Fireworks’ Place in the Web Design Workflow

If you’ve been designing web sites for some time with Photoshop, you may wonder why you need Fireworks. After all, Photoshop is fairly adept at building graphics from scratch, and ImageReady is right there to add interactivity. But Fireworks has several features and advantages that make the creation, modification, and deployment of lean web graphics and sophisticated interfaces powerfully fast. Chief among them are its heavy use of vector graphics and its multifaceted integration with Dreamweaver. We will discuss the how-tos and benefits of both of these features in the course of this book.
ike illustration tools such as Adobe Illustrator and Macromedia Freehand, Fireworks is an object-oriented, vector-based program. When you build web graphics in Fireworks, you are building individual objects with standard Bezier curves, paths, and shapes. This gives you infinite control. One of the earliest (and most alluring) claims Macromedia made of Fireworks is that everything is editable, all the time, even months after you create the file. Whether the secondary color needs to be changed throughout a banner, a textual drop-shadow needs to be deepened, or the beveling of a button needs to be less pronounced, Fireworks allows you to make the change instantly. You are forever liberated from the single Undo of yesteryear.

While Fireworks does have tools that allow you to create and edit bitmap graphics, you can also use Fireworks to build complex and textured vector illustrations and logos that you can then export to illustration tools (such as Freehand) or bitmap tools (such as Photoshop) for further refinements or print preparation. The beauty of vector-based web graphics is that they afford you infinite control and flexibility—imagine sweeping image-editing being as easy as changing text in a word processor! Once you build your web graphics with Fireworks, the fun really begins. Unlike Photoshop, Fireworks is a dedicated web graphics program, and extensive built-in tools allow you to add interactive links, animation, complex rollover buttons, and even drop-down menus to your designs.

In this book, we take you on a real-life journey of building a professional web site for Habitat for Humanity using Fireworks in conjunction with other tools from Photoshop to Dreamweaver and Flash. The book assumes you have some basic familiarity with Fireworks' tools; it will not cover each of the drawing tools in turn, for example. We will not have you create widgets—useless graphics just for the sake of showing you how to use, say, the Pen tool. Instead, after covering several new features and providing a general overview, we will jump right into creating and refining a professional site. Thus, the book will devote considerable attention to using Fireworks in conjunction with other software—particularly Dreamweaver and Flash. Along the way, you will master the entire workflow of producing professional web sites with Fireworks, from comps and storyboards through optimization, publication, and post-publication maintenance.

**Understanding Vector Graphics**

When you first open Fireworks, you’ll see a familiar interface—complete with a Layers panel—that might remind you of other programs like Photoshop. Stop right there! Fireworks is a very different graphics program, functioning more like Illustrator or Freehand. The distinction between these two types of programs that we have mentioned—bitmap- and vector-based graphics—governs the strengths and limitations of the software, the nature of the design process, and the qualities of the resulting artwork. Understanding these two graphic types is fundamental to working in Fireworks.

To a computer, a *bitmap graphic* consists of a large table, or *matrix*, of pixels. The graphic might, as shown in Figure 1-1, have 100 rows and 100 columns, and
the graphic file communicates to the computer the color value (often a mixture of 256 shades each of red, green, and blue [RGB]) of each pixel. Figure 1-1 shows a close-up of a bitmap graphic; you can see the individual pixels that make up the image. Once it has described each of the 10,000 pixels (100 rows x 100 columns, in our example), the computer can display the graphic. Most web graphics today are bitmap graphics, including both the GIF and JPG formats.

In contrast, vector-based graphic files, which form the core of Fireworks’ PNGs, do not analyze the graphic data into individual pixels. Instead, vector graphics are described to the computer using mathematical equations. For example, to draw a vector circle, the computer draws a circle with a diameter of x pixels, starting at point x, y from the top left corner of the canvas, with a stroke of 2 pixels in the color black, and a fill of solid blue. Clearly this requires less information to render than a pixel-by-pixel description of the same! Another advantage is also obvious: to make the circle’s fill red rather than blue, you need only change one variable, instead of changing the RGB color of thousands of individual pixels. For this reason, you can also scale vector graphics up and down as much as you like without compromising quality or file size—all you are doing is changing the size variables. Figure 1-2 shows a vector-based image (though it was converted to bitmap for publication); notice the smooth, even unnatural, lines.

