ImageReady

3.0

INSTRUCTIONAL TECHNOLOGY

Pensacola Junior College

ImageReady 3.0

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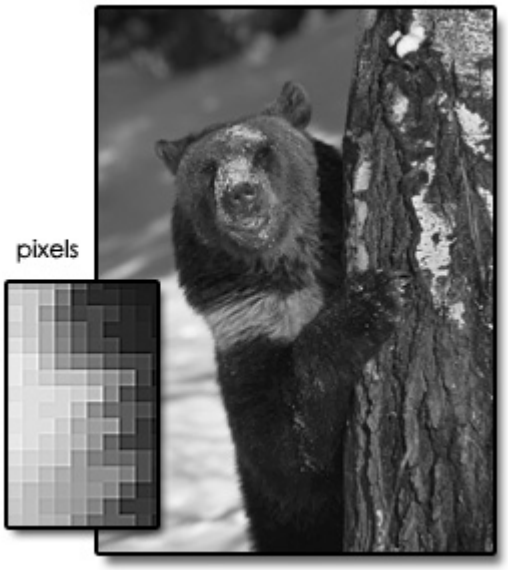
Adobe ImageReady 3.0

What is Adobe ImageReady

ImageReady is Adobe's companion application that comes bundled with Photoshop. Where Photoshop is the industry-standard graphics application used extensively in the world of print-based graphic design and digital photography, ImageReady has features that enable it to focus specifically on producing graphics for the Web. These two programs can be used interchangeably and an image can be edited in either application at any step in the process.



ImageReady is a raster-based application, which means the graphics it produces are mapped onto a raster, or grid of pixels. Each pixel is assigned a numerical value corresponding to hue/saturation/value.

ImageReady is capable of creating new graphics as well as altering and manipulating existing graphics. If what you need is an application strictly for graphics to be placed on the Web, then ImageReady is the right tool for you.

Why Use Image Ready

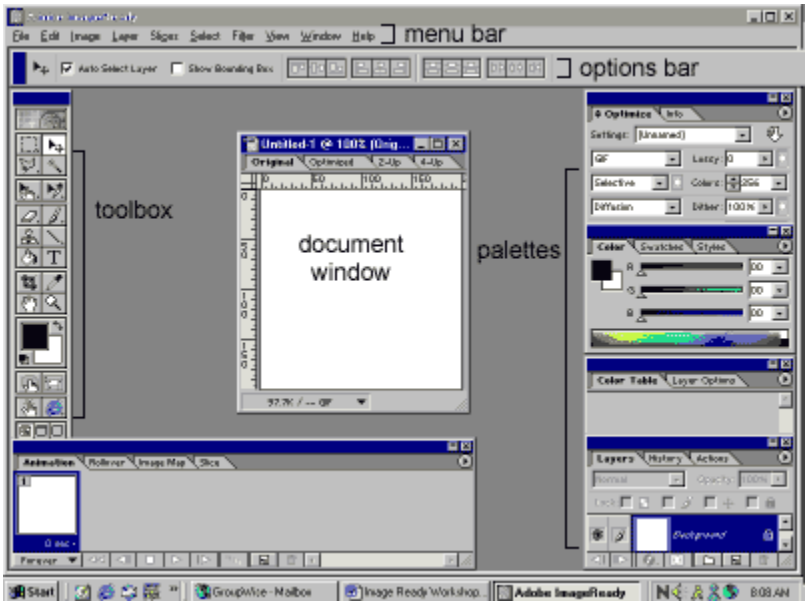
ImageReady is dedicated specifically for creating and manipulating graphics to be placed on the Web. In addition to doing a wonderful job of creating, editing, and optimizing graphics, it also lets you slice images, create rollovers and image maps, and features a complete GIF animation program. ImageReady can convert almost any bitmapped image you bring in from a digital camera, scanner, or other graphics program to a Web format. And because it is tightly interlaced with Photoshop, you can quickly jump between the two programs to edit an image with one click of the mouse.

Another cool thing about ImageReady is that you can monitor two views of the image you are working on. By clicking on the tabs in the document window you can see and compare the original version of your image as well as the optimized version as you adjust compression settings.

