

Flash is a very popular technology used to add animations, video, and audio to websites. This chapter begins by looking at how to use it in your web pages.

We then focus on how to add video and audio to your site, using either the new HTML5 `<video>` and `<audio>` elements or a hosted service (such as YouTube or SoundCloud). In this chapter you will learn:

- How to use Flash in your web pages
- How to use HTML5 `<video>` and `<audio>` elements
- When to host your own video and audio and when to use a service such as YouTube



HOW FLASH WORKS

Since the late 1990s, Flash has been a very popular tool for creating animations, and later for playing audio and video in websites.

Whether you are creating an animation or a media player in Flash, the files you put on your website are referred to as **Flash movies**.

If you want to create your own Flash movie, you need to purchase the Flash authoring environment from Adobe.

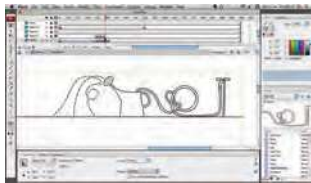
There are, however, several companies that offer Flash animations and slideshows, as well as video and audio players that you can use without purchasing this tool.

When you create a Flash file in the Flash authoring environment, it is saved with the `.fla` file extension. In order to use this file on a web page it has to be saved in a different format known as SWF. (It has the `.swf` file extension.)

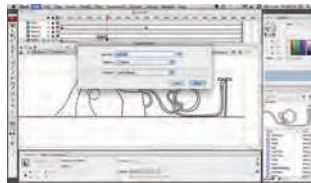
When you export the movie into SWF format, Flash creates code that you can use to embed the Flash movie in your page. Traditionally, this code used the HTML `<object>` and `<embed>` tags. However, now it is more common to use JavaScript.

To view Flash, browsers need to use a plugin (an extra piece of software that runs in the browser) called the Flash Player. Statistics commonly indicate that 98% of browsers on desktop computers have the Flash plugin installed. (The percentage of mobiles and tablets with it is much less.)

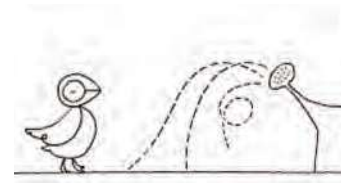
There is not space in this book to teach you how to create Flash movies (there are many books devoted to that one topic), but this chapter will show you how to add Flash movies to your site.



The Flash authoring environment is used to create Flash Movies.



The `.fla` file is exported to `.swf` format to use in a web page.



The `.swf` file is included in your web page using JavaScript.

USE OF FLASH

Since 2005, a number of factors have meant that fewer websites are written in Flash or even use elements of Flash in their pages.

When Flash was first released, it was developed to create animations. The technology quickly evolved, however, and people started to use it to build media players and even entire websites.

Although Flash is still very popular, in recent years people have been more selective about when they use it (and now rarely consider building an entire website in Flash).

Despite this, Flash does have a future on the web because there are some things it does very well, such as creating animations.

There are several reasons why fewer websites are using Flash these days, including:

In 2005-6, a set of JavaScript libraries were launched (including Prototype, script.aculo.us, and JQuery) which made it easier for people to create animated effects using JavaScript.

When Apple launched the iPhone in 2007 and later the iPad in 2010, they took the decision not to support Flash.

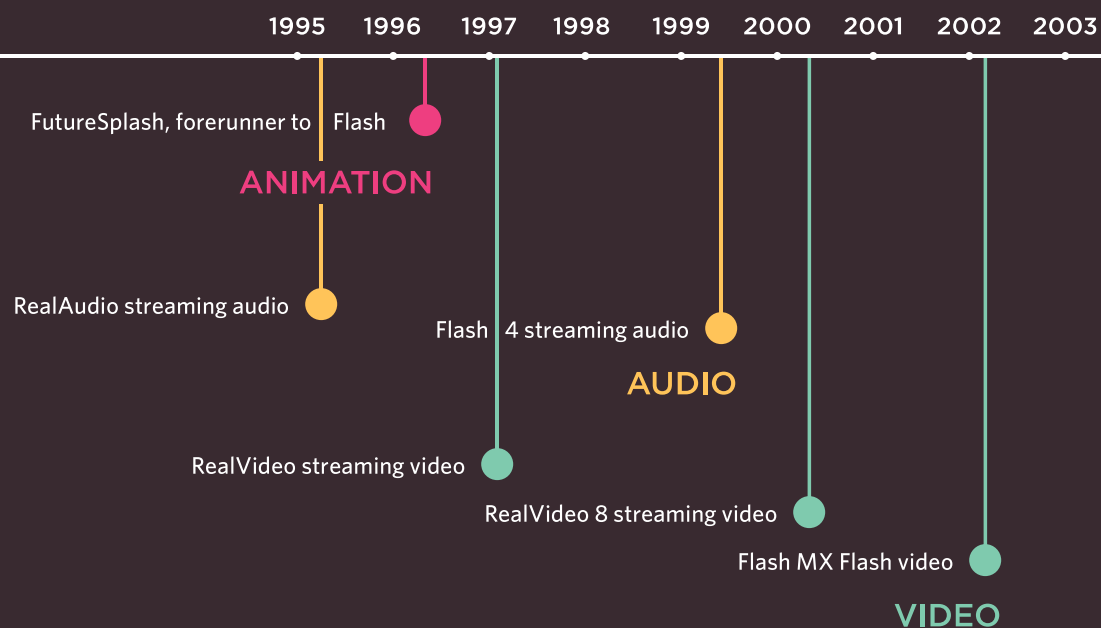
There have been laws introduced to ensure that websites are usable by those with visual or physical impairments — and Flash has been criticized because Flash content does not always meet accessibility requirements.

In 2008, browsers started to support HTML5 `<video>` and `<audio>` tags. At the time of writing, Flash is still a popular way of playing video and audio on the web but more and more people are switching to HTML5.

(You will see how to use these elements later in the chapter.)

TIMELINE: FLASH, VIDEO & AUDIO

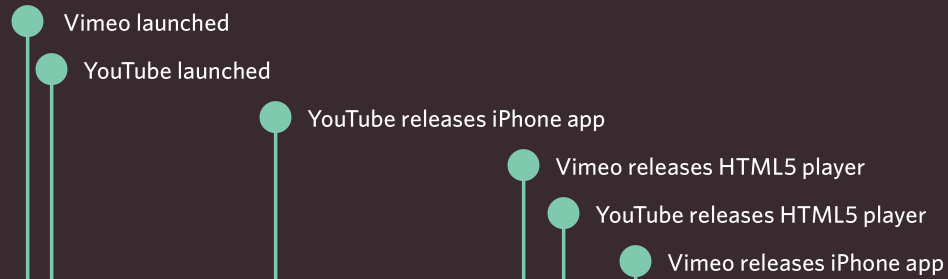
Web technologies change quickly. Here you can see some of the changes in how animation, video, and audio are created on the web.



On this page you can see the first major players to provide web animation, audio, and video.

On the facing page, you can see some of the technologies and events replacing them.

VIDEO sharing sites offer alternatives to self-hosting



2004 2005 2006 2007 2008 2009 2010 2011

BROWSERS introduce HTML5 <video> and <audio> tags

APPLE releases devices that don't support Flash

JAVASCRIPT libraries are written to create animated effects

Prototype
script.aculo.us
jQuery

iPhone

iPad

Safari 3.1

Chrome 3

Firefox 3.5

Opera 9 .62

Internet Explorer 9