



Artwork Specifications

Customers supplying Artwork files and Completed Designs to Ball Media for Printing, are assumed to be accurate and complete as supplied. It is your responsibility to submit files for every part of your job. Our film and setup prices do not include time to create missing parts of your projects. It is also your responsibility to proof your layouts; any corrections that need to be made after we receive your files may result in additional charges. We will check your supplied files and correct any minor technical errors and we will examine every piece of every file to make sure they are ready for print production. It is our job to find every possible problem with your file before we print your product. If there are significant problems with your files, we will work with you to make sure they are corrected before we print anything. Ball Media will never intentionally delay your product. Our objective is to help you get the best possible final product and sometimes that means questioning the quality of the files we receive. This is done to ensure that you are completely satisfied with the final product that you receive.

Making use of our Templates

We have set up templates that are compatible with each of the major desktop publishing and graphic design software packages:

QuarkXPress, Macromedia FreeHand, Adobe PageMaker, Illustrator and InDesign, Photoshop, and CorelDRAW (see CorelDraw tips). These templates have been designed by our prepress and print departments to ensure that your job will meet our print shop's specifications. If you create your designs without using our templates, we may have to adjust your layouts to fit, and this can cause delays in your turnaround. Discrepancies of as little as 1/32 of an inch can cause problems in the final packaging of your product. There is also the possibility that if your supplied files are far enough out of spec, we will not be able to use them at all. Using our templates correctly will prevent this from occurring.

Ball Media is committed to staying on top of current desktop publishing technology. In the compressed folders you will find a .Qxd (QuarkXpress template), EPS file, and a PDF (use only for reference). Any of the major page layout, illustration and image editing applications will open an EPS file to use as a guideline if you do not use QuarkXpress. Some popular desktop applications like Microsoft Publisher are suitable for printing flyers from an inkjet printer, but are not powerful enough to work in a professional publishing environment.

The Mac templates are contained in a compressed .SEA (Self-Extracting Application) file therefore you should not have any trouble opening the file. The PC templates are contained in a compressed ZIP file. In order to extract them, you will need to have WinZIP (or any other file compression utility than can handle ZIP files) installed on your system. You can download a trial version of WinZIP from www.winzip.com

Once you've opened one of our documents, please do not make any alterations to the template itself, such as copying and pasting into a new page to save space, altering any of the existing template elements, changing the page size, etc. Our templates are laid out to maximize our in-house productivity. If you alter the template pages, we will have to reformat your job into the original templates, and you may be billed for this work.

Using measurements other than Ball Media's

We strongly recommend that you use our templates for setting up your Artwork. Different manufacturers may use slightly different dimensions. These may be very subtle differences you don't notice. Even slight deviations from Ball Media specifications can make big problems in printing and packaging and could cause you problems in delaying your project.



What programs should I use?

Here is a list of our preferred programs:

QuarkXpress versions 3.3 through 5 (templates are in v3.3)
Adobe InDesign version 2
Adobe Illustrator up to version 10
Adobe Photoshop up to version 7

Other acceptable programs:

Macromedia FreeHand up to version 8
Adobe PageMaker version 7
CorelDRAW versions 5 through 10 (see CorelDraw tips)
Important: layouts may not be submitted inside a Microsoft Word or other word processor document!

All files should be saved as follows:

Common Layout types:

QuarkXpress (.qxd), Adobe InDesign, Adobe Pagemaker 6.5 (.p65), Corel Draw (.cdr).

Acceptable graphic types:

TIFF (.tif) or EPS (.eps) - with 8-bit TIFF preview

Scanned image Resolution:

All images should be scanned and created at 300 dpi to the proper size of your layout. Stretching images to fit your art after they are scanned will lower the resolution and cause your job to print pixilated.

Color Modes:

Files will be saved as CMYK or grayscale (not RGB). Rarely you will use pantones as spot colors on print but if you choose to please contact your sales person about price differences. If you are planning on having a disc face that is with a photo that is anything other than a CMYK or Grayscale you will need to create the image as a duotone and save it as an EPS. As for Pantone colors on your disc face you should use a vector editing program such as Adobe Illustrator or Macromedia Freehand. Vector programs allow you to easily assign specific pantones to different areas in your design.

We cannot accept the following file formats as print files.

