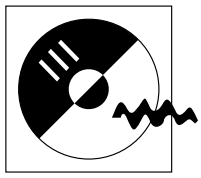

SONIC SOLUTIONS

SonicStudio 5

SonicOMF

(SS-303)

SonicStudio 5, SonicOMF (SS-303)

Written and designed at Sonic Solutions, 101 Rowland Blvd., Novato, CA. 94945, USA

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Sonic Part Number 820023B (12/96)

Contents

1 Introducing OMFI

What is OMFI?

Open Media Framework Interchange (OMFI) is a set of standards established by Avid Technology that allows data exchange between otherwise incompatible workstations and software applications. Digital audio workstations, digital video workstations, graphics programs, animation software, and other products use OMF to share files and projects.

OMF is powerful because it not only converts raw media files, such as audio and video, but it also converts the non-destructive instructions that accompany these files. These instructions include edit decision lists, mixing, digital video effects, transitions, and other data.

Using OMF, a workstation can **export** all the files and data necessary to a particular project. This creates an .OMF file that can be read by any application that supports the OMF standard. The destination workstation **imports** the OMF file and translates the data into its native format, making the data and media usable.

OMF standards free workstations from the burden of developing direct support for each and every data format used by other workstations and programs. An OMF file structure looks the same no matter from where it was exported.

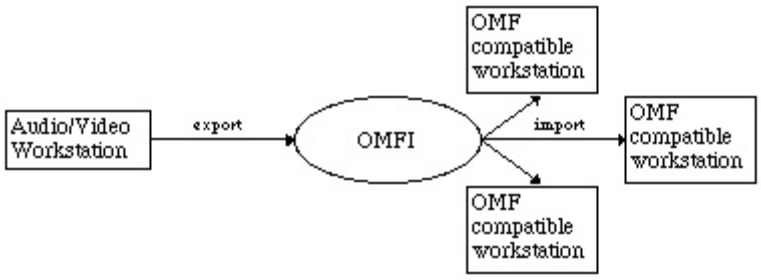

Figure1. OMF Workflow

What Does OMF do for Audio?

A Digital Audio Workstation (DAW) uses Edit Decision Lists (EDLs) to arrange audio for playback. This list is a series of pointers and instructions that tells the system which audio files to play, how long to play them, how to crossfade, etc. The sound files on the hard drive are left untouched, while the EDL uses what it needs in real-time. This process of using non-destructive instructions to manipulate media is also used in non-linear digital video editors. A decision list describes a sequence of frames to play from separate video files.

Most workstations' EDLs are incompatible; the instructions for one workstation cannot always be read by another. Furthermore, the audio files themselves may have different formats. Because of this, engineers often spend a tremendous amount of time re-editing

and re-recording audio when they move a project from one platform to another. OMF solves this problem. If you export an OMF project of edited audio clips from one DAW to another DAW, an EDL in the second workstation's native format is produced. This workstation now manipulates the original sound files, and references the sound files in the same manner as the first workstation. Edits in the EDL can be changed because all the original material is still accessible. Thus, a work in progress can be transferred between platforms more efficiently.

What is an OMF File?

An OMF file is a container. The OMF format is composed of three main parts:

- Composition
- Sources
- Media Data

The Composition

The composition contains all the information about how to play or present the media files. It is the non-destructive instruction set that describes edits, mixing, dissolves, crossfades, and other data. This part of the file is generally small and does not take up much hard disk space.

The Sources

Sources contain data about the original media, such as physical source and media file type.

The Media Data

Media data is the actual sample data itself, such as digitized audio, video or graphics files.

There are two ways that OMF tracks media data. The OMF file either encapsulates the media data or points to the media files in their original format. If the media is encapsulated, the OMF file can be quite large, as media files typically consume a lot of disk space. If the files are external, the OMF file points to the files and describes their location on the drive. SonicOMF™ supports encapsulated sound files, but does not support externally referenced media. Therefore, when using SonicOMF, you must export files using the encapsulated format. If you already have externally referenced media and do not wish to re-export, there are a few audio software applications that can translate various audio file formats into Audio Interchange File Format (AIFF) files.

