

Welcome to InterChange™ 1.5



InterChange™ is a Macintosh application that is intended to help you organize and manage sound and data files stored on your Synclavier®.

The concept behind InterChange™ is simple: by quickly and easily exchanging files between your Synclavier® and your Macintosh, you will be able to take advantage of the Macintosh Finder interface, computer networking, backup, restore and archiving programs, as well as all of the file-sharing capabilities inherent in the Macintosh.

Some of the basic capabilities of InterChange™ include:

- Importing an entire Synclavier® hard drive into your Macintosh
- Exporting a complete hierarchy of Macintosh files and folders out to a Synclavier® hard drive where they appear as files and subcatalogs
- Importing and exporting individual files and folders
- Creating "Disk Image Files" on the Macintosh for use with Synclavier® PowerPC™ and InterChange™ 2.5.

This third release of InterChange™ allows your Macintosh to access a Synclavier® hard drive using the PCI-1 hardware module. You can import and export files to both your W0 and W1 without disconnecting those hard drives from your Synclavier®. Additionally, built-in support for AIFF, SoundDesigner® II and .WAVE soundfiles is included.

What is Synclavier® PowerPC™?

Synclavier® PowerPC™ is a complete port of the Synclavier® software to a PowerPC-based Macintosh computer. A Macintosh application named "Synclavier® PowerPC™" creates on the Macintosh a computer environment that mimics the computer inside the Synclavier®. A custom PCI bus hardware interface has been developed that will enable this computer environment to access voice cards and hardware modules within the Synclavier® tower. The end result of this effort will be an integrated PowerPC-based Synclavier® that will blend seamlessly into a networked Macintosh environment.

InterChange™ is an important element in the migration of the Synclavier® software to the Macintosh. This first release of InterChange™ includes a comprehensive Setup section that is used to tell Synclavier® PowerPC™ which hardware devices and Disk Image Files should be used for W0:, W1: and optical drives. More information on Disk Image Files and Synclavier® PowerPC™ appears later in this manual.



What's been added - In InterChange™ 1.2 I added an additional Menu option that will recognize Synclavier® disks in more cases. 1.3 provides updating the device configuration on the fly; see the Release 4.3 Release Notes for more information. 1.4 fixed several bugs which prevented the export of subcatalogs containing 128 files. 1.5 introduces native support of AIFF, SoundDesigner® II and .WAVE soundfiles.

Table of Contents

Introduction to InterChange™	3
Setup.....	4
What is a Disk Image File?	4
When do I need to use a Disk Image File?	4
Accessing a Synclavier® hard drive connected to your Macintosh	5
Connecting your Synclavier® and Macintosh SCSI ports together.....	5
How the InterChange™ Setup affects Synclavier® PowerPC™	5
Choosing and Creating Disk Image Files	6
Importing and Exporting Files with InterChange™	8
Import Entire Device to Macintosh Files and Folders	9
Import Entire Device to a New Disk Image File	10
Import One Subcatalog to Macintosh Files and Folders.....	11
Import One Subcatalog to a New Disk Image File	12
Import One Synclavier® file to your Macintosh	13
Export Macintosh Folder Contents to Entire Device	14
Export Macintosh Folder as Subcatalog	15
Export Disk Image File to Entire Device.....	16
Export Disk Image File as Subcatalog.....	17
Export Macintosh Folder Contents	18
Export One Macintosh File	19
Export .SYSTEM Files from Macintosh Folder	20
Export .SYSTEM Files from Disk Image.....	21
Options.....	22
Logging Options	22
Error Handling Options.....	22
File Naming Options.....	23
Disk Image Options	24
Subcatalog Size Options	24
Replace Options	25
Soundfile Options	26
Using InterChange™ and Synclavier® PowerPC™ at the same time	27
Changing the InterChange™ setup while Synclavier® PowerPC™ is running.....	27
Using the PCI-1 hardware with InterChange™ and Synclavier® PowerPC™ ..	27
Recognizing Synclavier® Disks in All Cases.....	29

Introduction to InterChange™

Figure 1 shows a screen image of InterChange™ in its full size view.

