

GRAPHICS IN DEPTH: *Creating Exhibit Graphics that Reproduce Right*

You're an experienced graphic artist. You've been creating art for publications for years and now your company or client wants you to create graphics for a trade show exhibit. Nothing's different right? Wrong. Furthermore, you're probably facing a tight production turn-around that doesn't allow time to fix major mistakes made on the front end.

The specifications and design principles for trade show displays are often quite different from those utilized by other types of visual media (brochures, magazines, internet sites, etc.). The guidelines contained within this document have been specifically designed to help you meet the unique requirements of large format digital printing.

Reading this document prior to producing any artwork can help you understand the process as well as the problems, enabling you to avoid many pitfalls. Following these guidelines will help to ensure that your display graphics are produced to the highest possible standards.

SOFTWARE PROGRAMS: Use Vector Artwork: It's Resolution Independent!

When choosing a program and format (to create and submit your artwork), keep in mind that different applications have different characteristics, strengths, and weaknesses.

Whenever possible, it's best to create your artwork in vector format (Adobe Illustrator, Macromedia Freehand, etc.). Vector artwork provides the highest quality output while maintaining the smallest file size. It is particularly well suited for text, logos, charts, diagrams, line drawings or any other element requiring sharp, crisp clean lines. Vector artwork can be scaled to any size without suffering degradation in quality, and is therefore ideally suited to large format digital printing.



VECTOR IMAGES: Results are sharp, crisp, and clean. Image can be scaled to any size without a loss of quality. Perfect for text, logos, line art.



RASTER IMAGES: Results can be poor, particularly if images are enlarged. Should only be used for photos or continuous tone images.

GOOD GRAPHICS HAPPEN WHEN YOU ...

- **Create text elements and logos in vector format** (Illustrator, Freehand etc.) or text in QuarkXpress (unless special PhotoShop effects are required)
- **Specify all vector colors using the PANTONE® Matching System** (solid coated) or provide a printed color sample to match to (letterhead, brochure, business card, etc.)
- **Supply all fonts** used in your artwork (both screen & printer) or convert text to paths
- **Supply an accurate printed color proof** for each element of your display
- **Supply original files** for EPS or linked elements (including any fonts used)

- **Rotate, size, and crop your images in PhotoShop** and *not* in your page layout program (Illustrator, QuarkXpress, etc.)

PROBLEMS HAPPEN WHEN YOU:

- Specify vector colors using only CMYK values. Why? Different printers interpret CMYK values differently so this will not provide a reliable reference for color matching.
- Embed images. It is not possible to check embedded images and they will print as is.
- Supply True Type or PC fonts. To avoid problems with fonts, *always convert them to paths.*

USING RASTER ARTWORK

If you use raster (bitmapped) images in your display, please bear in mind that file sizes for these images are significantly larger than equivalent vector images. However, raster images are particularly well suited for photographs, illustrations, and other continuous tone images. They are generally not suitable for the reproductions of text, logos, diagrams, line drawings etc. You will not like the results of blurry text or lines when you see it full scale!

Also, avoid up-sampling or “rezzing-up” raster images. If you artificially increase the resolution through software, this will result in a loss of quality. When printed at full size, you will see this loss of quality. To obtain the highest quality results, it is extremely important that all images are scanned at the correct resolution.

PRINTING IN LARGE FORMAT DIGITAL PRINTING

All scanned images for large-scale exhibit production require a resolution of at least 75-100 dpi (dots per inch) at final size. 100-125 dpi is needed if fine detailed or small text has been incorporated into a raster image. This resolution will provide the optimum print quality for your display. If you’re experienced in print production, this is not very high resolution compared to typical print production in magazines or publications. However, the production machines for exhibit graphics are all calibrated to output at this level yet have spectacular results. This is good news for you because dealing with files that are extremely large is very time-consuming. **For best results, you should work at ½ scale.** This means you are still working with very large files but not overly so. Never work less than ¼ scale or you will be disappointed in the results. Remember the 75 to 100 DPI must be the size at the full-scale output level.

