



Volume 18 No. 1

June, 2014

President: Tom Borloglou Vice President - Lloyd Donnelly
Secretary - Wes McNeal Treasurer - Rick Mannarino

Calendar of Events

June 5 - Regular Monthly Meeting (Yacht Club 7:00 pm)
Program - Spring Challenge "Hot Jigitty" (Member Presentation)

June 28 - Board Meeting (Tanasi Clubhouse 8:00 am) All members welcome.

July 10 - (note date change) - Regular Monthly Meeting (Yacht Club 7:00 pm)
Program - "Automotive Woodworking"

From Our President

As many of you know my wife, Marsha, and I have been away for the last month. We traveled to several countries in southern Africa. We had a great time and made some new friends. One thing it seems we all have in common is the love of working with wood. Whether it's carved, made into furniture or even those tourist trinkets, wood is something the rich and the poor include in their lives.

Thanks to our Vice President - Lloyd Donnelly for his outstanding coverage in my absence. And to all the woodworkers who participated in the kiln extension project. What a surprise to have that built, painted, and organized while I was gone.

This month is our annual Spring Challenge. Our elite Programs Team led by Ned Miller have come up with a theme that every

woodworker uses at some time in their career ...JIGS. (No we're not talking about the lively dance with leaping movements kind of jig) Jigs can be something as simple as a board with a nail used as a stop or as complicated as a multifaceted indexed router support used for routing flutes on a tapered column. I am anxious to see what my fellow wood workers have in their collection.

I would like to welcome our new Newsletter editors, Tom Ringenbach, Harry Wescott, and Charlie Anderson, and to thank Nancy Kessler for her outstanding service as our outgoing editor. Remember - please take a few minutes to send in an article to our editors every month or so. Trying to come up with appropriate items for the newsletter is a daunting task and when one of our members submits a few words it is so much more meaningful. Oh and you don't have to be an English major!

We have several community projects working or waiting to have someone step up to take the lead. These projects are not only helpful to the community, but are wonderful opportunities for those who are new to woodworking to get with a more experienced woodworker and complete the project. It is very rewarding.

It's great to be back in my shop putting around again ...

Tom

Editor's Note

This is the initial effort on a club newsletter by your new newsletter team. As I plunged into the effort to develop a format that was interesting, informative, and with at least some visual appeal, I quickly developed an even greater appreciation for the great job Nancy Kessler did for us for so long during her term as editor. Although it's been said before, Nancy, on behalf of all our members, a heartfelt thanks!

This issue of the newsletter is not a finished product, both in terms of format and content. Over the next few issues, you can expect changes as we experiment with identifying the content which members are most interested in, and a presentation style which is easy on the eyes and fun to read. Your suggestions would really help us in this effort.

And while you're passing on suggestions, you'll notice we have very few photos for this issue, so pass on to us as well your photos of recent club events or special projects you have completed. We'll help you show them off! So, let us hear from you!

Tom Ringenbach
Harry Westcott
Charlie Anderson

New Members- 2014

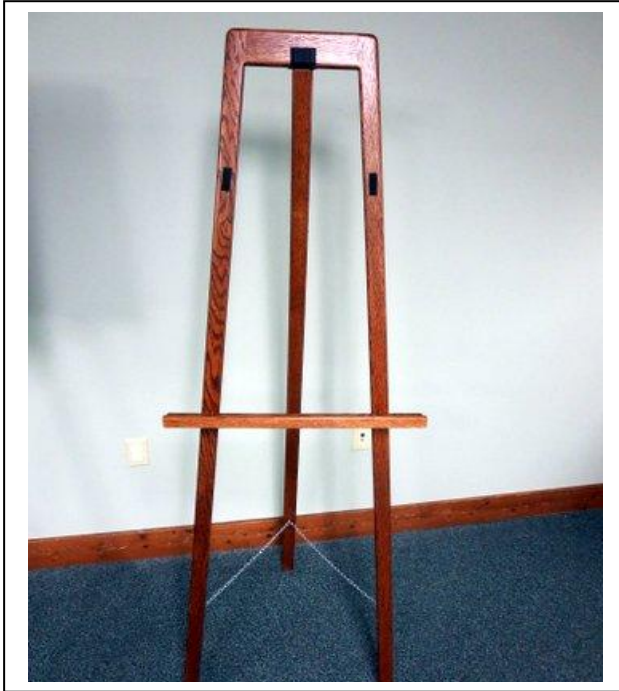
Jim Borsh
Dennis Tracy
John Johnson
Tom Schemberger
Gary Stickel
Charles Kulka

Welcome to the Club!!

