GIFs, JPEGs, and PNGs: The Graphics of the Web

Computer graphics come in hundreds of different file formats. The assorted acronyms can be mind-numbing: TIFF, PICT, BMP, EPS, Amiga IFF, and so on.

Fortunately, graphics on the Web are a bit simpler. There are only three graphics formats, each of which provide good *compression*; through clever computer manipulation, compression reduces the graphic's file size so it can travel more rapidly across the Internet. Which you choose depends on the image you wish to add to your page.

GIF (Graphics Interchange Format) files provide good compression for images that have areas of solid color: logos, text, simple banners, and so on. GIFs also offer single-color transparency, meaning that you can make one color in the graphic disappear, permitting the background of a Web page to show through part of the image. In addition, GIFs can include simple animations.

A GIF image can contain a maximum of only 256 shades, however, generally making photos look blotchy. That radiant sunset photo you took with your digital camera won't look so good as a GIF. (If you don't need to animate an image, the PNG8 format discussed below is a better choice than GIF.)

JPEG (Joint Photographic Experts Group) graphics, on the other hand, pick up where GIFs leave off. JPEG graphics can contain millions of different colors, making them ideal for photos. Not only do JPEGs do a better job on photos, they also compress multicolored images much better than GIFs, because the JPEG compression algorithm considers how the human eye perceives different adjacent color values. When your graphics software saves a JPEG file, it runs a complex color analysis to lower the amount of data required to accurately represent the image. On the downside, JPEG compression makes text, and large areas of solid color, look blotchy.

Finally, the **PNG** (Portable Network Graphics) includes the best features of GIFs and JPEGs, but you need to know which version of PNG to use for which situation. PNG8 is basically a replacement for GIF. Like GIF, it supports 256 colors and basic one-color transparency. However, PNG8 usually compresses images to a slightly smaller file size than GIF, so PNG8 images download a tiny bit faster than the same image saved in the GIF format.

PNG24 and PNG32 offer the expanded color palette of JPEG images, without any loss of quality. This means that photos saved as PNG24 or PNG32 tend to be higher quality than JPEGs. But before you jump on the PNG bandwagon, JPEG images do offer very good quality and a *much* smaller file size than either PNG24 or PNG32. In general, JPEG is a better choice for photos and other images that include lots of colors.

Finally PNG32 offers one feature that no other format does: 256 levels of transparency (also called *alpha* transparency), which means that you could actually see the background of a Web page through a drop shadow on a graphic, or even make a graphic that has 50% opacity (meaning you can see through it) to create a ghostly see-through effect. Unfortunately, Internet Explorer 6 for Windows doesn't support PNG32's 256 levels of transparency—instead of seeing through the transparent areas, IE6 replaces the transparent areas with a hideous blue background. (There are several JavaScript based techniques—see *www.scriptingmagic.com/ Topics/IE Specific/PNG Transparency/*, for example—that can help IE 6 display PNG transparency correctly.) Fortunately, the increasingly popular Internet Explorer 7 does support PNG transparency, as do Firefox, Safari, and Opera.

Adding an Image Placeholder

It's not uncommon to find yourself working on a Web site without all the pieces of the puzzle. You may start building a page, even when your client has yet to give you all the text she wants on the page. Or you may find that a photograph hasn't been shot, but you want to get the page ready for it. Other times, you may be responsible for building the Web pages while another designer is creating the banners and navigation buttons.

Note: Dreamweaver says that it will place a style adjacent to the style with the same name when moving like-named styles (see Figure 8-8), but it doesn't. Dreamweaver places the moved style wherever you drop it in the list of styles in the destination style sheet.

- You can also **move one or more styles into an external style sheet** that's not attached to the current page. As discussed on page 116, external style sheets are the most efficient way of styling a Web site's collection of pages. However, it's often easier to use an internal style sheet when you're first starting a design. This way, as you tweak your CSS, you only have to edit the one file (the Web page with the internal style sheet) instead of two (the Web page *and* the external CSS file). But once you've completed the design, it's best to move the styles from the internal style sheet to an external style sheet. Prior to Dreamweaver CS3 this was a multi-step process. Now, it's as easy as a right-click (Ctrl-click).

In the CSS Styles panel, select the styles you wish to move to an external style sheet (Ctrl-click [⌘-click] each style name to select it). Right-click (Ctrl-click) the selected styles and choose "Move CSS Rules" (see Figure 8-9, top). The "Move to External Style Sheet" window opens (Figure 8-9, bottom). You can then either add the rules to an existing external style sheet by clicking the browse button and selecting an external CSS file in the site, or turn on the "A new style sheet…" radio button to create a new CSS file and move the styles there. When you click OK, the styles are either moved to an existing CSS file, or a dialog box appears letting you name and save a new CSS file. Either way, Dreamweaver removes the styles from the internal style sheet and places them into an external style sheet; even better, if the external CSS file isn't already attached to the current page, Dreamweaver attaches it for you, which lets you skip the manual process of attaching the style sheet, described on page 120.

More about CSS

As you begin to pile more and more styles onto your pages, you may notice that a page might not look exactly as you expect. A paragraph of text might be green even though you didn't create a style for a green paragraph. Or you've styled a particular paragraph to appear with green text, but it refuses to change color. Most peculiar behaviors like these occur when multiple styles collide. The rules governing these interactions can be complex, but they boil down to two main concepts: *inheritance* and *the cascade*.

Inheritance

Imagine that you've created a new style by redefining the paragraph tag (<p>). This style uses Arial font, is red, and is 24 pixels tall. Then you select a single word in a paragraph and apply bold formatting to it. When you use the Property inspector's bold button to do this, Dreamweaver wraps that word in a pair of <strong> HTML tags.