Feature Summary for Release 4.10

Bug fixes carried forward from the Release 4.03.1 update

- Bug fixes to track sliding of grouped tracks
- Track groups now not erased when a Tempo Map is created
- Termulator now quits properly on ShutDown and Restart
- "Fat" Termulator and EditView® applications available
- Bug fixes to some of the 'window' menus
- EditView® preferences are now saved correctly

New Bug Fixes in 4.10

- A Termulator problem that broke the simple "Generate SMPTE" capability of the Synclavier® has been fixed.
- Several (actually many!) bugs were fixed so that the Sync Panel of the Audio Event Editor can correctly handle negative time values in the Compute SMPTE Offset and Compute Event Times sub-panels.
- A bug that caused the Synclavier® to freeze on the K page (Music Notation Screen) has been fixed.
- SFM updated to new platform and an editing bug fixed

New Features in 4.10

- Improved Termulator operation with 7100/8100 Power Macs™ at high baud rates.
- The "Journaling" feature of Termulator has been restored.
- Script/Reverse Compiler updates
- A preference option has been created for the operation of Track Grouping.
- "Export One File" Macintosh utility for transferring files from a Macintosh to a Synclavier® hard drive using SCSI.
- OPRENAME and OPREPAIR utilities are now included.
- The 'Guitar' compilations is available for anyone with the Digital Guitar hardware.
- AutoConform is available in an accelerated "fat" application for both PowerPC and 68k based Macintoshes.
- EditView® now has the ability to Save, Recall, and Revert the sequence that is memory. Additionally, it shows in the EditView® Title Bar the path and filename of the sequence that is recalled.
- Synclavier Error Messages Displayed in EditView®
- Refined 'Cue Sheet' printout capability in EditView®

What's been accomplished:

- Continued development in the area of Macintosh integration of the Real Time Software.
- All software verified with Macintosh OS 8.0

Details of 4.03.1 bug fixes.

Real Time Software:

- Some further refinements to track sliding from the VK panel were made. These enhancements will preserve the time relation between tracks being slid and the click track in all cases. 4.03 had a bug where the time relation between tracks and the click track could be lost if justification was enabled.
- A bug showed up in release 4.03 that caused track group settings to be lost when a tempo map was created by holding the click rate button and pressing a track button. This bug was fixed in 4.03.1.

Termulator:

- The PowerPC version of Termulator (A.K.A TermulatorPPC) did not shut down correctly in response to the Finder's "Restart" and "Shut Down" menu commands. This was been fixed in 4.03.1. This bug did not show up in Termulator68k.
- The PowerPC and 68k versions of Termulator are now combined into one 'fat' application called 'Termulator'. This change simplifies both the distribution and installation of the software as well as simplifies the operation of the 'Window' menu in other applications such as EditView®..
- The 'Window' menu in Termulator did not function correctly in 4.03. This has been fixed. The 'Window' menu now correctly handles 'aliases' to other applications.

EditView®:

- The PowerPC version of EditView® did not save its 'preferences' properly when quitting. The prefs were saved correctly if any printing had been done; they were not saved in other cases. The preferences (including window size, etc.) are now saved correctly in all cases.
- The 'Window' menu in EditView® did not function correctly in 4.03. This has been fixed. The 'Window' menu now correctly handles 'aliases' to other applications.
- The PowerPC and 68k versions of EditView® are now combined into one 'fat' application called 'EditView®'. This change simplifies both the distribution and installation of the software as well as simplifies the operation of the 'Window' menu.

Details of 4.10 Bug Fixes.

- A problem with the X-on/X-off processing in some versions of Termulator was causing the "Generate SMPTE" function of the Synclavier® to stop randomly, usually with a few seconds of starting. The fault has been located and the bug has been fixed.

- An old problem (circa Release 2.8) with the "Compute SMPTE Offset" function on the Q-Page 'Sync' panel has been fixed. This particular bug caused incorrect values to be calculated if a negative number was entered while in the "BEATS" or MEASURES AND BEATS" display mode. In fixing this bug several other potential bugs were discovered and repaired to prevent similar problems in the future.

- Users of the K-Page, particularly with older systems or those configured with 60K of core memory, have been experiencing crashing when that page was selected while an empty sequence was loaded. This was due to an error that caused the CPU to reference a location in memory that did not exist. This has been corrected and should now function properly in all configurations.

- A bug was fixed in the EDIT module that causes a system crash when editing files on a different hard drive than the current catalog. The source for the Sound File Manager has been located and updated for our modern Macintosh development platform.

Details of 4.10 Features.

