

## Audio File Types

<b>.wma</b>	the popular Windows Media Audio format owned by Microsoft.
<b>.aif</b>	the standard audio file format used by Apple. It is like a wav file for the Mac
<b>.mp3</b>	MPEG Layer-3 files - the most popular format for downloading and storing music. By eliminating portions of the audio file that are essentially inaudible, these files are compressed to roughly one-tenth the size of an equivalent PCM file while maintaining good audio quality.
<b>.ogg</b>	a free, open source container format supporting a variety of codecs, the most popular of which is the audio codec Vorbis. Vorbis files are often compared to MP3 files in terms of quality. But the simple fact mp3 are so much more broadly supported makes it difficult to recommend these files. The name comes from the gaming term 'ogging' in <i>Netrek</i> .
<b>.wav</b>	Wave file - standard audio file format used mainly in Windows PCs. Commonly used for storing uncompressed (PCM), CD-quality sound files, which means that they can be large in size - around 10MB per minute of music.

## File Compression and Formats

File compression is a good way to make the most of the memory storage you have available. It makes the file size a lot smaller and much easier to move around and save.

There are a multitude of different file formats available, some used for different types of files, some developed by companies to encourage people to use their specific product.

For reference: **bitrate** refers to the quality of format. It is the amount of data that is used per second of your media.

### As a reference for audio:

- 32 kbit/s — MW (AM radio) quality
- 96 kbit/s — FM radio quality
- 128–160 kbit/s — Standard Bitrate quality; difference can sometimes be obvious (e.g. bass quality)
- 192 kbit/s — DAB (Digital Audio Broadcasting) quality. Quickly becoming the new 'standard' bitrate for MP3 music; difference can be heard by few people.
- 224–320 kbit/s — Near CD quality. Sound is nearly indistinguishable from most CDs.

### Different audio file formats include:

**Mp3** – short for MPEG-1 (Moving Pictures Expert Group) Audio Layer 3. MP# is a digital audio encoding format, the most common source of internet audio since 1995. . Usually 1/10<sup>th</sup> of the size of an audio CD – 1 minute is 1MB. An MP3 is created using a bitrate of 128 kbit/s or 192 kbit/s .

**Wav** – is short for WAVE or Waveform Audio Format, it is a Microsoft and IBM audio file format for storing audio on PCs, however, is readable on Macs. Wav files are uncompressed, and hence quite large. CDs use a different format altogether, called Red Book.

**Ogg** – is an open source format for audio that can be saved when using programs such as Audacity. It is referred to as a Container Format for digital multimedia, meaning it can incorporate a various types of data for audio and video.

## **Converters**

These days there are a range of online file converters that convert files for free.

The site [www.zamzar.com](http://www.zamzar.com) allows you to convert files into a variety of formats so you can use them for different purposes.

[www.media-convert.com](http://www.media-convert.com) is a media specific site and lets you convert files up to 150MB.

If your file is over 150MB or you don't have a reliable internet connection there are a number of programs you can install.

Ffmpegx – [www.ffmpegx.com](http://www.ffmpegx.com) - is good for converting audio and video files on a Macintosh.

For PC – JetAudioBasic is recommended for PC – [www.cowonamerica.com/download](http://www.cowonamerica.com/download)

Both bits of software are free and are most critically praised and most used in the media industry.