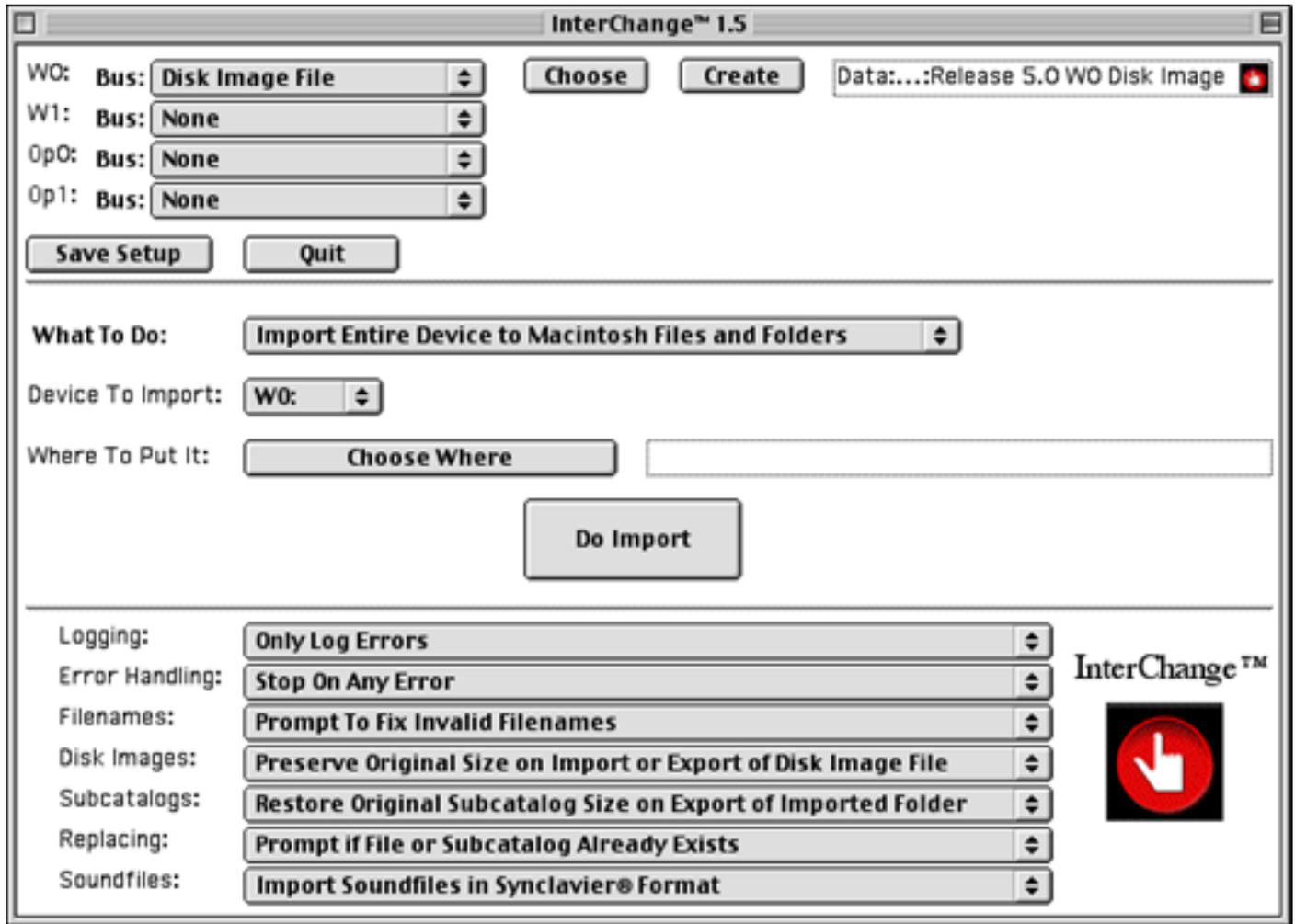


Figure 1 - InterChange™ (full screen)

The main InterChange™ window is divided into 3 functional areas: **Setup**, **Import/Export**, and **Options**.

The top third of the InterChange™ window is the **Setup** area. These controls are used to identify the hardware devices and Disk Image Files that InterChange™ will use.

The middle area of the InterChange™ window is used to perform **Import** and **Export** operations. The many different operations available in InterChange™ will be described later.

The lower third of the InterChange™ window allows you to set several import **Options** relating to import and export operations. These options will be explained later. Additionally, there are several other option settings that are available via the InterChange™ menu that appears in the Macintosh menu area when InterChange™ is running.

Setup

Figure 2 shows a detail view of the InterChange™ Setup section.

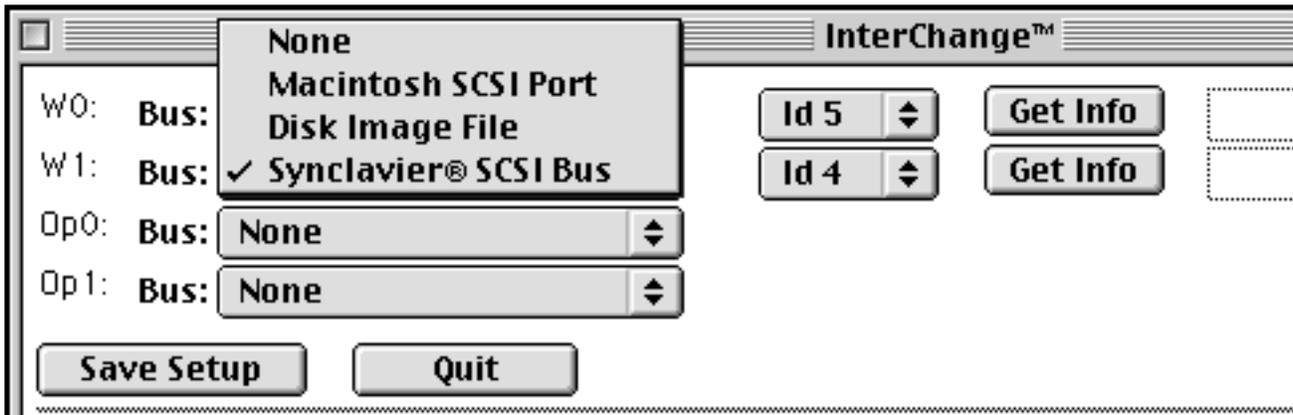


Figure 2 - InterChange™ Setup section

The **Bus** control lets you identify the actual hardware SCSI bus to which **W0:**, **W1:**, **Op0:**, and **Op1:** are connected.

What is a Disk Image File?

A Disk Image File is a single Macintosh disk file that contains the entire contents or "disk image" of a Synclavier® hard drive. The Disk Image File is a true Macintosh file that may be located anywhere on your Macintosh. A Disk Image File may also be connected to your Macintosh via a computer network, although a very high speed network connection would be required to make such a configuration practical.

A Disk Image File is a direct memory image of a Synclavier® hard drive. Therefore the contents of the Disk Image File can only be accessed by a Synclavier® software module (such as MONITOR, FORMCOPY, or the Real Time Software) running under the Synclavier® PowerPC™ operating environment.

When do I need to use a Disk Image File?

A Disk Image File is most commonly created for use with Synclavier® PowerPC™. You can use InterChange™ to tell Synclavier® PowerPC™ to use a disk image file *as if it were a real SCSI hard drive*. You can also use a Disk Image File for general purpose backup of a Synclavier® hard drive on a Macintosh, or for transmission over a network. Disk Image Files will sometimes import and export faster than individual files, but of course you can't use the Finder to see what's inside of them.

Accessing a Synclavier® hard drive connected to your Macintosh

You can access your Synclavier® hard drives using InterChange™ in two ways. The fastest access will be obtained if you connect your hard drive directly to your Macintosh SCSI port. If you have the PCI-1 interface option, you can also access your Synclavier® hard drive while it is still connected to your Synclavier®, although this method will not be as fast.

If your hard drive is connected to your Macintosh SCSI port, it may be set for any available SCSI ID. If it is connected to your Synclavier® SCSI port, it must be set for the appropriate SCSI ID for use with the Synclavier® (e.g. ID 5 for W0, Id 4 for W1, etc.).

The **Get Info** button directs InterChange™ to interrogate the specified SCSI drive using a SCSI Inquiry command. The manufacturer and model of the disk drive is displayed in the text box to the right of the Get Info button.

Connecting your Synclavier® and Macintosh SCSI ports together

The software is designed to support the simultaneous connection of your Macintosh SCSI port with the SCSI Port of your Synclavier®. There are some precautions associated with this configuration that you should observe closely:

- You must be absolutely sure the SCSI bus is terminated correctly
- You must use short "high quality" (e.g. double shielded) SCSI cables
- You will likely have to power-up and power-down your installation in a specific order. In particular, you will not be able to turn your Synclavier® on or off while the Macintosh is starting up. Additionally, your Synclavier® cannot be accessing any SCSI drive when you turn on your Macintosh.