ImageReady gives you immediate feedback on file size and visual clarity while you tweak the image looking for the right balance between the two.

ImageReady Interface

ImageReady's interface has a similar look and feel to Photoshop's and is pretty easy to understand if you're a Photoshop user. The menu items, palettes, options bar, and toolbox are very similar and generally work the same way in both programs.



The tool palettes in ImageReady can be grouped in any combination. To do so, just grab an individual palette by the tab to either make a separate palette or to group it with other tool palettes to suit your working style.

The document window has four tabs that can show you previews of your work with different optimization settings. The 2-up and 4-up options allow you to look at different optimization settings side by side so you can judge quality versus file size, without having to first save the document.

Optimization

In your Internet surfing experience you've probably come across many pages with graphics that seemed to take forever to load on your computer. I'm sure you've also experienced other pages that loaded quickly. Did you wonder why there was such a difference in load times? The key to

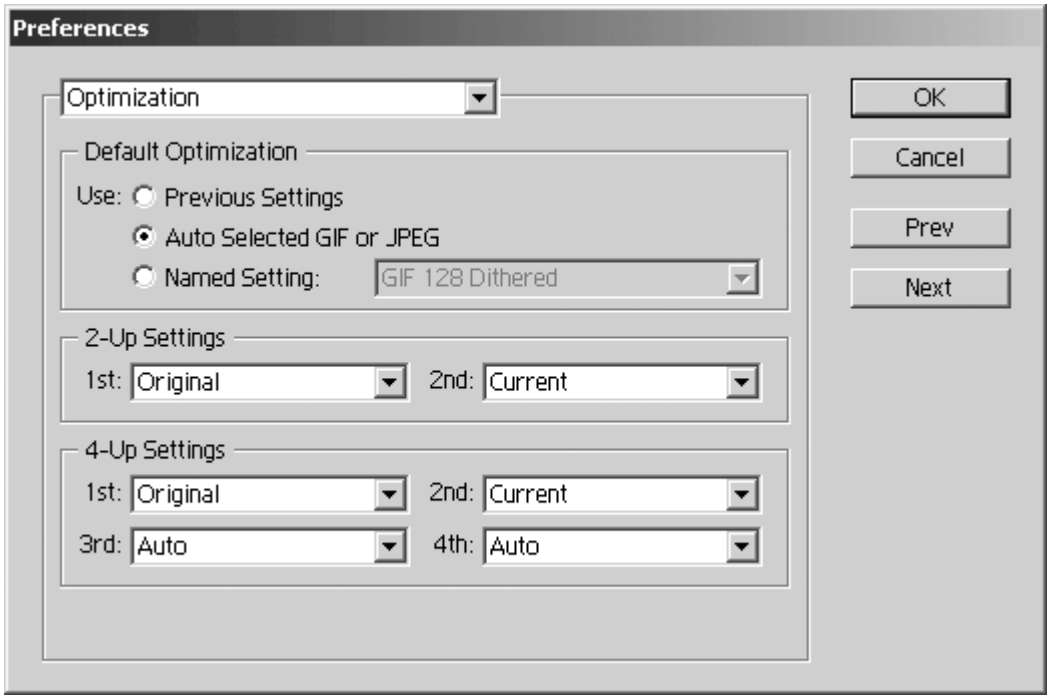
faster downloads is image optimization. Web pages that load quickly have graphical elements that have been optimized. Image optimization is important because load time plays a significant part in people's browsing experience. A page that takes too long to load results in frustration for your visitors. This frustration will cause many to bailout before they see the contents of your page.

Optimizing an image means reducing the image's file size so it loads on a web page as quickly as possible. Smaller image file sizes on your page means a page that loads faster than if the images are not optimized. But the process of image optimization is tricky in that it requires you to find a careful balance between image quality and compression.

Making graphics for the web requires you to balance the visual quality of a graphic with the file-size savings offered by compression formats such as GIF and JPEG. ImageReady helps on both counts as it lets you see image quality as you adjust compression, while giving you instant feedback about the file size.

