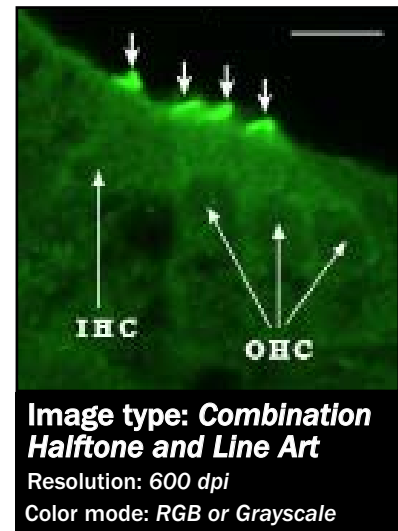
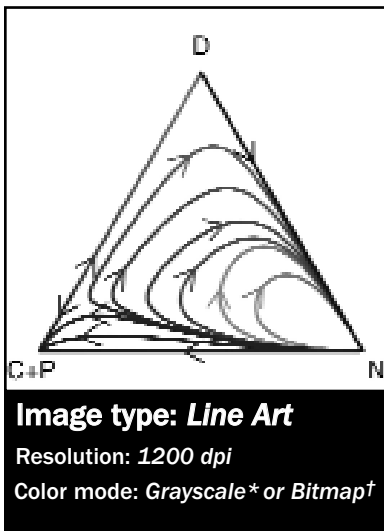


Digital Art Guidelines for Print Figures

Submitting digital art at the appropriate resolution, in the proper color mode, and in one of the acceptable file formats is important and helps to avoid possible publication delays and to maximize the effectiveness of figures in the printed journal. Please refer to this guide when preparing digital art.

Image type, Resolution, and Color Mode

High resolution images are not all the same; an adequate resolution for one type of image may be unsatisfactory for another. Generally, there are three different types of artwork: line art, halftone images, and combination halftone and line art images. Their respective minimum resolutions and color mode requirements are shown in the examples below.



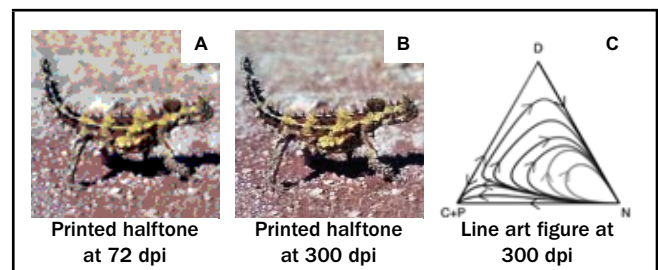
* **Grayscale** refers to an image containing varying tones stepped from black to white.

† **Bitmap** in this instance refers to a color mode, not to bmp files, which are unacceptable for print reproduction.

‡ **RGB (red, green, and blue)** All color figures submitted for print must be in this color mode. Your figures will be converted to **CMYK (cyan, magenta, yellow, and black)** for print publication and a significant color shift may occur.

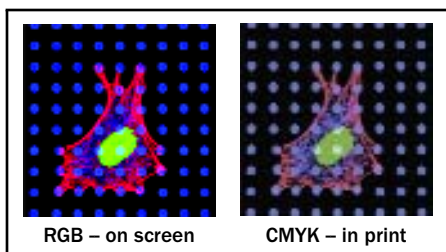
Problems with Improper Resolution

Figures downloaded from the Internet are not acceptable for print publication because the resolution is too low (usually 72 dpi). In the example on the right, panel A shows a graphic downloaded from the web and the resulting distortion if it were to appear in print. Panel B shows the same figure at 300 dpi, the correct resolution for print. Although 300 dpi is sufficient for halftone images, line art (Panel C) printed at the same resolution is distorted; therefore, a resolution of 1200 dpi or higher is required for line art clarity.



If the figures you submit are not at the correct resolution, you will be asked to supply new ones; this may cause delays in the publication of your paper.

RGB to CMYK Color Shift – From Dynamic to Dull



The example at left shows the RGB/CMYK color shift. The color shift is not always as dramatic as it appears in the example. Your RGB files will be converted to CMYK for publication in the print journal. Please note that since the RGB color space is capable of producing many more colors than the CMYK (ink-based) color space, there is no way to achieve certain fluorescent shades in print.

PowerPoint Disclaimer

Figures submitted in PowerPoint may take additional time to process and may cause delays in publication; therefore, we do not recommend submitting figures in PowerPoint. PowerPoint lacks the capacity for failsafe management of fonts and for seamless cross-platform (Mac/PC) file usage – fonts may change or disappear without any warning. As a result, PowerPoint images may not reproduce with sufficient accuracy or quality. If you submit figures in PowerPoint, use only basic PowerPoint fonts, do not draw lines that are less than 0.25 points thick, and use shaded color fills instead of “pattern” fills. Images imported into PowerPoint should have a resolution of at least 600 dpi.

Font Size

Please make sure that all type in your figures will be no smaller than 6 points when reduced to final size.

More Information

For more information on creating digital art, please see the Cadmus Communications Digital Art website at <http://cjs.cadmus.com/da/index.asp>.