Ad Formats

(what we need and why)

Getting images off of the Web

Since many clients have been asking to have images and logos pulled off of their web pages,here are some basics on what we can and cannot accept.

Take a look at the photo below. This was pulled off a web page by a client who wanted to use it in an ad.

This image is shown at the same size as it appeared on their web page,but notice the rough appearance. **This happens because the Internet only requires images to be 72 pixels per inch in resolution for them to look good on a monitor. Magazines need much more than that: 300 pixels (dots) per inch, more than *4 times the resolution*.** This is why we can't just pull an image off a web page and place it in an ad

The only way we can increase resolution is to shrink the picture (compressing the dots or pixels into a tighter space).Here is the same picture,shrunk down to 25% of its web size to achieve 300 dot per inch.

Note that the photo still looks rough.It was a JPG, which *compresses files to save downloading time* .This compression also,however, tends to throw away some of the photo's data, resulting in a *loss of quality* . Although the GIF format doesn't lose quality like JPG's,most GIF files are so low in resolution that we can't use them.

Because of these problems,it is usually best not to use web images in print ads,but if it is the only thing available keep in mind that **the photo should be at least 4 times bigger on your web browser than you are going to need it to be in the ad.**

The Difference between Graphics Programs and Page Layout Programs

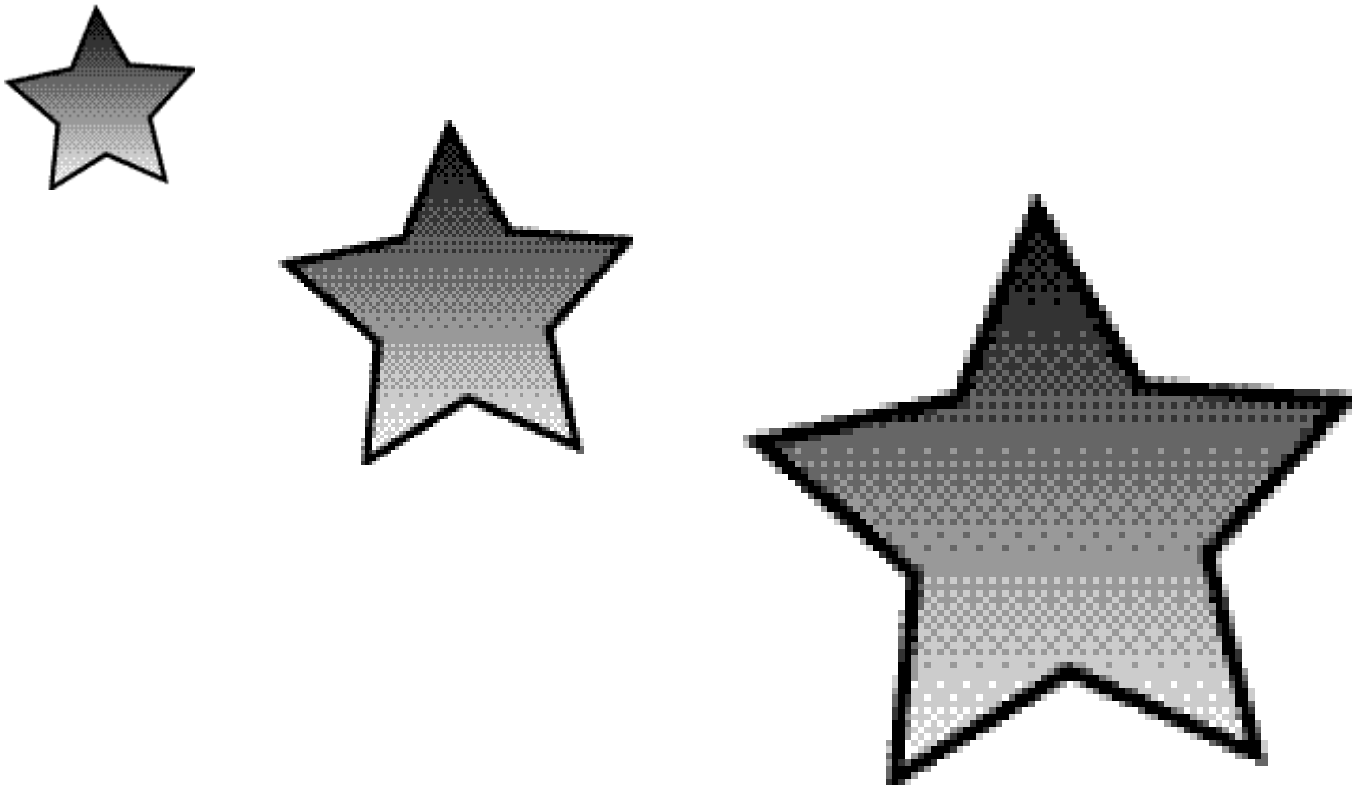
The basic difference is that a graphics program (such as Freehand) is used to create or manipulate graphics such as a photo or logo,while a page layout program (such as QuarkXPress) puts these elements together on a page. You can create an ad using a graphics program,because they all can enter text,images,and graphics,but it is gen erally much faster to do this work in a page layout program.