Setting ImageReady Optimization Preferences

Before you begin working in ImageReady you'll need to set your optimization preferences. To do so, go to Edit/Preferences/Optimization. A dialogue box will open. In the Default Optimization section, select Auto Selected GIF or JPEG. This allows ImageReady to make intelligent optimization suggestions about which file format is best for your images. In the 2-Up Settings and 4-Up Settings sections choose the same selections as shown in the graphic below. Once this is done you can begin optimizing your images!



File Types

When optimizing your images you don't want image quality to be compromised for the sake of file size. Choosing the proper file format and selecting the proper file settings for your image is very important. Doing so can significantly reduce the image's ultimate file size without compromising its quality.

The three most common image file formats on the web are GIF, JPEG, and PNG. For our purposes we are going to focus on JPEGs and GIFs. PNGs tend to produce much larger file sizes and therefore are not conducive to our focus of reducing file size.

So…GIF or JPEG? Which file format is the right one to use? Which will give you the best quality image with the smallest file size? Here is a simple guideline. Use GIF for images with large areas of solid color like vector clipart for instance. If your image has many shaded or gradient colors, like a photo, use JPEG. Of course, there will be times when the choice will not be that simple, so to better understand how to make the right choice, let's take a closer look at these file types and how their compression schemes work.

GIFs

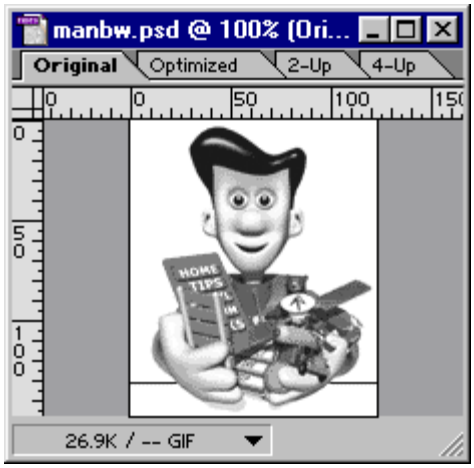
GIF is an acronym for Graphics Interchange Format, created originally in 1987 by CompuServe to facilitate the exchange of images between different platforms. The file format is known for its compression and the fact that it can store and display multiple images. The major drawback to GIF is that images can only use up to 256 distinct colors to display their data. This works well for images with continuous areas of solid color, sharp detail, and text, such as vector-based clipart. But for photographic-quality images this is a significant obstacle as some color information will be lost.

Gif compression is lossless. This means that there is no loss of information when the file is compressed. When decompressed the image will be the same as before compression. The GIF file format is great for storing and compressing text-based images, line and clip art. Because these types of images don't require millions of colors, they can quite easily be stored as GIFs with minimal, if any at all, degradation.

Optimizing GIFs

Optimizing GIFs can be a little tricky because there are several settings (color depth, color palettes, dithering, and transparency) that can be tweaked in order to find the best balance between file size and image quality.

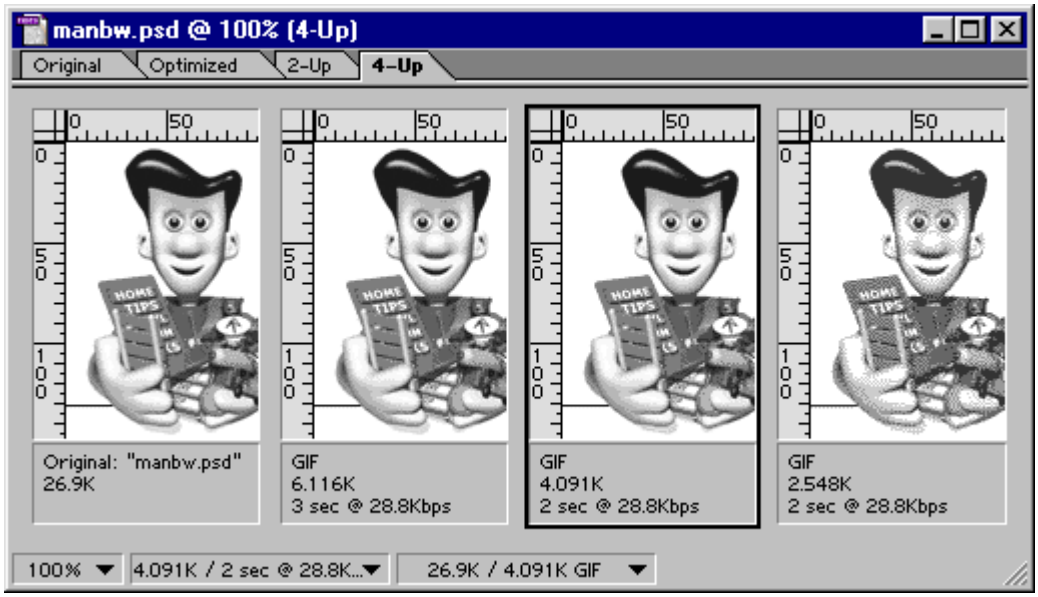
Open an image by going to File/Open. Your image will open in a document window. Take note of the four tabs above the image.



