Release Notes for Synclavier® Release 4.4,
Synclavier® PowerPC™ 1.4
InterChange™ 1.4
and InterChange™ 2.0
December 1, 1999

What's In This New Release?

This integrated software release provides 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 that are applicable to all systems:

- EditView™ and AutoConform™ Machine Control is now more reliable on new Macintoshes and will work with some USB Serial Ports
- Added a Frames-Per-Beat metronome display that is accurate in all cases and at all speeds
- Closer integration of the Patch (I) screen and the Sample-to-Memory (L) screen that provides for editing of sound files within a patch without disrupting the entire patch and accessing all sound files in the patch directly from the Sample-to-Memory (L) screen
- Fixed bugs to provide for correct mouse operation on the Patch (I) screen
- Simplified navigation between screens using the <ENTER> <ENTER> key sequence
- Streamlined mouse access to the Subcatalog (D) screen
- Fixed Sync Panel Beats-Per-Minute switch and decimal point display (Q)

Bug fixes and new features that are specific to Synclavier® PowerPC™:

- "Digital STM" hardware option to provide digital audio input to the Sample-to-Memory. See separate documentation.
- A complete OMS MIDI Implementation for Synclavier® PowerPC™ that provides "virtual" MIDI ports that are available to any OMS-aware Macintosh application. See separate documentation.
- The default W0 disk image file name was renamed to provide less confusion during software upgrades. For this release the file is named "Release 1.4 W0 Disk Image"
- The .INDEX subcatalog created during installation is now much larger than before (5 megabytes vs. 1 megabyte)
- Fixed bug in TransferMation™ to keep TransferMation™ up-to-date automatically as Direct-to-Disk cues are recorded, renamed or deleted
- Fixed InterChange™ display bug where the disk image file name field was blank in certain cases
- Fixed bug in the Real-Time-Software where fast incoming SMPTE could lock up the host Macintosh
- Fixed InterChange™ bug importing and exporting subcatalogs containing 128 files
- Provided additional Metronome calibration options
- Fixed bug with SCSI Interpretation that prevented certain SCSI drives from working correctly with certain Adaptec PCI SCSI Cards
- Fixed bug to allow InterChange™ 1.4 to access Synclavier® SCSI Bus disk drives while Synclavier® PowerPC™ is running.

Synclavier® Release 4.4 5¼" Diskettes

A series of 8 5¼" SuperFloppy diskettes provides a copy of all 4.4 System and Real-Time software for the Model D hardware platform. These diskettes can also be used to install the Release 4.4

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-4.4)
2 diskettes - Real Time Software with Guitar (SYN-4.4G)
1 diskette - Music Printing and XPL Compiler
1 diskette - Winchester Bootload Diskette

Synclavier® Release 4.4 Macintosh Diskettes

A series of 2 Macintosh HD Diskettes installs the basic Macintosh applications, including Termulator, EditView®, AutoConform, MIDINet®, TransferMation™ and InterChange™ 1.4. The MixMap™ cue sheet printing software for use with EditView™ is also included on these diskettes.

Synclavier® PowerPC™ 1.4 CD-ROM

The Synclavier® PowerPC™ 1.4 CD-ROM installs all Macintosh and operating software, including Synclavier® PowerPC™ 1.4.

Documentation

User documentation for the new features follows. A seprate reference document is provided for using the Digital STM and also for the Synclavier® PowPC™ OMS MIDI Implementation.

Release 4.4 Feature Documentation

Frames-per-beat display

Earlier software releases included a primitive ability to display tempi in frames-per-beat notation by setting the sequencer speed to .960. This earlier implementation suffered several drawbacks including its inability to work with tempo-mapped and meter-mapped sequences and its inability to work at speed settings other than .960.

Release 4.4 includes a comprehensive frames-per-beat display mechanism that is available at all times and is accurate in all cases. It is no longer automatically activated by setting the speed to .960. Instead it may be activated at any time either from the button panel, or from the Synchronization Panel of the Audio Event Editor (Q) page.

From the button panel, the metronome notation style is changed by holding the Click button and pressing the Continue button one or more times (as before). Release 4.4 provides 3 metronome display options:

- Beats-per-minute (displayed to 1/1000 beat)
- Milliseconds-per-beat (Microseconds-per-beat if tempo map active)
- Frames-per-beat (displayed to 1/1000 of a frame

Selecting the frame rate

The Frames-Per-Beat display can show either video-frames or film-frames per beat. The video-frame rate setting is generally made from the Synchronization panel of the Audio Event Editor (Q page) or using the SMPTE button. If the global Time Format setting is Seconds, Minutes:Seconds, Beats, Measures:Beats or SMPTE, then the frames-per-second reference is selected by the SMPTE mode setting (e.g. 30-frame, NTSC 30, drop-frame, 25-frame or 24-frame). If the global Time Format setting is Feet:Frames, then the frames-per-second reference is the chosen film frame rate (30-frame, 25-frame or 24-frame) as set from the Display Offset sub-panel. This implementation provides the ability to see the tempo in film-frames-per-beat (24 fps) while cinching to a SMPTE coded video print that was up-framed to 30 fps video.

