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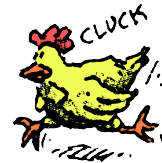
### www.chickensys.com
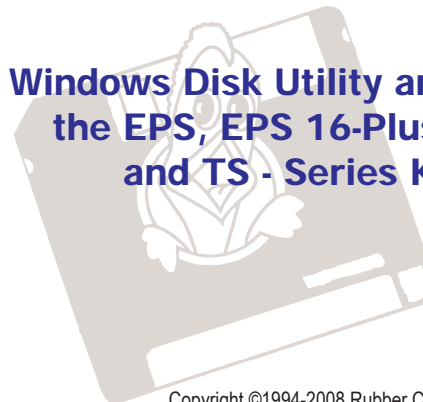
## For the...

# Rubber Chicken Software Co.

*714 5th Street SE*
*Willmar, MN 56201*
**1-320-235-9798**
*"The Human Company"*

# Ensoniq Disk Tools™ for Windows

## Windows Disk Utility and Conversion Software for the EPS, EPS 16-Plus, & ASR 10/88 Samplers and TS - Series Keyboards

# RUBBER CHICKEN SOFTWARE CO.

## Glossary

**LAYER**
A unit on the EPS/ASR that holds wavesamples across one keymap of the keyboard. You can have up to 8 layers in an INSTRUMENT.

**OBJECT**
A unit within an Ensoniq file - for Instruments, a Layer or Wavesample; for Songs, a Sequence or Track; for Banks, a Slot Location.

**PATCH SELECT**
A Ensoniq innovation that selects a pre-programmed group of layers from a pair of momentary onboard buttons.

**RUBBER CHICKEN SOFTWARE CO.**
The makers, developers, sole distributors or Ensoniq MIDI-Disk Tools for Windows. They also make samples for the EPS/ASR series, and other items, specifically for Ensoniq samplers.

**SAMPLER NAME**
This area tells you what kind of sampler the computer is expecting. Once you read the EPS/ASR through MIDI, the computer finds out for itself and changes this automatically.

**SOUNDVERT**
The original .WAV-to-Ensoniq program. Developed by Tim Dorcas, it inspired this program.

**SYS-EX (or, more properly, System Exclusive)**
A MIDI standard that communicate specific messages to specific instruments. Ensoniq MIDI-Disk Tools uses this to changes just about any parameter in the EPS/ASR.

**TOOLBAR LIGHTS**
These lights tell you (from the left) if the MIDI is turned on so the computer can receive MIDI signals, if MIDI is coming into the computer, and if MIDI is transmitting out of the computer.

**.WAV FILES**
This format was developed by Microsoft (who else). It is sometimes called RIFF (Resource Interchange File Format), in contrast to AIFF (Audio Interchange File Format). The Windows-Intel platform (PC) uses mostly .WAV files. Think of it this way - it is the "PC's sound file format. .WAV Files cannot be looped, nor do they contain multiple wavesamples. There is another .WAV type called ADPCM, which is a compressed type of .WAV file. These are usually low-quality, and are very small in size. Ensoniq Disk Tools does not support these files - convert them using a Sample Editor such as SoundForge or CoolEdit, or Awave.

**WAVE OVERVIEW**
A function where you can view the entire waveform, as opposed to just part of it.

**WAVESAMPLE**
A unit on the EPS/ASR that holds a set of parameters affecting the wavedata, and also either the actual sample data or pointers to another wavesample that actually holds the data.

# Table of Contents

# Introduction

**Ensoniq Disk Tools for Windows** is the ultimate Ensoniq disk utility. Since Ensoniq uses a proprietary disk format with the EPS/ASR samplers, you can't use standard Windows and DOS functions with the disks and files - they simply aren't recognized. Thus the need for a program.

**Ensoniq Disk Tools for Windows** not only reads, writes, and formats any floppy or SCSI device, it also performs a number of file transfer, file converting, and file building operations. You can transfer any amount of files to and from Ensoniq floppy disks, DOS hard drives, SCSI hard drives, and any CD-ROM drive. You can convert other file formats, such as the standard .WAV and AIFF formats, and transfer them to and from Ensoniq files. And lastly, you can create and edit your own Ensoniq files - build them from scratch, add or subtract the amount of objects, and edit any paramter within. Powerful? You bet!

**Ensoniq Disk Tools for Windows** was conceived from and handy little utility called SoundVert 1.03, a nifty .WAV to Ensoniq file conversion utility. We knew it could go a lot farther. After the first development, it used to be called TS Tools, since the program was originally designed for TS-series owners to sample and edit their own sounds. (in fact, the name of the main executable still bears it's name.) But since the program does have a wider scope, the name was changed to Disk Tools.

**Ensoniq Disk Tools for Windows** is also part of our flagship program, **Ensoniq MIDI-Disk Tools for Windows.** It is sold separately as well, since TS-Series owners cannot take benefit of the EPS/ASR MIDI functions  implemented in that program.

If you are a registered owner, you are qualified for free updates for the life of the program, which will be sent to you automatically from **Rubber Chicken Software Co.** There are many things we intend to add to this program to make it more versatile for you to use.

**DISK IMAGE**
This is an Image of an entire disk of files, as defined in the EPS/ASR. The files contained within can be Instrument, Bank, Sequence, Song, MacroFile, System-Exclusive, Effects, or Backup Files. It comes in Giebler format (.ede or .eda), or GKH format (.gkh).

**EFFECTS**
The Ensoniq 16-Plus and ASR-10/88 have a built-in effects chip, which you can assign parameters per instrument and bank.

**ENSONIQ DEVICE**
Refers to a floppy disk or SCSI drive that is formatted to be read by the EPS/ASR/TS equipment.

**FILE IMAGE**
This is an Image of a single file as defined in the EPS/ASR. It can be an Instrument, Bank, Sequence, Song, MacroFile, System-Exclusive, Effects, or Backup File. It comes in Giebler format (.efe or .efa), or .GKH format (.ins or .gkh). These images can exist on their own, or reside inside a Disk Image file.

**FRAGMENTATION**
In most files, the data is arranged with the data being read one byte after the other; in other words, the information is in order. But certain files may have been worked with in such a way that the file is disarranged. The file works because there is a "table of contents" (called the FAT, or File Allocation Table) that arrange it. Such a file is called a **Fragmented.**

**GIEBLER DISK IMAGE FORMAT**
Giebler Enterprises introduced this file format. It really is a 512 byte header, and afterwards it contains the exact byte contents of the Ensoniq Disk File. Within the header there is a table that lists which blocks have all zeros, and which don't. That way the file is only as large as it as to be. EPS images use the .EDE extension (max 1585 blocks); ASR images use .EDA (max 3167).

**GIEBLER FILE IMAGE FORMAT**
Giebler Enterprises introduced this file format. It really is a 512 byte header, and afterwards it contains the exact contents of the Ensoniq File. It can be an Instrument, Bank, Sequence, Song, Macro, System-Exclusive, Effects, or Backup File. EPS files use the .EDE extension, and ASR files use the .EDA extension. NOTE: the differences between an EPS and ASR file-type are minimal. Really, it specifies if **the file has pertinent information relating to new parameters within the 16-Plus/ASR**, or that **the type of effect is and ASR or 16-Plus.**

**.GKH IMAGE**
This format is the oldest, developed by a guy named Goh King Wah (what a name - thus the G K H format). It is a short header, followed by the exact contents of the Ensoniq file. There is no skip table, and the bytes do not follow 512 byte boundaries. To make it more confusing, files with this extension **MAY BE A DISK IMAGE OR FILE IMAGE OF EPS OR ASR TYPE.** Ensoniq Disk Tools' rule is that .GKH should be Disk Images, and .INS files are File Images, and converts things that way. However, Ensoniq Disk Tools will recognize both types.

**.INS FILE IMAGE**
The .ins file extension was implemented by Michael Chen, the author of EPSDisk, a program that put together  many of Goh King Wah's programs. Michael needed a file type that would represent a File Image, and since by that time the Giebler utilities had come, he adapted the exact same header, but used a different extension. So a .ins file is exactly the same format as the Giebler .efe./,efa format.

**INSTRUMENT**
A unit on the EPS/ASR that contains up to 8 Layers and up to 127 wavesamples.

## Thank You's and Legal Notices

**Thanks** to the excellent set of beta-testers involved with this project (in particular Ted Bicknell, Fred Hoover, Nathaniel Gillette). You can be a pseudo-beta-tester too - just contact us and give us your opinion!

**Thanks** to Michael Hyman for the clever designer icon.

**Thanks** also to Robby Berman, Steve Coscia, Al Blake, Tony Ferrera and Bert Nuskirk of Ensoniq, whom we always count on for assistance and friendship, and Eric Geislinger and Jane Talisman of the Transoniq Hacker, whom it only seems days ago when we had a Mirage and we picked up our first Hacker and read it cover to cover.

**And finally thanks** to the programs of CoolEdit (David Johnston), WinZip, EPSSENSE (Jeffery Richter), and the Ensoniq Disk Manager (Gary Giebler) for the creative genius and inspiration these programs gave ours.

## Legal Notices

**Ensoniq Disk Tools for Windows** was compiled using Microsoft Visual Basic 3.0, 4.0, and 5.0 Professional Version, Microsoft Word 7.0 for Windows 95, and the Ensoniq ASR-10, EPS 16-Plus, and Original EPS (no TS was used!).

**ENSONIQ, EPS, EPS-16 PLUS, TS-10, TS-12, and ASR-10** are trademarks of ENSONIQ Corp.

**"GIEBLER", GIEBLER ENTERPRISES, ENSONIQ DISK MANAGER, ENSONIQ DISK EXTRACTOR, "EDA", "EDE", "EFE", and EFA** are trademarks of Giebler Enterprises.

# Glossary

**.AIFF FILES**
This format is usually used with Apple computers. It stands for Audio Interchange File Format. The format is actually better used with Ensoniq wavesamples because the byte-ordering (the way the bytes are arranged in the file) is the same, whereas .WAV orders the bytes in an opposite way. Think of AIFF this way - it is "Apples sound file format."

**COMMON DIALOG**
A standard Open or Save As Windows dialog that navigates Drives, Directories, and Files within DOS devices. Ensoniq Disk Tools uses these whenever possible; however, it uses a replacement when it becomes necessary to navigate Ensoniq devices as well.

**DISK FILE**
A file saved to your hard drive that stores all the parameters of an instrument read by Tools. See **File Image.**

# Installation Instructions

1. Take your CD-ROM and insert it into your CD-ROM Drive. The setup program should start up; otherwise type d:\setup in START-RUN, where "d" is the drive letter of your CD-ROM Drive.

2. Double-cluck on the Chicken icon within the new Ensoniq Disk Tools Program Group, and you are ready to roll! If the program has problems at any point, don't hesitate to call or write Rubber Chicken Software Co. at contact addresses.

4. If you are updating this program, don't hesitate to delete the old files or directories.

After this, you're set!

