

## ***General enhancements***

## ***Remote controls***

Remote control capabilities have been added to the Direct-to-Disk system's Audio Event Editor. Function keys on the terminal keyboard can be used to play and edit cues on the Cue Editor panel.

### ***Function keys on the terminal keyboard***

A major new feature of the Direct-to-Disk system is the use of function keys for remote control cue editing and playback. The function keys on the terminal keyboard operate when the Cue Editor panel is open. They work with both the new Macintosh II terminal (F keys) and the old MG600 terminal (PF keys), although different keys are used. (See the opposite page for keyboard equivalents.)

Four function keys allow you to lock onto a Cue In, Cue Out, Edit In or Edit Out time field on the Cue Editor panel—without ever having to click on the time field.

Once you are locked onto a time, you can enter a new time, or you can use the trackball or three-button mouse to drag the cue or edit icon. You can use the Toggle function key to switch between scan and scrub modes while dragging. For small movements, you can use the arrow keys to nudge the icon left or right.

The Play From and Play To function keys allow you to play the cue from any point. The Pause key stops or continues playback.

Detailed instructions for using the remote functions of the terminal keyboard can be found in the section "Editing and playing cues from the terminal keyboard."

## *Function key equivalents*

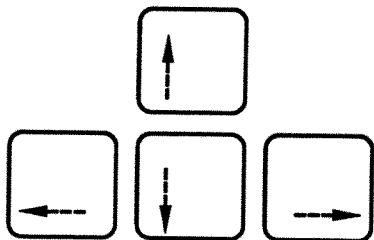
### NEW TERMINAL

Cue In	Edit In	Edit Out	Cue Out	Play From	Pause	Play To	Toggle Scan/Scrub
F5	F6	F7	F8	F9	F10	F11	F12

### OLD TERMINAL

Play From	Pause	Play To	Cue In	Edit In	Edit Out	Cue Out
PF17	PF18	PF19	PF20	PF21	PF22	PF23

## *Arrow keys equivalents*



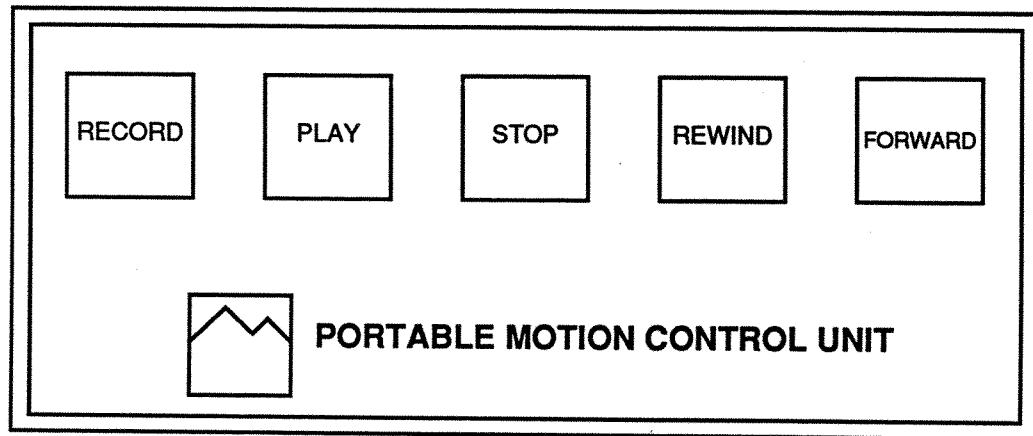
## *The Portable Motion Control Unit and the Custom Console Control*

There are two new remote control units available for the Direct-to-Disk and Synclavier. The Portable Motion Control Unit is a five-button box with motion controls—RECORD, PLAY, STOP, REWIND and FORWARD. You use these to remotely record on Direct-to-Disk tracks and to play back a sequence that contains cues, MIDI information or Synclavier timbres.

The Custom Console Control includes hardware for connecting switch inputs to your console, allowing you input/output access to the Direct-to-Disk from a film-style recorder panel.

Detailed instructions for using the remote control units can be found in the section "Remote control units."

*The Portable Motion Control Unit*



## ***Entering values and text***

You can enter and edit values or text in a numeric, time or text field using the Tab, arrow and Control keys.

### ***Entering values and text with the Tab and arrow keys***

You can enter values and text using the terminal keys only. In the following steps, you do not need to use the trackball at all.

1. Press the arrow keys until you reach the desired field.
2. Press the Tab key.

You enter the overstrike mode. Any typed character replaces the one at the cursor. The cursor advances to the next character.

3. Press the Tab key again to move by segments or words within the field. At the end of the field, the cursor wraps.

OR

Press the arrow keys to move character by character within the field. At the end of the field, the cursor wraps.

4. Position the cursor directly over the incorrect character and type the correct one.
5. Press Return to enter the value or text.

The field returns to functioning as a single entry.

## *Advanced editing techniques*

You can use the control keys for more advanced editing techniques within a field. To use the control keys for editing, tab to the field and then hold the control key down while pressing the additional character.