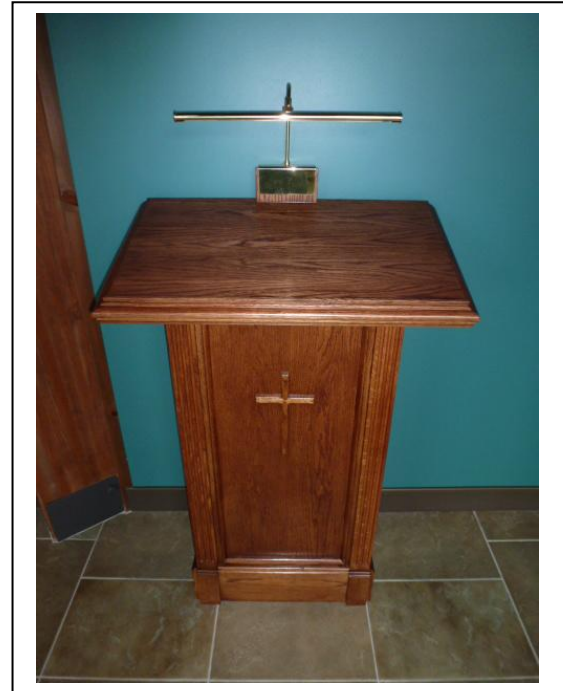
From Our Members' Workshops



Music area screen for Shepherd of the Lake Lutheran Church, built by Gene Yeager and Tom Schemberger (wood donated by Dave Brunson)



One of two easels built by Larry Bollinger for the Tellico Village Community Church.



Lectern converted to a Registration Stand for the TVCC by Jerry Jeffrey, Don Larkins, Ted Lethen, and Lloyd Donnelly

Tools & Tips



Design Software for Woodworkers

By Dick Hoffmann

As a follow-up to last meeting, “Construction Planning and Design“ by Lloyd Donnelly, this month’s program will focus on software that can help woodworkers design furniture or in turning. Some of the software is free, others must be purchased. These programs can be grouped into general categories: drawing, drafting, 3D, and turning. The following is a brief review of some of the better design and drawing software that can be used for woodworking:

Drawing Programs: There are lots of software programs in this category. Some focus on replicating natural artistic methods and give you advanced and custom brushes like you would use on canvas. Other drawing software centers on graphic design and photo editing with its focus is on manipulating drawings once you've done a sketch or uploaded existing art. Some of the top drawing programs are: Adobe Illustrator, Mango Studio, Coral Draw, Artweaver, Open Canvas, Skencil, Auto Desk Sketchbook and Drawplus. While all can be used for woodworking, there are much better options reviewed below.

Drafting Programs: Drafting programs are designed to easily develop detailed blue-print like construction drawings. These are excellent for drawing plans for woodworking applications. Like all software programs,

they take time to learn, especially since there are lots of construction tools available and navigating around a large drawing or multiple views takes some skill. Fortunately all the programs have tutorial videos that come with them, are extremely easy to use and drastically reduce learning time. Five of the top rated programs are listed here.

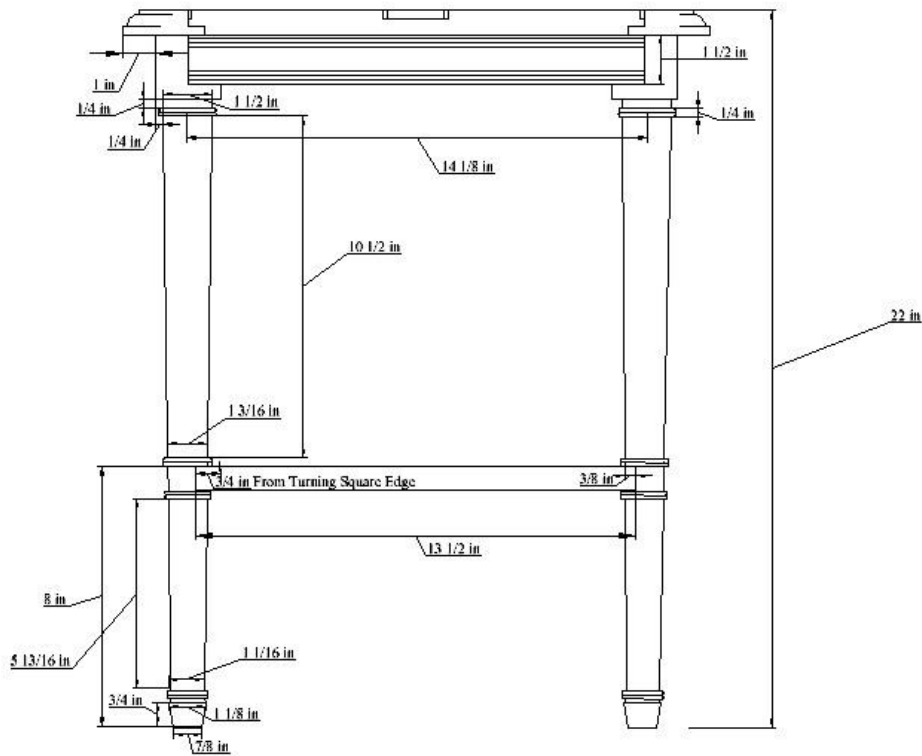
2014 Best CAD Software Comparisons and Reviews

