

## Elsevier Science Author Artwork

### Help us to reproduce your artwork to the highest possible standards – in both paper and digital formats

Submitting your illustrations, pictures, tables and other artwork in an electronic format helps us to produce your work to the best possible standards, ensuring accuracy, clarity and a high level of detail. This site shows how to prepare your artwork for electronic submission and includes: common problems, suggestions on how to ensure the best results, and guidelines for popular applications. See the links under Application Guidelines for details about using specific artwork software for Windows and Macintosh platforms.

### Checklist

Before you send us your artwork, make sure you can answer 'yes' to the following:

- My files are in the correct format - TIFF, EPS or MS Office format. See [File Formats](#).
- The physical dimensions of the artwork match the dimensions of the journal I am submitting to.
- The lettering used in the artwork does not vary too much in size. See [Sizing of Artwork](#).
- I have used the recommended naming conventions. See [File Naming](#).
- My artwork has been prepared for a reduction in size of at most 50%.

If you are delivering your artwork on disk:

- All illustrations are provided as separate files and as hardcopy on separate sheets.
- Artwork is numbered according to its sequence in the text.
- Figures, schemes and plates have captions. I have provided these captions on a separate sheet with the manuscript and have referred to them in the text.
- I have specified the preferred magnification factor of my artwork on the sheet with filenames that accompany the disk.
- My artwork is on a 3.25 disk, or CD-ROM, ZIP disk or JAZ disk. See [acceptable Media](#).

## File Formats

**Elsevier Science accept the following file formats.**

### EPS

**Note:** Virtually all common artwork creation software is capable of saving files as EPS, this 'option' can normally be found under 'the 'Save As...' or 'Export...' commands in the 'File' menu.

For vector graphics EPS (Encapsulated PostScript) files are the preferred format as long as they are provided in accordance with some common rules:

- when they contain bitmap images, the bitmaps are of a good resolution
- when colour is involved, it should be encoded as RGB. Note that for a number of Elsevier Health Science journals there is a preference to receive colour images in CMYK, click [here](#) to view the list.

- they should always include an 8-bit preview/header at a resolution of 72dpi
- always include/embed fonts and only use the following in your artwork: Arial, Courier, Helvetica, Times, Symbol

### **TIFF**

**Note:** Virtually all common artwork creation software is capable of saving files as TIFF, this 'option' can normally be found under 'the 'Save As...' or 'Export...' commands in the 'File' menu.

TIFF (Tagged Image File Format) is the recommended file format for bitmap, greyscale and colour images. TIFF supports several good compression schemes ensuring filesizes are kept to a minimum to aid easy file transfer.

Ensure that files are supplied at the correct resolution:

- line artwork = minimum of 1000dpi
- halftone artwork = minimum of 300dpi
- combination artwork (line/tone) = minimum of 500dpi

### **MS Office (Word, Excel, Powerpoint figures)**

Microsoft® Office is essentially a family of applications that can be used to produce a variety of document types including written documents, spreadsheets, presentations and databases. We are aware that a number of authors already (for convenience) submit their artwork in common MS formats and therefore we will continue to support these submission types now and in the future.

- Take care to ensure that any artwork placed into MS Office applications is at the appropriate, minimum, resolution: 300 dpi for halftones, 500 dpi for combinations (line art and halftone together) and 1000 dpi for line art.
- Do not reduce or enlarge any images after placement in an MS Office application as this can lead to loss of image quality.
- If possible, ensure that you use only truetype fonts. These should preferably be in one, or a combination, of the following fonts: Arial, Courier, Helvetica, Symbol, Times.

For more information on MS Office visit the Office homepage at <http://www.microsoft.com/office>

### **File naming**

To enable Elsevier Science to easily identify author source files in terms of figure number and format please ensure this information is present in the filename. Some examples are given below:

- fig1.tif - figure 1 in TIFF format
- scheme10.eps - scheme10 in EPS format

Always ensure that the file extension is present to ensure quick and easy format identification.