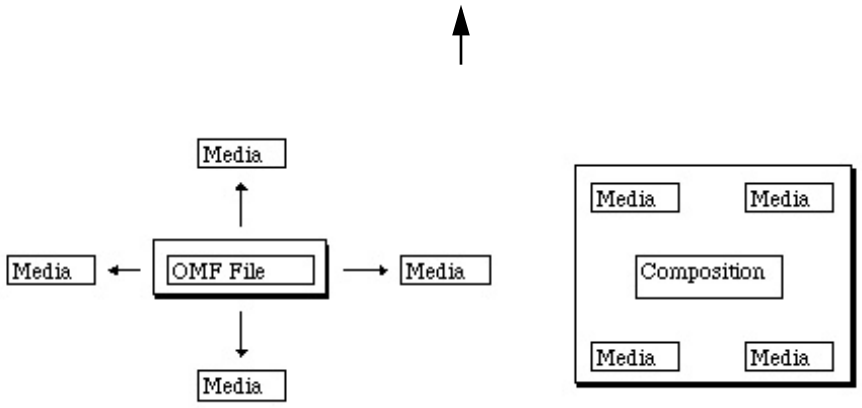

Figure 2. Two Types of OMF Files

2 SonicOMF

Sonic and OMF

SonicOMF has been developed in compliance with the OMF specifications.

For a software application to be compatible with OMFI, the developer must be an official OMF partner or "champion". Sonic Solutions is a recognized OMF partner and developer, and the release of SonicOMF qualifies Sonic as an OMF champion. In other words, SonicOMF is designed to import a properly created OMF composition and generate:

- A SonicStudio EDL
- SonicStudio AIFF files and waveforms on the MOFS volumes

For more information about Sonic EDLs and MOFS volumes, please refer to the SonicStudio manuals and addendums.

Supported File Types

SonicOMF supports the import of OMF compositions and encapsulated audio files. It does not support video or graphics files.

An exported OMF file may be *media only* or *media & composition*. SonicOMF supports both types of imports. A *media only* file does not have a composition to describe the editing or transitions; it is simply the audio or video file. A media & composition file has both media data and the composition describing the sequence and arrangement of playback.

You may also hear the term *audio only* describing OMF files. Do not confuse this with media only. A video workstation such as an Avid Media Composer has the ability to export audio-only OMF files. These files include the audio media and audio edit sequence but NOT the video media or video sequence.

When reading an OMF file, SonicOMF ignores any unsupported or unrecognized files and simply lists the valid files you can import.

SonicOMF was originally developed with the Avid Media and Film Composers in mind. A large number of users own or wish to own both types of workstations, and to get files and projects from one system to another, OMF is required.

For example, a typical use of SonicOMF might be as follows:

The video is cut on the Avid platform along with the production audio from the source reels. At the point where the audio post production needs to begin, either with a finished or rough edit, the Avid exports an audio-only OMF file containing the audio media and composition. This file is then imported into SonicStudio using SonicOMF. The audio post begins at the point where video editing stopped, with the audio cuts matching the current video cut. You could also incorporate the Sonic Digital Video option to play the

video with the newly generated EDL. Your dealer or sales representative can tell you more about the Sonic Digital Video option.

Note SonicOMF was designed mainly for importing files, not exporting them. At this time, SonicOMF does not support exporting Sonic EDLs and files in the OMFI format.

A Word about Quicktime Video

As stated before, SonicOMF cannot read Quicktime video clips contained in an OMF file. Even if it could, the Sonic Digital Video option is designed to play entire video files as reference videos for audio post. An OMF file would probably include a video edit decision list describing the video sequence, and would not be of much use in SonicStudio or other DAWs.