# LIST OF FILES

**Program Files**
dt32.exe
rcsfx.efx

**Text and Help files**
readme.txt
disktool.hlp

**ActiveX Controls**
tabctl32.ocx
msoutl32.ocx
msghoo32.ocx

**Operating Systems and Templates**
eps249os.efe
eps13os.efe
asr353os.efa

**Dynamic Link Code Libraries**
msvbvm50.dll                System directory
esd32.dll                   App directory

**.DLL OLE files** (all in system directory)
*(note: these are all 16-bit versions of the file. In the shipping version of Windows 95, there are 32-bit versions of the same files, with the same names. That is why they are not necessary to be included with the 32-bit version of Tools.)*

typelib.dll                 storage.dll
oc25.dll                    compobj.dll
ole2.dll                    ole2disp.dll
ole2nls.dll

If the program has problems at any point, don't hesitate to call or fax us at our contact addresses.

# Screen Description

The Main Screen of **Ensoniq Disk Tools** is designed for most of your major functions. It can be used as a starting point for almost all operations. Please note that it can be resized, to offer a wider view to your screen. However, you will notice it has a minimum size. The program will show properly down to a 640x480 screen resolution.
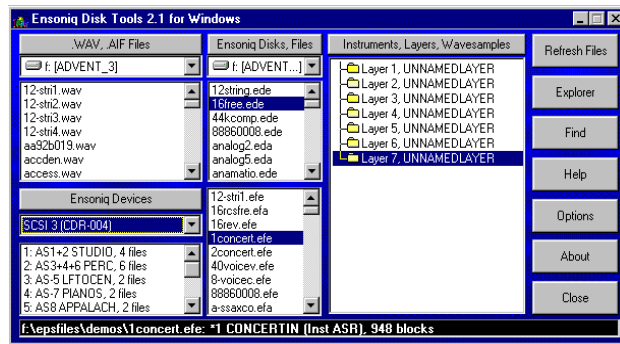
## .WAV-AIFF List Box

This displays all or some of the .WAV Files on the drive marked above in the drive box. In the Options dialog, you can set whether this box shows all the files in a particular directory, or all the files in the drive itself. **Ensoniq Disk Tools** stores the path information, so it isn't shown.

> **Typical Functions:**
> *Click to select a .WAV-AIFF file, or select multiple files*
> *Press Space Bar to hear the .WAV file (if you have a sound card)*
> *Right-click selected .WAV-AIFF file(s) to perform operations*
> *Drag a selected .WAV file to another Box to convert or transfer it*

## Disk List Box

This displays all or some of the Disk Images on the drive marked above. In the Options dialog, you can set whether this box shows all the files in a particular directory, or all the files in the drive itself. **Ensoniq Disk Tools** stores the path information, so it isn't shown. If the Disk Image is invalid, it will give you a warning when you click on the selection. If there is fragmentation, Disk Tools automatically defragments it when selected.

> **Typical Functions:**
> *Click to see the contained files in the Instrument/Layer/WS box*
> *Right-click selected Disk Image(s) to perform operations*
> *Drag to extract files to File Images or .WAV/AIFF Files*

## File List Box

This displays all or some the File Images on the drive marked above. In the Options dialog, you can set whether this box shows all the files in a particular directory, or all the files in the drive itself. **Ensoniq Disk Tools** stores the path information, so it isn't shown. If the File Image is invalid, it will give you a warning

# Final Notes

A couple of things to keep in mind. Please report any alleged bugs that you might come in contact with. Also, if you have any ideas about how to make **Ensoniq Disk Tools for Windows** better or easier to use let me know. Here are a few numbers to keep in mind.

**EPS/ASR/TS Internet users Group**
epsasrts@soundcentral.com
Send subscribe requests to epsasrts-request@soundcentral.com
Essential for in-depth Ensoniq probing

These next two numbers may not be available anymore. Ensoniq does not exist, and the Transoniq Hacker ceased publication a couple years ago.

**Ensoniq Corp.**
155 Great Valley Parkway
Malvern, PA 19355
Customer Service (610)-647-3930
Customer Service e-mail: music-support@ensoniq.com

**Transoniq Hacker**
1402 SW Upland Dr.
Portland, OR 97221
(503)227-6848
E-mail: interface@transoniq.com

# Thank You's and Legal Notices

**Thanks** very much to John Bodenstein, whose extra patience and helpful assistance made this project possible.

**Thanks** to James Olsen for his generous help and partnership in SoundCentral.

**Thanks** also to Stephan Sprenger of Prosoniq, who helped us immensely with the effects file format.

**Thanks** to everyone who gave their comments and help, especially on the Internet Ensoniq mailing list; especially Dietmar Tinhof and Paul Najar.

# Update Policy

Updates to this program are free for the lifetime of the program. Starting with updates after Version 2.2, Revision/Build 22, Ensoniq Disk Tools updates will be available again on our Web Site. They will be in the form of "Patches", files you download to update your currently installed program.

You will need at least Version 2.2, Revision/Build 22 to use this system. You will simply click the Update Button on the main screen in the program - that will bring up your browswer, dial the Internet, and take you to a Web page that will inform you on the availability of an update. If there is one, it will display a link for you to download it. You will not need to incrementally update. Your only concern is to update your version to the current one displayed.

These "Patches" ARE NOT COMPLETE PROGRAMS. They only update your current installation. If you need another complete version, it will need to be snail-mailed to you at a $5.00 ($8.00 international) charge.

You can always be fully updated; that is, get all the files needed for a full installation, by following these steps:

Download the Disk Tools Setup File and install it on your computer. Make sure you note the directory you installed it in.

Start the Disk Tools program file, named dt32.exe (it must be version 2.2 revision 22 or later) from within the directory you specified when installing the Disk Tools Setup File.

**IF YOU CAN CONNECT TO THE INTERNET FROM THIS COMPUTER**
Click the Update button on the Disk Tools main screen, and follow the prompts from the web page that it dials.

**IF YOU CANNOT CONNECT TO THE INTERNET FROM COMPUTER**
Click Help, and go to the About box. Note the Version number and the Revision number (such as 2.2.25). When you can connect to the Internet, use this syntax to get to the correct web page:
*www.chickensys.com/cgibin/update.cgi?type=Disk%20Tools&maj=[Major Version Number]&min=[Minor Version Number}&rev=[Build Number]*
For example, for Version 2.2, Revision/Build 29, you would go to: *www.chickensys.com/cgibin/update.cgi?type=Disk%20Tools&maj=02&min=02&rev=29*
Save your update file to floppy disk or other backup medium.

when you click on the selection. Unlike the other boxes on the Main Screen, you can only select one File Image at a time.
> **Typical Functions:**
> > *Click to select a File Image*
> > *Right-click the selected File Image to perform operations*
> > *Drag to extract waves, include in a Disk Image, or write to Ensoniq volume*

## Objects List Box
This displays the Objects (Layers, Waves, Sequences, Bank Listings, etc.) contained within a Disk Image or File Image, depending on what is currently selected in the other boxes.
> **Typical Functions:**
> > *Click on a Layer (Sequence) to see the Wavesamples (Tracks)*
> > *Right-click the current selection to perform operations*
> > *Drag to convert Objects into files*
> > *Click on [space bar] to hear Wavesample over sound card*

## Ensoniq Devices List Box
This displays the current contents of the selected device in the Drive Box for Ensoniq volumes. You may drag items to any other List Box to exchange files.
> **Typical Functions:**
> > *Right-click the selected file(s) to perform operations*
> > *Drag to write a file to DOS hard drive*

**Status Bars**
This displays critical info you need to know as you work with the program.

**Drive Box for .WAV Files**
Click on this to change the Drive for the .WAV-AIFF List Box

**Drive Box for Disk and File Images**
Click on this to change the Drive for the Disk List Box and the File List Box

**Drive Box for Ensoniq Devices**
This selects which device you want to see Ensoniq-format information for.

**Object Button**
This reloads the contents of the Objects List Box.

**Ensoniq Devices Button**
Reloads the contents of the selected device the Drive Box, and displays it in the Ensoniq List Box.

**.WAV-AIFF Button**
Adds to the WAV-AIFF List Box. Displays a Common Dialog where you can find a particular file from any directory or drive.

**Disk, Files Button**

Adds to the WAV-AIFF List Box. Displays a Common Dialog where you can find a particular file from any directory or drive.

**Refresh Files**

Clicking the Refresh Button on the Main Screen refreshes the contents of all the List Boxes with their current files.

**Explorer**

This displays the Ensoniq Explorer screen. You may do intensive Ensoniq floppy disk and SCSI management here. *For more information see Page 8*

**Find**

This enables you to find an Instrument file within a Drive's worth of Disk Images or File Images. Click to bring up the Find dialog to start your search. *For more information see Page 17*

**Options**

Displays the Options dialog, where your major program preferences are made. *See Page For more information see Page 24*

**About**

This tells you how to reach us, and what version:revision the program file is.

# Troubleshooting/Support

At Rubber Chicken we pride ourselves for the personal support we can give, because we believe the only important problem to you is your own problem! (Makes sense, doesn't it?)

But before you call/write in for support, **we do ask you of some requirements.**

**a) Please describe the problem specifically (what screens come up, what do they say VERBATIM, any repeatable steps we can describe so we can duplicate the error here). If you say "it doesn't work", we're sorry, that just isn't enough for us to go on. IT IS VITAL THAT WE CAN REPLICATE THE ERROR. We need to know what is the difference in your computer that is causing the conflict.**

**b) It is VERY HELPFUL, in case of errors in reading parameters, to send us the File Image file that your are reading. Zip the file up using WinZip or related program (it will compress to a very small size) and attach it in an e-mmail message to us. These are very helpful in determining what the problem is.**

**d) Tell us which revision of the program you are using, what platform (Win95 or Win 3.x).**

**e) If the program "crashes", please be specific - does the computer freeze, or do you get an error dialog? What does the dialog say?**

## Contact information

## Rubber Chicken Software Co.

**714 5th Street SE**
**Willmar, MN 56201 USA**

| | |
|---|---|
| **Toll Free Order Line:** | **1-800-8-PRO-EPS (800-877-6377)** |
| **Tech Line, Fax, and Int'l:** | **1-320-235-9798** |
| **E-mail:** | **support@chickensys.com** |
| **Web Page:** | **www.chickensys.com** |

the left-hand box again, and selecting Write Directory.

7) You may enter a directory just like you do a regular dialog box - double-click on the name or icon.

8) After you are finished writing the directories, start adding your files.

9) Click on the DOS option on the screen - then you will find the standard DOS directory-file structure.

10) Find your File Image - a double-click on it - a button will appear that will be flashing Write…

11) Click again on the Ensoniq option, and find the directory where you want the File Image.

12) Click on the flashing Write… button - the File Image will be written there.

13) Continue until you are done.

**Automatic Method:** This is a more effiecient method, especially for large operations.

1) Prepare yourself - have a piece of paper written out (or text file written out) saying exactly where you want to put things.

2) Make a directory that will hold all the sounds you intend to put on your hard drive - give it any name you want.