If you elect to use images supplied with a resolution below the requested minimum, you will have inferior output. Further, images supplied with excessive resolution do not necessarily add to the quality of the output. They merely increase the size of the file... *and slow you down!*

About scanned images:

If you plan to use scanned images in your display, always have them professionally scanned by a qualified operator. Please be wary of scanning your images on low-end desktop scanners, as the results may be unacceptable. Always take great care when choosing original images to scan. A sharp, clear, well-defined original will create a stunning display. Conversely, images, which are dull, grainy, out of focus or lacking in clarity, will produce disappointing results. Always examine your originals very carefully and be particularly wary of small flaws and imperfections. These may seem insignificant on your original, but once enlarged they can often result in poor quality, unacceptable images.

When working with scanned images, please note the following points:

- Have your images professionally scanned by a qualified technician
- Scan images at a resolution that will permit *final output* of at least **75 dpi for standard images or 125 for images containing fine details or fine text.**

- Start with the highest quality original you can obtain
- Check your original very carefully for flaws and imperfections
- Beware of images shot with high-speed film – they will probably be very grainy and will not reproduce well
- Save all raster based images as RGB in the following formats:
 - EPS Lo Res (for FPO purposes only)
 - EPS Hi Res when being used as a placed image
 - PhotoShop (supply the original layered file whenever possible)
 - TIFF (RGB) (needed for Digital output only)

PROBLEMS WILL OCCUR WHEN YOU...

- Supply images with excessive resolution. This merely results in larger files, not necessarily better output.
- Create files with raster text (text generated in PhotoShop) as this may break-up when enlarged and produce poor quality images – try to limit the use of raster text only to those instances where special type effects are required.
- Up-sample or “rez-up” images –ensure they are scanned at the correct resolution
- Attempt to scan images on low-end desktop scanners
- Supply any pre-printed images for scanning
- Assume that your images are suitable for large format printing - have them checked prior to proceeding with any design or artwork (this applies to transparencies, prints, negatives, and digital files)

CROP MARKS AND BLEED

If you are creating artwork (i.e. for detachables), ensure that accurate crop marks are included for each element. When using images, which extend across several panels, do not dissect them. Supply images as a single piece of artwork with bleed around all the external edges. A bleed of 1 inch (at final output size) is required on each side of your artwork to ensure accurate cropping and trimming. Files supplied without bleed or crop marks, or constructed from a number of individual documents may require rebuilding and possibly additional charges for time required.

FONTS

To ensure that all of your elements print as designed, be sure to provide ALL fonts (*both screen & printer*) used in your document, including fonts used in imported EPS files. Alternatively, convert all text and fonts to paths. **True Type or PC fonts cannot be used so avoid them at all costs.**

COLOR

Colors for **vector** artwork must be specified using the **PANTONE® Matching System** (solid coated). As different printers and technologies all interpret CMYK values differently, specifying colors using CMYK values may not yield accurate color matches. However, specifying colors using the **PANTONE® Matching System** provides us with a precise color reference and dramatically increases our chances of accurately matching your colors. Colors assigned without specifying PMS or supplying a sample for match will print as is.

Always be sure to include a color PDF or proof with your artwork. However, please specify whether we are to match to your printed proof or the actual **PANTONE® colors** specified in the file. There is often a significant difference between the two, so be sure to indicate your preference. If no preference is specified, we will match to **PANTONE®** references rather than the printed proof. Raster based files will print as is (pleasing) unless we are given a proof indicated for matching.

IMPORTANT: Due to the inherent nature of large format digital printing, perfect color matching cannot be absolutely guaranteed. Certain mild color shifts and/or differences should be expected. Reprinted archived files will not exactly match original prints. If color matching from one element to another is required, all elements must be printed at the same time, using the same process.

VINYL CUT OUT LETTERS OR LOGOS

To process graphic files for vinyl output, extremely clean and accurate vector artwork (Illustrator or Freehand) is required. Raster bitmap files and files created in QuarkXpress are unsuitable for vinyl output and cannot be cut. File structure is extremely critical in vinyl artwork as all paths are cut. Consequently, overlapping, intersecting or joined paths cannot be used. For example: if two elements in a design touch, either separate them or convert them to one continuous shape. To achieve maximum quality, try to ensure that shapes are kept as simple as possible.