Here are the most popular programs used today:

Graphics	**Page Layout**
Adobe Photoshop	Adobe Indesign
Adobe Illustrator	Adobe Pagemaker
Macromedia Freehand	Quark XPress

Graphics Programs: Vector versus Bitmap

Within graphics programs there are two distinct formats. **Vector graphics** are created in programs such as Illustrator and Freehand, and consist of mathematical equations which render lines.Vector graphics can be increased or decreased in size with no loss of resolution, because the mathematical equations redraw the image as the size changes.The logo below was created using Illustrator.



The quality stays the same no matter how much we enlarge the graphic. This is especially useful for creating logos for ads, since the logo size might change from one issue to the next depending upon the size of the ad.

Bitmap programs such as Photoshop don't use mathematical formulas.Instead,they *map* out every *bit* in an image (hence *bitmap*).This means that each pixel in an image is fixed as to its size and resolution, so when enlarged or reduced, the quality of the image changes.Here is the same star, in bitmap form:

Note how blurry the edges of the larger star are.If we received a 1/4 page ad at 300dpi,built entirely in a bitmap program such as Photoshop, we wouldn't be able to increase its size at all because the loss in resolution would b too noticeable on the printed page.

Creating an ad in a graphics format

While we can accept ads created entirely in graphics programs,there are several drawbacks to doing this,as well as several requirements.

Adobe Photoshop (and other bitmap programs). Besides the quality issue we've discussed,there are other drawbacks to creating an ad entirely in a photo program.The main drawback is that we can't alter or change the ad, because it is a collection of fixed pixels.This really becomes a problem if the client wants to change the wording in the ad.Although there are fixes that we can sometimes do, they are almost never pretty and take too much time.If a client wants to send in a bitmapped ad,they need to be informed that it will be running "as is".

Requirements for sending in a bitmapped graphic ad file

1. Must be saved as either a TIFF (Tagged Image File Format) or an EPS (Encapsulated Postscript). There are many other formats,but these two are by far the best.
2. Must be CMYK (Cyan-Magenta-Yellow-Black),not RGB (Red-Green-Blue).
3. Must be the same size that it is going to print at.

Adobe Illustrator, Freehand (and other vector graphics programs). There are two concerns with ads created in these kinds of programs.The first is with the type.Many designers create their ad and send it in, assuming that the typefaces they used will print out.But they must always either send us the fonts (typefaces) they have used in the ad or convert the fonts to vector graphics (usually known as "convert to outlines").In the case of ads created on a Windows-based computer(PC) instead of a Mac,they must ***always*** convert the fonts to outlines,because we **can't use PC fonts**.

The second problem we encounter is the failure by some designers to convert any photos used in their a from RGB (red-green-blue) to CMYK (cyan-magenta-yellow-black).Unlike a Photoshop file,where we can open the image and tell right away if its RGB or CMYK, a vector-graphics program isn't nearly as easy. *(see section on color*

Requirements for sending in a vector graphic ad file

1. Should be saved as an EPS (Encapsulated Postscript).
2. Any images within the ad must be CMYK,not RGB.
3. Fonts need to be included or converted to outlines. Ads created on a Windows(PC) platform must have the fonts outlined.

Creating an ad in a page layout program

A page layout program is the best way to bring many different elements together to build an ad. For instance, an ad created this way might contain a photo that was imported from Photoshop, a logo that was imported from Freehand,and text that was imported from a web page.An ad created in a page layout program can easily be brought into a magazine page created in the same program.