<p>Warning: there are several parts of the Synclavier® Software that let you erase and format SCSI hard drives. If your Synclavier® and Macintosh SCSI ports are connected together, the possibility exists that you could erase your Macintosh system hard drive from the Synclavier®. While there are several safeguards in the Synclavier® Release 4.11 and later software to help prevent this occurrence, users should pay particular attention when the Synclavier® and Macintosh SCSI ports are connected together.</p>

How the InterChange™ Setup affects Synclavier® PowerPC™ and InterChange™ 2.5

The selections for **W0:**, **W1:**, **Op0:** and **Op1:** that you make with the InterChange™ setup menus control the devices that Synclavier® PowerPC™ uses when it is launched. Specifically, CONFIGUR will not let you change the storage device configuration if you run CONFIGUR under the Synclavier® PowerPC™ operating environment; you must use InterChange™ to make such changes.

Choosing and Creating Disk Image Files

This section of InterChange™ 1.5 is obsolete. See the information on InterChange™ 2.5 on the next page

When a Disk Image File is selected for use as **W0:**, **W1:**, **Op0:**, or **Op1:**, the Id control and the Get Info button change as shown in Figure 3 (see **W1:**)

W0:	Bus:	Macintosh SCSI Port	Id 5	Get Info	
W1:	Bus:	Disk Image File	Choose	Create	TempVol:W1
Op0:	Bus:	None			
Op1:	Bus:	None			

Figure 3 - Setting up a Disk Image File

Creating a Disk Image File is accomplished by clicking the Create button. A dialog lets you specify the size of the Disk Image File in megabytes. After entering the desired size, a **Save** dialog lets you choose a location on your Macintosh to store the Disk Image File.



Enter the size (in Megabytes) of the Disk Image File that you wish to create. Check 'Zero Out Entire File' to zero out all sectors of the new Disk Image File as it is being created (caution: that may take quite a while for large files!).

You may wish to zero out the entire file if you intend to compress the file with Stuffit™ at a later time; otherwise it is not necessary.

Size: Megabytes

Zero Out Entire File

Figure 3 - Creating a Disk Image File

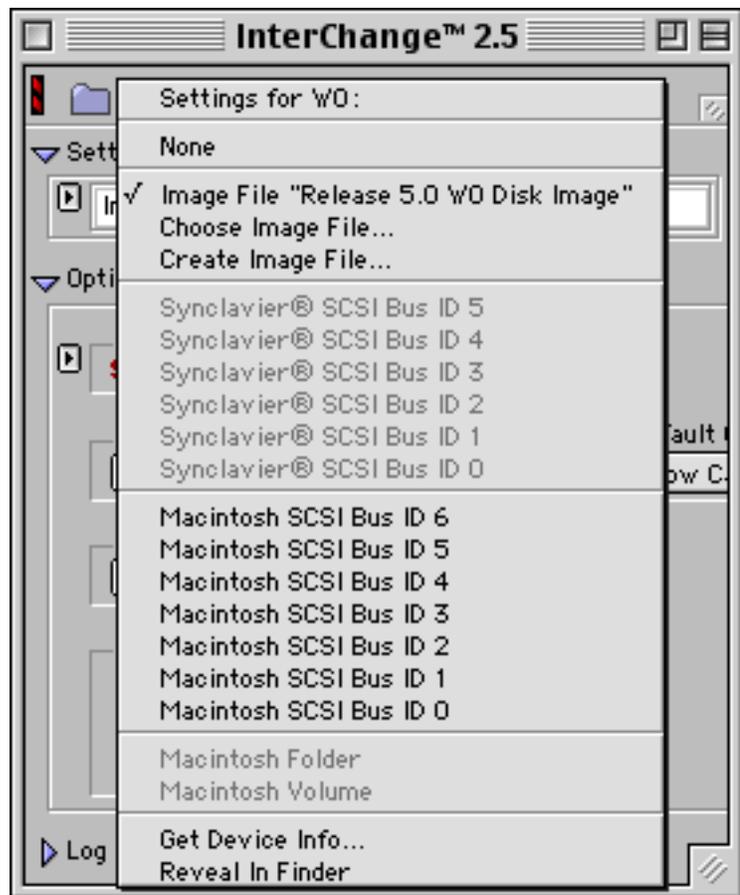
An option to **Zero Out Entire File** is available which may be of interest to you if you expect to ever compress the Disk Image File with a data compression utility such as StuffIt™ at some point in the future. When a Disk Image File is created, space is reserved on the Macintosh disk for the entire Disk Image File but only the first 2048 bytes of the file are actually written with any data (these first 2048 bytes is where the Synclavier® stores the directory of what is saved on the disk). The rest of the Disk Image File will contain whatever data was last written to that area of the Macintosh disk.

Zero Out Entire File

The **Zero Out Entire File** option instructs InterChange™ to write digital zeroes to every sector of the Disk Image File as it is being created. A file created in this way will compress to a significantly smaller size than a file that contains unknown left-over data which may not compress very well. Unless you expect to compress the Disk Image File with StuffIt™, it is unnecessary to zero out the entire disk image file as it is being created.

The Macintosh Operating System limits the size of a particular Disk Image File to 2000 megabytes (2.0 gigabytes). Several mechanisms are under consideration that could be implemented in a later release of InterChange™ to provided larger Disk Image Files if the need exists.

InterChange™ 2.5
You might want to use InterChange™ 2.5 to choose and create image files instead of using the InterChange™ 1.5 method described above. It's a lot easier to use and more powerful.



!! Note !!

The mechanisms for choosing and creating disk image files described above have largely been replaced by the easier-to-use mechanisms available in InterChange™ 2.5. They are far easier to use and contain many useful new features. I recommend using InterChange™ 2.5 instead of InterChange™ 1.5 for all activities related to choosing and creating image files.

Importing and Exporting Files with InterChange™

The operations of InterChange™ are controlled with the **What To Do** pop-up menu.

