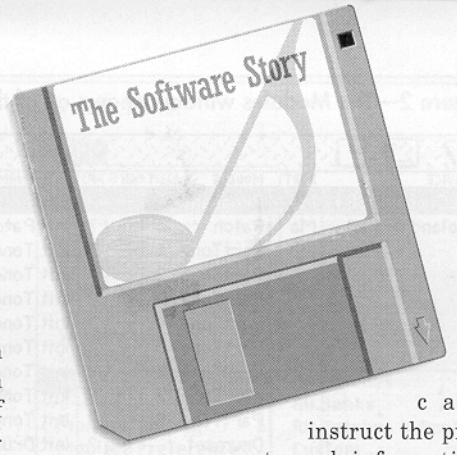
Unisyn—Patch Editor and Librarian: For Macintosh Computers



By Norm Weinberg

ONCE UPON A TIME, EVERYONE programmed synthesizers and sound generators by fiddling with all the little knobs, buttons, sliders and wheels on the unit's front panel. By reading a small LCD display on the machine (typically only two lines long), a user would punch a few buttons to call up a musical parameter, change the values for that particular parameter, then push a few more buttons to switch to another set of values for more programming. This was an extremely time-consuming process that required mental—as well as physical—dexterity. Then came software editors.

Software editors are programs that take over the programming tasks of your hardware by using the number-crunching power of a personal computer. Instead of programming a new sound or patch from the front panel of the instrument, editors let you adjust all of the critical parameters by "remote control" using your computer. Since most synths have a limited display and a convoluted programming environment, serious sound designers prefer to use computer editing programs instead of front panels. Most editing programs also include librarians.

Librarians are programs that allow you to save your device's configurations, patches, presets, tones, maps, etc. to your computer. The library analogy is actually quite accurate. Just as a library is a storehouse for books, librarian programs are a storehouse for sounds and banks of sounds. Once these patches are on your computer system, you can save them for future use, rename them, or shuffle them around to create new banks of sounds. Later on, you can send the original or newly created banks or patches back to your device.

Computer based editors and librarians communicate with MIDI devices through System Exclusive messages. Since these messages are unique for each device manufactured by each company, they require specialized programs dedicated to each model of machine. In other words, if you want to save or edit the patches from your Yamaha DX7 synthesizer and your E-Mu Proteus sound generator, you need to buy two separate programs—expensive, time-consuming, and cumbersome. The solution is "Universal Editors and Librarians."

Universal programs are like a "shell" that is designed to run smaller programs dedicated to specific models of hardware. In order to accomplished this, the program needs to run a "template" or a "profile" of the specific instrument you want to communicate with. Universal editors and librarian programs come with a large number of templates included with the disks (see the sidebar for a list of all devices currently supported by Unisyn).

Because of the large variety of system-exclusive data formats, templates may consist of different things for different instruments. A template for a reverb unit is going to look much different than a template for a master keyboard. A template might include a bank of sounds, a single tuning table, system setup information, a program map, an instrument's definition, or even a drumkit configuration. The template's identity is determined by the device.

Well, now that we know how they work, what can they do? The main goal of a program like Unisyn is to turn your studio into one gigantic, intelligent instrument. Toward this end, you can tell the program about your studio by defining which devices are listening to certain MIDI channels, what channel your MIDI patch bay is on (although the program can be operated without a patch bay), and the program-change messages necessary to have your patch bay route signals from the computer to the device. Once this is completed, you can instruct the program to grab information from every device in your studio in one action. In essence, you're taking a "snapshot" of the current state of every unit you own. The next time you want to configure your studio the same way, you just send the information back to each device.

UNISYN OPERATION

In order to get Unisyn up and running, you simply copy the program to your hard disk. The installation section of the 200-page User's Guide suggests that you create two additional folders—one for data and one for profiles. After copying the program, you insert the four template disks included and copy the templates for your instruments into the template folder. To save disk space, you should only load templates for instruments that you currently own. If you should buy a new device in the future, you can always go back to the template master disks and copy your new instrument templates to the folder. Even though Unisyn is a copy-protected program, I had no trouble running the program from both the floppy master disk and from an authorized hard disk.