You might, after this description, wonder why anyone uses bitmaps at all. The reason is simple: it is one thing to describe simple shapes, like circles, fast-food restaurant logos, and the individual letters that make up fonts (which are vector files, by the way). It is quite another to describe a photograph. Different formats have different strengths. Most vector graphics have comparatively few colors,
clean edges, and visibly geometric shapes. Bitmaps lend themselves to continuous images, such as photographs and images that are too complex to render with shapes and lines.

Finally, we note significantly that vector graphics can sometimes imitate bitmap graphics: bitmaps created as seamless tiles can be applied as fills to vector graphics in lieu of solid color fills. In this way, a vector shape can take on the appearance of a bitmap graphic and yet retain all of the advantages of a vector graphic. Video games make heavy use of this technique. Fireworks not only allows you to apply bitmap fills to vector graphics, but it also enables you to create several bitmap-like effects—drop shadows, glows, bevels, and even to apply Photoshop filters—by applying textures to vector shapes in the same way that it applies solid color strokes and fills.

What Is Fireworks?

Macromedia built Fireworks from the ground up specifically to address the needs of the web graphic designer. The choice to create a web graphics tool that used vectors, as opposed to bitmaps, was ingenious. Fireworks 1 solved the primary problems of creating graphics for the Web, which included the need for compact file sizes and a tool for designers that empowered them to create and modify common web effects, such as bevels, glows, drop shadows, and textures, with minimal fuss. The reliance
on vector drawing tools also enabled the graphics to be exported, adapted, and reused for multiple purposes, including both web and print dissemination. Fireworks has also always been able to import and manipulate bitmaps though its power derives mostly from its robust vector handling capabilities. Macromedia capped the design process with an intuitive yet powerful set of optimization tools that converts the composite vector/bitmap graphics to standard bitmaps (including GIF and JPG), allowing users to balance the twin considerations of quality versus file size.

Later versions dramatically enhanced the ease and power with which users could add interactivity, even as Macromedia has consistently improved both its vector and bitmap handling capabilities. Fireworks 4 further ups the ante with improved Photoshop integration, an improved interface, and a host of other improvements that will speed up your workflow and empower you to be a more creative designer.

### Adding Interactivity to Your Designs

Fireworks is clearly a powerful tool for creating graphic images, be they vector, bitmap, or composite. But it is so much more than that. Although most web graphics are themselves bitmaps, most web pages are multimedia. When you look at any web page on the Internet, the interface is usually a mix of graphics, photography, and text. And it doesn’t stop there. Increasingly, most web pages do something; interactivity and dynamic web pages are increasingly common. Specifically, users manipulate elements within graphical interfaces to trigger events—loading data, changing images, accessing a database, and so on. Unlike the group of pixels in a bitmap design, elements in vector graphics—text, shapes, and paths—are all unique, separate objects, even when they are stacked above one another on the same layer. And because they are objects, it is an easy task to isolate them for specific purposes, such as attaching scripts to them. Fireworks makes great-looking static web graphics and enables you to create sleek interfaces loaded with functionality.

Many common behaviors are built into Fireworks and can be added automatically through simple interfaces like the one shown in Figure 1-3. The Set Pop-Up Menu dialog box, new to Fireworks 4, makes deploying dynamic pop-up menus as easy as filling out a short form. Other behaviors that Fireworks can add automatically include the following:

- Image rollovers
- Image swapping
- Status bar messages
- Navigation bars

### Extending Fireworks’ Interactivity

With the help of other tools (such as Dreamweaver, Flash, and others), and especially if you can program, you can add much more interactivity to your Fireworks interfaces. For example, you can create buttons that control the
playback of a Flash movie, using the free JavaScript Integration Kit extension for Dreamweaver. You can use Fireworks rollovers and menus as events that drive ColdFusion or Active Server Pages (ASP). And you can extend Fireworks itself with the Macromedia Exchange, where you can download free extensions that add any number of Fireworks behaviors, from bullet builders to a custom swatch maker!