We recommend that the desired video either be redigitized from the output of the video workstation or compiled into a single Quicktime movie for playback in SonicStudio. This procedure will vary depending on your video editing platform.

While many platforms support the Quicktime format, these video files created are often incompatible unless both platforms employ the same "codec" or compression-decompression algorithm within Quicktime. Apple’s Quicktime v2.5 contains a degree real-time codec translation abilities and may be a solution to your situation; however, the world of Quicktime video is a fast-changing and complex environment. We recommend you contact Sonic or your dealer for the latest information on video compatibility.

The SonicStudio Engine

SonicOMF is one of the first applications to utilize the SonicStudio Engine. The SonicStudio Engine software runs the Sonic NuBus or PCI hardware, handles the audio, manages the Digital Signal Processing (DSP), and controls external devices. SonicOMF performs functions by "talking" to the Engine though a protocol known as an Application Programmer's Interface (API).

The SonicStudio Engine allows you to create many new and varied interfaces that can all run on the same hardware platform. Some examples of products that use the SonicStudio Engine are Opcode's StudioVision, Discreet Logic's Fire, Sonic DVD Creator, and in the future, Sonic Solution's radio broadcast interfaces.

When using SonicOMF, you will notice that the SonicStudio Engine is also running. SonicOMF cannot run without the SonicStudio Engine, so it will be launched for you automatically when you run SonicOMF. Refer to the following figure for an illustration of the Sonic engine structure.

Note At this time, the SonicStudio Engine and SonicStudio cannot run simultaneously.

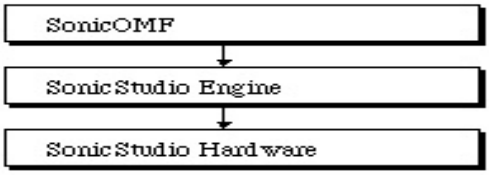

Figure 3. Sonic Engine Structure

3 Installing SonicOMF

System Requirements

SonicOMF requires the following:

- A SonicStudio supported Apple Macintosh, Power Macintosh, or MacOS compatible clone running system v7.5.1 or higher, with a minimum of 24MB of RAM.
- Hard Disk Space - Make enough disk space available to store the OMF file. If the file is 6 MB, then set aside 6 MB on the disk; if the file is 2 GB, then set aside 2 GB on the disk.
- Sonic Solutions NuBus or PCI based DSP hardware such as SonicStudio 2•8, SonicStudio 4•12, SonicStudio 16•24, or SonicStudio High-Density.
- SonicStudio Engine v1.4.3 or higher (included with SonicOMF installers).
- SonicStudio v5.0.2 or higher.
- A MOFS-formatted hard disk on the Sonic SCSI chain as destination for AIFF files.

NOTE *MediaNet equipped systems will provide increased speeds for the transfer of sound files.*

SonicOMF will not launch without a valid key file. Make sure you are keyed for the SonicOMF option and that this key resides in the Sonic Preferences folder within the Macintosh System Preferences folder.

Installing SonicOMF

Please refer to both the "SonicStudio Release Notes" and "SonicStudio Installation and Maintenance" for instructions on how to install SonicStudio hardware and software.

Installing SonicOMF from CD-ROM:

STEP 1 Insert the SonicStudio disk into your CD-ROM drive.

STEP 2 Disable any virus protection software.

STEP 3 Shut down your Macintosh.

STEP 4 Hold down the SHIFT key and restart your Macintosh.

NOTE Make sure that you hold down the SHIFT key until you see the message indicating that extensions are off or disabled. However, some CD-ROM drives require system extensions to operate. In this case, do not hold down the SHIFT key while starting your Macintosh.

STEP 5 Double-click the SonicOMF folder on the CD-ROM drive.

STEP 6 Double-click the SonicOMF Installer.

SonicOMF installs to your hard drive.