Macintosh System 8.0

We have made the switch here at DEMAS, Inc. to using Macintosh OS 8.0 on our development systems. It appears to be a good and stable Mac OS release. At first I missed some software add-ons that I had been using to navigate around the Macintosh (the "Now" utilities). I eventually found some shareware replacements which work quite nicely ("MenuChoice", "Default Folder" and "GoMac"). I would recommend upgrading to Mac OS 8.0 on all PowerPC machines.

Improved communications with Power Macs™ at high data rates

Prior versions of Termulator did not work correctly on some Macintosh models running certain versions of the Macintosh OS. The result was frequent graphics errors making the Termulator window difficult to use. The problem was most noticeable on Power Macs™ running System 7.6 and later, at the higher baud rates. This was a complicated problem created by undesirable interactions between the 'serial driver' and the way in which Termulator used the serial ports.

Having a large or second video monitor contributed to the problem due to additional interrupt latency introduced when the large or second monitor was re drawn.

A menu option has been added to the Release 4.10 version of Termulator to provide control over the internal mechanism that Termulator uses to access the Macintosh printer and modem ports. The traditional 'polled' serial port mechanism is available when the 'Use Polled IO' menu item is checked (see the 'Terminal' menu). A new mechanism using 'DMA' IO provides superior performance on all PowerPC Macintoshes that are running System 7.6 and beyond. It may also provide improved performance on some 68k Macintosh models. By upgrading to System 7.6 or System 8.0 and unchecking the 'Used Polled IO' menu item, all systems should be able to reliably communicate at 38,400 BAUD.

Note: Using the 'DMA' IO setting is not recommended on PowerPC Macintoshes running Mac OS 7.5.1 and earlier as problems are known to exist.

I would recommend that you use "Polled IO" on any system running Mac OS 7.5.1 and earlier. I believe that "DMA IO" will work at higher data rates on all systems running Mac OS 7.6 and beyond. Intermediate systems (e.g. 7.5.3 and 7.5.5) will vary between platforms.

Note: Unfortunately, the Release 4.03 and earlier CONFIGUR program does not work correctly with the new Termulator when the new Termulator is using DMA serial IO. This bug is a result of a time measurement that CONFIGUR makes to try and figure out what kind of terminal it is talking to. The time interval is different when the new Termulator is used, so CONFIGUR gets confused. The 4.10 version of CONFIGUR fixes this problem and will work in all cases.

If you wish to use earlier versions of CONFIGUR, you will have to switch to "Use Polled IO" before starting CONFIGUR.

Journaling Feature Restored

Journaling is a feature that captures text from the screen and saves it in a text file. For example, if journaling is on while you are running the OPLIST utility, the list of files on the selected optical disk is saved in a text file. Once the text is captured, you can use a word processing program to edit and/or print the the file to a printer connected to the Macintosh.

To turn on journaling, press CMD-Option-del (the 'del' key is above the arrow keys). A dialog box asks you to name the file created. Output from the is then recorded to the file.

To turn of journaling, press CMD-Option-del again. The screen output is no longer recorded to the file. To add more captured text to the same file, turn journaling on again.

While journaling is on, you can also close the current file and open another. When you press CMD-Option-end, the current file closes and a dialog file asks for the name of a new file.

Look for menu support of Journaling in the near future.

SCRIPT/Reverse Compiler

Some updates were made to SCRIPT and the Reverse Compiler for release 4.10. For a number of years in the late 1980's features were added to the Real Time Software but were not properly updated in the SCRIPT language and Reverse Compiler. Some of these limitations have been addressed in Release 4.10, including:

- translation of the preferred Poly bin
- translation of Track Grouping assignments

Button Panel activation of Track Grouping

The response to the Track Grouping feature introduced in Release 4.03 has been very positive, however several users reported having difficulty with the 2-second timer that was used to start the feature. We have made 3 changes to the way Track Grouping operates in Release 4.10 to accommodate these requests:

1. Track Grouping while Playing - Release 4.10 will **not** enter the 'Create' or 'Modify' track group menu while the sequencer is playing. There are several situations while playing where track buttons are held for extended period of times - for example when setting up independent loops. Release 4.10 will not create a track group while playing no matter how long the track button is held.

2. Hold the 'SEQ NAME' button and press a track button to create a track group - Release 4.10 lets you bypass the 2-second timer by pressing and holding the SEQ NAME button and then pressing a track button. The SEQ NAME button is used to control the 'start-up-notes-in-middle' function. It has never been used to enter a sequence name. Pressing and holding the SEQ NAME button and then pressing a Track button will force immediate entry into the 'Create Track Group' or 'Modify Track Group' menu, even if the sequence is playing.

