

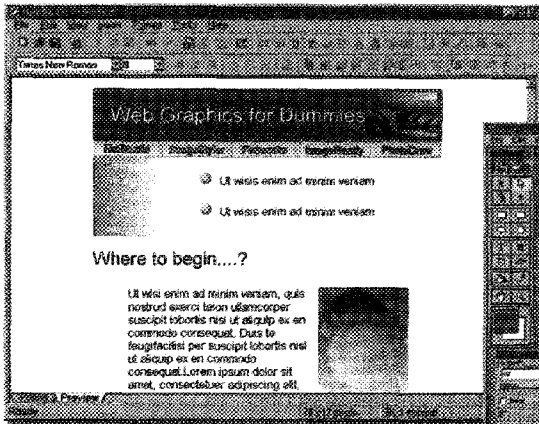
WEB GRAPHIC SOFTWARE PACKAGES FOR DUMMIES & SMARTIES

BY JIM RIBLE

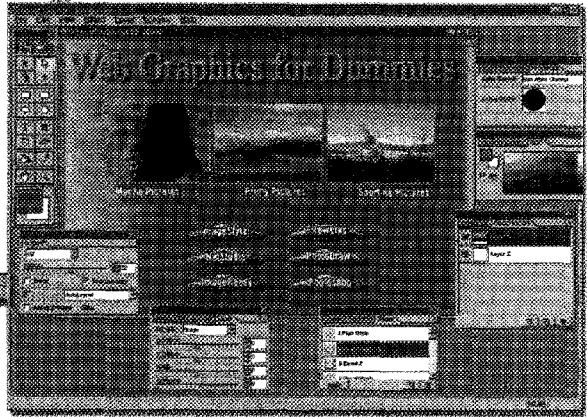
When I created my first Web page I marveled at the way it displayed my words on the screen. Bold fonts and nifty horizontal rules breaking up big chunks of printed matter. Up until the creation of NCSA's Mosaic, the Internet operated in a two color, courier font-type environment. Mosaic, and its progeny Netscape Navigator and Internet Explorer, created the ability to add graphics to the information carried over the Internet. An exciting enhancement to an otherwise flat, textual world.

Unfortunately, the ease with which I could create Web pages was nowhere to be found when it came to creating Web graphics. For years I labored to understand the penultimate graphic designer's software tool, Adobe Photoshop, in an attempt to add pizzazz to my Web pages. Now, however, a plethora of Web graphic design tools have appeared on the market making my Photoshop apprenticeship a thing of the past. Not only are creating Web graphics suddenly easy, you hardly even need a shred of artistic intuition.

These new tools loosely fall into two camps, those aimed at professional Web designers (the "smarties") and those who want their pages to look like they were designed by professional Web designers (the "dummies"). Don't let these categories intimidate you.



◀ NetStudio's interface resembles a typical Microsoft office product.



ImageStyler's interface is designed with the professional Web artist in mind, despite it being marketed to the novice. ▶

however. There is something in each one of these tools for anyone wanting to improve the look of their Web pages. They all allow you to create banners, buttons, navigation bars, beveled text, etc. with ease.

I chose to review five of what I believe to be the best and most useful Web graphics software packages: NetStudio's NetStudio 1.0, Adobe's ImageStyler 1.0, Microsoft's PhotoDraw 2000, Macromedia's Fireworks 2.0, and Adobe's ImageReady 1.0. All of them come with stock graphics and built-in graphic effects (drop shadows, bevels, etc.) that are commonly

They come with enough predesigned graphics and effects that the novice Web designer can make a cool, professional looking page in short order. All three of these software packages were created for the "business" professional who doesn't have the time, inclination, or talent to create well-designed Web graphics. NetStudio and ImageStyler also feature the creation of mouse rollover buttons.

Regardless of my "dummy" categorization, few people will be able to sit down and create an acceptable Web graphic using these tools without a certain amount of time devoted to

understand. I found creating a customized bullet and text took seconds.

NetStudio also comes with prebuilt Web pages in themes like Academic, Corporate, and Legal. Opening one gives you the template for an entire Web page that includes graphics for a background, a banner, a navigation bar, and stylized text. If you don't like a font style or picture that comes with the theme you can change them. With these prebuilt pages, you aren't just creating graphics, but a series of complementary looking graphics that make a professionally designed looking Web site! You can then add any additional text using a Web page editor like Adobe's PageMill or Microsoft's FrontPage.