Once Unisyn is up and running, you are taken to the Device Setup window. As

Figure 1—The Device Setup window is used to define your MIDI studio to Unisyn.

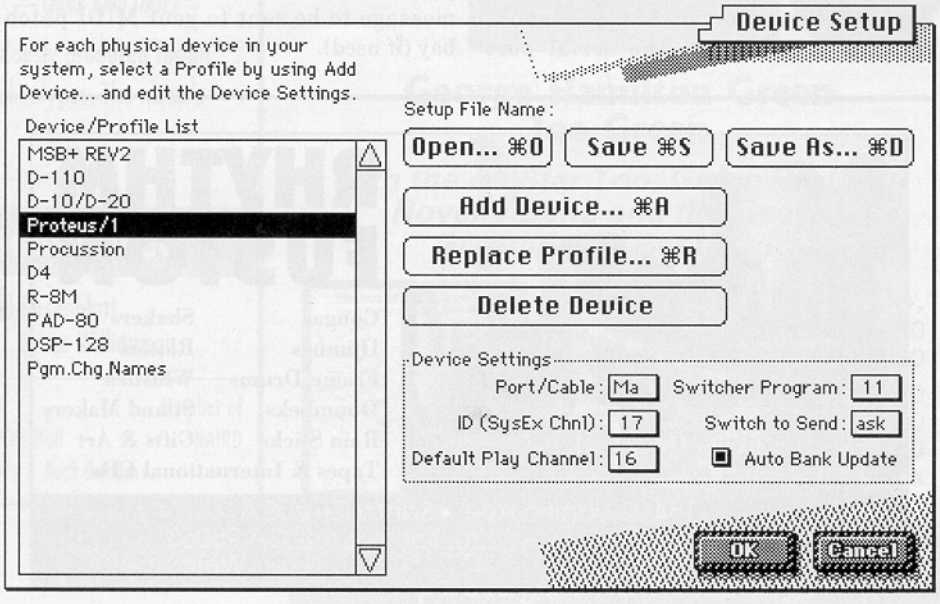
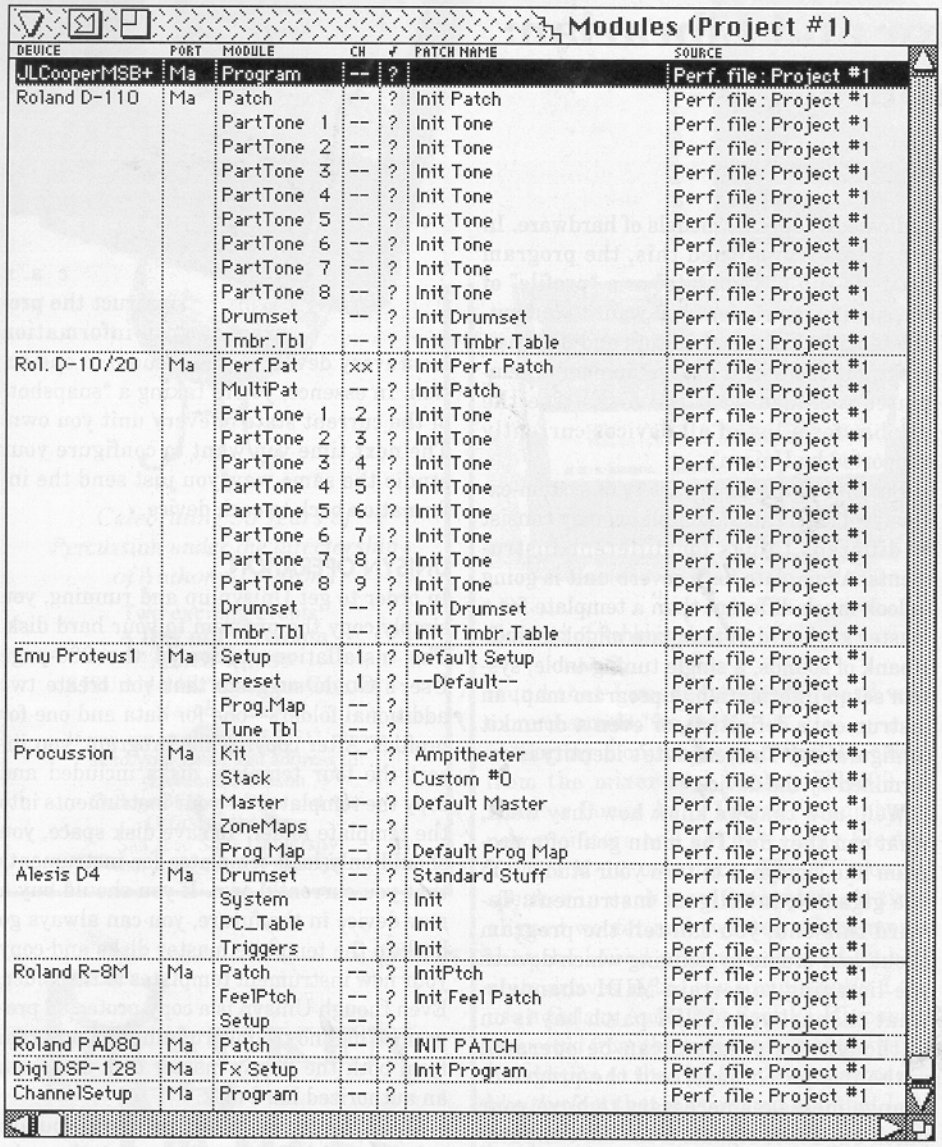


