

**Release Notes for Synclavier® Release 5.1,  
Synclavier® PowerPC™ 5.1  
InterChange™ 1.5  
and InterChange™ 2.5**  
March 15, 2001



## **A New Name for an Old Friend!**

Beginning with Release 5.0 we switched to a consistent release numbering across the multiple applications and modules that make up the Synclavier® software base. With the exception of InterChange™, all modules will bear the 5.1 designation for this release. We were unable to make use of that terminology for InterChange™ since InterChange™ is still divided between two independent modules (InterChange™ 1.5 and InterChange™ 2.5). We anticipate that InterChange™ 2.5 will absorb the entire InterChange™ 1.5 feature set within the next 8 months; a renamed InterChange™ 5.0 will be released at that time.

## **What was introduced in Release 5.0?**

Release 5.0 provided a comprehensive update to all Synclavier® software, both for the original "Model D" processor and for the Synclavier® PowerPC™ hardware platform.

Bug fixes and new features introduced in Release 5.0 include:

- The Frames-Per-Beat metronome displays in the Real Time Software were reworked to provide separate film-frames and SMPTE-frames per beat as well as the desired 80<sup>th</sup> and 800<sup>th</sup> of a beat resolution.
- MIDINet's 'Export MIDI File' feature has been improved and made more accurate.
- A "Show Loops" option was added to the Sound File screen (B screen).
- A bug that occasionally corrupted sound files when saving files from poly memory to disk was fixed.
- Numerous changes were made in Synclavier® PowerPC™ to provide accurate timing under Mac O/S 9.0.4. These timing errors showed up as Direct-to-Disk dropouts when chasing SMPTE timecode on Macintoshes using Mac O/S 9.0.4.
- Support for AIFF, SoundDesigner® II and .WAVE soundfile formats was added to InterChange™ 1.5
- Many new features were added to InterChange™ 2.5, including the ability to seamlessly browse and manage multiple disk image files located anywhere on your Macintosh or its Local Area Network.

## What's New In InterChange™?

InterChange™ includes some important new features for release 5.0. InterChange™ 1.5 now includes native support for AIFF, SoundDesigner® II, and .WAVE soundfiles located on your Macintosh. Those sound files can be easily exported to a Synclavier® hard drive or disk image file. Additionally, Synclavier® sound files can automatically be converted to AIFF, SoundDesigner® II, or .WAVE format as they are imported to your Macintosh.

InterChange™ 2.5 also has many new features, including its ability to

- easily navigate multiple disk image files located anywhere on your Macintosh or it's Local Area Network.
- rename files, create subcatalogs and copy files and subcatalogs between disk image files and Synclavier® hard drives.
- easily change the InterChange™ setup using Macintosh Drag-and-Drop.
- browse, rename files and delete files from optical image files and media.
- copy sound files from optical media or optical image files to a Synclavier® hard drive or disk image file.
- quickly and easily change the current optical platter using Macintosh Drag-and-Drop.

## What's New In This Release?

Release 5.1 introduces numerous bug fixes and several feature additions to the Synclavier® Real Time Software. See the detailed notes at the end of this document.

## What's Coming Up?

Our big development push over the next 8 months will be to complete a modern user interface and mechanism for the management of Synclavier® sound files, sequences and timbre libraries. This mechanism will include 32-character soundfile names plus the ability to directly call up Macintosh-resident soundfiles to the keyboard. The **Find...** functions in InterChange™ will be completed. The support for AIFF, SoundDesigner® II and .WAVE soundfiles will be migrated from InterChange™ 1.5 to InterChange™ 2.5.

## **Synclavier® Release 5.1 5<sup>1</sup>/<sub>4</sub>" Diskettes**

A series of 8 5<sup>1</sup>/<sub>4</sub>" SuperFloppy diskettes provides a copy of all 5.1 System and Real-Time software for the Model D hardware platform. These diskettes can also be used to install the Release 5.1 operating software on a Synclavier® hard drive that is used with Synclavier® PowerPC, although it is typically easier to use InterChange™ for that purpose.

