell Collins, Inc. employees, spouses,
retirees, and contract employees.

Everyone is welcome at our meetings!

Yearly dues, renewed in September, are \$10.

Keep in touch! Don't miss a copy of the newsletter.

Send an e-mail to our membership person Kelley Kirtz at
klkirtz@collins.rockwell.com and give her your new (home) ad-

Future Meeting Topics

September 19, Membership Drive & election of officers

October 17, Getting ready for Toys-For-Tots

November 21, Turn in the toys

December 19, ???

Suggestions:

Visit: Woodhaven Company - Durant, IA, Pella Window Company - Pella, IA, Bacon Veneer Company - Grundy Center, IA

Check out the Guild's website

The Collins Woodworkers Guild website is now available for viewing on the world wide web at:

www.collinsclubs.com/woodworkers

and on the RWEB at:

<http://rweb.rockwell.com/data/clubs/cwc>

Guild Benefits

- ◆ Access to our Extensive Library and Tool Collection
- ◆ Open Exchange of Ideas
- ◆ Social Activities
- ◆ Workshops
- ◆ Opportunity to Help our Community through Toys-For-Tots Program
- ◆ Educational & Informative Presentations
- ◆ Open Houses
- ◆ Tours
- ◆ Discounts at:
 - Eastern Iowa Supply
 - Woodsmith Store - Des Moines
 - Puckett Tools & Fasteners

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