FOR MORE INFORMATION! For hundreds of free extensions for several Macromedia products, including Fireworks, go to www.macromedia.com/exchange. Numerous third-party sites contain Fireworks extensions as well. Two of the more notable sites are http://www.massimocorner.com/ and http://dhtmlnirvana.com/ (Fireworks extensions are all located in the “Pretty Lady” section).

Site Design in Fireworks

One of Fireworks’ best features for the designer is that it is a very effective tool for developing entire site designs and mock-ups. You can create the look of pages, master pages, and so on, in Fireworks, just as you might create a comp in Quark Express or Adobe InDesign. As you develop the overall look, you can also create the individual graphics that will become elements of that overall look—all in the same program!
You can create a design grid using rulers and guides on a layered canvas that is 600x500 pixels and still have a 100-kilobyte (KB) file (unlike the 20 megabytes [MB] the same file might be in Photoshop), which is easier on your processor and your hard drive. You can then create slides from your comps and have an instant storyboard or presentation. When you have finished the look of the site, you can slice your page into tables and import as-is into Dreamweaver. Not only will your page layout be nearly complete—you will usually end up doing some tweaking in Dreamweaver—but your graphics also will already be optimized, publishable, and in place!

**HAZARD**

As you build web pages in Fireworks, it’s tempting to build more than one page in the same document as you would in Photoshop. Because Fireworks is geared toward building interactive pages, concentrate on building one web page at a time.

### What Is a Fireworks PNG?

Most programs have, in addition to a number of available standard file types, a native file type. Photoshop has the PSD, Word has the DOC, and so on. In each case, the software is able to encode unique features in its native file type, features not available in other programs. While in development, you will typically use the native file type (such as the PSD) and later export a more standard file type (such as a TIF).

Fireworks can be confusing in this regard, because its native file type, the PNG (pronounced “ping”), is a standard file type—sort of. Perhaps the best way to think about the Fireworks PNG is as a PNG+. That is, at its base, it is a PNG file, but Fireworks stores additional information in the file that is not readily interpretable by most other programs (the only exceptions are related Macromedia products).

The standard PNG (Portable Network Graphic) is a simple bitmap file type, much like a GIF or a JPG. Indeed, the PNG was initially developed to replace the GIF and JPG file types by combining their best attributes. Like a JPG, the PNG uses 24-bit color (the GIF is limited to 8-bit, or 256 colors). Like a GIF, it uses lossless compression, whereas the JPG uses lossy compression. With ample color and a lossless compression scheme, the PNG results in high-quality graphics files; however, standard PNGs can be a bit larger than both GIF and JPG, depending on the color depth. In addition, PNGs are not widely compatible with browsers, although that is changing as browsers begin to support PNG transparency.

In addition to having the features that were mentioned in the last paragraph, the Fireworks PNG is, like the EPS and WMF graphic file specifications, a *metafile*—a file type that contains both vector and bitmap information. In addition, the Fireworks PNG also stores nongraphic information—such as when you add a behavior to a slice—that is simply not interpretable by virtually any other program. It is as if the other program were to take a picture of your file, rather than opening it. Saving at that point can be disastrous.
If you open a Fireworks PNG in most other programs, the file will be flattened and rasterized, that is, converted into a simple bitmap. If you save the file and open it again in Fireworks, you will lose the editability of text, vector graphics, and live effects. Worse, you will lose all behaviors, layers, frames, slices, hotspots, URLs, masks, and so on.

New Features of Fireworks 4

Fireworks 4 has a host of new features, some of which improve productivity in accomplishing specific tasks, while others are more generalized. Here’s a list of the more important features along with a description of what we’ve found most useful about them.

Standardized User Interface

Macromedia has updated and standardized the user interface in recent upgrades of several of its web development products, including Dreamweaver 4 (and Dreamweaver UltraDev 4), Flash 5, and Fireworks 4. Tools, panels, icons, and menu commands are now largely standardized. In addition, all of these products use a similar tabbed panel interface that both appears and functions consistently across the programs that have the new interface.

What’s great about the standardized interfaces is that they make it much easier for you to learn and master all the products in the Macromedia family—an increasingly important task since the programs all work so well together.