These tabs are used to view and compare your image with different optimization settings.

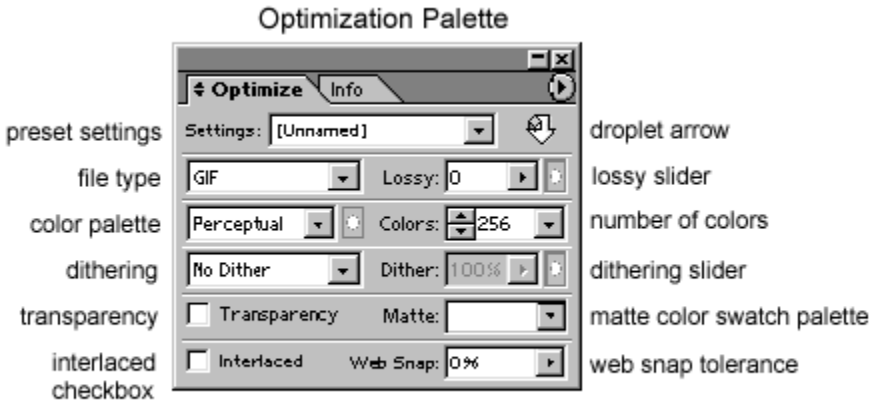
The Original tab shows by default and displays your image in its present, original state. The Optimized tab gives a preview of how the image will appear if saved with the current settings selected in the Optimize palette. The 2-up and 4-up tabs both give views of the original and optimized views side by side. These are extremely useful for making comparisons while adjusting optimization settings.

Select a view in which to apply and compare optimization settings. The 4-Up option was chosen below so that four different sets of optimization settings could easily be compared next to each other. The view on the left is that of the image's original file settings. The three views to the right are ones where ImageReady has made optimization suggestions. Choose the image that looks the best and has the smallest file size. You can continue to tweak the settings on the Optimization palette to further adjust file size if you'd like.

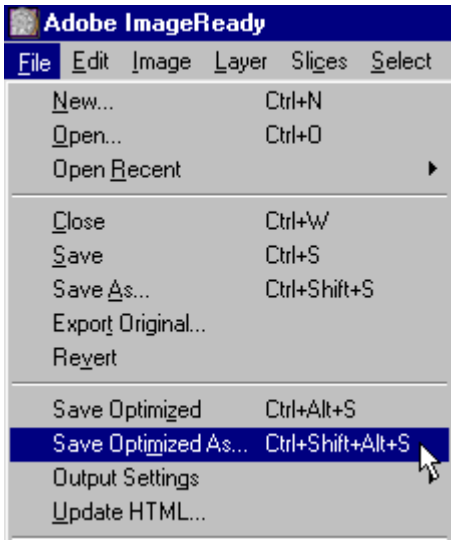


From the Optimization palette there are several different file settings that can be tweaked to reduce image size. File size reduction can be achieved by selecting a different color palette, changing dithering settings, and/or decreasing the number of colors in the image. ImageReady allows you to apply Lossy compression to GIF files. Using the Lossy option yields significantly smaller files by sacrificing some image quality. But Lossy compression tends to work better with JPEGs than it does with GIFs.