Figure 2—The Modules window shows all of the devices used for a specific project.



Modules (Project #1)

DEVICE	PORT	MODULE	CH	✓	PATCH NAME	SOURCE
JLCooperMSB+	Ma	Program	--	?		Perf. file: Project #1
Roland D-110	Ma	Patch	--	?	Init Patch	Perf. file: Project #1
		PartTone 1	--	?	Init Tone	Perf. file: Project #1
		PartTone 2	--	?	Init Tone	Perf. file: Project #1
		PartTone 3	--	?	Init Tone	Perf. file: Project #1
		PartTone 4	--	?	Init Tone	Perf. file: Project #1
		PartTone 5	--	?	Init Tone	Perf. file: Project #1
		PartTone 6	--	?	Init Tone	Perf. file: Project #1
		PartTone 7	--	?	Init Tone	Perf. file: Project #1
		PartTone 8	--	?	Init Tone	Perf. file: Project #1
		Drumset	--	?	Init Drumset	Perf. file: Project #1
		Tmbr.Tbl	--	?	Init Timbr.Table	Perf. file: Project #1
Rol. D-10/20	Ma	Perf.Pat	xx	?	Init Perf. Patch	Perf. file: Project #1
		MultiPat	--	?	Init Patch	Perf. file: Project #1
		PartTone 1	2	?	Init Tone	Perf. file: Project #1
		PartTone 2	3	?	Init Tone	Perf. file: Project #1
		PartTone 3	4	?	Init Tone	Perf. file: Project #1
		PartTone 4	5	?	Init Tone	Perf. file: Project #1
		PartTone 5	6	?	Init Tone	Perf. file: Project #1
		PartTone 6	7	?	Init Tone	Perf. file: Project #1
		PartTone 7	8	?	Init Tone	Perf. file: Project #1
		PartTone 8	9	?	Init Tone	Perf. file: Project #1
		Drumset	--	?	Init Drumset	Perf. file: Project #1
		Tmbr.Tbl	--	?	Init Timbr.Table	Perf. file: Project #1
Emu Proteus1	Ma	Setup	1	?	Default Setup	Perf. file: Project #1
		Preset	1	?	--Default--	Perf. file: Project #1
		Prog.Map	--	?		Perf. file: Project #1
		Tune Tbl	--	?		Perf. file: Project #1
Procussion	Ma	Kit	--	?	Ampitheater	Perf. file: Project #1
		Stack	--	?	Custom #0	Perf. file: Project #1
		Master	--	?	Default Master	Perf. file: Project #1
		ZoneMaps	--	?		Perf. file: Project #1
		Prog Map	--	?	Default Prog Map	Perf. file: Project #1
Alesis D4	Ma	Drumset	--	?	Standard Stuff	Perf. file: Project #1
		System	--	?	Init	Perf. file: Project #1
		PC_Table	--	?	Init	Perf. file: Project #1
		Triggers	--	?	Init	Perf. file: Project #1
Roland R-8M	Ma	Patch	--	?	InitPtch	Perf. file: Project #1
		FeelPtch	--	?	Init Feel Patch	Perf. file: Project #1
		Setup	--	?		Perf. file: Project #1
Roland PAD80	Ma	Patch	--	?	INIT PATCH	Perf. file: Project #1
Digi DSP-128	Ma	Fx Setup	--	?	Init Program	Perf. file: Project #1
ChannelSetup	Ma	Program	--	?		Perf. file: Project #1

