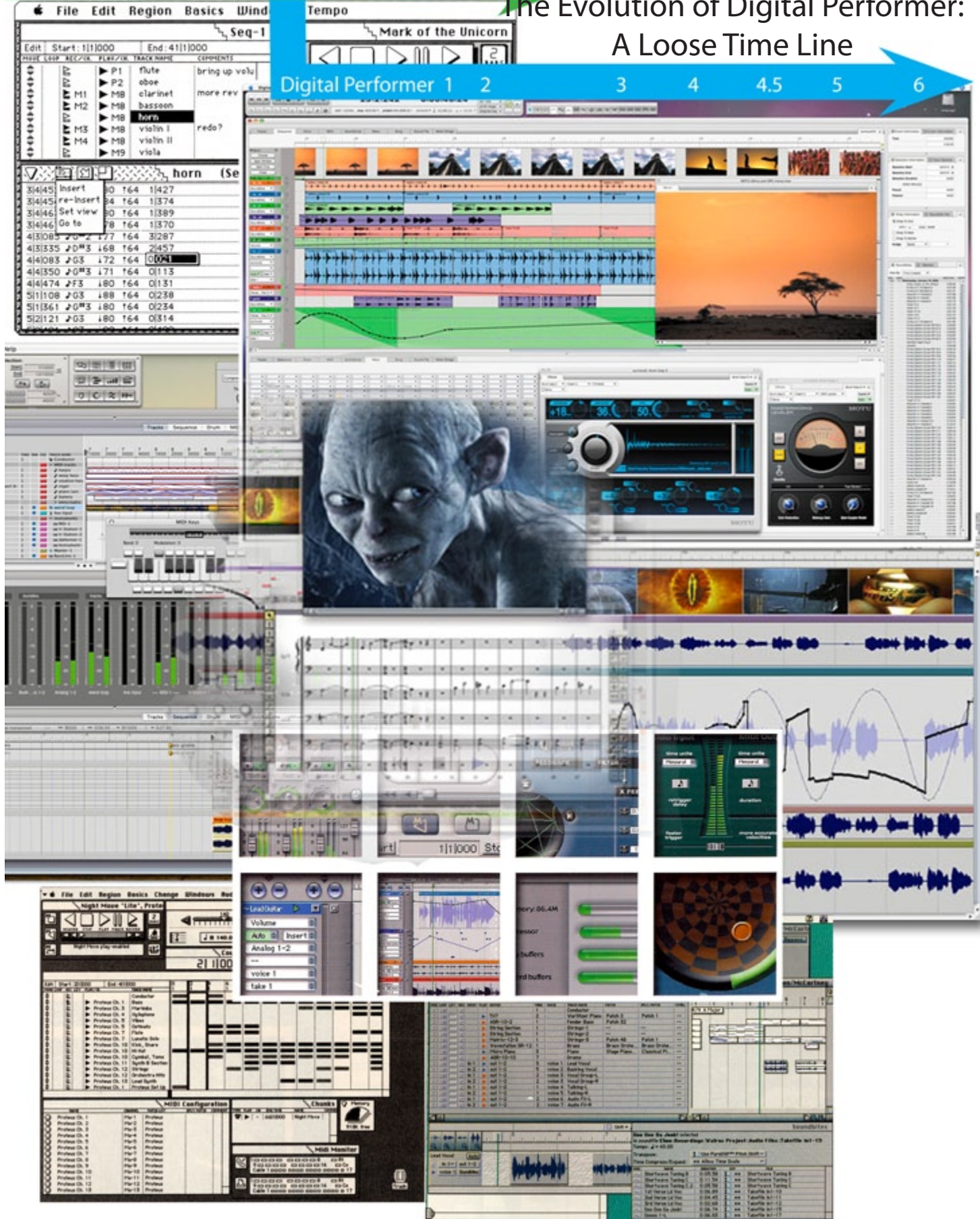


The Evolution of Digital Performer: A Loose Time Line



The Evolution of DP: A Loose Timeline

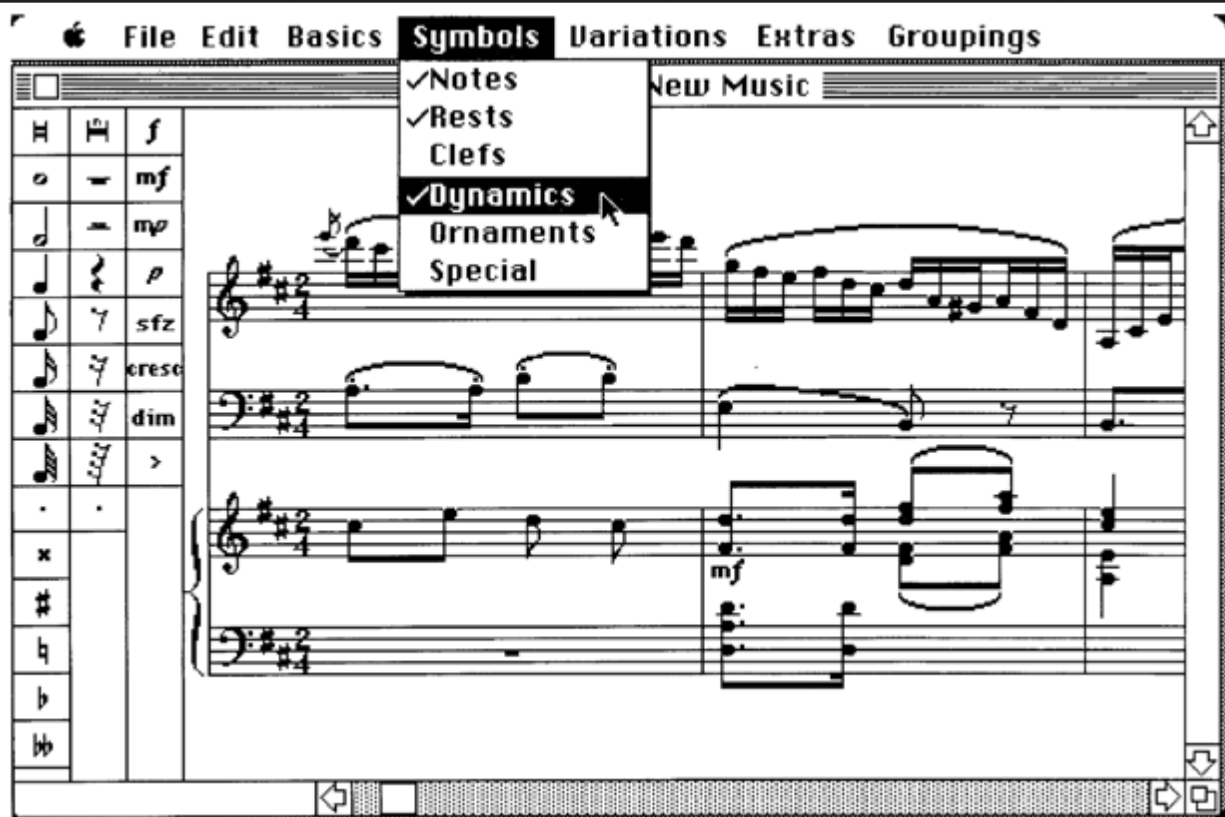
Created in Adobe CS3 by WVD, 12-29-08 using content from a couple decades worth of recording magazines

Shooshie graciously supplied the MOTU flyers and letters as well as much of the new content in the revised DP timeline.

Mike Beckman patiently helped me work through some of graphics file format conversion issues, much like trying to master an audio project using songs on various formats, varying in quality. Thank you for being there.