A convenient feature of the new interface—already familiar to users of Dreamweaver 3—is the Launcher Bar, shown in Figure 1-4. The Launcher Bar is the set of icons in the lower-right corner of the screen that launches frequently used panels, including the Stroke, Mixer, Optimize, and Layers panel sets. This new feature enhances productivity by providing quick access to the most common panels.

IDEA

Having too many of these panels open at one time can clutter your screen, especially if you are running at a lower resolution. Now that you can quickly reopen them with a single click (rather than hunting around the Windows menu), you can close the less frequently used panels and get the most out of your screen space.

Figure 1-4

Use The Fireworks Launcher Bar to open the Stroke, Mixer, Optimize, and Layers panel sets.
**Enhanced Dreamweaver Integration**

With Fireworks 3/Dreamweaver 3, you could launch and edit Fireworks files within Dreamweaver. Fireworks would open the source PNG and then re-export all of the necessary scripts and image files. When you returned to Dreamweaver, the document was already updated. This feature was one of the hallmark features of the two products’ integration.

With Fireworks 4, Macromedia has gone a couple steps further. First, they improved the launch and edit window, which allows you to edit Fireworks’ files directly in Dreamweaver. Second, whereas in the past, when you opened Fireworks files in Dreamweaver, Fireworks rewrote the Hypertext Markup Language (HTML), it can now leave the HTML alone. This means that you can customize your code as much as you like in Dreamweaver and still edit your Fireworks files at any time without fear.

**Improved Batch Processing**

Fireworks 4 has a new batch-processing interface shown in Figure 1-5 that makes automating tasks simple, providing control over the tasks, their order, and where to save the resulting files and backups. Figure 1-5 shows step 2 of the new batch-processing interface. As you can see, using Fireworks’ robust batch-processing powers is as easy as filling out a form.

**Live Animation Controls**

Fireworks has made two improvements to its animation controls. First, it now has an animation control interface similar to that of Flash and Director. This interface provides a series of VCR-like controls right in the authoring environment that let you preview the animation and/or move through it one frame at a time.
Another powerful innovation is the new Animation Line, seen in Figure 1-6. When you select an animated symbol, each point on the line indicates the relative position of each symbol on each frame of the animation. By adjusting this Animation Line, you can alter the direction and extent of an animation quickly and intuitively, because you can adjust the animation as a whole, rather than skipping back and forth between first and last frames.

### Pop-Up Menus

One of the coolest new features of Fireworks 4 is its ability to quickly create hierarchical menus that appear when you roll over a button, as illustrated in Figure 1-7. You can attach a pop-up menu to any slice or hotspot object in Fireworks simply by selecting it and choosing Insert | Pop-Up Menu from the menu. Fireworks then opens a simple two-step dialog box that walks you through the process of building the menu. Better still, this dialog box even provides a live preview as you work, so there is no need to go back and forth to see your design.

### Improved Pen Tool

As most designers know, although the Pen tool in most graphics software is quite powerful, it is not the easiest tool to become accustomed to. Even when you do have
some level of comfort with it, it can sometimes be hard to tell whether you are editing a point, removing it, adding a new one, or simply selecting the whole path. To help you with this, Fireworks 4 now continuously changes its cursor icon while you are working, so you know exactly what you are doing, whether you are plotting a new point or modifying the curve handles on an existing one.

Automatic Scrolling

Working within a graphics program often requires zooming in closely on your work. Often, it happens that a portion of what you want to modify is offscreen. Moving your mouse over to a scroll bar and repositioning takes time and breaks concentration. To minimize this inconvenience, Fireworks 4 has a new automatic scrolling feature. Once you get used to it, you'll wish all of your graphics applications had it. By dragging your cursor beyond the edge of the document window when your document is larger than the window, you cause the screen to scroll with the cursor—no scroll bars to find and no buttons to press.