2 diskettes - System Software

2 diskettes - Real Time Software (SYN-5.1)

2 diskettes - Real Time Software with Guitar (SYN-5.1G)

1 diskette - Music Printing and XPL Compiler

1 diskette - Winchester Bootload Diskette

## **Synclavier® Release 5.1 Macintosh Diskettes**

A series of 2 Macintosh HD Diskettes installs the basic Macintosh applications, including Termulator, EditView®, AutoConform, MIDINet®, TransferMation™ and InterChange™ 1.5. The MixMap™ cue sheet printing software for use with EditView™ is also included on these diskettes.

## **Synclavier® PowerPC™ 5.1 CD-ROM**

The Synclavier® PowerPC™ 5.1 CD-ROM installs all Macintosh and operating software, including Synclavier® PowerPC™ 5.1.

## **Digital STM™ 5.1 CD-ROM**

The software to support the Digital STM™ option is packaged on it's own CD-ROM for Release 5.1.

## **Documentation**

User documentation for the new features follows.

## MIDINet's "Export MIDI file" feature

The two remaining known flaws in MIDINet's "Export MIDI file" feature have been fixed.

MIDINet now takes the Synclavier's SPEED parameter into account when translating tempos for export to MIDI files. This means you will be able to accurately export Sequences containing "Frames per Beat" tempos. Since "Frames per Beat" tempos required a SPEED setting of 0.960, such sequences didn't export correctly in the past. (Actually any sequence with a SPEED other than 1.000 didn't export correctly in the past.)

Also prior versions of MIDINet exported incorrect tempos if the sequence had a tempo/meter map with divisions per beat not equal to 480. The divisions per beat is determined by the setting of the CLICK RATE parameter (in milliseconds per beat) at the instant the map was activated. This means that if your CLICK RATE was not set at 480 milliseconds per beat when you activated your map, the tempo(s) in your MIDI file would be wrong. This problem is now fixed.

In short, MIDINet's "Export MIDI file" feature simply works now regardless of any ifs, ands or buts.

A technical hedge regarding tempo precision in MIDI files:

Please be aware that unlike Synclavier sequences, MIDI sequences are not capable of producing all standard "Frames per Beat" tempos with exact precision. This is because MIDI tempos must be an integer number of microseconds per beat, whereas the Synclavier's SPEED parameter allows the actual resulting tempos to include fractions of microseconds.

As a worst case example, consider a CLICK RATE of 520 milliseconds per beat scaled by a SPEED of 1.024. This results in an actual sounding tempo of 507812.5 microseconds per beat. MIDINet has to round off the .5, and consequently the MIDI sequence will drift by half a microsecond for each beat. However that's not so bad, because even with this worst case scenario, it will take 2000 beats just to drift 1 millisecond. Furthermore, when using a SPEED of 0.960 for "Frames per Beat" tempos, it turns out that the most you'll ever drift is one third of a microsecond per beat, which translates into 1 millisecond per 3000 beats.

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## PowerBook Enter Key

It has been noted that when running Termulator or Synclavier® PowerPC™ on a PowerBook, the Enter key did not function as expected. This was because the PowerBook's Enter key emits a different key code than the Enter key found on the numeric keypad of extended keyboards. To avoid this inconvenience, as of this release Termulator and Synclavier® PowerPC™ will recognize the PowerBook's Enter key as well as the numeric keypad Enter key.

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## FRAMES PER BEAT TEMPOS

### Background:

As explained above in the “technical hedge regarding tempo precision in MIDI files”, MIDI based sequencers are not capable of accurately producing the film industry standard Frames per Beat tempos (often referred to as the “Knudsen Book” tempos.) By contrast, the Synclavier will produce these tempos if the SPEED is set to any multiple of 0.192. For this purpose a SPEED of 0.960 is typically used because it is the multiple of 0.192 closest to 1.000. Because of this, prior to Release 4.4 the CLICK RATE was automatically displayed as Frames per Beat if the SPEED was set to 0.960. While this feature was useful to film composers needing to conform to the Knudsen book standard, it suffered from a few drawbacks. First of all there was no choice. If we happened to have a SPEED of 0.960 we were forced to view the CLICK RATE in Frames per Beat whether we wished to or not. Also there was no way to see the approximate Frames per Beat resulting from any other SPEED setting. Most troublesome of all, when using a tempo or meter map the Frames per Beat display didn’t work at all.

All of these problems were solved with Release 4.4. A new Frames per Beat tempo display mode was added and all tempo display modes worked regardless of the SPEED setting. Unfortunately this implementation suffered from a few drawbacks as well.

