



MULTIMEDIA

QUICK TIPS & RESOURCES

MULTIMEDIA

AUDIO

File Formats

- ❖ AIFF – Apple & SGI format
- ❖ AU – Audio File Format, created by NeXT and Sun
- ❖ WAV – Waveform Audio file format, created by Microsoft; most CD music is in WAV format.
- ❖ MIDI – Musical Instrument Digital Interface
- ❖ MP3 – Compressed audio format
- ❖ OGG – Free audio format alternative; same quality as MP3
- ❖ WMA – Microsoft format

Channels

- ❖ Mono
- ❖ Stereo

Resolution

- ❖ 8-bit
- ❖ 16-bit

Sample Rates

- ❖ 8000 Hz
- ❖ 11025 Hz
- ❖ 22050 Hz
- ❖ 44100 Hz

Note: Rates are the number of sound “samples” that occur per second. The higher the rate, the better quality of sound and the larger the file size. Audio CDs “sample” at 44,000 times per second; the human voice at 8,000 Hz.

CODEC

- ❖ Abbreviation of compressor/decompressor.
- ❖ Compresses file size.
- ❖ All video codecs are “lossy” which means that unneeded information is deleted when video is compressed and some quality may be lost.

COMPUTER UNITS

Bit – binary digit; smallest unit a computer can process

Byte (B) - 8 bits/1 character

Kilobyte (KB) - 1,024 bytes (*referred to as 1,000 bytes; approximately one page double-spaced text*)

Megabyte (MB) - 1,024 kilobytes (*approximately one book*)

Gigabyte (GB) - 1,024 megabytes (*approximately a shelf of books in a library*)

Terabyte (TB) – 1024 gigabytes (*approximately an entire library of books*)

Petabytes – 1024 terabytes

Googol – *doesn't really follow here, but is the name for 10¹⁰⁰*

CONTINUOUS LOOP OF PPT PRESENTATION

1. On the Menu Bar, click Slide Show / Set Up Show....
2. In the Set Up Show dialog box, make these selections:
3. Show type: Presented by a speaker
4. Show options: Loop continuously until ‘Esc’
5. Advance slides: Using timings, if present.
6. OK.

CONVERT VHS TAPES TO DIGITAL

The Faculty/Staff Resource Center, SQU 316, has hardware available for faculty and staff to use to convert VHS analog tapes to digital. Ask the Lab Assistant for help, if needed.

DOWNLOAD

PHOTOS FROM CAMERA

This is a feature of Windows XP.

1. Connect camera to PC, using USB cable.
2. Create a new folder on the desktop, or where desired, and open the folder.
3. Doubleclick the My Computer icon.
4. In My Computer window, the camera should be listed with the computer drives.
5. Doubleclick the camera icon in the list of drives.
6. A new dialog box opens with camera tasks listed in the left column.
7. Doubleclick “Get pictures from camera.”
8. Windows should automatically begin uploading the photos from the camera. You will see an active line indicating uploading.
9. The photos will appear in the open window.
10. Edit > Select All.
11. Edit > Copy.
12. Minimize the camera window.
13. Edit > Paste the selected photos onto the newly-created, open folder.

Note: Do not check “Delete pictures from camera after saving them” until you have verified photos have been saved in a new folder.

DOWNLOAD TIMES

Connect Rate	Approx. Time to Download 1MB
28.8K	8 minutes
56K	4.5 minutes
128K ISDN	15 seconds
T1	7 seconds

DOWNLOAD TIME - sample
5MB file – 30 min. modem
download time; few seconds
over cable or DSL.

FILE SIZE

Do what you can to keep file
sizes small:

- ❖ Unnecessary video camera
movements increase file size.
- ❖ Transitions added to movies
increase file size.

