

## **DIGITAL DOCUMENTS (APPLICATION FILES)**

This is the actual digital file that you created in any Layout application such as QuarkXPress & PageMaker, or some other desktop publishing program. Before you send an application file:

Be sure the availability of the same software and same version with the printers.

If you've upgraded the application before the printer, you may have to 'save down' your file to the version they use.

Insure that the printer can handle files from your platform.

If your application file is not acceptable you may have to consider submitting a Postscript or PDF file for output.

Document should be created as single page with actual size and proper bleed (4mm).

There are dozens of graphics file formats but only two -- EPS and TIFF are the standards for commercial high-resolution printing. Beyond file type other graphics issues that can jeopardize your printing project are color, compression, complexity, and completely missing images.

## **COMMON PROBLEMS IN DIGITAL FILES**

### **Missing graphics**

It's probably easier to do a headcount on the graphics in your publication than on the fonts used but it is still possible to miss a few, especially with large, graphics-intensive documents. Missing graphics can result in delayed printing or if you don't proof carefully enough it can be an expensive error when you find out later that the image is missing or a low-resolution screen version was printed instead.

Graphics may appear to be missing if you change filenames after linking. If you find that you need to change the name of a graphic file, re-link it in your page layout program before sending the graphics and application file.

### **Font missing from EPS graphics**

If you have embedded EPS files that include text be sure to send the fonts for those images as well. Generally it is best to convert the text to curves but sometimes this can alter the image in unwanted ways. If that's the case, you must send the font files for that text along with the graphic.

### **EPS and TIFF vs. other formats**

EPS for vector images and TIFF for bitmapped are the Native graphics formats from standard programs such as Adobe Illustrator or Photoshop.

When Windows users cut-n-paste images from other applications (such as PowerPoint images or Excel charts) you end up with a WMF (Windows Metafile) graphic embedded in the page. These WMF files print with the wrong colors and shapes.

GIF images obtained from the Web are usually too low resolution for printing and they are in RGB format, which is not designed for PostScript color printing. Avoid sending GIF, JPG, WMF, BMP, PICT, and other formats.

## **RGB vs. CMYK**

RGB images may look great on screen or printed on your inkjet printer but they usually don't print well to PostScript output devices. Convert your images to CMYK. While RGB has its place (on the Web, for example) it isn't suitable for most PostScript color printing.

Save your original RGB file for later use or modifications. In your graphics application convert a copy of the RGB graphic to CMYK then place it in your page layout program. Send the CMYK version of your graphic for printing purpose.

**More about colour:** There is a difference in the kind of color you see on your monitor right now and that color magazine on your desk. In order for a job to print

you need to be able to separate the colors correctly. The transmissive color on your screen is called RGB - which means it has a Red, Green and Blue channel. This is referred to as an "additive" color space. The reflective color needed for print is CMYK - Cyan, Magenta, Yellow and Black (K) inks that mix together to create the full color you see in print. This is "subtractive" color space. RGB and CMYK make up the majority of the color you see in print or the web. For printing you will need color separations from your artwork. Simply put, color separations print out the different colors - whether CMYK or Spot colors - on different sheets so that the job can be printed. That doesn't mean that for a photograph you get one plate for every color you see... remember that full color pictures are composed of Cyan, Magenta, Yellow and Black inks that are printed on top of each other. It does mean that if you are working in the wrong color space that you will not get the separations needed to print. Other color spaces you want to be familiar with are: Indexed Color uses 256 colors or less which reduces the size of the file (used mostly for multimedia and web pages); Spot Colors - colors in print that are not made from the CMYK color space model. PMS (Pantone Matching System) is the industry standard for spot color inks. It is VERY IMPORTANT when using spot color or duotone images to place into a document that you make sure that the name of the colors are exactly the same in both your image and your document or separations will not print correctly. Duotone, Tritone or Quadtones that create a two color, three, or four color image with overprinting spot colors; Bitmaps use one or two colors values, black or white to represent an image; and Grayscale uses 256 shades of gray.

**Resolution:** Resolution refers to the dpi (dots per inch) or ppi (pixels per inch) that you create or scan a graphic in at and the dpi that you will be outputting your job at. DPI is just what it sounds like - it means the number of dots (or pixels) per square inch that the graphic is input or output at. Anything that you print, whether on your laser printer or a high-end imagesetter, is made up of a this series of dots (pixels). Ever wonder why your type and images look so much better when you have film output than what you ran on your laser printer? It is because most laser printers are 300 dpi as opposed to the 2400 or more dpi on an imagesetter. Since the output is made up of more dots per square inch on the imagesetter, you have smoother lines because the dots are closer together. Pretty easy concept - so far anyway! This is called "output resolution." Now for your "input resolution"... there is a rule of thumb for graphics that you scan in or create in Photoshop or a similar program that are resolution-dependent (raster images - explanation for that term is under File Formats). For high-quality raster art graphics, you must have resolution at least equal to one and one-half times the line screen when using at 100% of size. Some people just do everything at 300 dpi... a throwback to the days when color seps were done at 150 Line Screen and the conventional wisdom was that you had to double the line screen - but no more. If you don't understand what line screen is check out the explanation further down the page. For example, if you are printing out a job at 150 Line Screen, then you need at least 225 dpi input resolution on your graphics to ensure high quality printing, or if you are printing at 100 line screen you would need at least 150 dpi input resolution. If you plan on resizing your graphics in another program, you will need to make sure that your "effective resolution" will support it. Effective resolution is the dpi that you get when resizing a graphic. As the size goes up in a raster image, the resolution goes down (or as the size goes down the resolution goes up). If you're original graphic is 4" wide at 300 dpi, and you placed it in your program and enlarge it to 6" wide, you have cut your effective resolution in half to 150 dpi or if you resize it to 2" wide, you have raised your effective resolution to 450 dpi.

**Line screen:** (lpi) deals with a different type of dot than resolution. It refers to

"halftone dot" - a pattern of very small black dots that simulate the different shades of gray. All printed photographic images or screened colors are made up of halftone dot. Color pictures the dots use all four colors (Cyan, Magenta, Yellow and Black) to form a rosette pattern in the picture. The lower the line screen - the newspaper is probably 85-100 line screen - the more prominent the dots. That is because line screen means the number of halftone dots per square inch that make up the image. The rosette pattern you see in the magazine, which is probably 150-200 line screen, is a result of the screen angles that the job was printed on. Since all images are made up of dots, you have to print the inks on top of each other - but just try to exactly line up a four different sets of dots and not get moiré (an unwanted "pattern" that appears in photos when the screen angles are not correct.) So each color is output at a different angle (generally a change of about 15 degrees for each color) to form the more visually pleasing rosette pattern that you saw. So why not print everything at 200 line screen to make it look better? Who wants to see the dots? Different types of papers and presses can only handle certain line screens. Look again at the newspaper - it is printed on a newsprint paper that absorbs ink and cannot handle a higher line screen with out plugging (plugging is when the ink fills in the space between the halftone dots). Look at the glossy magazine - it is probably printed on something like 80# gloss text (the weight and covering of the paper) and absorbs less ink; printing a cleaner dot that won't plug as easily allowing you to print at a higher line screen. If you ever have any doubt about what line screen to use on your job, check with the shop that will be printing it.

