Microware Review

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Available from: Macromedia,.Inc.,600 Townsend St., San Francisco, CA 94103

System Requirements:

SoundEdit Pro
Mac with 68020,2MB RAM, System 6.07
SoundEdit 16
Mac with 68030 processor, 2500K RAM, System 7, Sound Manager 3, QuickTime 2
At least 40 MB hard disk drive with access time of less than 40 ms.
Monitor that supports 256 levels of colour or grays
AV Macintosh or external digitizer (MacRecorder)

Software Description

SoundEdit makes it possible to record and edit music and voice, add special effects like echo or reverb to the soundtrack, analyse the results and compress the final sound track to reduce file storage space requirements. SoundEdit literally turns your computer into a sound recording studio.

Basic Functions

In SoundEdit the recording capacity is dependent on the amount of hard disk space available, not the amount of RAM memory installed in the computer. All editing changes are stored directly to disk in temporary files which are then automatically deleted after the editing tasks have been completed. Source input sounds are accepted from any device whose driver is compatible with the Macintosh Sound Input Manager. Sound recordings can be saved in 8 or 16 bit sample sizes and at any rate of sampling up to 48 kHz. All QuickTime sound editing, playback and synchronization tasks can be completed with SoundEdit 16. Both versions of SoundEdit are able to use several tile storage formats including the AIFF (Audio Interchange File Format). The AIFF format is the standard audio file format that is supported by most Macintosh multimedia applications. For cross-platform development purposes, the wave (.wav) file format is supported by SoundEdit 16, Using the Save As function within SoundEdit makes it easy to move back and forth between the various file formats to accommodate the file specifications of most current software applications that are able to integrate sound files into their functionality.

Documentation

The documentation accompanying the software is informative and well organized. Chapter 1 outlines basic system requirements and installation instructions for the program. Chapter 2 offers guidance on how to complete basic editing tasks. Chapter 3 is the reference section in which each menu options is described in detail. Chapter 4 in the soundEdit 16 guide is a 15 minute QuickTime tutorial in which the user learns how to open a movie, add soundtrack(s), synchronize sound with the movie frames and save the finished product. The appendix contains technical information on basic acoustic concepts, a listing of the frequencies of musical notes, file format descriptions and suggestions on how to use 2D and 3D spectrum displays. Browsing through the information in the appendix will leave the reader with a feeling of how much more there is to learn about the art and science of digital sound recording. The last section of the documentation contains a glossary of terms specific to editing sound files and an index.

Critique and Recommendations

SoundEdit Pro was installed and tested on a PowerBook 180. SoundEdit 16 was installed and tested on a Quadra 840AV and PowerMac 61 OOAV. In each case, the installations instructions were accurate and installation of the software with the installer program was uneventful.

The metaphor for this software package is the tape recorder. Editing functions have the look and feel of using a traditional tape splicing block. For example, to remove a segment of audio, highlight the segment and press the delete key or command-x. The segment is deleted and the edit is completed without having to get out the spicing tape to reconnect the two pieces of mylar. Similarly, to insert a sound segment into the sound track copy the desired sound to the clipboard, positioning the cursor at the appropriate place on the soundtrack and pasting it in. Many text books in the area of interface design suggest that an ideal interface is one that the user would not recognize as an interface while they are using it. In this application, SoundEdit developers have created a good approximation of an ideal interface.

To explore the file size generated by SoundEdit, a 20 second voice clip was recorded with the built-in microphone on the AV Macintosh. The parameters were set to 8 bit mono with a sampling rate of 11 kHz, and SoundEdit Pro file storage format with no compression. It took 224 K of disk storage space to save this file. While the sound track is under construction. SoundEdit also creates a temporary file of the same size as the original sound tile. In this example, there would have to be a minimum of 448 K storage space on the disk in order to create this sound clip. At this rate of consumption, a floppy disk, not counting construction space, would store a sound file that would play back in about two minutes. The quality of sound approximated that of an open reel-to-reel monophonic audio tape recorder running at 1 7/8 in. per second. This quality would probably be functional for use in-house for rapid prototyping applications. Multimedia products that are destined for external use would likely require a higher quality sampling rate. Recording in 16

bit stereo with a sampling ratio of 48 kHz gives CD quality sound but consumes correspondingly larger amounts of storage space. There will always be a trade off between file size and sound quality.

As with any time-dependent media files, a fragmented disk will slow down recording and playback time. For consistent sound quality the hard disk that is used to store sound files should be defragmented regularly. This point is particularly important when transferring sound files to CD-ROM storage media because access times of most CD players are significantly longer than they are on hard drives. Running SoundEdit 16 in the background when it is processing a file should be avoided because the foreground program may interfere with SoundEdit causing the entire system to lock up.

Leaving AppleTalk turned on when recording in stereo can have the same disasterous effect. Also, on older computer systems, better recording and playback performance may be gained using only the black and white settings for the monitor. Finally, while SoundEdit 16 can ope Windows files in the .WAV and .MOV formats, these files must be loaded into the Macintosh via one of the standard PC file access utilities such as Apple File Exchange. Files cannot be directly imported into SoundEdit 16 from PC-formatted CD ROM discs without having them stamped with a Macintosh resource that SoundEdit 16 can recognize.

By itself, SoundEdit is just one more piece of software that does a good job of assisting the user to complete a task. However when considered in the larger context of digital communications, the ability to edit sound with the same ease and accuracy as the ability to edit text opens up the option of using audio forms of communication to many more users without incurring major cost. Sound and images are becoming equal partners with text in the information processing arena. While this may sound like an advertisement for SoundEdit it is not. I like it because it is one example of a user-friendly enabling tool that helps this partnership to become a realistic possibility. So far, it has worked well for me.

REVIEWER

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