As you experiment with different settings in the Optimization palette, notice the changes that take place in the image.



When you've chosen file settings that work best for you, select the view of the image with those file settings, and go to File/ Save Optimized As. The view of the image selected will be saved with the file settings you've chosen.



JPEGs

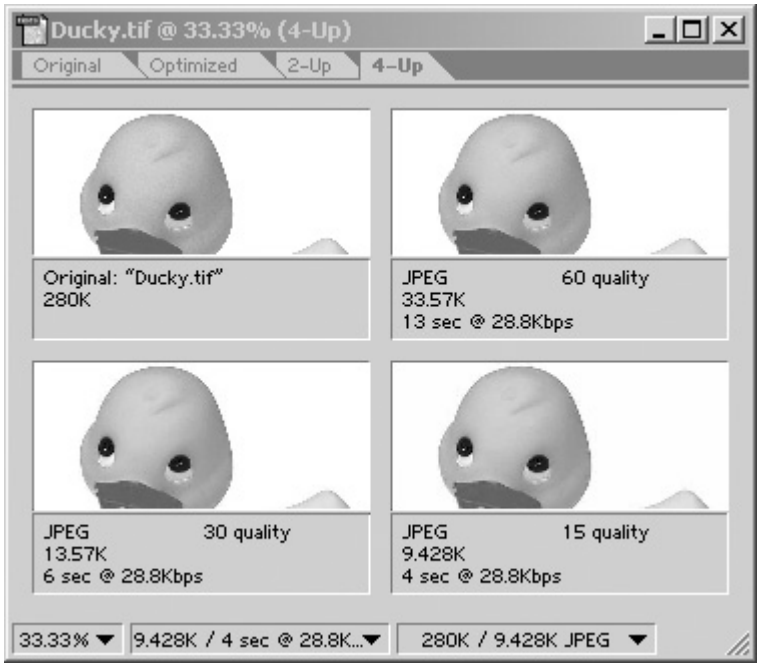
Developed by the Joint Photographic Experts Group, this file format is the one to use for photos and other continuous-tone images you want to display on the Web. (JPEGs are normally used with the .jpg filename extension.) It has the capability to compress large images down to very small file sizes while retaining the overall photographic quality of the image. Because JPEG files can use any number of colors, it's a very convenient format for 24-bit images (True Color), which support more than 16 million colors.

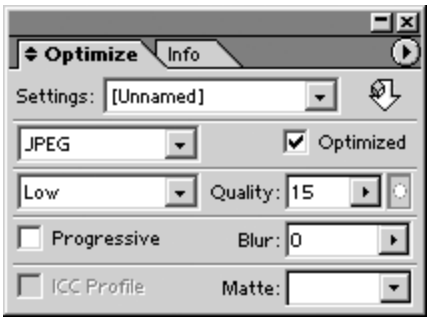
JPEG compression is lossy. This means when the image is decompressed it will not be the same as before compression. It will have lost information contained in the original file. Each time you save a JPEG image it will lose more information. For this reason, it is best to save the original of your image in its native format and work from that original when making changes.

Optimizing JPEGs

Optimizing JPEGs is generally pretty simple. You don't need to experiment with color palettes, bit depth, dithering, or any of that stuff. You just choose a resolution on a scale from "Low" or lowest quality (which has the smallest file size) to "Maximum" or best quality (which has the largest file size). What you need to keep in mind when optimizing JPEGs is that the more you compress an image, the more information that is lost. That means that high quality photos become blurry, indistinct, and downright un-viewable at the highest levels of compression. Therefore, when saving files as JPEGs it's absolutely critical that you maintain a careful balance between compression and quality.

Open up an image you'd like to save in JPEG format. When working with images that will be saved as JPEGs it is best to always work in the image's native file format. The image of the duck below is in a TIF file format. Select the 4-Up tab. ImageReady presents four views of the image, each with different optimization settings.





Choose the image that looks the best and has the smallest file size. You can continue to tweak the settings on the Optimization palette to further adjust file size if you'd like.