**FILE SIZE/ #CAMERA
IMAGES**

Camera Megapixels	2MP	3MP	4MP	5MP
File Size	900KB	1.2MB	2MB	2.5MB
64MB	71	53	32	25
128MB	142	106	64	51
256MB	284	213	128	102
512MB	568	426	256	204
1GB	1137	853	512	409

**FILE SIZE/IMAGE
RESOLUTION
COMPARISONS**

3x5 image 50 dpi 75 dpi 150 dpi
Line art 5KB 11KB 42KB
8-bit grayscale 37KB 83KB 330KB
24-bit color 110KB 248KB 989KB
[http://coe.sdsu.edu/eet/Articles/wpdres
olution/start.htm](http://coe.sdsu.edu/eet/Articles/wpdres
olution/start.htm)

**FILE SIZE/MP3 STORAGE
CAPACITIES**

Capacity	# of Songs*
64MB	16 songs
128MB	32 songs
256MB	64 songs
512MB	128 songs
1GB (1024MB)	256 songs

*Based on an average of 4MB/ song.
Example = 128MB/4 = 32 songs.

FIREWIRE

- ❖ IEEE 1394 cable that
transfers 400 million bits of
data per second.
- ❖ Used especially for
transferring digital video from
a video cam to a computer.

FRAMES PER SECOND

Digital video	0.1 -99.9fps
Motion picture	24fps
TV	30fps (NTSC)

**KEYBOARD SHORTCUTS
IN POWERPOINT:**

SHIFT+F3: Change letter case
F4: Repeat last action
CTRL+Z: Undo last action

MODEMS

Kbps – kilobytes/second data transfer
Test your modem speed at
<http://www.cable-modem.net/perf.html>

Dial-up - 28.8 Kbps
ISDN - Integrated Services
Digital Network (digital telephone
line) - 56-128 Kbps
Cable modem - 4,000 Kbps
DSL – 1,000-6,000 Kbps
T1 – 1.44 Mbps

MOVIES/VIDEOS

Inserting into PowerPoint:

1. On the menu bar, Insert >
Movies and Sounds >
Movie from file...
2. Select Movie from file...
3. Browse to the file.
4. Click OK.




**NARRATING A SLIDE
SHOW**

See RECORDING Narration in
PowerPoint:




RECORDING

Recording voice WAV file

Connect microphone to computer.
Using Microsoft Sound Recorder
(included in Windows operating
system)

1. Start > All Programs >
Accessories >
Entertainment > Sound
Recorder. (Can right
mouse click to place
shortcut on desktop.)
2. Click Record icon  and
speak/narrate.
3. Click Stop icon  when
finished.
4. Click Play icon  to play
the recording.
5. **File > Save.**
*Note: Recording is saved
as a .wav file.*

**Recording sound in
PowerPoint:**

1. In normal workspace view,
Insert > Movies and
Sounds > Record Sound.
2. Type name for sound clip.
3. Click Record icon  and
record the sound.
4. Click Stop icon  when
finished.
5. Click Play icon  to play
the recording for testing.
6. **File > Save.**
*Note: Recording is saved
as a .wav file.*
7. Click OK. *Note the
“speaker” icon that
appears on the slide.*
8. Click Slideshow icon.
9. On slide with “speaker”
icon, click the icon to hear
the sound. Advancing to
the next slide stops the
sound.

**Recording narration in
PowerPoint:**

1. In normal workspace view,
Slide Show > Record
Narration...
2. Click Set Microphone
Level.
3. Follow directions in dialog
box.
4. Click OK.
5. To begin recording, click
OK in the Record
Narration dialog box. The
slide show starts
automatically.
6. Add narration on each
slide. Note: An alert box
asks at the end of the
show if you want to save
slide timings.
7. Click Yes to save slide
timings OR click No to
save just the narration.

Recording voice Mp3 sound file

These instructions are for using the recording software in the Language Lab (MRP 2000).

1. Put headphones on.
2. Double-click the sound recorder software icon located on the desktop.
3. Press the red (speak) button to record.
4. When finished recording, press the blue (stop) button.