Mouse (JavaScript) rollovers are often useful in distinguishing graphics that are active, i.e., you click on them and "something happens." Creating the rollover buttons in NetStudio (which it calls "hover buttons") is fairly simple, but adding the "something happens" is completely left up to you to figure out. You need to open the Web page generated by NetStudio in a Web page editor, remove the extraneous graphics that were so helpful in describing what you were supposed to do in NetStudio, but are now useless, and add a URL to the "hover button." This is definitely going to be the hardest thing a NetStudio user has to figure

... A PLETHORA OF WEB GRAPHIC DESIGN TOOLS ARE MAKING PHOTOSHOP APPRENTICESHIP A THING OF THE PAST.

seen on Web pages. Some of these products will even create Web pages and automatically generate mouse-over effects and other code, giving the programming-challenged the ability to add animation effects without knowing a shred of code.

WEB GRAPHICS FOR DUMMIES

The "dummy" tools, such as NetStudio's NetStudio 1.0, Adobe's ImageStyler 1.0, and Microsoft's PhotoDraw are all very impressive and fun to use.

learning how they work. However, each of these three has either wizards or tutorials that will help you learn the most commonly-used effects quickly.

NetStudio's NetStudio 1.0

NetStudio 1.0, which has the very confusing attribute of being named for the company that created it, purports to have a Microsoft Word-like interface. Indeed, its menu and toolbars are fairly easy to read and

out. On the other hand, it will be much simpler than learning a programming language like JavaScript.

Adobe ImageStyler 1.0

ImageStyler is created with both the novice and professional Web designer in mind. You can do everything here that you can in NetStudio, however, ImageStyler has far more tweaking capabilities and the ability to create far more complex graphics, including animation. For example, in ImageStyler you can group a number of graphics together to add the exact same level of effects. This ensures that every graphic will have a consistent look.

One of the more interesting effects available in ImageStyler is the application of a shape to a picture, what Adobe calls Active Mattes. With this effect you can make a picture take on the shape of any object you choose. There are several built-in shapes, like "star," "lightening," and "cloud." You can then add your typical graphic effects like a bevel and drop shadow to give your picture a professional touch.

Another feature of ImageStyler is its batch replacement function. With batch replacement you can have ImageStyler add a uniform graphic to a series of Web pages. First, you create a set of Web pages with consistently labeled text using a Web page editor. For example, each page would have a heading labeled with <H1> HTML tags. Second, you create a graphical banner in ImageStyler. Last, you tell ImageStyler which pages have the <H1> tags and it inserts the text that is located between the <H1> tags into the banner. Voilà! Instant cool-looking Web pages.

Vector Versus Raster

Computer imaging editing software comes in two flavors, raster and vector. Vector images are made up of "paths" and are saved via a mathematical formula. Changing the size, shape, or color doesn't affect the quality of the image. Artwork created with Adobe's Illustrator and Macromedia's Freehand are examples of vector art and are optimized for drawing.

Raster images are made up of individual pixels. Enlarging them or reducing them has a drastic effect on their image quality. For example, enlarging a picture that was scanned at 300 x 200 pixels and then enlarged will make the picture seem "grainy," revealing the individual pixels. An example is Adobe's Photoshop, which is optimized for editing and manipulating existing images.

ImageStyler creates codes in these pages so that if you want to perform further replacements you can do so.

ImageStyler's palettes will no doubt be confusing to the novice (they were to me). In addition to the menu bar at the top, you have several palettes (separate windows) where you will find the effects or settings you are looking for. The palettes, in fact, have different tabs so that one palette will contain a variety of effects and settings. For example, the Styles palette contains tabs for Styles, Textures, and Shapes and the Color Palette contains tabs for Color, Opacity, and Distort. This can make learning to use the program more difficult, but, once you get used to the groupings of functions and where to find them, the overall task of creating and editing a graphic will be easier.

Microsoft's PhotoDraw 2000

Image Composer, which came packaged with FrontPage 97 and 98, was Microsoft's first attempt at creating Web graphics software. It was never a standalone product, however. It was marvelous for creating buttons,

banners and bullets, but lacked any Web specific features such as file size optimization. Microsoft's latest graphics product is called PhotoDraw 2000 and attempts to be both a Web and printed graphics software package for the non-artistic business professional. Its "Save for use in" function guides you through the steps necessary to save your graphic in the best format for use in a variety of situations. You can save for use "On the Web," "On the Web as a thumbnail," "In a Microsoft Document," "In an on-screen presentation," and "In a publication."