<u>Control Key</u>	<u>Result</u>
Control-A	Toggles between the insert and overstrike mode in a text field.
Control-D	In insert mode, deletes one character to the right of the cursor. In overstrike mode, moves the cursor one character to the right.
Control-E	Deletes all characters to the right of the cursor.
Control-I or Tab	Advances the cursor to the next field within the object.
Control-H	Moves the cursor one character to the left.
Control-L	Moves the cursor one character to the right.
Control-R	Cursor moves to the left most character in the field.
Control-X	Erases the entire entry and leaves the edit mode.
Delete	In the overstrike mode, moves the cursor one character to the left. In the insert mode, deletes one character to the left.

- You can restore the previous value to an empty field by pressing the Control-D, Control-E or Control-X keys.
- In overstrike mode, you can move the cursor to the next colon or decimal by pressing ‘:’ or ‘.’.

## ***Sample-to-Memory module***

A new Sample-to-Memory (STM) module is available with Release O. With the new STM module installed in either the Synclavier or Direct-to-Disk system, you set the input gain in dB.

### ***Sampling rate and input gain***

Linear gain settings stored with a Direct-to-Disk project created before Release O are automatically converted to the nearest integer values between -3 and +28 dB. You set the input gain for the Direct-to-Disk either from the Project Manager or the Audio Event Editor or from the Track Display. (For more information on setting the input gain, see the section "Direct-to-Disk inputs.")

During polyphonic sampling, you set the input gain from the Sound File Editor. (For more information on setting the input gain for poly sampling, see the section "The Sound File Editor.")

Regardless of which display you use to set the gain, the default value, 0 dB, represents unity gain.

## ***The Optical Disk display***

The Optical Disk Display now remembers the location of your current sound file and the type of information displayed. It is also faster at performing index updating while archiving. You can copy an entire category of sound files from your optical disk to your Winchester hard disk. You can abort a search by clicking the large trackball button. There are also two new optical disk utilities.

### ***Returning to the current sound file location and format***

The Optical Disk display has new display features. It now remembers the type of information displayed and your current sound file location until you leave the Real-Time Performance system or turn off the system. When you return to the Optical Disk display from another display, the Optical Disk display opens at the same sound file location at which you left it. Even if you display different sound file information (Names, Captions, etc.), the current sound file remains highlighted on the screen.

When you return to the Optical Disk display after having recalled a different sound file from the Sound File Editor, the Optical Disk display still shows the previous information and sound file location.

When you change the play markers on a sound file that has been stored on optical disk, the play markers can be saved using the UPDATE command, and the sound file data remains unchanged. Overall, the index updating process while archiving to the optical disk is significantly faster.

## *The Optical Disk Listing Utility*

You can produce a list of all the files and categories on an optical disk volume using the Optical Disk Listing Utility. The list can be sent to a printer or displayed on the terminal screen.

You can list filenames only or categories and filenames. In either case, the list can include the file length in seconds and in megabytes, the caption and a letter that indicates whether the file is a stereo file or a mono file.

The Optical Disk Listing Utility is accessed from the Monitor.

1. Insert the 5.25" disk labeled System Utilities Disk into the floppy drive and turn the lever down.
2. At the Ready prompt of the Monitor, enter the command

**old f0:oplist;run**

A message appears at the top of the screen.

Optical Disk Listing Utility version of 10 June 1988  
Enter name of index file or <RETURN> to quit:

3. Enter the name of the optical disk volume you want to list. It does not have to be the currently loaded volume.

This message appears.

Display File List [Y(es) or N(o)]?

*(continued next page)*

## *The Optical Disk Listing Utility (con't)*

4. Type the letter **y** if you want a list of filenames only. Otherwise type **n**.

Another message appears.

Display Category List [Y(es) or N(o)]?

5. Type the letter **y** if you want a list of categories and filenames. Otherwise type **n**.

Another message appears.

Display all file information [Y(es) or N(o)]?

6. Type the letter **y** if you want the list to indicate whether each file is a stereo file or mono file, the file length in seconds, the file length in megabytes and the caption. Type **n** if you do not want to include this information on your list.

The final message appears.

Send output to printer [Y(es) or N(o)]?

7. If you want to print a hardcopy of the list, be sure your printer is ready and type the letter **y**. If you want to display the list on the screen, type **n**.

When the specified list is printed, the Ready prompt reappears.

**Note:** You can halt the listing procedure at any time by pressing **⌘-Spacebar**. If you display the list on the screen, you can temporarily freeze the scrolling screen by pressing the F15 key. Press the F15 key again to continue the display.

## *The Optical Disk Repair Utility*

When you save or delete files on the optical disk, an error message sometimes appears on the screen.

Unable to write directory entry

If this message appears, you can use the Optical Disk Repair Utility to move the directory information to a new area of the disk. Running the Optical Disk Repair Utility decreases the amount of space available on the disk.

**WARNING:** If you have to repair disks often, your drive may have an alignment problem. Please contact your N.E.D. Customer Service representative.