- GIF (.gif) - great for the web, but not recommended for print output
- JPEG (.jpg) - great for the web, but not recommended for print output

Important: images may not be submitted inside a Microsoft Word or other word processor document!

Artwork created for the web should not be used for printed work, because the Web and commercial printing have substantially different needs. For commercial printing, you want a lot of technical data: images should be 300 ppi, uncompressed, in CMYK color. A CD cover, for example, would be around 8.6 MB in size. For the Web, you want your images as small as possible for quick downloading: 72 ppi, compressed, in RGB or indexed color. Often, these files are under a 100k. If you use one of these tiny Web images in your printed work, images will be very pixilated or "jagged", and the color quality will be poor.

Fonts:

We can accept either PostScript or TrueType fonts, although TrueType fonts can be troublesome for Mac. For Mac, PostScript fonts will be a suitcase/screen file with separate printer files for each weight (e.g., bold, italic, plain), while TrueType will be a single suitcase. For PC, each TrueType font will be a single .ttf file, while PostScript fonts consist of two files, a .pfb and .pfm. We can also accept Adobe Multiple Master fonts, but you'll need to be sure that you're sending us all the necessary files to install all the custom instances of the font that you have created. (Each custom instance of a Multiple Master font will have its own separate font file.) Industry support for OpenType fonts is still developing, and at this time we can't guarantee trouble-free output of OpenType fonts (especially under Windows).



What is bleed?

When the pages are printed and it's time to cut the paper to its final size; a hydraulic powered knife comes slamming down to cut the paper. As you can imagine, the knife may be slightly out of skew with the crop marks so we must use a BLEED area. When you hear the term "bleed" you must imagine the color on the page flowing off the edges of your panel. Expand the background color of your artwork off the edge of the panel a minimum of 1/8" (0.125") all the way around the perimeter of your artwork. E.g.: if your background color is blue, then stretch the color beyond the boundary of your crop marks. Make sure you don't cover up the crop marks.

What are Crop Marks?

When you do a layout, your main film size will usually be 11" x 17" so the printer needs to know where your artwork boundaries are for each panel. - Crop marks tell the knife where to come down and cut your paper sizes. Since we use DIE CUT presses - it is vital you follow all template sizes exactly!

What are Registration Marks?

Since our color document is separated into FOUR-color films by the image setter, the printer needs to reassemble these plates in perfect alignment on the printing press or you will get a mis-registration. Most everybody has seen the daily newspaper's cartoons with the colors spilling out of the lines - this is registration gone badly! If the colors all stack neatly on top of each other- you get perfect color balance.

So how do you get this done? By creating REGISTRATION MARKS. These funny little circles are colored in 100% values of each of the four plates in order to appear in EXACTLY the same spot and intensity on each film. Simple, yet very effective. Theoretically a registration mark could be anything, as long as it is colored; A registration mark is usually 1/8th" diameter and placed within 1/2" of the artwork. Don't fuss too much with them but make sure they are colored as per above. Most pro publishing programs actually have a preset color mode called "registration color" just for coloring these things.

Why do I need Perforation Marks?

Pull out a tray card from behind the plastic cover on one of your CDs at home. Notice that the tray card has a 90-degree bend on both edges to create the spines for your CD. Instead of a solid line used for crop marks, the perforation mark is a dotted line. The printer will use a special cutting wheel (similar to a pizza wheel) to perforate the paper. It is vital that the "spine" is 6mm wide. Place these dotted lines on the vertical plane 6mm in from the outside edges of the tray card. You also need to include a STOCK NUMBER (anything you want) on the spine which will be used to track your order. You also need to include dotted lines to mark the FOLDS OF THE INSERTS. We need to know where the pages fold, so place these dotted lines at the top and bottom of the folds outside the area of your artwork. Don't carry the dotted line all the way through the artwork or they will show up in the final print!