**File Formats:** Once you have created that great looking graphic, how do you get it from your screen to the printed piece? First let's define the two types of graphics that are generated from a computer. All photographs and graphics created in Image Editing programs (such as Photoshop or Corel Paint) generate a file that is a "raster" image. That means that the quality of the image is dependent on the resolution and size that it will be printed at - "resolution dependent." Resizing of the graphic will change the quality. Programs such as Illustrator or Freehand can create vector art files (as well as being able to export raster images). Vector art is not dependent on resolution and can be used at any size and resolution without loss of quality. Now what about all those different formats in the "save as" dialogue box? The format that you select here helps determine how your picture will look when output. Vector Images are saved in EPS (Encapsulated Postscript) and WMF (Windows MetaFile) format for placement into other programs. Note that if you are working on a Windows system without a postscript printer, your printer cannot accurately use the EPS format for printing. Both formats are editable and can generally be imported or opened in a vector art program since they are self-contained pieces of coding. This is the preferred format for logos since they are easily editable and can be used at any size. Raster art can be saved in a variety of formats... including the EPS format listed above, but we are just going to talk about the most common formats here. Let's start with the formats that are common to both the Macintosh and Windows systems. With the onset of digital photography and online pictures - JPEG (.jpg) is probably the most common. JPEGs are files that have used a compression method to keep the size of the file down. For print media, use a maximum or high setting. For web (depending on size and load time) use the medium to high setting. These are continuous tone images (such as photographs) and do not support any kind of transparency. JPEGs are usually not the preferred format for your print professional - generally they will prefer a TIFF format (Tagged-Image file Format - .tif). This is an easily cross-platformed image format and it is supported by virtually all programs. TIFFs can be used as RGB, CMYK or Grayscale color modes. Line art is usually saved as a TIFF also. Photoshop also has the ability to save it's layered files in a TIFF

format, allowing you to keep one version of the file instead of a layered file for working and a flattened image to place. EPS files (as discussed above) can also be used on both platforms, but Mac files use a PICT or TIF preview and Windows files use a TIFF or BMP preview - so when saving Raster images as an .eps file remember to save the proper preview for the platform it will be used on.

Formats suitable for use on a specific system include the BMP (Bitmap format) for Windows and PICT for Macintosh. We prefer not to use these formats because of the limitations on cross-platforming and the quality.

To sum it all up - a TIFF image is your safest bet if you do not know what platform your pictures will end up on for Raster images. Each format has its drawbacks, but we have found TIFF files to be the least troublesome. If you have any questions on what format to save a file in, contact us or your printer.

**PDF Files:** When saving a complete job as a PDF you must remember a few basic rules. Always include all fonts in your job. Keep compression to a minimum - saving with a maximum quality setting. If at all possible, view your PDF file on a computer that does not have access to images and fonts you used in the file to make sure that all pages, fonts and images are appearing. Most printers now accept files in PDF format for output - but the responsibility for the set-up will be yours, so always check with your printer to ensure you are using the settings compatible with their system. =

**LINKED IMAGES:** So your graphics are done, you have them all saved in the correct formats, color spaces and with enough resolution to print at the requested line screen. You even understand the statement about using web graphics that was made in the beginning of the page. Well, don't want to burst your bubble, but if you just copied and pasted that graphic into Pagemaker, Quark, Word, Corel, Publisher or about any other program - then you just undid all that great work. That is the "how not to" of linking images. Rule Number 1 - Don't copy and paste your graphics from one program to another! This is different than placing a graphic into a layout and then copying it WITHIN THE SAME PROGRAM. On a Windows system (but not so much on a Mac OS) it is very easy to copy and paste from program to program, but the graphic is copied in an RGB format that all programs can understand, which makes it lose all that encoding you had in place to begin with. When using a graphic you have created in another program you need to use the "place" or the "import" command, usually located in the File menu. When you use this command the graphics - with all of the encoding that tells it how to print - becomes part of the file and the graphic can be printed in high resolution. Once you have properly placed or imported your graphic, and have your document ready to go to the printer, just make sure that you send a copy of the original graphic. Some programs will "embed" the image (the program stores a full copy of the graphic in the encoding for the document) or it will just "link" to the image - meaning that the program just puts a reference to the original graphic in the document encoding. Sometimes the printer may need to modify a picture because of printing conditions (dot gain, paper stock) and if the image is embedded, they will need the original graphic to make any changes.

### **Compression**

Compressed images can cause problems for PostScript output devices. While they may print -- eventually -- it can considerably slow down your job. For best results, send your graphics in uncompressed TIFF or EPS formats.

### **Complex images**

If you have a file that contains complex images such as gradient fills or nested EPS graphics, talk

to your printer ahead of time to avoid surprises. PostScript device may be unable to handle the image and if you know in advance you can try simplifying your file or converting it to a bitmap.

One test of your file is printing it to your own printer. If your file won't print to your laser printer it probably won't be output correctly on an imagesetter. Even invisible parts of an image add to the complexity and can cause output problems. Delete unnecessary nodes, paths, and channels from your graphics.

### **Modifications during page layout**

It's easy to take a graphic into PageMaker or QuarkXPress and flip it around, tilt it a little, reduce the size a smidgeon. Just because you can doesn't mean you should. Each step adds to the processing time during PostScript output and increases the chances that your file won't print properly. Rotate and resize within your graphics software before placing an image in your page layout program.

### **Resolution**

Graphics at the wrong resolution may print all right, but the resulting image is often less than acceptable. Images pulled from the Web are a common low-resolution culprit. Artificially increasing the resolution may give acceptable results on screen but the image loses quality and it becomes most obvious after high-resolution printing. Too much resolution results in larger graphics files and can slow down your print job.

### **Fonts**

Even when you use common, classic typefaces you'll need to send the copies of the actual font files that your document contains. Fonts can vary from vendor to vendor and there are differences between the TrueType and Type 1 versions of fonts. If you don't supply your own fonts the printer may substitute their own version. This might work. Or it might result in subtle or obvious differences in your document including text reflow.

Check your font license agreement. Generally it is an acceptable practice to supply a copy to a printer in order to output your job.

Send both screen and printer fonts (for Type 1 fonts).

If you have embedded EPS files that include text that is not converted to curves, be sure to send the fonts for those images as well.

Avoid mixing TrueType and Type 1 fonts in the same file.

Send the same version of the font (that is, if you used TrueType fonts but send the Type 1 version of that typeface you may see errors).

You could embed all your fonts or convert text to curves to avoid having to send font files. However, this isn't always possible or advisable.

Choose type styles such as bold and italic from the font menu. Do not apply the bold or italic button to normal font.

Selecting Bold, Italic button to the plain font will only simulate italic by skewing and bold by double-strike during output, if the Italic and Bold printer fonts were not loaded in the system.

Besides the graphics that you need to include with your document, you also will need to include any fonts you may have used. Not all fonts are created equal and some fonts will not print well in high resolution or may lock up a high resolution imagesetter. Fonts fall into two basic categories - Serif and Sans Serif. If you are viewing this as intended.. the font you see on the page is either Verdana, Arial or Helvetica - all of which are sans serif fonts. Notice that there are no extenders (or serifs) on any of the letters. Here is an example of a serif font - this font is Times or Times New Roman depending on your computer and browser. See the serifs on the ends of the main strokes. There is also Script fonts - like this one is. Fonts that are meant for headlines and titles are called Display fonts - they don't look very good as body copy and are often hard to read at small point sizes.

When sending your disk to the printer, you MUST include a copy of your fonts in order for your job to look like you want it to. If you are using TrueType fonts then you just need to send that font (on Windows they have a .ttf extension and are usually located in the c:\windows\fonts directory - on a Mac if you are not using a font management program they will be in the fonts folder inside the system folder). If you are using Type 1 fonts, on a Windows platform you will need to send both the .pfm and .pfb file for the font for it to image correctly. On a Macintosh system you will need to send both the screen font (usually in a "suitcase") and the printer font. Not providing fonts with the job can delay it or force the printer to substitute a similar font, which may cause your document to reflow. Need to match an existing font... but you have no idea what the name is? Send us a copy and we will help you to identify it even if you only have a few letters or numbers to go by!

### **Graphics**

Send copies of all your images used in your document. If you've practiced good file size management then your graphics are usually linked, not embedded in your document. The Printer will need to have access to those graphics, otherwise your application file may have only low-quality preview images in the file or no graphic at all.

Use EPS and TIFF images.

