RELEASE NOTES: Proteus 2000 Version 2.26, November 01, 2002

Modules OS Version 2.26
1K OS Checksum: 6C93D828
2K OS Checksum: 8BCE18BC

* Note: XL-1 Turbo and Turbo Phatt users should download the 2K version of the OS

Changes since version 1.24

- All versions are now enabled for arps and beats (special upgrade OS no longer necessary)
- Now supports SIMMS that use two different ROM IDS (like PROM1)
- Supports sustain cord destinations for volume, filter, and aux envelopes
- Now supports the Vintage Pro model
- Fixed bug when the second SIMM of a two SIMM module (Virtuoso,Orbit3) was not installed
- Expanded clip range for preset transpose and links transpose to +- 127

RELEASE NOTES: Proteus 2000 Version 1.24, November 21, 2001

Modules OS Version 1.24
1K OS Checksum: 3B940F26
2K OS Checksum: F29AF737

These are the Release Notes for E-mu Sound Modules OS version 1.24. These notes are common for all 64 voice (1k) and 128 voice (2k) modules.

Note that even though the names of the standard DLI files are 1.xx, they will also work correctly on any 2.xx (i.e. Arps and Beats enabled) machine. They will *not* update a 1.xx machine to 2.xx features, but if those features were already enabled in the unit, they will still be accessible after installing this release.

Changes Since version 1.23

- Solo mode has been improved greatly from version 1.23 (as well as improved from 1.00 for XL-1 users). When optimizations were made to the note-on code (read better midi timing) for version 1.21, we inadvertently introduced some solo mode pops and clicks. Rather than simply pull those optimizations out, the root problem has been fixed, leaving 1.24 with both better timing and better solo mode performance.

RELEASE NOTES: Proteus 2000 Version 1.23, March 27, 2001

Modules OS Version 1.23
1K OS Checksum: 3CD9818D
2K OS Checksum: 8CCB3BE0

These are the Release Notes for E-mu Sound Modules OS version 1.23. These notes are common for all 64 voice (1k) and 128 voice (2k) modules, as the code is essentially identical. All common features should work exactly alike.
Note that even though the names of the standard DLI files are 1.xx, they will also work correctly on any 2.xx (i.e. Arps and Beats enabled) machine. They will *not* update a 1.xx machine to 2.xx features, but if those features were already enabled in the unit, they will still be accessible after installing this release.

Changes Since version 1.21

- A problem with erratic Filter cutoff values has been resolved. This was often reported as Note Drop Out, but in fact the problem was that the Cutoff Frequency of the filter started out very low and slowly swept up to the preset's pre-programmed value. If the note had a short duration, like a percussion hit, it would sound as if the note was just muffled or not audible at all, since it could take up to 1.5 seconds for the filter to 'open up'.
- This release fixes a problem that could occur at boot time where an error message of "Error! Code = 0 Not enough DRAM" would be displayed. This happened when a user installed certain combinations of Sound SIMMs that have large amounts of Factory Sound Data. It was known to happen in a 1K box when combining PHATT, WORLD or XLEAD sound sets.
- Noises that occurred when Effects B was a Delay effect and the unit was synced to MIDI Clock have been reduced, if not totally eliminated in most cases. Since this problem is a result of intrinsically jittery MIDI clocks supplied by external sources, a lot depends on how bad the incoming clock jitters.
- A bug was fixed where if a non-Beats enabled unit was in Audition Mode and the user manually changed the Tempo, or if it was set to use external MIDI Clock, the Tempo would be reset to the factory value whenever the Audition Riff looped around. Now, the Tempo will stick if the user changes it, or if selected, continuously follow the incoming MIDI clock.
- A bug where the 16 Channel Volume and Pan screens could cause a crash has been fixed.</UL< TD>

RELEASE NOTES: Proteus 2000 Version 1.21, September 15, 2000

OS Checksum reported after MIDI Download or ROM Update: 35FC1DD

This OS is designed to be run on any of the 128-Voice modules ("P2K hardware"), providing the first release for Virtuoso 2000 as well as an update for Proteus 2000, XL-1 Turbo, and B-3 Turbo.

