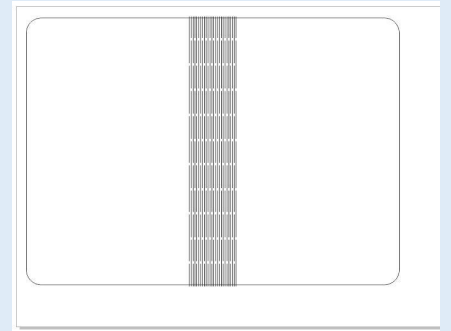
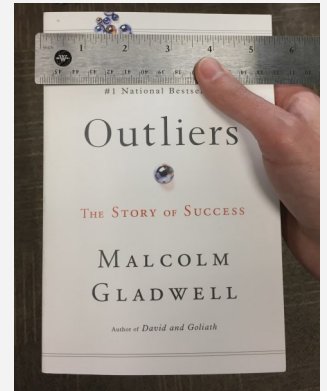


Tinker Tuesday Project - Wood Book Covers

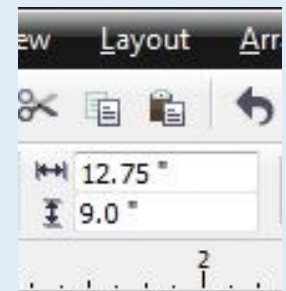
1. On the laser engraver computer, click on the folder icon on the task bar. Then, select “Thaw Space” and open the document titled “Living Hinge Template.”



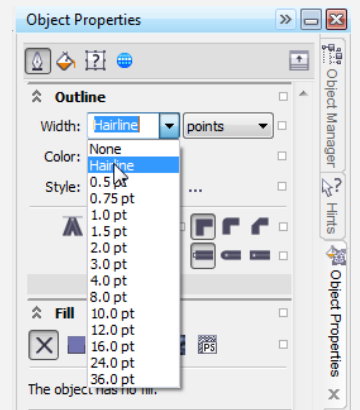
2. Measure horizontally the front, spine, and back of the book for which you are making a cover and add all of the measurements together. Also measure the cover vertically.



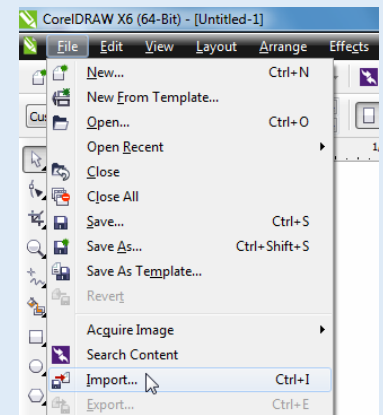
3. In CorelDraw, click the template to select it. The dimensions of the book cover outline are displayed beneath the “Layout” tab. Change the dimensions to the size you’d like your cover to be. Add between 0.75 and 1 inches to the measurements you made in step 2 in order to ensure that the cover is large enough for your book.



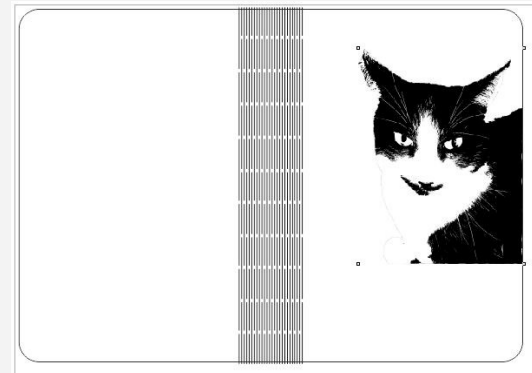
4. CorelDRAW determines which lines need to be cut by the thickness of the line. Any line set to “hairline” thickness will be cut out. To change the thickness of a line, press Alt + Enter to bring up the Object Properties menu on the right side of the page. In the area titled “Outline,” click the “Width” box and change the setting to hairline.



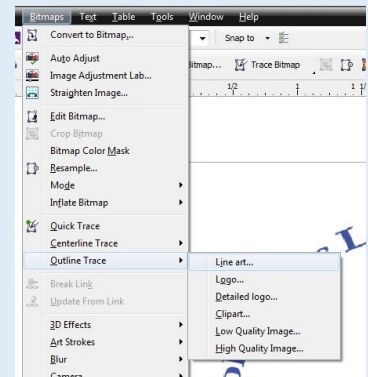
5. If you would like to engrave an image on your cover, click “File,” and then click “Import” on the resulting menu. Select an image from the computer.