- The Film frame rate was used only if the time display mode was set to Feet:Frames. Otherwise the SMPTE frame rate was used. This not only required the user to go to extra effort to view and enter tempos in Film Frames per Beat, but since the frame rate used would revert to the SMPTE frame rate as soon as notes were displayed as Beats or some other format, it was far too easy for us to think we were viewing Film Frames per Beat when in fact we were viewing SMPTE Frames per Beat.

To solve both of these problems, this release features two independent frame tempo display modes “Film Frames per Beat” and “SMPTE Frames per Beat”. Now you can simply select the display mode you want, and it will remain in effect regardless of what time display mode you use to view your notes.

- It is conventional to express Frames per Beat tempos with the digit after the decimal point referring to eighths of a Frame. For example, “12.3” means twelve and three eighths of a Frame per Beat. Prior to Release 4.4, the Synclavier conformed to this convention. Due to an oversight, the Release 4.4 implementation did not. Consequently the user would have to dial in 12.375 to achieve twelve and three eighths. This was a further cause of some confusion and difficulty.

This has been corrected in this release. Note that owing to the microsecond level of precision available when using a tempo or meter map, there are now three digits after the decimal point. You can think of these as 800ths of a frame. Therefore to get a 12.3 tempo (twelve and three eighths), you would dial in 12.300. With mapped sequences you can dial directly to the standard Knudsen book tempos by holding the CLICK RATE button as you dial.

### A Note About Accuracy With Mapped Sequences

“Beats per Minute” and “Frames per Beat” are merely modes of display and entry for the convenience of the user. The click rate stored in the sequence is actually always in Microseconds per Beat. When you enter a tempo in any display mode, the nearest equivalent Microseconds per Beat click rate is computed. However, changing the tempo display mode does not alter the underlying click rate. Therefore if you select a different tempo display mode after entering a tempo, the underlying click rate is probably NOT the nearest equivalent to the newly displayed value.

As an example, suppose we have a mapped sequence with the SPEED set to 0.960. We can dial the CLICK RATE to any of the 50 discreet values from 479,975 to 480,024 Microseconds per Beat, and ALL of them will display as 12.000 Frames per Beat. (The CLICK RATE that would result in an exact “12.0” is 480,000 in this case.)

Consequently, if it is important to you that the actual tempo is as close as possible to the value displayed in a given mode, you can assure this by re-entering the tempo while the desired display mode is active.

### I know I’m driving this into the ground but...

Please be aware that unless the SPEED is set to 0.960 (or some other multiple of 0.192) any Frames per Beat tempo displayed is likely to be a rounded value. To achieve an exact Knudsen book standard tempo, it is still, as before, necessary to set the SPEED to .960 or a multiple of 0.192.

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### B-page “SHOW LOOPS” feature

A display mode has been added to the B-page (Sound File Directory) which allows viewing and printing the start times, end times and lengths of sound file loops. The loop times displayed here should not be confused with the “butt-splice patch loops” that can be viewed on the I-page. Rather, these are the SFM or L-page “crossfade loops” embedded in the sound files themselves, which were until now hidden from the user.

This feature has been added primarily to serve the following two purposes:

1. When looped sound files are transferred to another platform via S/link, where the loops may need to be re-created, we will now be able to know what the original loop times were.
2. Consider the common task of pitching a looped rhythm sample such that it matches a particular tempo. The new “show loops” feature enables us to remove the guesswork and perform this task more quickly. We can now simply look up the loop length and calculate the exact tuning needed\*, rather than going through the more time-consuming and less accurate method of repeatedly playing the sample against the click track while turning the knob, waiting for the sample to get far enough out of sync with the click, and trying to ascertain whether it’s drifting behind or ahead.

\* For the algebraically challenged: Following are formulas for determining the tuning needed to make a sound file loop match a `desired_tempo`. Note that `number_of_beats` refers to the number of beats that are actually looped in the sound file.