3) Within that directory, make your total directory structure, like want you wrote down, and follow the rules below:

   a) Do not put more than 38 files and directories within a single directory - since Ensoniq only allows 38 files in a directory, Disk Tools will ignore all files after writing 38.

   b) To make a directory, create a DOS directory, and name it with a digit between 1-38; this will be the file number of the directory when it is written on your hard drive. Then make a text file named x.rcs (x representing the same number as your directory), and write within it the name of that directory. This method is required because a directory require two pieces of information: the file number and name.

4) After you are finished, use the Restore SCSI Drive function to "restore" your volume setup into the SCSI Drive.

# Menus

Ensoniq Disk Tools holds a lot of power behind right-clicks. That's the way of Windows! The following are a list of menu items. NOTE: Not all options may be available, depending the status of your settings. For example, if you have a Song File Image selected in the File List Box, your options will be slightly different than if you had a Instrument File Image selected. Please see the corresponding Page number For more information see Page on a certain menu item.

# Ensoniq Explorer

Although the Main Screen may do all you want out of Ensoniq Disk Tools, you may need a tool that gives you ultimate control of your Floppy or SCSI Drive. This is the Ensoniq Explorer.

The Ensoniq Explorer provides a way of seeing your whole heirarchy of files on your SCSI Drive at the same time. It also enables batch moving and copying of files from one platform to another.

There are two modes: DOS and Ensoniq, selectable with the option control on the right. **DOS Mode is** mostly identical to the standard Common Dialog box. **Ensoniq Mode** shows the Disk Label text box above the Mode Selector, and a space information box. Also, the Drives box shows Floppy (for the floppy drive), the corresponding SCSI numbers, and ATAPI Drive 0 for ATAPI/IDE CD-ROM Drives.
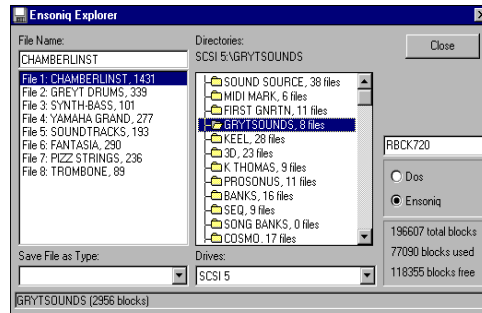
## SCSI Compatibility
**Ensoniq Disk Tools for Windows** is equipped to communicate through ASPI compatible SCSI devices on your computer. This requires two things:

**ASPI software drivers**
ASPI (Adaptec SCSI Protocol Interface) was produced by Adaptec, a major leader in SCSI technology, and is pretty much the de facto standard with SCSI interfaces. Adaptec has made the ASPI-protocol public, and would like all SCSI interface manufacturers to make their SCSI interfaces and their drivers compatible with the ASPI specification. If your SCSI Interface is an Adaptec, then the card and the drivers are fully ASPI compliant. Many other drivers are fully, or at least partially, ASPI compliant. If you have a question, contact your SCSI interface manufacturer. Disk Tools uses standard ASPI calls, thus it requires ASPI-compliant drivers to communicate to.

**An ASPI-compatible SCSI interface**
Obviously, the drivers don't do any good if the Interface doesn't understand what the drivers say. Again, contact your SCSI Interface manufacturer on ASPI-compatibility.

7) When you are finished, right-click on the File List Box, and select the Write To Floppy option, write it to disk, and pop it into your Ensoniq instrument.

You should have a full-fledged Instrument!

## Tutorial: Altering parameters directly to disk
Let's take an example where you have a EPS/ASR disk you have been using, and want to change the release time a sample.

1) Put the disk in your computer's floppy drive, right-click on the Disk List Box, and select *Read From Floppy.*
2) Once the Disk Image is finished being written, use the Extract… option to extract the desired Instrument as a File Image. (Note: this will not be necessary in future versions of this program - you will be able to modify the actual Disk Image.)
3) Go to the File List Box, and select the new File Image.
4) Right-click on the selection in the File List Box, and select the *Settings…* option. The Settings dialog will come up.
5) From there, find the WaveSample that you want to modify, and click the ENV3 tab.
6) Change the Release parameter setting to the desired length.
7) Close the Settings dialog with the OK button, and right-click the selection in the File List Box, and select Write To Floppy - this will write the File Image onto your diskette again (note: it will ask you to Overwrite - do so).

## Tutorial: Building a directory structure and saving files onto a Ensoniq SCSI Drive
Major project, but Ensoniq Disk Tools gives you the "tools" to do so. You can do this manually, writing the files one by one, or do it automatically, which for most medium or large operations, is more efficient.

**Manual Method:** This is good for small operations. For larger operations, see the Automatic method.

1) Prepare yourself - have a piece of paper written out (or text file written out) saying exactly where you want to put things.
2) You must have all the files ready on your computer in File Image format (this will change in future versions of Ensoniq Disk Tools).
3) Click on the Explorer button. This brings up the Ensoniq Explorer.
4) Right-click on the left-hand box, and select the *Format SCSI Device* option.
5) The prompts will guide you through the formatting process.
6) Once it is finished, start by writing all your directories - do this by right-clicking

## Tutorial: Editing an Ensoniq Wavesample with an external Sample Editor

This is a powerful feature of Ensoniq Disk Tools. Directly from Disk Tools, you can open up your favorite Sample Editor and edit a .WAV-AIFF file, or even an Ensoniq wavesample, and directly do edits on it. Works with great programs like CoolEdit and SoundForge. This is a great way to truncate waves exactly, or normalize their gain, add amplitude envelopes, create effects within the sample, and many other features.

1) Open the Options dialog, and under the Sampler Editor frame, browse to find the executable file (.exe) which is your Sampler Editor.
2) If your Sampler Editor supports AIFF files, select the AIFF button. Otherwise, select .WAV.
3) Type 44100 in the Sample Rate box. This ensures that your file will play back at a rate which your Editor can play back at.
4) Close the Options dialog, and select the desired Wavesample you want to edit.
5) Right-click, and select **Edit…Sample Editor**
6) Your Sample Editor will start, and load in your wavesample.
7) Perform any edit with it - truncate, normalize, compress, chorus, whatever.
8) Close the Editor; at that point control will turn over to Disk Tools, which will write the new file information back to the File Image where the Wavesample existed. NOTE: If you changed the length in anyway, the looping information will be incorrect. You will need to re-loop the sample.

## Tutorial: Building new Ensoniq instruments

This is a little tougher, but let's stick it out.

1) Find several .WAV or AIFF  files in the WAV-AIFF List Box, and select them.
2) Right-click on the WAV-AIFF List Box.
3) Click on *Convert to File Image* option.
4) Your files will start converting, but after the first wavesample, the Key-Range dialog will appear, asking you to select the keyrange in the Layer for that specific wavesample. Select it using the mouse and the key-boasrd, and select Save Changes.
5) After you are done with that, if you need to create a New Layer in the new Instrument, right-click on the Inst-Layer-WS List box, and click on the *Create Layer* selection.
6) If you wish to change any of the default parameters, right-click on the Inst-Layer-WS List Box, and choose the *Settings…* option. This will bring up the Settings dialog, where you can edit the parameters.
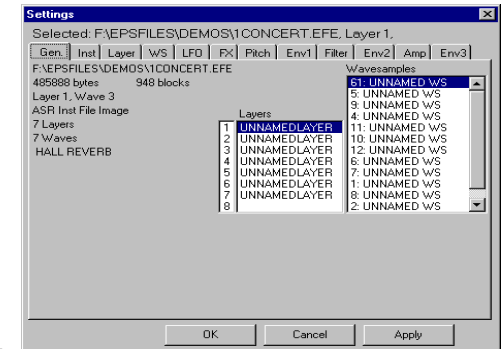
# Settings

*Viewing and Changing Disk, Instrument, and Sequence Parameters*

This is where you can change individual settings of any Instrument. Below is an explanation of the Tabs.

**General
Information:** Tells you the size in bytes on the disk, block size, how many layers, wavesamples. In the case of Disk Files, it also tells you what files are within the Disk Image.

**Instrument List Box (Disk Files only):** Shows you what files are contained within the Disk Image. Click on any one to show the Layers and Waves in their respective boxes, and to edit the individual parameters within.

**Layer List Box:** Shows the Layers within the presently selected Instrument. Selecting a Layer will automatically select the first Wave within the Wavesample List Box, if there is one.

**Wavesample List Box:** Shows you the Waves contained within the currently selected Instrument. Selecting the Wave will also automatically select the proper Layer in the Layer List Box.
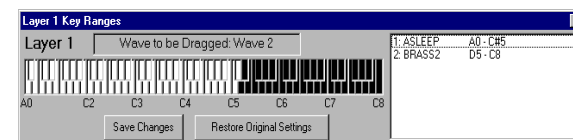
**Instrument**
You can edit the Instrument's Name, Key Range, Pitch, Transposition, Pressure Mode, and MIDI Status from here.

**Layer**
You can edit the selected Layer's Name, Delay, Glide Mode, Glide Time, Legato Layer, and Delay from here.

**Pitch**
You can edit the selected Wave's Root Key and Key Range from here. You can access to the KeyRange dialog from this Tab:

## Settings

**Filter**

You can edit the selected Wave's Filter Cut-Off's and Env2 Amounts from here.

**Amplitude**

You can edit the selected Wave's Volume, Pan, and Output Bus from here.

**Env 1, 2, and 3**

You can edit the selected Wave's envelopes from here. ***NOTE: This is not available in the current version.***

**Wave**

You can edit the selected Wave's Loop Mode, Sample Start, Sample End, Loop Start, Loop End from here.

**LFO**

You can edit the selected Wave's Mode, Speed, Delay, Speed Mod Source, and Speed Mod Amount from here.

**Effect**

You can edit whichever effect is selected effects. **WARNING:** This does not work with 3rd-party effects, such as Waveboy's.

**Lists**

These record the contents of the currect File Image or Disk Image. By clicking on these you determine which object you are working with. There is a Layer List, Wavesample List, and in the case of Disk Images, a File List.

**OK**

This closes the Settings box, saving all your edits that have not been applied already.

**Close**

This closes the Settings box, but reverts all your edits back to the original settings, except the ones saved by Apply.

**Apply**

This permanently saves your edits made so far without closing the dialog.

# Tutorial: Saving File Images to Floppy disk

There are many of these files on the Internet. This is how you can write them to a floppy disk to use with your Ensoniq.

1) Find the proper file in the File List Box, and select it.
2) If you can't find the file, click on the Disk, Files Button, which brings up a Common Dialog, where you can find it
3) Right-click on the Disk List Box.
4) Click on *Write To Floppy* option - the prompts will lead you from there.

If the file is larger than the space available on the diskette that is inserted, the program will let you know. If the file is larger than the capacity of the disk, Disk Tools will split the file into however many disks is required.

# Tutorial: Converting .WAV or AIFF files directly to Ensoniq Floppy/SCSI Device

Again, we have tried to make this as easy as possible.