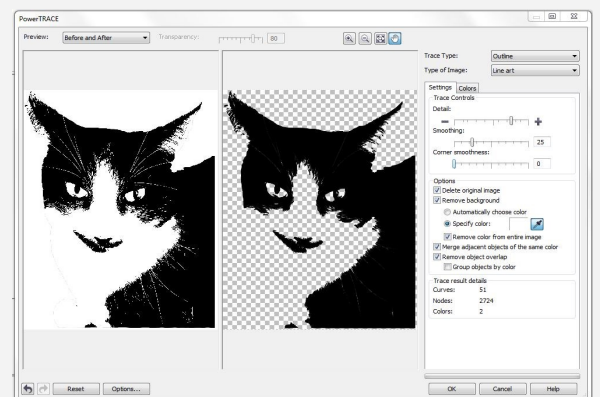
6. On your blank document, click and drag to import your image. Once your image is placed, you can click and drag any of the black squares surrounding it to resize it.



7. Though it may not look like it, your image likely has a white background behind it. This background needs to be removed. On the top menu bar, click “Bitmaps,” then “Outline Trace,” and then “Line art.”



8. CorelDRAW will now perform a “trace” of your image, leaving only the image without a background. Be sure the “Delete original image” option is checked, then click OK.



9. If it isn't already on, power on the engraver by pressing the button on right side of the machine. You'll hear the engraver start up and see the arm of the laser slowly move to its home position.



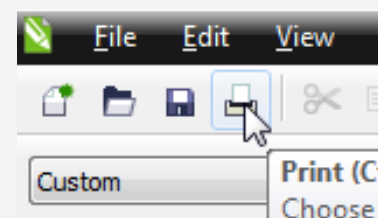
10. The interface pictured on the right is found on the top side of the engraver, toward the lower right. It is used to control the laser arm, as well as to start and stop jobs. After opening the lid of the engraver and placing your wood flush against the top right corner of the grid, press the Focus button.

