

Digital Art Requirements

At Miratec Systems, we take great pride in the quality of our work. Our employees have years of experience in graphics and sign face production; however, their experience and knowledge can only go so far in satisfying your needs. In our quest for perfect production we need your help and input.

Enclosed are artwork guidelines that will ensure your project is produced to your exact specifications. It is critical that you provide precise information relative to your unique application.

When providing us with artwork for production, *please note the following digital art requirements.*

Communicating with Miratec Systems

Submitting Art Files

Art Files Smaller than 10mb:

Art files smaller than 10mb can be attached to an email sent directly to your sales rep. Always include the name of the project when distributing files to your rep.

Art Files Larger than 10mb:

Art files larger than 10mb should be submitted via the FTP (File Transfer Protocol) site which is available for customers to upload files into their respective, password-protected folders.

Revised Artwork

On occasion your client may change their artwork after you have already submitted files to Miratec Systems. In a situation where your previously submitted artwork has changed, resubmit the updated artwork to Miratec Systems under a new file name. Do not overwrite your existing file and re-submit! This process will ensure that the updated/corrected artwork will be used for printing.

If you do not have access to the FTP site, contact your sales rep at 1(800)336-1224.

If you have questions regarding the preparation of artwork, we'll be happy to assist you in any way possible. Our primary goal is making sure that you receive graphics that meet or exceed your expectations, on time, and at a fair price.



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Dimensions

Visible Opening (V.O.)

The Visible Opening is the portion of the graphic that is visible within the framework. The V.O. dimensions assure that none of the graphic's elements are hidden or obstructed by the framework/cabinet.

Color Bleed

Color Bleed is the extra printed material necessary to accommodate a framework, if any. This is critical even if the background color is white. Color Bleed will ensure that when your graphic is installed there will be no "light leaks" between the graphic and its frame.

If Color Bleed is required, add the proper amount to your artwork before submitting your job for production.

Overall Size (O.A.)

The Overall Size is the size of the substrate to which the graphic is applied. In some cases this dimension may be the same as the V.O. plus any Color Bleed.

Art Type

Oftentimes, a graphic is composed of a combination of Pixel Art and Line Art. In this case, both of the following conditions apply and should be considered before submitting your art.

Pixel Art

Pixel Art is a form of digital art comprised of continuous color gradations.

When color is critical: you must provide Miratec Systems a color proof that we can match. If you cannot provide a color proof, we'll run your graphics "As Provided" with the understanding that the color could possibly look different than your expectations.

Unacceptable color proofs:	Prints via desktop printer or colors from a computer monitor
Acceptable color proofs:	Matchprints, Iris, Fiery, etc.

If you do not have access to a color proof, perhaps the end user can provide one.

Line Art/Vector Art

Line art is usually created in software such as Adobe Illustrator, Corel Draw, or similar programs. These images are created with vector based shapes that are filled with solid colors or gradations between solid colors.

When color is critical: you must provide Miratec Systems with color chips, Pantone numbers, or a standard vinyl color from a 3M, Arlon, Avery, or Oracal color library that we can use to color match solid fill areas. Any critical colors should be listed in the file's color swatch palette. The intended parts of the art should actually use each indicated color swatch. We can produce these graphics without a color reference; however, the color could possibly look different than your expectations.

Color

CMYK Color

Use CMYK when preparing art files for production. CMYK will most accurately reflect onto your computer monitor, the output color, although there may remain some subtle differences.

RGB Color

While we accept RGB files, differences in color can occur when they are converted to CMYK for production.



Resolution

Pixel images are made up of many small squares of data called *pixels*. The data in each individual square dictates the color that the pixel will print. Resolution is defined by the number of pixels in a given area of an image.

Pixels Per Inch (PPI)

PPI is the most common measure of resolution. Knowing and understanding your image's PPI is important for scaling purposes because the overall number of pixels in a piece of art does not change as the dimensions change. However, the PPI does change as the dimensions change. The pixels merely get bigger or smaller in concordance with the image size. Thus, PPI is inversely related to dimension; as an image is enlarged, the pixels are also enlarged and there are fewer of them per inch.

Determining Adequate Resolution

Determining adequate resolution for pixel art is dependant on the application and its true viewing distance. A billboard viewed from a highway 500' away may only need to be set to 25 ppi at full scale. On the other hand, a graphic installed in an airport concourse, intended to be viewed from only a few feet away, may need to be 400 ppi or more at full scale.