STEP 7 Once the software is installed you will need to install your key file. If this is a new SonicStudio, your key file may already include SonicOMF. If you just recently purchased the SonicOMF option, you will need to replace your existing key.

The file path to the Sonic Key is s. Throw away any key file already in the folder (make sure to back it up on the floppy first). Alternately, you can rename the key file to anything but Sonic Key. When SonicStudio or SonicStudio Engine is launched, it looks for the file named Sonic Key.

Installing SonicOMF from Floppy Diskettes

Follow these steps to install SonicOMF from floppy disks.

STEP 1 Insert disk 1 of the SonicOMF distribution disk into the computer's floppy disk drive.

STEP 2 Find the Install SonicOMF icon and double-click on it.

The Installer prompts you to select a folder in which you would like to place SonicOMF; if you do not reply, then the default folder "SonicOMF" is installed at the root level of your hard disk. The Installer also installs the Sonic Audio Manager.

STEP 3 Click Install to accept the default folder or select another folder.

STEP 4 When the installation is complete, click Quit or install SonicOMF and SAM on another attached or networked hard drive.

You may begin using SonicOMF after the first successful installation.

Setting Up SonicStudio

SonicOMF requires that a MOFS volume be available on the Macintosh desktop in order to import sound files from an OMF file. On systems equipped with MediaNet, this may be done by using the Chooser's Appleshare to mount local and remote MediaNet drives. Refer to your MediaNet manual for information about installing MediaNet software and hardware, and setting up Apple networking control panels.

STEP 1 To mount a MediaNet volume, select Chooser from the Apple Menu. The Chooser dialog displays.

STEP 2 Click AppleShare in the Chooser dialog. The available servers, typically Macintoshes or MediaNet cards, on your network will display to the right of the window.

STEP 3 Double-click a server to open a dialog that allows you to log on as a guest or registered user. Assuming the server you are logging onto allows you to pass, a list of the available drives will display.

STEP 4 Select the volumes you wish to mount by marking the checkbox if you wish to have them mounted each time you boot up).

STEP 5 Click OK. The drives you selected display on the screen. Refer to the following figure for an illustration on the Chooser dialog.

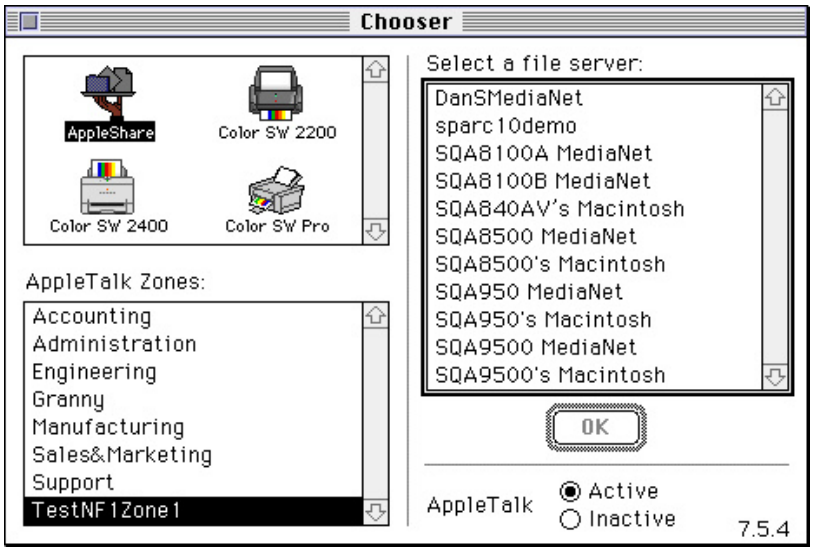

Figure 4. Chooser Dialog

NOTE If you are not using MediaNet, then you will need to use SonicStudio to mount your MOFS drives. The SonicStudio Engine refers to the Audio I/O Preferences and Sonic Configuration file in order to load preferences, so if you use SonicStudio with XFS on, then XFS will automatically be on when you launch SonicOMF.