## *Using the Optical Disk Repair Utility*

Run the Optical Disk Repair Utility only on disks which produce the error message shown on the previous page.

1. Insert the disk you want to repair into the optical disk drive and press the START/STOP button.

The Ready Indicator on the button blinks and then remains lit.

2. Insert the 5.25" disk labeled System Utilities Disk into the floppy drive and turn the lever down.

3. At the Ready prompt of the Monitor, enter the command

**old f0:oprepair;run**

A message appears on the screen.

Do you wish to repair this optical disk cartridge [Y(es) or N(o)]?

4. Type the letter **y** to begin the repair process, or type the letter **n** to return to the Monitor without repairing the disk.

If you type **y**, messages appear on the screen to indicate the status of the repair process. When the process is complete, the Ready prompt appears.

If the disk cannot be repaired, an error message appears. Please copy the exact text of the message and contact your N.E.D. Customer Service representative.

**Note:** Use a repaired optical disk only with Release O or updated Release N (revision date 6/21/88) software. Any other software will not recognize the repairs, and therefore will be able to access only files written before the disk was repaired.

## *Preparing to copy an optical disk category*

You copy sound files from an optical disk category to a Winchester subcatalog using the Optical Disk Display. See "Optical disk" in the manual *Organizing and storing sounds* for details about the optical disk and its display.

1. Insert the appropriate optical disk into the optical drive and press the START/STOP button.
2. The current catalog is indicated at the bottom right of the Main Menu. If you want to copy files into some other catalog, select the desired current catalog from the Subcatalog Directory.
3. Select the Optical Disk Display from the Main Menu.

The current volume is loaded automatically, and an information panel appears at the top of the screen. The optical disk window appears at the bottom left and the sound file window appears at the bottom right.

4. Set the display format selectors as desired. You can display categories, filenames, captions and file lengths.
5. Locate the desired category by using either the scroll bar or the Search button in the optical disk window.
6. Drag the category name to the field labeled Sound File at the top of the information panel.

The field label changes to Category, and the selected category name appears in the field. Two buttons, labeled Copy Category and Info, appear to the right of the field.

7. If desired, click the Info button to see information about the selected category and the current catalog. See "The Info button" on the following page for details.

## *The Info button*

When you click the Info button, a box containing information about the selected optical disk category and the current catalog of the Winchester appears on the screen. You can click the Info button at any time during the copy procedure.

The left side of the box lists the

- selected category name,
- number of sound files in that optical disk category,
- total amount of memory required to copy all the files.

The right side of the box indicates the

- name of the current catalog,
- number of files and subcatalogs it contains,
- total amount of memory available in the current catalog,
- largest amount of contiguous memory available in the current catalog.

Memory is measured in sectors. You must clear the information box from the screen before continuing the copy procedure.

- Click [CANCEL] when you are finished with the information box.

The information box is cleared from the screen. If a dialog box was displayed when you clicked the Info button, the dialog box reappears.

**Note:** You can increase the Largest Available Space number by using the Shuffle Utility to pack files together so that all available sectors are contiguous. See the section "Shuffle" in the *Reference Guide* manual for instructions.

## *Copying sound files to the current catalog*

You can copy all or some of the files from an optical disk category to the current catalog on the Winchester, provided that the current catalog has enough available memory and directory entries. You can click the Info button to see the number of entries and the amounts of required and available memory.

If the number in the Sound Files field added to the number in the Entries field exceeds 128, or if the number in the Total Sectors field is larger than the number in the field labeled Avail Sectors, a warning message appears before any files are copied. If you choose to continue the copy procedure, only files for which there is room will be copied.

Follow these instructions to copy sound files from the optical disk to the current catalog.

1. Click the Copy Category button.

A dialog box appears below the information panel. The dialog box contains [COPY] and [CANCEL] buttons and switches that indicate how the sound files are to be stored on the Winchester.

2. Set the switches labeled New Files and Existing Files as explained in "Selecting the sound files to be copied" later in this section.
3. Click the [COPY] button.

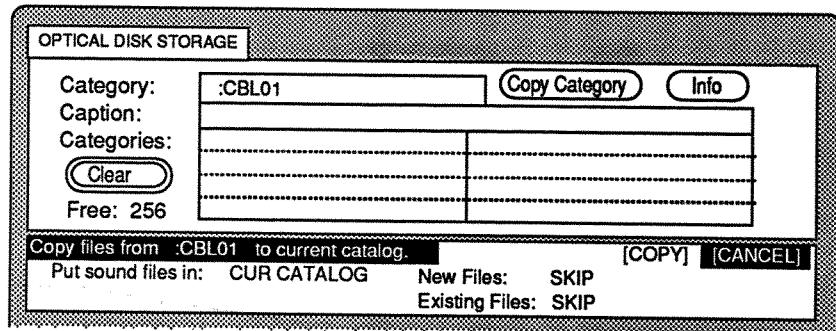
If you selected the Verify option for the New Files or Existing Files switch, a dialog box appears below the information panel before the files are copied. See "The Verify dialog box" later in this section for details.

