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This is GrabAudio, a program to read digital audio directly from CD and save it on disk. It requires:

System 7 or higher

CD-ROM software version 4 or higher

an Apple CD300 CD-ROM player or better

There might be a problem if you have more than one Apple CD300 player attached to your mac. Be sure that the one you put the audio CD in has the lowest SCSI id!

The program works very simple. Insert an audio cd in the CD300, and start the program. You will now see a list with the track names and the track durations, and some controls. You can choose the track by clicking on the track name or by scrolling to it using arrows, scroll bar, page up/down and begin/end, or by typing the first characters of the name. You will only see the track names if you have entered them in CD Remote or AppleCD Audio Player; otherwise, you will see "Track 1" ... "Track n". Behind the track names, the track duration is shown. If you cannot read a title entirely, select the track list, and scroll to the left or right using respectively the left and right arrows.

In the fields below, you can enter the start time and the length of the sound you want to download. The format is: minutes' seconds" frames. To change one of these values, click on it, and type the required value, or use the + or the - key to increment or decrement the value, or click on the increment/decrement button right next to both fields. You can switch between controls by using the tab key, shift tab (for the reverse direction) or the arrow keys.

On a CD, one second of sound is divided into 75 frames, so if you want to start sampling at 0.2 seconds after the start of a track, enter 0:0:15 in the "From" field. Next to the "length" field there is a text that indicates the maximum length of sound you can download, given the current conversion settings and the available memory. If it's not enough, try to raise the amount of memory allocated to the program, or use a more economical conversion.

There are four (groups of) controls to specify what channels you want. The first group lets you choose between mono, stereo, left or right. If you are only interested in making system beeps, use mono: you don't notice a stereo sound even if your mac has two speakers, and it costs twice the memory. Left and right only download only the left cq. right channel.

The second group of controls lets you choose the sound resolution: 8 or 16 bits. Again, if you're only interested in beeps, choose 8 bits. If you want to download the sound to your sampler or process them afterwards, a 16 bit resolution might pay off, although it takes twice the memory.

The third group of controls lets you decide on the sample frequency: 11 kHz is acceptable, and 22 kHz is suitable for beeps; 44 kHz is only required when you want a very high quality sound.

The last control says "Normalize". If this box is checked, the sound is boosted to maximum volume. Only, to do this with maximum precision, the sound is read twice, so it takes twice as long. It pays off when making 8 bit beeps, though.

To start downloading, hit return or press "Save" or type $\hat{a}\mathbb{E}^{-}$ S; when the program is ready, it will prompt you for a file name. To hear the piece of music before you start downloading, press "Play" or $\hat{a}\mathbb{E}^{-}$ P. To abort playing, press "Stop" or $\hat{a}\mathbb{E}^{-}$. (dot). To stop the program, press "Exit" or $\hat{a}\mathbb{E}^{-}$ Q.

A warning

First this: although the case is not clear cut, the use of longer pieces of sampled sound is illegal; whether you sample through the mac's sound input, or by this program, the result is the same.

Sometimes, the program gives an error message. Most errors are given in text, but some only have got a number. If you really want to know what it means, look it up in some Inside Mac, or consult the "System Errors" DA. If it says "Out of Memory", try to download a shorter sound, or change the settings, or give the program more memory (via the Get Info box). Sometimes, the program will say "I/O error" for no known reason. If it has worked before, simply try it again.

You should not let the program play in the background, or activate the screen saver during playing, for it will

certainly cause an "I/O error" or something of that kind. Choosing values out of range in the from and length fields also gives such errors.

I have used the program on a normal and an accelerated LC II under system 7.1 and on a PowerBook 180c under system 7 without problems. It has also been reported to run on PowerPCs and Quadras.

Distribution

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If you want to do anything with this program, and you are not mentioned in or excluded from one of the above categories, you have to get my written consent.

Thanks to...

Joseph Galbraith for helping me debug the program, and the persons at Apple who made the necessary system calls available. Of course, it could have been done via SCSI calls (and I first did it that way), but system support for such operations gives a much safer feeling.

Ok...

Well, that's it. I hope you'll enjoy the program. Please let me know if you have any problems with it. The program is free, so give it away to anyone who wants to have it, but be sure to give this manualette as well. If you really like the program, send me some mail (electronic or otherwise), or donate some money to a charity.

Theo Vosse