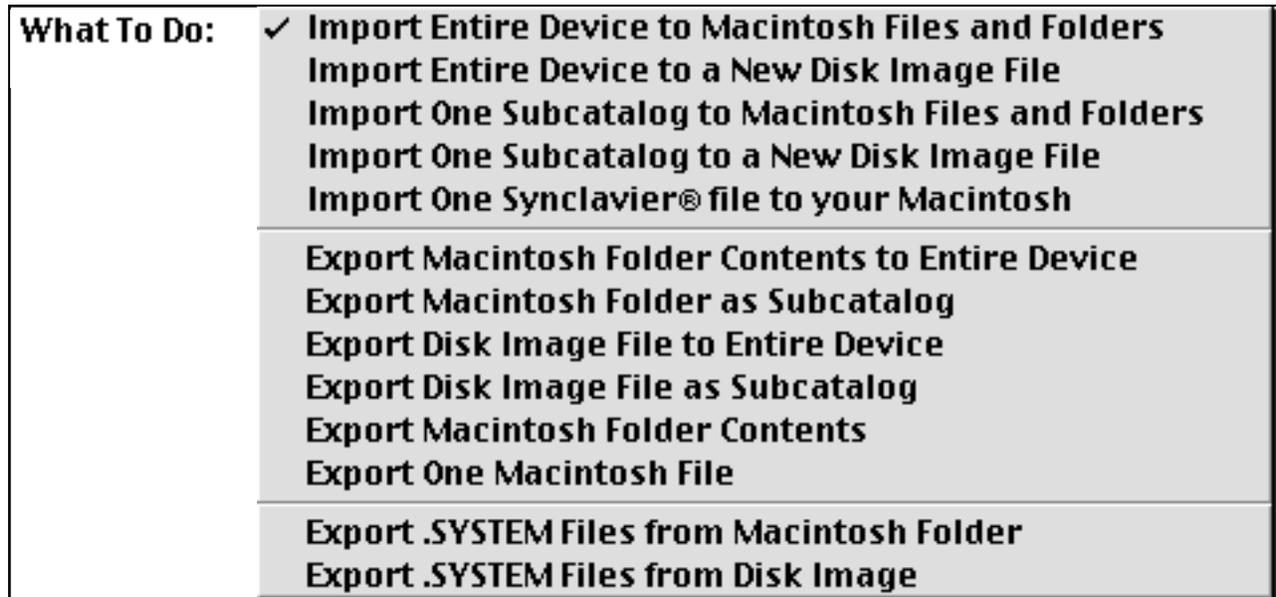


Figure 4 - **What To Do** pop-up menu

The chosen function is activated with the Do Import or Do Export button



The following pages describe the various import and export functions that are available in InterChange™.

1. Import Entire Device to Macintosh Files and Folders

- Lets you select **W0:** or **W1:** for import. A later version of InterChange™ will let you import from "optical" devices as well
- Creates a folder on your Macintosh called **W0** or **W1** which will contain the entire imported contents of **W0:** or **W1:**
- A standard Macintosh Dialog Box lets you choose the enclosing folder in which the new **W0** or **W1** folder will be stored. In the example shown a new folder called **W0** will be created at the top level of your Macintosh Volume called "System 8". The chosen volume could in fact be on a remote Macintosh file server
- Every file and subcatalog on the selected device is imported to your Macintosh. A nested Macintosh folder is created for every subcatalog. The entire subcatalog hierarchy of the original **W0:** or **W1:** device is preserved
- A folder of the name **W0** or **W1** cannot exist in the chosen enclosing folder or else an error is reported
- Note that if the chosen **W0:** or **W1:** is actually a Disk Image File (see the **Setup** section) the effect will be to expand the Disk Image File into a set of Macintosh files and folders
- You will often rename the resulting **W0** folder after it is created

The image shows a Macintosh-style dialog box with a black border. It contains the following elements:

- What To Do:** A menu button with the text "Import Entire Device to Macintosh Files and Folders" and a small up/down arrow icon on the right.
- Device To Import:** A menu button with the text "W0:" and a small up/down arrow icon on the right.
- Where To Put It:** A menu button with the text "Choose Where" and a dotted-line text field to its right containing the text "System 8:".
- Do Import:** A large rectangular button centered at the bottom of the dialog.

2. Import Entire Device to a New Disk Image File

- Lets you select **W0:** or **W1:** for import
- Creates a Disk Image File on your Macintosh called **W0** or **W1** which will contain the entire contents of **W0:** or **W1:** in a Disk Image File format
- A standard Macintosh Dialog Box lets you select where the enclosing folder where the new **W0** or **W1** Disk Image File will be created. Note that you choose the enclosing folder where **W0** or **W1** will be created; you cannot rename the new Disk Image File until it is after it is created
- Every file on the device is imported to the Disk Image File
- See the **Options** sections for options that let you manage the size of the resulting Disk Image File. You can create a Disk Image File that is equal in size to the original device (typically somewhat wasteful!), or you may create a minimum size Disk Image File, or you may create a minimum size Disk Image File with 10%, 20% or 50% extra capacity. These options are all explained later.
- If the selected device (e.g. **W0:** or **W1:**) is itself a Disk Image File (see the **Setup** section) the result will be to duplicate the original Disk Image File on the Macintosh

The image shows a Macintosh-style dialog box with a white background and a black border. It contains the following elements:

- What To Do:** A dropdown menu with the text "Import Entire Device to a New Disk Image File" and a small square icon with a double-headed arrow on the right.
- Device To Import:** A dropdown menu with the text "W0:" and a small square icon with a double-headed arrow on the right.
- Where To Put It:** A button labeled "Choose Where" and a dotted-line box containing the text "System 8:". A horizontal line is drawn below the dotted box.
- Do Import:** A large rectangular button centered at the bottom of the dialog.

3. Import One Subcatalog to Macintosh Files and Folders

- Lets you enter the path name of a Synclavier® subcatalog you wish to import
- Creates a new folder on your Macintosh that has the same name as the subcatalog you are importing
- A standard Macintosh Dialog Box lets you choose the enclosing folder where the new folder will be created. Note that you choose the enclosing folder where the new folder will be created; you cannot rename the subcatalog until after it is imported
- The entire contents of the subcatalog is imported to the new Macintosh folder. All enclosed subcatalogs are fully imported as well
- You can use this function to extract one subcatalog from a Disk Image File and expand it into a hierarchy of Macintosh files and folders
- In the example shown a folder named HITSNDS will be created on your Macintosh volume name "System 8"
- Subcatalogs may be imported from either **W0:** or **W1:**

What To Do:	Import One Subcatalog to Macintosh Files and Folders ▾
What To Import:	W0:HITSNDS
Where To Put It:	Choose Where System 8:
Do Import	