shown in Figure 1, clicking on "Add Device" allows you to bring a new device into the Device/Profile List. Notice that in the Device Settings portion of this window, you are asked to set the serial port (printer or modem, with multi-cable support), the SysEx ID number, the default play channel and the program-change message to be sent to your MIDI patch bay (if used).

Once your profile list is complete, you can move into the main window of your program, which contains all of the devices and templates you have defined in your studio (See Figure 2). To get a snapshot of your studio, simply access the MIDI menu and select the "Get Group" command with the "All Patches and Banks" submenu. If all goes well, Unisyn will take over control of your MIDI patch bay and ask for data from all the devices. When you're ready to duplicate your device's current state, select the "Send Group" command (See Figure 3). In reality, this may take a little trouble-shooting. If the computer asks for the synth's data before the MIDI patch bay has called up the proper patch and made the internal connections, you'll receive a message saying that there is a problem with the MIDI connections. To be honest, while Unisyn provides all the necessary commands and controls to make everything happen as advertised, you may not be successful on your first attempt. The manual provides clear and ample instructions on how to fix just about any problems you may encounter (including using multiple patch bays!). Or, if you prefer, you can simply highlight a single device with the mouse and get or send individual patches or banks.

PATCH EDITING

To get to a single patch, simply choose the Patch Edit window from the Windows menu or double-click on a patch name. Once in the patch editing template, you can adjust sounds to your heart's content. As shown in Figures 4 through 8, templates typically contain sliders, envelope graphs, and text boxes. If you're familiar with common Macintosh mouse movements, editing these parameters should be quick and simple. To edit an envelope graph, you can either grab the box and drag it around the screen or type new numbers in the time and level boxes. Text boxes can be edited by using the arrows to increment or decrement values, or—by clicking on the selection itself—access pop-up parameter select menus that list all available options.

OTHER GOODIES

If you like to program your synths to create totally new sounds, but don't enjoy spending hours doing it, Unisyn has the answer! This program will let you create new patches by merging or mixing two existing sounds or by randomizing parameters. The "Blend" command creates new parameter values by averaging the corresponding parameter values

from two selected patches. The "Mingle" command randomly swaps parameters between the two source patches. When patches are randomized, a new bank of patches is created with random variations of the selected patch. With these commands, it's easy to create over 1,000 new patches in a matter of minutes. A quick audition of each patch will yield interesting patches along with garbage patches. Simply copy the cool patches to a new library and discard the rest. Voilà, instant creativity!