Rank	#1	#2	#3	#4	#5
10-9 Excellent	DesignCAD 3D Max	TurboCAD Deluxe	Punch! ViaCAD 2D/3D	ZWCAD	TurboCAD LTE
8-6 Good					
5-4 Average					
3-2 Poor					
1-0 Bad					
Lowest Price	\$99.99	\$129.99	\$99.99	\$799.00	\$107.99
Ratings	9.50	9.05	8.25	7.90	7.48

I have **TurboCAD Deluxe** (www.turbocad.com/) and can highly recommend it. It has a full range of drawing tools, excellent screen and print controls and is accurate down to .00001 of an inch. After watching a couple of 5 minute training videos, I was able to start using it. Total time to become proficient, watching the videos and trying new options, is in the range of 2-4 hours. The program has an adjustable measured grid system to make layout simple and there are many options that allow you to “snap” to a corner, line, grid intersection, the midpoint of a line, the center of a

circle, etc. Making copies is easy using a “rubber stamp” tool and there is a full array of specialty tools such as fillet, radial copy, line extensions, auto connection of two intersecting lines and so on. The \$129 version has some 3D, but it’s minimal and difficult to use. If you want true 3D drafting capabilities, you need the more expensive “Pro Version” at \$1,695.

Side View of Table with Measurements



TurboCAD Drawing of a "Round Cherry Table"

3D Software: While there are many 3D software programs on the market, one clearly dominates and is excellent for woodworking. The program is **Sketchup and it is FREE** and can be downloaded over the Internet (www.sketchup.com/). The program is specifically designed to build objects in 3D and has an extensive free library of tutorial videos (www.sketchup.com/learn/videos). Because of the 3D aspect, watching the tutorial videos is a must! Watch at least 4 or 5 of them before attempting to use the program. It takes about 2-4 hours of alternatively watching a video and then playing with the program to become somewhat proficient. The most difficult element of the program is navigating in 3D and moving objects around. Even with the training videos, it’s difficult to master and just takes a lot of trial & error learning.


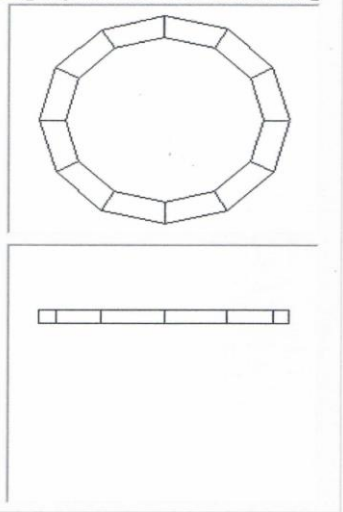
Sketchup: Small Cherry Table



While the free program works well, it takes more time and effort to make detailed construction drawings vs. using drafting software. Unlike the drafting software, the free version does not have a grid layout feature to aid in construction. It also lacks print controlsyou print what you see on the screen. Both of the problems are solved in the upgraded version that cost \$495.

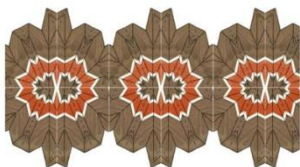
Despite the free version's drawbacks, Sketchup is a *great* tool. I find it especially useful in visualizing what your project will look like, without having to build a physical model. The program allows you to accurately display construction parts (such as rails or panels) in different woods, colors or materials. As an example you can see what a cabinet looks like with walnut or cherry door panel inserts or if the insert were glass, wicker caining, or painted. You can change proportions or easily make modifications in minutes where it would take days working with physical models. Finally, there is a extremely large library of models, materials and help videos, all free and all accessible via the Internet. **Turning:** There two excellent turning programs that I would encourage turners to purchase.

Table Saw Miter: This is a very simple, inexpensive program (\$20 that can be downloaded over the Internet (<https://table-saw-miter-angles.software.informer.com>) and helps laying out segmented rings. You simply input the number segments you want in the ring along with the rings outside and inside diameters. The program then calculates the miter angle needed, each segment's length and the most economical board length and width use.

