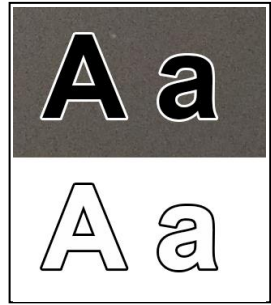



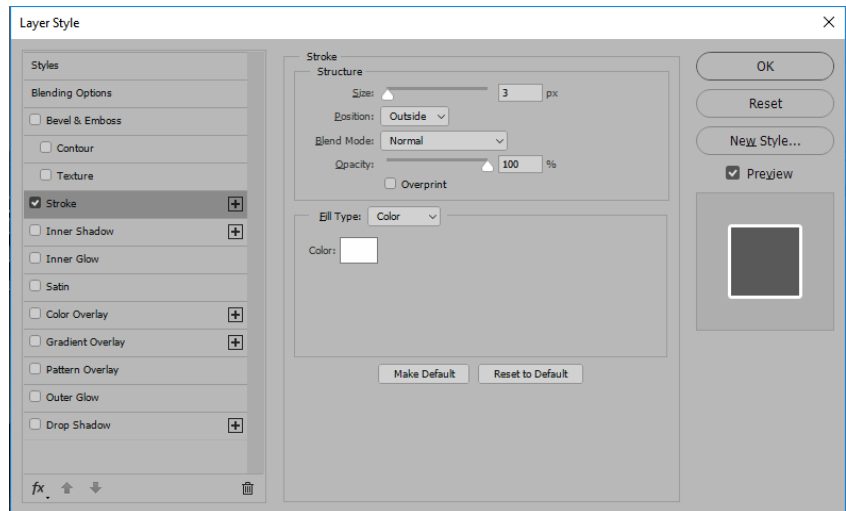
Occasionally you will want to create a narrow, high contrast border around text and/or arrows to help them be more visible against a busy background. This tip was discovered many years ago while reading one of the “Dummies” books about Photoshop. As different software versions of Photoshop have been released, the steps to achieve this affect have changed. This handout uses the most recent version of Photoshop CC.



Often a black letter on a light colored background, or a white letter on a dark background, is sufficient contrast. This tip can be particularly useful if you are labelling several different types of images in a single figure or with multiple figures in the same paper where you want to keep the letters all the same color.

To achieve the affect shown here, follow these steps:

- a. Open your image (or figure) in Photoshop
- b. Using Photoshop’s text tool, place a text letter on your image. Photoshop will automatically create a new layer for your text.
- c. Using the move tool , move your label to where you want it placed on the image (*to do this you must have this letter’s text layer selected in the layers palette*). If you are lining up multiple text labels, you are encouraged to use Photoshop’s guides to line up the labels at consistent distances from the edges of the images.
- d. With the text layer selected in the layers palette, click the layers palette’s menu icon (looks like four stacked horizontal lines in the upper right hand corner). Choose “Blending Options”.
- e. In the LAYER STYLE dialog box check the box for the “Stroke” menu item and click on that item to highlight it, as well. This makes the options available in the middle window pane.
- f. For the text highlight you don’t want to get too fancy. The size of the stroke (the contrasting color outline) should be just a few pixels wide (*somewhere in the range of 3-5 pixels, with four pixels being approximately one point, or 1/72 of an inch in thickness, assuming 300dpi*). You want the position to be “Outside”, with normal blending and 100% opacity for best contrast. Select the color to be the opposite of the text letter color (either white or black).
- g. Click OK and you will have your highlight.
- h. In the text layer you should now see an Effect and the Stroke below that. If you want the effect to turn off, you can un-click the eye icon next to the word effect.
- i. Once you have done this once, you can quickly apply the same affect to all your text layers. Right-click on your highlighted text layer and choose “Copy Layer Style”. You can then right-click on the layers that need this and choose “Paste Layer Style”.



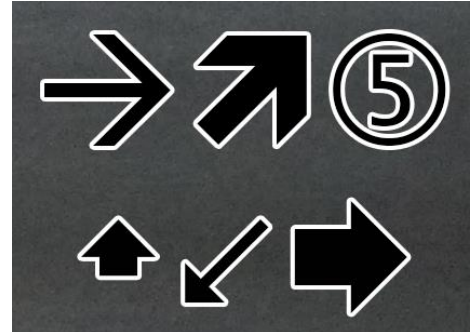
Photoshop - Layer Style dialog box

Adding a stroke to Arrows


Photoshop provides a nice way to add arrows to figures using the Line tool. With this tool selected you can choose to put the arrowheads at the beginning or end of the line being drawn (use the gear menu when the Line tool is selected). There is even an option to add a stroke to the lines drawn (or you can use the same techniques listed above once you have the line drawn).

While this tool is useful, sometimes it can be preferable to use the arrows found in symbol fonts (sometimes called dingbat fonts). You may need several different types of arrows to point out features of interest. You most likely have some symbol fonts on your computer already (e.g., Symbol, Wingdings, Webdings). Many symbol fonts have arrows, or other useful symbols in them (including Greek letters).

To add a narrow white border to an arrow or symbol requires a few additional steps. In addition to Photoshop, you will need to open either the Windows Character Map Utility (usually found in the accessories group) or the Character viewer* (MacOS). In the character map/ viewer select a symbol font. Find an appropriate character, click on it, press the COPY button and then go to Photoshop. In Photoshop add a text layer and select the symbol font where you found the character. You should be able to paste the character into the text.



Top row – Wingdings
Bottom row – Wingdings 3

- Follow steps listed above for highlighting letters.
- To rotate the arrow to the desired angle (so that it points at your object of interest), select the text layer in the layers palette, go to the menu bar and select EDIT, TRANSFORM, ROTATE. A group of “handles” will form around the arrow symbol and the cursor will change to look like a curved, double headed arrow.
- To rotate your arrow symbol, hold the left mouse button down and move the cursor around the symbol until it is pointing in the direction that you want.
- When you are done with rotating the arrow symbol, press the enter key.
- If you need to move the arrow use the move tool .

* MacOS users: <https://support.apple.com/en-us/HT201586> or <http://sites.psu.edu/symbolcodes/mac/charview/>

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