To save a recording:

5. Click C in the logo at the top of the recorder box. This opens the recording menu.
6. Select "Save As" and select an appropriate location.
7. Select the file type .mp3.
8. Name the file.

To make a new recording:

9. Click the C in the logo and select "New." Press the red (speak) button and repeat the steps above.

To re-record:

10. Click the C and select "New." A dialog box will open asking if you want to save. Click "No."
11. The recording buttons allow you to start recording, stop recording, and play back.

RIP AUDIO FROM CD TO A SOUND FILE

There are many programs for "ripping" sound files from CDs. While we do not recommend products, this is an example of a shareware program, FreeRip, downloadable from <http://www.mqshareware.com/frmmain.shtml>.

TWO IMPORTANT NOTES:

- ❖ *Responsibility for the use of shareware/freeware programs lies with the user.*
- ❖ *It is advisable before using downloaded files that you right click the .exe file, select Scan for Viruses, and verify that the scan found no viruses.*

1. Doubleclick the FreeRIP shortcut icon to open.
2. Place CD in CD drive.
3. CD should be recognized and listed in FreeRip window.
4. Select desired track.
5. On menu bar, Rip > Rip to .wav OR Rip to .mp3.
6. When the process bar indicator completes, you will see the word Done.
7. Click Dismiss button.
8. On menu bar: CD > Exit.
9. Sound file(s) should be on desktop.

SOUND

Play WAV or MP3 sound file throughout PPT presentation:

1. Select Slide #1 in normal workspace view.
2. On the menu bar, go to Insert / Movies and Sounds / Sounds from file....
3. Browse to the sound file. Select the file and click OK.
4. A dialog box asks how the sound will start. Select "automatically."
5. Open the Task Pane by going to View / Task Pane.
6. On the Task Pane toolbar, select Custom Animation.
7. In the Custom Animation toolbar, click the down arrow located to the right of the sound file name.
8. Select Effect Options....
9. In the Play Sound dialog box, make the following selections:
10. Start playing / From Time: / 00:00 seconds.
11. Stop playing / After: / 999 slides.
12. Click OK.

Play WAV or MP3 sound file on one PPT slide:

1. Insert > Movies and Sounds.
2. Select Sound from File.
3. Browse to the sound file.
4. Click OK.
5. A small "speaker" icon will appear on the slide. Move icon to desired position.
6. In Slide Show mode, click the "speaker" to play the sound.
7. For additional effects and timings, select the "speaker" icon on the slide; click the rectangle in the Task Pane corresponding to the sound icon; click the down arrow in the rectangle; select Effect Options; make appropriate selections in the dialog box; and click OK.
8. *To delete the "speaker" icon/sound:* Select the icon in normal workspace. Press Delete key.

Play WAV or MP3 sound file with one element on a slide:

1. Add custom animation to text or image.
2. Select that text or image.
3. In Task Pane, click on the rectangle associated with the custom animation.
4. Click the down arrow in the rectangle.
5. In the dialog box, click the down arrow next to Sound.
6. Scroll to the bottom of the selections.
7. Click on Other Sound...
8. Browse to the sound file.
9. Click OK.
10. Click OK.
11. In Slide Show view, the sound file will play upon clicking for the text/image to come onscreen.

Play CD audio track throughout PPT presentation:

1. In normal workspace view, Insert > Movies and Sounds > Play CD Audio Track...
2. A dialog box with options opens:
3. To have CD play from beginning to end, in dialog box under Play options, check Loop until stopped.
4. To have a specific track play, under Start and End, enter track number.
5. To set start and end times, in the At text boxes, type time you want track to start and end.
6. Click OK.
7. In alert box, click Yes if you want CD to play automatically OR No if you want music to start on mouse click.