Recommended type sizes

Generally, for your printed pieces you can go as small as 5 points for black type on a light or white back-ground, 6 points for white type on a dark, black, or complex background (also known as reverse type). This varies, of course, depending on the typeface used. For your on-disc printing, the same rules apply, but in addition please keep in mind that thin typefaces tend to get blown out or filled in when silk-screened. For your cassette shell printing, you cannot go below 6 points - no exceptions - and it is usually best to stick with very sturdy faces (think Helvetica, Times, etc.). When choosing your fonts, choose carefully: the fancier typefaces are often referred to as "display" faces, because they are designed to be used at larger sizes (18 points and up). For smaller type, such as lyrics and credits, it is usually best to stick with simpler faces such as Arial, Helvetica, and Garamond or Times New Roman. Display faces can be very difficult to read even at 10 points.

Viewing EPS Images

EPS, or Encapsulated PostScript files are comprised of two halves. The actual image is stored in the file as raw PostScript code (the language the computer uses to talk to a PostScript printer). Since this is just code, the file also contains a low-resolution preview image just for on-screen viewing. When the file is printed to a PostScript printer, the computer disregards the low-res preview, and actually sends the code for the hi-res image to the printer. If you're trying to print an EPS file to a non-PostScript printer (such as a desktop inkjet or low-end laser printer), you will be printing the low-res preview image. EPS files can only be printed correctly to PostScript printers (all of our printers here at Ball Media are PostScript-enabled).



Tips for setting up images for on disc printing

Leave your image as a rectangle; use the circle in the template itself to mask the image. This will result in a perfect circle, and exactly the right dimensions.

Submitting Artwork files

The following Storage Media is recommended:

- Iomega Zip (100MB or 250MB)
- CD-R

We do not recommend using 3.5" floppy diskettes. Floppies are the most error-prone format and are easily damaged in transport. They should only be used as a last resort. If you must use floppy disks, you can use Stuffit on Mac, or WinZip on PC to compress your files and span or segment them across multiple floppies. Make sure you check your disks and/or cartridges before you send them in. If you're using compression software, extract the files to make sure the files archived correctly. If you're sending in a CD-R, check to see if you can read it in a standard CD-ROM drive (not just your CD-R drive).

Emailing / FTP Artwork files

You may email small files (under 1 MB) to your Customer Service Representative; if your files are over 1 MB you should use our FTP site.

You can send us a file via FTP by uploading the file to our FTP site at the following address:

<http://www.ballmedia.com/Specifications/Uploads/uploads.html>

2) Fill out the Upload form including: Contact name, Company name, Phone number, E-mail address, P.O. number, File names (comma separated), What software was used, and Platform (Macintosh or PC)

3) Compress your files into one single archive (using Stuffit or WinZip).

5) Please call, fax, or e-mail your Customer Service Representative after the files have been uploaded.

Sending in Fonts

The primary font format for Macintosh is PostScript. The fonts come in two main parts: a screen font (usually in a suitcase) and a printer font. If the font has multiple weights (such as plain, bold, italic, and bold italic), each weight will have a separate printer font. Make sure you are sending us all parts of a font, as this is one of the most common mistakes. While we recommend using only PostScript Type 1 fonts on the Mac, it is possible to use TrueType also. These will only consist of a single file (again, usually a suitcase). Some TrueType fonts can be problematic with our printers, so avoid using them if possible.

The primary font format for Window-based computers is the TrueType font. All of your installed TrueType fonts are usually located in the WINDOWS/FONTS folder, and contain the .ttf file extension. All you need to do is copy the necessary font files to your Zip disk or CDR. Oftentimes the filenames are very cryptic, but if you double-click on a font file, you'll get a preview window so you know you're about to copy the right ones. **IMPORTANT NOTE FOR WINDOWS USERS:** Please **DO NOT** copy the entire Fonts folder, as it is a system folder and as such can cause odd problems when copied to a different machine. Be sure to copy just the TrueType font files themselves.

It is possible to use Adobe Type 1 fonts under Windows, but they are different than the standard TrueType font format. Type 1 fonts consist of two files: a .pfm file and a .pfb file. You must send in both files in order for us to be able to use the font, since one file is the printer font and the other is the screen font. Type 1 fonts do not have a set location on your hard drive, but Adobe Type Manager (which you must have in order to use Type 1 fonts) usually stores them in a folder called PSFONTS.

If you're using Adobe Multiple Master fonts you must be sure to send us all the required files for the custom instances you've created; each custom instance will have its own file that we would need to properly activate the typeface.