The files in the selected category on the optical disk are copied to the current catalog on the Winchester disk and appear in the sound file window of the Optical Disk Display. When the process is complete, a message appears at the bottom of the screen.

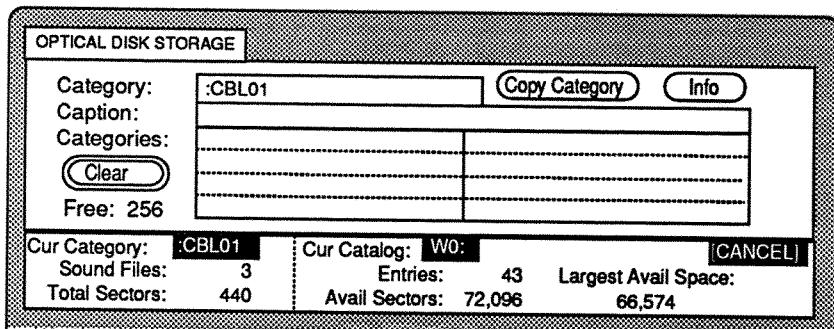
Optical disk operation completed successfully.

**Note:** You can click the [CANCEL] button in the Copy Category dialog box or in the warning message if you decide not to copy files from the selected category.

## *The Copy Category dialog box*



## *The Information box*



## *Copying sound files to a new subcatalog*

You can copy all or some of the files from an optical disk category to a new subcatalog within the current catalog on the Winchester, provided that the optical disk category is smaller than the largest available space in the current catalog. You can click the Info button to see the amount of memory required by the category.

If the optical disk category is larger than the current catalog, the copy procedure is aborted and an error message appears when you try to copy the sound files. If the category exceeds 128 sound files, a warning message appears before any files are copied. If you choose to continue the copy procedure, only files for which there is room will be copied.

Follow these instructions to copy sound files from the optical disk to a new subcatalog.

1. Click the Copy Category button.

A dialog box appears below the information panel. The dialog box contains [COPY] and [CANCEL] buttons and switches that indicate how the sound files are to be stored on the Winchester.

2. Set the switch labeled "Put sound files in" to NEW SUBCAT.

A field labeled "New Subcat Name" appears at the bottom left of the dialog box with the default subcatalog name.

3. If you want to change the name for the new subcatalog, click the subcatalog name.

The subcatalog name is highlighted.

4. Type a name for the new subcatalog.

The new name appears in the field.

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## *Copying sound files to a new subcatalog (con't)*

5. Set the switches labeled New Files and Existing Files as explained in "Selecting the sound files to be copied" on the following page.
6. Click the [COPY] button.

A new subcatalog is created and becomes the current catalog. The size of the new subcatalog is equal to the size of the optical disk category, regardless of how many sound files you want to copy. The subcatalog has a large directory, which means it can contain up to 128 entries.

If you selected the Verify option for the New Files or Existing Files switch, a dialog box appears below the information panel before the files are copied. See "The Verify dialog box" later in this section for details.

The files in the selected category on the optical disk are copied to the new subcatalog on the Winchester disk and appear in the sound file window of the Optical Disk Display. When the process is complete, a message appears at the bottom of the screen.

Optical disk operation completed successfully.

**Note:** You can click the [CANCEL] button in the Copy Category dialog box or in the warning message if you decide not to copy files from the selected category.

## *Selecting the sound files to be copied*

Files that have never been stored in the current catalog of the Winchester are **new files**. Files that previously have been stored in the current catalog are **existing files**. You can copy some or all of the sound files in the selected category by setting options on the switches labeled New Files and Existing Files.

### *New Files switch settings*

- SKIP     All new files are skipped. Use this option when you are updating existing files and do not want to copy any new files.
- COPY     All new files are copied. Use this option when you want to copy all new files from the selected optical disk category to the Winchester.
- VERIFY   A verification dialog box appears for each new file, allowing you to either skip or copy that sound file. Use this option when you want to copy some new files and not others.

### *Existing Files switch settings*

- SKIP     All existing files are skipped. Use this option when you are copying only new files and do not want to alter any existing files.
- REPLACE   All existing files are replaced. Use this option when you want to replace all existing files in the current catalog with the version of the file from the optical disk.
- VERIFY   A verification dialog box appears for each existing file, allowing you to either skip or replace that sound file. Use this option when you want to replace some existing files and not others.

**Note:** To copy the entire category at once, set the New Files switch to Copy and the Existing Files switch to Replace.

## *The Verify dialog box*

When you select the Verify option for the New Files switch, a dialog box appears for each new sound file in the category. When you select the Verify option for the Existing Files switch, a dialog box appears for each existing file in the category.

The dialog box displays the sound file name and all the options available for copying that file. You skip, copy or replace the sound files, one at a time, by clicking the appropriate button in the Verify dialog box. You can cancel the copy procedure by clicking [ABORT].

You also can change the name of the sound file shown in the Verify dialog box.