1) Find the .WAV or AIFF file in the WAV-AIFF List Box, and select it.
2) Right-click on the WAV-AIFF List Box.
3) Click on ***Write To Disk - Single Inst*** option
4) A Save As… Dialog will display - you will be able to choose what Ensoniq device you want to write to.

# Tutorial: Converting Ensoniq wavesamples into .WAV or AIFF files

Right now, you are able to extract WaveSamples only from File Images - in the future you will be able to do this from Disk Images as well.

1) Locate the File Image in the File List Box, and select it - note the hierarchy of the Instrument comes up.
2) Find the WaveSample you want to convert to a .WAV or AIFF file
3) Drag that WaveSample over to the .WAV-AIFF List Box, and drop it.
4) A Common Dialogwill come up, asking you which directory to place that WaveSample. If you wish to rename or change the type of file you want to write, you may do so here.
5) Click OK on the Common Dialog, and there you have your file! It will be 16-bit, since all Ensoniq wavesamples are 16-bit. You now can play the file from the Windows Media Player or other utility. This function supports both Mono and Stereo WaveSamples.

# Converting .GKH files to .EDE/EDA (Giebler) files

### Methods
Right-Click in *Disk List Box,* if .gkh file is selected, select **GKH -> Giebler**

A .GKH file has a slightly different format than the Giebler file format (which is the more popular, and is which this program uses). You can convert a .GKH file type to a Giebler type using this feature.

## Writing Ensoniq Volume Listings

### Methods
Right-Click in *Ensoniq Explorer Directory List,* select **Print**

Writes a Tab-delimited file called Rcvolume.txt to the Tools application directory. Doesn't print anything to the Printer.

## Tutorial: Viewing Ensoniq Disk Directories

1) Put the Ensoniq Disk in your floppy drive.
2) Click on the Ensoniq Devices button
3) The Root directory will display.

## Tutorial: Saving Ensoniq Floppies to your Computer
You do not need to view the Ensoniq directories before this operation.

1) Insert the Ensoniq floppy into your drive.
2) Right-click on Ensoniq Devices List Box, and select *Write To Disk Image*
3) You will get a Common Dialog so you can name your disk image and select the directory where it will go. Your named extension must be .eda (for HD disks) or .ede (for DD disks). If it is not, it will use the Default File Type as noted in the Options dialog.

## Tutorial: Saving Disk Files to Floppy
We have tried to make this as easy as possible.

1) Find the proper file in the Disk List Box, and select it.
2) If you can't find the file, click on the Disk, Files Button, which brings up a Common Dialog, where you can find it
3) Right-click on the Disk List Box.
4) Select the *Write To Floppy Disk* option - the prompts will lead you.

The program will know if you will need a low-density or a high-density diskette, based on what the Disk Image requires.

---

This is where you can view and modify Song and Sequence information.



**Song Name**
Displays the selected Song Name. You may edit this to be changed.

**Sequence Name**
Show the Name of the selected Sequence within the Song. You may edit this as well.

**Time Signature**
Edit the Time signature for the selected Sequence.

**Tempo**
Edit the Tempo of the selected Sequence.

**Loop**
Turns on or off the Loop for the selected Sequence.

**Time Display**
Shows how many bars and how long in minutes and seconds for the selected Sequence.

**Tracks**
Select the Track you wish to view and edit the Event Information for, per the selected Sequence. All unused Tracks are grayed out.

**Event Screen**
Shows all the events, in chronological order, of the selected Track for the selected Sequence. Double-clucking on the event allows you to edit all aspects of it. INSERT allows you to add an event, and DELETE allows you to delete the selected event.

**File Name**
Displays the DOS file name that you are editing.

# FileType Conversions

## Testing Files
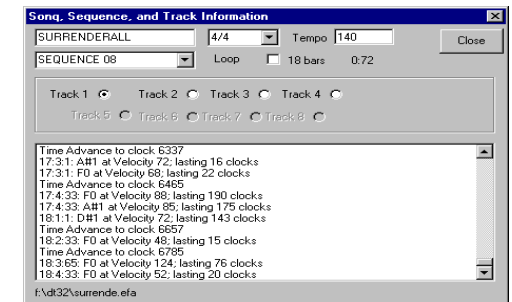
**Ensoniq Disk Tools for Windows** can convert File Image to many different formats - Original EPS, EPS 16-Plus, and ASR-10/88 format. With the EPS/ASR's themselves, there are certain restrictions - you can't load an ASR Song in a Original EPS; you lose the effects that are programmed in an ASR sounds when you load them into and 16-Plus, and so on. Ensoniq Disk Tools can convert files to different platforms with the minimum of quality loss.

File conversions are made using the Restore SCSI Device command, or on the Main Screen level by choosing Convert…, which brings up the dialog on the right:
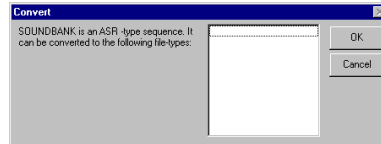


Presently only these File-Types can be translated:

|  |  |  |
|---|---|---|
| ASR Inst | to | 16+ Inst |
| ASR Bank | to | 16+ Bank |
| ASR Song | to | 16+ Song |
| ASR Seq | to | 16+ Seq |
| 16+ Inst | to | ASR Inst |
| 16+ Bank | to | ASR Bank |
| 16+ Song | to | ASR Song |
| 16+ Seq | to | ASR Seq |

For example, if you have a backup of a CD-ROM that was done with ASR File-Types, you can do a Restore, and select the 16-Plus File Type. All the ASR Banks, Instruments, and Songs/Seqs will be translated to 16-Plus format. Otherwise, these files would not even show up for loading on a 16-Plus!

When translating ASR Instruments, the Effects files are switched and the parameters preserved whenever possible - when an ASR effect does not have a 16-Plus counterpart, the closest possible effect is selected.

When 16-Plus files are translated to ASR format, they are actually changed to the ASR File-Type (as if the ASR actually wrote them). It may be true that the ASR shows the 16-Plus file-types, but there is some small translations as they come in (effects, one or two additional parameters). If you change a 16-Plus file to ASR File-type, and then change it back to 16-Plus File-type, you will have the exact same file.

Eventually, all File-types will be made available for conversion, and in addition, cross-conversions will be available (such as ASR Sequence to a EPS Song).

### Methods
Right-Click in *Disk List Box,* select **Test Disk Image**
Right-Click in *File List Box*, select **Test…**

This operation tests the selected file thoroughly and checks if it is a error-free file to run in a EPS/ASR without crashing.

Within the File List Box, you may test the selected file to test only, or all the Instrument files in a directory or Drive. Currently only Instrument files and Disk Images are testable. Other files will be testable in a later version.

## Splitting Large Files to Multiple Floppies, Combining

### Splitting
If you have a File Image that is bigger than the floppy that you are attempting to write it to, Disk Tools will erase all the contents of that disk and write all the possible blocks of information. It then will continue to prompt you for floppy disks until the file is written.

### Combining
When Disk Tools encounters a file that is Part 1 of a multi-part file (formed by the above), it will write that file as normal. If it encounters a multi-part file that is above Part 1, it will prompt you to select the file it is to append itself to. Disk Tools will not write a Part 2+ file to your computer - it must append it to Part multi-part file.

## Writing Operating Systems to Ensoniq Volumes
### Methods
Right-Click *Ensoniq Devices List Box,* select **Write Operating System**
Right-Click *Ensoniq Explorer Directory List*, select **Write Operating System**

This will write an Operating System to your selected Ensoniq volume. You will be prompted on which OS you want to write (EPS, 16-Plus, or ASR). The exception is if it is a DS/HD, then it will write the ASR OS. Note that it is NOT required that the volume be empty, as the Ensoniq requires.

The OS files are provided along with the program, and their locations are determined by what is inputted in the Options dialog.

## Standard MIDI File (SMF) Conversions

### Methods
Right-Click *File List Box* while a Song File selected*,* and select **Import SMF**
Right-Click *File List Box* while nothing is selected*,* and select **Import SMF**
Right-Click *File List Box* while Song/ Seq File is selected*,* select **Export SMF**
Right-Click in *Object List Box* while a Song or Sequence File, or Track Object is selected*,* select **Export SMF**

Standard MIDI Files are what we Ensoniq-ers would consider Sequence files with an infinite amount of tracks. The Ensoniq format supports Song files, which are files that contain up to 80 Sequence files, with 8-10 Track objects inside them.

### Importing
You can import a SMF and make a new File Image by right-clicking the File List Box while nothing or something other than Song File Image is selected. You can insert a SMF as a new Sequence file in a Song file (provided that there is less then 80 within the file) by choosing Import SMF while a Song file is selected.

### Exporting
You can export a Song or Sequence file into a SMF. With Sequence files, the file is simply converted into a single SMF. With Song files, you are given the option of creating separate SMFs for every Sequnce file contained, or you can make one SMF that has all the Sequences linked together.

## Working with TS-type files and disks

### Methods
Select file in *File List Box,* if TS 1-SEQUENCE file, select **Write to Floppy**
Drag TS 1-SEQUENCE File Image from *File List Box,* drop on *Ensoniq Devices List Box*

TS 1-Sequence files are integrated into the Disk Tools paradigm. They have the extension .eft in the File List Box; you may Export them to SMF, or you can import a SMF to a TS 1-SEQUENCE file. You also may save them to a TS-formatted floppy disk.

TS-type floppy disks are readable, writable, and can be viewed in Ensoniq Disk Tools.

# Unformatter

This is accessed by right-clicking on the Ensoniq Devices List Box on the Main Screen when no device is selcted. This powerful feature can restore previously erased files due to formatting, accidental (or purposeful) damage or erasure.

Files are really magnetically erased when they are deleted. Instead, the Directory entry is simply cleared so the file isn't available anymore, and the blocks in the File Allocation Table (FAT) are set to empty. The magnetic data is still there, until the space is needed by another file being written.

Running the Unformatter scans your Ensoniq device (be it floppy or SCSI Drive) and grabs the contiguous Ensoniq files it sees. (Contiguous means that the file is all in one place, and not scattered around the disk.) It then tests them for integrity, to make sure they are valid contiguous files, sorts them out, and writes them to your computer's hard drive as File Images. It then takes the used leftover blocks (not the empty ones, of course), and tries to piece together as many files as it can. Lastly, it looks in all possible recoverable directories and tries to guess the entire original directory structure, and sorts it out on your computer's hard drive.

After that is finished, you can perform a **Restore SCSI Device** command from the Ensoniq Explorer and restore your hard drive, either the original one or another or a another cartridge (if it is removable).