Saving for use "On the Web" brings up a wizard that includes a comparison of different formats and optimization settings. For example, a picture I wanted to save for use on the Web displayed five different pictures using five different settings, allowing you to view which setting gave you the best picture quality and lowest file size. As neat as this feature is, it makes the choice of whether or not to bring up this dialog box. When you try to save a picture specifically as a JPG, you can't preview the various optimized versions. Nevertheless, I found PhotoDraw's ability at optimizing image

Image Optimization JPG image compression (in Kilobytes) of a 289K TIF image

	Photoshop	Fireworks	ImageReady	ImageStyler	PhotoDraw
100%	157	100	151	151	n/a
80%	86	26	72	72	28
60%	48	18	38	38	19
40%	38	14	22	25	n/a
20%	28	9	16	18	n/a

FIREWORKS IS BY FAR THE MOST IMPRESSIVE, VERSATILE, AND ROBUST WEB GRAPHICS SOFTWARE ON THE MARKET.

files to be superior to both Adobe products reviewed here (see the Image Optimization table).

PhotoDraw, like NetStudio, is designed strictly for the novice. It takes on a completely different interface and approach to graphic design than any of the other packages mentioned here, so much so that I had a hard time using it. While I was looking for the ability to create a simple button, I glossed over the built-in Wizard that steps you through the process. Also like NetStudio, PhotoDraw uses plain language to describe its functions. Some of the image editing tools are labeled simply as "Fix Red Eye," "Remove Scratch," and "Remove Dust and Spots."

The resources needed to run PhotoDraw 2000 are tremendous. While a Pentium 166 with 32MB of RAM are its minimum requirements, I had to wait several seconds almost every time I made a small change to

a graphic for the effect to display. And I was using a PII-333 with 64MB of RAM! None of the other software tools reviewed here came anywhere close to being so sluggish. PhotoDraw also takes up about 190MB of hard disk space and comes with three CDs containing 20,000 high-quality photos, backgrounds, clipart, and the complete Microsoft Clipart Gallery.

WEB GRAPHICS FOR SMARTIES

While high-end tools, like Adobe Photoshop and Macromedia Freehand, will always be used by professional Web designers, the new line of "smarty" tools have been developed to streamline the steps they go through in creating and preparing a graphic for the Web. These tools, like Macromedia Fireworks and Adobe's ImageReady, merge some of the existing features of bitmap and vector editing programs (see Sidebar "Vector Versus

Raster"). Likewise, they have the ability to reduce the byte size of a graphic, create animated graphics and image-maps, and, in the case of Fireworks, create the code for JavaScript roll-overs and animation.



Macromedia Fireworks 2.0

Fireworks is by far the most impressive, versatile, and robust Web graphics software on the market. Start with a drawing package like Macromedia's own Freehand or Adobe's Illustrator, add a cup of Adobe's pixel editor Photoshop, pour in a few tablespoons of Web-specific effects, and top it off with a generous helping of excellent, high-quality clip art. Fireworks combines the best of the best. Fireworks 1.0 was my tool of choice when it first came out, despite its lack of a picture scanning option. This is something that has been corrected in version 2.0. You can now scan directly into Fireworks. Macromedia, with an eye towards the future, has chosen PNG as the native file format for Fireworks



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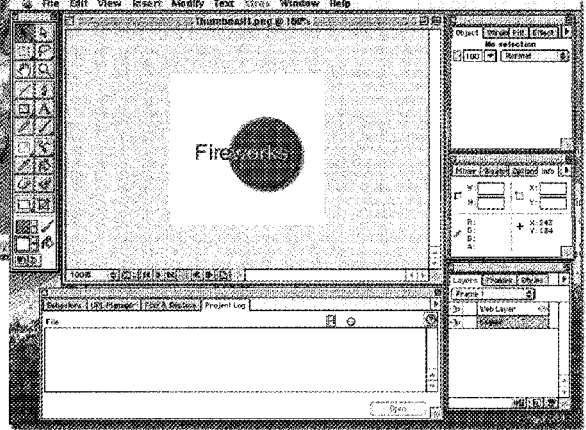
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◀ PhotoDraw's interface is free of the numerous palettes found in Fireworks, ImageStyler, and ImageReady.

Fireworks' interface, heavy with options, would be difficult to use with anything less than a 17" monitor ▶



(see Sidebar "GIF Versus JPG Versus PNG Versus TIF").

Macromedia says that Fireworks blurs the line between raster and vector drawing programs. While this may not mean much to you, it translates into a program that gives you plenty of options for creating Web graphics. What turned me on most to Fireworks was its impressive collection of editable clip art. Not only are there excellent examples of high-quality buttons, banners, bullets, and text, but each one comes with effects that can be edited. For example, if you like one of the text samples, but don't appreciate the color, you can change it while preserving all of its other attributes like size, font, and texture. I found that editing these prebuilt graphics allowed me to quickly learn what Fireworks was capable of doing.