Selective JPEG Compression

Have you ever tried to compress one of those images in which one item had to be clear, while the remainder of the image was a lower priority? If you made the one item clear by compressing at high quality, the file was too large. Yet if you made the file a reasonable size, the main object’s quality was low. With selective JPEG compression, as shown in Figure 1-8, you can compress one part of an image with 90 percent quality, while you can compress the rest of the image, say, the background, at 40 percent quality.
Object Masking

Fireworks has always allowed you to create mask groups whereby the shape of one object determines the visible area of another object. New in Fireworks 4, however, is the ability to see your masks in the Layers palette, as shown in Figure 1-9. As you can see in the illustration, Fireworks’ object masks look a lot like Photoshop’s layer masks in the Layer palette, and function pretty much the same way.

Expanded Import and Export Options

Because it is designed to do so many things at once, Fireworks’ Export dialog box has traditionally been somewhat complex. Fireworks 4 streamlines this dialog box, making exporting files simpler and quicker. In it, you can choose, in addition to the various HTML editor options, several other graphics file types.
NOTE The dialog box still has many options. These are now tucked away in an Options dialog box, obtained by clicking the Options button in the Export dialog box. Be sure you select your Save As Type before you click the Options button, since the options change depending on how you are saving the file.

In addition, Fireworks 4 has improved Import and Export features that can import Photoshop PSD files complete with layers, layer masks, and layer names intact. Director integration has also improved, though you will need the Fireworks Import Xtra installed in Director. You can now directly import EPS files into Fireworks; these files are rasterized upon import.

Rectangles with Rounded Corners
One of our favorite new features is the ability to create customized rounded corners on rectangles. This new feature makes creating buttons and tabs that much easier.

How Does Fireworks Compare with Photoshop and ImageReady?

Macromedia is not alone in the world of web development software. Fireworks’ most notable competition is, perhaps, Adobe’s Photoshop/ImageReady package. Widely recognized as the most robust bitmap image–editing tool, Photoshop has been a favorite among designers for years. When Adobe decided, with version 5.5, to bundle ImageReady with Photoshop, it signaled its intent to make Photoshop as relevant to the web designer as it was (and is) to the print designer. Since ImageReady has animation, interactivity, and optimization tools not unlike those of Fireworks, it is reasonable to ask what Fireworks offers that the Photoshop/ImageReady suite does not—or at least how they differ.

Vector Handling
Perhaps the most fundamental difference between the two programs—when it comes to preparing the web graphics themselves—is that Fireworks is essentially a vector-based program with some bitmap-handling abilities, while Photoshop/ImageReady is the inverse: a bitmap-based program with some vector capabilities. The recently released Photoshop 6 now boasts a number of new vector tools, but at its core, Photoshop remains a bitmap-based program. For this reason, it can’t stand up to Fireworks’ central claim that everything is editable, all the time. Photoshop has its own pluses, to be sure, but in this sense, it is quite different from Fireworks.

Integration with HTML Editors
Another key difference is that the integration between Fireworks and Dreamweaver is unparalleled. Adobe GoLive, which competes with Dreamweaver, was not
designed in tandem with Photoshop (which preexists it by many years). Macromedia has made a concerted effort to develop Dreamweaver and Fireworks in such a way that they are a complementary suite of programs, even as Dreamweaver has, with UltraDev, evolved into a much more sophisticated tool.

For example, in designing pages for the Habitat for Humanity web site, we started the design in Fireworks and then exported the entire page as a working HTML page that we could edit and refine in Dreamweaver. As shown in Figure 1-10, once in Dreamweaver, it's easy to reopen parts of the page in Fireworks for quick adjustments such as changing a graphic text element.

Between the reliance on vector-based vs. bitmap-based graphics and the tight integration with Dreamweaver, designing entire web pages from the ground up in Fireworks and then moving into Dreamweaver is much easier than designing a page in Photoshop and moving it to GoLive. With the Fireworks/Dreamweaver combination, you can switch back and forth readily between the two programs, updating HTML and graphics until you get the page looking the way you intended.

### Integrating Fireworks with Other Programs to Build Web Sites

However great a program is, and Fireworks 4 is indeed great, no software is in itself a comprehensive solution. Web sites are, in the end, multimedia, and graphics and design/layout are only a part of the process. This section is intended to give you a
snapshot of how Fireworks 4 might fit into your web design workflow, and how you can use Fireworks in conjunction with other popular design tools—aside from just Dreamweaver. Each heading describes a design task, and below it suggests how you might use Fireworks—alone or in conjunction with other software.

