



## Resources and Information

**MIDI Resources:** at <http://members.aol.com/Langenfass/FETC.html>: What is the meaning of the term MIDI? / A general overview of MIDI/MIDI FAQ /More technical MIDI Stuff. Also from "The MIDI Studio Consortium." /Classical MIDI Archives/A great source of classical music MIDI files./Laura's MIDI Heaven:It says it's huge and it is! A must see source of MIDI files.//[www.maths.ex.ac.uk/~james/midifaq.html](http://www.maths.ex.ac.uk/~james/midifaq.html) ;Midi Web Home Page Site: (An award winning site) <http://www.midiweb.com/> FAQ <http://www.maths.ex.ac.uk/~james/midifaq.html> ;Midi Web Home Page Site: (An award winning site) <http://www.midiweb.com/>

**Karaoke files** are MIDI files with words. Open it in a karaoke player (like QuickTime) and the lyrics scroll with the music in a movie window. ; [www.freekaraoke.com/](http://www.freekaraoke.com/); <http://www.freemidi.com>; [www.eatsleepmusic.com](http://www.eatsleepmusic.com); [MIDIKARAOKE.COM/](http://MIDIKARAOKE.COM/);MIDI Farm- <http://www.midifarm.com/info> FAQ <http://www.midifarm.com/info>



**MP3 files** are a popular music file compression format. Just about any piece of music, sound, or audio lecture can be converted to this format which is then, because of its smaller size, more easily sent via the internet. Two caveats: First, even though they are compressed, MP3 files are still not small. College sites often lock out MP3 (and similar) sites because high traffic significantly clogs up the network; Second, the majority of MP3 files are not copyright friendly, even under the widest interpretation of Fair Use. Some MP3 files are useful. Sound files on the internet are *very* useful. But when in doubt, remember to buy the CD. MP3 encoders and players and other format players (generally free) can be found at <http://home.snap.com/LMOID/resource/0,566,-276,00.html> or by doing a search for MP3.



**Ripper software:** This software creates files (such as MP3) from streaming audio on the web. It is problematic for copyright holders, but is closer to Fair Use for educators. So far, this seems to be available mainly for the PC platform. An example: [www.streambox.com/](http://www.streambox.com/)

**Song lyrics** are available online for your academic or satiric use (see copyright section at [halldavidson.net](http://halldavidson.net) for more information). Two useful sites: [www.songbot.com/](http://www.songbot.com/) ; and <http://www.4songs.4anything.com/>



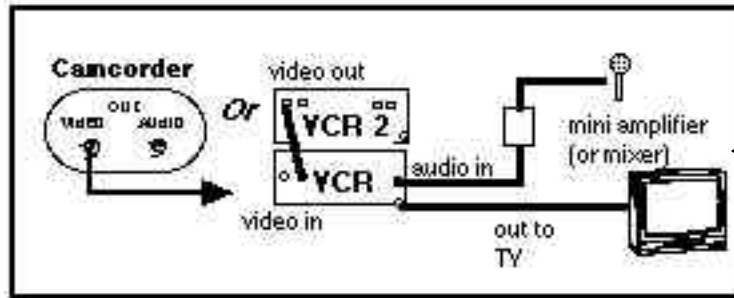
**Making MIDI's Work** MIDI's are brought in as Quicktime Movies (movies without sound) or other midi players. They are played as though playing a Quicktime movie (e.g., using a button in HyperStudio). They can be edited as movies, too. **Make sure** they end in .mid--sometimes they come off the web without the proper suffix.

**More on hardware connections:** *Nuts and Bolts to Sizzle: Integrating Video and Computers in a Digital World* at [mediafestival.org/downloads.html](http://mediafestival.org/downloads.html) [www.mediafestival.org](http://www.mediafestival.org) - template for student awards



## Tips and Tricks for Integrating Sound

**Connection Diagram** for mixing audio onto videotape. When students construct large multimedia files with sound and/video, sometimes the only storage solution is to print on videotape, then delete the files. This also allows much greater control of sound with a sound mixer. **Computer can replace VCR 2.**