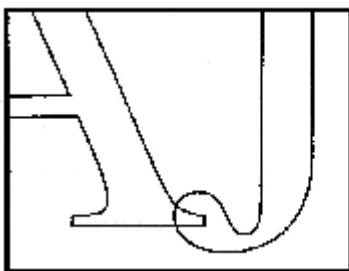
When working with vinyl, please note the following points:

REMEMBER TO:

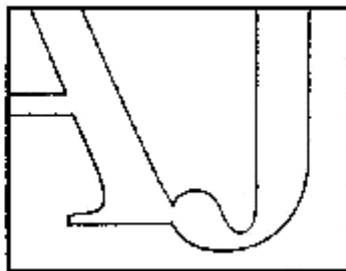
- Produce vinyl artwork in vector format
- Create artwork that is clean, simple and free of intersection or overlapping lines
- Convert all text to paths
- Supply an accurate color white proof for each element

NEVER *create art for vinyl cutting in rasterized format!*

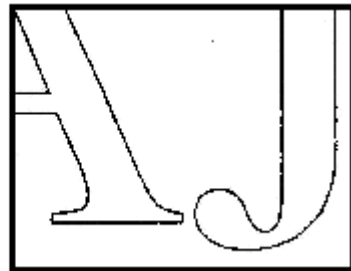
- Artwork intended for output to vinyl *cannot* be produced from a rasterized format



NOT ACCEPTABLE: All intersecting and overlapping lines will be cut. Results will not be usable.



ACCEPTABLE: Lines have been joined to produce a single element, avoiding any intersecting or overlapping lines.



ACCEPTABLE: Shapes have been separated to produce individual elements, avoiding any intersecting or overlapping lines.

COLOR PROOFS

For larger displays, or in instances where color matching is particularly important, the printing of a color proof is recommended. These proofs are printed and laminated using the same processes and materials that will be used in the production of your final display. As a result, they provide an extremely accurate representation of how your final display will look. If a color proof is required, additional time is usually needed. This is a chargeable service. When the preferred industry

standard non-glare laminate is applied to a print, it does change the final look. The image will look crisp from a distance but less crisp up close. If you are concerned about this issue, be sure to request lamination in your proof.

HOW TO CHECK YOUR COLOR PROOF

- Carefully review content, spelling size, and layout
- Pay particular attention to names, telephone numbers, web site addresses, etc.
- Check to ensure that all elements (type, logos, etc.) have been specified using the correct colors and have been positioned accurately
- Call for clarification if there is anything you do not understand

DO NOT APPROVE...

- Anything that you are not happy with or do not understand –once you have signed the proof, you have taken responsibility for the content

THE BOTTOM LINE ABOUT PROOFS

By signing-off on proofs, you are accepting responsibility for the content and instructing the job to proceed with the printing of your display as it stands. Hard copy proofing is only available if ample time is given. PDF proofing has become almost an industry standard. Hard copy proofs are chargeable, if a lamination is also request, it will increase the price.

EXHIBIT DESIGN TIPS

Design principles for trade show displays are often significantly different from other visual media (brochures, magazines, websites, etc.). It is therefore critically important that you consider the points and principles listed below when designing your display. Adhering to these basic principles will help to ensure that you achieve the maximum impact from you display.

- Keep the focal points of your display (*main image, company logo, principal messages, etc.*) at eye level or higher
- No meaningful part of your graphic or language should be positioned in the lower 1/3 of the booth – this area offers the least amount of visibility and can often be obscured by people, chairs, podiums, etc.
- Keep the number of images to a minimum. If several images are required, focus on one or two main images and use the remaining ones for support purposes only
- Keep text to a minimum. Treat your display like a billboard and ensure your company name, image, and written message are all easily seen and understood in 2 seconds or less.
- Where text is running across several images or graphic backgrounds, ensure text has highlights or shadows to maximize easy readability
- If you are designing for a multiple panel mural, it's not possible to guarantee that the splits will occur exactly where you have them planned (i.e. part of panel 2 may fall on to panel 3 and/or visa versa). Allow a "fudge" factor when possible.

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