# Bank Builder

One of **Ensoniq Disk Tools** most exciting features, the **Bank Builder** allows you to create and edit any EPS or ASR Bank file and supplement it with your own parameters. This is an incredibly powerful tool that enables you to avoid the tedious process of blindly building the bank from within the EPS/ASR.
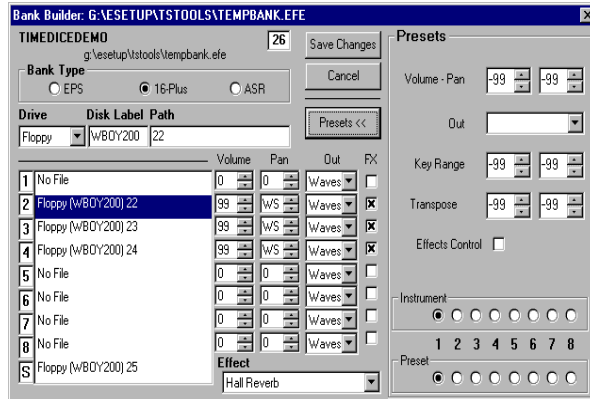


**Bank Name**
This shows the bank name and it's path. With Ensoniq volumes, this makes a template file called tempbank.efe (or tempbank.efa for ASR banks). It is removed after editing or cancelling.

**Bank Type**
Each Ensoniq sampler has a different type of bank file. The Original EPS did not use bank labels, so it did not take those into account. The 16-Plus used bank labels, plus the idea of individual tracks and effects were taken into account. Finally, the ASR implemented a longer bank entry, in order to store longer paths (in cases of hard drives). This allows you to select the bank type.

**Close**
This cancels any edits you have done, or in case of creating a new Bank file, does not write the Bank file in the selected device.

**Presets**
Opens or closes the screen to include the Preset information.

**Drive (edit)**
This allows you to select the drive that the selected entry will point to.

**Label (edit)**
This allows you to specify the disk label you want the selected entry to point to.

**Path (edit)**
This allows you to specify the Ensoniq file path for the selected entry.

## Editing Sample Rate
### Methods
Right-Click in .*WAV-AIFF List Box or Object List Box,* and select **Edit… Sample Rate**

Displays a dialog showing the present Sample Rate and a box asking you what rate you want to convert it to. **NOTE: This function does not affect the wavedata in any way** - it simply changes the parameter of the .WAV/AIFF file or Wavesample Object. Sample Rate is NEVER a function of wavedata itself. With Ensoniq's CONVERT SAMPLE RATE, they change the wavedata to preserve the pitch of the sample at the Root Key. We don't, since the root key can be changed to accommodate this function - and even better, you can change the rate and be non-destructive about it.

## Playing .WAV files
### Methods
Hit [space bar] while file in the .*WAV-AIFF List Box* is selected
Hit [space bar] while an Ensoniq Wavesample in *Object List Box* is selected

Be careful to press the [space bar] again after the sound has finished, whether you are in Loop mode or not. *For more information see Page*

## Converting Different Ensoniq File-Types
### Methods
Right-Click in *File List Box,* select **Convert…**

Ensoniq made three related samplers - the Original EPS, the EPS 16-Plus, and the ASR-10/88. Each improved on a basic file structure. Disk Tools allows you to translate each file format to work with a different sampler. *For more information see Page 12*

## Check Disk

### Methods

Right-Click in *Ensoniq Explorer Directory List (when in Ensoniq Mode),* select **Check Disk**

This scans the entire Ensoniq volume, verifying the location and integrity. Errors are given with a message dialog at the end of the scan.

## Editing Samples with an external Sample Editor

### Methods

Right-Click in *.WAV-AIFF or Object List Box,* select **Edit…Sample Editor**

This is a powerful feature of Ensoniq Disk Tools. Directly from Disk Tools, you can open up your favorite Sample Editor and edit a .WAV-AIFF file, or even an Ensoniq wavesample, and directly do edits on it. Works with great programs like CoolEdit and SoundForge. This is a great way to truncate waves exactly, or normalize their gain, add amplitude envelopes, create effects within the sample, and many other features.

Selecting the above method opens up the Sample Editor chosen in the Options dialog. Perform your edits, and then close the Sample Editor application. This will write the edited data back to the file automatically. You also have the option of predetermining the sample rate of the sample as edited in the Sample Editor - this will NOT be permanent, as the original Sample Rate is written back to the file upon closing. It is also advised that you select the AIFF option in the Options dialog; as it is much faster to translate the Ensoniq wavesample into an AIFF file than it is a .WAV file for the Sample Editor to edit.

## Normalizing Gain

### Methods

Right-Click in *.WAV-AIFF or Object List Boxes,* select **Edit…Normalize Gain**

Depending on which you select, this will modify the wavedata so it will output at the maximum possible level. This does not basically affect the sound, although there is some argument on whether a low-level-recorded wavesample "sounds" better than high-output wavesample with the Volume parameter down. Just like the Ensoniq Normalize Gain parameter, this function does not have an Audition or Undo - since it is hardly necessary. (If you think the function adds noise to the sample - it doesn't; it just raises the perceptible audible level of the noise. Simply lower the volume using the appropriate Volume parameter, or better yet, resample the sound at a better signal-to-noise ratio (or get rid of that hum!!!).

**Entry List**
This shows you the specific entries that the bank contains. There are 8 slots, plus one for the Song.

**Volume (edit), Pan (edit), or Output Bus (edit)**
This allows you to specify the volume, panning, or Output for the selected entry.

**Bank Effect**
This allows you to specify the Effect that is stored within the Bank file.

**Preset Volume**
This allows you to specify the Volume that is stored within the selected Preset.

**Preset Pan**
This allows you to specify the Panning that is stored within the selected Preset for the selected Instrument.

**Preset Output Bus**
This allows you to specify the Output Bus that is stored within the selected Preset for the selected Instrument.

**Preset Key Range**
This allows you to specify the Key Range that is stored within the selected Preset for the selected Instrument.

**Preset Transpose**
This allows you to specify the Transposition that is stored within the selected Preset for the selected Instrument.

**Preset FX Control**
This allows you to specify the Effect Control parameter that is stored within the selected Preset for the selected Instrument.

**Instrument for Preset**
This selects the Instrument Slot in which the the selected Preset is pointing to.

**Preset Number**
This selects Preset Number.

**Effects Control (edit)**
This allows you to specify the Effects Control parameter for the selected entry.

# Wave Creator

The Ensoniq Disk Tools exclusive enables you to make your own waveforms. It is quite primitive at the moment, it only supports basic waveforms, which you can mix and match in differing ways.

## Harmonics
Set the various harmonics levels that current wavesample will have.

## Waveshapes
This is the list available waveforms that can be written.

## Add
Adds a waveshape to the list.
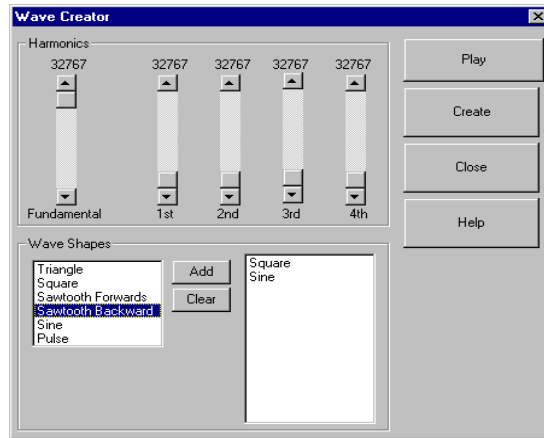
## Clear
Clears the waveshape list.

## Waveshape List
These are the waveforms that will be added together and mixed harmonically using the Harmonics frame to form your finished waveform.

## Play
If you have a sound card on your system, it will play the current waveform as composed on the dialog.

## Create
Displays a Common Dialog so you can name your composed waveform, and save it as a .WAV or AIFF file.

Image. Upon choosing Settings when a Layer is selected, it will route you to the Layer tab, while when a Wavesample is selected, it will route you to the Pitch Tab. Of course, once you are in the Settings dialog, you can route yourself anywhere within the Image you want. *For more information see Page 9*

# Deleting Files/Directories
### Methods
Select desired files, Right-Click on any *List Box,* select **Delete File/Dir**
Select desired files, press DELELTE

Single files, multiple files, and whole directories (including contained files).

# Working with Banks
### Methods
Double-Click on any Bank file on a Ensoniq volume or a File Image

Displays the Bank Builder dialog, and shows the current parameters of your Bank file. *For more information see Page 14*

# Working with Objects ( Layers and Wavesamples)
### Methods
Right-Click in *Object List Box,* select **Create, Delete, Copy, or Rename Layer or Wavesample** (depends on current selection)

**Create**
Create Layer makes a blank layer within a File Image, while Create Wavesample makes a new Wavesample within the selected Layer. This will be a 1 block (128 sample) wave. The waveshape can be selected in the **Options** dialog box.

**Delete**
This works seemlessly with Layers and Wavesamples. If there are any original wavesamples in the deleted Object, Disk Tools passes the data to the lowest-numbered copy that exists; if not, then the wavedata is deleted.
**Copy**
The Copy dialog will appear, giving you the option of making parameter-only copies, or parameter+data copies.

**Rename**
This creates a text box over the Object in the Object List Box, allowing you to rename it. Pressing Enter saves the operation.

**Create Image**
Creates a Disk Image with all the listed files in it.
**Add to List**
Brings up a Common Dialog, asking you to insert a file. You can delete a file by selecting it & pressing DELETE.
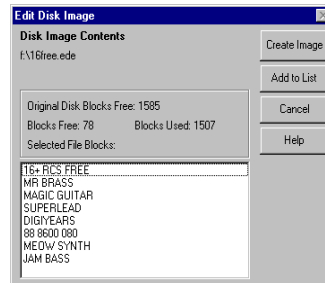**File List**
Shows the current files contained in the Disk Image. Pressing INSERT allows you to add a file, pressing DELETE deletes the selected file.
**Status**
Shows how many free and used blocks in the Disk Image.
**Cancel**
Stops operation and does not create an image or edit the selected Disk Image.

## Automatically Adding File Images to Disk Images

### Methods

Drag File Image from *FileList Box,* drop on desired Disk Image in *Disk List Box*

This will  put a File Image into the Disk Image you have dropped it on. Disk Tools will then prompt you, asking you if this is what you want to do. In the case that the File Image is too large to fit in the Disk Image, Disk Tools will inform you, and cancel. This works with fragmented or unfragmented Disk Images.

## Optimizing Song Files

Right-Click in *File List Box,* when a Song is selected, select **Optimize Song**

All Ensoniq OS's have a bug where a Song will grow to consume a large amount of memory. This function wil take a Song file and erase the unneces-sary data, shrinking it ot it's smallest possible size.

## Batch Writing

### Methods

Right-Click in *Disk List Box,* select **Batch Write**

This invokes the Batch Write function, where you can write multiple Disk Im-ages to floppies very easily. ***For more information see Page 22***

## Parameter Editing

### Methods

Right-Click in *Disk, File, or Object List Boxes,* select **Settings…**

This is your access to editing parameters in a File Image or Disk Image. On a Disk Image, this will route you to the General tab, where you can choose the File you want to edit. On a File Image, it will take you to the General tab as well, which will be slightly different due to the unique characteristics of a File

# Find Utility

What if you don't know where a certain Ensoniq file is, and you don't know the DOS file name - you just know the Ensoniq 12-character name? This is a common situation - especially if the file is in a Disk Image - how can you find it?
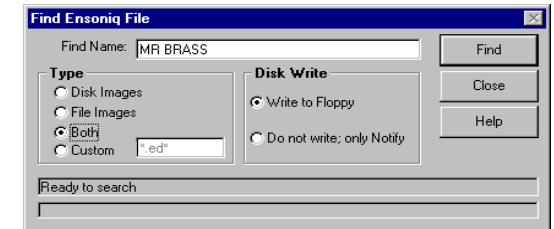
The Find Utility looks in the selected drive, and checks all the Disk image directories and File Images, looking for the file in question.