4. Import One Subcatalog to a New Disk Image File

- Lets you enter the path name of a Synclavier® subcatalog you wish to import
- Creates a Disk Image File on your Macintosh that has the same name of that subcatalog
- A standard Macintosh Dialog Box lets you select where the enclosing folder where the new Disk Image File will be created. Note that you choose the enclosing folder where Disk Image File will be created; you cannot rename subcatalog until after it is imported
- Every file and enclosed subcatalog in the specified subcatalog is imported to the Disk Image File
- See the **Options** sections for options that let you manage the size of the resulting Disk Image File. You can create a Disk Image File that is equal in size to the original size of the Synclavier® subcatalog or you may create a minimum size Disk Image File, or you may create a minimum size Disk Image File with 10%, 20% or 50% extra capacity. These options are explained later.
- If the chosen device is itself a Disk Image File (see the **Setup** section) the result will be to extract one subcatalog from the Disk Image File into its own Disk Image File.
- There is no difference between a Disk Image File created by importing an entire device and a Disk Image File created by importing one subcatalog; they are identical

What To Do:	<input type="text" value="Import One Subcatalog to a New Disk Image File"/>
What To Import:	<input type="text" value="WO:HITSNDS"/>
Where To Put It:	<input type="button" value="Choose Where"/> <input type="text" value="System 8:"/>
<input type="button" value="Do Import"/>	

5. Import One Synclavier® file to your Macintosh

- Lets you enter the path name of a single Synclavier® file you wish to import
- Creates a new file on your Macintosh that has the same name as the file you are importing
- A standard Macintosh Dialog Box lets you select the enclosing folder where the new file will be stored
- If the chosen source device is itself a Disk Image File (see the **Setup** section) the result will be to extract one Synclavier® file from the Disk Image File and place it on your Macintosh
- This version of InterChange™ automatically converts any TEXT file so that it may be edited on your Macintosh. Use the share-ware utility FileTyper™ to set the Macintosh Creator field to automatically edit TEXT files with your favorite word processor
- A later version of InterChange™ will allow you to convert SOUND files to AIFF format

What To Do:	<input type="text" value="Import One Synclavier® file to your Macintosh"/>
What To Import:	<input type="text" value=" WO:HITSNDS:BIG_HIT"/>
Where To Put It:	<input type="button" value="Choose Where"/> <input type="text" value="System 8:"/>
<input type="button" value="Do Import"/>	

6. Export Macintosh Folder Contents to Entire Device

- Lets you choose a Macintosh volume or folder for exporting to a Synclavier® hard drive
- Lets you identify a destination hard drive (**W0:** or **W1:**) which is erased and then written with new data
- Every file and enclosed folder in the chosen folder is exported. The Macintosh file and folder hierarchy is recreated on the Synclavier® hard drive as subcatalogs and files
- **Note:** this function **erases** the entire hard drive and replaces the contents of the hard drive with the contents of the chosen Macintosh folder. Because this operation erases the hard drive, a dialog box is presented that lets you confirm or cancel the operation.
- Several options are available (described later) that let you manage the size of subcatalogs that are created when a Macintosh folder is exported. You may re-create subcatalogs that were the exact same size as the were before they were imported; you may produce a minimum size subcatalog; or you may provide free space of 10%, 20% or 50%
- Additional options let you control the behavior of InterChange™ if it encounters a Macintosh file or folder that has a file name that is incompatible with 8-character Synclavier® file names

What To Do:	<input type="text" value="Export Macintosh Folder Contents to Entire Device"/>
What To Export:	<input type="button" value="Choose Folder"/> <input type="text"/>
Where To Put It:	<input type="text" value="W1:"/>
<input type="button" value="Do Export"/>	

Note: AIFF, SoundDesigner® II and .WAVE sound files are automatically converted to Synclavier® format as they are being exported.

7. Export Macintosh Folder as Subcatalog

- Lets you choose a Macintosh volume or folder for exporting to a Synclavier® hard drive
- Lets you specify a device (**W0:** or **W1:**) or a subcatalog where the folder will be stored
- A subcatalog is created on the destination device or in the destination subcatalog that has the same name as the original Macintosh folder
- Options (describe later) let you manage the behavior of InterChange™ if it encounters a subcatalog or file on the Synclavier® hard drive that would be replaced by a file or folder being exported. In particular, it is possible to merge the contents of a Macintosh folder hierarchy into an existing Subcatalog structure on your Synclavier® hard drive. See the "Replace Options" described later
- Every file and enclosed folder in the chosen folder is exported. The Macintosh file and folder hierarchy is recreated on the Synclavier® hard drive as subcatalogs and files
- If the specified destination device is a Disk Image File (see **Setup**) the chosen Macintosh folder is written into the Disk Image File

What To Do:	<input type="button" value="Export Macintosh Folder as Subcatalog"/>
What To Export:	<input type="button" value="Choose Folder To Export"/> System 8:Hit_Snds
Where To Put It:	W1:
<input type="button" value="Do Export"/>	

Note: AIFF, SoundDesigner® II and .WAVE sound files are automatically converted to Synclavier® format as they are being exported.

8. Export Disk Image File to Entire Device

- Lets you choose a Macintosh Disk Image File for exporting to a Synclavier® hard drive
- Lets you specify a device (**W0:** or **W1:**) to which the Disk Image File will be written
- The specified device is erased and replaced by the contents of the chosen Disk Image File
- A secondary dialog box lets you confirm or cancel this operation

The dialog box contains the following elements:

- What To Do:** A dropdown menu with the text "Export Disk Image File to Entire Device".
- What To Export:** A button labeled "Choose Disk Image To Export" followed by a dashed rectangular box for file selection.
- Where To Put It:** A dropdown menu with the text "W1:".
- Do Export:** A large button at the bottom right of the dialog.

9. Export Disk Image File as Subcatalog

- Lets you choose a Macintosh Disk Image File for exporting to a Synclavier® hard drive
- Lets you specify a device (**W0:** or **W1:**) or subcatalog to which the Disk Image File will be written
- A subcatalog is created on the hard drive that has the same name as the original Macintosh Disk Image File

What To Do:	Export Disk Image File as Subcatalog ▾
What To Export:	Choose Disk Image To Export <input type="text"/>
Where To Put It:	<input type="text" value="w1:"/>
Do Export	

10. Export Macintosh Folder Contents

- Lets you choose a Macintosh folder for exporting to a Synclavier® hard drive
- Lets you specify a device (**W0:** or **W1:**) or subcatalog
- The contents of the chosen Macintosh folder is written to the device or into the subcatalog specified. In the example shown the contents of the folder "System 8:Hit_Snds" will be written to the top level of **W1:**.

