

Creating a Web Page in Flash

Introduction

Animation is becoming one of the critical components of Web site design, and the demand for animation on Web sites is getting higher. Flash, which integrates audio and animations to transform information, is one of the premier tools for creating animation for the Web. It provides the user who wishes to use the Internet as a communications medium a richer and more interactive experience. More than 200 million people use Flash, and more than 1.4 million download it daily. Macromedia Flash is installed in more than 88% of Web browsers (Macromedia Press Room a), and over 100,000 developers have created incredible Web sites using Flash. (Top Tech Stories) What makes Flash so popular among its many users?

This paper will discuss what Flash is and the benefits and drawbacks of using it for creating Web sites.

What is Flash?

Flash is based on vector technology, which delivers high-quality Web graphics, even over low-bandwidth Internet connections. In addition, Flash enables interactivity and animation, setting it apart from other vector-based design tools and technologies. (Top Tech Stories)

What are the benefits of using Flash

1. Interactivity

It has been written that we retain only about 15% of the information we read. Information that has interaction with an experience in a person's life, on the other hand, has a retention rate of about 70%. (Guagenti , 1997) Flash is an advanced tool that leaves a lasting impression on an individual. Flash provides tactile user feedback in the form of rollovers and clicks when the user clicks on a button or a graphic and starts an animation.

2. Speed

Flash has been optimized for fast delivery of anti-aliased static and animated vector graphics to the screen. Users experience minimal wait—even over slow modem connections. This program breaks the bandwidth barrier with streaming Flash files that play while they download. There's no wait, even over slow modem connections. Streaming is another great feature of Flash. With Flash it's possible to create a 300-K file that users can begin to enjoy within a matter of seconds. With streaming, the user's browser downloads the Flash Shockwave movie frame by frame. Once the first frame is downloaded, the movie can start playing while the successive frames continue to download. (Kay)

3. Size

Flash vector technology means Flash files are extremely small, even when animations play back in full screen mode. The Shockwave Flash player is also small, at less than 170K. Flash animations use vector-based drawings which are described mathematically, rather than as a collection of pixels. This reduces storage requirements greatly, and the images can be scaled or zoomed to any size with no loss of detail. Indeed, more detail can often be viewed by zooming in. (Waldman, 1997)

4. Versatility

Flash is the perfect Web interface design tool because it has several functions to create navigation bars and advertising banners, animate buttons, and draw images. Animations and interactivities can also be built in Flash, allowing the developer to add sound if he or she wishes.

5. Screen Quality

Flash offers support for anti-aliased text and graphics. This means that letters and image edges are smooth even while animating when the Flash movie displays on the screen.

6. Cross platform

Movies created in Flash look and work the same across platforms. There is no reason to worry about screen resolution since the movies are resizable. On top of it, Flash is not influenced by the version of JavaScript on the viewer's browser, nor by HTML tag differences between browsers.

7. Universal Usability

Macromedia has made numerous distribution agreements to ensure the widespread use of Flash, which now ships with most leading operating systems, media players, and Web browsers, including Windows 98, Mac OS 9, America Online 5.0, WebTV, Apple QuickTime, RealNetworks' RealPlayer, and the current versions of Netscape Navigator

and Microsoft Internet Explorer. The Flash Player is freely available for Macintosh, Windows, Solaris, Java, Linux, and IRIX platforms. (Macromedia Press Room b)

What are the drawbacks of using Flash

1. Plug-ins

In spite of the several benefits of using Flash, plug-ins are an issue. Flash files are only viewable with a plug-in which extends your browser's capabilities so you can access new media types such as audio, video or animation. Users need to download and install it before they can see Flash movies. However, this is becoming less of a hurdle since many of the latest browsers come with Flash already included. Flash is currently included with Microsoft Windows 95/98, Apple MacOS 8.5 and higher, Netscape Navigator 4.5 and higher, and America Online AOL 4.0. (Top Tech Stories) It is also easy for the user to install the plug-in, since it is only 160k, and takes less than one minute to download with a 56k modem.