Converting type to curves

We recommend that your text be converted to curves. This eliminates the need for the fonts used in the project and narrows the chance of text problems. If you choose to convert your text to curves we still recommend that you send the necessary fonts to complete the job as a backup for revisions.

Using Vector Transparencies

Be aware that using transparencies in any vector editing software, (ie Illustrator 9-10, Freehand, Corel etc.) may cause random elements within a document to rasterize unexpectedly. This can be identified by chunks of text or sections of artwork appearing pixelated or jagged. We recommend not using vect or transparencies in order to ensure that your graphics will print properly and your turn time is not affected by delays due to graphic repair.



Sending embedded scans

If any editing is required on your scans, whether to add bleed, convert to CMYK or to adjust the resolution, we will need your scans as individual TIFFs or EPSs. Each page layout program handles embedding images differently. QuarkXPress always links to the images, CorelDRAW usually embeds (there is a poor-quality linking function that is turned off by default) and Freehand, Illustrator and PageMaker give you the option. Regardless of whether the images are embedded or not, we need the graphic files separately. As a general rule, you should never embed your images (except in CorelDRAW). Always link them, and send in the image files along with the layouts. If we receive layout files without image files, we may have to hold your project and wait for you to supply the image files separately.

PostScript files

All of our printers are PostScript-based, so theoretically it is possible to send us a PostScript (.ps) file of your layouts for film output. However, we don't accept postscript files, since we would not be able to edit your Postscript files. If anything were out of spec, we wouldn't find out until we printed film or imaged the press plates.

Trapping

Trapping is a technique in which abutting colors are slightly overlapped to minimize the effects of misregistration of the printing plates. Unless you're skilled and experienced at trapping your artwork, it's probably best to leave the trapping to us. Trapping is a service we provide for free, and we have skilled professionals to ensure that your job is trapped correctly.

Common problems when submitting artwork files

Failure to include fonts

Please make sure that all fonts have been included

Failure to include all linked images

Before you send in your job, make sure you're sending in all linked files. Each application has a different way of checking this. In QuarkXPress, use the Collect For Output feature. PageMaker, FreeHand, and Illustrator 8 have Links options, which will list all placed images.

Image resolution is too low or supplied in RGB instead of CMYK.

We cannot print RGB Colors. All files must be supplied in CMYK

Insufficient bleed

All Color sides require a minimum 1/8th" bleed.

Failure to supply all parts of the job in Ball Media templates

Please be sure to supply ALL parts for your layouts.

Final checklist

When you're ready to submit your job to Ball Media, make sure that you're including all of the following items:

- your layout files
- all the fonts used in the layouts
- all the scans placed in the layouts
- printouts of every layout file (if you've made changes since printing your files, you must make new printouts of the final versions that you're sending) - black & white prints are fine, even if your files are in color, but faxes are not acceptable due to lack of detail
- a listing of the files on your disk (please also note the OS, programs and versions you used; i.e. Windows95, CorelDRAW 8, Photoshop 5, etc.)
- a folded and / or stapled mockup (for any specialty print job, booklet, or any job 3 panels and up)
- any special instructions you may have

Please make sure you are supplying a file for every piece of your job. Please organize the files on your disk when submitting your project. Set up separate folders for layout files, images, fonts, not-for-output files, etc. If we receive a disk with hundreds of unorganized files, this will delay your project.



QuarkXPress tips

If you are using QuarkXpress we would advise you to stay away from using menu styles on your fonts to print bold, italic, or any other menu style. This may cause your text to default and print unexpected results because there is not actually a bold or italic font. Postscript printers require that you have a supplied font for each typeface including bold versions etc. in order to translate the file properly.

Adobe Illustrator tips (transparencies)

If you are using Illustrator 9, 10 or any vector program that supports transparencies please try to avoid using them. There is a common problem with random chunks of artwork rasterizing and leaving other areas as vector art. On the final print you are left with an uneven print job with lines and squares visible in the images. If you must use transparencies please set your document setup / transparency flattening settings / raster•vector balance to 100% vector.