If you wish to tune using a HERTZ parameter such as PARTIAL TUNING, use the following:

if `desired_tempo` is expressed in seconds per beat...  
$$\text{hertz} = 440 * \text{loop\_length} / (\text{desired\_tempo} * \text{number\_of\_beats})$$

if `desired_tempo` is expressed in beats per minute...  
$$\text{hertz} = 22 * \text{desired\_tempo} * \text{loop\_length} / (3 * \text{number\_of\_beats})$$

If you wish to tune using a SEMITONES parameter such as the I-page's tuning field, use the following:

(You will need a calculator that can handle logarithms)

if `desired_tempo` is expressed in seconds per beat...  
$$\text{semitones} = -12 * \log(\text{desired\_tempo} * \text{number\_of\_beats} / \text{loop\_length}) / \log(2)$$

if `desired_tempo` is expressed in beats per minute...  
$$\text{semitones} = -12 * \log(60 * \text{number\_of\_beats} / (\text{desired\_tempo} * \text{loop\_length})) / \log(2)$$

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## L-Page BUG FIXES

### Saving Soundfiles From Polymemory To Winchester: Bug #1

Some soundfiles, when being saved from Polymemory to Winchester, were saved with sections of audio erroneously taken from elsewhere in Polymemory.

### Saving Soundfiles From Polymemory To Winchester: Bug #2

When prompted to enter a name for the soundfile to be saved, if you pressed RETURN to use the existing name by default, and the existing name had less than eight characters, the system reported "Error: Invalid Character in Filename".

### Displaying Very Short Soundfiles

An infinite loop (i.e., system hang) occurred whenever a soundfile containing only one sample was displayed on the L-page. Also, when displaying soundfiles containing only two samples, spurious and meaningless time tick marks were plotted on the Landscape Display.

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## Functional Consolidation Of The Sequence Stop Buttons

As you probably know, STOP buttons pertaining to the sequencer can be found in several locations. Probably the three most commonly used are on the Velocity Keyboard, on the S-page and on the Motion Control Panel of the Q-page. While it may appear at first that they are functionally equivalent, more thorough use reveals that they are not the same. For example, when incoming SMPTE is present the VK STOP button would stop the sequencer, but the S-page and Q-page STOP buttons would not. Similarly, if the sequence was not running and Direct To Disk cues were playing, pressing the Motion Control Panel's STOP button on the Q-page would stop the cues from playing, but the VK and S-page STOP buttons would not.

Because it was a little frustrating to press STOP to no avail and then to have to go searching for the right flavor of STOP, we have made the three aforementioned STOP buttons (more nearly) functionally equivalent. That is, all three will now stop the sequence even if incoming SMPTE is present, and all three will stop Direct To Disk cues from playing even if the sequence was not running.

Note: When the sequence is not running, the VK STOP button can be pressed to stop any stuck MIDI notes. This function is still not shared by the S-Page and Q-page STOP buttons.

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### Barely worth mentioning, BUT...

- A bug was discovered and fixed which allowed long headings on the windows in the B-page and R-page to plot over the buttons.
- Some math routines used extensively by the Synclavier and the Direct to Disk have been replaced by new routines which run three to five times faster on D-processor systems and somewhat faster on PPC systems. It is unknown whether this boost in performance will manifest itself in any way noticeable to us carbon-based life forms.



### New Mod-Wheel Proxy Function

Many customers don't have pedals attached to the Ped1 or Ped2 inputs on the back of their keyboards, or find them difficult to control or uncomfortable to use. Others have expressed a desire to be able to control MIDI volume (Ped1) using the mod wheel. To address these issues we have implemented an easy and intuitive way to use the mod wheel to generate any of the other monopolar RTEs (Ped1, Ped2, ModW, Brth). Now when you press the mod wheel button, you can dial whatever controller you want the mod wheel to proxy for. You can even change what type of RTEs the Mod Wheel will generate "on the fly" while you are recording. As one beta-tester exclaimed, "I just gained a bunch of controllers I've never been able to use before.". You can quickly return to the default behavior "ModWheel -> ModW" simply by double-pressing the mod wheel button.

#### Understanding the new Mod Wheel Proxy feature

When you press the Mod Wheel button, you will have the option to dial up whatever controller you want the physical mod wheel to proxy for. What this means simply is that when you move the mod wheel, the Synclavier will think that you moved the proxied controller. For example if you set the ModWheel to proxy for Ped1, then moving the mod wheel will generate Ped1 RTEs which will modulate whatever Pedal 1 is patched to. This does *\*not\** mean that whatever the mod wheel was patched to becomes what Pedal 1 is patched to. While the mod wheel is proxying for Ped1, the Synclavier thinks that the mod wheel is not being moved, and any movement on the actual Pedal 1 is ignored. Bear in mind that the proxying applies to the physical controller, not to any previously recorded RTEs.