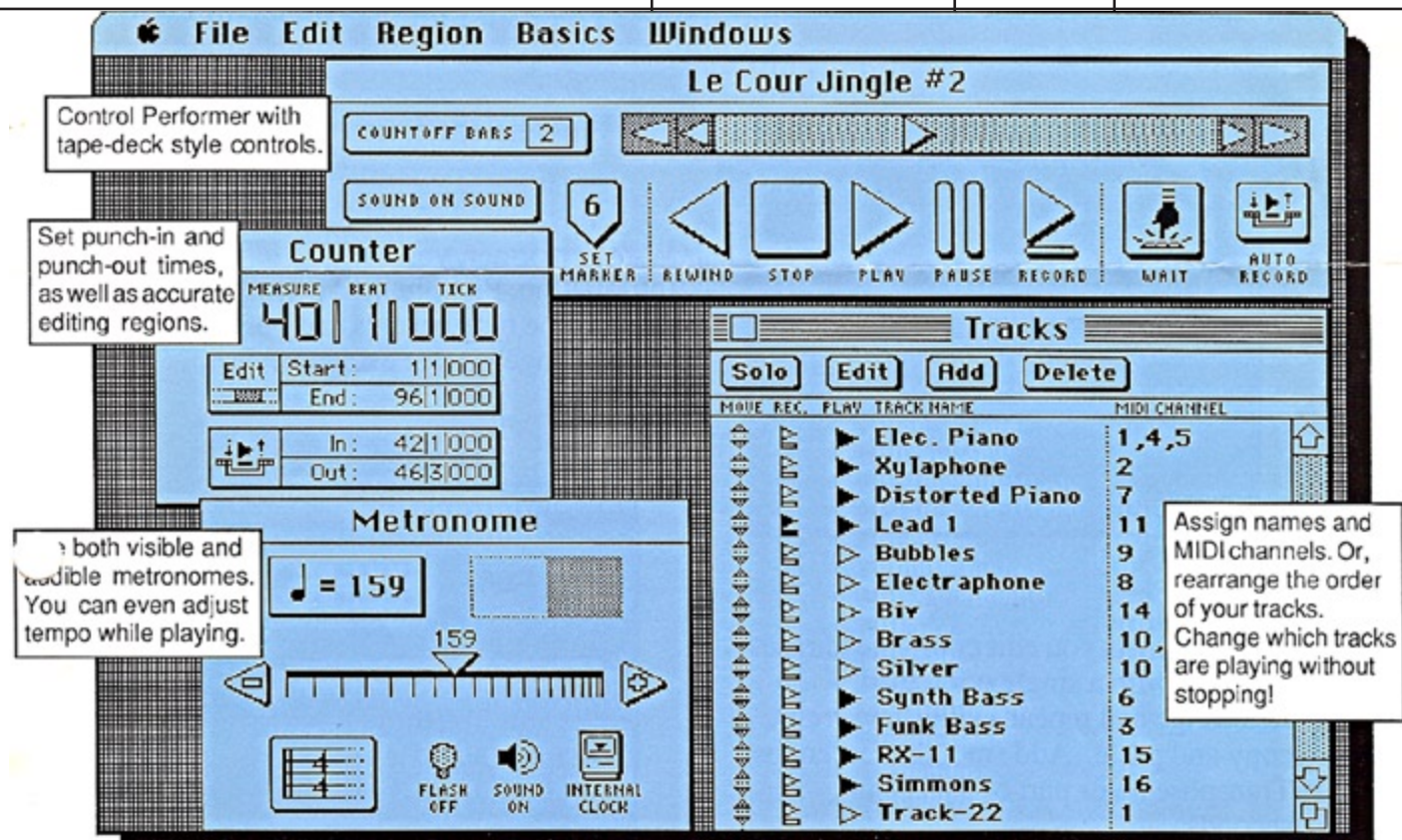
1984 Composer 1.0

Transposes	Part Extraction	"Knows" instrument ranges	Validates instrument ranges	Checks for errors
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1985 Performer 1.0

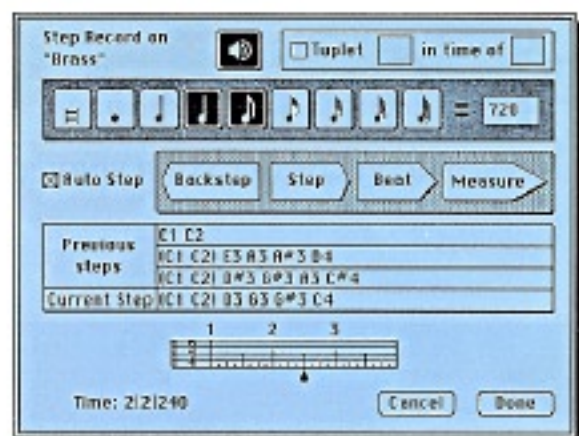
Designed to run on a Mactintosh 512K computer	Multi-track recorder	Editor	Performance tool
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Record in real-time, and then for rhythmic precision, use one of Performer's many error correction commands. Or, use the step record window shown to the right. You can use both step-time and real-time record in the same track.