Convert RGB images to CMYK.

Save graphics in uncompressed formats.

Don't change graphics file names unless you first re-link them in your application file.

In some instances Printer may want you to also send original format graphics (Freehand, Illustrator, Photoshop files) in addition to the placed EPS/TIFF images in your page layout application - for troubleshooting purposes.

### **Non-digital Items**

To ensure that what they print looks like what you intended supply a laser-printed copy of your file. This can help technicians see immediately if there are obvious font differences, missing graphics, or changes in layout. Other items that you'll want to include are additional artwork, font lists, and any special instructions not previously conveyed to your printer.

Send a PostScript laser proof of each color separation.

Make sure you generate a proof after making any changes, otherwise your printer may see differences between his output and your proof as errors which can delay your job.

If you can't send your proof at 100% size then mark it to show the percentage size at which it was printed.

Send original artwork or photographs to replace FPO (for position only) placeholders, if any, in your digital file.

Include a list of all fonts used as well as a list of all the files that appear on your disk.

You may also need to include a dummy or mockup of your finished project to show how it is to be cut, folded, or bound.

Always talk to your service printer first before sending anything. They may have specific requirements and suggestions that will may your project go more smoothly.

### **Delivering the File**

Once you know what files to send you have to get them to your service bureau. You'll need to find out from them what formats they can accept. Some options include:

**3.5-inch disks.** These are suitable only for small files or files compressed.

**ZIP, CDs etc..** ZIP disks, CDs allow you to send large application files and their accompanying fonts and graphics without compression.

**Electronic Transmission.** Files as email attachments, FTP or ISDN. It may be necessary to compress files into an archive files first to speed the file transfer.

As obvious as it may seem one common error is forgetting to clearly and completely **label the disk**. Include your name, address, phone number, and if you have a job number assigned, put it on the disk as well. Another good measure, include a 'readme' file on the disk that also includes this same information.

No matter how beautiful your design or how carefully you've if you don't include the necessary files and non-digital materials you jeopardize your project. Avoid last minute surprises and wasted time by making sure that you've included *all* application files, fonts, and graphics in a format that your printer can use.

### **Application Specific Tips**

**When placing TIFF images in Quark XPress (MAC & PC) make sure to never have the background color of the picture box set to "none".** Often times designers will purposely set a picture box background to "none" when they are trying to layer elements that should be partially transparent, and sometimes the application's default will have background color set to "none". Whatever the case, Quark will attempt to render any white area in a bitmap as transparent if background color is set to "none". While this effect looks nice on screen, it does not work when outputting to a postscript-imaging device like our imagesetters. The image will print with very hard, jagged edges as Quark is incapable of performing antialiasing. Also, many times very light colored areas will appear to Quark as white and it will eliminate them as well. The overall effect is far from pleasing.

**When creating a clipping path in Photoshop or Photopaint for a bitmap image, make sure to allow for slippage.** Many times an image will not be accurately aligned in a path due to incorrectly rendered postscript code or improper amount of device flatness (tolerance of the path to it's nodes) specified. To compensate, either draw the path slightly inside the edges of the object to be masked, or clone extra area outside of the edges. While creating an odd appearance in the paint program, the latter will yield a more desirable effect if the path was created with accuracy in mind. Remember, only the shape inside the path will be visible in the final output.

**When designing in Corel Draw, avoid extensive use of lens effects.** They create massive postscript files and many times don't print as they appear on screen, or won't print at all. Most lens effects can be alternately (and more reliably) created in an image editing program like Photoshop. Lens effects are great for conceptualization or when final output is a nonpostscript inkjet printer.

**When giving Corel Draw files to Macintosh users, export them as Adobe Illustrator files rather than EPS files.** Interestingly, while Corel Draw can produce solid postscript code when printing from within the application itself, it doesn't always do so when exporting in encapsulated format. Ironically, Corel Draw reproduces its art more accurately as Illustrator files than as EPS files.

**If you use Adobe Illustrator 7.0 to create vector art to be later placed in a desktop publishing program like Quark XPress for printing, UPGRADE TO ILLUSTRATOR 7.01 IMMEDIATELY.** There is a known bug that causes EPS files saved in version 6 format (since desktop publishing programs don't yet recognize version 7 formatted files) and placed in a desktop publishing program to error out when printing to a postscript device. The upgrade to 7.01 eliminates this bug.

### **Preflight for Perfect Printing**

Using the collection tools in your page layout program can help avoid problems with missing graphics. Other programs such as Extensive PreFlight Pro or Markzware FlightCheck can help you troubleshoot your files for potential output problems before they get to the printer.

With or without these tools developing good habits and being aware of potential pitfalls can help you generate troublefree files for PostScript output. Talk to your printer. Use uncompressed CMYK TIFF and EPS images. Include all graphics with each job. You'll be well on your way toward painfree PostScript printing.

**A/W** - an abbreviation for Artwork.

**Acetate** - a transparent sheet placed over artwork allowing the artist to write instructions or indicate where second colour is to be placed. See [Overlay](#).

**Addendum** - supplementary material additional to the main body of a book and printed separately at the start or end of the text.

**Air (US)** - an amount of white space in a layout.

**Airbrush** - a mechanical painting tool producing an adjustable spray of paint driven by compressed air. Used in illustration design and photographic retouching.

**Align** - to line up typeset or other graphic material as specified, using a base or vertical line as the reference point.

**Alphabet (length or width)** - the measurement of a complete set of lower case alphabet characters in a given type size expressed in points or picas.

**Anodized plate** - an offset printing plate with a specially treated surface to reduce wear during printing.

**Apex** - the point of a character where two lines meet at the top, an example of this is the point on the letter A.

**Apron (US)** - additional white space allowed in the margins of text and illustrations when forming a foldout.

**Art paper** - a smooth coated paper obtained by adding a coating of china clay compound on one or both sides of the paper.

**Art (US)** - in graphic arts usage, all matter other than text material eg illustrations and photographs.

**Ascender** - any part of a lower case letter extending above the x-height. For example, the upper half of the vertical in the letters b or h.

**Authors corrections** - changes made to the copy by the author after typesetting but not including those made as a result of errors in keying in the copy.

## **B**

**Backing up** - to print the second side of printed sheet.

**Backslant** - letters that slant the opposite way from italic characters.

**Balloon** - a circle or bubble enclosing copy in an illustration. Used in cartoons.

**Bank** - a lightweight writing paper.

**Banner** - a large headline or title extending across the full page width.

**Base artwork** - artwork requiring additional components such as halftones or line drawings to be added before the reproduction stage.

**Baseline** - the line on which the bases of capital letters sit.

**Bed** - the base on which the form is held when printing by Letterpress.

**Binding** - the various methods used to secure loose leaves or sections in a book; eg saddle-stitch, perfect bound.

**Black patch** - material used to mask the window area on a negative image of the artwork prior to 'stripping in' a halftone.

**Blanket cylinder** - the cylinder via which the inked litho plate transfers the image to the paper. The cylinder is covered with a rubber sheet which prevents wear to the litho plate coming into contact with the paper.

**Bleed** - layout, type or pictures that extend beyond the trim marks on a page. Illustrations that spread to the edge of the paper without margins are referred to as 'bled off'.

**Blind emboss** - a raised impression made without using ink or foil.

**Block in** - to sketch in the main areas of an image prior to the design.

**Blow up** - an enlargement, most frequently of a graphic image or photograph.

**Blurb** - a short description or commentary of a book or author on a book jacket.

**Board** - paper of more than 200gsm.

**Body (US)** - the main text of the work but not including headlines.

**Body size** - the height of the type measured from the top of the tallest ascender to the bottom of the lowest descender. Normally given in points, the standard unit of type size.