1. Click the sound file name in the Verify dialog box.

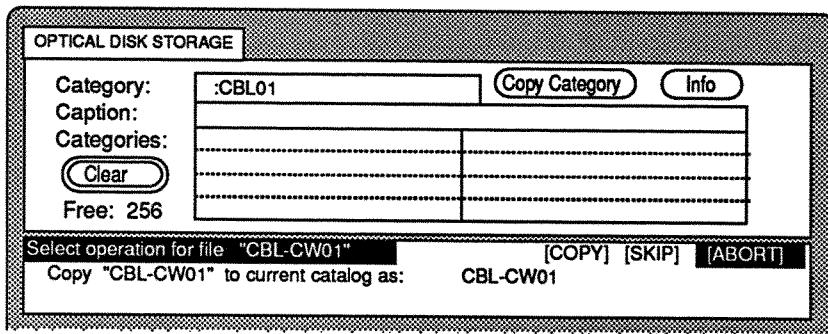
The name highlights.

2. Type a new filename. A valid filename has up to eight consecutive characters. Spaces and the following characters cannot be used.

? ! : ; , / \ < > + = % & \* | @

The options available for copying the newly named sound file may change, depending on whether or not the new name already exists as a file in the selected subcatalog.

## *Verify dialog box*



## *Summary of Copy Category options*

<b>switch</b>	<b>setting</b>	<b>result</b>
Put sound files in	CUR CATALOG	Copies sound files to current catalog of the Winchester.
	NEW SUBCAT	Copies sound files to new subcatalog within current catalog.
New Files	SKIP	Does not copy any new file.
	COPY	Copies all new files to the selected Winchester catalog.
	VERIFY	Shows a verify dialog box for each new file.
Existing Files	SKIP	Does not copy any file that already exists in the selected Winchester catalog.
	REPLACE	Replaces all existing files in the selected Winchester catalog.
	VERIFY	Shows a verify dialog box for each existing file.

## ***The Sound File Directory***

The Sound File Directory now has a memory display button, two memory buttons and a print button. In addition, you can abort a search by clicking the large trackball button.

When the optical disk is the selected device, you can choose to display categories only, files only or categories and files. When poly memory is the selected device, you can choose to display the poly bin assignment for each sound file. (See "The 64-voice poly system" in this manual for more details.)

### ***Removing the menu from the screen***

You can remove the menu selections at the top of the Sound File Directory by activating the new M (Menu) button located at the top right of the display. This is useful for displaying more sound files on the screen at once.

- Click the M button, or type M.

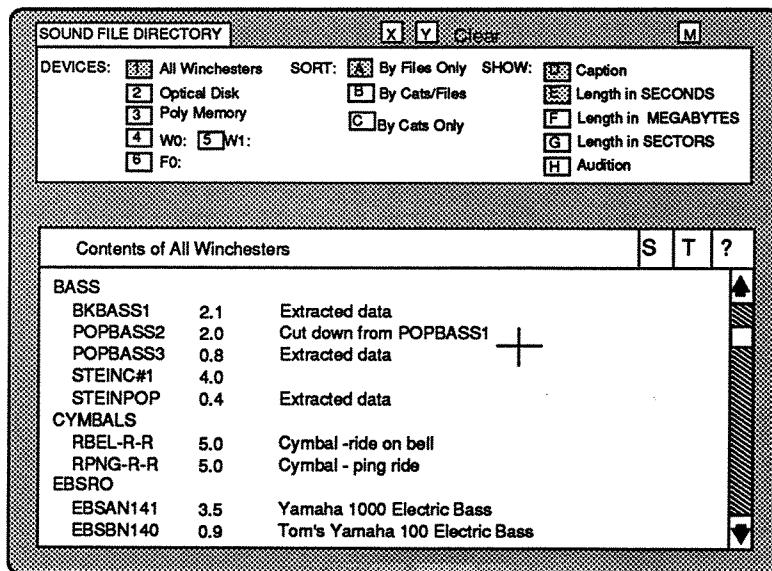
The menu selections at the top of the display disappear. Only the directory of sound files and the memory buttons appear on the screen.

Even when the menus do not appear on the screen, they can be activated by typing the letter or number associated with a particular menu selection.

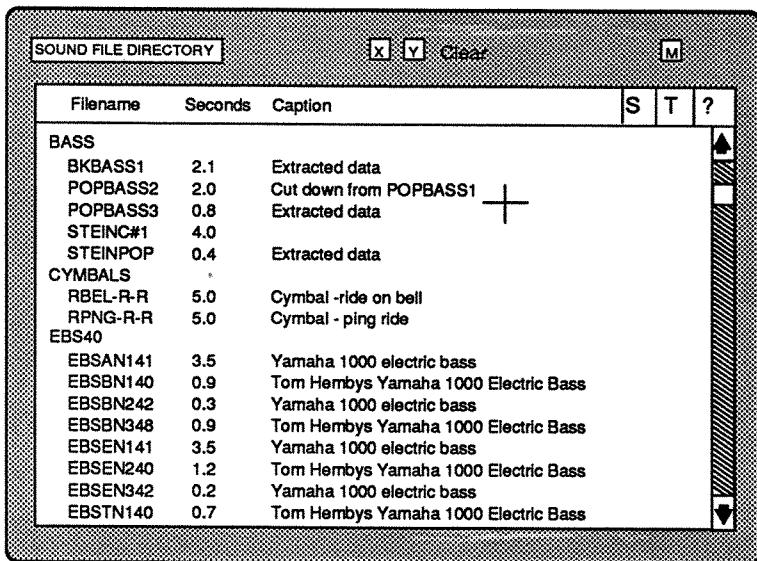
- Click the M button, or type M, again to return the menu selections to the display.