### Name

Ensoniq 12-character (maximum) names you are looking for. They can be ANY name - Instrument, Directory, Song, Sequence, Effect, etc. For multiple names, separate using a semi-colon (;) and DO NOT include a space. Left- and Right-leading spaces are ignored by the Find Utility; in other words, {  MR BRASS} and {MR BRASS} are the same. However, spaces within a name are essential to the name.

### Type

To shorten your search, you can specify what file extensions you want to look under. Options are provided for Disk Images (.ede, .eda, and .gkh) and/or File Images (.efe, .efa, .ins), or even your own custom extension.

### Write to Floppy

During or at the end of your search, you can have the Find Utility attempt to write the file to floppy. If the file is in a Disk Image, it will be extracted and written.

### Find

Starts the operation.

### Status Bars

Shows you the status of the operation and what directories are being checked.

# View Blocks on Ensoniq Devices

**Ensoniq Disk Tools** enables you to view and edit the byte contents of an Ensoniq floppy disk or SCSI Drive. This viewer also shows the locations of the objects within a file, and allows you to directly access them. Three viewing preferences are available; **Hex**, **Dec, or ASCii (Hexadecimal-base16, Decimal-base 10, alphanumeric characters)**. The PageUp and PageDown buttons on your keyboard increment or decrement the current Block. A Block is 512 bytes.
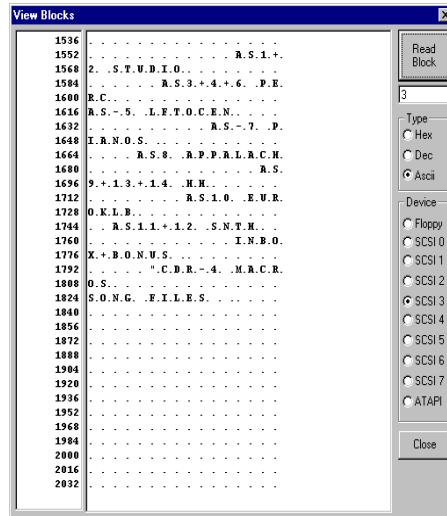
## Read Block
Reads the block (512 bytes) indicated in the text box below, and displays the contents on the Byte Screen.

## Block Number
The Block (512 bytes) that is being read.

## View Type
When Hex is selected, all values in the Byte Screen are in Hexadecimal notation (0-F). If selected to Dec, everything is notated in Decimla notation (0-9). If selected to ASCii, everything is displayed in Character notation. Standard ASCii charcters are shown (32-127), and spaces are indicated by dots.

## Device
The device that is being read. This must be an Ensoniq device.

## Byte Number
The current starting byte of the line.

## Byte Screen
Shows the bytes in the current Block (512 bytes) as indicated in the Text Box to the right.

---

**Save**
This saves the changes you have made, and continues the process.
**Restore**
Restores the original settings when the dialog appeared.
**Key Range Keyboard**
Drag across the keyboard to select keyranges for wavesample selected on the WS List.
**Status**
Shows you the current layer in which you're editing the key map, and the current Wave selected.
**Wavesample List**
This shows the current Wavesamples within the Layer listed in the Status area.

## Converting Ensoniq Wave(s) to .WAV-AIFF file(s)
### Methods
Drag selected Layer or Wavesample from the *Object List box,* drop on *.WAV/AIF List Box*

Dragging a layer will extract all wavesamples within that layer to individual .WAV or AIFF files. Copied wavesamples will get their wavedata from the original wavesample, so there is a possibility of having many wavesamples with the same/ redundant data. A Common Dialog will display, giving you the option to change the default names and file-type. The default name given the new .WAV-AIFF file will be the Instrument Name plus the Wavesample number; and the type will depend on what is selected under the Sample Editor option in the Options dialog.

## Extracting File Images from Disk Images
### Methods
Right-Click in *Disk List Box,* select **Extract**
Drag selected object from *Object List Box* (when a Disk Image is selected), drop on *File List Box*

With the **Extract** method,you will be prompted for the DOS directory in which to put the new File Images in. All the files within that Disk Image will be extracted. This works on fragmented and unframgented Disk Images.
The Drag method allows individual files to be extracted.

## Creating and Editing Disk Images
### Methods
Right-Click in *File List Box,* select **Create Disk Image**
Right-cluck on *Disk List Box*, select **Edit Disk Image** or **Create Disk Image**

This allows you to create a New Disk Image, or edit a Disk Image with the selected File Images contained within. Create Disk Image starts a new Disk Image, while Edit Disk Image shows the current state of the Disk Image. Create Disk Image within the File List Box starts a new Disk Image with that File Image contained automatically.

# Converting .WAV or .AIF files to Ensoniq format

### Methods
Right-Click in *.WAV-AIFF List Box,* select **Write to Disk - Single** or **Write to Disk - Multi**

Right-Click in *.WAV-AIFF List Box,* select **Convert to File Image** or **Write to Multiple Images**

Drag selected .WAV-AIFF file, drop on *Object List Box*

The **Write To Disk** methods enable a no-hassle way of getting .WAV of .AIF files directly to a floppy disk. This can be helpful for TS owners who use EPS/ASR samples. You may make multiple selections on the .WAV-AIFF List Box.

The **Convert to File Image** and **Convert to Multiple Images** options simply makes a File Image(s) from the files you have selected.

**Write to Disk - Single** means that all the .WAV-AIFF files selected will go into one Instrument File on the floppy disk, and **Write to Disk - Multi** means that 1 Instrument File will be made for every .WAV-AIFF file selected. The **Convert *x*** functions work the same way, only they refer to File Images.

**Process:** Select the .WAV-AIFF file(s) you want to convert. Right-click on the appropriate option. If you are only converting one file, the conversion will do it's thing, and then complete (if you choose a Write to Disk option, it will write to disk). However, if you are converting multiple files, a KeyRange dialog will appear, looking like this:
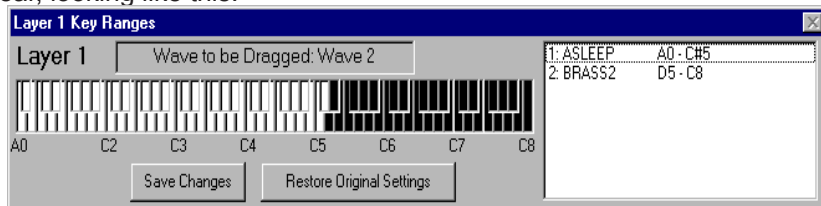


Select the wavesample you want to select the keyrange for on the List Box, and then drag the cursor across the keyboard to denote the key range. When you release the cursor, the keyranges in the List Box will be updated, with even the other keyranges reflecting the changes you made on the wavesample you selected. **BE CAREFUL!** You can make it so a wavesample you are not editing be without a keyrange at all - if this happens, it will disappear from the List Box.

Select Save Changes to continue converting - or if you made a mistake, press Restore Original Settings, and try again.

# Ensoniq CD-ROM's on ATAPI/IDE Drives

**Ensoniq Disk Tools** supports reading Ensoniq CD-ROM's on both SCSI CD-ROM Drives and ATAPI (IDE) CD-ROM Drives. CD-ROM Drives are treated just like hard drives, although you cannot write to them. ATAPI/IDE CD-ROM Drives appear just like SCSI Drives, underneath the Ensoniq Devices List Box on the Main Screen.

***The information below is included for completeness; the information is obsolete, however.***

## Ensoniq CD-ROM's, ATAPI Drives, and Win95
In it's infinite wisdom, Microsoft chose in Win95 to disallow any low-level access to CD-ROM drives. Yikes! That's the way we can read Ensoniq-formatted CD-ROM's on Disk Tools. But you can still make this happen - you will have to follow these steps to go back to the 16-bit (Win 3.x) way of accessing the CD-ROM drive. This way, the CD-ROM drive is open to low-level access.

## INSTALLING THE CD-ROM DRIVER and MSCDEX.EXE
Older versions of Windows (called Win 3.x), treated IDE/ATAPI CD-ROM's like this: since the Operating System (MS-DOS) didn't support CD-ROM Drives, it had to use an OS extension. This file is MSCDEX.EXE. A typical MSCDEX.EXE line in AUTOEXEC.BAT goes something like this:

**C:\WINDOWS\MSCDEX.EXE /S /D:ASPICD0 /V /L:L /M:12**

(NOTE: new Win95 users may not have a AUTOEXEC.BAT or CONFIG.SYS file. This is the file that older Windows versions used to load startup programs automatically. Win95 still supports it - if you don't have one in your Root directory, make one using NotePad.) This tells DOS to run MSCDEX.EXE, placed in the C:\WINDOWS directory. The following switch is very important:

**/D:ASPICD0**

This is very important. There is one other file that must be loaded BEFORE MSCDEX.EXE, in CONFIG.SYS, in order for MSCDEX to work. This is the CD-ROM driver itself. This is usually supplied by the CD-ROM Drive maker - or it comes with the computer, if your CD-ROM Drive came with your

computer. Part of the standard protocol of a CD-ROM Driver is that it names itself, like this:

**DEVICEHIGH=C:\SCSI\ASPICD.SYS /D:ASPICD0**

MSCDEX must refer to the same name you specify in the driver line in order to connect them up.

To summarize, you must have:

1) **Both MSCDEX.EXE and the proper CD-ROM Driver on your system.**
2) **An AUTOEXEC.BAT and CONFIG.SYS file in your Root Directory on your Boot drive (usually c:)**

## DISABLING THE WIN95 CD-ROM DRIVER

But Win95 is more evil than this! Upon startup, by default, Win95 unloads this CD-ROM Driver/MSCDEX stuff and loads it's own CD-ROM Driver, called **CDFS.VXD.** Very evil! This driver says "NO" to fiddling, and so far we have not found a way to directly access the drive, and Windows95 does not let us read a non-standard format like Ensoniq's from it's CDFS. VXD system. So we are back to square 1.

The solution is to turn off the 32-bit CD-ROM Driver system (CDFS.VXD) from within Windows95, thus allowing the CD-ROM Driver/MSCDEX combination to stay in effect. To turn off **CDFS.VXD,** go to **CONTROL PANEL-SYSTEM-DEVICE MANAGER-CD-ROM**'s. Uncheck the CD-ROM from it's normal configuration.

If this doesn't work for you, or if you don't see this prompt or checkbox, you can also rename the CDFS.VXD file in the windows\system\iosubsys directory. This causes an invisible error when Win95 loads up, and in turn does not unload the CD-ROM Driver/MSCEDEX drivers.