STEP 6 Launch SonicStudio now if you haven't used SonicStudio with XFS on before. The SonicStudio dialog displays.

STEP 7 After SonicStudio is running, select the **File/Preferences** from the menubar. The System Preferences option displays.

STEP 8 Choose System Prefs. The System Prefs dialog displays.

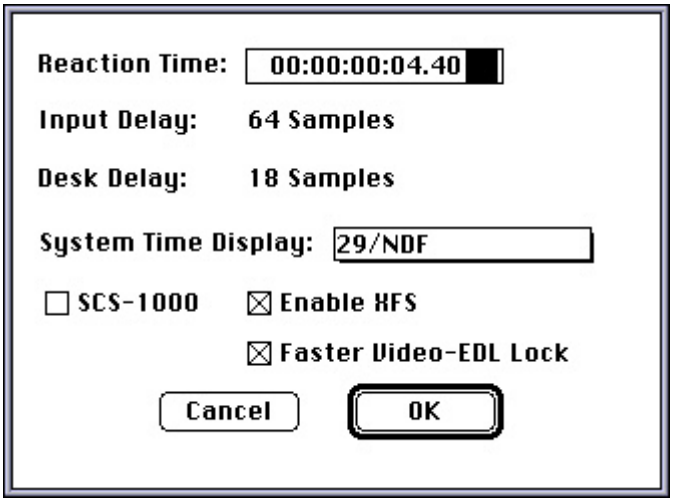

Figure5. System Preferences for XFS Checkbox

STEP 9 In the Systems Prefs dialog, check the box for Enable XFS. A dialog will appear telling you to re-start Sonic for this to take effect.

STEP 10 Click OK.

STEP 11 Choose Audio I/O from the Preferences submenu before quitting to set up your audio I/O if you have not yet done so. This is true for MediaNet equipped systems as well.

STEP 12 Set your clock source, channel mode, and interface configuration as desired. Refer to the SonicStudio manual for help in this window. The configuration will not affect SonicOMF operation, but it is ideal to at least have a valid clock source when starting SonicStudio Engine and SonicOMF.

STEP 13 When both XFS and the Audio I/O are set up, quit SonicStudio.

STEP 14 You are now ready to start SonicOMF; go to the section titled "Starting SonicOMF."

4 Using SonicOMF

Starting SonicOMF

When you start SonicOMF, the SonicStudio Engine first initiates. For the SonicStudio Engine to properly start, it must be in the same folder as SonicOMF. The SonicOFM installers should place the SonicStudio Engine in that folder automatically. If you move the SonicStudio Engine to another folder, SonicOMF may not be able to find it when it starts up.

After the SonicOMF splash screen displays, the SonicStudio Engine launches and its status window opens behind the splash screen. The splash screen may obstruct the view of the status window but that is normal. Depending on your hardware setup, the SonicStudio Engine boot-up time may vary.

SonicOMF "asks" the SonicStudio Engine if the proper Sonic Key file is present. If either the key file is not found or the key is not enabled for SonicOMF, the application will automatically quit.

Opening Files

When SonicOMF is running, note that windows are not immediately visible.

STEP 1 To begin importing files, select **File/Open** from the menubar.

The standard Macintosh Browser dialog displays as illustrated in the following figure.