The menus reappear.

## *The Sound File Directory with menus*



## *The Sound File Directory without menus*



## *Location memory buttons*

The Sound File Directory has two location memory buttons labelled X and Y at the top of the display. Each button remembers a selected location on the screen and returns you to that location when activated.

1. Select a sound file from the Sound File Directory.

The sound file is highlighted.

2. Click the X memory button, or type X.

The button lights and remembers the location of the current sound file. This sound file is now the mark point to which the display returns whenever you click the X memory button or type X on the terminal keyboard.

Follow the same procedure for setting the Y location memory button.

When you no longer want to use the X memory button location, you can clear it.

1. Click Clear, next to the memory buttons.

Clear begins blinking.

2. Click the X memory button.

The X button and the Clear button unlight. The X memory button is cleared.

Follow the same procedure for clearing the Y memory button.

Memory buttons are also cleared when you change devices, leave the Real-Time Performance system or press Control-X or Control-Y.

## *Printing the Sound File Directory*

You can print a list of all the sound files and subcatalogs or categories displayed in the Sound File Directory.

1. Be sure that your printer is connected and the power is on. The printer must be in "ready" or "on line" mode.
2. Select the Sound File Directory from the Main Menu.

A list of devices and display formats appears at the top of the screen. Sound files are listed in the window at the bottom.

3. Select the desired device by clicking or typing the number preceding it. If you select the optical disk, you may have to insert the disk and load the volume (see "Optical disk" in the *Organizing and storing sounds* manual for instructions).

The list of sound files changes to reflect the selected device. If the selected device is a Winchester or floppy disk, only sound files in the top-level catalog appear. If the selected device is "All Winchesters," all sound files on all Winchesters are listed alphabetically by subcatalog and filename.

4. Select a display format from the SORT and SHOW options. You can select one or more SHOW options.

If you selected the optical disk, you can sort the sound file list alphabetically by category, filename or both. For any device, you can show names only, names with captions or names with lengths and captions. Lengths can be shown in seconds, sectors and/or megabytes.

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## *Printing the Sound File Directory (con't)*

5. Click the button labeled P near the top right of the sound file window, or type the letter p.

This message appears in the dialog box.

Click PRINT to initiate printout      [PRINT] [CANCEL]  
Title:

6. If you want to specify a title for the printout, click the field labeled Title and type the desired text.
7. Be sure your printer is ready and click [PRINT].

The printer produces a copy of the list that appears in the sound file window. If you specified a title, it appears on the cover page.

**Note:** You can halt the printing procedure at any time by clicking the large trackball button.

## **Sound File Editor**

The Sound File Editor has been improved in many ways that make its operation easier. User interfaces have changed in some cases. Most of the editing commands have been improved. Several new features and command enhancements have also been added.

### ***Crossfade times***

The use of crossfade times with the Delete, Cut, Copy, Extract, Loop and Reverse Loop operations has been improved and is now more flexible. The maximum possible length for crossfade times has been increased to 65,535 milliseconds (65.535 seconds).

You can designate a different crossfade time for the beginning and end of a Cut, Copy or Extract operation.

1. Select one of the above commands from the Modify menu of the Sound File Editor.
2. If you want to use the default crossfade time, press Return. If you want to designate a different crossfade time, proceed to Step 3.
3. Type the beginning crossfade time (in seconds).
4. If you want to designate an ending crossfade time that is different from the beginning crossfade time, type a comma (,) followed by the ending crossfade time (in seconds). If you do not type an ending crossfade time, the beginning crossfade time is used for both the beginning and the end.
5. Press Return.

The operation is performed with the crossfade times designated.