STORAGE MEDIA

Floppy, double-sided	1.44 MB
Zip disk	100-250 MB
CD-ROM, CD-RW	650 MB (400 floppies/70+ min. of music)
USB Storage	128KB -1 GB
DVD 1-side, 1-layer	4.7GB (7 CDs – 6x speed)
DVD 1-side, 2-layers	8.5GB
DVD 2-sides, 1-layer	9.4GB
DVD 2-sides, 2-layers	17GB

TIMINGS - SET UP FOR VIEWING SLIDES

1. On the Menu Bar, click Slide Show / Rehearse timings.
2. A Rehearsal toolbar appears. Set timings by clicking Next (the right arrow) for each slide.
3. The dialog box below will appear.
4. Click Yes to keep timing settings.

VIDEO

Formats

- ❖ AVI – Audio-Video Interleaved.
- ❖ Quicktime – Apple computer format.
- ❖ MPEG – Motion Picture Experts Group, Mac & PC.

Frames per second

- ❖ Film – 24 fps
- ❖ Video – 30 fps
- ❖ Television – 30 fps

Resolution

- ❖ 256x256 pixels – low quality
- ❖ 640x480 pixels – email
- ❖ 1216x912 pixels – small prints
- ❖ 1600x1200 – printing 8x10s

VIDEO IN POWERPOINT

Delay start of video

- ❖ In Task Pane, Custom Animation > Effect Options > Effect. Make start selection.

Extend play of video

- ❖ In Task Pane, Custom Animation > Effect Options > Effect. Insert movie on first of several slides and specify on which slide you want the video to stop.

Note: Movies in PowerPoint are not embedded – they are always linked files.

VIDEO TIPS

1. Plan your video with a storyboard.
2. Plan your background: solid color, few distractions.
3. Plan your lighting: use fill light to illuminate areas in shadow.
4. Use a tripod or lean against something solid; minimize camera movements.
5. Aim for small file sizes. Create several smaller videos, if needed, to cover your subject matter.

WINDOWS MEDIA PLAYER

Included in Windows XP; play sounds, digital movies, listen to Internet radio stations; junction for hard drive, CD player, CD burner, MP3 player, Internet.

- ❖ Start > All Programs > Accessories > Entertainment > Windows Media Player.
- ❖ WindowsMedia.com – Web site dedicated to rock albums, movies, music videos, etc.
- ❖ If navigation is not visible on top edge and left side, press Alt key, move mouse to where nav should be, or click tiny double arrow in upper-left corner.

Buttons on left:

- ❖ Now Playing – shows list of songs on CD that is playing, a graphic equalizer, and a screen saver that pulses to the music
- ❖ Media Guide – access to WindowsMedia.com where you can download movie clips, listen to music, and read about pop media
- ❖ Copy from CD – copy songs from a music CD onto hard drive
- ❖ Media Library – like Windows Explorer display – a folder tree on left, contents of selected folder on right – lists every piece of music or video your copy of Media Player has encountered. Sort songs into playlists
- ❖ Radio Tuner – ‘front panel’ of Internet radio
- ❖ Copy to CD or Device – transfer songs from hard drive and burn your own CDs or copy them to a portable music player.

FREE MULTIMEDIA DOWNLOADS

Microsoft Producer

<http://www.microsoft.com/office/powerpoint/producer/prodinfo/default.mspix>

Microsoft Word Viewer

<http://www.microsoft.com/office/000/viewers.asp>

PowerPoint Viewer

<http://www.microsoft.com/office/000/viewers.asp>

QuickTimePlayer

<http://www.apple.com/quicktime/>

RealPlayer

<http://www.real.com/>

Windows Media Player

<http://www.microsoft.com/windows/windowsmedia/download/default.asp>

RESOURCES

Digital Juice

A large collection of PowerPoint backgrounds, photographs, short videos, etc.

This collection resides on the "labapp" drive in the Faculty/Staff Resource Center, available on the PCs. However, once you have perused, selected, and saved the desired materials onto your USB or other media, you will be able to use them on the Mac.