**Bold type** - type with a heavier darker appearance. Most typefaces have a bold face.

**Bond** - a sized finished writing paper of 50gsm or more. Can also be used for printing upon.

**Border** - a continuous decorative design or rule surrounding the matter on the page.

**Box** - a section of text marked off by rules or white space and presented separately from the main text and illustrations. Longer boxed sections in magazines are sometimes referred to as sidebars.

**Bristol board** - a fine board made in various qualities for drawing.

**Broadside** - an original term for work printed on one side of a large sheet of paper.

**Bromide** - a photographic print made on bromide paper.

**Bronzing** - an effect produced by dusting wet ink after printing with a metallic powder.

**Bullet** - a large dot preceding text to add emphasis.

## C

**Calendered finish** - produced by passing paper through a series of metal rollers to give a very smooth surface.

**Caliper** - the thickness of sheet of paper or board expressed in microns (millionths of a metre). Also the name of the tool used to make the measurement.

**Camera ready** - artwork or pasted up material that is ready for reproduction.

**Cap line** - an imaginary line across the top of capital letters. The distance from the the cap line to the baseline is the cap size.

**Caps** - an abbreviation for capital letters.

**Caps and small caps** - a style of type that shows capital letters used in the normal way while the body copy is set in capital letters which are of a slightly smaller size.

**Caption** - the line or lines of text that refer to information identifying a picture or illustration.

**Carbonless** - paper coated with chemicals and dye which will produce copies without carbon paper. Also referred to as NCR (No Carbon Required).

**Caret marks** - an indication to the printer of an omission in the copy indicated as ( ) showing the insertion.

**Cartridge** - a thick general purpose paper used for printing, drawing and wrapping.

**Case bound** - a hardback book made with stiff outer covers. Cases are usually covered with cloth, vinyl or leather.

**Cast off** - a calculation determining how much space copy will take up when typeset.

**Cast coated** - art paper with an exceptionally glossy coated finish usually on one side only.

**Catchline** - a temporary headline for identification on the top of a galley proof.

**Century Schoolbook** - a popular serif typeface used in magazines and books for text setting which has a large x-height and an open appearance.

**Chalking** - a powdering effect left on the surface of the paper after the ink has failed to dry satisfactorily due to a fault in printing.

**Character count** - the number of characters; ie letters, figures, signs or spaces in a piece of copy, line or paragraph used as a first stage in type calculations.

**Chase** - a metal frame in which metal type and blocks (engravings) are locked into position to make up a page.

**Close up** - a proof correction mark to reduce the amount of space between characters or words indicated as (').

**Coated** - printing papers which after making have had a surface coating with clay etc, to give a smoother, more even finish with greater opacity.

**Cold type** - type produced without the use of characters cast from molten metal, such as on a VDU.

**Collate** - to gather separate sections or leaves of a book together in the correct order for binding.

**colour separations** - the division of a multi-coloured original or line copy into the basic (or primary) process colours of yellow, magenta, cyan and black. These should not be confused with the optical primaries; red, green and blue.

**Column inch** - a measure of area used in newspapers and magazines to calculate the cost of display advertising. A column inch is one column wide by one inch deep.

**Column rule** - a light faced vertical rule used to separate columns of type.

**Compose** - to set copy into type.

**Concertina fold** - a method of folding in which each fold opens in the opposite direction to its neighbour, giving a concertina or pleated effect.

**Condensed** - a style of typeface in which the characters have an elongated appearance.

**Continuous tone** - an image in which the subject has continuous shades of colour or grey without being broken up by dots. Continuous tones cannot be reproduced in that form for printing but must be screened to translate the image into dots.

**Contrast** - the degree of tones in a photograph ranging from highlight to shadow.

**Copyright** - The right of copyright gives protection to the originator of material to prevent use without express permission or acknowledgement of the originator.

**Corner marks** - marks printed on a sheet to indicate the trim or register marks.

**Cropping** - the elimination of parts of a photograph or other original that are not required to be printed. Cropping allows the remaining parts of the image to be enlarged to fill the space.

**Cross head** - a heading set in the body of the text used to break it into easily readable sections.

**Cursive** - used to describe typefaces that resemble written script.

**Cut flush** - a method of trimming a book after the cover has been attached to the pages.

**Cutout** - a halftone where the background has been removed to produce a silhouette.

## **D**

**Dagger and double dagger** - symbols used mainly as reference marks for footnotes.

**Dash** - a short horizontal rule used for punctuation.

**Descender** - any part of a lower case letter that extends below the x-height, as in the case of y and j.

**Die** - a hardened steel engraving stamp used to print an inked image. Used in the production of good quality letter headings.

**Disk Operating System (DOS)** - software for computer systems with disk drives which supervises and controls the running of programs. The operating system is 'booted' into the computer from disk by a small program which permanently resides in the memory. Common operating systems include MS-DOS, PC-DOS (IBM's

version of MS-DOS), CP/M (an operating system for older, 8-bit computers), Unix and BOS.

**Display type** - larger type used for headings etc. Normally about 18 point or larger.

**Dot matrix printer** - a printer in which each character is formed from a matrix of dots. They are normally impact systems, ie a wire is fired at a ribbon in order to leave an inked dot on the page, but thermal and electro-erosion systems are also used.

**Double density** - a method of recording on floppy disks using a modified frequency modulation process that allows more data to be stored on a disk.

**Double page spread** - two facing pages of newspaper or magazine where the textual material on the left hand side continues across to the right hand side. Abbreviated to DPS.

**Downloadable fonts** - type faces which can be stored on a disk and then downloaded to the printer when required for printing. These are, by definition, bit-mapped fonts and, therefore, fixed in size and style.

**DPI (Dots Per Inch)** - the measurement of resolution for page printers, phototypesetting machines and graphics screens. Currently graphics screens reproduce 60 to 100dpi, most page printers work at 300dpi and typesetting systems operate at 1,000dpi and above.

**Drawn on** - a method of binding a paper cover to a book by drawing the cover on and gluing to the back of the book.

**Drop cap** - a large initial letter at the start of the text that drops into the line or lines of text below.

**Dry transfer (lettering)** - Characters, drawings, etc, that can be transferred to the artwork by rubbing them off the back of the transfer sheet. Best known is Letraset.

**Dye transfer** - a photographic colour print using special coated papers to produce a full colour image. Can serve as an inexpensive proof.

## **E**

**EGA (Enhanced Graphics Adapter)** - a graphics standard for the PC which can be added or built into a system to give sharper characters and improved colour with the correct display device. Standard EGA resolution is 640 by 350 dots in any 16 out of 64 colours.

**Egyptian** - a term for a style of type faces having square serifs and almost uniform thickness of strokes.

**Eight sheet** - a poster measuring 60 x 80in (153 x 203cm) and, traditionally, made up of eight individual sheets.

**Electronic Publishing** - a generic term for the distribution of information which is stored, transmitted and reproduced electronically. Teletext and Videotext are two examples of this technology in its purest form, ie no paper.. Desktop publishing forms just one part of the electronic publishing market.

**Em** - in printing terms it is a square unit with edges equal in size to the chosen point size. It gets its name from the letter M which originally was as wide as the type size.

**Em dash** - a dash used in punctuation the length of one em.

**Embossing** - relief images formed by using a recessed die.

**En dash** - a dash approximately half the width of an em dash.

**En** - a unit of measurement that is half as wide as an em.

**End papers** - the four page leaves at the front and end of a book which are pasted to the insides of the front and back covers (boards).

**Epson emulation** - the industry standard control codes for dot matrix printers were developed by Epson and virtually all software packages and most dot matrix printers either follow or improve on these codes.

**Exception dictionary** - in word processing or desktop publishing this is a store of pre-hyphenated words that do not conform to the usual rules contained in the hyphenation and justification program (H & J).Some programs, PageMaker for example, only use an exception dictionary.

