

CREATING DIGITAL ARTWORK

Digital artwork can take several forms: photographs, charts, graphs, diagrams, radiograph, OR any scanned versions of these types of artwork. These guidelines are designed to help you create artwork with a camera, scanner, or any piece of imaging software so that it is at the quality required for print and online publication in a journal.

Creating Digital Art

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DETERMINING ARTWORK TYPE

Before beginning to create new artwork or preparing existing artwork for print, determine which type of artwork you have, and then take the appropriate steps to prepare for submission.

1. **Images downloaded from the Internet, from a digital repository (stock images) or other file archive.** There is no way to improve files from the internet, from digital repositories or file archives. Resolution is set when digital artwork is first created. If the quality is poor to begin with, there is no way to correct it. Do nothing further with the file: submit as-is.
2. **Scanned image.** Follow Option 1.
3. **Diagrams, drawings or graphs (line art) from digital file.** Follow Option 2.
4. **Halftone Art (photo/non-vector illustration) from digital file.** Follow Option 3.

Every piece of artwork should be submitted as a **separate file**. Artwork should not be included in the text file of the manuscript.

OPTION 1: SCANNING

- Remember, the key is to set your resolutions and file-type settings on your scanner or camera **BEFORE** creating/scanning the image.
- Only scan if a digital copy of the art is not available.
- Determine your file type (see terms section):

For **diagrams, drawings and graphs** (images composed mostly of lines):

- Set the resolution to at least **1200 dpi** (dots per inch, a measure of printing resolution) at 100% the image size.
- Set a font size greater than 6.
- If your image is smaller than the desired output, increase the percentage to achieve the desired size.
- If device does not allow resolution choices, set image size to **400%** greater than desired print size.

For **photographs, radiographs and other halftone images**:

- Set the resolution to at least **300 dpi** at 100% of image size.
- If your image is smaller than the desired output, increase the percentage to achieve the desired size.
- If device does not allow resolution choices, set image size to **24%** greater than desired print size.

For **photographs and radiographs with text**:

- Set the resolution to at least **600 dpi** at 100% of image size.
- If your image is smaller than the desired output, increase the percentage to achieve the desired size.
- If device does not allow resolution choices, set image size to **200%** greater than desired print size.

- Crop with the following in mind:
 - Crop (or black out) any **patient identifiers**.
 - Crop unwanted text or art.
 - Crop excessive white space.

- Once the scan is complete, **save each piece of artwork separately** as a **TIFF, EPS, or PDF***.

OPTION 2: DIAGRAMS, DRAWINGS OR GRAPHS (LINE ART) FROM DIGITAL FILE

- Shading is acceptable, but do not use pattern fills within MS Office as they result in poor print quality.

If created in **MS Office** simply save as an Office document and submit the file.

If created in a **design program** such as Illustrator, save as an EPS or PDF* and submit the file.

- If you are unsure about creating the postscript file, send the native application file. Make sure all fonts and imported images are included.

If using **specialty software**, pick from the following options:

- Save/export file as EPS or PDF if the programs allows. (see Creating Print-Ready PDFs)
- If you have Adobe Acrobat Professional installed, print to file using Acrobat as your printer option to create a PDF*.
- If neither of the above options is available, print the art to your office or desktop computer. Then scan the printed art using the steps in Option 1.

OPTION 3: HALFTONE ART (PHOTO/NON-VECTOR ILLUSTRATION) FROM DIGITAL FILE

- If your image is already a TIFF, EPS, JPEG, or PDF do not do anything. Send the file as is.

CREATING PRINT-READY PDFS

*LWW accepts images saved in PDF format, but the PDFs must be saved using print quality settings. PDF writers other than Adobe Acrobat Professional will not produce a print-quality PDF.

- When creating a PDF using Adobe PDF (printer) or Acrobat Distiller, use the “Press Quality” or “High Quality Print” Adobe PDF Setting.
- From Illustrator, InDesign or Photoshop make sure your document adheres to the criteria listed in options 1-3 before saving as a PDF. Do not downsample (make the image smaller by removing pixels).

SUBMITTING YOUR ARTWORK

Every journal publishes customized guidelines for submission. Please visit the journal web site and locate the Instructions for Authors to determine the preferred submission method. Keep the following in mind:

- Submit figures to the journal according to the Instructions for Authors/Author Guidelines.
- Compressing figures into one ZIP file speeds submission uploading process.
- Multi-panel figures (A, B, C, etc.) should be clearly labeled according to journal style.

TERMINOLOGY

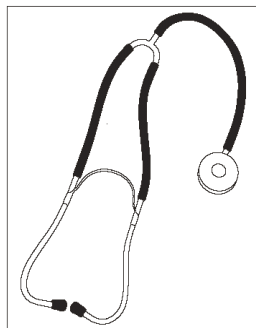
- **Black and White (Grayscale) / Color Artwork** – an image with variations of tone including photographs, radiographs and scanned images, these images should be scanned with a resolution of at least 300 dpi.

Example:



- **Grayscale** – any black and white image that is not line-art, or in tech talk, a strip of standard gray tones ranging from white to black.
- **Line Art** – purely black and white figures, these images should be scanned with a resolution of at least 1200 dpi.

Example:



- **Resolution** - on printed media, it is the number of dots per inch; on a video monitor, it is the number of pixels per unit of measurement - in general, the higher the dpi, the sharper the image.
- **Zip File** – one file that contains one or more files that have been compressed or stored, creating a zip file with the files of your manuscript is an easy way to upload numerous files to a submission site, an FTP site, or to simply Email multiple files.