CorelDRAW tips

There are several features of CorelDRAW that we recommend avoiding, as they produce inconsistent results on different systems, and sometimes will not print at all. If you have used any of these features, please rework your files before submitting them to us:

TYPE 1 FONTS AND DRAW 8 (WINDOWS 95 & 98 ONLY)

There is a known bug with CorelDRAW 8 and Type 1 fonts displaying incorrectly under Windows 95 and 98. CorelDRAW misinterprets the built-in kerning pairs, adjusting the kerning (letter spacing) to approximately 98% of the actual correct spacing. If you are running Windows 9x and are using Type 1 fonts with CorelDRAW, please let us know this so we can be sure to open your files on a Windows 9x machine - if we open your files on Windows NT the character spacing will not be identical to what you saw on your computer.

FONT EMBEDDING

Under no circumstances should you embed your fonts in the CorelDRAW document using the TrueDoc font embedding option (in the Save dialog box), and not send us the actual font files. This feature only works if you never re-save the document and that is something that we must do in all cases. If you use this font-embedding feature and do not send us the actual font files, we will have to put your project on hold while we wait for you to send us the fonts.

DROP SHADOW EFFECT

CorelDRAW had a built-in drop shadow effect that you can apply to any object. These drop shadows often do not produce the desired results, or print incorrectly to a PostScript printer (which is what we use here). If you use the drop shadow effect, please be advised that it may not print as you see it on your screen, and we may not be able to correct this on our end. The correct method of creating the popular blurred and transparent drop shadow effect is to use the gaussian blur filter in Photoshop or Photo-PAINT. You can create a solid drop shadow on type by duplicating it (CTRL-D), changing the color and moving it behind the main text.

DRAG & DROP (OR CUT & PASTE) FOR IMAGES (ALSO KNOWN AS OLE - OBJECT LINKING AND EMBEDDING)

The only correct method to place scanned images, clipart, or other items into your CorelDRAW document is to use the IMPORT command in the FILE menu. Dragging and dropping or cutting and pasting an image from Photoshop into CorelDRAW does not work, and prevents us from easily checking the resolution and color depth of your images. Text should always be flowed into a paragraph box or artistic text insertion point. If you've placed your text and cannot edit it with Corel's text tools, you've done it wrong (in other words, the status bar should never read Embedded object when you have type selected. It should always read Paragraph or Artistic text).

LENS EFFECTS ON IMAGES

CorelDRAW allows you to apply lens effects (transparency, color tints, etc.) to scanned images. We recommend avoiding these features, as the file may print incorrectly when separated to film. To proper way to create a complex montage of several images is to use Photoshop or Photo-PAINT to collage the images together into one.



.EPS FILES

Unless your images contain clipping paths or are set up as duotones, please **DO NOT** use the EPS format for your images, and **DO NOT** place EPS files into your CorelDRAW documents. Outside of a few circumstances (such as those mentioned above) there is no valid reason for using the EPS format over TIFF for your images, and due to CorelDRAW's inability to report color mode and resolution of placed EPS files we ask that you not use this format to supply and place your images. For those circumstances where you need to use EPS files in your layouts, you **MUST** supply them in addition to your CorelDRAW files. If we do not have the .eps files we cannot use the CorelDRAW file either, and we will have to hold your project until we receive the .eps files. If you choose to use EPS files for regular images (i.e. those that do not contain clipping paths or are not duotones), we will have to open and resave them as TIFFs and then replace the images in your layouts, which can delay your project.

LINKING IMAGES

Newer versions of CorelDRAW allow you to link to your images, rather than embedding them in the document. This feature does not work properly for our workflow - please make sure that Link Bitmap Externally is deselected in the import dialog box, so CorelDRAW embeds the image properly.

.BAK FILES

Please do not supply any .bak files that CorelDRAW has generated - these are created by CorelDRAW's autobackup on save feature, and are not the current version of your files.

Disclaimer

Ball Media does not guarantee delivery times. Ball Media Corporation does not accept responsibility for corruption of artwork files transferred electronically to our graphics department. Due to the nature of the Internet and the volatility of electronic transfer, it is highly recommended that a hard copy of all artwork files (i.e. CDR, Zip Disc) be sent to Ball Media as a primary source for files intended for graphics and prepress. Ball Media Corp. will strive to meet required delivery dates such as may have been quoted. Ball Media Corp. disclaims any liability for delays in meeting delivery dates. If your supplied files are not in our templates, not to our specifications, or otherwise substandard, your job will be delayed and there may be additional charges for services rendered. Supplied designs are assumed to be accurate and complete.

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