Once you've created thousands of patches, you'll need some way to organize them. Again, Unisyn comes to the rescue with up to 216 characters of comments for each patch and up to eight keywords. So, you can search in libraries of "tuned percussion" for patches that contain comments such as "Vibes," "Bright" or "Thin," using the operators of "and," "or" and "without." Unisyn will also search for duplicate patches both by name and by data contained within the patch. If the program finds a duplication, it will notify you and ask if you wish to delete the duplicate.

Figure 3—The Get Group and Send Group menu selections.

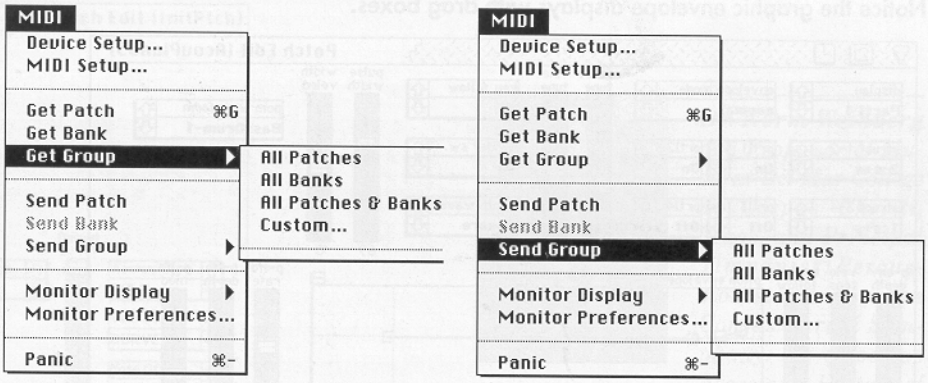


Figure 4—A Patch for the Digitech DSP-128 effects processor showing the chorus, delay, filter algorithm and all of the various values for each parameter.

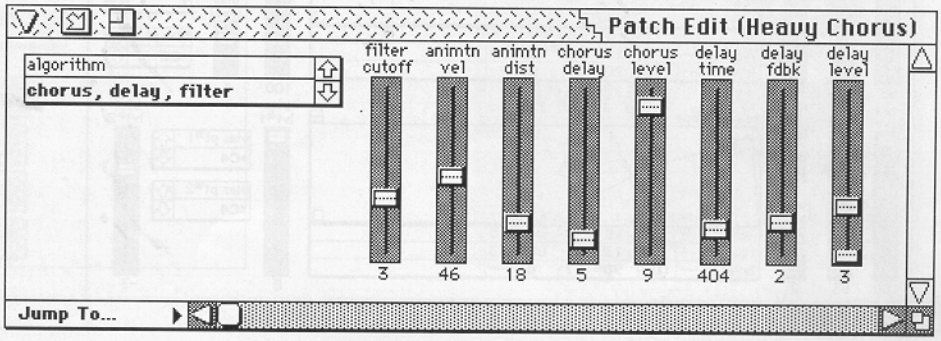


Figure 5—The entire template for a Roland D-10 synth sound called AcouPiano 3. Notice the graphic envelope displays with drag boxes.