**Expanded type** - a typeface with a slightly wider body giving a flatter appearance.

**Express** - a printer control language developed by OASYS.

## **F**

**Face** - an abbreviation for typeface referring to a family in a given style.

**Filler** - extra material used to complete a column or page, usually of little importance.

**Flag** - the designed title of a newspaper as it appears at the top of page one.

**Flexography** - a rotary letterpress process printing from rubber or flexible plates and using fast drying inks. Mainly used for packaging.

**Floating accent** - an accent mark which is set separately from the main character and is then placed either over or under it.

**Floppy disk** - (see disk)

**Flush left** - copy aligned along the left margin.

**Flush right** - copy aligned along the right margin.

**Flyer** - an inexpensively produced circular used for promotional distribution.

**Foil blocking** - a process for stamping a design on a book cover without ink by using a coloured foil with pressure from a heated die or block.

**Font (or fount)** - a complete set of characters in a typeface.

**Form letter** - used in word processing to describe a repetitive letter in which the names and addresses of individuals are automatically generated from a data base or typed individually.

**form** - type and blocks assembled in pages and imposed in a metal chase ready for printing.

**Four colour process** - printing in full colour using four colour separation negatives - yellow, magenta, cyan and black.

**French fold** - a sheet which has been printed on one side only and then folded with two right angle folds to form a four page uncut section.

**Full measure** - a line set to the entire line length.

**Full point** - a full stop.

## **G**

**Galley proof** - proofs taken from the galleys before being made up into pages.

**Galleys** - the printing term for long metal trays used to hold type after it had been set and before the press run.

**Gatefold** - an oversize page where both sides fold into the gutter in overlapping layers. Used to accommodate maps into books.

**Gathering** - the operation of inserting the printed pages, sections or signatures of a book in the correct order for binding.

**GEM** - Digital Research's Graphics Environment Manager. A graphical interface designed both to make the operation of software simpler for the non-expert and to allow programs to communicate with one another. Two key desktop publishing packages, Ventura and DR's own GEM Desktop Publisher operate under this environment.

**Gloss ink** - for use in litho and letterpress printing on coated papers where the ink will dry without penetration.

**Golden ratio** - the rule devised to give proportions of height to width when laying out text and illustrations to produce the most optically pleasing result.

**Gothic** - typefaces with no serifs and broad even strokes.

**Gravure** - a rotary printing process where the image is etched into the metal plate attached to a cylinder. The cylinder is then rotated through a trough of printing ink after which the etched surface is wiped clean by a blade leaving the non-image area clean. The paper is then passed between two rollers and pressed against the etched cylinder drawing the ink out by absorption.

**Greeking** - a software device where areas of grey are used to simulate lines of text. One of desktop publishing's less clever methods of getting round the slowness of high resolution displays on the PC.

**Grey scale** - a range of luminance values for evaluating shading through white to black. Frequently used in discussions about scanners as a measure of their ability to capture halftone images. Basically the more levels the better but with correspondingly larger memory requirements.

**Grid** - A systematic division of a page into areas to enable designers to ensure consistency. The grid acts as a measuring guide and shows text, illustrations and trim sizes.

**GSM** - Grams per square metre (G/m<sup>2</sup>). The European unit of measurement for paper weight. The United States uses LB or #. GSM is equivalent to 2.25 the LB number.

**Guard** - a narrow strip of paper or linen pasted to a single leaf to allow sewing into a section for binding.

**Gutter** - the central blank area between left and right pages.

## H

**Hairline rule** - the thinnest rule that can be printed.

**Hairlines** - the thinnest of the strokes in a typeface.

**Half up** - artwork one and a half times the size which it will be reproduced.

**Halftone** - an illustration reproduced by breaking down the original tone into a pattern of dots of varying size. Light areas have small dots and darker areas or shadows have larger dots.

**Halftone screen** - a glass plate or film placed between the original photograph and the film to be exposed. The screen carries a network of parallel lines. The number of lines to the inch controls the coarseness of the final dot formation. The screen used depends on the printing process and the paper to be used, the higher the quality the more lines can be used.

**Hanging punctuation** - punctuation that is allowed to fall outside the margins instead of staying within the measure of the text.

**Hard disk** - a rigid disk sealed inside an airtight transport mechanism. Information stored may be accessed more rapidly than on floppy disks and far greater amounts of data may be stored. Often referred to as Winchester disks.

**Hardback** - a case bound book with a separate stiff board cover.

**Head** - the margin at the top of a page.

**Helvetica** - a sans serif typeface.

**Hickies** - a dust particle sticking to the printing plate or blanket which appears on the printed sheet as a dark spot surrounded by an halo.

**Highlight** - the lightest area in a photograph or illustration.

**House style** - The style of preferred spelling, punctuation, hyphenation and indentation used in a publishing house or by a particular publication to ensure consistent typesetting.

## **I**

**Icons** - pictorial images used on screen to indicate utility functions, files, folders or applications software. The icons are generally activated by an on-screen pointer controlled by a mouse or trackball.

**Imposition** - refers to the arrangement of pages on a printed sheet, which when the sheet is finally printed on both sides, folded and trimmed, will place the pages in their correct order.

**imPRESS** - a page description language developed by Imagen and supported by over 60 software products including Crystal, TeX, Superpage and AutoCAD. Almost certainly the first commercially available PDL.

**Impression cylinder** - the cylinder of a printing machine which brings the paper into contact with the with the printing plate or blanket cylinder.

**Imprint** - the name and place of the publisher and printer required by law if a publication is to be published. Sometimes accompanied by codes indicating the quantity printed, month/year of printing and an internal control number.

**Insert** - an instruction to the printer for the inclusion of additional copy.

**Interface** - the circuit, or physical connection, which controls the flow of data between a computer and its peripherals.

**International paper sizes** - the International Standards Organisation (ISO) system of paper sizes is based on a series of three sizes A, B and C. Series A is used for general printing and stationery, Series B for posters and Series C for envelopes.

**Interpress** - Xerox Corporation's page description language which was the first such product to be implemented. At present the language still has to be adopted commercially by a third party.

**ISBN** - International Standard Book Number. A reference number given to every published work. Usually found on the back of the title page.

**Italic** - type with sloping letters.

**Ivory board** - a smooth high white board used for business cards etc.

## **J**

**Justify** - the alignment of text along a margin or both margins. This is achieved by adjusting the spacing between the words and characters as necessary so that each line of text finishes at the same point.

## **K**

**K (Kilobyte)** - 1024 bytes, a binary 1,000.

**Keep standing** - to hold type or plates ready for reprints.

**Kerning** - the adjustment of spacing between certain letter pairs, A and V for example, to obtain a more pleasing appearance. Not all DTP systems can achieve this.

**Keyline** - an outline drawn or set on artwork showing the size and position of an illustration or halftone.

**Kraft paper** - a tough brown paper used for packing.

## **L**

**Laid** - paper with a watermark pattern showing the wire marks used in the paper making process. Usually used for high quality stationery.

**Laminate** - a thin transparent plastic coating applied to paper or board to provide protection and give it a glossy finish.

**Landscape** - work in which the width used is greater than the height. Also used to indicate the orientation of tables or illustrations which are printed 'sideways'. See Portrait.

**Laser printer** (see also Page printer) - a high quality image printing system using a laser beam to produce an image on a photosensitive drum. The image is transferred on to paper by a conventional xerographic printing process. Currently, most laser printers set at 300dpi with newer models operating at up to 600dpi.

**Lateral reversal** - a positive or negative image transposed from left to right as in a mirror reflection of the original.

**Layout** - a sketch of a page for printing showing the position of text and illustrations and giving general instructions.

**LB or #** - The American unit of measurement for paper weight. Europeans use GSM - Grams per square metre ( $G/m^2$ ). GSM is equivalent to 2.25 the LB number.

**Lead or Leading** - Space added between lines of type to space out text and provide visual separation of the lines. Measured in points or fractions thereof. Named after the strips of lead which used to be inserted between lines of metal type.