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#### S-Page

Three bugs dating from the inception of the S-page are now fixed.

1. When starting the S-page for the first time after launching the RTP, the time fields were displayed as Seconds regardless of what the time format was actually set to. If your time format was set to anything other than Seconds (Beats for example), attempting edits with the time fields in this state could cause confusion and an error messages.

Tip: You can set your preferred default time format using the Q-page's Events panel, and then save it by clicking the "Defaults:Write" button.

2. When activating the "Cut/Paste" panel, the "Paste at" time was erroneously 50 milliseconds after the "Edit Start" time. Now it will match it as intended.
3. Jogging did not work on the click rate field in the settings panel. ("Jogging" refers to decrementing or incrementing numbers or switch positions using option-click and command-click respectively.)

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## Q-page Optical Transfer panel

The Optical Transfer panel was the last feature added to the Q-page before New England Digital was shut down in 1992, and apparently had not been thoroughly tested and debugged before the plug was pulled. Indeed I had always found it to be quite problematic and crash-prone, and it had long been on my wish-list of things to fix. With Release 5.0 it took a turn for the worse and began crashing more frequently and more immediately. This finally prompted the long needed overhaul in which we have identified and repaired the two original flaws as well as the new one that appeared in Release 5.0.

For those who like to know these things, the problems we repaired are outlined below:

1. Corruption of internal memory, usually resulting in a crash or erratic behavior. (This is the problem that appeared in Release 5.0.)
2. Corruption of external memory, often causing other Q-page panels to cease working properly and often preventing the index update operation from succeeding.
3. The down-triangle to the left of the cue name, used for loading the next cue (as listed alphabetically by name), did not work when the current cue's name exceeded 27 characters.

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## Q-page Cue Edit and Cue Trim Panels

### 24-hour SMPTE Wrap-around

It used to be that whenever the current cue's SMPTE start time was 15 minutes or less \*before\* the SMPTE start time of the current sequence, the system interpreted the cue's start time relative to the sequence as a negative number. This resulted in the error message...

MT: "Cannot enter values before start of sequence"

...and the cue's SMPTE start time was replaced with that of the current sequence.

This had several drawbacks. For starters it was unnecessarily restrictive. One ought to be able to review one's cues and see their audition times regardless of when the current sequence starts. Worse yet, since the cue's SMPTE start time was replaced with that of the current sequence, if the user didn't notice this and re-saved the cue (by renaming it for example), the cue's original start time was irretrievably lost. Furthermore, if the Audition Mode were enabled (or you attempted to place the cue), the negative time would cause a system crash if the sequence was mapped.

To Solve all of these problems, any cues starting before the current sequence are now simply interpreted as starting 24 hours later. All times will appear the same and remain fully editable regardless of when the current sequence starts.

### Play From Cue Out

The "Play From" function key [F9] did not work when the selected time field was the cue out time (or the edit out time when it matched the cue out time). Now it will play from the end of the cue to the end of the project.

The bug that prevented this from working also manifested itself in the following way: When the selected time field was the anchor time (displayed in the upper left region of the Cue Edit panel), the playback stopped at the end of the cue rather than continuing to the end of the project.

### Ergonomic Improvements to the "Rename" Function

I have found that almost every time I rename a cue, I only need to make a small adjustment to the existing name. It has always bugged me to have to retype the entire name from scratch. So now when you click the "Rename" button, the current name will be presented allowing you to edit it if desired. For example, if you just want to add a suffix to the current name, you can easily position the cursor at the end of the name by pressing control-R followed by the left arrow key. (For those not familiar with the Synclavier's text editing commands, a brief synopsis is given on the final page of this document.)

If instead you wish to enter a new name from scratch, then just start typing as before – the current name will disappear as soon as you do. For your further convenience, if you enter a name that is already taken, that name will be presented again, allowing you to easily modify it.

## Change Of Defaults

On the Cue Edit panel, the cue out time field now defaults to “Out” instead of “Dur”, and the edit out time field now defaults to “Out” instead of “Len”.

Likewise on the Cue Trim panel, the cue out time field now defaults to “Out” instead of “Dur”. This setting also affects the “Offs” field.