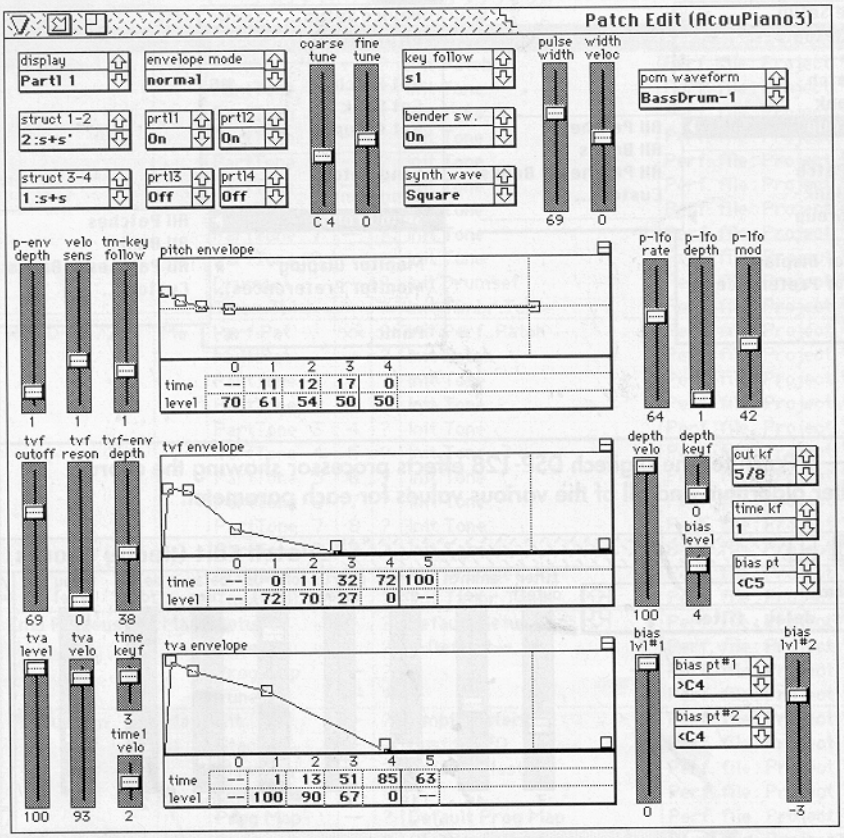


Figure 6—A partial template for a D-10 Performance. In this template, tones and MIDI channels can be quickly assigned to each of the nine parts that make up the performance.

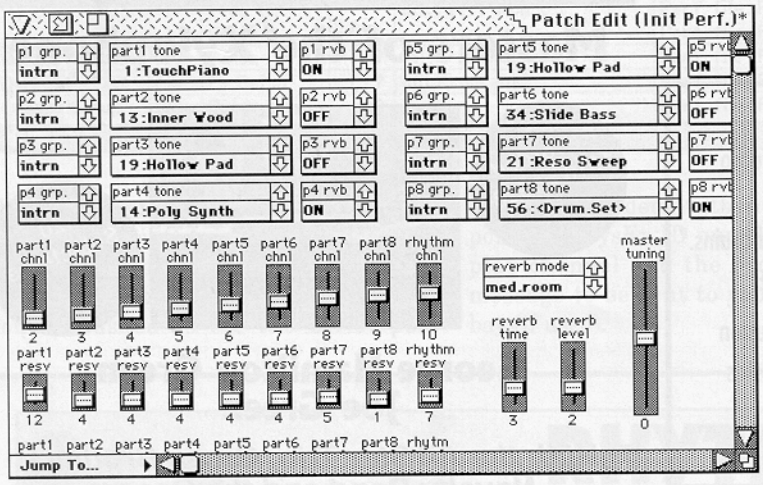
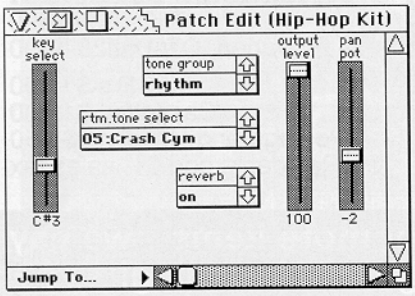


Figure 7—The template for creating drumkit assignments on the D-10.



RUNNING UNISYN WITH PERFORMER

If you are currently using Mark of the Unicorn's Performer (version 4.0 or higher) you can integrate the two programs together. The programs are integrated in the following ways: Unisyn will allow Performer to play a sequence in the background when you switch to Unisyn under System 7 (or with MultiFinder in System 6) to audition patches, edit patches, or perform any other Unisyn task. All Unisyn-generated devices will appear in Performer's MIDI Configuration window. Unisyn-generated patch lists appear for each device in Performer's Set Patch List dialog, which you can assign to your existing MIDI configuration devices. This lets you select your synth sounds by name in Performer instead of by program-change message numbers. Unisyn will also make sure that the names in the Performer match the names inside the instrument.