What To Do:	<input type="text" value="Export Macintosh Folder Contents"/>
What To Export:	<input type="button" value="Choose Folder"/> <input type="text" value="System 8:Hit_Snds"/>
Where To Put It:	<input type="text" value="w1:"/>
<input type="button" value="Do Export"/>	

Note: AIFF, SoundDesigner® II and .WAVE sound files are automatically converted to Synclavier® format as they are being exported.

11. Export One Macintosh File

- Lets you choose a single Macintosh file for exporting to a Synclavier® hard drive
- Lets you specify a device (**W0:** or **W1:**) or subcatalog where the file will be stored on the Synclavier®
- The chosen Macintosh file will be written to the Synclavier® hard drive. TEXT files will be converted so they may be edited on the Synclavier® with the Screen Editor. A later version of InterChange™ will convert AIFF sound files so they may be used with the Synclavier®

What To Do:	Export One Macintosh File	
What To Export:	Choose File To Export	System 8:Hit_Snds:VOCAL 1
Where To Put It:	w1:VOCALS:	
Do Export		

Note: AIFF, SoundDesigner® II and .WAVE sound files are automatically converted to Synclavier® format as they are being exported.

12. Export .SYSTEM Files from Macintosh Folder

- Lets you choose Macintosh folder that contains a set of Synclavier® .SYSTEM files
- Lets you specify a device (**W0:** or **W1:**) or subcatalog where those system file will be written to
- Provides an alternative to the 'Winchester Installation' software of earlier releases
- The following files are exported:
 - MONITOR
 - PROFILE
 - any SYN-xxxx file
 - The entire contents of the .SYSTEM folder
- The following files and subcatalogs are created if they do not exist:
 - .SQ0DATA thru .SQ7DATA
 - .NEWDATA
 - .WORK
 - .INDEX

What To Do:	<input type="text" value="Export .SYSTEM Files from Macintosh Folder"/>
What To Export:	<input type="text" value="Choose .SYSTEM Folder"/> <input type="text" value="System 8:Synclavier@:W0:"/>
Where To Put It:	<input type="text" value="W0:"/>
<input type="button" value="Do Export"/>	

13. Export .SYSTEM Files from Disk Image

- Lets you choose Disk Image File that contains a set of Synclavier® .SYSTEM files
- Lets you specify a device (**W0:** or **W1:**) or subcatalog where those system file will be written to
- Provides an alternative to the 'Winchester Installation' software of earlier releases
- The following files are exported:
 - MONITOR
 - PROFILE
 - any SYN-xxxx file
 - The entire contents of the .SYSTEM folder
- A Disk Image File named **W0** is normally installed in the folder named Synclavier® when the Synclavier® PowerPC™ software is installed. This image file may be used as a convenient source for Synclavier® system files which may then be written to a real Synclavier® hard drive
- The following files and subcatalogs are created if they do not exist:
 - .SQ0DATA thru .SQ7DATA
 - .NEWDATA
 - .WORK
 - .INDEX

What To Do:	<input type="text" value="Export .SYSTEM Files from Disk Image"/>
What To Export:	<input type="text" value="Choose .SYSTEM Disk Image"/> <input type="text" value="System 8:Synclavier@:W0"/>
Where To Put It:	<input type="text" value="W0:"/>
<input type="button" value="Do Export"/>	

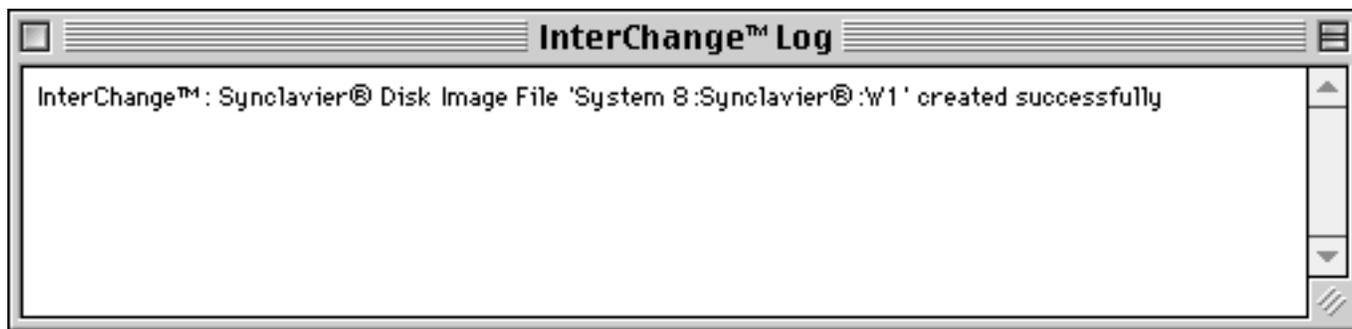
Options

InterChange™ includes a wealth of control options that can be used to manage the data exchange process.

1. Logging Options

- Only Log Errors**
- Only Log Errors but Beep Twice When Finished**
- Log Significant Milestones**
- Log Everything**

InterChange™ includes a Log Window that is used both to report error conditions as well as to describe the progress of an import or export function. The **Logging** option lets you control how much information is presented in the Log Window.