Type of Miter (from Side Incline Angle)	Ring Top and Side View - Line Drawing
<p>Frame Miter </p> <p>Project Setup and Design</p> <p>Ring# (Optional) <input type="text" value="1"/></p> <p>Number of Sides <input type="text" value="12"/></p> <p>Side Incline Angle <input type="text" value="90"/></p> <p>Outer Diameter <input type="text" value="12-1/2\"/></p> <p>Stave and Compound Only: Board Thickness <input type="text" value="3/4\"/></p> <p>Sawblade Thickness <input type="text" value="1/8\"/></p> <p>Frame and Compound Only: Secondary Diameter <input type="text" value="9-7/8\"/></p> <p>Segment Sawing and Ring Calculations</p> <p>Miter Gauge Angle <input type="text" value="15°"/></p> <p>Blade Tilt Angle <input type="text" value="0°"/></p> <p>Segment Edge Length <input type="text" value="3-11/32\"/></p> <p>Board Length <input type="text" value="37-3/16\"/></p> <p>Frame and Compound Only: Board Width <input type="text" value="1-15/32\"/></p> <p>Wall Thickness <input type="text" value="1-5/16\"/></p> <p>Polygon Outer Diameter <input type="text" value="12-15/16\"/></p>	
Use Help to learn how to use this program.	

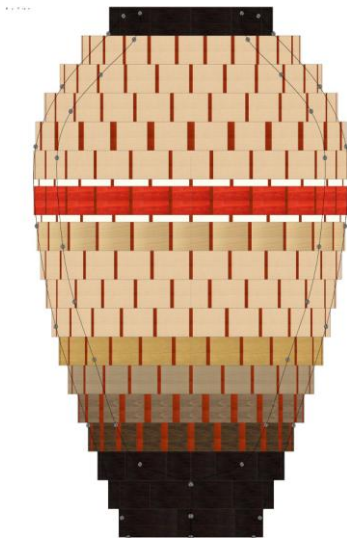
WoodTurner Pro Suite: This is a set of three programs that costs \$99 and can be downloaded directly from the Internet (<https://woodturnerpro.com/>). The suite consists of:

Lamination Pro: This is a program that helps design and cut very complex repeating patterns made up of laminated stock. The program was demonstrated at one of our previous Woodworking meetings by Joe Collins. It's a very unusual program that is comes with the Suite, is fun to play with but I have used it only sparingly.



3-D Design: This program allows you very easily construct the profile of a bowl or spindle and see it in 3-D. It's very intuitive and takes no training to use. Once the 3-D design is complete, the profile is, with one "click", exported to WoodTurner Pro.

WoodTurner Pro: This program takes the profile from 3-D and constructs a series of segmented rings needed to fit the 3-D profile. You can vary the number of rings, the number of segments and the types of wood for each ring or even each segment. Effectively it allows you to design and visualize simple to very complex segmented objects. When done, you can print out a detailed cutting guide for each ring and the type of wood needed. The learning curve for this program is minimal and gives great results.



Vase & Cutting Summary from Woodturner Pro

Cutting Summary Dark to Light Vase Large Tall Page.1

Row	Type	Segments	Board Thickness	Diameter (A)	Diameter (B)	Segment Edge Length	Vertical Spacer Width	Board Width	Economy Board Length	Miter Angle	Blade Tilt	Slope
20	Flat Ebony	12	7/8"	5-17/32" od	3-3/8" id	1-15/32"	0"	1-1/8"	15-15/16"	15°		
19	Flat Ash	24	7/8"	7-13/32" od	3-11/16" id	27/32"	1/8"	1-7/8"	17-11/16"	7.5°		
18	Flat Ash	24	7/8"	8-7/8" od	5-11/32" id	1-1/32"	1/8"	1-25/32"	22-9/16"	7.5°		
17	Flat Ash	24	7/8"	9-29/32" od	7-3/16" id	1-3/16"	1/8"	1-3/8"	27-1/16"	7.5°		
16	Flat Ash	24	7/8"	10-1/2" od	8-7/16" id	1-1/8"	1/4"	1-1/16"	26-29/32"	7.5°		
15	Flat Ash	24	7/8"	10-5/8" od	9" id	1-9/32"	1/8"	7/8"	31"	7.5°		
14	Flat Holly	24	7/32"	10-5/8" od	9-1/32" id	1-9/32"	1/8"	27/32"	31"	7.5°		
13	Flat Redheart	24	7/8"	10-5/8" od	8-29/32" id	1-9/32"	1/8"	29/32"	30-25/32"	7.5°		
12	Flat Holly	24	7/32"	10-15/32" od	8-27/32" id	1-1/4"	1/8"	27/32"	30-15/32"	7.5°		
11	Flat Maple	24	7/8"	10-13/32" od	8-5/8" id	1-1/4"	1/8"	15/16"	30-1/16"	7.5°		