

SOUTH BAY WOODWORKERS' NEWS

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President's Column

By Jay Perrine



TRACE - From Sketch to Vector in Seconds - Article Revisited

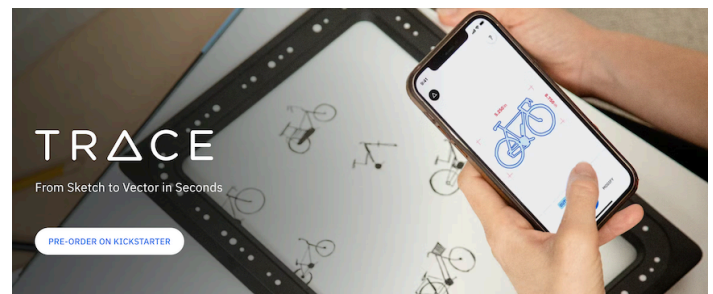
This is a reprint of last months article reedited by Steve Kelem, Allen Glessner, and Alan Kutach.

So I still think that this 'product' is really more the cutting edge of a new capability for woodworkers and other craftspeople (even wanna be craftspeople)...

The product I am talking about is called Trace by Shaper Origin (which is owned by Festool!) and is being offered on Kickstarter.com, to be delivered in the October-November 2023 timeframe.

I think this is a big breakthrough for folks who want to use CNC tools, but can't get over the hurdle of learning complex CAD (Computer Aided Design) software to turn their design concept into the SVG (Scalable Vector Graphic) files that are used to guide CNC tools. Trace promises to convert a smartphone picture of a drawing into an SVG file. You can sketch out instructions for your CNC tool, or if you don't draw well then sneak a photo of somebody else's sketch.

Let me review what I have learned so far: the physical piece looks about like an 8" x10" picture frame with no glass and no back. There is a proprietary functional design on the frame that the software recognizes for the image-to-SVG conversion. You draw something (pretty sure at this juncture it has to be line drawing or 'cartoon' in marquetry terminology) on paper, white, or even on a brown paper bag, as long as the ink you draw with contrasts well against the paper. You lay the 'frame' around it and snap a photo with your smartphone, using the Trace software app, which converts the drawing into an SVG file. You can import that file into your Shaper Origin (which is a CNC controlled hand router), or any other software or laser cutter, vinyl cutter, etc. that takes SVG design files.



<https://www.shapertools.com/en-us/Trace>

After you take the picture, you can choose whether you want to use the edges of the lines (1 mm apart if you use the supplied pen), or have Trace compute the centerline.

This makes a difference if you want to get the exact outline of the object. For example, to create a pocket to receive an antique hinge you would use a pen to hand-trace the outline of the hinge on paper and use Trace software to find the side of the line closest to the edge of the object. On a CNC router such as Shaper Origin you have the choice to cut inside the SVG line to create a pocket inside the area of the shape. I saw an example of exporting the file to a paper cutter machine and cutting out stencils with that file - so it will have uses outside of the Shaper products.

Trace will have a Smoothing tool that will allow you to clean up some lines right in the Trace app. From there you can edit it in Studio. Currently there aren't features that will quickly and easily straighten lines or circles, but you can accomplish them with Studio functions like the Make Shape and ShapeShifter tools.

So here is an immediate use for us hobby woodworkers...say we want to make a jewelry box for someone and have their initials in a contrasting wood on the lid - but if you aren't proficient in marquetry, and even if you are, you don't want to mess with creating a veneer piece to glue over the entire lid panel. You can draw the lettering you want and use Trace to make an SVG file. Then, using the Outside-the-Line function on Shaper Origin (from a veneer or fairly thin piece of stock), Shaper Origin will cut, very precisely, against the lines, as you guide the Origin approximately along the lines. Then cut a pocket about 1/16" into the lid for the letter shapes using the Inside the Line function using the Shaper Origin. Glue in and sand, as needed, until the whole lid surface is even (meaning if your

lettering was 1/4" thick sand a bit more). A 'for sure' or definite capability would be what our VP Tracie is always encouraging us to do - sign your work. It can easily take your signature and convert it to a CAD file for CNC cutting!

As I mentioned above, Trace can produce SVG files, which can be read by Vectric's CAD software, and then cut on even a large 4'x8' CNC router. So you can combine hand sketches from Trace into a larger CAD file - so, for example, a flower shape feature can be engraved into cabinets being cut on the CNC machine.

Well, time will tell if I sensed a quantum leap forward to enable those 'delaying' learning CAD to jump forward and be able to design stuff that more woodworking machines can be programmed to cut what we want and increase the creative side of project making. We can be one of the first Clubs to make good use of this new capability!

No August Meeting

It was decided by vote that there will **NOT be a meeting on August 22** since the club gathered on August 13 for the annual picnic at Bob Konigsberg's house.



September 26 Meeting
Dave Burkett
Marquetry & Inlay Projects



Meeting Location

Saratoga Federated Church
Postal Annex Building
14376 Saratoga Ave.
Saratoga, CA

Map and directions:

<https://www.southbaywoodworkers.org/>

July Program in Review

Steve Kelem gave the program entitled “Adventures in CNC”. The goal was to design and build eighteen wall and floor cabinets, two Island cabinets all for the kitchen, and a tansu cabinet for the powder room.



He brought in two sizes (8-12mm and 8-6mm) of hardware

and described how they are used to secure the frame members. The Lamello hardware requires three overlapping holes to be drilled in the horizontal frame members and an insert nut placed in the vertical member. A hex bolt engages the insert nut through the hardware drawing the two members together with a high clamping force. The hardware can be set in level with the top surface, inset with a cover plate level with the surface, or installed with the cover plate above the surface.

Steve described his CNC machine as having a 54 by 97 inch table with a phenolic top, that he is using to construct the cabinets. He uses a MDF spoiler sheet on top so he doesn't cut into the phenolic.

July Show n' Tell

Tracie Johnson shared photos of a massage table she built in 1992 when she was exploring possible career options.



Her signature and date on the underside of the table will hold some of the history of the table as it has found a new home with someone who will hopefully use it.

Mateo McCullough continues his work with carving miniatures. The mushroom is made of an unknown soft wood that has a snail sitting on top. The base is made of walnut.



His second project is a bass body he is making for a friend that is fashioned out of walnut and mahogany.



Eugene Gulko brought in one of a pair of full range guitar speakers that he made. Because the magnets are so heavy, he made the cases out of pine to reduce the weight somewhat. He used dowel joinery and upholstered the boxes with vinyl and added metal corner protectors.

2023 Program Responsibilities

If there are conflicts or need for changes, please contact **Tracie Johnson**. If you would like to select the month that you would like to present for 2024 please contact Tracie.

August 13	Picnic at Bob's House Sunday at 11:30am
September 26	Dave Burkett- Marquetry Projects
October 24	Bill Turner
November 28	Ron Gerard Dennis Yamamoto
December	
January 2024	New Years Party date to be determined

2023 Officers

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Elevator Lift at Bob's new house