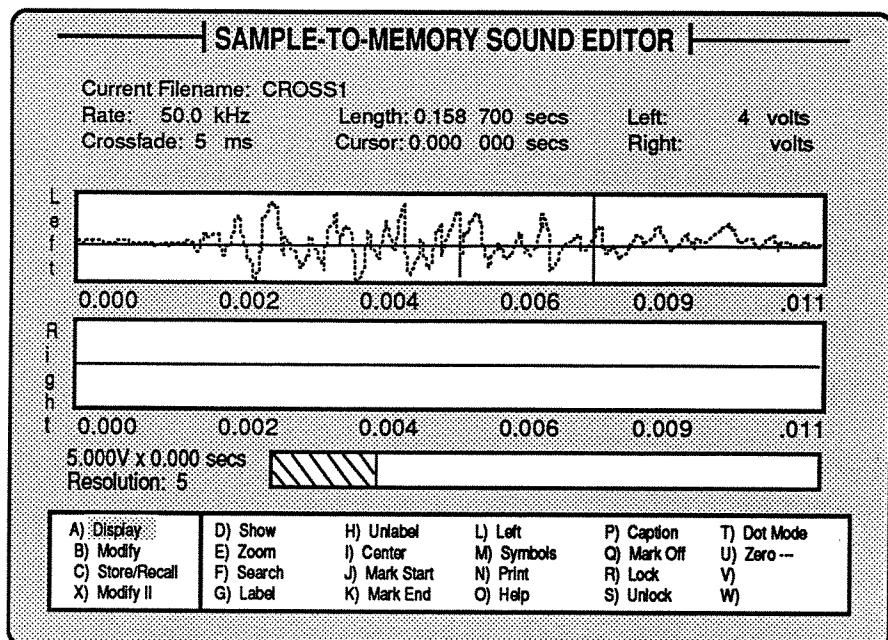
## *Setting the input gain*

With the new Sample-to-Memory (STM) module installed in your Synclavier, you set the input gain for polyphonic sampling in dB. The default value, 0 dB, represents unity gain.

1. Select the Record command from the Store/Recall menu of the Sound File Editor.
2. Select Gain.
3. Enter an integer value between -3 and +28 dB. Negative gain settings provide attenuation.

(For more information on the new STM module, see the sections "Sample-to-Memory module" and "Direct-to-Disk inputs.")

## The Sound File Editor



A) Display B) Modify C) Store/Recall X) Modify II	D) Reverse E) Cut F) Paste G) Extract	H) Delete I) Exchange J) Combine K) Ext Mono	L) Crossfade M) copy N) Fill O) Loop	P) Volume Q) Normalize R) Modulate S) Rev Loop	T) Mix U) Undo V) Invert W) DC Trim
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A) Display B) Modify C) Store/Recall X) Modify II	D) Save E) Unsave F) Rename G) Recall	H) Collect I) Record J) Max Time K) O)	L)	P)	T)
			M)	Q)	U)

## *Sound file windows*

Several new features have been added to the Sound File Editor.

### *Zero line*

You can now choose to display a zero line running horizontally through the middle of each sound file window. The amplitude level of the sample can vary five volts above or below the zero line.

You can toggle the zero line on and off.

- Select U, the Zero command from the Display menu of the Sound File Editor.

### *Drawing modes*

You can draw a sound file in one of two modes. Switching between these modes does not alter the sound file, only the way the file is displayed.

- **Line mode** connects sample points with a solid line.
- **Dot mode** plots one dot for each sample or group of samples, depending on the display scale.

You can toggle the dot mode on and off.

- Select T, the Dot Mode command from the Display Menu of the Sound File Editor.

### *Comparing sound files*

When comparing two mono sound files by placing one in the upper and one in the lower window using the LOCK command, you can now listen to either the current sound file or the locked sound file.

The locked sound file can only be played using the trackball or mouse; it cannot be played at the Synclavier keyboard.

## *Command enhancements*

Several additional features have been added or improved.

### *Recalling a sound file*

The Recall function has been improved so that the entire system is automatically searched when you recall a sound file. Sound files can be recalled either by filename or by treename. If an eight-character sound file name is typed in response to the Recall command dialog, the following areas are searched in order: polyphonic memory, the current catalog, the Winchester subsystem and the current optical disk volume. If a treename is specified, the system searches for the sound file using the path specified in the treename.

### *Mark Start and Mark End play markers*

When using a modify operation on a portion of the sound file which includes a Mark Start or Mark End play marker, the markers are preserved after the operation has been performed.

### *Moving sound files with the Max Time command*

If you have a 64-voice poly system, you can use the new Max Time command of the Store/Recall menu to move sound files from Poly Bin 1 to Poly Bin 2. When you activate the command, both bins are shuffled, and as many sound files as will fit in the second poly bin are moved from the first poly bin. (For more information on using the Max Time command, see "The 64-voice poly system.")

### *Verifying the Collect, Max Time and Print commands*

The Collect, Max Time and Print commands now ask you to verify the specified operation by typing OK. This helps prevent initiating these time-consuming operations accidentally.

## ***The Recorder Display***

Several enhancements have been made to the Recorder Display, including an improved Continue command and an Undo feature.

### ***General enhancements***

- The time field has been expanded on the Recorder Display to include FEET:FRAMES as a selection. The default selection is MEASURES.
- The command Ctrl-C continues playing your sequence from the current screen cursor position, not the song pointer position.
- You can go directly to the Sequence Editor by pressing Shift-period (.).
- After selecting a region using the right and left square brackets, you can unselect the region by typing another right and a left square bracket anywhere in the notelist.

