SUBMISSION OF ARTWORK

(Where possible) always submit your images both digital as on hardcopy.

LINE ART IMAGES

- Please send in as TIFF files, with a minimum resolution of 800 dpi.
- Please send in as EPS files, absolute minimum line width of 0.5 pt, preferred minimum line width of 1 pt. Do not place bitmap images within the EPS file, but send these in as TIFF instead, as indicated above.

Note: Please note that when graphs are produced in software such as Word or Excel, the default is to display the graph lines in color. These types of colored thin lines are difficult to reproduce, and therefore we would like to encourage the authors to submit such graphs in black & white with different types of dashed lines for total clarity.

HALFTONE IMAGES

- Please send in TIFF files, with a *minimum* resolution of 300 dpi, or 500 dpi when it includes lettering.

COLOR IMAGES

- Please send in color images as CMYK encoded (not RGB encoded; **note 1**) TIFF or EPS files with a *minimum* resolution of 600 dpi.
- If you are only able to send in JPEG files, please make sure that these are saved at the highest possible quality, with absolute minimum compression. (Please see **note 2** below).

Note 1: Please note that RGB encoded color images will allow for more colors than CMYK encoded images, which you can reproduce (on paper). These are only good for online purposes and CD-Rom/interactive productions.
Before printing these images need to be converted to CMYK, and colors may appear slightly different.

Note 2: JPEG files can sometimes present problems as the compression algorithm used throws away some of the image information every time you "save" the file. When such a file needs adjustments, then more information will be lost the next time the file is saved. Therefore we would like to encourage authors to send in their files in TIFF (or EPS) format instead of JPEG.

Also make sure when images are embedded in Word to always send the original images (Hardcopy and or TIFF/EPS files) along with the Mss.
Images embedded in Word are not suitable for reproduction.

THE FOLLOWING PAGES CONTAIN A GLOSSARY

GLOSSARY

RESOLUTION

The number of pixels that can be activated on-screen at one time, expressed in the horizontal value by the vertical value (e.g., 1024 by 768).

BITMAP IMAGE

A graphic image stored as a specific arrangement of screen dots, or pixels. Web graphics are bitmap images. A graphic, which is defined by specifying the colours of dots or pixels, which make up the picture. Also known as raster graphics. Common types of bitmap graphics are GIF, JPEG, Photoshop, PCX, TIFF, Macintosh Paint, Microsoft Paint, BMP, PNG, FAX formats, and TGA.

BITMAP (2)

A bitmap is an image format that defines an image only in terms of black and white. A bitmapped image is used normally for line art because its elements can only be black and white, unlike a greyscale image. In general, a bitmapped image will require a higher resolution to render good quality line art (1000 dpi or higher). A bitmapped image is also known as a 2-bit image. A bitmap image uses a grid of individual pixels where each pixel can be a different colour or shade. Within the pixel, the colour is solid. In order to simulate a halftone, each subsequent pixel can have a slightly lighter or darker colour. Whenever the resolution is too low (or the graphic is enlarged too much), a pixel-oriented graphic becomes jagged.

CAMERA READY ART

Material given to the printer that needs no further work before being passed on to the camera department. Camera copy should be clean, free of glue or trash, flat, and printed in dark ink. Laser prints, printed material, and other good quality originals can be considered "camera-ready".

CMYK

Stands for the colours Cyan-Magenta-Yellow-Black. In print design, colours are defined as a percentage of each of these 4 colours. For example, the CMYK abbreviation for the colour black would be 0-0-0-100. In contrast, display devices (i.e. computer monitors) typically define colours using RGB.

CMYK (Cyan, Magenta, Yellow, Black) **(2)**

CMYK stands for the four-colour printing process (process printing) that uses the standard inks Cyan, Magenta, Yellow and Black. It is also known as subtractive colour. The colour black is achieved by the presence of all inks. All colour work submitted to Swets & Zeitlinger Publishers is ideally saved as a CMYK file. Basically, each colour can be achieved by using Cyan, Magenta and Yellow, where Black is used to give correct neutral tones and to add detail.

COMPRESSION

A method of packing data in order to save disk storage space or download time. JPEGs are generally compressed graphics files. Compression is a technique to make a file or a data stream smaller for faster transmission or to take up less storage space.

DPI

Stands for dots per inch. DPI specifies the resolution of an output device, such as a printer or printing press machine. Print resolution usually runs from 300-1200 dots per inch on a Laser Printer and 125-225 dots per inch for photographic images on a print brochure. (For information on input device measurements see ppi.).

DPI (2)

(or PPI) Dots-per-inch (or Pixels-per-inch) stands for the number of pixels that are defined within the boundary of an inch, and is often referred to as the resolution of the image. The more correct term is pixels-per-inch, but dots-per-inch is still used widely.

DUOTONE

A common printing technique by which a halftone is printed in two ink colours-most often black and another colour (screen angles 45 degrees apart).

EPS.

ENCAPSULATED POST SCRIPT. A standard format for saving object-oriented graphics. Some common packages that support EPS files are Illustrator, Freehand, and CorelDraw!