Mock Up a Web Page

Use Fireworks to create a design grid, mock up the elements, and slice the page into an HTML table. Use Dreamweaver to import the Fireworks HTML and to make any necessary adjustments. Use Dreamweaver UltraDev to create a database-driven web site with a sleek Fireworks interface.

Create a Storyboard or Multimedia Presentation of Comps

Use Fireworks to place each design in a separate frame and then use Export As Frames. Alternatively, you can use Fireworks to batch-process a series of page designs into a standard-size image. Use Flash to import incrementally named files as individual keyframes, and create a quick, interactive presentation of your site.

Create Static Graphics

Use Fireworks to design from scratch, or to import design elements from other applications such as Illustrator, Freehand, or Photoshop for final design and optimization. Use Photoshop for cleaning up scans (that is, by adjusting levels and/or curves) and applying pixel-based effects. Though Fireworks has substantially improved its bitmap handling, it is not about to dethrone Photoshop in that area. We recommend that any bitmaps you use in Fireworks, you import in final form, using Fireworks to design further with its native vectors (for example, text) and to optimize. Use Freehand or Illustrator for sophisticated vector artwork that Fireworks was not made to handle. Freehand is a pure vector drawing program and has several drawing tools that Fireworks lacks.

Add Interactivity

Use Fireworks to add a number of common HTML- or JavaScript-based client-side elements, such as buttons, pop-up menus, and so on. Use Dreamweaver to add everything from simple hyperlinks to scripted Flash controls. Use Dreamweaver UltraDev, a middleware solution such as ColdFusion, or Common Gateway Interface (CGI) scripts to create fully customized interactivity. Use Flash and Generator to create robust animated web applications.
Create Animation

Use Fireworks to create animated GIFs and other simple animations. Fireworks boasts a number of animated GIF customization settings, ranging from frame rate to transparency options, as seen in Figure 1-11. Use Flash to import graphics created in Fireworks for more sophisticated animation capabilities. Flash can also import other file types, such as QuickTime, which enables Fireworks-Flash-QuickTime animations.

Optimize Graphics

Use Fireworks to compare different file types and compression schemes to balance file size constraints and image quality. While you can also use Photoshop’s Save For The Web feature or ImageReady to optimize graphics for the Web, if you’re already working in Fireworks, it makes sense to use Fireworks’ optimization tools. In our experience, Fireworks also does a slightly better job of file optimization.

Standardize Graphics

Use Fireworks to change the dimensions, color depth, compression, or filename; to perform a Find and Replace operation within a batch of files; or to create thumbnails.

Figure 1-11  The Fireworks Export Preview dialog box can be used for customizing animated GIFs.
When it comes to automating repetitive tasks, Fireworks should be all you’ll ever need. With Find And Replace, Batch Processing, and Scripting (that is, macros), Fireworks has a number of robust automation options.

Coordinate with Print-Based Projects

Use Fireworks to import and export a variety of vector and bitmap file formats from other programs, without any compromise in quality. Use Freehand or Illustrator to use a premier set of drawing tools to create vector artwork for both print and the Web, and then import into Fireworks. Use Photoshop to use the premier image editor to create cutting-edge bitmap images for import into Fireworks—layers and all.

Integrate Scanned Images, Stock Photos, and Other Found Art

Use Fireworks to import and make basic adjustments to scans. Use Photoshop to import scans and prepare them for Fireworks. Photoshop’s superior bitmap editing tools—with its histograms, adjustment layers, and its many filters—allow users to improve the visual and artistic quality of bitmaps better than Fireworks. We recommend it over Fireworks for the initial phase of the scan-to-web process. Once the bitmap is clean and ready, import it into Fireworks and work it into your design.

Online How-To

Building a Web Illustration

To introduce you to Fireworks’ basic vector and bitmap tools and its integration with other tools like Photoshop, this lesson steps you through the process of creating a web page illustration that includes text, vector shapes, and photographs. During this exercise, you’ll also get a taste of using the Fireworks Layers panel, using object masks, and using the Optimize panel to export work ready for the Web.