Piann						
Time	Pitch	On	Off	Duration		OK
2 2 240	G4	70	64	0 0 084		Cancel
1 2 383	#15					
1 3 266	#64	On				
2 1 000	C3	160	164	0 0 072		
	C2	173	164	0 0 065		
2 2 240	G4	152	164	0 0 084		
	E4	160	164	0 0 077		
	C4	152	164	0 0 079		
2 4 467	#64	Off				
3 1 000	C3	164	164	0 1 034		
	C2	173	164	0 1 046		
3 1 151	#64	On				
3 2 240	F4	160	164	0 0 094		

Performer lets you edit complete phrases of music with a single command. Rearrange and repeat sections with cut, copy and paste. Add smooth crescendos. Transpose all or part of a piece in seconds.



With Performer, you can edit *all* MIDI information. Pinpoint and correct wrong notes. Fine tune accents and pitch bends. Even change system exclusive data.

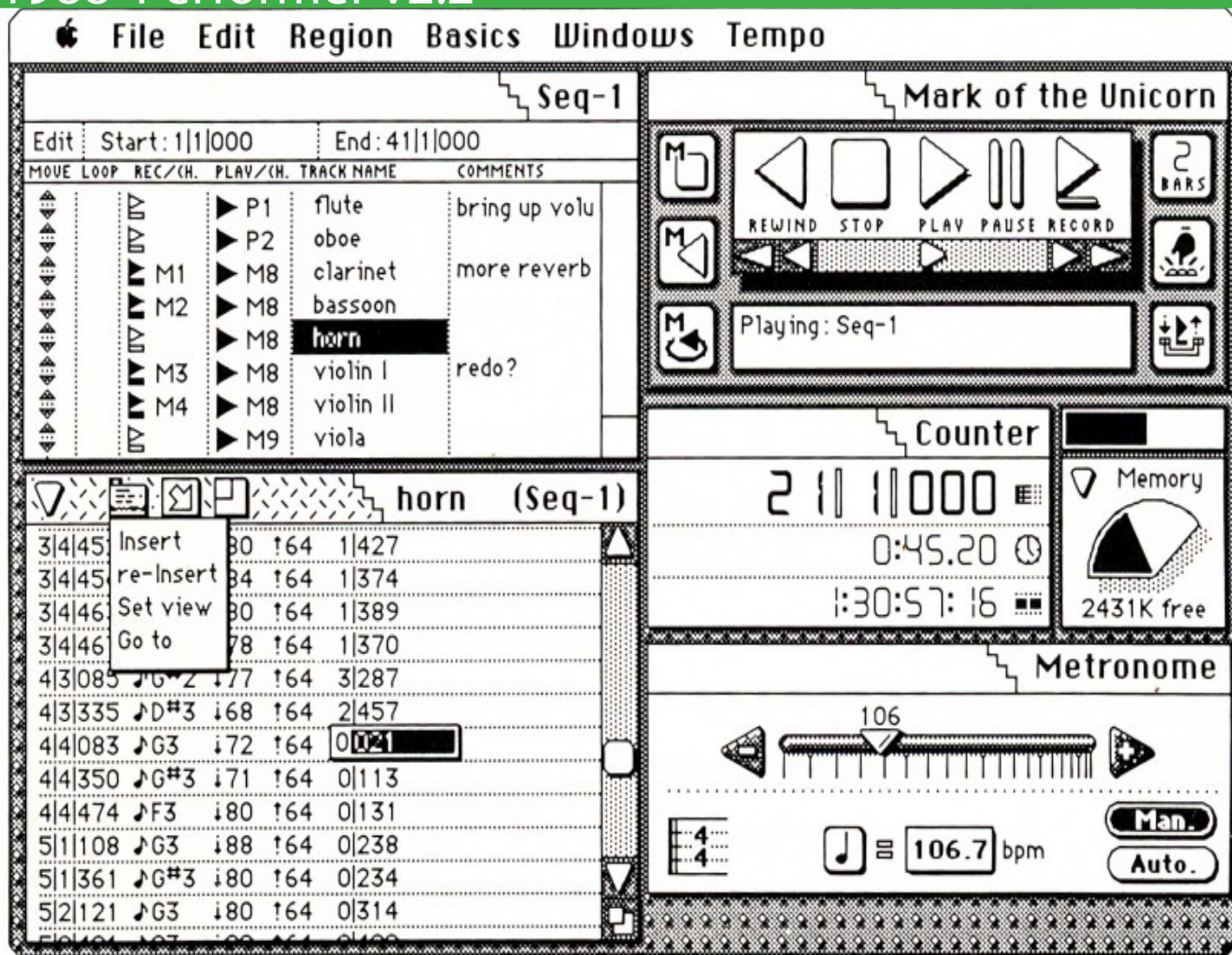
Region

Transpose...
Quantize...
De-Flam...
Invert Pitch...
Reverse Time...
Change Rhythm...
Change Duration...
Change Velocity...
Change Continuous Data...
Reassign Continuous Data...
Split Notes...

Performer Specifications

- Real time and step recording within the same track
- 50,000 note capacity
- Flexible MIDI channel assignment
- 200+ tracks
- Accurate quantization using several different modes
- Beat resolution is 480 parts per quarter note
- Sophisticated editing commands: cut, copy, paste, transpose, etc.
- Editing by event or region
- Input filtering
- Ability to edit any MIDI parameter
- MIDI utilities: notes off, system reset
- Sync to drum machines and tape interfaces
- Use Mark of the Unicorn's editing package Professional Composer™ to transcribe your music
- Adjustable interface clock rate makes Performer compatible with most Macintosh MIDI interfaces

1988 Performer v2.2



Tracks window, no tracks overview or graphic editor	Region Menu