3. MONITOR 'GRP' Preference - a preference option has been added to the MONITOR to disable track group creation by holding track buttons in all cases. This setting may be desirable for users that find the 'Create Track Group' or 'Modify Track Group' menu appearing when not intended. The relevant MONITOR commands are:

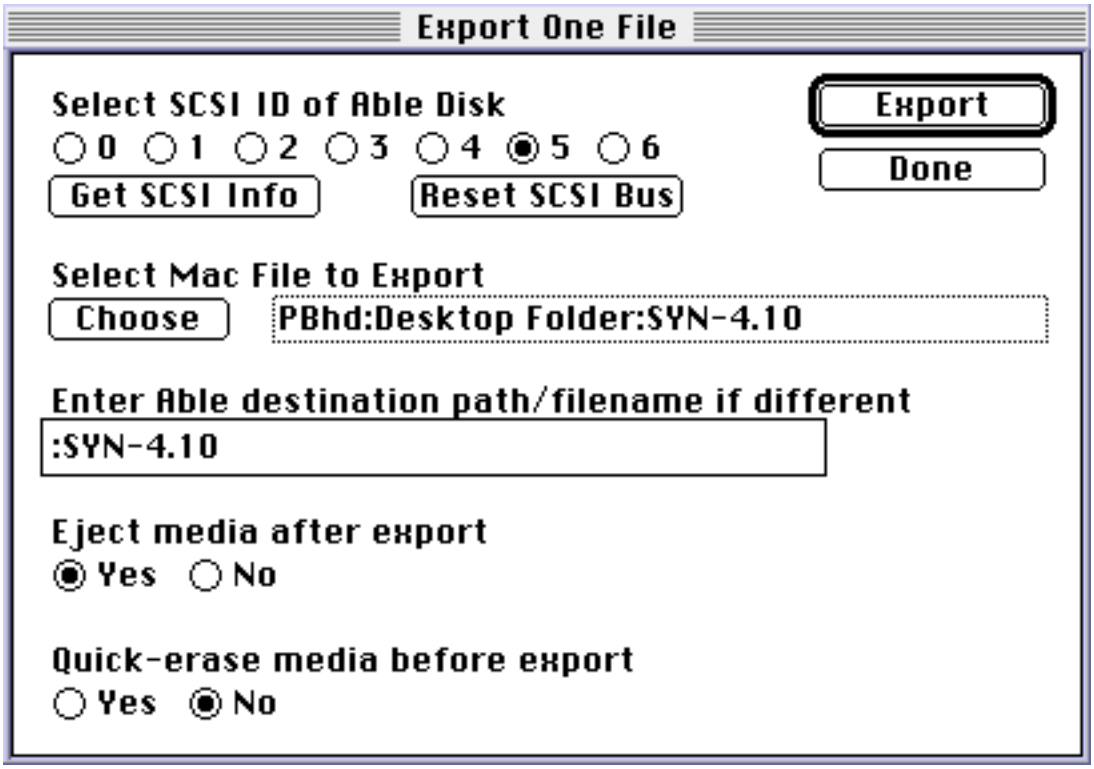
SET GRP ON
SET GRP OFF
and SHOW GRP.

The GRP preference defaults to ON; that is, Track Groups can be created or modified by holding a track button for 2 seconds. When the GRP preference is set to OFF, Track Groups can only be created or modified by holding the SEQ NAME button and then pressing a track button.

You may add 'SET GRP OFF' to your PROFILE file to set this preference to OFF whenever your system starts up, if you wish.

Export One File

Screen shot of the *Export One File* dialog window:



The *Export One File* utility is used to transfer a file from the Macintosh to a Synclavier® hard drive connected to that Macintosh. Media control is provided, as is the ability to initialize the Synclavier® hard drive before exporting (**to be used with care!!!**).

My initial purpose for creating this utility program was to provide a mechanism for e-mail distribution of software updates. Over the next few releases we hope to expand the capabilities of *Export One File* to include the ability to import files to the Mac, and to convert files from AIFF to Synclavier®-specific sound file formats.

The *Export One File* is not included in this disk set, however, it is available to those who would like to try it. Please let me know if you have an immediate interest in this utility program and I will send it to you via e-mail.

Guitar Compilation

A guitar compilation of Release 4.10 is available to anyone using the NED Digital Guitar hardware. Please let us know, if we are not already aware, that you need a copy.

OPRENAME and OPREPAIR utilities

OPRENAME and OPREPAIR utilities have updated SCSI protocol to better handle Magneto Optical drives. They are now included in the ABLE system software. Additionally, all files on the System Utilities diskette have been updated wherever applicable.