WARNING: This OS has a different memory layout than previous operating systems. If you have edited any of the multisetups above #63 or if you need the ability to revert back to a previous OS, please read the following *before you update!*

In order to have enough memory space for new features, multisetups 64 to 127 have been deleted. If you have edited any of those multisetups and want to keep them, either save them to locations less than 64 (by loading each one and resaving it to a lower number) or sysex dump them to an external librarian.

Also, if you need to revert back to a previous operating system, you will need to backup all of your multisetups and user presets before reverting. Older OS versions cannot read the new memory layout and will therefore **reinitialize all user data**. They will however, import any sysex dumps, even ones from the new OS.

The following information describes the changes in this code since the last customer release of Proteus 2000 code, Version 1.11.

- Unified OS for all 128-Voice modules ("P2K's")
- Expression cc11 support
- Multisetups reduced from 128 to 64
- Graphic volume and pan multi screens
- Master volume (front panel knob) scaling has improved
- ROM and MIDI download CRCs now match

RELEASE NOTES: Proteus 2000 Version 1.11, April 11, 2000

OS Checksum reported after MIDI Download: 678D8BC8
OS Checksum reported after ROM Update: 9C8F8D37

This release contains fixes for serious bugs that were unfortunately found after version 1.10 shipped. It is primarily a bug fix release and not intended to introduce new features, though a few new items have found their way into this code.

The following information describes the changes in this code since the last customer release of Proteus 2000 code, Version 1.10.

- Filter resources used for 12th order filters are now being freed correctly. This caused the most serious of problems, most noticeably causing voices to intermittently not sound at all. If the voice was stereo or chorused this could sound like hard panning, since only one channel of the pair was audible.
- Editing Preset Patchcords when the preset being edited is on MIDI Channels other than the Basic Channel are now refreshed at the time of the edit and use the new Patchcord connections in all referenced instances immediately. Before, a program change was required on any of the other MIDI channels to hear the effect of the edited cord.
- LED indications for I-L knobs now work correctly, again. Cases where the LEDs would not light have been resolved. This bug was originally found in 1.04 code and fixed in 1.05 but was inadvertently omitted from the 1.10 build.
- Saving a MultiSetup no longer throws away all edits in the current preset edit buffer.
- Knob response is greatly improved.
- New Feature - Added a Copy Preset Cords item in the Copy/Save menu. This copies all the preset cord settings from a specified source preset into the current preset edit buffer.

RELEASE NOTES: Proteus 2000 Version 1.10, March 14, 2000

Proteus 2000 OS Version 1.10
OS Checksum reported after MIDI Download: 16594E59
OS Checksum reported after ROM Update: 6177FF50

The following information describes the changes in this code since the last customer release of Proteus 2000 code, Version 1.05.

Preset Patchcords, Ramper and Lag Processor

The 1.10 release introduces to the Proteus 2000 user the new Preset Patchcord implementation developed for the B-3 module. This feature includes support for a Preset Level Lag Processor, Ramp Generator and summing cord destinations.

WARNING: Presets created prior to 1.10 that use Preset Patchcords (previously labeled FX PATCHCORDS) assigned to FX Send destinations could have sonic differences if presets have more than one preset cord assigned to an FXSend amount. In previous versions of code, the last cord defined in the patch bay overrode all other cords. Because of this, there was no real reason to use multiple cords, but multiple assignments may have been made unwittingly. Since multiple cords now sum to their destinations, presets could sound different.

NOTE: Existing Editor/Librarians should work fine for storing 1.10 presets, though they may have troubles displaying the new patchcord sources and destinations.

Sound Authoring

This release introduces Sound Authoring to the Proteus 2000 user. This feature allows you to copy a bank of user presets to a Flash SIMM that was created on an E4 Ultra. See the Sound Authoring documentation for a full description of this feature. There are no backwards compatibility issues for existing P2k users with this feature.

12th Order Filters, Dynamic Voice/Filter Allocation

Proteus 1.10 now has the 12th order filters and Dynamic Voice Allocation developed for Audity 2.0. Presets developed with these new filters will not sound the same in pre-1.10 software; unsupported filters play a default null filter. Note that unlike Audity 2.0 where adding DVA potentially increased the polyphony of Audity (when using 6th order filters), in Proteus it can actually decrease the polyphony. Playing a note on a layer that uses a 12th order filter effectively uses 2-6th order voice channels.