Increasing Resolution

While there are methods for increasing the number of pixels per inch, understand that information not contained in original art cannot be "created". We can increase the pixel count of an image but we cannot produce high resolution graphics from pixel format files that are supplied to us at low resolution.

When an image is artificially "res-ed up", or has had its pixel count artificially increased it can "soften" the "stair step" effect but, at the same time, can cause the image to have a slight "blurriness." Artificially adjusting the image's resolution will not make the image look clearer or sharper.

As a rule of thumb, when working with pixel art, try to work at full scale whenever possible and determine the appropriate resolution based on the final viewing distance.

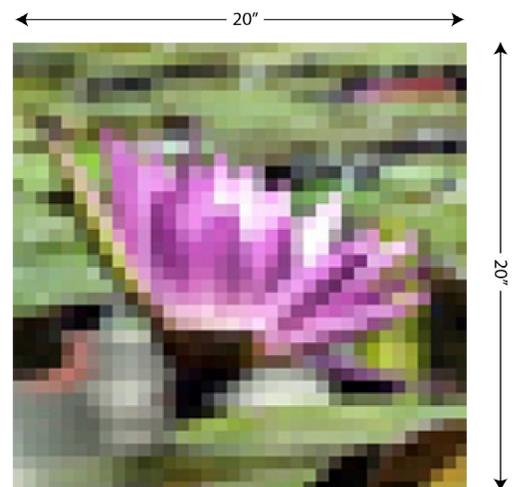
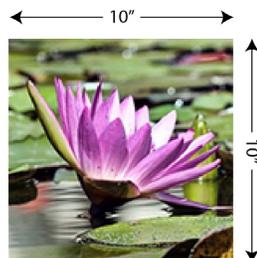
High Quality Resolution

High quality art is required to achieve the best printing results. When working with digital photos there is no substitute for high quality professional digital photography. Keep in mind that a 10 mega-pixel camera will only create a 100 ppi image when scaled up to 32"x32". Techniques can be used to further enhance images, but there are always limits to what can be done, and the larger the output dimensions become, the more that pixel count and clarity matter.

For Example:

This 10" x 10" image has a resolution of 100ppi, while the 20" x 20" image has a resolution of 50ppi. Both images have the same number of pixels overall, however the pixels are stretched over differing dimensions thus changing each image's respective ppi.

If the output/final size of the image is large and the pixel count (PPI) is small, the result will reveal square, "stair step" shaped pixels as shown in the far right example. This may be acceptable based on a long viewing distance. However, in cases where your art will be viewed closely, higher resolution artwork may be necessary.



File Formats

Adobe PhotoShop

Adobe Photoshop is a pixel based software program and the industry standard for image manipulation. We can accept all Adobe Photoshop generated files regardless of type; however, we do request that they are provided to us in CMYK mode for best results.

Adobe Illustrator

Adobe Illustrator is a vector based graphic program commonly used for type or line art either alone or in conjunction with pixel images.

IMPORTANT: When including type in your graphic all fonts should be converted to outlines!

To convert your file to outlines in Adobe Illustrator:

1. Select all elements of the graphic
2. Click on the "Type" Menu
3. Select "Create Outlines"

Adobe InDesign

Adobe InDesign is a vector based program, similar to Illustrator; however, InDesign gives the user a higher degree of control over text elements. When using InDesign export your artwork to a PDF document.

Corel Draw

Corel Draw is a popular program for desktop publishing and creation of graphics, however, we do not recommend using Corel Draw to create graphics for large format output. Art files output from Corel Draw have a tendency to have unexpected results at the printer, i.e. shadows, shading, pattern fills and gradients created in Corel Draw. In addition, exporting Corel Draw files out to other file formats such as EPS or AI can also yield unexpected results such as missing elements, color banding, etc.

With that being said, we will accept Corel Draw files, but we ask that you have all elements in CMYK mode and be sure to also supply us with a pixel format file (such as a JPEG) that accurately represents the desired look and layout of your graphic. This will enable us to confirm that no elements are missing or distorted as we go into production.

IMPORTANT: When including type in your graphic all fonts should be converted to Paths/Curves!

To convert your file to Path/Curves in Corel Draw:

1. Select all elements of the graphic
2. Click on the "Arrange" Menu
3. Select "Convert to Curves"