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## H-Page

A few bugs pertaining to audio channel assignments on the H-page (as well as in the VK window) have been repaired. In the process some new features were added.

### Automatic output assignment bug/New cyclical automatic output assignment

If you've ever done one of the following things...

Imported a MIDI sequence using MIDIInet

'SMT'ed a timbre onto a blank track

Created or copied a note onto a blank track from the G-page using "-" or "+"

...then you've probably noticed that when previously blank tracks are created by such means, the multichannel outputs automatically assigned to them match the track numbers up to the number of outputs in your system. However, for track numbers higher than the number of outputs in your system, the outputs were inadvertently left in an uninitialized state. The channel numbers would be blank on the H-page and the track would be inaudible (even though the VK window erroneously displayed "L:1 R:1") If you 'SKT'ed the timbre from a track in this condition to the keyboard, the timbre remained inaudible on the keyboard. It was necessary to manually enter a new output assignment in order to hear the sound.

Aside from the confusion or inconvenience caused by this, if your keyboard's output assignment was in this uninitialized state when you saved your user preferences (by clicking the "Defaults:Write" button on the Q-page), then that uninitialized inaudible output pair would be reassigned every time you loaded a sound file to your keyboard from the B-page or R-page.

To avoid the aforementioned problems, valid outputs will now be automatically assigned to newly created tracks regardless of the track number. Furthermore, the output numbers will match the track number modulo the number of multichannel outputs in your system. For example, if you have 16 outputs then outputs 1-16 will be assigned to tracks 1-16, then again to 17-32, and again to 33-48, and so on.

### New muted channel 0

The aforementioned inaudible output assignments, though resulting from a software bug, were actually useful at times. For example, you may have a track playing an FM-only timbre and you wish it to go to the FM composite outputs only, thereby reserving your multichannel outputs for polysample voices. Since the bug has been fixed, we have defined a channel 0 to provide a proper way to achieve a muted output. You can simply type 0 (or the "delete" key) on the H-page, or dial it in at the VK keyboard.

Tip: Since output 0 appears blank on the H-page, setting MIDI-only tracks to output 0 can simplify the appearance of the H-page, making it clear at a glance which tracks actually produce audio at the outputs.

### VK window update bug

Typing the space key on the H-page increments the output number, wrapping back to 0 now instead of 1. Typing the delete key now turns off the output instead of resetting it to 1. However with previous software, if the outputs were also being displayed in the VK window, the window was not updated to reflect the change. This has been corrected.

### Bug fix: Assigning multichannel outputs to empty tracks

There has long been a troublesome and unseemly bug that would occur when typing multichannel output numbers over a sequencer track containing no notes. This bug exhibited itself only on systems including a Direct-to-Disk. When you typed a multichannel output number over one side of the stereo pair, if that number was higher than the number on the other side, then the other side would change into a Direct-to-Disk output (surrounded by asterisks) matching the number you just typed. To clarify, suppose you wanted the track to be assigned the multichannel output pair "1 2". You would type "1" over the left side, then arrow to the right side and type "2". But upon pressing the return key on the right side, the left side would inexplicably change from "1" to "\*2\*". A nonsensical output pair that was half DtoD and half multichannel.

Incidentally, if you assign multichannel outputs to an empty track, but then later place DtoD cues on that track, the multichannel outputs will automatically change into a DtoD output matching the number on the left side.

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## Main Menu

A minor bug on the main menu was repaired. While an item was highlighted, clicking the mouse on it had no effect. This bug was likely introduced last April with release 4.4. Sorry.

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## NeedleS In The Haystack

A customer reported a system crash which could be produced by slowly dialing the click rate of a mapped sequence from 108.00 down to 107.99 when displayed as Beats/Min. The problem was traced to a flaw in a math routine which was put into service with Release 5.0. The flaw was of the type that would only surface under very rare circumstances, so it is not surprising that in the six months since Release 5.0 was shipped, only one customer reported an encounter with it. The bug has been fixed and the routine has been exhaustively tested with all possible input values to be sure there are no other hiding gremlins.

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## Two Tips

### Track grouping only when you want it

I have yet to meet a soul who isn't annoyed by the "CREATE TRACK GROUP..." message intervening in the VK window whenever a track button is held for more than 2 seconds. Luckily you can easily disable this behavior by changing the line in your PROFILE reading "SET GRP ON" to "SET GRP OFF". Once you have done this, track groups can still be created and edited by holding the "SEQUENCE NAME" button while pressing a track button.