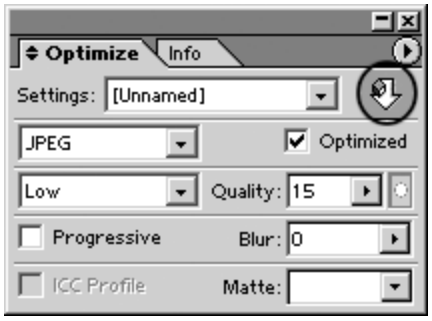
To save the image, go to File/Save Optimized As. The view of the image selected will be saved with the file settings you've chosen and with the .jpg extension.

When you save an image in JPEG format you'll need to remember that artifacts are created. These artifacts accumulate each time you resave the image to the same JPEG file. Because of this it is best to save JPEG files from the original image, not a previously saved JPEG.

Remember:

When choosing to save a file, sometimes it can be difficult deciding on which format would best serve your purposes. The rule of thumb is this: if your image is text-based, or contains mostly clipart, line art, or other drawings, then you should save it in the GIF format; however, if your image contains mostly photo-realistic information, your best bet is JPG.

Droplets



ImageReady has a feature that allows you to batch process the optimization of multiple files. This is a great timesaver and is very easy to set up and use. Simply open an image that you want to optimize and open the optimize palette if it's not already open. Choose the optimization settings like you normally would. When you are happy with the settings, click on the large down arrow icon in the upper right corner of the palette. This will open a window giving you the opportunity to name the Droplet and choose a location for it to be saved.

The next time you need to optimize an image or a whole folder of images using the same settings, simply drag your image or images onto the Droplet icon. When you drag an image onto the Droplet icon, ImageReady will use the original file name when saving the optimized versions but will add (or change) the appropriate file extension to the end of the file name. The optimized versions get saved to the same location as the original files. If ImageReady is not already open, dropping a file onto a Droplet will launch the program and keep it open after optimization is finished.

Image Slicing

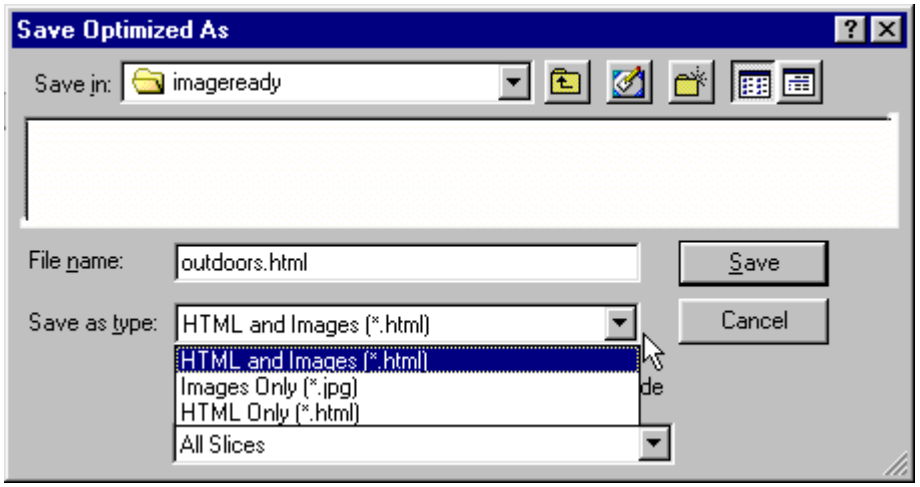
Image slicing is a very convenient way of breaking apart large images when you place them on your web page. This is especially useful if you've created a whole page image to use as an interface. One reason for slicing up large images into smaller ones is to decrease download time while preserving image quality. Another reason for slicing is that you can save parts of your image with different optimization settings. For example, some of your image's elements might be better suited to the JPEG format and others would be of better quality and faster download if formatted as a GIF. By slicing your image up into smaller sections, you can optimize each individual section for quality and file size. ImageReady can easily slice your large image into smaller, individually optimizable rectangular pieces and write a nice HTML table to hold it all together. Slicing up an image in ImageReady also helps create image maps and rollovers for your Web page.

