

Digitize **Sound** for your Electronic Portfolio

Adding sound to your portfolio can add a richness and personality that is not possible with static images or text. Whether you are recording a narration for a slide show or a child's reading sample, digital audio artifacts take advantage of computer technology and allow non-linear access to your sounds (no more fast-forwarding or rewinding audio tapes to find an audio clip). What is required to convert sound into digital format? You will need a small amount of equipment and some audio digitizing software, some of which might be included in your computer's operating system.

Equipment: A microphone that can be connected to your computer. Some laptop computers come with a built-in microphone, which is not adequate for a good quality recording. Some laptops don't have a microphone port, so must use their USB port to input sound,

- **USB microphones** – There are microphones that connect directly to the USB port of the computer. The quality of these microphones can vary.
- **Griffin Technologies USB Audio adapter** will allow you to connect a standard mini-jack microphone to a computer without a microphone port. [<http://www.griffintechology.com/products/imic/index.html>]
- **Microphone** – Radio Shack microphone Model 33-3026 can be connected directly to the Griffin adapter or directly to a computer with a microphone port and provides a good quality recording at a low cost.

Software: You will need software to be able to convert sound into a computer-readable format. Most video editing software can also be used to record audio tracks. Sound can be recorded directly into PowerPoint (**Insert Menu-> Music and Sounds-> Record Sound...**) Here are some computer programs available: (software may be downloaded from <http://download.com.com/>)

Macintosh OS X

Audacity – a freeware program
Sound Studio from Felt Tip Software

Windows

Sound Forge – very expensive but the standard!
Total Recorder – popular low cost alternative

Settings: For best quality, use the following settings

– (the higher the numbers, the better the sound quality, but the larger the file size)

Sample rate (the number of times a second that a sound is sampled -- kilohertz):

44,100 is CD-quality

Bits: 16 bit sound provides a more dynamic range describing each sample than 8 bit sound

Stereo gives two audio tracks (left and right); **Mono** gives a single audio track

Most Common Audio File Types:

AIFF – Audio Interchange File Format – Uncompressed Macintosh sound files

WAV – Windows Wave Format

MP3 – The compressed audio format very popular for storing music (see iTunes)

CDA – Audio tracks on a CD-ROM