If you don't know how to edit your PROFILE using the screen editor, you can replace the line in question directly from the MONITOR by following these simple instructions:

- Break from the Main Menu of the RTP to the Monitor by holding the control key while pressing the space bar.
- Type the following command line, then press Return.

```
SET CAT W0:;OLD PROFILE;LIST
```

- Somewhere on the screen you'll see a line reading "SET GRP ON" with a line number in front of it. To replace this, simply type that line number followed by a space and "SET GRP OFF" (not including the quotes.)
- Type the following command line, then press Return.

```
REP;BOOT
```

Protecting your PROFILE and .SDEF-7 file when installing software with InterChange™

As you've just seen, the PROFILE can be used to store some of your preferences. Also, when you save your preferred defaults using the Q-page's "Defaults:Write" button\*, that data is stored in a file in the .SYSTEM subcatalog called ".SDEF-7". Unfortunately, both of these files will be replaced when you install software by using the "Import .SYSTEM Files from Disk Image" or "Import .SYSTEM Files from Macintosh Folder" features in InterChange™. Consequently, if you install software in this way but you wish to retain to your preferred defaults, you must first copy your PROFILE and .SDEF-7 files to a safe place, then restore them after the installation is complete.

\* See page 9 of "Release 4.3.pdf"

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### YOU CAN Improve the Synclavier

If there is a bug that you can reproduce consistently, we would like to know about it. As long as you can provide step by step instructions enabling us to reproduce the bug, we can fix it and email the update to you (provided of course that your software subscription is current).



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## Synopsis of Synclavier text editing commands:

In general, objects start out in “replace mode” when you first select them. This means that typing a string will completely replace the value previously entered. Once any editing command has been typed however, the object enters “edit mode”. This means that typing characters will modify the existing string rather than replace it. It also means that the LEFT ARROW and RIGHT ARROW keys will move one character left and right (with wrap-around), staying within the object.

The full set of Synclavier text editing commands is:

RETURN will always attempt to enter the currently displayed string into the object, no matter where the cursor is. This includes entry of a completely NULL string (containing no characters). If the syntax of the new string is incorrect, the previous value will be restored (eg: typing letters in a “fixed point number” object).

CONTROL-A will toggle insert/overstrike mode. When first entering edit mode (eg: by typing TAB), a numeric field is in overstrike mode. This means any character typed will replace the one below the cursor. Text strings default to insert mode, meaning new characters are added to the string; nothing is overwritten.

CONTROL-D in insert mode will delete one character to the right of the cursor, if any exist. In overstrike mode the cursor just moves one character to the right.

CONTROL-E will delete all characters to the right of the cursor, if any exist.

TAB (CONTROL-I) will advance the cursor to the next field within the object. This is the character after the next ‘:’, ‘.’ or space. Thus TAB will find the next part of a time field (eg: SMPTE => 00:23:45:20.17), or the next word in a phrase (eg: “Reversed Sound File”).

CONTROL-H is the same as left arrow or DELETE. Note that CONTROL-H generates a backspace which on the Pericom terminal is often exchanged with DELETE.

CONTROL-L is the same as right arrow.

CONTROL-R will cause the cursor to move to the left-most character in the object. This is a convenient way to enter “edit-mode” right after selecting an object, without making any changes.

CONTROL-X will erase the entire entry and EXIT edit mode.

DELETE in insert mode will delete one character to the left of the cursor, if any exist. In overstrike mode the cursor just moves one character to the left.

Restoring the Previous String: Any DELETE command (CONTROL-D, CONTROL-E, CONTROL-X, DELETE) will restore the previous value of the object if the delete command is given to an empty field. For example, if you enter an object and press CONTROL-X, the object will be erased. If you press CONTROL-X a second time (or any other delete command), the original value will be restored.

When in edit/overstrike mode on a numeric field, pressing ‘:’ or ‘.’ will move the cursor to the next ‘:’ or ‘.’ respectively rather than entering the character. Wrapping will occur if there are no more ‘:’ or ‘.’ characters to the right of the cursor position. This is to assist in changing time values and digits beyond a decimal point.