BOTTOM LINE

A solid program, a fine manual (with online help for each profile) and over 150 supported devices makes Unisyn a hot program. If you run Unisyn with a small-screen Macintosh (like a Plus or an SE), you won't be able to see all your synth's parameters on a single screen. The other side of that coin is that the profile layouts are uncluttered and organized into logical areas. A few of the profiles are not as "polished" as others (notice the additional slider knob in Figure 4 on the delay level). Another oddity: after asking for data from my D-10, the LCD on the synth read "This synth has been X-Orsized"—relating to an older editing program published by Dr. T's software called "X-Or."

Unisyn goes a long way toward automating certain aspects of your MIDI studio. The ability to take a "snapshot" of all sounds in all devices, save them to disk and then load them back will save you many hours of work. Considering the cost of individual librarian and editor software programs, Unisyn can save you a substantial amount of money. If your MIDI studio is starting to get out of hand or if you're going nuts organizing thousands of patches for different devices, look into this program. It could just save your sanity!

Mark of the Unicorn, Inc.
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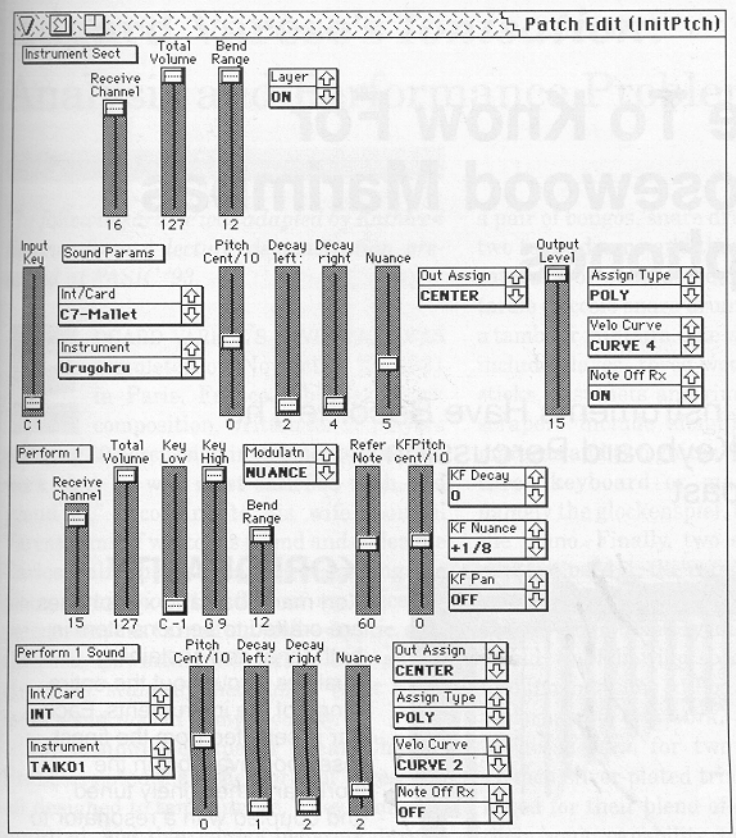
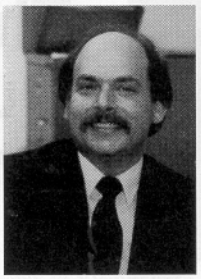
Cambridge, MA 02138
Voice (617) 576-2760
FAX (617) 576-3609
Suggested Retail Price: $395.00

System Requirements: Apple Macintosh Plus or above with 1 MB RAM (3 MB for System 7), System 6.0.1 or above and a hard drive.

Figure 8—A partial template for the Roland R-8M drum module.