Markers window	Transpose/Inversion/Retrograde/Scale Timing/
Event List	Note duration/Velocity
View Filter	Quantization
Auto Stop/Rewind/Shuttle (cycle)	Sensitivity
Step Time Record	Strength
New features:	Split Notes
Mini Menu	Recording multi tracks simultaneously
Send to Bottom	Loops.
Zoom Box	Tempo Changes
Edit Menu	Insert Meter Changes
Merge/Snip/Splice/Shift/Repeat	

1989 Performer 2.3

Tape-deck style controls
 Memory buttons to automate stop, rewind, shuttle functions
 Counter window displays measure/beat/tick/real-time/frames
 Ability to record from several MIDI channels simultaneously
 Can loop each track separately, and as many locations

Can record while looping
 Repeat
 Snip
 Splice
 Shift

Despite some limitations, Performer 1.0 established itself as one of the primary Mac sequencers. With those early limitations addressed and some powerful new features, Performer has reached a new level of sophistication.

Performer 2.2

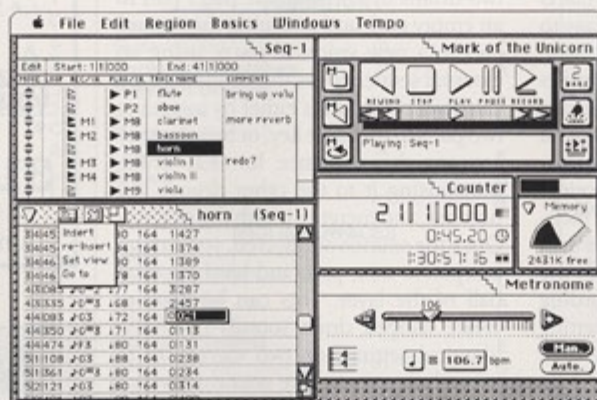


FIG. 1: Upper-right controls emulating a normal analog tape recorder; also Tracks and Event List windows. Notice new interface conventions in the "designer" title bar of the active window.

BY CHRISTOPHER YAVELON

MARK OF THE UNICORN'S *Performer* is currently one of the most powerful MIDI sequencers available. Like any sequencer, it can record and play back music performed on a synthesizer, sampler, or other MIDI-compatible device. But this is where the similarities end. Performer's editing and synchronization capabilities, coupled with its ability to convert performance data into conventional music notation (using Mark of the Unicorn's companion program, *Professional Composer*), put it in a class by itself. The words "high end" simply don't do justice to Performer's power.