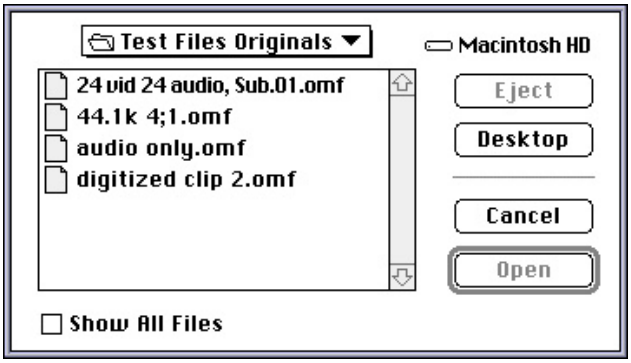

Figure 6. File Browser Dialog

The files visible in the browser are automatically "filtered" to show only files that have the Macintish filetype OMFI to simply your search procedure. To disable this, check the box labeled Show All Files in the Browser dialog. A valid .OMF file that does not have the OMFI filetype label can still be opened, you will just need to use the Show All Files checkbox to see it.

When you open an OMFI file, SonicOMF scans the file for the composition and displays the results in the status log.

The SonicOMF Main Window

STEP 2 Select an OMFI file that you want to open.

After opening an OMFI file, the SonicOMF main window displays. The SonicOMF main window is where you select the composition you wish to import, and where to place both EDL and sound files.

STEP 3 Click on a composition from the section under the line Select composition to import: on the left hand side of the window.

If the OMFI file you opened is a "media only" file (it does not include a composition), there will be no line item in the window. SonicOMF does support the import of media-only files.

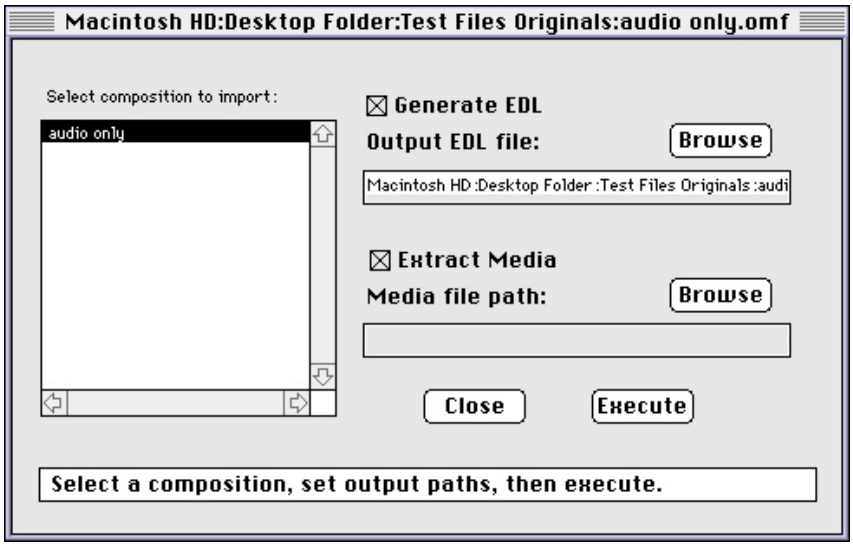

Figure 7. Main WIndow Dialog

Both the Generate EDL and Extract Media import checkboxes default to being on.

Uncheck the Extract Media checkbox if you wish to import only the composition from an OMF file.

Uncheck the Generate EDL checkbox if you wish to import only the media from an OMF file.

STEP 4 Select a path to store the composition and/or media by doing one of the following:

Type in a path directly

or

Click the Browse button to select a location using the Macintosh Save dialog.

To type the name in directly, enter the path starting with the drive name followed by a colon, then the folder name. Add a colon between any additional subfolders as well. For example:

```
Macintosh HD:OMF imports:Show #3:Reel 4
```

Alternately, you can search for a location to save the imported files by clicking the Browse button, then navigate using the Macintosh Browser dialog to a folder on the HFS volume (for the composition), or the MOFS volume (for the media files).

STEP 5 Once the files are named and you have selected the checkboxes, you are ready to execute the import.

Using the Status Log

The status log is a text-based running update of the OMF import information. It displays the following data:

- File data
- Source Information
- Composition
- Current progress
- Errors that might be encountered

In File on the menubar, there is an toggle menu item for Verbose Log. Selecting Verbose Log will designate that the Status Log include additional information about the import and OMF status. The following figure illustrates the status log.

