

Re: How do I create a spectral view for wav files?

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<http://www.tech-archive.net/Archive/Development/microsoft.public.win32.programmer.mmedia/2006-09/msg00055.>

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ShiningMasamune@xxxxxxxxxx wrote:

Greetings all. I'm currently coding a multimedia-related program that will deal with wav files. My program will have a display on which the wav file will be visually represented, similiar to Cool Edit and other audio editing programs. Normal waveform display is pretty simple; it's basically just measuring the peaks of the audio data. However, I'd also like to implement what Cool Edit calls "Spectral" view. Cool Edit's help file describes this view as time being the X-axis, frequency being the Y-axis, and amplitude being the Z-axis (represented by colors of varying brightness, dark blue to red to bright yellow). I can't quite figure out how I'm supposed to code that. Can anyone describe in more detail exactly how a spectral view is calculated, or perhaps link me to a page that would help me out in this regard?

The Fast Fourier Transform (FFT) is a well-known compute-intensive algorithm that produces a frequency spectra of a series of amplitude samples. Most audio editors use the FFT for various forms of display.

Check out the Frequency Analyzer source code & tutorial here:

<http://www.relisoft.com/Freeware/index.htm>

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Scott McPhillips [VC++ MVP]

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