Joe's Kramer's Bio:

I've enjoyed woodworking pretty much my entire life. My father had a very rudimentary woodshop when I was a child. Both of my parents encouraged creativity and working with one's hands. As I grew older, I started to build out my own woodshop in my garage. Early on, I built furniture and quickly filled my house. I decided I needed a hobby that produced "smaller" things and I needed "stuff" to put on the furniture I'd made anyway! Woodturning seemed like the next logical step. While I enjoy all kinds of woodturning, I keep returning to segmented woodturning and bowls-from-a-board. My first lathe was a Jet 12/21 so roughing out blanks was quite laborious and time consuming. I quickly discovered that segmented woodturning fascinated me and worked well with my small lathe. I find the side-grain nature of segmented woodturning to be iridescent and the forms are "pre-hollowed" & balanced out of the gate, lending to easy woodturning. Segmented woodturning also satisfies my curiosities of math, angles, calculations and assembly. My favorite three words? "Some assemble required". The added benefit? I get to use my entire shop of working tools. I find it very relaxing to design, assemble, and build the next segmented form. Now that I've invested in a larger lathe, I'm really enjoying my fascination with segmented woodturning and bowl's-from-a- board.

Demo Description:

Joe will be demonstrating several of the techniques that he's developed for his signature segmented turning work (both open-segmented and closed-segmented). Included in his demo will be:

1. Using the wedgie sled
2. Building the segmented form
3. Turning tips
4. Inserting an Irish Lace feature ring

Anybody who has seen Joe's work knows that he is a stickler for detail and perfection, so you can expect to learn a lot by hearing how Joe approaches these forms both on-and-off the lathe.

Wedgie Sled:

Below is the set up for my Wedgie sled:

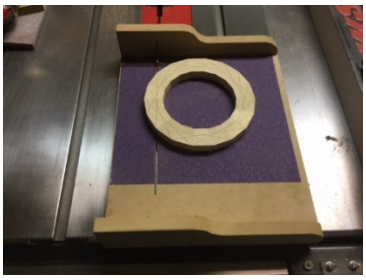
Some considerations for your sled:

- Make sure you have a zero clearance insert with a tapered insert so that your pieces fall away from the blade after cutting.
- I use a stop block as shown above affixed to my rip fence to allow the cutting of exact lengths/segments. I've seen all kinds of homemade jigs that install into the meter slot. I think this solution is the easiest and safest. Additionally, the fence serves as a barrier to keep anything on the far-right side of my table from getting near the blade
- The caliper shown in the pic is a god send. It makes marking the segment length extremely easy. I highly recommend getting one.
- The following web site will tell you all you need to know about Wedgie sleds:
    - http://www.segeasy.com/wedgies.htm

Irish Lace Feature Ring:

- Using your wedgie sled, create a segmented circle of the desired segment number. I used 16 segments. 12-16 seems like a good number. The ring should be roughly 1" or better. I have used both 1" and 1-1/4" thick rings.
- Draw lines from point to point at the desired spacing. I use every 4^{th} or 5^{th} segment. The choice is yours. If you're unsure, draw one pattern on a side then try another on the underside and see which one you like best.
- Cut slices of a complimentary wood as follows:
    - Same thickness as that of the kerf of your saw blade (in my case, 3/32")
    - The correct length based on the part of the ring you intend to cut off
    - The same thickness as the ring itself. In the case of Saturday's demo 1-1/4"

- Once you've determined your preferred layout, you will now cut off that area of the segmented circle using a shop made jig like the one pictured below:

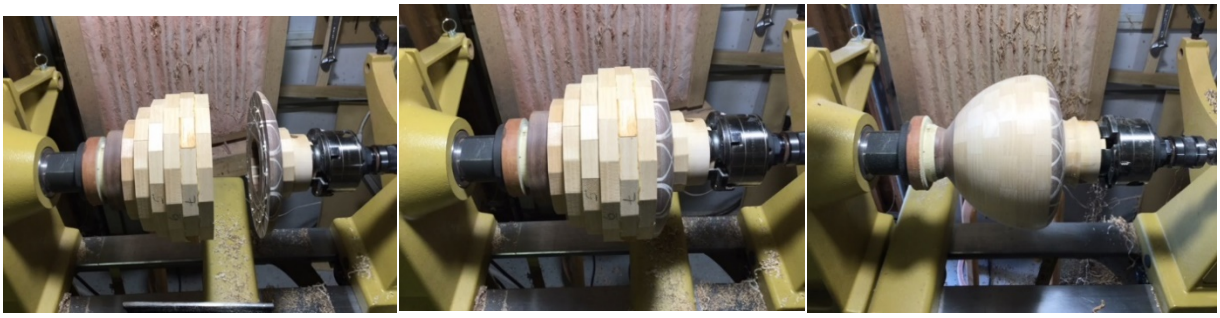


- I made a sled with a runner that fit into my table saw miter slot and covered it with 60 grit sand paper. I simply hold the piece down onto the 60 grit with the correct lines aligned to the cut. Push the ring thru. Mark one side to keep track. You will be doing two sidess at a time. You will notice that every line has a mating parallel line on the opposite side.
- Once cut, glue your accent pieces into place. I use a rubber bands to hold the ring together while the glue tacks out. Be careful as the pieces will slide around as you glue. Just insure that your wedges stay aligned until the glue tacks out.
- Continue this around the ring until all lines have been cut and assembled.

Building a Segmented Vessel:

Below is the overview of what my segmented vessel looks like during the turning process. Several nice features of segmented wood turning are:

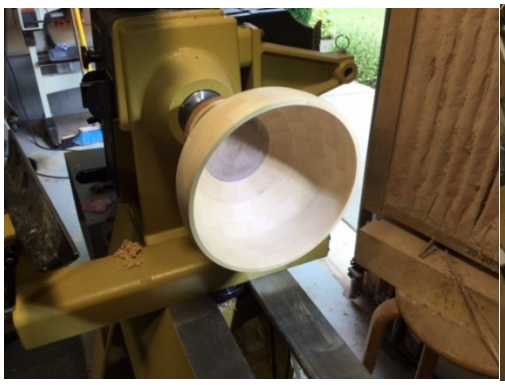
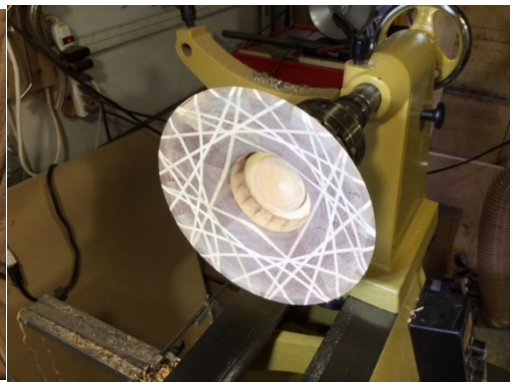
- round from the get go so they are typically well balanced
- "prehollowed" so there isn't much waste from hollowing
- all side grain so there is no end grain tear out
- since it's all side grain, it doesn't take much finish to get a beautiful end product



The following outlines the procedure:

- Assemble the rings using my centering jig as outlined at the meeting. This jig is a simple piece of MDF with indexing (concentric circles) marks on one side. No measurement required. I typically shoot for ¼" apart. I use this jig too insure that each ring is centered along the axis of the lathe, preventing any compounding of alignment mistakes as you build the vessel.
- Before removing the base, true up the outer most ring to insure there is no wobble in your last ring
- Remove Base and assemble the top (pic not shown) using the same technique as the base.

- Insure your last ring is running true like that of the base.
- Trap both between centers. (center pic) I use the Penn state live center 1”x 8 tpi with an adapter from Craftsupplies USA to get me to 1-1/4” x 8 tpi for my Powermatic lathe
- Turn the piece to the designed shape.
- Back off the tail stock and smooth out the inside of the bottom (left pic below)
- Place top on drive center and hollow out the top (right pic below). This has already been hollowed and is attached to the live center ready for gluing of the halves.

- Put base back on drive center
- Place top back on live center
- Place glue along the joint and now trap the two together to create your vessel
- Part of the top from the live center and finish the opening.
- Sand and finish to your liking