2. Error Handling Options

- Stop On Any Error**
- Continue With Next File After Error**

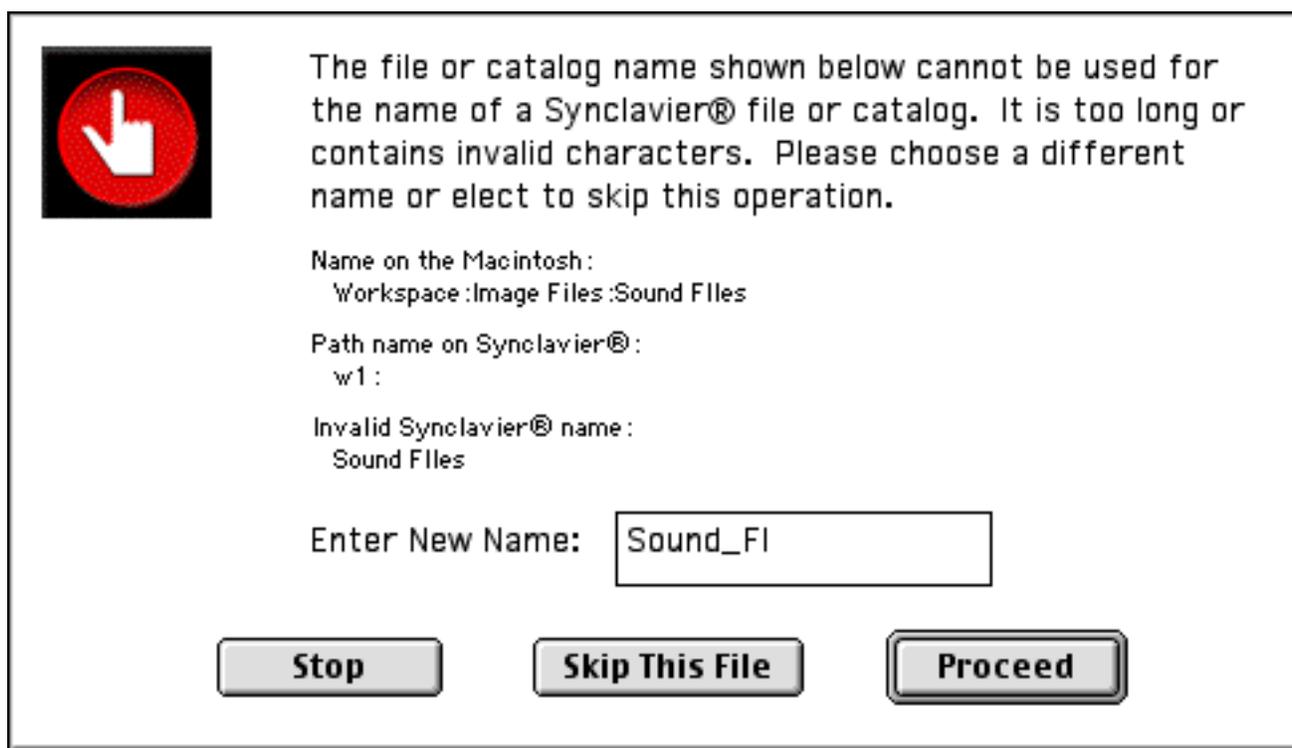
This control lets you manage the behavior of InterChange™ if, for example, it encounters a file name that cannot be exported to the Synclavier®. You can direct InterChange™ to stop if it encounters any error or to continue with the next file.

3. File Naming Options

✓ **Prompt To Fix Invalid Filenames**
Modify Incorrect Filenames Automatically

This control lets you direct InterChange™ to automatically modify file names of Macintosh Files and Folders that cannot be mapped to the Synclavier®'s 8-character file name limitation when the files are exported to a Synclavier® hard drive or Disk Image File. This control should be used with caution as there are many cases where files will be overwritten if this option is selected. For example, if a Macintosh folder contain two files one named "TUBA_C#4_LOUD" and "TUBA_C#4_SOFT" the result of an export would be a single file called "TUBA_C#4".

If InterChange™ 1.5 encounters a Macintosh file whose name is incompatible with the Synclavier®'s file name restrictions, a dialog allows you to correct the incorrect file name.



4. Disk Image Options

- Preserve Original Size on Import or Export of Disk Image File**
- Minimize Disk Image File on Import or Export**
- Minimize Then Add 10%**
- Minimize Then Add 20%**
- Minimize Then Add 50%**
- Expand Original Size by 10%**
- Expand Original Size by 20%**
- Expand Original Size by 50%**

Note: Yes, the number in the `__size__` file is in sectors, not megabytes. This was done to provide 100% accuracy when a subcatalog is imported to a Macintosh and then later exported. To compute sectors from megabytes multiply the number of megabytes by 2048.

This control lets you influence the size of Disk Image Files that are created on the Macintosh when a device (**W0:** or **W1:**) or subcatalog is imported. Additionally, it influences the size of subcatalogs that are created on the Synclavier® when a Disk Image File is exported as a subcatalog.

5. Subcatalog Size Options

- Restore Original Subcatalog Size on Export of Imported Folder**
- Create Minimum Size Subcatalog When Exporting a Folder**
- Create Minimum Size Then Add 10%**
- Create Minimum Size Then Add 20%**
- Create Minimum Size Then Add 50%**
- Use Original Size Then Add 10%**
- Use Original Size Then Add 20%**
- Use Original Size Then Add 50%**

This control lets you influence the size of subcatalogs that are created when Macintosh folders are exported to a Synclavier® hard drive.

When a Synclavier® subcatalog is imported to the Macintosh, a special file of the name "`__size__`" is created in each Macintosh folder. This text file may be edited with any Macintosh text editor (such as SimpleText). It contains a description as to whether the subcatalog was a large subcatalog (128 maximum files) or a small subcatalog (32 maximum files). Here is what a `__size__` file looks like:

```
|small, 200
```

The first word in a `__size__` file must be the word "large" or "small" followed by a comma and an optional space. A decimal number then appears that specifies the size of the subcatalog in sectors.

__size__ files may be freely edited on the Macintosh. They will influence the size of the enclosing subcatalog the next time it is exported.

6. Replace Options

- ✓ **Prompt if File or Subcatalog Already Exists**
- Merge Exports Into Existing Subcatalogs; Prompt if File Exists**
- Merge Exports Into Existing Subcatalogs; Replace Files as Needed**
- Replace Synclavier® Files and Subcatalogs Without Warning**

This control lets you manage the operation of InterChange™ if it encounters a file or subcatalog on a Synclavier® hard drive that would be replaced by a folder or file being exported. InterChange™ can prompt for a new name if desired.



A file by this name already exists on your Synclavier® hard disk. Please choose a different filename or elect to skip or replace this file.

Name of file on the Macintosh:
System 9.04 :Desktop Folder :SEGMENT

Path name on Synclavier®:
w1 :

Duplicate Synclavier® file name:
SEGMENT

Enter New File Name:

7. Soundfile Options

- ✓ **Import Soundfiles in Synclavier® Format**
- Import Soundfiles as AIFF Files**
- Import Soundfiles as SDII Files**
- Import Soundfiles as WAVE Files**

This control lets you manage how soundfiles are stored when they are imported to your Macintosh.

InterChange™ 1.5 was specifically designed to preserve all Synclavier®-specific information with the soundfile regardless of which file format is chosen for use on the Macintosh. That is, a file that has been imported to your Macintosh may later be exported back out to a Synclavier® hard drive or Disk Image File and all Synclavier®-specific information (such as captions, loops and optical index categories) will be restored correctly.