**To summarize:** Windows 3.x used a somewhat elaborate system to get CD-ROM Drives to work in the system. It also is open to fiddling - which is good for programmers like us. Ensoniq Disk Tools can import files Ensoniq CD-ROM's in a IDE/ATAPI CD-ROM Drive **only** if it uses the Driver/MSCDEX system.

Currently, most computers we have tested will work with the CD-ROM Driver/ MSCDEX approach, as far as Ensoniq Disk Tools reading Ensoniq CD-ROM's. If you encounter, please contact us.

with a name that is similar to the actual Instrument Name. This way you can identify the file in DOS easier. However, the .RCS extension for the directory are retained, because otherwise you would lose the last 4 letters in the directory name, because DOS only permits 8 character directory names. The .RCS file contains the full Ensoniq 12-character name, for reference upon Restore.

Remember that if you back up using this method, you will lose the order in which the files are placed within the directory. Files are given the appropriate extension according to their file type (ASR-type gets .efa, EPS gets .efe). You may make multiple selections, and copy to a single DOS directory.

Please see Page 8 (Ensoniq Explorer section) for further information about what **Ensoniq Disk Tools** requires from your computer to work via SCSI.

## SCSI Mapper
When perform the **Restore SCSI Drive** command, **Ensoniq Disk Tools** allows you to change certain aspects of the files written to the SCSI Drive, in order to fit a specific requirement.

### Bank Mapping
You can change the Disk Label and the SCSI numbers on each Bank file that is written. This can preserve the locations the Bank file points to, so it will work with the new SCSI ID of the drive and the new Disk Label. Each SCSI ID can be mapped to another.

### File Type Conversions
You are given the option of translating each file type to correspond to another, ensuring the best possible compatibility with the Ensoniq sampler that will be using it.

For more information see Page 12 on converting File-types.

## Writing Directories to SCSI Drives or Floppies
### Methods
Right-Click in *Ensoniq Devices List Box* (when a SCSI Device is selected), select **Write Directory**
Right-Click in *Ensoniq Explorer Directory List* (in Ensoniq Mode when SCSI is selected), select **Write Directory**

Writes a Directory in the currently selected Directory. A dialog comes up, asking you to name the Directory.
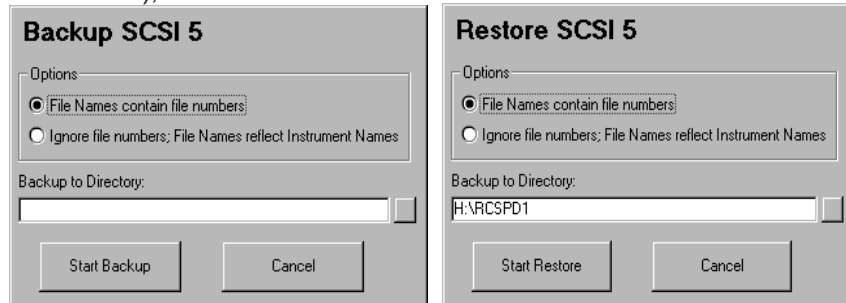
## Backing up and Restoring SCSI Drives

### Methods

Right-Click in *Ensoniq Explorer Directory List* (in Ensoniq Mode when SCSI is selected), select **Backup SCSI Drive**

Right-Click in *Ensoniq Explorer Directory List* (in Ensoniq Mode when SCSI is selected), select **Restore SCSI Drive**

**Backup SCSI 5**

Options
- ◉ File Names contain file numbers
- ○ Ignore file numbers; File Names reflect Instrument Names

Backup to Directory:

[ Start Backup ]  [ Cancel ]

**Restore SCSI 5**

Options
- ◉ File Names contain file numbers
- ○ Ignore file numbers; File Names reflect Instrument Names

Backup to Directory:
H:\RCSPD1

[ Start Restore ]  [ Cancel ]

This is for file-by-file backup of your SCSI drive. Takes the files one by one off your drive, and makes File Images under the proper DOS directories on your DOS drive, in the same configuration as organized on your SCSI drive. It is recommended that you use a fresh drive, as well as with the Restore command.

We wanted to improve on the Giebler EDM method of backing up - EDM's method is to make a big proprietary .EFE file (notice that with EDM it doesn't become EFA with ASR - it stays EFE). The problem with that is that you can't view the contents nor modify it.

Our method is an improvement. Within the destination directory, Disk Tools creates an identical directory structure within DOS. This way you can edit the directory placements and move the instruments around as you please.

There are two methods of backing up and restoring.

**File Numbers**

This looks a little tricky, but there are reasons for it. Since DOS has no "file numbers" within a directory, but the Ensoniq file system does, what we do is make the File Image file names the file number (e.g.; if MR BRASS is File #2, it becomes 2.efa). The instrument names are kept intact. In the case of directories, there are two possible problems - 1) DOS file names are 8 characters, and that is not enough for a 12 character Ensoniq directory, and 2) directories are stored within file numbers as well. So, we name the directory with a number as well (for example, 3), and store the name in a file with the extension *.rcs.

**File Names**

This does what you would expect - extract each file and name it under DOS

# WavePlayer

**Ensoniq Disk Tools** supports the playing of .WAV files and Wavesamples within Ensoniq File Images.

### Playing .WAV files from the .WAV-AIFF List Box

Select a .WAV files from the .WAV-AIFF List Box. The file must be the only one selected. Hit the [space] bar, and the .WAV file will start playing.

### Playing Ensoniq Wavesamples

Select a Wavesample from the Instruments, Layers, and Waves List Box. Press on the [space] bar, and the wavesample will convert itself to a temporary .WAV file, and begin playing.

Within the **Options** dialog there is a prompt named **Loop Played Sounds.** If this is selected, the .WAV file will loop continually until you press the [space] bar again. Then it will play once more, and stop. If it is not selected, the .WAV file will play only once, but the [space] bar still needs to be pressed again to clear the system.

NOTE: The .WAV file MUST have a sampling rate that is supported by your sound card/driver in order to play. Otherwise, it will not sound. For example, if DOG.WAV is sampled at 30K, and your sound card only supports 44.1, the .WAV File will not play.

Also, remember that using **Edit…Sample Editor** on a Ensoniq wavesample transports it to an external Sample Editor, where the wavesample can be played.

# Batch Write

Ensoniq Disk Tools includes a handy Batch Writer, for you to specify groups of Disk Images that you want to write to floppy without the hassle of selecting them all the time.

Admittingly, this is something we use at Rubber Chicken Software Co. for mass disk duplication - it makes the job much easier. Hopefully you will have a use for it as well.
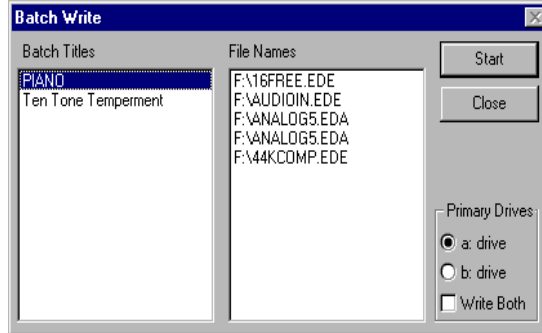
**Titles**
This is a name that you give to each category of File Names. Pressing INS enables you to add Titles, while pressing DEL enables you to erase Titles.

**Files Names**
These are the File Names that are associated with the Title selected. Pressing INS enables you to add Files Names, while pressing DEL enables you to erase File Names.

**Start**
This starts the process of writing the Disk Images to floppy.

# Copying Ensoniq Files from SCSI Drive to Computer (File Images)
## Methods
Double-Click on File in the *Ensoniq Explorer*
Right-Click in *Ensoniq Explorer File List* (in Ensoniq Mode), select **Ensoniq to File Image**

Files are given the appropriate extension according to their file type (ASR-type gets .efa, EPS gets .efe).You may make multiple selections, and copy to a single DOS directory.

Please see Page 8 (Ensoniq Explorer section) for further information about what **Ensoniq Disk Tools** requires from your computer to work via SCSI.

## Copying File Images to Ensoniq SCSI Drives
### Methods
Double-Click on a File Image in the *Ensoniq Explorer* (in DOS mode)
Right-Click in *Ensoniq Explorer File List* (in Ensoniq Mode), select **DOS Batch to Ensoniq**

With the Double-Click method, the dialog will automatically switch to Ensoniq Mode, and uncover a blinking Write button - select the directory you want to the File Image to go to, and the file will be written to that directory.

The **DOS Batch to Ensoniq** function is for when you want all the File Images in a DOS directory to go to a single directory within the SCSI Drive.

1) In Ensoniq mode, select the Ensoniq directory you want the files to go.
2) Perform the Method above.
3) You then will be prompted for the name of the directory you want created to put the files in. If you do not want a directory created, select Cancel. *Note: If the file number chosen is 5, Tools will warn you that a MacroFile is best placed on that File Number, for boot reasons.*

Please see Page 8 (Ensoniq Explorer section) for further information about what **Ensoniq Disk Tools** requires from your computer to work via SCSI.

## Reading/Writing Raw Images of SCSI Drives
Right-Click in *Ensoniq Explorer Directory List,* select **SCSI to .IMG**
Right-Click in *Ensoniq Explorer Directory List,* select **.IMG to SCSI**

Simply reads or writes a raw image file (stored as an .IMG file). Everything stays as it was stored.

**Operating System**
If checked, will write the Operating System file; which one depending on the radio button selection.

**Type**
Choose the proper media you want to format.

Please see Page 10 for further information about what **Ensoniq Disk Tools** requires from your computer to work via SCSI.

## Viewing Ensoniq Device Info
### Methods
Right-Click in *Ensoniq Devices List Box,* select **Info**

This shows the amount of blocks available on a non-for-matted disk, the amount of free blocks to be used on the disk, the revision, and the disk label.

## Viewing Disk Image and File Image Info
### Methods
Right-Click in *File List Box,* select **Info**
Right-Click in *Disk List Box,* select **Info**

For **Disk Images**, this shows Disk Type, Disk Label, Blocks Used, Blocks Free, the DOS File Size, and the full path of the Disk Image. For **File Images**, this shows the Instrument Type, the File Type, the Name, how many Blocks it occupies, the DOS File Size, and the full DOS path.

## Navigating through Ensoniq SCSI Drives
You will find this limited within the Main Screen - the *Ensoniq Devices List Box* only shows you the one directory at a time. For full, expanded viewing, use the Ensoniq Explorer.

The Ensoniq Explorer functions like the Win 3.x Common Dialog screen. You may peruse through many directories of a Ensoniq SCSI drive (hard drive and CD-ROM), and identify any file you desire. You may make multiple selections from the file box, and use a number of operations to write the files to your computer.