GO TO THE WEB! For a free, self-paced interactive version of this tutorial, which includes video demonstrations and source files, visit www.expertedge.com.

The Tutorial

We’ll begin this tutorial, not surprisingly, by setting up a new file.


2. In the New Document dialog box, set its dimensions to 450×100 pixels, its resolution to 72 dpi (standard for the Web), and its background color to black (hexadecimal #000000).
Before we continue, note that throughout this tutorial, you will use the SHIFT key for two timesaving purposes: (1) Any time you hold down the SHIFT key and drag, your dragging will be constrained. If you are dragging to draw a line, the line will snap to vertical, horizontal, or to a 45-degree angle. If you are drawing a rectangle or an oval, pressing SHIFT will force you to draw a perfect square or circle. If you are scaling an object, holding SHIFT will constrain proportions, so you do not distort the object. If you are moving an object, pressing SHIFT will force you to drag it either horizontally or vertically—whichever is your predominant motion. (2) To select more than one object, hold down the SHIFT key, which functions in Fireworks like holding the CTRL key in Windows, to select multiple files. Note also that most major graphics software (from Macromedia and Adobe) uses SHIFT both as a constraint to dragging and as the means for selection of multiple objects.

Building the Basic Layout

You should now be looking at an empty, black canvas that is wider than it is tall. This graphic is going to contain five bitmap pictures in a photo timeline. We’ll begin by creating frames for the pictures, using the Rectangle tool. We’ll use the Info and Align panels to size and position the frames with easy precision.

1. Select the Rectangle tool and draw a rectangle on the canvas of any size.
2. With the rectangle selected, use the Info panel to resize it to the following dimensions: W = 50, H = 40. Use the Info panel to both create and lay out objects with pixel-perfect precision.
3. In the Fill panel, use the drop-down list to set the fill to none.
4. In the Stroke panel, use the drop-down list to set it to Pencil. Then set the following attributes: in the Stroke Name drop-down menu, 1 pixel hard; in the color well, white.
5. Still in the Stroke panel, set the stroke’s Texture to Grain, and use the slider to adjust the amount of texture to 40%. This should lend a ragged appearance to the line. Who says vector graphics have to look unnaturally smooth?
6. Make four copies of the rectangle so you have five rectangles total. To quickly duplicate, hold down the OPTION/ALT key and click-and-drag. Also hold the SHIFT key to constrain movement horizontally.
7. To make sure the five squares are perfectly spaced, SHIFT-select them all (hold the SHIFT key and click on each one), and then choose Modify | Align | Distribute Widths. This command puts an equal amount of space between each of the rectangles. As with the Info panel, using the Align panel gives you quick control over objects that eyeballing simply can’t. When you are finished with this step, your file should appear similar to the one shown here.
8. Make a background strip that will go behind the rectangles. Draw another rectangle with the Rectangle tool.

9. Using the Info panel, change its dimensions to $W = 450$, $H = 40$.

10. In the Fill panel, choose a dark gray color, such as #333333.

11. Set the stroke to None. With the rectangle still selected, send it behind the original five rectangles by choosing Modify | Arrange | Send To Back. All of the rectangles so far are on one layer—the Arrange option allows you to set the stacking order within layers.

12. Open the Layers panel, and you will see the collection of vector objects in Layer 1 that you’ve assembled so far. All are on Layer 1, though they are listed separately, indicating their within-layer stacking order.

Importing and Masking Bitmap Images

In this procedure, you will import some prebuilt Photoshop files, layers and all. You will use masking to add some effects, and get some practice manipulating bitmaps in general.

1. Import the photos from Photoshop for the photo timeline. Choose File | Import and locate photo1.psd in the media folder included in the online edition of this chapter at www.expertedge.com.

2. When you click Open, your cursor will become a corner icon. Click to place the photo in the document. The picture is much too large for our frames; we’ll take care of that in a moment.

