
Audio for the Web - Choosing a File Format

Adding audio to your web site can enhance your message to potential customers and business partners. But, before you begin developing audio for your web site, you should choose the file format(s) you want to use to distribute that audio. You have a number of choices! They include:

- **μ-law (audio/basic. au, snd)** - one of the most utilized, especially in the early days of the Internet. μ-law has an 8kHz sampling rate (like that of a telephone). It's pretty basic audio, and not well suited to music or high quality audio distribution.
- **AIFF and AIFC (audio/x-aiff, aif, aiff, aifc)** - Audio Interchange File Format can store monaural and multi-channel sample sounds at a number of sampling rates - making it simple to convert it to another audio file format. AIFF was developed by Apple and is used primarily by their applications. AIFF files can be large (1 minute of 16-bit stereo audio sampled at 44.1kHz tops out at 10MB), so AIFFC (compressed) formats were introduced to add 6:1 compression.
- **RIFF WAVE (audio/x-wav, wav)** - A Microsoft/IBM format introduced in Windows 3.1, WAV files are used in ADPCM (Adaptive Differential Pulse Code Modulation) format and support a number of encoding methods. WAV files are big - 16 bit samples with a 44.1kHz sampling rate are 10MB - but 8-bit, 8kHz samples are on the web and useful.
- **MPEG (audio/xmpeg, mp2, mp3)** - MPEG stands for the standards group that introduced this format - the Moving Picture Expert Group of the International Standard Organization. MPEG is important due to its file compression capabilities. MPEG-I includes 3 layer compression. MPEG2 is used for compression of audio and video for broadcast - with its big "plus" being interlaced video support. Many web sites use MPEG-I's compression capabilities to keep their file sizes low (1/3 to 1/24 their "normal" size).
- **MP3** - The name comes from MPEG-I Audio Layer 3 (saved as mp3 extensions). It uses PCM (pulse-code modulation) encoding and can compress the audio at a number of bit rates providing a way for distributors to compromise between file size and sound quality. MP3 has flourished on the Internet as one of the most effective ways to distribute music. It also incorporates ID3 and other "tags" providing a way to include title, artist, album, track number and other information with the music file.

There are other audio file formats available - like Creative Voice (proprietary format used by Creative Lab's Sound Blaster audio cards) and raw PCM data, but we believe that folks planning to add audio should choose between one of these widely supported file formats. Music? MP3. Spoke word? μ-law. Just for Macs? AIFF. You get the picture.

For more information on audio file formats, we suggest checking out Wikipedia, The Free Encyclopedia. Lots of information and links to great sites.

http://en.wikipedia.org/wiki/Main_Page

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