Using InterChange™ and Synclavier® PowerPC™ at the same time

It is possible to use InterChange™ and Synclavier® PowerPC™ at the same time on your Macintosh. Likewise, if your Synclavier® **W0:** or **W1:** hard drive is connected to both your Synclavier® and your Macintosh (that is: the SCSI ports are tied together), it is possible to be accessing the single hard drive from both InterChange™ and the Synclavier® Real Time Software at the same time.

See Figure 5.

While the software has been specifically constructed to allow this situation, you are cautioned that it is not feasible to be writing files to the shared drive simultaneously.

Running both InterChange™ and Synclavier® PowerPC™ at the same time provides a means to be browsing the Synclavier® subcatalog hierarchy on your hard drive at the same time you are using InterChange™ to transfer files.

Users are particularly cautioned to avoid, for example, simultaneously running SHUFFLE or FORMCOPY at the same time you are using InterChange™ to transfer files to the drive that is being used by SHUFFLE or FORMCOPY.

Changing the InterChange™ setup while Synclavier® PowerPC™ is running

InterChange™ 1.5, InterChange™ 2.5 and Synclavier® PowerPC™ 5.0 have been designed to share the current InterChange™ Setup using a shared-memory interface that is built into the Macintosh operating system. This feature provides the ability to change the **W1:** or **Op0:** setting from InterChange™ 1.5 (or InterChange™ 2.5) and have those changes recognized by Synclavier® PowerPC™ automatically.

Be sure to activate the **Update** button on the Sound File Recall screen (B screen) whenever the **W1:** setting is changed. Changes to the **Op0:** setting should be detected automatically as if a real optical platter was changed.

Using the PCI-1 hardware with InterChange™ and Synclavier® PowerPC™

InterChange™ 1.5, InterChange™ 2.5 and Synclavier® PowerPC™ 5.0 have been designed to share the PCI-1 hardware as needed.

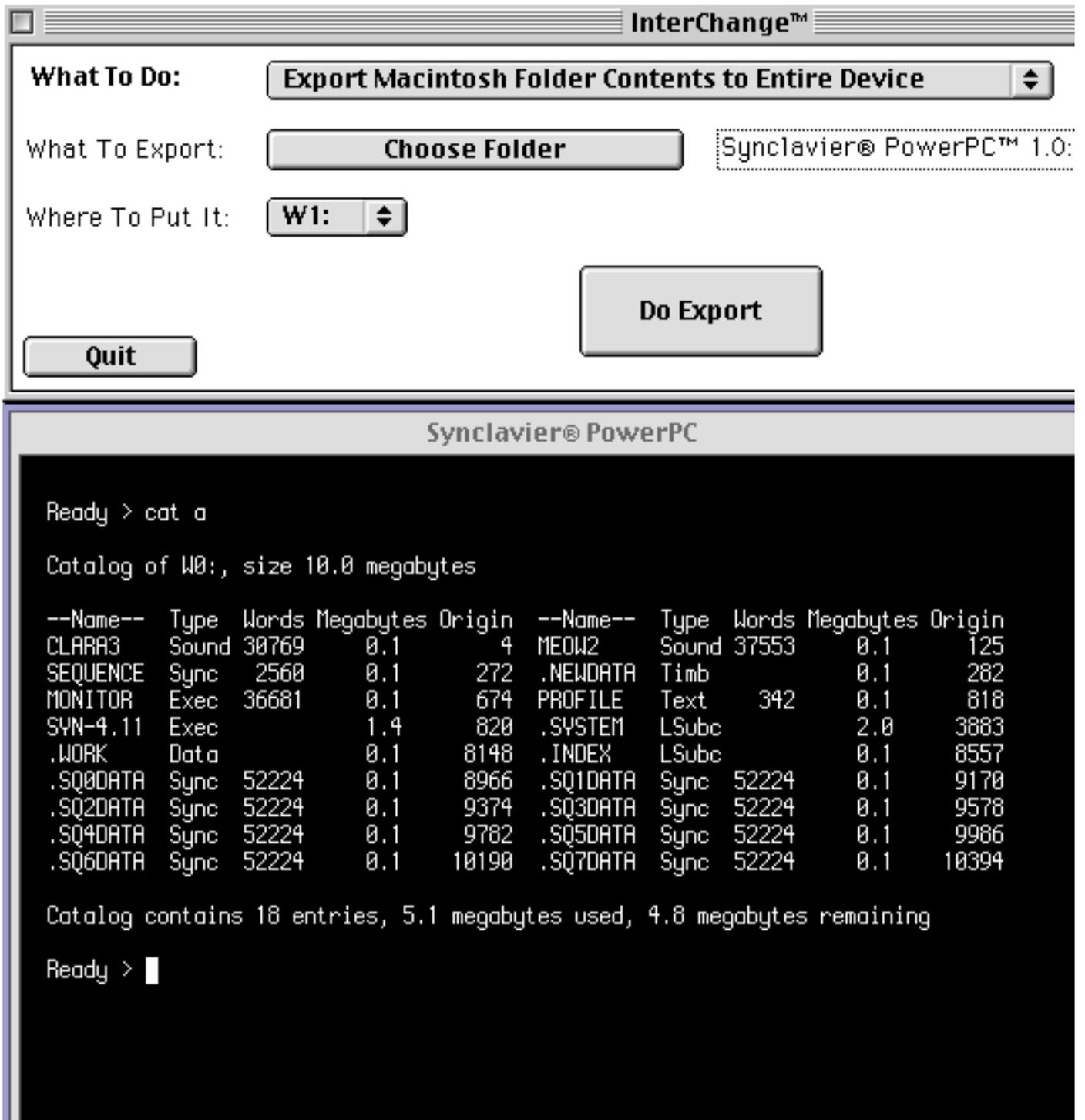


Figure 5 - Using InterChange™ and Synclavier® PowerPC™ at the same time

Recognizing Synclavier® Disks

When InterChange™ is importing from or exporting to a Synclavier® hard drive, it examines the disk very carefully to make sure the disk is a legitimate Synclavier® hard drive. This test is quite strict and is somewhat complicated by the different versions of the Synclavier® catalog structure that were used over the years.

The purpose of this test is, to the greatest extent possible, avoid over-writing or corrupting your Macintosh hard drive.

This test apparently fails to recognize Synclavier® disks in certain special cases. In InterChange™ 1.2 I added an additional menu option that makes this test somewhat less strict. If you are trying to import files from or export files to a Synclavier® disk and you receive the error warning:

"InterChange™: Can't export to non-Synclavier® disk"

you may check the '**Recognize Synclavier® Disks In All Cases**' and try the operation again. The option is found under the InterChange™ menu under the selection '**More Options...**'.