3. In the Layers panel, notice that this Photoshop image has a layer mask that is retained in Fireworks. To turn off the layer mask, click the black triangle in the upper-right corner of the Layers panel and choose Disable Mask. Notice the red X that appears on the mask and that you can now see the entire image. You can turn the mask back on by choosing Enable Mask from the Layer panel’s pop-up menu, but leave it off for now.
4. Let's choose a portion of the image to fill the frame. In this case, we want to capture the skyline. Scale the image down, so that it is about 112×75 pixels. You can use the Info panel again, or grab one of the corner blue dots on the image, hold the SHIFT key, and drag inward or outward to scale. The SHIFT key constrains proportions, so that your image does not become distorted.

5. Position the resized image over the first rectangle, so that the mountaintop runs through the center, as seen here. To help with positioning, in the Layers panel, drag the first rectangle’s layer just over the bitmap layer, so you can see what you are doing.

6. Choose Edit | Cut. This places the bitmap on the Clipboard and enables the next step.

7. With the Pointer tool, select the first rectangle, and then choose Edit | Paste Inside to create a mask group. The portion of the image within the rectangle will be visible, while the rest will be invisible.

8. Repeat steps 1 through 7 to import the remaining photos, resize them, and paste them inside of the remaining rectangles. When you are done, you should have a row of photo icons for our timeline interface:

9. Adjust the coloration of these photo icons so that only one is highlighted/selected, while the others appear dimmed. With the Pointer tool, SHIFT-select four of the five photo icons (the ones you want to dim). In the Layers panel, set their Blending Mode to Luminosity by choosing it from the pull-down menu. The Luminosity option will convert the images to grayscale.
IDEA  Fireworks blending modes do not permanently remove color. To return them to their original state, simply set the blending mode back to Normal.

10. Adjust the opacity of the four icons to 35%. This will dim the images.

Adding the Final Touches

The contrast between the selected and unselected icons helps users know where they are and choose where they want to go. Let’s enhance this distinction further, improving both usability and aesthetics:

1. To add an extra embellishment to the one that remains highlighted (in Normal blending mode), let’s add corner edges that look as though they are holding the photo in place. First, be sure that the settings in the Stroke panel are the same as they were when you drew the rectangles.

2. Select the Pen tool. You might find the following steps easier if you zoom in on the image, to 400% for example.

3. Starting at the upper-right corner of the photo icon, click once to set down the first point.

4. Press and hold the SHIFT key, and click to set down a second point about 10 pixels to the right. Then, still holding the SHIFT key, click to set a third point down 10 pixels. When finished, switch to the Pointer tool and click anywhere to deselect.

5. Move the corner graphic as needed to frame the icon. Repeat these steps to create a corner graphic to frame the remaining corners. Alternatively, you can copy, paste, and rotate your original graphic. The result can be seen here. Magnified like this, the fancy grain stroke set in the Stroke panel doesn’t look like much.

6. Add a text caption for the highlighted icon. Select the Text tool in the toolbar, and click once in the document to start typing.
7. In the Text Editor, type a date followed by a short message of your choice to describe the highlighted photo icon. For the middle image, we typed **10.15.01 The Claros family builds Habitat homes in their community**, with the date in blue (#6699FF) and the sentence in white (#FFFFFF). Click OK.

8. Use the Pointer tool to position the text beneath the pictures.

**Optimization and Export**

The final step of the development process in Fireworks is optimization and export. Upon export, Fireworks saves a copy of your vector-based metafile as a standard web-friendly bitmap, such as a JPG or a GIF.

1. Open the Optimize panel from the Window menu or Launcher Bar.

2. In the Settings drop-down menu, select GIF WebSnap 128. This limits the illustration to using only 128 colors. Of all the possible colors, it will first choose colors that are best suited to the image, and wherever possible, it will try to use web-safe colors.

3. Click the 2-Up tab on the document window. The image at the left is the original PNG. The image at the right is the 128-color GIF. Beneath each image are file-size statistics. Our original PNG is nearly 93K, while the GIF is a tidy 7K—about 1/13th the size of the original!

4. Before exporting, trim the canvas size to as small as possible to conserve on file size. Choose Modify | Trim Canvas. The canvas automatically shrinks to fit your illustration.

5. Choose File | Export to export this image. In the Export window, choose Images Only from the Save As drop-down.

6. Locate a folder where you want to save the image, and click Save. The final product is shown here.