OPRENAME appears similar to OPREPAIR initially but instead allows you to change the name of an optical volume. This is useful when a copy of an optical volume is made for use within the same facility. Volumes with identical names can be confused by a system and, because the physical location of files on each media is **not** identical, incorrect sound file data can be recalled to memory. For this reason it is recommended that no two optical volumes within a facility ever be given exactly the same name.

AutoConform

The source for AutoConform has been located and converted to CodeWarrior Pro 1.0. At this point in time we have created a 'fat' AutoConform application that is included in Release 4.10. We plan to add several new features to AutoConform during 1998.

We believe that the source we have for AutoConform is the correct source for the version that has been in use for several years. However, bugs could be introduced in the current version as a result of switching to the CodeWarrior development environment. Please let me know if the operation of AutoConform has been changed in any way for release 4.10.

Saving and Recalling the Synclavier® Sequence from EditView®

You can now save and recall the Synclavier® Sequence from EditView®. Four basic capabilities are available:

1) Recall a named 'stored' sequence by path and filename
2) Save (or replace) a 'named' sequence to a specified path and filename
3) Save the current 'in-memory' sequence back from where it was called up from.
4) Revert the current 'in-memory' sequence to it's most recently saved version.

Four buttons have been added to the EditView™ Screen to accomplish this:

NEXT, PREV, STORE, and RECALL

The **NEXT** and **PREV** buttons are used to scroll through the list of sequences that are available on the Synclavier®. These buttons mimic the Motion Panel forward/backward buttons in the Audio Event Editor. Additionally, a text field just to the right of the **NEXT** and **PREV** buttons is available to enter path and file names.

You will notice that the **NEXT** and **PREV** buttons in EditView® are "linked" to the forward and backward scroll buttons in the Motion Panel. Scrolling can be performed either from EditView® or the Motion Panel.

To use **NEXT** and **PREV** buttons, enter the starting path name in the field provided to the right of the buttons. Press <RETURN> to enter the path name into the Synclavier®. You will see the path name appear in the Motion Panel if that screen is visible.

User tip: For best results, type a ':' at the end of the path name, such as "W0:" or ":SEQCAT:".

Once you have entered the path string, you can use the **NEXT** and **PREV** buttons to navigate through the sequences that are saved on disk.

Of course, you may type in the complete path and file name directly if you prefer.

Once the path and file name are shown, you may use the **STORE** or **RECALL** buttons to access the specified file.

When a sequence is called up, the path and filename of that sequence are shown as the title of the EditView® window. The title of the EditView® window is updated whenever a sequence is recalled, whether from the button panel, from the C-page, or wherever.

Using the **SAVE** and **REVERT** menu choices

The **SAVE** menu choice (activated by cmd-S) stores the current sequence back to where it was called up from. In Synclavier® terms, it should be viewed as a "replace" function.

Note that the **SAVE** menu choice does not use the path name or file name entered for the **NEXT** and **PREV** buttons. Instead, the **SAVE** menu item uses the name shown for the EditView® window to identify where to save the sequence.

REVERT is used to reread the sequence into memory from where it was most recently save to, or recalled from. Any changes that had been made to the sequence in memory will be discarded. **REVERT** uses the path name and file name shown as the title of the EditView® window to identify the Synclavier file to use.

Synclavier Error Messages Displayed in EditVIew®

Error messages from the Synclavier® and DTD are now displayed in the lower-left corner of EditView®'s window. In some cases, when operations like Store and Recall generate errors, they will be displayed as alerts.

Cue Sheet Printing from EditView®

The 'Cue Sheet' printout capability in EditView® has been refined and enhanced with more formatting and time-scaling options. Additionally, Project/Track names are now displayed in the printout and are taken directly from the Synclavier® sequence.

Event alignment has been improved to better indicate sequence timing to the mixer.

The 'Event Break' feature allows the user to print cues which occur closely in time, on a single track, to be printed as a single event for ease of display. To prevent the 'event break' feature from combining specific cues, place an exclamation point as the first character of a cue's dialog. Any cue beginning with an exclamation point will never be joined with preceding cues.

If an event is continued to another page, the word "continued" is printed at the top of the that event on the next page, along with the name and caption. This alerts the mixer to the fact that this is an event already in progress.

Note: At this time, 'Punched In' cues do not get "continued" text.

You can now stop printing at any stage without crashing the Macintosh®. Previously, in some cases. Editview™ would crash when Command-Period(.) was pressed to stop the printing process.

Note to users of Hewlett-Packard printers: Pressing Command-Period(.) to cancel from the print dialog when using Hewlett-Packard printers does not work. As far as we can tell, this is because the HP driver does not allow key presses to be read by software using the driver, preventing EditView® from detecting the cancel command.