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October 7, 2004  
Handling New Media  
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## FILE FORMATS

File Format Name: wav (a.k.a. Waveform audio format)

File Extension(s): .wav

Date Introduced: (year) Built into Windows 95 which was released in August 1995.

Dates in Use: (years): 1995 - present

Variations: WMA (now the preferred format of Windows Media Player)

Developers: Microsoft and IBM

Open Source/Proprietary: proprietary source with no restrictions

Associated Operating System: Windows. "wav is the default format for digital raw audio on Windows PCs. Wav files are usually coded in PCM format, which means they are uncompressed and take up a lot of space. Wav files can also be coded in other formats, including mp3. Wav can also be used on the Macintosh."

Associated Application(s): Sound Forge, Cool Edit 2000, Audacity (all wave editing programs), SoundHack, SoundApp, Audio Converter, Audio Converter Pro, River Past Audio Converter, Audio CD Maker, Sonique 1.96

Associated Media: (storage): Compact Flash card

Compression: Uncompressed, lossless storage uses PCM (Pulse Code Modulation) a codec (compression - decompression). "PCM is a common method of storing and transmitting uncompressed digital audio. Since it is a generic format, it can be read by most audio applications - similar to the way a plain text file can be read by any word - processing program. PCM is a straight representation of the binary digits (1s and 0s) of sample values. When PCM audio is transmitted, each "1" is represented by a positive voltage pulse and each "0" is represented by the absence of a pulse." Bitrate is 44.1 kHz, 16-bit-stereo (quoted from *MP3 and Internet Audio Handbook, The: Your Guide to the Digital Music Revolution!*. <http://www.teamcombooks.com/mp3handbook/12.htm>)."

Primary Usage: This is the digital format audio must be in to be burned for an audio CD.

Risks: Uncompressed wav files are very large. Slow transfer rate due to size of files.

Condition Assessment: TBD

Conservation Actions: TBD

Resources:

Center for Computer Research in Music and Acoustics (CCRMA), Stanford University,  
"Wave PCM Sound File format."

<http://ccrma.stanford.edu/courses/422/projects/WaveFormat/>

Final Download website. <http://www.finaldownload.com/products/wav.html>

Information Technology Laboratory (ITL)/National Institute of Standards and Technology  
(NIST)/Information Access Division (IAD) Digital Media Data Preservation, "Digital  
Media Formats." <http://www.itl.nist.gov/div895/formats.html>

*MP3 and Internet Audio Handbook, The: Your Guide to the Digital Music Revolution!*

<http://www.teamcombooks.com/mp3handbook/12.htm>