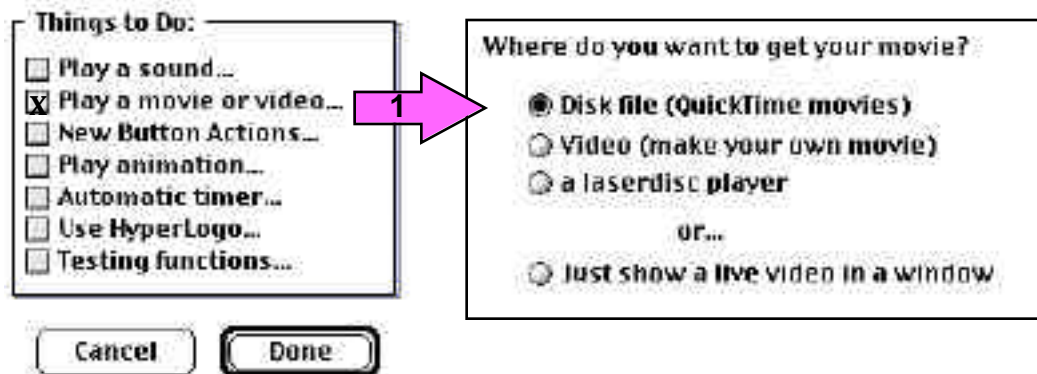


You can add music or narration here at the mixer (see next page)

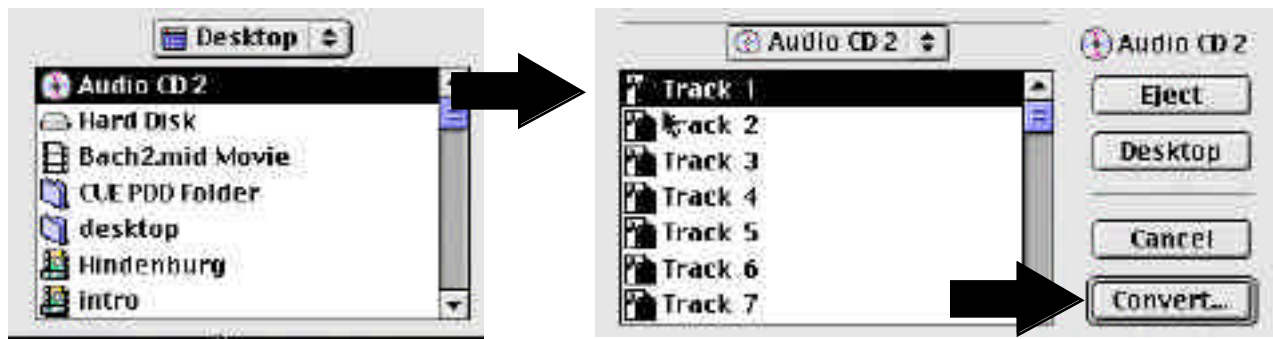
**Sound Tips in HyperStudio:** When importing sound, you have three options:

- the default: 6:1 compression (lowest quality, smallest size)
- hold down the Apple key while recording: 3:1 compression
- hold down the option key while recording: no compression (best quality, largest size)
- Windows machines: no compression is the default

**To Convert Music Tracks on Audio CDs:** Audio tracks will play as Quicktime movies with no picture (the opposite of silent movies). Insert CD into computer, use the command to access Quicktime movies (e.g., the button function in HyperStudio), then convert the track to a Quicktime movie. For example, in Hyper Studio on a Mac, follow the steps below: 1. Open a button and check **Play a movie**, then select **Disk File**