To access Digital Juice:

1. Doubleclick the My Computer icon on the desktop.
2. In the Address text box, type:
\\uccslabapp1\DigitalJuice
3. Doubleclick to open Multimedia folders to see the designs.
4. Copy and paste desired designs/ photos onto your storage media.
OR:
5. Create a temporary folder on the desktop, select a desired design, Edit >

Move to Folder (just created on the desktop). Afterwards, save that temporary folder onto your storage media.

Online photo processors

<http://www.fujifilm.com>
<http://www.ofoto.com> (Kodak)
<http://www.shutterfly.com>
<http://www.snapfish.com>

Producer Resources

http://streaming.wisconsin.edu/st_video.html

Sound

<http://www.findsounds.com/>
aif, au, wav files
<http://www.a1freesoundeffects.com/>
<http://www.sound-effects-library.com/free/mp3.html>
<http://www.wavcentral.com/>
http://www.thefreesite.com/Free_Sounds/Free-MIDIs/
<http://www.classicalarchives.com/>
www.sounddogs.com
www.wavlist.com
Download music from Internet
<http://www.windowsmedia.com/MediaGuide/Home>

The Encarta Sound Library

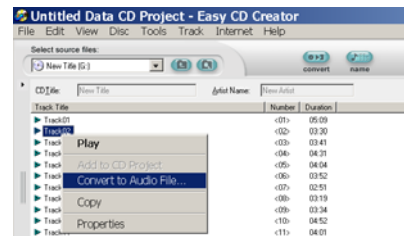
Spoken dictionary words
<http://dictionary.msn.com/>

Video

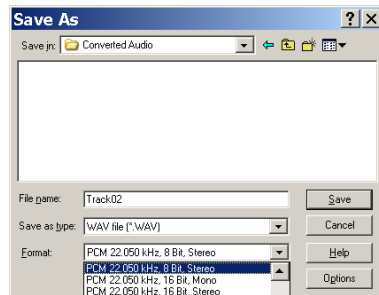
Educational Video
Extensive video library covering a wide range of subjects such as language, literature, science, multiculturalism, math, education and business, social studies/history, and religion. Prices start at \$9.95.
<http://www.libraryvideo.com>

DIGITIZING AND EDITING CD AUDIO WITH ROXIO

1. Open "Roxio Easy CD Creator". These screenshots were taken with version 5.3.5, but should work with any 5.x or greater version.
5. Browse to the drive containing the CD and doubleclick to open.
6. Right click a track and select "Convert to Audio File".



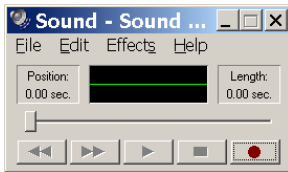
7. Chose "WAV" as the audio format under "Save as Type". Under format, you have a number of choices. I chose 22kHz (kilohertz) 8 bit stereo. CD quality is 44kHz 16 bit stereo. Reducing the quality drastically reduces the file size, and you can get away with reasonably low quality audio for most purposes. Save your audio to a directory where you'll be able to easily find it, such as the Desktop.



8. Open "Sound Recorder": Start > All Programs >

Accessories >
Entertainment > Sound
Recorder on Windows XP.

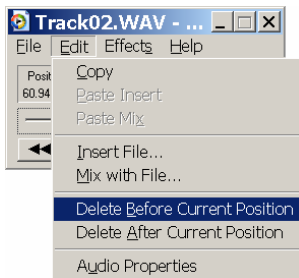
14. File > Save As. Using
“Save As” will allow you to
preserve your source file.



9. On the menu bar, File > Open.
10. Browse to the WAV file you just created.
11. Use the Play and Stop buttons or the “scrub” bar to locate the desired position in the audio.
Note: Sound Recorder is not a professional audio editing program so you may not be able to achieve a high level of precision when selecting the audio position.



12. Crop either the beginning or ending portion of the audio by: Edit > Delete [Before/After] Current Position.



13. Click OK in the confirmation dialog box.