**Legend** - the descriptive matter printed below an illustration, mostly referred to as a caption. Also an explanation of signs or symbols used in timetables or maps.

**Letraset** - a proprietary name for rub-down or dry transfer lettering used in preparing artwork.

**Letterpress** - a relief printing process in which a raised image is inked to produce an impression; the impression is then transferred by placing paper against image and applying pressure.

**Letterset** - a printing process combining offset printing with a letterpress relief printing plate.

**Letterspacing** - the addition of space between the letters of words to increase the line-length to a required width or to improve the appearance of a line.

**Library picture** - a picture taken from an existing library and not specially commissioned.

**Ligature** - letters which are joined together as a single unit of type such as oe and fi.

**Lightface** - type having finer strokes than the medium typeface. Not used as frequently as medium.

**Line block** - a letterpress printing plate made up of solid areas and lines and without tones.

**Line gauge** - a metal rule used by printers. Divided into Picas it is 72 picas long (11.952in).

**Linen tester** - a magnifying glass designed for checking the dot image of a halftone.

**Lineup table** - a table with an illuminated top used for preparing and checking alignment of page layouts and paste-ups.

**Lining figures** - numerals that align on the baseline and at the top.

**Linotype** - manufacturers of a range of high resolution phototypesetting machines such as the 100, 202, 300 and 500. The 100, 300 and 500 series are capable of processing PostScript files through an external RIP and typesetting desktop publishing files direct from disk at 1270dpi and beyond.

**Lithography** - a printing process based on the principle of the natural aversion of water to grease. The photographically prepared printing plate when being made is treated chemically so that the image will accept ink and reject water.

**Logo** - short for logotype. A word or combination of letters set as a single unit. Also used to denote a specially styled company name designed as part of a corporate image.

**Loose leaf** - a method of binding which allows the insertion and removal of pages for continuous updating.

**Lower case** - the small letters in a font of type.

## **M**

**M (Megabyte)** - one million bytes.

**Machine glazed (MG)** - paper with a high gloss finish on one side only.

**Macro** - a series of instructions which would normally be issued one at a time on the keyboard to control a program. A macro facility allows them to be stored and issued automatically by a single keystroke.

**Magnetic ink** - a magnetized ink that can be read both by humans and by electronic machines. Used in cheque printing.

**Make-up** - the assembling of all elements, to form the printed image.

**Making ready** - the time spent in making ready the level of the printing surface by packing out under the form or around the impression cylinder.

**Manilla** - A tough brown paper used to produce stationery and wrapping paper.

**Manuscript (MS)** - the original written or typewritten work of an author submitted for publication.

**Margins** - the non printing areas of page.

**Mark up** - copy prepared for a compositor setting out in detail all the typesetting instructions.

**Mask** - opaque material or masking tape used to block-off an area of the artwork.

**Masthead** - details of publisher and editorial staff usually printed on the contents page.

**Matt art** - a coated printing paper with a dull surface.

**Measure** - denotes the width of a setting expressed in pica ems.

**Mechanical binding** - a method of binding which secures pre-trimmed leaves by the insertion of wire or plastic spirals through holes drilled in the binding edge.

**Mechanical tint** - a pre-printed sheet of dots, lines or patterns that can be laid down on artwork for reproduction.

**Memory** - the part of the computer which stores information for immediate access. Nowadays this consists exclusively of RAM, random access memory, which holds the applications software and data or ROM, read only memory, which holds permanent information such as the DOS bootstrap routines. Memory size is expressed in K or M.

**Menu-driven** - programs which allow the user to request functions by choosing from a list of options.

**Metallic ink** - printing inks which produce an effect gold, silver, bronze or metallic colours.

**MG (Machine glazed)** - paper with a high gloss finish on one side only.

**Mock-up** - the rough visual of a publication or design.

**Modem (MOdulator-DEModulator)** - a device for converting digital data into audio signals and back again. Primarily used for transmitting data between computers over telephone lines.

**Modern** - refers to type styles introduced towards the end of the 19th century. Times roman is a good example of modern type.

**Moire pattern** - the result of superimposing half-tone screens at the wrong angle thereby giving a chequered effect on the printed half-tone. Normally detected during the stage of progressive proofs.

**Monospace** - a font in which all characters occupy the same amount of horizontal width regardless of the character.

**Montage** - a single image formed from the assembling of several images.

**Mounting board** - a heavy board used for mounting artwork.

**Mouse** - a handheld pointing device using either mechanical motion or special optical techniques to convert the movement of the user's hand into movements of the cursor on the screen. Generally fitted with one, two or three buttons which can control specific software functions.

**MS (Manuscript)** - the original written or typewritten work of an author submitted for publication.

**Mutt** - a typesetting term for the em space.

## **N**

**Newsprint** - Unsized, low quality, absorbent paper used for printing newspapers.

**Nipping** - a stage in book binding where after sewing the sheets are pressed to expel air.

## **O**

**Oblique stroke** - (/)

**OCR (Optical Character Recognition)** - a special kind of scanner which provides a means of reading printed characters on documents and converting them into digital codes that can be read into a computer as actual text rather than just a picture.

**Offprint** - a run-on or reprint of an article first published in a magazine or journal.

**Offset lithography** - (see Lithography) a printing method whereby the image is transferred from a plate onto a rubber covered cylinder from which the printing takes place.

**Oldstyle (US)** - a style of type characterised by stressed strokes and triangular serifs. An example of an oldstyle face is Garamond.

**Onion skin** - a translucent lightweight paper used in air mail stationery.

**Opacity** - term used to describe the degree to which paper will show print through.

**Optical centre** - a point above the true centre of the page which will not appear 'low' as the geometric centre does.

**Optical Disks** - video disks on which large amounts of information can be stored in binary form representing characters of text or images. The disks cannot be used to view the information using a modified compact disk player and TV. Mainly used for reference works such as dictionaries, encyclopedias, etc.

**Orphan** - line of type on its own at the top or bottom of a page.

**Outline** - a typeface in which the characters are formed with only the outline defined rather than from solid strokes.

**Overlay** - a transparent sheet used in the preparation of multi-colour artwork showing the colour breakdown.

**Overprinting** - printing over an area already printed. Used to emphasise changes or alterations.

**Overs** - additional paper required to compensate for spoilage in printing. Also used to refer to a quantity produced above the number of copies ordered.

**Overstrike** - a method used in word processing to produce a character not in the typeface by superimposing two separate characters, eg \$ using s and l.

**Ozolid** - a trade name to describe a method of copying page proofs from paper or film.

## **P**

**Page Printer** - the more general (and accurate) name used to describe non-impact printers which produce a complete page in one action. Examples include laser, LED and LCD shutter xerographic printers, ion deposition, electro-erosion and electro-photographic printers.

**Page Description Language (PDL)** - a special form of programming language which enables both text and graphics (object or bit-image) to be described in a series of mathematical statements. Their main benefit is that they allow the applications software to be independent of the physical printing device as opposed to the normal case where specific routines have to be written for each device. Typical PDLs include Interpress, imPress, PostScript and DDL.

**Page proofs** - the stage following galley proofs, in which pages are made up and paginated.

**PageMaker** - the software program from Aldus Corporation that everyone associates with desktop publishing due to its immense success on the Apple Macintosh. Now available on both the Macintosh and the PC it is still used as a benchmark product although certain aspects of its design are coming under attack from other, more recent, products.

**Pagination** - the numbering of pages in a book.

**Pantone** - a registered name for an ink colour matching system.

**Paper plate** - a short run offset printing plate on which matter can be typed directly.

**Paragraph mark ( ¶ )** - a type symbol used to denote the start of a paragraph. Also used as a footnote sign.

**Parallel fold** - a method of folding; eg two parallel folds will produce a six page sheet.

**Paste up** - the various elements of a layout mounted in position to form camera-ready artwork.

**Perfect binding** - a common method of binding paperback books. After the printed sections having been collated, the spines will be ground off and the cover glued on.

