

Creating Complex Cut Lines for the Roland BN-20 Vinyl Printer / Cutter

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The BN-20 is a high quality ink-jet printer with a knife blade for cutting vinyl. Depending on the material used, it can print posters, stickers, and heat transfer vinyl for making T-shirts.

The BN-20 interprets a very thin (0.25 point) Magenta line as a cut line. Any other colors or line width will be printed. This document describes how you import an image file (JPG, PNG, BMP, etc) and create a cut line along the *outside* of the image.

1. Open Adobe Illustrator.
2. Click on File, pull-down and select New.
3. Set units to Inches, set width and height as desired, set orientation to portrait or landscape, set mode to RGB, then click the Create button. This creates the art board.
4. Click on View, pull-down to Rulers, select Show Rulers. The rulers should appear on the sides of the art board. These will help you size the image for cutting and/or etching.
5. Click on File, pull-down and select Open. Browse to and select file. Click the Open button.
6. If necessary, use the selection tool (*black arrow pointer*) to select the image and move it to the center of the art board.
7. If necessary to resize the image:
 1. Click on Select and pull-down to All
 2. In the Properties tab(right side), in the Transform box, set the height (H) or width (W) to the desired size. If the “chain” icon is shown, the width and height proportions will be maintained.
8. Click on Effect, pull-down and click on Rasterize. Set the Mode to RGB and the Resolution to High (300 DPI).
9. Click on Select, pull-down to All.
10. Press Control-C to Copy the image
11. Press Control-V to Paste.
12. Use the selection tool (*black arrow pointer*) to drag the copy to left of original.
13. Click on Window, pull-down to Swatch Library, Select Roland VersaWorks. Move the window off to one side.
14. Click on Window, pull-down and select Image Trace. Move that window off to one side.
15. Working on the copy:
 1. In the Image Trace window, check the Preview box, pull down to display Outlines.
 2. Adjust the slider until the desired outline appears.
 3. Uncheck the Preview box, then press the Trace Button.
 4. In the Properties tab, under Pathfinder, click on Unite (*first icon showing 2 solid squares*).
 5. Click on Select, pull-down to All.
 6. Click on the Fill color icon (top) and set to none (box with red slash).
 7. Click on the Stroke color icon (bottom).

8. In the Roland VersaWorks window, click on the magenta color (the first color box) to set the Stroke color.
9. Set the stroke size to 0.25 pt. This is very important.
10. Click on the selector tool (*black arrow pointer*).
11. Click on the art board outside the image. The blue outline should turn magenta. These lines will be cut by the printer's knife blade.
16. Should you have lines that you do not wish to be cut, delete them as follows:
 1. Click on the Direct Selection tool (*solid white arrow pointer*).
 2. Click on the line (path) not to be cut.
 3. Press the backspace key to delete. You may need to press the key twice.
 4. Repeat as needed. NOTE: It may be quicker to create a selection rectangle to select and delete multiple lines.
17. Click on File, pull-down to Save As. Save the file under a new name.
18. Click on File, pull-down to Print.
19. Verify Printer is set to VersaWorks (BN-20)
20. Check Ignore Art Boards, set Media Size to Custom. Click the Print button.
21. Minimize Illustrator.

Open the VersaWorks program by clicking on its icon in the bottom Windows taskbar. Should you receive the message "Program is already running", stop the program using the Task Manager:

1. Right click in an empty section of the taskbar and select Task Manager.
2. Scroll down the list of tasks and select VersaWorks.
3. Click End Task.
4. Open the VersaWorks program and proceed.