

Web Dev: HTML – Multimedia

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MULTIMEDIA



ENCOMPASSES DIFFERENT FORMATS
OF MEDIA ON THE WEB, INCLUDING:

Multimedia



IMAGES



MUSIC



SOUND



VIDEOS



FILM



ANIMATION

Types of multimedia

Common Video Formats

Format	File extension	Description
MPEG-4 or MP4	.mp4	Developed by the Moving Pictures Expert Group. Based upon QuickTime. Commonly used in modern video cameras and television. Supported by HTML 5 browsers and is recommended by YouTube.
WebM	.webm	Developed by major web giants such as Google, Opera, Adobe and Mozilla. Supported by HTML 5
Ogg	.ogg	Theora Ogg, developed by Xiph Foundation. Supported by HTML 5. Ogg is well known for audio standards.
Flash	.swf or .flv	Flash, developed by Macromedia (now owned by Adobe). Often requires a plug-in and is not supported by default by most web browsers.
QuickTime	.mov	QuickTime, developed by Apple. Commonly used in video cameras and television hardware. Plays well on Apple computers but not upon most web browsers.
AVI	.avi	Can also be grouped with .wmv (Windows Media Video). Developed by Microsoft. Commonly used in video cameras and television hardware. Plays well on Windows computers but not in most web browsers.

Common Audio Formats

Format	File extension	Description
MP3	.mp3	MP3 is the sound portion of MPEG files. MP3 is the most popular file type for music players. Combines compression (smaller files) with high quality sound. Supported by all major web browsers for audio.
MPEG-4 or MP4	.mp4	Primarily a video format, but can also be used solely for audio. MP4 video is fast becoming a major standard for the internet. Increasingly good automatic support from most modern web browsers for MP4 audio.
WAV	.wav	Developed by IBM and Microsoft. Plays well on Microsoft Windows computers, Apple Macintosh, Linux and various other operating systems. Supported by HTML5.
Ogg	.ogg	Theora Ogg, developed by Xiph Foundation. Supported by HTML 5. Ogg is well known for audio standards.
WMA	.wma	Windows Media Audio, developed by Microsoft. Commonly used in music players. Plays well on Windows Computers, but not in most web browsers.
RealAudio	.rm or .ram	RealAudio files, developed by RealAudio to allow for streaming of audio with low bandwidths. Does not play in most modern web browsers.

Common Image Formats

Format	File extension	Description
JPEG	.jpg	Developed by the Joint Photographic Experts Group. JPEG image files offer various levels of compression (smaller files) with a compromise upon quality due to the compression being lossy. Great for photographs, poor for line drawings such as logos. Mostly all still image cameras use as the default file type. Supported by all web browsers and has been for a while now.
TIFF	.tiff	Tagged Image File Format. Very large file sizes containing a lot of image data, used by many professional photographers for sharing. Not for web browsers and requires a plug-in or external application.
GIF	.gif	Graphics Interchange Format files are widely used for web graphics. Limited to only 256 colours. Not ideal for photographs, but is most suitable for logos or the like. Compression is 'lossless' without quality being affected. GIF's have a version for animation purposes and can use transparency. Has been supported by web browsers for many years now.
PNG	.png	Portable Network Graphics files are lossless image format and can handle up to 16 million colours. Can be used for logos as well as photographs due to its abilities to rival JPEG files. Many, not all, web browsers support and accommodates meta data as well. It works well on the web, although JPEG is the more common due to cameras, PNG is more suitable to the web.

Playing Videos in HTML

HTML 5 allows video to be played in a browser without the need for a plug-in (unlike Flash and previous versions of HTML).

The HTML 5 <video> element allows a video to be embedded into a web page.

The controls attribute adds video controls such as play, pause, volume and autoplay can be inserted for automatic playback. Note for mobile devices, Apple iPad and iPhone do not accommodate autoplay.

It is a good idea to include width and height attributes to avoid page flicker whilst the video loads and to ensure correct setting applied.

The <source> element specifies alternative video files for the web browser to choose, identifying the first recognised format. Noting, MP4 is the most widely accepted file type for video and is recommended.

Example html:

```
<video width="320" height "240" controls>  
  <source src="moviefile.mp4" type="video/mp4">  
  <source src="moviefile.ogg" type="video/ogg">  
  Your web browser does not support this video.  
</video>
```

Note: the source src could refer to an externally held file and alternative embedding can take place for YouTube (can copy and paste from sharing option within YouTube to embed into HTML page).



Audio in HTML

HTML 5 allows audio to be played in a browser without the need for a plug-in (unlike Flash and previous versions of HTML).

The HTML 5 <audio> element allows a audio to be embedded into a web page.

The controls attribute adds video controls such as play, pause, volume.

The <source> element specifies alternative audio files for the web browser to choose, identifying the first recognised format. Noting, MP3 is the most widely accepted file type for audio and is recommended.

Example html:

```
<audio controls>  
  <source src="musicfile.ogg"  
type="video/ogg">  
  <source src="musicfile.mp3"  
type="video/mp3">  
  Your web browser does not support this  
audio.  
</audio>
```