**Perfector** - a printing press which prints both sides of the paper at one pass through the machine.

**Photogravure** - (see Gravure) a printing process where the image is etched into the plate cylinder. The main advantage of this method of printing is the high speed, long run capability. Used mainly for mail order and magazine work.

**Pi fonts** - characters not usually included in a font, but which are added specially. Examples of these are timetable symbols and mathematical signs.

**Pica** - a printing industry unit of measurement. There are 12 points to a pica, one pica is approximately 0.166in.

**Picking** - the effect of ink being too tacky and lifting fibres out of the paper. Shows up as small white dots on areas of solid colour.

**Pipelining** - the ability of a program to flow automatically text from the end of one column or page to the beginning of the next. An extra level of sophistication can be created by allowing the flow to be re-directed to any page and not just the next available. This is ideal for US-style magazines where everything is 'Continued on...!'

**Point** - the standard unit of type size of which there are 72 to the inch (one point is approximately 0.01383in). Point size is measured from the top of the ascender to the bottom of the descender.

**Portrait** - an upright image or page where the height is greater than the width.

**Positive** - a true photographic image of the original made on paper or film.

**PostScript** - a page description language developed by Adobe Systems. Widely supported by both hardware and software vendors it represents the current 'standard' in the market. John Warnock and Chuck Geschke of Adobe both worked for Xerox at the Palo Alto Research Centre where PDLs were invented and set up their company to commercially exploit the concepts they had helped develop.

**Preview mode** - a mode where word processing or desktop publishing software which doesn't operate in WYSIWYG fashion can show a representation of the output as it will look when printed. The quality ranges from acceptable to worse than useless.

**Primary colours** - cyan, magenta and yellow. These three colours when mixed together with black will produce a reasonable reproduction of all other colours.

**Print engine** - the parts of a page printer which perform the print-imaging, fixing and paper transport. In fact, everything but the controller.

**Printer Command Language** - a language developed by Hewlett Packard for use with its own range of printers. Essentially a text orientated language, it has been expanded to give graphics capability.

**Progressives** - colour proofs taken at each stage of printing showing each colour printed singly and then superimposed on the preceding colour.

**Proof** - a copy obtained from inked type, plate, block or screen for checking purposes.

**Proof correction marks** - a standard set of signs and symbols used in copy preparation and to indicate corrections on proofs. Marks are placed both in the text and in the margin.

**Proportional spacing** - a method of spacing whereby each character is spaced to accommodate the varying widths of letters or figures, so increasing readability. Books and magazines are set proportionally spaced, typewritten documents are generally monospaced.

**Pull-down menus** - developed from Xerox research (like just about everything else we take for granted in desktop publishing) these are a method of providing user control over software without cluttering up the screen with text. Using the mouse or cursor keys the user points to the main heading of the menu he or she wants and the menu pulls (Windows) or drops (GEM) from the heading. When the required function has been selected the menu rolls back up into the menu bar leaving the screen clear.

**Pulp** - the raw material used in paper making consisting mainly of wood chips, rags or other fibres. Broken down by mechanical or chemical means.

## Q

**Quadding** - the addition of space to fill out a line of type using en or em blocks.

**Quire** - 1/20th of a ream (25 sheets).

## R

**Rag paper** - high quality stationery made from cotton rags.

**Ragged** - lines of type that do not start or end at the same position.

**Ranged left/right** - successive lines of type which are of unequal length and which are aligned at either the right or left hand column.

**Raster Image Processor (RIP)** - the hardware engine which calculates the bit-mapped image of text and graphics from a series of instructions. It may, or may not, understand a page description language but the end result should, if the device has been properly designed, be the same. Typical RIPs which aren't PDL-based include the Tall Trees JLASER, the LaserMaster and AST's TurboLaser controller. A basic page printer comes with a controller and not a RIP which goes some way to explaining the lack of control

**Ream** - 500 sheets of paper.

**Reference marks** - symbols used in text to direct the reader to a footnote. Eg asterisk (\*), dagger, double dagger, section mark ( ), paragraph mark ( ).

**Register marks** - used in colour printing to position the paper correctly. Usually crosses or circles.

**Register** - the correct positioning of an image especially when printing one colour on another.

**Resolution** - the measurement used in typesetting to express quality of output. Measured in dots per inch, the greater the number of dots, the more smoother and cleaner appearance the character/image will have. Currently Page (laser) Printers print at 300, 406 and 600dpi. Typesetting machines print at 1,200 dpi or more.

**Rest in Proportion (RIP)** - an instruction when giving sizes to artwork or photographs that other parts of the artwork are to be enlarged or reduced in proportion.

**Retouching** - a means of altering artwork or colour separations to correct faults or enhance the image.

**Reverse out** - to reproduce as a white image out of a solid background.

**Revise** - indicates the stages at which corrections have been incorporated from earlier proofs and new proofs submitted. Eg First revise, second revise.

**Right reading** - a positive or negative which reads from left to right.

**Roman** - type which has vertical stems as distinct from italics or oblique which are set at angles.

**Rotary press** - a web or reel fed printing press which uses a curved printing plate mounted on the plate cylinder.

**Rough** - a preliminary sketch of a proposed design.

**Royal** - a size of printing paper 20in x 25in (508 x 635mm).

**Ruler** - rulers displayed on the screen that show measures in inches, picas or millimeters.

**Runaround (see also Text wrap)** - the ability within a program to run text around a graphic image within a document, without the need to adjust each line manually.

**Running head** - a line of type at the top of a page which repeats a heading.

**S**

**S/S (Same size)** - an instruction to reproduce to the same size as the original.

**Saddle stitching** - a method of binding where the folded pages are stitched through the spine from the outside, using wire staples. Usually limited to 64 pages size.

**Sans serif** - a typeface that has no serifs (small strokes at the end of main stroke of the character).

**Scale** - the means within a program to reduce or enlarge the amount of space an image will occupy. Some programs maintain the aspect ratio between width and height whilst scaling, thereby avoiding distortion.

**Scaling** - a means of calculating the amount of enlargement or reduction necessary to accommodate a photograph within the area of a design.

**Scamp** - a sketch of a design showing the basic concept.

**Scanner** - a digitizing device using light sensitivity to translate a picture or typed text into a pattern of dots which can be understood and stored by a computer. To obtain acceptable quality when scanning photographs, at least 64 grey scales are required.

**Scraperboard** - a board prepared with black indian ink over a china clay surface. Drawings are produced by scraping away the ink to expose the china clay surface.

**Section mark ( )** - a character used at the beginning of a new section. Also used as a footnote symbol.

**Section** - a printed sheet folded to make a multiple of pages.

**Security paper** - paper incorporating special features (dyes, watermarks etc) for use on cheques.

**Serif** - a small cross stroke at the end of the main stroke of the letter.

**Set size** - the width of the type body of a given point size.

**Set solid** - type set without leading (line spacing) between the lines. Type is often set with extra space; eg 9 point set on 10 point.

**Set off** - the accidental transfer of the printed image from one sheet to the back of another.

**Sheet** - a single piece of paper. In poster work refers to the number of Double Crown sets in a full size poster.

**Sheet fed** - a printing press which prints single sheets of paper, not reels.

**Sheetwise** - a method of printing a section. Half the pages from a section are imposed and printed. The remaining half of the pages are then printed on the other side of the sheet.

**Show-through** - see opacity.

**Side stabbed or stitched** - the folded sections of a book are stabbed through with wire staples at the binding edge, prior to the covers being drawn on.

**Side heading** - a subheading set flush into the text at the left edge.

**Sidebar** - a vertical bar positioned usually on the right hand side of the screen.

**Signature** - a letter or figure printed on the first page of each section of a book and used as a guide when collating and binding.