In February 1999, King, Brown, & Partners, an independent market research firm, conducted a study to determine how many Web browsers have Flash pre-installed. As part of the study, 1,675 participants, representing an Internet sample, visited various Web pages containing animations in different formats. Respondents then indicated whether or not they could see the animation on each page. The survey revealed that 77% of Web users could view Flash: (Top Tech Stories)

	% Respondents	# Respondents
Animated GIF	99%	1,663
Flash	77%	1,287
Java	62%	1,037

2. Search Information Problem

Another concern in creating Web sites in Flash is that the user can't have easy access when he or she needs to get information, because Flash files are not searchable- a crucial issue. However, the users can still find what they need by using a META tag. "META" tags are HTML tags that are read by the various spiders that catalog your site. You can use these tags to specify text that you want used for the summary of your document, and it is not displayed in the browser window. META tags allow the developer to communicate certain information to the search engines, other automated services, and other Web developers about their site." (Web Solutions, 2000) Flash provides

information accessibility to the user by META- tagging Web pages carefully, even though it is less convenient to access information compared to Web sites created with plain HTML.

Companies using Flash for their web sites

The followings are examples to showing how Flash is being used. Visit any of these web sites.

Microsoft Network uses Flash to provide animated advertisements to demonstrate their TV-based content model. <http://www.msn.com/>

The NBCi.com, which is a premiere service for broadband and high-speed Internet users, has been developed with Macromedia Flash so users can customize the NBCi.com portal interface.

<http://nbc.com/>

Conclusion

There are several fundamental things you need to consider before you start creating a Web site. "What techniques are most appropriate to the goals of my Web site?" "Who is my audience?" Once you figure out the nature of your audience, envision "what's the best way to reach my audience? Then, decide which media is right for your purposes.

If you are aiming to reach a wider audience, you can stick to using plain HTML since pages tend to be small so download times can be short. Yahoo is a good example for a site that uses the simplest technologies to reach the widest audience.

However, if you want to provide interactivity and animation to web sites so the user can have more intuitive experience, Flash is the premier solution. Ultimately, the decision depends on you.

The keynote is that Flash provides an integrated solution for authoring content and engaging the user by creating a dynamic Web environment.

Reference

Guagenti, P. (September 9, 1997). *Multimedia on the Web: What's it Good For and How do I Get Some?* . [Online]. Available:

<http://www.ipn.org/past1997/prog0997/guagenti.htm>

Kay, M. Shockwave/Flash: *Intro to Flash 3* [Online at webmonkey]. Available:

http://hotwired.lycos.com/webmonkey/98/25/index2a_page4.html?tw=multimedia

Macromedia Press Room a: *Macromedia to define the future of interactive, next-generation, dynamic web sites at FLASHFORWARD2000 Conference*. [Online].

Available:

http://www.macromedia.com/macromedia/proom/pr/2000/index_flashforward.fhtml

Macromedia Press Room b: *NBC Internet, INC. Delivers next generation NBCi.COM broadband portal with MACROMEDIA FLASH*. [Online at Macromedia]. Available:

http://www.macromedia.com/macromedia/proom/pr/2000/index_nbc.fhtml

Top Tech Stories: *Macromedia Flash Reaches Over 100 Million Web Users*. [Online at TechMall]. Available:

<http://www8.techmall.com/techdocs/ts990301-3.html>

Waldman, C. H. *HotFlash*. (1997) [Online]. Available:

http://www.wiz.com/issue11/wiz_d02.html

Web Solutions: *META tagging* (March 21, 2000). [Online at Macromedia]. Available:

<http://www.ws123.com/i-central/issues-meta-tagging.asp>

Related Links

Web sites created in Flash:

<http://www.tacobell.com>

Taco Bell

<http://www.nasdaq.com>

NASDAQ (Member site)

<http://www.sonicnet.com>

SonicNet

<http://www.mgm.com/deceiver/hi/index.html>

MGM

<http://www.rooneydesign.com/webdesign.html>

Web design

http://www.macromedia.com/gallery/archive/index_june99.html

Macromedia sites with life archive

<http://www.macromedia.com/software/flash/productinfo/reviews/contents.html>

Flash reviews & awards

Discussions about Plug-Ins

<http://www.dac.neu.edu/dac/d.hart/dayfour.html>

Explanation and History

<http://netgu.netbyte.co.nz/pulp/20/plugins.html>

Plug it in, Plug it in.

<http://www-7.cc.columbia.edu/itc/itc/webdev/browsers.html>

Browsers and Plug-ins

Tutorials

http://hotwired.lycos.com/webmonkey/98/25/index1a_page2.html?tw=multimedia

Flash

http://hotwired.lycos.com/webmonkey/98/32/index0a_page5.html

Animation

Flash Basics

<http://www.macromedia.com/support/flash/how/subjects/Stream1/Stream02.html>

How streaming works

http://hotwired.lycos.com/webmonkey/98/32/index0a_page5.html

Serving Up Web-Friendly Animations: In a Flash

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