By default each image created or opened in ImageReady contains one slice, which covers the entire image canvas. Using the slice tool you can create more slices by simply clicking at a starting point in your image and dragging the tool across the desired slice area. A slice created this way is called a user-slice.

When you've created all the user-slices you want, ImageReady will create extra slices necessary to complete slicing the image. Slices automatically created by ImageReady are called auto-slices. After slices are created, each one is automatically assigned a slice number, which is visible in the upper left-hand corner of each slice. To show or hide an image's slices go to View/Show/Slices.

All slices in an image use the same optimization settings of the entire image until new settings are applied. Using the Optimize Palette, each slice can be optimized individually in the same way an image is optimized. In fact, different slices in the same image can be optimized in different file formats. Using the Slice Select tool, select a slice, and change its settings in the Optimize Palette as needed. As you optimize individual slices you can view the effects on the image in the 2-Up or 4-Up view. In the image below, the top slice would best be optimized as a GIF and the bottom slice as a JPEG.

When you are finished go to File/Save Optimized As to save the image in its optimized state. You will need to name the file and choose a Save As Type option.



The "HTML and Images" option generates an HTML file and saves each slice as a separate image file. The "Images Only" option saves each slice in the image as a separate file. The "HTML Only" option generates an HTML file but does not save any image files. Next select All Slices to save all slices in the image and click Save.

To place the image in a Web document you need to first make sure the image and web document are saved in the same folder. Copy the image and its HTML code by going to Edit/Copy HTML Code/For All Slices. Then open the Web document's HTML coding and choose Edit/Paste.

Drop Shadows

Shadows are often added to web graphics to make an image appear to be floating on a page.

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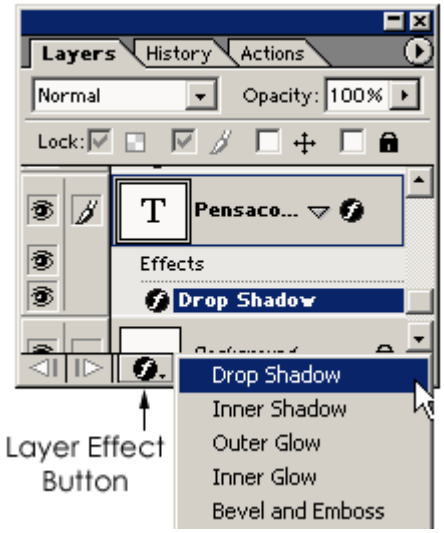
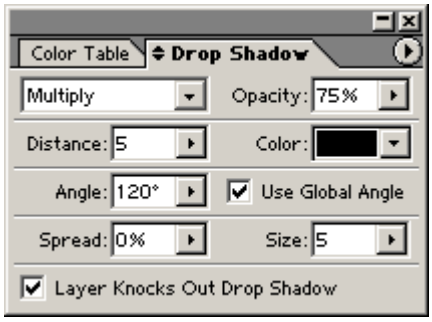
In ImageReady shadows can be easily added to an image as a layer effect. For example, if you want your text to have a shadow behind it, select the layer the text is on, click the Layer Effect button, and choose drop shadow as a layer effect. In the Drop Shadow palette you can manipulate the shadow's color, size, angle, spread, and distance from the object.