**Sixteen sheet** - a poster size measuring 120in x 80in (3050mm x 2030mm).

**Size** - a solution based on starch or casein which is added to the paper to reduce ink absorbency.

**Slurring** - a smearing of the image, caused by paper slipping during the impression stage.

**Small caps** - a set of capital letters which are smaller than standard and are equal in size to the lower case letters for that typesize.

**Snap-to(guide or rules)** - a WYSIWYG program feature for accurately aligning text or graphics. The effect is exercised by various non-printing guidelines such as column guides, margin guides which automatically places the text or graphics in the correct position flush to the column guide when activated by the mouse. The feature is optional and can be turned off.

**Soft back/cover** - a book bound with a paper back cover.

**Soft or discretionary hyphen** - a specially coded hyphen which is only displayed when formatting of the hyphenated word puts it at the end of a line.

**Spell check** - a facility contained in certain word processing and page makeup programs to enable a spelling error check to be carried out. Dictionaries of American origin may not conform to English standards and the option should be available within the program to modify the contents. Dictionaries usually contain between 60,000-100,000 words.

**Spine** - the binding edge at the back of a book.

**SRA** - a paper size in the series of ISO international paper sizes slightly larger than the A series allowing the printer extra space to bleed.

**Stat** - photostat copy.

**Stem** - the main vertical stroke making up a type character.

**Stet** - used in proof correction work to cancel a previous correction. From the Latin; 'let it stand'.

**Strap** - a subheading used above the main headline in a newspaper article.

**Strawboard** - a thicker board made from straw pulp, used in bookwork and in the making of envelopes and cartons. Not suitable for printing.

**Strike-through** - the effect of ink soaking through the printed sheet.

**Style sheet** - a collection of tags specifying page layout styles, paragraph settings and type specifications which can be set up by the user and saved for use in other documents. Some page makeup programs, such as Ventura, come with a set of style sheets.

**Subscript** - the small characters set below the normal letters or figures.

**Supercalendered paper** - a smooth finished paper with a polished appearance, produced by rolling the paper between calenders. Examples of this are high gloss and art papers.

**Superscript** - the small characters set above the normal letters or figures.

**Surprint (US)** - (see Overprinting) printing over a previously printed area of either text or graphics.

**Swash letters** - italic characters with extra flourishes used at the beginning of chapters.

**Swatch** - a colour sample.

## T

**Tabloid** - a page half the size of a broadsheet.

**Tabular setting** - text set in columns such as timetables.

**Tagged Image File Format (TIFF)** - a common format for interchanging digital information, generally associated with greyscale or bitmap data.

**Tags** - the various formats which make up a style sheet- paragraph settings, margins and columns, page layouts, hyphernation and justification, widow and orphan control and automatic section numbering.

**Template** - a standard layout usually containing basic details of the page dimensions.

**Text wrap** - see Runaround.

**Text** - the written or printed material which forms the main body of a publication.

**Text type** - typefaces used for the main text of written material. Generally no larger than 14 point in size.

**Thermography** - a print finishing process producing a raised image imitating die stamping. The process takes a previously printed image which before the ink is dry is dusted with a resinous powder. The application of heat causes the ink and powder to fuse and a raised image is formed.

**Thin space** - the thinnest space normally used to separate words.

**Thirty two sheet** - a poster size measuring 120in x 160in (3048mm x 4064mm).

**Threaded or Chained (US)** - see Pipelining.

**Thumbnails** - the first ideas or sketches of a designer noted down for future reference.

**Tied letters** - see Ligature.

**Tint** - the effect of adding white to a solid colour or of screening a solid area.

**Tip in** - the separate insertion of a single page into a book either during or after binding by pasting one edge.

**Tone line process** - the process of producing line art from a continuous tone original.

**Toolbox** - an on screen mouse operated facility that allows the user to choose from a selection of 'tools' to create simple geometric shapes- lines, boxes, circles etc. and to add fill patterns.

**Transparency** - a full colour photographically produced image on transparent film.

**Trash can (US)** - the icon selected for the deleting of files or objects.

**Trim** - the cutting of the finished product to the correct size. Marks are incorporated on the printed sheet to show where the trimming is to be made.

**Turnkey** - a system designed for a specific user and to work as an integrated unit. Usually has built-in contractual responsibilities for hardware and software maintenance.

**Twin wire** - paper which has an identical smooth finish on both sides.

**Typeface** - the raised surface carrying the image of a type character cast in metal. Also used to refer to a complete set of characters forming a family in a particular design or style.

**Typescript** - a typed manuscript.

**Typo (US)** - an abbreviation for typographical error. An error in the typeset copy.

**Typographer** - a specialist in the design of printed matter, and in particular the art of typography.

**Typography** - the design and planning of printed matter using type.

## **U**

**U&lc** - an abbreviation for UPPER and lower case.

**Universal Copyright Convention (UCC)** - gives protection to authors or originators of text, photographs or illustrations etc, to prevent use without permission or acknowledgment. The publication should carry the copyright mark c, the name of the originator and the year of publication.

## **V**

**Varnishing** - a finishing process whereby a transparent varnish is applied over the printed sheet to produce a glossy finish.

**Vellum** - the treated skin of a calf used as a writing material. The name is also used to describe a thick creamy book paper.

**Ventura Publisher** - the desktop publishing package marketed by Xerox. The Ventura approach is a document-oriented one working on the basis that each page will have a similar format. The package with its lends itself to the production of manuals and directories.

**Vertical justification** - the ability to adjust the interline spacing (leading) and manipulation of text in fine increments to make columns and pages end at the same point on a page.

**Vignette** - a small illustration in a book not enclosed in a definite border.

## **W**

**Watermark** - an impression incorporated in the paper making process showing the name of the paper and/or the company logo.

**Web** - a continuous roll of printing paper used on web-fed presses.

**Weight** - the degree of boldness or thickness of a letter or font.

**Wf** - an abbreviation for 'wrong fount'. Used when correcting proofs to indicate where a character is in the wrong typeface.

**Widow** - a single word left on the last line of a paragraph which falls at the top of a page.

**Windows** - a software technique that allows a rectangular area of a computer screen to display output from a program. With a number of programs running at one time, several windows can appear on the screen at one time. Information can be cut and pasted from one window to another. The best known version of "windows" is that developed by Microsoft.

**Wire** - the wire mesh used at the wet end of the paper making process. The wire determines the textures of the paper.

**Wire stitching** - see saddle or side stitching.

**Woodfree paper** - made from chemical pulp only with size added. Supplied calendered or supercalendered.

**Word break** - the division of a word at the end of a line.

**Word wrap** - in word processing, the automatic adjustment of the number of words on a line of text to match the margin settings. The carriage returns set up by this method are termed "soft", as against "hard" carriage returns resulting from the return key being pressed.

**Work and turn** - a method of printing where pages are imposed in one form or assembled on one film. One side is then printed and the sheet is then turned over and printed from the other edge using the same form. The finished sheet is then cut to produce two complete copies.

**Work and tumble** - a method of printing where pages are again imposed together. The sheet is then printed on one side with the sheet being turned or tumbled from front to rear to print the opposite side.

**Wove** - a finely textured paper without visible wire marks.

**WYSIWYG** What-you-see-is-what-you-get (pronounced "wizzywig") - used to describe systems that preview full pages on the screen with text and graphics. The term can however be a little misleading due to difference in the resolution of the computer screen and that of the page printer.

## **X**

**X-height** - the height of a letter excluding the ascenders and descenders; eg 'x', which is also height of the main body.

**Xerography** - a photocopying/printing process in which the image is formed using the electrostatic charge principle. The toner replaces ink and can be dry or liquid. Once formed, the image is sealed by heat. Most page printers currently use this method of printing.

## **Y**

## **Z**

---

©2003 Bigdawg Design. All content, design and graphics property of Bigdawg Design and may not be used or reproduced in any way without written permission.

---