MIDI All Notes Off/All Sound Off/Reset All Controllers - The response to these MIDI Mode Messages has changed in OS 1.10 to be compliant with the MIDI 1.0 Spec. In previous versions of software these messages had a number of bugs. Note that these changes could affect compatibility with sequences authored with earlier versions of Proteus software.

In previous versions the software did not honor the MIDI channel of these messages. Instead, it incorrectly affected all channels. It now correctly only affects the notes started on the MIDI channel of the message. If you want All Notes Off on all MIDI channels you must send individual messages for each channel.

In addition, All Notes Off now correctly honors the state of the sustain pedal. It will no longer shut off notes if the sustain pedal is down on its channel at the time of receipt of the mode message. This behavior is especially important to owners of certain keyboards that send All Notes Off whenever all keys are released (i.e. Kawai, Roland).

Also, receipt of All Notes Off now correctly puts the targeted notes into the release phase instead of shutting down the voice immediately.

All Notes Off is basically equivalent to sending Note Off messages on all notes of a particular MIDI channel. This means that if the sustain pedal is held, the notes are not shut down, but

RELEASE NOTES: Proteus 2000 Version 1.05, Nov. 23, 1999

Problems Fixed in Version 1.05

- The LED indicators for Realtime Controller Knobs I-L now work correctly. Conditions where the LEDs would not light have been resolved.
- Intermittent Fatal Errors in the Bank Copy screen have been eliminated.

CRCs

- If you update via MIDI download the CRC reported after the download and the OS checksum reported in Diagnostics is **26079B7D**.
- If you update via OS-on-ROM the OS checksum reported in Diagnostics is **7616BB9C**.

RELEASE NOTES: Proteus 2000 Version 1.04, Sept. 20, 1999

New Features and Bug Fixes in Version 1.04

- New feature: Tempo Based FX B Delays.
- Improved signal-to-noise reverb microcode.
- Improved Note-on velocity ramp-up.
- Tempo controller now works in MIDI Omni mode.
- The unit no longer hangs when using Tempo-based filter envelopes with repeat on and sending a MIDI controller to control FEnvRts.
- User data corruption problems when sending a tuning table with a table number higher than the number of user tuning tables in the unit have been eliminated.
- Assigning presets to channels via individual SysEx parameter messages now works correctly.
- Sysex Copy Preset message now correctly copies all parameters.
- Sysex Dump Preset Common parameters message now processes all parameters correctly.
- Sysex tuning table dumps no longer ignore the last note value.
- Sysex single note tuning changes no longer divide the fine tune number in half.
- External tempo calculation jitter problems have been fixed. Also the Tempo screen now updates correctly when using external tempo.
- RANDOMIZE preset screen no longer always displays USER as the SIMM ID even if the preset on the basic channel is a ROM preset.
- Supports new motherboard hardware (PC-10182).

CRCs

- If you update via MIDI download the CRC is **2F7577ED**.

RELEASE NOTES: Proteus 2000 Version 1.03 Final, July 14, 1999

Problems Fixed in Version 1.03

- "User / (not installed)" no longer shows up in the Demo screen.
- The MIDI "Reset all controllers" message now behaves differently. A message with parameter value = 0 resets only the pitchwheel, mod wheel, pressure and footswitches. A message with parameter value = 127 resets all of these plus volume and pan. Messages with any other parameter value are ignored. The controllers attached to the knobs are no longer affected by Reset All Controllers messages. This fixes a user complaint about using Proteus 2000 with Cakewalk, which by default sends a Reset All Controllers message after every 'Stop' command. In earlier Proteii software, this message set **all** controllers to zero, which tended to cut off the filters and have other undesirable effects.
- FX cords now behave correctly when switching between presets. An example of this was switching from the 2nd preset "kb4:Yo My Dynos" and the 1st preset "kb1:Dynamic Grand"; the piano sound would be incorrectly sent to the delay effect. The problem occurred when switching to presets that had a controller routed to an FX send in the FX cords, and also had that controller's initial controller value set to zero.
- Problems with a newly selected preset's initial controllers affecting held notes when switching between presets have been addressed. This was easily heard by turning on Audition or just holding a chord and then switching between presets. Held notes were usually undesirably affected by the new preset's initial controller amounts, causing notes with long releases, lowered filters, etc. Now Controllers A-H only affect held notes if that preset is the current preset on the MIDI channel.

CRCs

- If you update via MIDI download the CRC is **E9EDC219**