Adobe ImageReady 1.0

ImageReady looks and feels like a scaled down Photoshop optimized for the Web. Similar to Fireworks, it allows you to create and edit graphics and then preview them in various states of quality before saving. It has an excellent feature for animation as well. If you have a set of pictures you want to turn into an animated GIF, you can simply put them in their own folder and tell ImageReady to open

that folder. It automatically creates a "film strip" of your pictures allowing you to edit each one and enter how long you want each frame to display on the screen. I created an animated GIF of my daughter on her rocking horse in just minutes. A limitation to ImageReady is the lack of built-in JavaScript rollovers. Oddly enough, this *is* built into Adobe's other product, ImageStyler.

While ImageReady has some wonderful Web-specific effects, like batch processing and built-in photo effects, it comes across as the least inspired package reviewed here. It would seem that Adobe's strategy of coming out with two such similar packages was merely poor marketing. For ImageReady to compete with Fireworks, and be of interest to any but the most experienced of Web designers, it would

GIF Versus JPG Versus PNG Versus TIF

There are many file image formats, but only two that will display on almost all Web browsers: GIF and JPG. GIF is best used for line art and images with relatively few colors, like cartoons, and is only capable of displaying 256 colors. It also allows for one color to be designated as transparent.

The JPG format is best for photographs or graphics with gradients. JPGs are saved according to different levels of compression. 100% maintains the most color information, the best quality, and creates the (comparatively) largest file size. Most JPGs can be saved between 80% to 60% for optimum image size reduction and acceptable quality. JPGs cannot have transparent colors.

PNG (sometimes pronounced "ping"), or portable network graphics, is a relatively new format and is not recognized by all browsers. PNG is really the best of GIF and JPG. It displays up to millions of colors, allows transparency, and is lossless. While its replacement of GIFs and JPGs as a native Web graphic format is desirable, it will be years before it replaces all the GIFs and JPGs out there. Also, since PNG is only viewable by 4.0 browsers and above, using it would leave all the users of 3.0 browsers and below without viewable graphics.

TIF is one of many image formats used by a variety of software packages and can be imported into a variety of programs. TIFs have relatively high image sizes (the one I used for the image compression comparison was 289K) and are lossless, making them an ideal format for saving a scanned picture on your computer.

need to be coupled with all of the features of ImageStyler. (*Editor's Note: As this article went to press, Adobe announced that it would no longer be selling ImageReady as a standalone product. Adobe ImageReady 2.0 now comes bundled with Photoshop 5.5.*)

OTHER CONSIDERATIONS

Many of these packages attempt to do more than give you a medium for image creation and editing. They all come with perks such as image optimization, image slicing, tweening, batch processing, and built in graphics and templates.

Image Optimization

One of the biggest gripes about Web graphics is how long they take to download. You can easily tally up a megabyte of data with as few as five or six pictures. Fireworks, ImageReady, ImageStyler, and PhotoDraw all come with the ability to reduce the size of graphics.

As an experiment, I scanned a 4x6 picture of my daughter in Adobe Photoshop and saved it as a tif image. Tif images are a common lossless graphic format used by many computer programs and maintain a high degree of image information (see Sidebar "Lossless Versus Lossy Images"). I

ImageReady's interface looks like a scaled-down version of Photoshop.



each take 14 seconds. Put a few more of these graphics on your page and these seconds start to add up!

I have to admit I was surprised by the performance of PhotoDraw in comparison to Adobe's ImageReady. ImageReady is marketed to the professional Web designer as being "tops" in image compression yet the "office worker" PhotoDraw came out well ahead in reducing graphic size.

Image Slicing

ImageReady, ImageStyler, and Fireworks all permit you to "slice" a large graphic into smaller ones, the

the downloading of large images. But when I add up the sizes of the nine graphics on our sitemap, it equals 68K. When I save the image as a single GIF, it equals 44K. Go figure.

Animation and JavaScript

All of the software packages reviewed here come with either animation or JavaScript creation abilities. Much of the animation of the Web is achieved through animated GIFs, a file format that essentially contains several GIFs that are loaded one right after the other, giving the cartoon effect of movement. Most ad banners you see are animated GIFs. ImageStyler, ImageReady, and Fireworks all create animated GIFs.

Another animation effect is achieved through a programming code known as JavaScript. JavaScript "rollovers" occur when you place your mouse over a graphic and it changes. Rollovers cause the graphic to glow, invert, rise, or completely change to some other graphic. Previous to Fireworks, ImageStyler, and NetStudio Web designers had to write (or steal) their own JavaScript code. These three packages help you create the various states of a rollover graphic and then write the code and Web page that contains the script. You can then edit the Web page using a Web page editor.