Interaction with the Sequencer Speed Setting

Unlike the beats-per-minute and milliseconds-per-beat displays, the frames-per-beat displays are all fully corrected for the sequencer speed setting.

L-Page

The L-Page is now Patch-Savvy:

Until this release, the L-page only displayed and operated on the first sound file listed in a patch. If a sound file other than the first one needed to be edited, the user was forced to delete from the patch all sound files listed before it, thereby destroying it. To facilitate the viewing and editing of sound files within patches, the L-page has been enhanced in several ways.

If you select a sound file in the I-page, that file will be displayed when you go to the L-page. At the bottom right of the screen (just above the Current Catalog label) you'll see a patch assignment label. This will let you know where on the keyboard the currently displayed sound file can be played as well as which key to play to hear the original pitch (not taking de-tuning into account). This information is also displayed in the Velocity Keyboard window. In place of the old "FILENAME Active on Keyboard" message, you'll get something like "FILENAME Active on C#3-A3, F#3". This would tell you that the currently displayed sound file is assigned to the range of C#3 to A3 with the original pitch assigned to F#3. When no transpose key is explicitly defined in the patch, the system derives one from the SFM Octave Base parameter. Any such derived transpose key is displayed in parentheses.

Clicking on the patch assignment label will link you directly to the I-page and back. However it is not necessary to go to the I-page anymore to navigate through your patch. You can use the following commands from the L-page:

F5 or < .....Step down through the patch list
F6 or > .....Step up through the patch list
F7 .....Decrement the partial
F8 or space ....Increment the partial
1 2 3 4 .....Select a specific partial

If you select a different file in the patch from the L-page, the I-page will reflect this when you next go there. Using these commands, it's now very easy to apply certain edits (such as changing start-, end- and offset-marks, normalizing, reversing) to sound files within a patch without disrupting the patch. Bear in mind however that some operations, such as extracting, clear partial 1 and place a newly created sound file there. Such operations of course will disrupt any patch on partial 1.

Bug Fix:

The Zoom mode would not exit properly when invoking commands Q through W. This has been fixed.

I-Page

Mouse Activated:

You can now select any field on the I-page with the mouse. You don't even have to aim well since the field nearest to where you click will be selected.

"Default" Transpose Key Displayed:

A little background: Every Synclavier sound file has an Octave Base parameter accessible from the SFM's "SET" screen. This can be used to specify both a default transpose key and tuning offset. The default Octave Base setting is 3.0900, meaning the third octave, the ninth pitch up from C plus 0 cents (i.e., A3). It's extremely handy to have sound files automatically come up in tune when loaded from the B-page or R-page, or when first typed into a patch on the I-page.

When a transpose key is not explicitly defined in the patch, the system uses the Octave Base parameter embedded in the sound file as a default. Unfortunately this has never been displayed, so the user had no way of knowing for sure what the original pitch was, short of leaving the RTP to go to SFM and look it up. In order to always let the user know what key to play to hear a sound at it's original pitch, all such "derived" transpose keys will now be displayed. You will be able to distinguish between a transpose key explicitly defined in a patch, and one derived from the Octave Base parameter, because the latter will be in parentheses.

I'd like to clarify one more thing about this murky subject. When a transpose key is typed into the I-page, it **overrides** the one derived from the Octave Base parameter. However, when a tuning offset is typed into the I-page, it is **combined** with the "invisible" tuning offset derived from the Octave Base Parameter.

VK window patch assignment message:

The patch assignment message in the Velocity Keyboard window, referred to earlier in the section about the L-page, is also emitted when an edit is performed on the I-page. This may seem redundant since it contains no information that isn't already on screen. This is done to replace any earlier message (possibly placed there by the L-page or by a B-page or R-page load) which may be rendered incorrect by the edit just made.

Bug Fix:

Fixed a failure to update the tuning, total length or loop length parameters in the Velocity Keyboard window when a partial was changed with the space bar.

SCREEN NAVIGATION

Screen Rebounding:

The system now remembers the last two screens that you have visited. When you exit a screen (by pressing ENTER), if you press ENTER a second time you will be taken directly to the screen visited prior to the one you are exiting. (If you have only visited one screen, then pressing Enter from the Main Menu will take you back to that screen.) It is a common working scenario to need to go back and forth repeatedly between two screens. Once you have visited two screens, you can effortlessly switch between them just by pressing Enter twice from either screen. Note that this works even with sub-screens such as the Keyboard Display in the I-page and the various F-page screens. You can rebound directly to them without having to select them from their main screens.

New Mouse Links:

Nearly every screen has an indication somewhere of the Current Catalog. Many also have an indication of the Current Timbre. We are in the process of setting up mouse links so that clicking on the Current Catalog label from any screen will take you directly to the D-page. Once you have selected a new catalog (or not), exiting this screen will automatically return you to the screen of origin. Similarly clicking on a Current Timbre label will link you directly to the A-page and back. At the time of this writing, these links have only been added to the Main Menu, The I-page and the L-page. Hopefully by the release date most if not all will be done.

MISCELLANEOUS BUG FIXES

Fixed a bug that prevented the mouse from working as expected when clicked in the left or lower margins of the terminal window.

Fixed a bug that caused sound files with an Octave Base parameter of 6.0777 or greater to be out of tune and assigned to the wrong key.