

macromedia®  
**FLASH™ 4**  
Curriculum Guide

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# INTRODUCTION

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Macromedia Flash is the solution for producing high-impact, vector-based Web sites. Flash has attracted an army of graphic artists and Web developers who create dazzling animations and interfaces for the Web, adding sound, motion, and interactivity to engage Web viewers with the kind of experience that builds brand loyalty for publishers and culture for Web sites. For excellent examples of Flash Web sites, see <http://www.macromediademos.com>.

## **FLASH IS DESIGNED FOR THE WEB**

Flash is a technology explicitly designed for delivering Web-efficient content to everyone. Flash animations are small, fast, and color-safe for the Web. Flash smooths artwork and resizes graphics and animations to fit the viewer's screen, providing full-screen viewing experiences for all browsers. Flash sites are viewable on a variety of platforms, including Macintosh, Windows, Linux, Solaris, IRIX, and even Web-enabled appliances, including WebTV. All receive the same high-quality viewing experience without design compromise or the need to create alternative site views

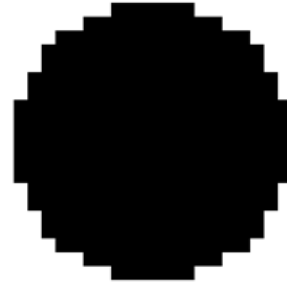
## **FLASH PROVIDES ENGAGING WEB EXPERIENCES**

The Web serves the needs of many publishers and many viewers. Major corporations are moving their businesses online and seek ways to distinguish themselves from their competition. These site publishers have two goals: to provide a "sticky" experience to keep viewers on their sites longer and to provide engaging, fun content to encourage return traffic. Consumers use the Web to gather information, purchase products, and collaborate with their peers while enjoying entertaining experiences. These viewers consistently return to sites that offer better content, including sound, motion, and interactivity.

From Citibank.com to Disney.com, Flash is the solution for high-quality Web site designs that effectively convey company brands while providing enjoyable interaction.

## **FLASH IS VECTOR-BASED**

Part of the secret to the sleek Flash graphics is that they are based on vector information instead of pixel-based bitmap graphics. Drawing a circle with a bitmap is like coloring inside the lines on graph paper. You build the circle pixel by pixel on the monitor screen. Your circle is jagged, and as you enlarge it, it becomes more and more jagged (see the example of an enlarged, jagged bitmap graphic in Figure I-1). Vector graphics describe the image mathematically: "make a circle with a radius of 6." This description is much smaller to store, and because it is mathematical, the graphic can be enlarged to any size without losing quality.



**Figure i-1**  
*When a bitmap graphic is enlarged, curved lines appear jagged.*

## **FLASH IS NOT JUST FOR VECTORS**

Sounds, bitmaps, and interactivity can also be integrated into a Flash file. Sounds and bitmaps do add to the size of the file but can provide stunning site designs when you use them efficiently. After the sounds and bitmaps are included in the Flash file, you can apply variable compression schemes to balance quality with delivery size. Size directly affects the amount of time a viewer waits to see your content, and you can minimize the wait through streaming—an inherent delivery attribute of all Flash Player files. Streaming displays the initial portions of a file while the remainder of the file is being downloaded, allowing viewers to experience content immediately, without the wait.

## **FLASH IS INTERACTIVE**

Remember when your high school teacher played a video in class? Naptime. Interaction attracts Web users to a site and keeps them coming back. Interaction makes the Web rich and responsive. In Flash 4, you visually design simple scripts that enable interactivity in your animations and interfaces.

## **FLASH IS EASY TO USE**

Flash authoring targets the traditional Web designer, many of whom have never created animation or interactivity before. Efficient drawing tools are provided along with other familiar interface elements for design creation—all specifically engineered with new users in mind. Because these tools are combined with built-in tutorials and an online help system, everyone will find Flash just as much fun to use as the content being created.

## **FLASH IS VERSATILE**

The Flash Web site that rushes through your T-1 connection and Netscape browser at the office also displays quickly for the user with a 28bps connection and Internet Explorer browser at home. With the standalone projectors, you can pack up the Player and your Flash production in one compact application to freely distribute to anyone who might not have the Flash plug-in or wishes to view content outside of a browser.

## **FLASH PLAYS WELL WITH OTHERS**

Macromedia has designed Flash to integrate tightly with FreeHand 8. They have developed Generator to make it possible and easy to update Flash movies—a must on the Web, where viewers demand up-to-the-minute information.

## **FLASH IS UNIVERSAL**

Where do you want to play your Flash content? Flash breaks down barriers, playing back across systems and beyond, through support for ActiveX, Flash Player Java Edition, GIF, animated GIF, RealPlayer G2, and WebTV—with or without plug-ins and over slow modem connections.

## **FLASH 4 HAS ADDED POWER**

Flash's power users have pushed Macromedia to add more power to the software. Macromedia responded with additional functionality, while working hard to preserve the ease of use that has made Flash an instant success with Web developers.

**Enhanced drawing tools:** Macromedia has packed version 4 with enhanced drawing tools such as the adjustable rounded rectangle, the polygon lasso, the faucet, and filled shapes.

**Efficient toolbar:** The toolbar interface is more efficient; hotkeys and spring-loaded keys offer familiar shortcuts to cut production time.

**Fortified color support:** The color set now resides in the Flash file, and color sets can be imported and exported. You'll find a No-Color chip for creating filled shapes, as well as indicators to show whether you're coloring text, line, or fill. Support for JPEG, GIF, and PNG images is improved.

**ActionScripts:** Developers will cheer the addition of ActionScripts and a host of new actions that refine and extend possible interactive behaviors. The Library provides improved organization and is easier to use.

**Editable text fields:** The new editable text fields add a whole new category of applications that can be created with Flash. The person interacting with a Flash movie can edit text typed in the editable text field much like text in Microsoft Word. In addition, editable text fields can support passwords, can be tied to a variable, and can display a variable as read-only text. Developers can specify which font outlines should be passed with the movie to guarantee that fonts in designated text fields will display correctly.