ONE OF THE BIGGEST GRIPES ABOUT WEB GRAPHICS IS HOW LONG THEY TAKE TO DOWNLOAD.

imported this same picture into Fireworks, ImageReady, ImageStyler, and PhotoDraw and saved it using five different levels of JPG compression. You can see the varying degrees of image size reduction in the table.

Fireworks and PhotoDraw were by far the best programs at reducing the file's size. The traditional Web artist using Photoshop would only have been able to get it down to about 48K using 60% compression. Fireworks and PhotoDraw reduced that same file to 18K and 19K, respectively, while both ImageReady and ImageStyler reduced it to 38K. At a modem speed of 28.8 the Fireworks or PhotoDraw files would take about five seconds to download. The files generated by both ImageReady and ImageStyler would

theory being that several small graphics download faster than one large one. They achieve this by creating separate graphics of the sliced areas and then creating an HTML file with a table that reassembles the graphic. In each of these programs, you can set up the areas to slice yourself or you can let the program do it. I have used this feature to slice up the image of my University's Web sitemap into nine separate graphics. It does, indeed, *seem* to speed up

Lossless Versus Lossy Images

Lossless and Lossy describe the kind of compression schemes used to save images. GIFs are lossless and JPGs are lossy. GIFs use a palette of 256 colors and maintain the same quality each time you edit and save them. JPGs use true color (millions of colors), but lose (thus "lossy") color information each time you edit and save them.

Web Graphics Software Feature Comparison



	Adobe ImageStyler	Adobe ImageReady	Macromedia Fireworks	NetStudio's NetStudio	Microsoft's PhotoDraw 2000
Easy to Use	Sorta	No	No	Yes	Sorta
Street Cost*	\$117.00	\$159.00	\$175.86	\$92.57	\$129.99
Target Market	Business User/ Graphic Designer	Graphic Designer	Graphic Designer	Business User	Business User
Disk Space	40MB	20MB	50-100MB	30MB	190MB
Allows Scanning	Yes	Yes	Yes	No	Yes
Drawing Tools	Yes	Yes	Yes	No	Yes
JavaScript	Yes	No	Yes	Yes	No
Slicing	Yes	Yes	Yes	No	No
HTML Creation	Yes	Yes	Yes	Yes	No
Animated GIFs	No	Yes	Yes	No	No
Image Optimization	Yes	Yes	Yes	No	Some
ImageMaps	Yes	Yes	Yes	No	No
Web Info	http://www.adobe.com/prodindex/imagestyler/	http://www.adobe.com/prodindex/imageready/	http://www.macromedia.com/software/fireworks/	http://www.netstudio.com	http://www.microsoft.com/office/photodraw/
Web Download	14MB	19MB	9.3MB	25MB, 111MB	31MB
Notes	<ul style="list-style-type: none"> • Batch HTML Replacement 	<ul style="list-style-type: none"> • Similar to Photoshop • High Learning Curve 	<ul style="list-style-type: none"> • High Learning Curve • High Quality Built in Graphics 	<ul style="list-style-type: none"> • No "Blank Canvas Anxiety" • Little Flexibility 	<ul style="list-style-type: none"> • No "Blank Canvas Anxiety" • Resource Hog • Slow • Few Web effects

*From www.egghead.com on June 21, 1999

CONCLUSION

While the "smarty" tools obviously have a high learning curve, the "dummy" tools likewise require some investment of time. However, NetStudio 1.0 is, I believe, the best tool for the absolute novice. Its uncluttered screens, clearly labeled menus, and Word-like interface make it a clear choice for the artistically-challenged. PhotoDraw runs a close second. Of course, their ease of use is directly related to their lack of "tweaking" features, abundant in

ImageStyler. ImageStyler would be my third choice for the novice, especially one who thinks they want to indulge themselves in graphic design.

The tool I use the most is Macromedia's Fireworks. It gives me ease of use with the flexibility I want in editing graphics. The built-in graphics and JavaScript creation make fancy additions to my Web pages a snap. Also, because of its highly-designed voluminous clip art gallery, it has the potential to be useful to the beginning Web designer. I find it hard to

recommend ImageReady to anyone but the most serious graphic artist looking for a scaled down, Web-centric version of Photoshop.

Jim Rible (rible@sou.edu) has been the Webmaster for Southern Oregon University for the last four years. He is also the Network Librarian and Coordinator of the Information Technology Center for the Southern Oregon University Library. He has published numerous reviews on Web sites and frequently teaches classes in creating Web pages.

Comments? Email letters to the Editor to editor@onlineinc.com.