Page layout programs make lousy EPS files. Some designers try to get around any difference in layou formats by saving their ad as an EPS file.This works some of the time, but can lead to some strange errors when output to film or plates.Logos can disappear, fonts can jump around or squish together, photos can stretch and distort. And even if the designer saved their ad as an EPS, they still need to send the fonts and any supporting file such as photos,logos,etc. *This method must be used with caution.*

Requirements for sending an ad created in a page layout program

1. Must have been created in Quark XPress.
2. Needs to have all fonts and supporting graphics sent along with the ad.
3. If created with a Windows version of Quark XPress, the fonts used must be easy for us to substitute with a Mac version (ie:Arial would become Helvetica,TimesRoman would become Times)

PDF files. PDFs (Portable Document Files) were created by Adobe as a way to electronically transfer train ing manuals, books,and other documents that were created in a variety of formats.They are great for viewing on computer and even printing out on a laserprinter, but they have the same problem as both EPS files and files created in other layout programs such as Pagemaker. If you are going to convert your page layout or image file to a PDF, make sure that your settings will create a high-resolution PDF and not an "optimized" file which is only 72 dpi. Also make sure that all images and graphics in your layout are CMYK before converting to PDF.

And now for a word about Color

In order to understand the difference between RGB and CMYK and why its so important to have images and colors in ads as CMYK,a basic understanding of light and color is essential. *For those who are offended by oversimplified explanations, skip this section.*

The colors you see on your computer monitor are RGB . They are transmitted through light waves (photons) which produce an image or color on your screen.Red-Green-Blue in any combination make up every imaginable color.

The colors you see on the printed page of a magazine are CMYK. Any color can be created or simulated using a combination of Cyan-Magenta-Yellow-Black dyes or inks.The color is achieved when light bounces (is reflected) off the printed surface.While there are other inks that can be used,such as Pantone inks or Metallic inks,CMYK inks are used for most printing.When a photo is printed, it is first *separated* into its Cyan-Magenta-Yellow-Black components,then "put back together"using CMYK inks on the printed page.

Why is all of the above important? Because what you see is not always what you'll get! For example, you could recieve an ad via email,look at it on your screen,and note that it has wonderful green type and a brilliant color photo.You could then print the ad out on your inkjet printer.You now have a full color copy of this ad with its wonderful green type and brilliant photo.You send the file to the magazine printer, expecting a colorful ad which the client will love.What you get back is a black and white ad,no green type,no brilliant photo. *What happened*?

What happened is that your ad was in RGB,and your inkjet printer was fooled,because composite printers can simulate RGB colors.But a printing press can't simulate transmitted color;it needs four pieces of film (Cyan-Magenta-Yellow-Black) to recreate the colorful ad you saw on your screen! **And the only way to get four pieces of film is to save the file as CMYK (also called "separated") format.**

Emailing Ads

As we receive more and more emailed ads each issue,problems are beginning to crop up.The biggest problem lies in the belief that if a client can email it, we can use it.Email is just another way of getting an ad from Point A to Point B,and all of the requirements already mentioned still apply. *We still need all the fonts, supporting graphics and ad in the correct format.*

"Stuffing" or Compressing. The best way to send an ad via email is to collect all the pieces into a folder, then "stuff" it (known as "zipping"on a PC) into an archive.This serves two purposes: First,it compresses the data,making the file transfer faster over the modem.Second,it protects the files from any data corruption while in transit.The most popular stuffing program on the Mac is Aladdin's StuffIt.This program can be used to create a Stuffit Archive (SIT) or a Self-Extracting Archive (SEA).By far the best way to compress the files is with the Self-Extracting Archive.This method requires no program on the receiving end to "unstuff" the file,it can be opened by any computer.

Unzipping. While many programs such as Aladdin's StuffIt Expander can succesfully "unzip" files compressed by a PC,the fact that it was done on a Windows system would suggest that the ad might be unreadable on a Mac. So when a client says that they are going to send "zipped" files,make sure that the ad was either created in a Mac-compatible format,or that it is a cross-platform file,such as a TIFF or EPS.And remember that we cannot use any fonts from a Windows system,whether they are zipped or not.

Northwest Regional Magazines

Formats we accept

Graphics Programs
Adobe Photoshop 6.0 (or earlier)
Adobe Illustrator 9 (or earlier)
Macromedia Freehand 10 (or earlier)

Page Layout
Quark XPress 4.1 (or earlier)

Graphics Formats
TIFF
EPS
JPG (high quality/low compression only)
PS (Photoshop)

Fonts
Postscript or Truetype - Mac format

Formats we *can't* accept

Graphics Programs
CorelDraw
Painter

Page Layout
Adobe Pagemaker
Adobe InDesign
Microsoft Publisher

Graphics Formats
GIF
Low-quality JPGs

Fonts
PC (Windows) fonts

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