EPS. (2)

EPS stands for the Encapsulated PostScript format from Adobe. An EPS file is an image that has been created using the language of PostScript, and is generally resolution-independent because it has been created using vectors (unless it contains an 'embedded' bitmap, like a TIFF file, then the TIFF file's resolution is restricted by its dpi). Because it is the vector that draws the image, the computer can draw the image at any resolution. The computer can thus determine at what resolution it is to draw the image (or portion of the image) on the printing device to which it is connected. An EPS file is normally used for combination artwork or charts and graphs. Generally, an EPS file cannot be edited reliably in any other program than that which created it. An EPS image may contain actual text. To avoid having font conversion problems, please make sure that the texts within the EPS are replaced by outlines (this is normally an option in packages such as Adobe Illustrator).

GIF

Stands for Graphics Interchange Format. GIF images are the most widely used graphic format on the web. GIF images display up to 256 colours.

GIF (2)

GIF stands for 'Graphic Interchange Format'. This is an image format that is geared specifically towards computer screen representation. Its resolution is thus normally very low (72 dpi, or that of your computer screen), making it undesirable, or sometimes even unusable, for printing purposes.

GIF (2)

GRAPHICS INTERCHANGE FORMAT. Compressed bit-mapped or raster graphics, limited to 256 colours. Current popular use is for web pages.

FOUR COLOR PROCESS

The four basic colours of ink (yellow, magenta, cyan, and black) which reproduce full-colour photographs or art.

HALFTONE

Picture with gradations of tone formed by dots of varying sizes. This process is used to reproduce art such as photographs or continuous tone drawings.

GREYSCALE

Greyscale stands for an image type that defines how the information in the image is to be stored and imaged. A greyscale image is sometimes referred to as an eight-bit image. This format is generally used for halftones because it stores the information for each pixel as a level of grey. There are 256 levels of grey in a halftone.

HARD COPY

A paper printout of a file from a disk. Usually requested from customers who are providing their own keystrokes on a disk.

JPEG

Stands for Joint Photographic Experts Group. File format for full-colour and black-and-white graphic images. JPEG images allow for more colours than GIF images and are usually smaller in size.

JPEG (2)

Joint Photographic Experts Group. A compressed file, usually of a photograph, that reduces the amount of data needed to display a full-colour bitmap. Usually results in loss of quality. Also used for web pages.

PICT

Another type of image format. A PICT file an contain black and white, colour, or greyscale information, as can a TIFF or EPS file. A PICT image uses a language called QuickDraw to render the graphic. QuickDraw is limited in precision and cannot contain complex curves or special text effects, making a PICT image a bad choice for image setting to film or plate. A PICT file is acceptable for laser printer or low-resolution output.

RGB (Red, Green, Blue)

Colour process used by computer displays. The presence of all three colours as light waves is perceived by the eye as white; the absence of light is perceived as black. This is also known as additive colour. RGB colour is very different from CMYK colour. The amount of colours that can be generated by RGB mode is much larger than those that can be generated by CMYK. Although graphics created and saved in RGB display well on the Web, computer screen displays, and CD-ROM products, they can never be used in high-quality printed products. All colour artwork submitted to Swets & Zeitlinger Publishers in electronic form must be in CMYK. RIP Rasterized Image Processor. A PostScript interpreter that plots images onto output devices such as image setters and plate setters.

TIFF

Tagged Image File Format. A type of image file format, TIFF files can include colour or grayscale information. Its resolution or dpi determines the quality of the image. If the resolution is too low, the image will appear jagged or have a stair-stepped effect. Once the resolution has been determined, either by scanning or by saving in an image-manipulation software package, it cannot be upgraded or increased to improve quality. The Tagged Image File Format TIFF is a bitmap format developed for exchanging documents between different applications and platforms. TIFF is probably the most popular image format in desktop publishing. TIFF files can support 1, 4 or 8 bits of information per pixel, up to 4 channels (e.g., CMYK for four-colour printing) and various types of compression and encoding (LZW compression being the most common). TIFF files are generally reliable for printing and cross-platform conversion, but beware, some applications will not import certain types of TIFF files. TIFF files can be saved in either Macintosh or Windows formats.

WORKING FILES

Files that have been used to generate a graphic file such as an EPS file. Software applications such as Macromedia FreeHand, Adobe illustrator, and QuarkXPress can all generate EPS files. The editable application file is normally called the working file, and will have an application-specific extension (such as PSD for Adobe Photoshop files). These types of files are also sometimes referred to as 'native files'.

Lossless Compression

In graphic design, lossless compression refers to a data compression technique where the file quality is preserved and no data is lost. Lossless compression is commonly used on GIF images, but can only reduce file size to about half of its original size. Lossy compression, by contrast, eliminates some data can further decrease file size.

Lossy Compression

A term coined by graphics programmers to refer to a technique of shrinking file sizes by giving away some precision of detail. JPEG is an example of a file that is compressed this way. By reducing the so-called quality of a picture when you save it, you can make the file size smaller. Many photos can take of loss of fine detail before it becomes noticeable on a web page.