

AdobeSM Customer Services

Working with Type in Adobe Photoshop

To work effectively with type in Adobe Photoshop, it helps to understand a few fundamental concepts.

Pixels are small squares that make up a digital image; an object defined by pixels is called a *bitmap*. Type in Photoshop does not look as sharp as type printed from a vector-based application, such as Adobe Illustrator™, because Photoshop is a pixel-based application that generates bitmapped type at the resolution of the image. In contrast, vector-based applications generate type as mathematically described outlines that can be scaled and manipulated independently of the image resolution.

To improve the way fonts are displayed on-screen, make sure that you have installed the Adobe Type Manager™ (ATM™) software included with Adobe Photoshop. ATM *rasterizes*, or creates bitmap versions of, PostScript™ language outline fonts. Therefore, you must install outline fonts on your Macintosh for the best display and printed results. For Windows™, the fonts must be stored in the PSFONTS directory as both .PFM and .PFB files. If type in Photoshop appears extremely blocky on-screen, ATM is probably not installed or is installed incorrectly. See the *Adobe Photoshop Getting Started* guide for information on installing and using ATM.

The image resolution is defined by the pixels per inch (ppi). In Photoshop, image resolution determines the highest resolution at which an image can be displayed or printed. If your image resolution is 72 ppi, the image will print at a resolution of 72 dots per inch (dpi) on a printer, even if the printer can print at 2540 dpi.

Continuous-tone images, such as photographs, don't need a high image resolution to look good when printed. This is because the images are typically halftoned when printed. Halftoning simulates the gray values with screens of small dots. Continuous-tone images need an image resolution about twice as large as the line screen used to print the images (for example, 300 ppi for an image printed with a halftone screen of 150 lines per inch).

To produce type with sharp edges, however, the image resolution must be significantly higher. Type is usually not halftoned. In a pixel-based application like Photoshop, the sharp edges of type must be reproduced pixel by pixel. To produce type in Photoshop with the sharpness of a 2540-dpi printer, the image containing the type would need to have a resolution of 2540 ppi. However, a 2540-ppi image would create an enormous file that would be difficult, if not impossible, to edit and print.

One way to achieve type with sharp edges in Adobe Photoshop is to use the Anti-aliased option in the type tool options dialog box. Turning on this option blurs the edges of type and minimizes the *pixelization* of the type, making it appear sharper and less jagged.

To achieve the best-looking type, you should create type in a vector-based application such as Adobe Illustrator. If you have a continuous-tone image to which you want to add type, you can import the image into Illustrator and then add the type using Illustrator's tools. You can also place type created in Illustrator into your Photoshop image. Creating type in Illustrator gives you much more flexibility and control.