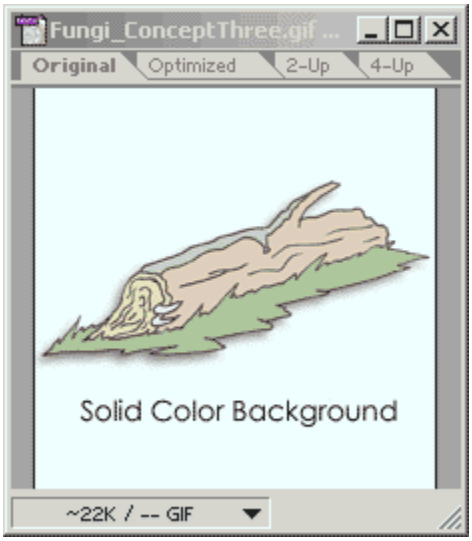


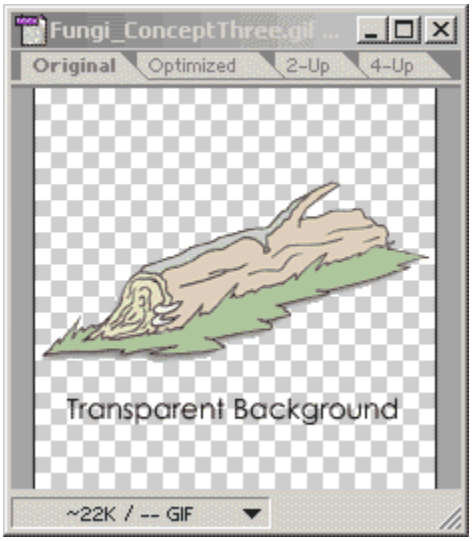
Transparency

The GIF file format supports transparency, but JPEG does not. If you want an image to be transparent so the background of your Web page shows through, your image must be in GIF format. Basically what a GIF file does is include data for a color that you choose to be transparent. So the color is still there, but is not displayed when viewed in a browser.

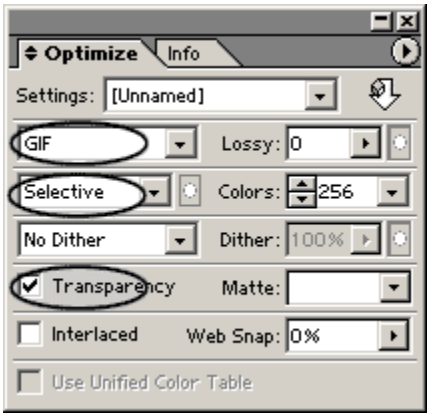
To create a transparent image that allows a Web page background show through, first open the image. Using the magic wand tool, select the background and delete it. If the background is busy, you may need to hold the Shift key down while clicking multiple times on different areas of the background to select it all.

A dashed line that appears to be shaking indicates the area that has been selected by the magic wand. Hit the Delete key (or Ctrl/X) to remove the selected area and render it transparent. The transparent area is indicated by a checkerboard pattern.





In the Optimize Palette, select GIF and check Transparency. Make sure the Custom Palette choice is not active. Selective or Adaptive are good choices for the color palette option. Next go to File/Save Optimized As and save the file.



Saving your file with a transparent background will allow the background of your Web page to show through.

Transparency Effects

There are also are several different types of transparency effects for both JPEGs and GIFs that can be achieved with ImageReady. Within a single graphic, different objects can have different levels of transparency. This can be achieved by adjusting the transparency of the layer each object is on. In Figure 1 below, the green leaf layer is 100% opacity.

Figure 1

If the opacity of a layer changes, any object on that layer becomes more transparent. In Figure 2, the opacity of the green leaf layer was changed to 50%. To demonstrate its transparency, the green leaf was moved on top of the red leaf.

Figure 2

Another type of transparency is to make an object appear to be an irregular shape since, as a rule, all web graphics are rectangular or square in shape. One way to achieve this is to make the background behind your image the same color as the web page background. This is referred to as background matching and only works if your web page background is solid in color. Although you're not actually creating a transparent image, the image will look transparent because its background blends with the web page.

There is one thing to remember, though. If you use a solid color background image, as opposed to just selecting a background color for your page, in order for it to match the background of the image you place on it, both images must be in the same format, either GIF or JPEG. If the image formats are not the same there may be some uncontrollable color shifting when viewed on the web.

Resources

1. Adobe Support
   http://www.adobe.com/support/main.html

   At Adobe.com you can access product specific tutorials, user forums, and downloadable files, and more.

2. GIF/Bot
   http://www.netmechanic.com/cobrands/zd_dev/accelerate.htm

   Speed up your Web site! Fat graphics are the leading cause of long download times. GIFBot will slim your graphics without loss of image quality.

3. ClipArt.com
   http://www.clipart.com

   ClipArt.com provides links to many sites offering free clipart, fonts, and web graphics.