Digital Art Guidelines

eon editorial office news

To publish the figures in your article with the highest quality, it is important to submit digital art that conforms to the appropriate resolution, size, color mode, and file format. Authors who do not comply with these guidelines will be asked to resubmit their figures in a print-quality format, which may delay publication.

Sizing and preparation: Submit figures at their final publication size; do not scale figures. Size individual figures or vertically stacked figures at 1 column width. Size side-by-side figures at 2-column width. (See the table to the right.) The height of all figures must be less than or equal to 9.25" / 23.5 cm / 55.5 picas.

Columns	Inches	Centimeters	Picas
1	3.33	8.5	20
2	7	17.5	41.5

Font Usage: For text within the figures, please use the same font for all figures in your manuscript, and use a standard font such as Arial, Helvetica, Times, Symbol, Mathematical Pi, and European Pi. Do not use varying letter type sizes within a single figure; use the same size or similar sizes throughout. The preferred font size is 8 points; the minimum font size is 6 points.

Two categories of Digital Artwork:
- **Raster Images** (i.e. pixel-based; also called bitmapped images; TIF and JPG files support only raster data) or
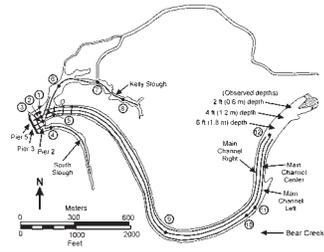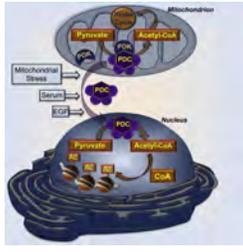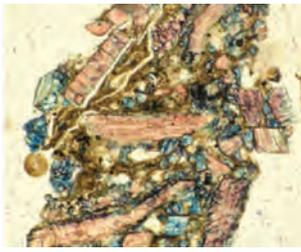- **Vector Images** (i.e. object-based; EPS, AI, and PDF files support both vector and raster data.)

Vector images are preferred because they have the highest quality and produce the best results in publication. See page 2 for more information on vector images.

Resolution and Raster Images: Low-resolution raster images are one of the leading causes of art resubmission and schedule delays. Submitted raster (i.e. pixel-based) images must meet the minimum resolution requirements. Raster images can be classified as monochrome (line-art), halftone, or combination halftone. TIF or PNG file formats are preferred for raster-only images.

- **Monochrome (1-bit) images (line-art):** Common examples are graphs and charts made of solid black and white, with no gray or color values. The suggested minimum resolution for this type of image is 1000 ppi at publication size.
- **Combination Halftones:** Common examples are color or grayscale figures containing halftone and line art elements. The suggested minimum resolution for this type of image is 600 ppi at publication size.
- **Halftones:** Common examples are color or grayscale figures containing pictures only, with no text or line art. The suggested minimum resolution for this type of image is 300 ppi at publication size.

Monochrome (line-art)	**Combination Halftones** (grayscale or color images **with** text or line-art)	**Halftones** (grayscale or color images with **no** text or line-art)
1000 ppi at publication size	**600 ppi at publication size**	**300 ppi at publication size**

Color Mode: All color image files must be submitted in their original RGB color. To ensure accurate color in publication when you work with raster images, it is best to use an application that supports ICC profiles, such as Adobe Photoshop. Whatever application you use, be sure to always embed the originating ICC profile when saving the file. This is usually the default behavior - for example, this screen shot is from the Save As... dialog box in Photoshop. The box to embed the ICC profile is checked by default, just be sure to leave the box checked. If you are using a different application, please check the documentation to be sure you are properly embedding the ICC profiles.

Vector Graphics: Vector images are typically generated using drawing or illustration programs (e.g., Adobe Illustrator) and are composed of mathematically defined geometric shapes - lines, objects, and fills. Vector graphics are resolution independent and can be enlarged to any size without quality loss.

- **Vector line art:** Common examples are graphs and charts created in illustration programs. It is preferable to have these saved as EPS files, with all fonts embedded or converted to outlines, and graph lines at least 0.25 points thick.
- **Combination line/halftone:** Common examples are color or grayscale figures containing halftone and line art elements. The halftone elements should be processed in Photoshop and the line elements in Illustrator, and the two elements from the two applications should be combined in Illustrator. It is preferable to have these saved as EPS files, with all fonts embedded or converted to outlines, and graph lines at least 0.25 points thick.
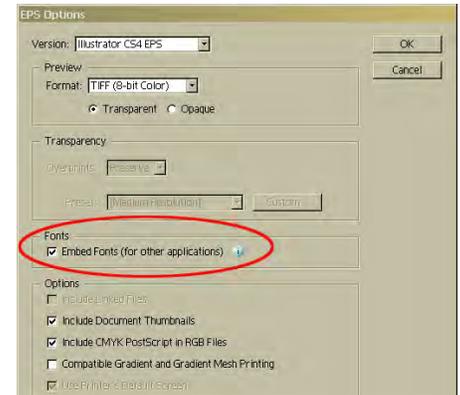
Microsoft Office: Figures submitted in Word, Excel, or PowerPoint are acceptable but should be avoided if possible. If MS Office is your only choice, please follow these general rules to ensure that the file is properly prepared:

1. Do not use pattern or textured fills in graphics. Instead, use solid fills or percentage screens: these will be effectively maintained as vector data during file conversion. **Note:** A 20% difference in percent screens is most effective for differentiation.
2. Artwork placed within any MS Office application should be of acceptable minimum resolution for print production: 300 ppi for halftones, 600-900 ppi for combinations, and 1000-1200 ppi for line art.
3. When inserting pictures/images into files, be sure to select "insert" rather than "insert link." The latter will not properly embed the high-resolution image into the MS Office file.
4. For each and every file created in MS Office, **before** saving the file, choose File>Options>Advanced and check the box labeled "Do not compress images in file." (This will help ensure that high resolution is maintained.)
5. Always embed fonts in your documents. See the guidelines below for embedding fonts in MS Office documents.

Embedding Fonts in MS Office:
- From the file menu, select Save As...
- From the **Tools** menu, select **Save Options...**, then check the **Embed Fonts in the file** box as shown below. These screen shots are from MS Office 2007 for Windows. If you are using a different version, these boxes may look different, but the instructions above should suffice.