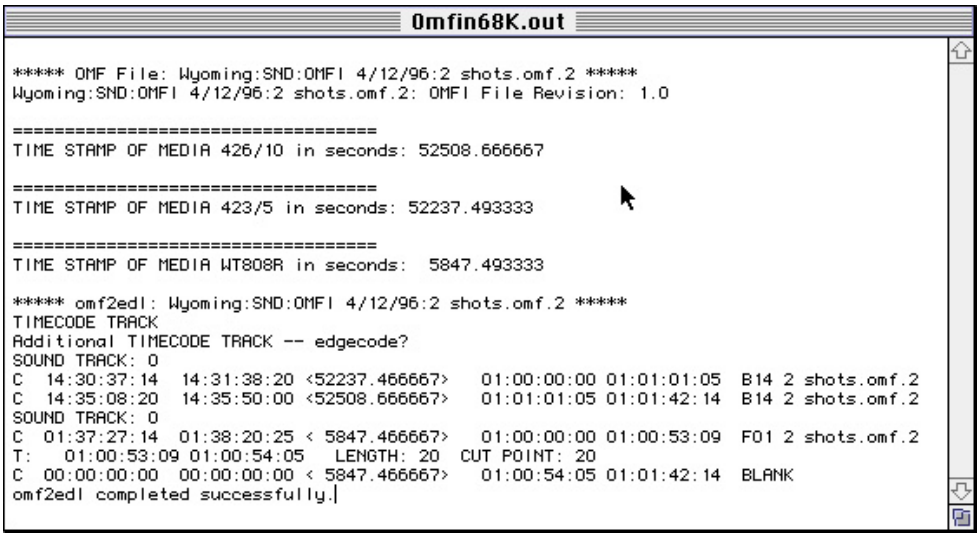

Figure 8. Status Log

This log can be helpful for reviewing which items were imported and checking import progress. There is currently no way to save the log as a text file within SonicOMF. It is very simple, however, to select all of the text and paste it into a SimpleText document.

Make the status window the frontmost window. In the Edit menu, first choose Select All, then Copy. Open up SimpleText (a basics-only text editor that comes with every Macintosh) and create a new document. From the Edit menu, select Paste, then save the SimpleText document as you would normally save any file.

Defining Paths

Importing Files

Start the import process by clicking the execute button on the main SonicOMF window.

A folder will then be created for the temp (temporary) files that are created by the import process, so be sure the drive you are importing from has enough space to store the temp files. If the file you are importing is 100MB large, you will need 100MB of free space on both your HFS drive AND your destination MOFS drive.

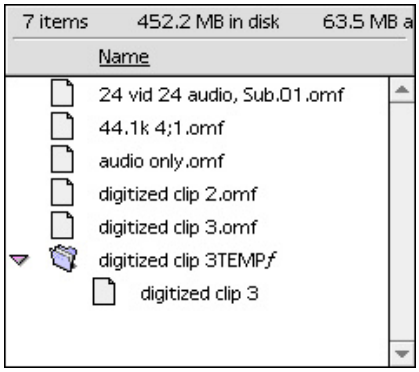

Figure 9. SonicOMF Temp Folder

Depending on the size of the files you are importing, the time to completion may vary. To cancel the import at any time, press command-period to stop the process. The files already transferred will remain on the MOFS drive, but you may need to delete the temp files that were created.

The status log will indicate when the import is complete, at which point you can quit SonicOMF or import more OMF files. To import another file, click the Close button in the SonicOMF window, then select File/Open from the menubar and repeat the import process.

When you quit SonicOMF, the SonicStudio Engine also quits. You may then launch SonicStudio and open your imported EDL or sound files as you would normally do in SonicStudio.

Exporting Files

You cannot export files from SonicOMF; for more information about this, contact your dealer or representative.