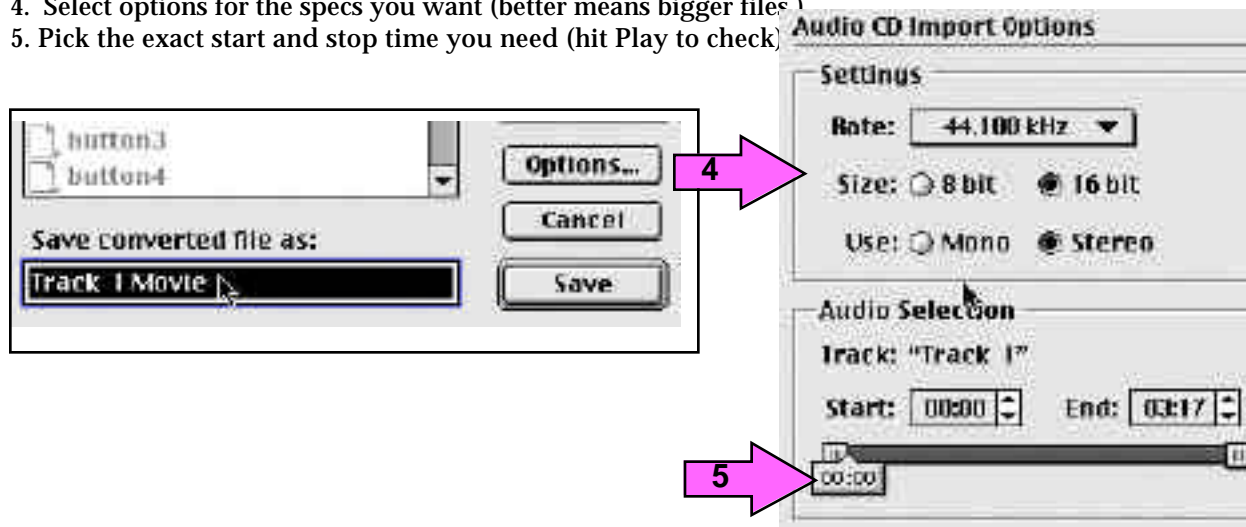


2. Select the Audio CD from the desktop. Pick the track you want (know ahead of time since no names will show). 3. Select Convert.



**Sound Tips in HyperStudio:** continued.

4. Select options for the specs you want (better means bigger files )
5. Pick the exact start and stop time you need (hit Play to check)



6. Name and **Save** your file. It will now also play as a sound file!



**Software: (Costs are for single-user; multipacks less per user)**

**QuickTime Pro**, \$29.95; <http://www.apple.com/quicktime/download/> (both platforms). Player is free. The most popular apple.com download.

**Sound Companion**, \$49.95, FTC Publishing, Sales and Service 1-888-237-6740 [www.ftcpublishing.com](http://www.ftcpublishing.com) (download free demo);

**SmartSound** , beginning \$189 <http://www.sonicdesktop.com> (download free demo);

**HyperStudio** (approx. \$100), [www.hyperstudio.com](http://www.hyperstudio.com) (download free demo)

**Mega Rock Rap'n Roll** around \$39 Forest Technology <http://www.foresttech.com/>

800-544-3356 Note: **Mega Rock Rap and Roll** is no longer available from Forest Technology. They have referred requests to Simon and Schuster. I will try to track it down.;

**A Zillion Sounds** find it for less than \$19.95 Beachware <http://www.beachware.com/> 949.586.2092

**Gary Lamb CDs** \$15 from Gary. Possibly more for rights clearance [www.garylamb.com](http://www.garylamb.com) 1-800-772-7701

**Afro Celt Sound System Volume 2: Release** Real World Records around \$11.19 + shipping (ask for interactive music game version) <http://cdnow.com> <http://amazon.com> for more interaction:

<http://realworld.on.net/rw>



## Download Files of Karaoke Files and Midi Files



- California Student Media and Multimedia Festival: <http://mediafestival.org/>
- Karaoke- MIDI Music - 10/05/98: <http://midimusic.miningco.com/entertainment/mu...>
- About.com: [http://www.rsvlonline.net/...](http://www.rsvlonline.net/) <http://midimusic.miningco.com/entertainment/mu...>
- midiman1, computer karaoke, midi, bluegrass: <http://users.funtv.com/~michael2/home.html>
- Copyright, MIDI Files & The Internet: <http://www.aitech.ac.jp/~ckelly/midi/help/copy...>
- Karaoke Kafe at Jerry's Music Cruiser: <http://www.music-cruiser.com/karaoke/index.htm>
- Selected MIDI File Sites - Good Places to...: <http://www.aitech.ac.jp/~ckelly/midi/good.html>

### For more detailed look at digital music:

Notes: From Electronic Musician (9/01): [www.emusician.com](http://www.emusician.com) and [www.spencercritchley.com/](http://www.spencercritchley.com/) article by Spencer Critchley. *Not to be duplicated without permission from Spencer Critchley and Electronic Musician.* Other parts of this handout may be duplicated for educational purposes. - hd

*This handout modified October 15, 2001*

### WEB AUDIO FORMATS

Standard Web-audio formats include AU, MP3, MIDI, WAV, and AIFF. Popular proprietary formats include Flash, RealAudio, QuickTime, Windows Media, and Shockwave. Proprietary player applications can often play several standard formats, and in some cases, they can play proprietary formats from other companies.

