Tips for Creating Digital Artwork

Creating good digital art is crucial. Here are some tips for creating digital artwork that will help you achieve higher quality masks and better results.

Choose from the following art topics:

Scanning

Getting a good scan is crucial for creating a good positive. Use the following steps to maximize your scanning results.

Using your scanner software: **1**. Make sure that the artwork you are scanning is clean, free of specs and wrinkles. **2.** Lay the object completely flat on the scanning bed. Make sure that it's even vertically and horizontally. **3.** For line art, set scanner settings to "Black and White" or "Line Art." For halftones, choose "B/W Photo" or Grayscale (these options may vary depending of scanner software). **4.** Set scanner at a resolution of 1200 dpi. **5.** Save as TIFF, EPS or JPEG file. Your artwork is now ready to import into your graphics software.

Graphic Software Packages

The following software packages are standard imaging programs in the graphic arts industry. Use the following tips to get the best results from your programs.

Photoshop: Works best for scanning, editing bitmap images and creating halftones. **1.** FOR LINE ART - After opening your black & white artwork, check to see that your artwork is in Bitmap mode. Look under the *Image* menu and *Mode.* If the file is not in Bitmap mode, change settings on your scanner and rescan as line art. If this is not an option, you can convert it to bitmap in Photoshop by selecting the *Image* menu, *Mode* and then *Bitmap.* In the next menu under *Resolution*, keep the dpi at the same resolution as input. For best results, artwork should be at least 600 dpi (1200 is optimal for line art). Under *Method*, select *Threshold* (Note - converting to Bitmap may lead to fuzzy edges which may require more clean-up time). **2.** Zoom in to view the artwork. If scanned at a proper resolution, edges should appear relatively smooth. Clean-up any unwanted marks by using the *Eraser* or *Lasso* tools. Fill in unwanted white spots using your *Brush, Pencil or Line tool.* **3.** Crop artwork as tightly as possible, without getting too close to the artwork. Leave at least 1/16 - 1/8 of an inch around the image. **4.** Save image as TIFF, EPS, JPEG or GIF (TIFF is preferred). PhotoBrasive Systems uses Photoshop 7. For more information on halftones, see **Creating Electronic Halftone Positives** or **Creating Halftones in Photoshop.**

Adobe Illustrator: Works best for creating original or altering vector artwork. **1.** Make sure your document setup (under *File*) is relative to the size of your artwork. For example, if your artwork measures 2" x 2", and your document setup size is 8" x 10", the file will be unnecessarily larger and make it more difficult to zoom in and alter or check the artwork. **2.** If you have typed any text, be sure to *Create Outlines* using the *Type* menu. This changes the text to a vector image and will help to eliminate font compatibility problems when sharing the file. **3.** Save file as Illustrator EPS. PhotoBrasive Systems uses Illustrator 10.0 (if you have a more recent version, please save as 10.0 or older). Note: If you are working on the PC version of Adobe Illustrator you may have problems converting certain font families to outlines. In this situation, you will need to include the fonts when sending the artwork.

Macromedia Freehand: Works best for creating original or altering vector artwork. **1.** If you have typed any text, be sure to convert text to paths under the *Type* menu. This changes the text to a vector image and will eliminate any font compatibility problems when sharing the file. **2.** When saving, save as a Freehand document. PhotoBrasive Systems uses Freehand 10.

Quark XPress: Works best for typesetting, creating composite designs of text and artwork, and creating setups with multiple copies of artwork. **1.** Make sure that any artwork you import into Quark is setup as per the instructions above. **2.** When sharing Quark files, be sure to include the files for any images used as well as fonts. When saving a copy of your file on disk to be shared, choose *Collect for Output* under the *File* menu. This option automatically includes all graphic files used in the document. You will still need to add font files separately. PhotoBrasive Systems uses Quark XPress 5.

Adobe Pagemaker: Works best for typesetting, creating composite designs of text and artwork, and creating setups with multiple copies of artwork. **1.** Make sure that any artwork you import into Pagemaker is setup as per the instructions above. **2.** When sharing Pagemaker files, be sure to include the files for any images used as well as fonts.

Corel Draw: Works best for creating original or altering vector artwork. **1.** If you have typed any text, be sure to convert it to curves under the *Arrange* menu. **2.** Export the file as an *ai* (Illustrator) file. This will eliminate the need to include your fonts and also reduce compatibility problems. **3.** PhotoBrasive Systems uses Corel Draw 10. If saving as a Corel Draw file, be sure to save it as a version 10 file or earlier.

Vector VS Bitmap Graphics - What's the Difference?

Digital graphic files usually fall into two categories: Vector and Bitmap. Each file format has its own merits in specific situations. Vector is an ideal format for line art. In this type of file, the artwork is made of paths. Each path is a connected series of points. Path construction allows for the easy alteration of lines in the image as well as easy scaling of images without loss of image quality. Vector art requires software that allows for the editing of paths as well as user proficiency in working with paths. Common programs for creating and editing vector art include Adobe Illustrator, Macromedia Freehand or Corel Draw. Please note that there may be some compatibility issues when importing vector art files into some programs in a PC or non-postscript enabled device. Some common file formats that retain vectors are Illustrator, Freehand, Corel Draw, EPS, and WMF.

Bitmap formats are most common in scanned art. In these files, the artwork is comprised by a large number of dots or pixels. The assignment and number of these pixels is directly related to the resolution of the artwork. Because of this, when resizing bitmap images (enlarging in particular), the edges will become jagged. With this format it is imperative to scan at a proper resolution. As stated above, 1200 dpi is ideal for line art. Low resolution will lead to poor image quality and a large amount of clean-up time to fix the image to make it workable. This format is highly compatible amongst software and cross platform. If created at a proper resolution, this format can provide excellent image quality. Common formats include Photoshop, TIF, BMP, JPEG and GIF.

Graphic File Formats

There are a variety of file formats that today's graphic software will allow you to save your image as. Here are some of the common formats and the differences between them:

TIF- Highly compatible amongst most software packages and cross platform between Mac and PC. Ideal format for bitmap images. Maintains high image quality. Usually results in larger file sizes.

EPS - Great format for vector art. Able to resize without loss of image quality. Widely compatible, with some exceptions on non-postscript devices.

JPEG - Compresses image allowing for smaller file sizes. Widely used for internet applications and some print applications. Due to compressed format, edges may appear fuzzy and image will become jagged if resized. Great for e-mailing files, but may sacrifice some image quality.

GIF - Another compressed image format, allowing for smaller file sizes. Mainly used for internet applications. Due to compression, image quality is relatively low. Image will become jagged if resized. File size is good for e-mailing, but definitely sacrifices image quality.

For use in sandcarving, PhotoBrasive Systems recommends the use of TIF or EPS file formats. These two will retain the image quality necessary to create a good, clean photopositive. Other formats may lead to a lack of quality and excessive clean-up time.