

General Laser cutter file workflow

Software Neutral

Clean up your files!

- Make sure all of your lines are only in the file once
- Even if they are not visible – if they are sitting on top of one another, the laser will read them and cut them as many times as you have lines
- Check for stray lines and eliminate all other lines from your file or start a new file.
- In Rhino – make sure text is exploded, group if necessary to move around

Sort all lines into layers. For the Epilog, the final file will be in Illustrator. So whether you are working in Rhino or Illustrator (or Autocad or something else), it's probably good to establish the following layers and colors (which must match RGB exactly for the Epilog).

1. Engrave (red) (R=255, B=0, G=0)
2. Dash (if you have any perforated lines) (Green) (R=0, B=0, G=255)
3. Cut_Inside (Blue) (R=0, B=255, G=0)
4. Cut_Outside (Blue) (R=0, B=255, G=0)

Jamieson/ Smart Carve

- Theoretically, you can import ai files or dxf files
- **In practice**, export to dxf from Illustrator or from Rhino
- Open SmartCarve
- File > New
- Import (search for dxf)
- It will come in as a group/ block
- Right Click > Scatter
- Nudge it away from the corner
- Make sure things are on the right layer – they tend to move around
- Check the order of each layer – meaning the layer you want cut first – Engrave is Priority 1, etc
- Reorder the priorities as necessary
- Check the Laser Cutter Speeds and Power
- http://blogs.umass.edu/cjbrause/files/2014/01/2016-3-20_New-LASER-Cutter-Speeds-and-Power.pdf
- Assign the correct speeds and power for your 2-4 layers based on the material you are using
- Save the smc file
- Follow directions in the lab

Epilog

- For Rhino > Export/ Save as to Illustrator
- For Illustrator Files, set to RGB (Not CMYK)
- Make sure Units are set to inches
- Set artboard exactly to 40" width and 28" height
- In Layers panel:
- Vector Lines (cut layers) MUST have the stroke weight set to 0.025pt
- Raster lines (engrave layers) MUST have the stroke weight set to greater than 0.05pt
- Follow Epilog Tutorial in lab (first part is above)
- http://blogs.umass.edu/cjbrause/files/2017/03/UMass-Epilog-Tutorial_Draft-1.pdf