The AU file extension refers to the Sun Microsystems audio format, which is the original Internet-audio format and therefore the most widely compatible. Because the format is limited to 8-bit samples, it's not the best sounding, though  $\mu$ -Law or a-Law data compression improves its performance.

WAV and AIFF are also widely compatible and capable of the highest quality, but there's little reason to use them on the Web anymore because compressed formats such as MP3 sound good and are much smaller. MIDI files are tiny, but unless you're using a MIDI-enabled player such as QuickTime Player or Beatnik Player, MIDI files are played with whatever MIDI sound set is installed on the user's computer, with widely varying results. (For more about QuickTime's MIDI capabilities, see "Desktop Musician: Customizing QuickTime MIDI" in the May 2001 issue.)

Less-standard formats. Liquid Audio matches high-quality data compression with flexible security and is oriented more toward distribution than interactivity. Ogg Vorbis is an open-source, free-license alternative to MP3. Beatnik's Rich Music Format (RMF) is a hybrid of MIDI data and sample-based sound sets. (The QuickTime Musical Instruments set is a branch of the same family tree.) RMF yields very small files and high interactivity. (For more about Beatnik's capabilities, see "Desktop Musician: The Beatnik Player" in the December 2000 issue.) Sseyo's Koan also yields small, highly interactive files, though it's geared more toward generative composition.

*Making Music Matter - Do Re Media: Music in Multimedia* Hall Davidson, [hall@ccd.edu](mailto:hall@ccd.edu), SchoolTech 10/18/01

RMF and Koan are examples of structured formats, in which descriptive information about the data remains visible to outside applications that can act on the data in real time. The difference between structured and unstructured formats (such as WAV and MP3) is like the difference between a fax and an e-mail. A fax is fixed on the page; you can't do much to change it beyond physically cutting up the paper. An e-mail remains infinitely editable. Some formats, such as QuickTime, can incorporate unstructured data and some structured data such as MIDI and animation sprites. Generally, structure is the trend. MPEG-4 aims to be the ultraformat, offering a structured approach to every form of media, all in the same file.

#### USEFUL RESOURCES WEB SITES

<http://java.sun.com/products/java-media/sound>This site offers information about the Java Sound API (application programming interface) for programming freestanding audio applications.

<http://sonify.org>This nonprofit community site focuses on interactive audio for the Web. It provides many links to other sites.

[www.apple.com/quicktime](http://www.apple.com/quicktime)This is the source for Apple's QuickTime Player and for QuickTime Player Pro, which adds important content-creation features.

[www.beatnik.com](http://www.beatnik.com)Founded by musician Thomas Dolby, Beatnik, Inc. provides the Beatnik Player, content tools, and the MusicObject JavaScript library.

[www.builder.com](http://www.builder.com)Replete with information on a variety of topics, this CNET site offers "solutions for site builders."

[www.macromedia.com](http://www.macromedia.com)Macromedia offers a variety of content tools and players and is the home of Flash and Shockwave.

[www.real.com](http://www.real.com)RealNetworks makes RealPlayer and the associated content tools, including RealSystem Producer.

[www.sseyo.com](http://www.sseyo.com)This is the home of the Koan format used by Brian Eno and others to create generative music.

[www.webmonkey.com](http://www.webmonkey.com)Webmonkey: The Web Developer's Resource provides Web-authoring tools for beginners, builders, and masters.

[www.webreference.com](http://www.webreference.com)This site is an excellent place to find information and tutorials about all aspects of Web authoring.

[www.windowsmedia.com](http://www.windowsmedia.com)The home of Microsoft's Windows Media Player, this site includes many links, downloads, content-creation tools, and information.

[www.xiph.org/ogg/vorbis](http://www.xiph.org/ogg/vorbis)This site features the license-free, open-source Ogg Vorbis MP3 alternative.