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SUPPORTED UNISYN DEVICES

360 Systems
MIDI Patcher

Akai
MB-76

Alesis
HR-16
Quadraverb
Quadraverb+
Quadraverb GT
SR-16

A.R.T.
Multiverb
Multiverb II

Casio
CZ-101
CZ-1000
CZ-3000
CZ-5000
CZ230s
CZ-1
VZ-1
VZ-10m
VZ-8m

Digitech
DSP-128
DSP-128 Plus

DMC
MX-8

E-Mu
Proteus/1
Proteus/2
Proteus/3
Proteus/1XR
Proteus/2XR
Proteus/3XR
Proteus/Protologic
Proteus/XR Protologic
Proteus/MPS
Proteus/Orchestral P
Proteus 1+2
Procussion*

Ensoniq
ESQ-1
ESQ-M
SQ-1
SQ-2
SQ-R
SQ-80
VFX
VFX-SD

J.L. Cooper
MSB+

Kawai
K1
K1-m
K1-II
K3
K3-m
K4
K4r
K5
K5-m*

KMX
MIDI Central
8x8 Patcher

Korg
DSS-1
DVP-1
DW-6000
DW-8000
EX-8000
707
DS-8
P3
Symphony
M1
M1R
M1/EX
M1R/EX
M3R
Poly 6
Poly 800
T1
T2
T3
Z3
Wavestation
Wavestation EX
Wavestation A/D
01/W
01R/W
03R/W

Kurzweil
K-2000

Lexicon
LXP-1
LXP-5
LXP-15
PCM-70

Oberheim
Matrix 12*
Matrix 1000
Matrix-6
Xpander*

Peavey
DPM-3
DPM-V3

Rane
MPE 14
MPE 28
MPE 47

Roland
Alpha Juno 1
Alpha Juno 2
CM-32P
CM-32L
CM-64
D-10
D-20
D-110
D-50
D-550
D-70
DEP-5
GM-70
GP-8
GR-50
JD-800
Juno 106
JX-8P
MKS-20
MKS-70
MKS-80
MT-32
PAD-80
R8-M
R-8
U-110
U-20
U-220

Sequential
DrumTraks
MAX
Prophet V
Prophet 600
Six-Trac

Sony
DPS-D7*
DPS-R7*

Waldorf
Microwave

Yamaha
DMP-7
DX-21
DX-27
DX-100
DX-7
DX-7 s
DX-7 II
DX-7 IIFD
FB-01
KX-88
KX-76
RX-11
SPX-90
SPX-90 II
SY-55
TG-55
SY-77
TG-33
TG-77
TG-100
TX-7
TF-1
TX-816
TX-216
TX-802
TX-81Z
V-50

* These 6 have Librarian support only. All others are Editor & Librarian.

New devices supported by Unisyn in the free profile update #1 release include:
Kurzweil K-2000 and K-2000R
Roland JV-80, JV-880 and MKS-50
Alesis D4, Quadraverb GT and MIDIVerb III
Ensoniq DP/4
Mackie OTTO system
E-Mu Vintage Keys, Proteus 3, 3XR, MPS+ Orchestral
Digitech PMC-10
Yamaha TG100
Alesis SR-16

New devices supported by Unisyn in the profile update #2 release include:
Alesis QuadraSynth S4 and S5
E-Mu Vintage Keys Plus
Korg 05R/W, X3 and X3R
Yamaha TG500 and SY85
Roland JV-1000 and JD-990 (requires ROM 1.03)
Digitech DHP-55

New devices supported by Unisyn in the profile update #3 release include:
Korg 01W and 03R/W—Adds multi-timbral parent/child support
Mackie OTTO—supports fader & mute grouping and crossfading
Roland JV-0 and JV-880—for Pop, Orchestral Vintage and Piano boards
Alesis Quadraverb GT—supports operating system 1.03

The first upgrade is sent free to all registered Unisyn owners, and update disks #2 and #3 are available for $49.95 each. **PN**