### **Font information**

To ensure that the final, published version (in print and online) matches your electronic file as closely as possible make sure that you only use the following fonts in the creation of your artwork:

- Arial
- Courier
- Helvetica
- Symbol
- Times

**Note:** when your artwork contains non-Elsevier Science standard fonts, Elsevier Science will substitute these fonts to an Elsevier Science standard font, which may lead to missing symbols.

## Acceptable media

Elsevier Science presently accept electronic data from authors on the following media types:

- 3<sup>1/2</sup>" floppy disk
- CD
- Zip disk
- Jaz disk

In addition, for an increasing number of journals, electronic submission of author files may be possible. Please visit the relevant journal homepages in the [Author Gateway](#) to check availability.

## Sizing of artwork

The aim of Elsevier Science is to have a uniform look for all artwork contained in one article. It is important to be aware of the journal style as some of our publications have special instructions beyond the common guidelines given here.

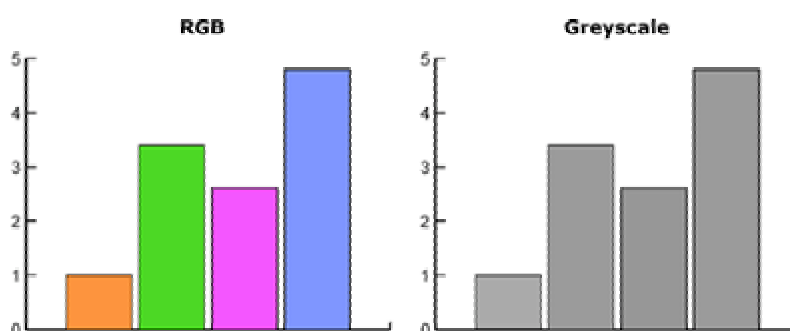
- As a general rule the lettering on the artwork should have a finished, printed size of 7 pt for normal text and not smaller than 6 pt for subscript and superscript characters. Smaller lettering will yield hardly legible text. This is a rule-of-thumb rather than a strict rule. There are instances where other factors in the artwork. For example, tints and shadings dictate a finished size of perhaps 10 pt.
- When deciding on the size of a line art graphic, in addition to the lettering there are several other factors to assess. These all have a bearing on the reproducibility/readability of the final artwork. Tints and shadings have to be printable at finished size. All relevant detail in the illustration, the graph symbols (squares, triangles, circles, etc.) and a key to the diagram (to explain the explanation of the graph symbols used) must be discernible.
- Sizing halftones (photographs, micrographs, etc.) can normally give more problems than line art. It is at times difficult to know what an author is trying to emphasise on a photograph, so you can help us by identifying the important parts of the image for us, perhaps by highlighting areas on a photocopy. The best advice that we give to our graphics suppliers therefore is to not over-reduce halftones. They should pay attention to magnification factors or scale bars on the artwork and compare them with the details inside. If the set of artwork contains more than one halftone, again make sure that there is consistency in size between similar diagrams.
- Halftone/line art combinations are difficult to size, as factors for one may be detrimental for the other part. In these cases the author can help out by suggesting an appropriate final

size for the combination.

## RGB/Greyscale

Images supplied in colour will sometimes only appear black and white in print due to the additional costs involved. For this reason it is necessary to highlight what can go wrong in such a conversion. If possible authors should check the results of such a conversion prior to supply.

- Colours that display a clear difference may appear very similar to each other when converted to grey (see example below). This is true for both line and halftone images.
- Certain colours, for example light yellow lines, may not reproduce well in print.