An undo feature has been added which allows you to undo the most recent editing operation performed on the Recorder Display. (It does not undo operations performed on other displays.)

- Type Ctrl-U.  
The current sequence is changed to the version **before** the most recent operation.
- Type Ctrl-U again.  
The current sequence is changed to the version **after** the most recent editing operation.

You can toggle back and forth between versions by pressing Ctrl-U repeatedly.

The undo feature uses some notespace, so if you are running low on notespace, you can toggle the UNDO Enabled switch to NO.

## *The Recorder Display*

MEMORY RECORDER COMPARATIVE TRACK DISPLAY							
Change Selections: (SPACE)	Insert Note : -	Ped1	Ped2	ModW			
Review Instructions: (TAB)	Append Note: +	RibF	Brth	Ptch			
Add Independent Loop: ~	Append EFX: *	PrC#2	MIPgm				
Show Times in : SECONDS Show Sound File Offsets: YES UNDO enabled: YES							
Dur/End/Name/Vel: DURATION Show Real-Time Effects: YES Note Ripple: Off							
Track 1 "GUITAR G1-C5.1.1"		No Track Displayed			No Track Displayed		
Seconds	Duration						
26.000	A3	1.000					
27.000	G3	1.000					
27.000	D3	1.000					
27.000	D3	1.000					
27.000	B2	1.000					
* 27.000	G1	1.000					
Current Catalog: W0:							

## ***The Monitor module***

Two enhancements have been added to the Configur utility, which is accessed from the Monitor software.

### ***Configur utility and DO files***

At the top of the first column of the Configur utility, the Macintosh has been added to the Terminal listing. If you are running a Mac II as your terminal, you should select the Macintosh terminal setting.

At the bottom of the same column, Mouse Interface has been added to the selections. Set this option to YES if you are operating a 3-button Synclavier mouse and have a Mouse Interface Card installed. Set it to NO if you are not using a Synclavier mouse, or if you are using a trackball or the new terminal mouse.

If you find that your mouse is not operating, make sure that the Mouse Interface is set to YES.

It is now possible call DO files within DO files. The length of a DO file is no longer limited to four sectors.

## *The CONFIGUR utility*

C O N F I G U R Configuration Utility			version of 1 June 1988		
To change an item, move the cursor over the item and press the space bar.					
Press Q to quit (exit to MONITOR) or RETURN to write configuration.					
Configuration of: W0					
Terminal:	Macintosh	Graph:	Yes	Storage Devices:	D T L
Printer:	IDS/Dataprods			W0: (1)	5" SCSI 0,5,0
System Device:	W0:			(2)	5" SCSI 0,4,0
Current Device:	W0:			(3)	None
				(4)	None
Music Interfaces:				W1: (1)	5" 15 MB 0,0
Keyboard (D130):	Yes			(2)	None
Synthesizer (D160):	Yes			(3)	None
Sample-to-Disk (D66):	No			(4)	None
Computer Options:				F0:	5" Supermini
Memory Size:	60 K words			F1:	None
Printer Interface:	Yes			R0:	None
Mouse Interface	Yes			R1:	None
Processor Type:	C			T0:	1/4" Cartridge
Hardware Mul/Div:	Yes			O0:	12" Write -Once

## ***Sequencer enhancements***

Two general enhancements have been made to sequencer operation.

### ***Using the new frequency table***

The frequency resolution and accuracy of the polyphonic sampling voices has been greatly improved. You have the choice of continuing to use the old frequency table for new and existing sequences, or you can use the improved table. New sequences automatically use the new frequency table. When an old sequence is recalled, it automatically uses the original frequency table. You can override these defaults.

- Press the START button while holding the PITCH CLASS button on the second keyboard control panel.

The new frequency table for poly voices is selected.

- Press the STOP button while holding the PITCH CLASS button.

The old frequency table for poly voices is selected.

The choice of frequency table is stored with your sequences. When you recall a sequence, the appropriate lookup table is automatically recalled. Sequences created with Release O can still be played with earlier RTP software, but they use the original frequency table.

## *Disabling an independent loop*

You can disable all independent loops from the keyboard control panel while a sequence is playing.

1. Start the sequence.

The sequence begins playing.

2. Hold down the START LOOP button on the keyboard control panel.
3. Press either the START or STOP button on the keyboard control panel.

The sequence ignores all independent loops and continues playing beyond the loop.

## *SMPTE enhancements*

Several enhancements have been made to the SMPTE feature.

- A Take button has been added to the SMPTE offset time on the Synchronization and Time Control panel of the Audio Event Editor. It is used to take the current time.
- All SMPTE fields accept times up to 23:59:59. SMPTE times wrap around under time 00:00:00.
- Negative SMPTE numbers are available. Fifteen minutes before the current SMPTE offset is considered negative time.
- Positive SMPTE times work for a full 23:45:00 beyond the SMPTE offset.
- SMPTE defaults to Non-drop mode.
- A SMPTE generator button has been added to the Audio Event Editor Synchronization and Time Control panel.