For more information, see the Ensoniq Explorer menu options, or see Page 8, the section on Detailed SCSI Drive Navigation, or for further information about what **Ensoniq Disk Tools** requires from your computer to work via SCSI.
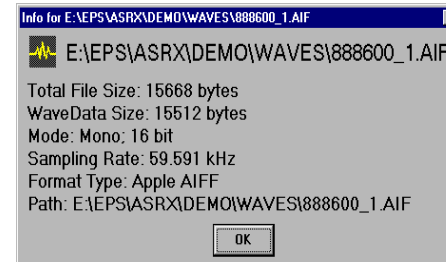
# Information Screens

When you select Info on a Menu, you will get one of the corresponding Info screens describing the object you want Information for.
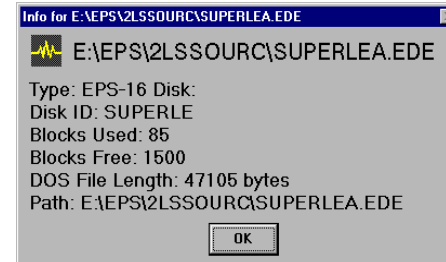
**This is the Information screen for Disk Images.**
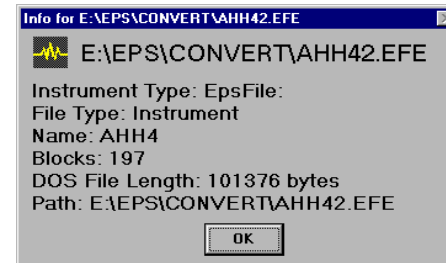
**This is the Information screen for File Images.**

**This is the Information screen for .WAV and AIFF files.**

**This is the Information screen for Ensoniq volumes.**

# Options

Of course, there are many ways of setting up **Ensoniq Disk Tools** to fit your own personal needs. This is what the Options dialog is all about.

## Default File Extension and Effect
This the File Extension given when creating new Instruments, or the defaults in Common Dialogs when they are accessed. The Effects box contents are different with each File Type, since different effects are available for the EPS and ASR, and even when they are the same they use different file information.

## Loops
When new Ensoniq wavesamples are created (either from scratch or from WAV-AIFF files), this determines whether they will be looped, and by how much. You may indicate a percentage - 100% means the entire wavesample will be looped; while 1% usually means a short loop.

## Primary Drives
You have the option of selecting the a: drive as your Floppy Drive, or the b: drive. You can select both drives, for writing Disk Images.

## Initial Wavesample Key Range
When new Ensoniq wavesamples are created (either from scratch or from WAV/AIFF files), this determines what KeyRange they will occupy.

## Operating System Locations
This specifies what File Image Ensoniq Disk Tools will read out of when writing a OS to a floppy or SCSI device. The three most current Ensoniq operating systems come with the program - **EPS249OS.EFE, EPS13OS.EFE,** and **ASR353OS.EFA.**

## New Wavesample Waveshape
This determines the waveshape of new wavesamples that are created from scratch. You have the option of Triangle, Square, Sine, Sawtooth Forward, Sawtooth Backward, and Pulse.
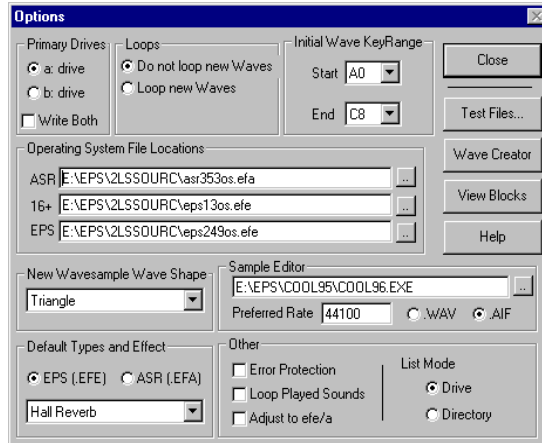
# Copying File Images to Floppies
### Methods
Right-Click in *File List Box*, select **Write To Floppy**
Drag selected file in *File List Box*, drop on *Ensoniq Devices List Box*

If the disk you insert is not formatted, Ensoniq Disk Tools will prompt you to format the disk. Files may span across multiple disks - the first disk must be completely full, and further files may be broken up in any size on any amount of disks. Multiple selections may be made only from the Ensoniq Explorer. If the file will not fit on the floppy, Ensoniq Disk Tools will prompt you.

# Copying Disk Images to Floppies
### Methods
Right-Click in *Disk List Box,* select **Write To Floppy**
Right-Click in *Ensoniq Devices List Box* (when Floppy is selected), select **Write To Floppy**
Drag selected file from *Disk List Box,* drop on *Ensoniq Devices List Box*

You may unformatted or formatted floppy disks - the Ensoniq formatting is dovetailed while the Disk Image is being written. You may select which floppy drive (a or b) that is written to in the **Options** dialog. You may select the a: drive, the b: drive, or both if you wish. You may make multiple sections in the *Disk List Box* (drag-and-drop is not available then)and the program will consecutively write them to the floppy drive, or you may use the **Batch Write** feature to organize specific groups of Disk Images to write. .EDE, All Disk Image types are supported.
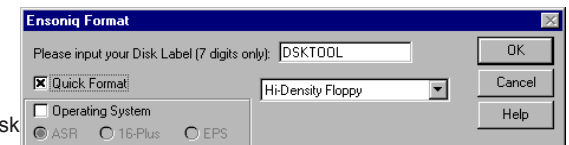
# Formatting Floppies and SCSI Drives
### Methods
Right-Click in *Ensoniq Devices List Box,,* select **Format x**
Right-Click in *Ensoniq Explorer,* select **Format x**

Displays the Format dialog**.**

#### Disk Label
Enter in the Disk Label of the disk you want to format, maximum 7 characters. Does not apply to Original EPS disks.

#### Quick Format
Will simply erase the root directory and FAT table of already-Ensoniq-formatted disks. Hard Drives are always Quick-formatted; there is no low-level formatting, as it is usually not necessary.

## Copying Floppies to Computer (Disk Images)

### Methods

Right-Click in *Disk List Box* , select **Write To Disk Image**

Right-Click in *Ensoniq Device List Box* (when Floppy is selected), select **Write To Disk Image**

Drag mouse from *Ensoniq Device List Box* (when Floppy is selected), drop on *File List Box*

**Ensoniq Disk Tools** will automatically select the proper extension for you in the Common Dialog that comes up. .GKH files cannot be created in Disk Tools; however, they can be read.

## Copying Ensoniq Files from Floppy to Computer (File Images)

### Methods

Double-Cluck on a file in the *Ensoniq Devices List Box*

Double-Cluck on a file in the *Ensoniq Explorer*

Drag selected file in *Ensoniq Devices List Box,* drop on *File List Box*

**Ensoniq Disk Tools** will automatically select the proper extension for you in the Common Dialog or Save As… dialog that comes up. .INS files cannot be created (they can be read from); however, you can always rename the extension from efe/efa to .ins yourself.

## Copying Files between Ensoniq Devices

### Methods

Right-Click in *Ensoniq Devices List Box,* select **Save As…**

Double-Cluck on selected file in *Ensoniq Devices List Box*

Only **Ensoniq Disk Tools** allows you to write an Ensoniq File from an Ensoniq Device to another Ensoniq Device. The **Save As…** Common Dialog is an imitation of the stand Common Dialog, but adds several options in the Drives box (**Flop a** for Ensoniq floppy, and **SCSI *x*** for Ensoniq SCSI drives), and is more specific when an Ensoniq drive is selected to save to (since a File Number has to be specified). You can change the Instrument Name by changing it in the File Name box. When an Ensoniq Device is selected as the one to save to, you must specify a File Number to write to (by selecting it in the File list), or the OK button will not be available.

## Error Protection

This is for debugging purposes only - we suggest that you leave this on; otherwise, the program will not work as designed.

## Loop While Play

When playing a sound with the space bar, this specifies if the sound will keep on looping infinitely, or stop when it comes to an end.

## Sample Editor

**Location:** This identifies the location of the .exe file of your external Sample Editor (CoolEdit, SoundForge, etc.). When this is not blank, the Edit… context menu will come up when you right-cluck the Objects List Box when a File Image is chosen.

**Sample Rate:** Since most sound cards play back at limited rates (usually only 44.1K), this options allows the Edit-Sample Editor function to change the Sample Rate for you before the temporary copy is sent to the external Sample Editor. This way the Sample Editor will audibly play it without giving your a "invalid sample rate" message.

**.WAV/AIFF:** This is the format in which the external Sample Editor will use to edit. If your Editor supports AIFF, use this option - it imports much faster.

## Test Files

Brings up a Common Dialog, allowing you to select any Instrument File Image or Disk Image to test for validity. If there are errors, a dialog box shows up to tell you what they are.

## View Blocks

This allows you to view the individual contents on a Ensoniq floppy disk or SCSI Drive. ***For more information see Page 18***

## Adjust efe/a

If this box is checked, during a Refresh Files command, Disk Tools will check if the actual File Type is and EPS or and ASR type file. If the extension is wrong (efe should be EPS, and efa should be ASR), the extension is changed and the records updated.

## Main Screen List Mode

The Disk Tools Main Screen can view either a Drive's worth of information, or only a Directories worth. Sometimes a Drive can have thousands of .WAV files, or File Images, for example. Selecting Directory List Mode allows you to simply look at a Directories' worth of files at a time. You will notice that the Drive Buttons disappear for the appearance of Directory Labels.

## Wave Create

This gives you the ability to create your own waves. In the furture, this area will house a Transwave maker, more complex Csound-type of sound creation, among other things.

## Command Line Options

Ensoniq Disk Tools supports opening up files directly from the Win95 Explorer. Here's how to change your set up to accomplish this:

1) Within Explorer, double-click on any one of these files: *.EDE; *.EDA; *.EFE; *.EFA; *.GKH; *.INS.
2) You will get a dialog like the one on the right:
3) Type a description of the file in the top box (e.g. Ensoniq File image, Ensoniq ASR Disk Image, etc.)
4) Click the Other… button and select **tstools.exe** for the program to open the file.
5) Repeat this step with the other extensions.
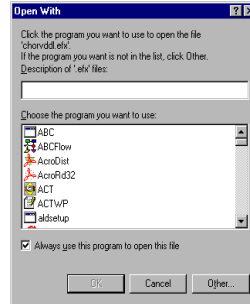
Now, each time you double click on any of those extension, Ensoniq Disk Tools will go immediately to that file upon starting up.

## Other Command Line options

### /D: {ab[ab][ba]}

The parameter **a** specifies that the Primary Floppy Drive to be used is the a: drive, and that Ensoniq Disk Tools will not write to both drives. The parameter **b** specifies that the Primary Floppy Drive to be used is the b: drive, and that Ensoniq Disk Tools will not write to both drives. The parameter **ab** specifies that the Primary Floppy Drive to be used is the a: drive, and that Ensoniq Disk Tools will write to both drives. The parameter **ba** specifies that the Primary Floppy Drive to be used is the b: drive, and that Ensoniq Disk Tools will not write to both drives.

# How To:

**Ensoniq Disk Tools for Windows** has many functions - use this guide to learn about main uses of the program.