## RGB/CMYK

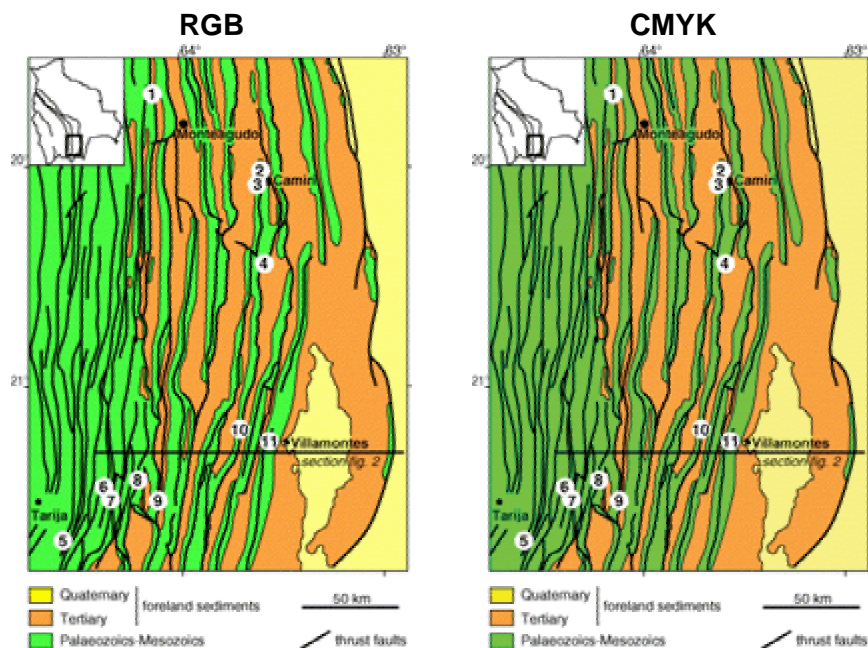
In our constant drive and focus on leading electronic products Elsevier Science now require any colour artwork to be supplied in the RGB (Red, Green, Blue) colour space.

By supplying RGB files we can ensure that we publish your artwork online at the highest quality possible in services such as [sciencedirect](https://www.sciencedirect.com).

RGB files will look good when viewed on a monitor, as they contain the largest possible range or 'gamut' of colours.

As normal, the RGB files will be converted to the CMYK (Cyan, Magenta, Yellow, black) colour space for the print process.

The CMYK colour space has a far smaller 'gamut' than RGB and hence it is not possible to accurately produce all RGB colours in print (CMYK). See the example below:



## Calibration

The colours on your monitor have to correspond with the colours of the final result. The image on the screen after any colour manipulation you have made, must give you a good idea of the final result without the necessity to make a colour proof.

Your monitor is an RGB-device, which means that the colours on your monitor will be built up from red, green and blue. If you insist on a true exposure of the colours on your monitor, you have to establish a correct grey- and colour balance. To get this balance you need to calibrate your monitor.

Calibration can be done by using the Adobe Gamma or with any other calibration program. It is important however, to always use the same calibration program. The use of two different calibration programs can lead to incorrect settings.

An excellent guide to monitor calibration using the Adobe Gamma control panel can be found at <http://www.adobe.com/support/techguides/color/gamma/gamma.html>.

## Scanning – Colour artwork

Colour artwork should be scanned according to the following requirements regardless of the software and hardware used in the scanning process:

- Images should be scanned in RGB mode (note exceptions to the rule at <http://authors.elsevier.com/ArtworkInstructions.html?dc=A151>)
- Images should be scanned at a minimum resolution of 300dpi
- Images should be tightly cropped
- If applicable please relabel your scanned artwork with a font supported by Elsevier Science and ensure it is an appropriate font size

## Scanning – Combination artwork

Combination (line and tone) artwork should be scanned according to the following requirements regardless of the software and hardware used in the scanning process. Good quality files are only achieved by separate capture of the two images types prior to combination in an image manipulation program such as Adobe Photoshop®.

- The tonal area(s) of the image should be scanned in RGB mode for colour, or Greyscale for black and white at a minimum resolution of 300dpi
- The line area(s) of the image should be scanned in RGB mode for colour, or Bitmap (or black and white) mode for black and white at a minimum resolution of 1000dpi
- The combined image should be saved at a minimum resolution of 500dpi
- Images should be tightly cropped
- If applicable please relabel your scanned artwork with a font supported by Elsevier Science and ensure it is an appropriate font size

## Scanning – Greyscale artwork

Greyscale artwork should be scanned according to the following requirements regardless of the software and hardware used in the scanning process:

- Images should be scanned in Greyscale mode
- Images should be scanned at a minimum resolution of 300dpi
- Images should be tightly cropped
- If applicable please relabel your scanned artwork with a font supported by Elsevier Science and ensure it is an appropriate font size

## Scanning – Line art

Line art should be scanned according to the following requirements regardless of the software and hardware used in the scanning process:

- Images should be scanned in Bitmap (black and white) mode
- Images should be scanned at a minimum resolution of 1000dpi (or 1200dpi if the image contains very fine lineweights)
- Images should be tightly cropped

If applicable please relabel your scanned artwork with a font supported by Elsevier Science and ensure it is an appropriate font size

## Help/Frequently asked questions

If you cannot find the answer to your question below, please send an e-mail to [sqsartwork@elsevier.com](mailto:sqsartwork@elsevier.com).

### File formats

- **Why do you not accept JPEG files?**  
There are a few reasons but mainly because the JPEG file format is 'lossy', that is to say that the figure quality will be reduced each time the file is opened/manipulated. Also JPEG filesize can be prohibitive.
- **Why can't I supply in native format (Canvas, ChemDraw etc.)?**  
We prefer your artwork in TIFF or EPS format because these common interchange formats are readable by a wide number of applications. Virtually all image creation/manipulation software can 'Save As...' or 'Export...' to these common formats.
- **Can I supply an EPS file created in CorelDraw?**  
We only currently accept TIFF files written by CorelDraw which are exported at the appropriate resolution: 300 dpi for halftones, 500 dpi for combinations (line art and halftone together) and 1000 dpi for line art. This is due to known problems with fills and patterns.
- **Why do you accept figures in MS Office format?**  
We recognise that a large percentage of currently supplied artwork files are in this format, also it is not possible to reliably save from these applications to TIFF/EPS. We have developed conversion techniques that will ensure the source files can be used and will be of sufficient quality if input resolutions of placed images are sufficient.
- **Why don't you accept PNG or PDF files?**  
We will constantly review technological developments in the graphics industry including emerging file formats - new recommended formats will be introduced where appropriate.

### Image reproduction/quality issues

- **My black and white line art is only 300dpi yet your site stipulates a minimum of 1000dpi, can I just increase the resolution in Photoshop?**  
No - the image must be captured at the given resolution, increasing resolution after capture will never improve the quality of the image.
- **What line weights should I use on my artwork?**  
Any line work should be an absolute minimum of 0.35pt, high-quality reproduction of linework below this width cannot be guaranteed (lower resolution output devices such as office laserprinters should not be used as indicators in such cases). For prominent lines (e.g. plot lines on graphs) the weight should be approximately 1pt.
- **Can I provide screen dumps as electronic artwork?** This is not recommended but in some cases it is unavoidable - an example is when you would like to illustrate a screen/settings from a software application.
- **What tints of black should I use on my graphs?**  
It is recommended that you only use 3 or 4 variations of colour or tone on one piece of artwork to avoid problems in distinguishing between lines - a good alternative is to colour all lines solid black and use dashed/dotted lines to show a prominent difference.
- **What colours can I use on my graphs?**  
If your artwork is to be printed in colour then use bold, solid colours that will reproduce well. If your artwork is to be printed in black and white you must ensure that a conversion will not



result in similar shades of grey - if this is the case then make use of patterns for boxes or dotted/dashed lines.

## Colour

- **Why do you now ask for colour artwork in RGB format?**

RGB is the colourspace that has the highest number of available colours - we ask for RGB in order to ensure that your colour artwork can be published online at the highest possible quality.

## Miscellaneous

- **Why do you not provide artwork creation guides for Solaris?**

This was considered but Elsevier Science and their suppliers predominately work only in Windows and Macintosh environments when handling artwork. If you are working in an alternative OS the Windows/Macintosh guides can still be followed as 'most' packages will behave in the same manner regardless of platform.

- **Do you accept artwork on magnetic optical disk?**

Unfortunately not, we accept artwork on floppy, CD-ROM, ZIP and JAZ disks though. In addition, an increasing number of Elsevier journals have online submission facilities available via the [Author Gateway](#).