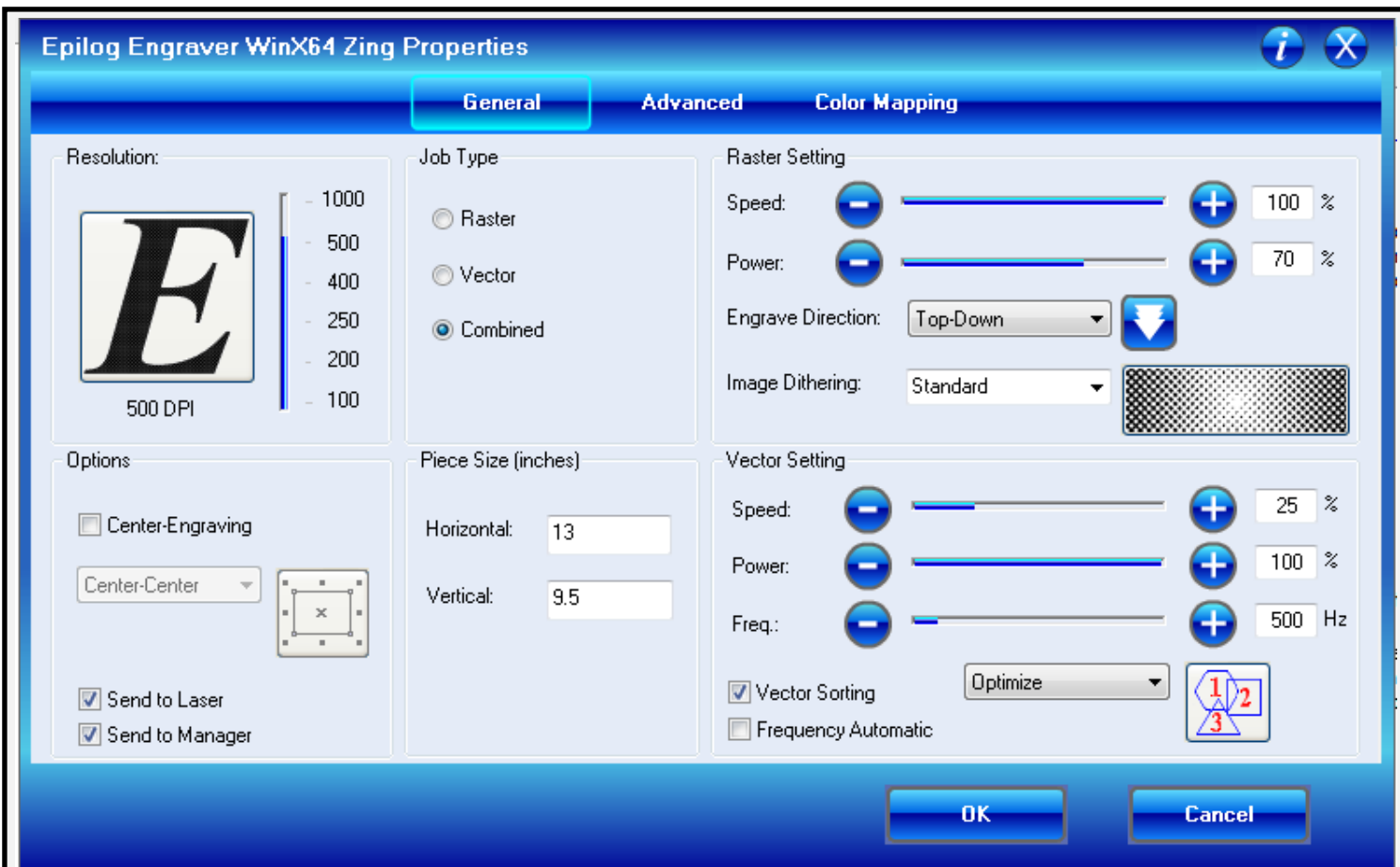


11. Release the spring attached to the arm of the laser so that it is oriented vertically. You can raise and lower the bed of the engraver as needed by using the up and down arrows on the interface pictured in the panel above. Your goal is to raise the bed to a level at which you feel a slight resistance on the spring.



12. After tucking the spring back on the laser arm, move back to the computer. Click the print icon near the top left corner of the page.





13. The Preferences menu is crucial to the engraving process, as it is where you specify all of the settings for your job. While with other engraving jobs, you may use more or fewer of the settings, for making book covers, you'll be using four:

- Job Type: Because you'll be engraving as well as cutting out your cover, select "Combined." "Vector" is for cutting objects, "Raster" is for engraving them, and "Combined" is for both engraving and cutting.

- Piece Size: In most cases, the dimensions you set here will need to match the size of your CorelDRAW document. If your document is 13x9.5, set your horizontal measurement to 13 and your vertical measurement to 9.5.

- Raster Setting: The speed setting determines how quickly the laser arm moves back and forth as it engraves, and the power setting determines the amount of laser power that is applied to the material. The settings you use should use depend entirely upon the type of material you are using. For engraving an image on wood, set the speed slider to 100 and the power slider to 70.

- Vector Setting: As with the raster settings, the settings you should use depend entirely upon the type of material you are using. For cutting a living hinge in eighth inch thick wood, set the speed slider to 25 and the power slider to 100. Set the frequency slider to 500.

Once you have adjusted all the necessary settings, click the "OK" button. On the resulting menu that appears, click "Print."

14. Turn on the vent switch on the bottom half of the engraver. When the vent is on, you should see a small green light on both the switch and next to the green check mark to the right of the switch. If you see the yellow or red light on, DO NOT engrave; notify a library staff member.



15. On the interface on top of the engraver, you should see the name of your file appear in display window next to the word "job." Press the green Go button to begin engraving.



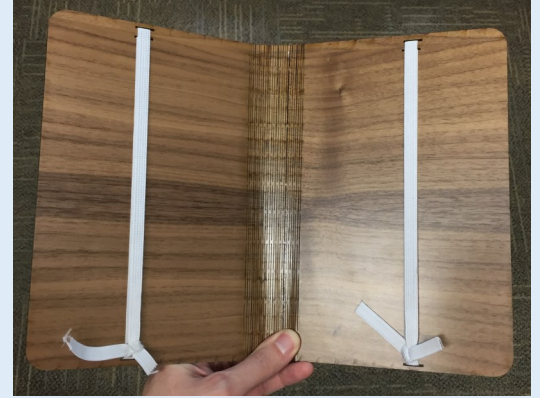
16. Depending on the size and complexity of your design, the engraving process can take anywhere from a few seconds to an hour or more. Cutting a book cover out of wood can be done in 10 to 15 minutes. Please wait by the engraver and keep an eye on the progress of your job so that you may stop the machine or notify a library staff member if you notice problems.



17. When the engraver is finished with your job, you will hear a beeping sound. It is then safe to turn off the vent, open the lid of the machine, and remove your engraved object.



18. You'll need to thread material through the holes on the front and back sides of your cover and tie them on the inside in order to hold your book in place. We recommend elastic. Whichever material you use, leave as little slack as possible.



19. Carefully guide the covers of your book or journal underneath the elastic bands. You now have a functioning book cover that can be repurposed again and again!