Performer 2.0 is a complete rewrite of the extremely popular Performer 1.22. Registered version 1.22 users were provided with an upgrade path to 2.0 by paying the price difference between versions 1.22 and 2.0 (\$95). Since version 2.0 was released, there have been two additional free "bug-fix" updates, resulting in version 2.2.

PUSHING ALL THE RIGHT BUTTONS

Anyone who can operate a cassette tape recorder will have no problem running Performer; the "Motion Controls" window (Fig. 1) contains familiar rewind, stop, play, pause, and record buttons. Other buttons set AutoStop, AutoRewind, AutoShuttle ("Auto" refers to the ability to set points where the sequencer will automatically stop or rewind, or in the case of AutoShuttle, automatically shuttle between two points, like the "block markers" on Tascam and Fostex tape recorders), CountOff, Wait-for-Note, and AutoRecord (punch in and out). The Counter window provides counters for measures, beats, and ticks (1/480th of a beat); real time in minutes, seconds, and hundredths of a second; or SMPTE hours, minutes, seconds, and frames. (Rates of 24, 25, or 30 frames per second are supported.) A memory-use window displays the amount of free memory and a metronome window displays the current meter signature and tempo. Sequences may be recorded in *step time* as well; in this case, the mouse or keyboard specifies the rhythmic value of every note, and a MIDI keyboard enters pitch.

Four additional types of windows take Performer's capabilities far beyond those of an analog tape recorder. A *Sequence* window holds as many sequences as desired in a single file and allows you to play them in any order (although only one sequence can play at a time). Each sequence in this window has its own associated *Tracks* window (with up to 300+ tracks) that displays every track's name, comments, MIDI In and MIDI Out channel or channels (16 assigned to the modem port and 16 from the printer port), record mode, and loop information. Double-clicking on a track's name brings up its *Event List* window that shows the events (notes, pitch bend, etc.) in that track, and a *View Filter* is available to visually isolate specific parameters from the general data stream (this is helpful to find, for example, a spurious Program Change command located somewhere in the middle of a bunch of pitch bend data). A typical display includes timing (in measures/beats/ticks, real time, and/or SMPTE frames), type of event, note name, octave, key-on and key-off velocity, and duration. Finally, each sequence has an associated *Markers* window. Markers can be "locked" to a specific frame or

beat, and insulated from global tempo or meter manipulations. They can be used to indicate "hit points" for film and video scoring.

MAC INTERFACE IMPROVEMENTS

Performer's user interface was initially very Mac-ish, but 2.2 has some new features that are surprisingly effective. Each window's title bar includes three new items: a *Mini-Menu*, that accesses window-specific functions; a *Send-to-Bottom* button, that, when you have several windows open, sends the top one to the bottom of the pile; and a *Zoom box* to enlarge the window to its maximum size. Mac purists may be shocked to see a triangular "close" box on these "designer" title bars. Digging deeper, one discovers

PRODUCT SUMMARY

Product Name:

Performer, version 2.2

Type:

MIDI sequencer software

System Requirements:

Minimum 512K Macintosh (old or new ROMs), minimum of 800K or two 400K drives. Compatible with Mac+ SE, Mac II, and Multifinder.

List Price:

\$395

Copy Protection:

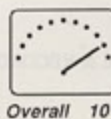
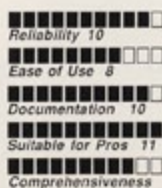
Key disk at each boot (note: version 2.3 requires key disk at initial boot only)

Main Features:

32 MIDI channels, multi-channel record, flexible SMPTE implementation, tempo and meter changes, non-contiguous editing regions, independent and multiple nested loops, many "humanization" features, conversion to notation via Professional Composer

Manufacturer:

Mark of the Unicorn
222 Third Street
Cambridge, MA 02142
☎ 617 / 576-2760





The MIDI Mixer 7s is a seven stereo input mixer with MIDI control and much more at a remarkable price.

Master Your Mix With MIDI

Affordable audio automation is here! The MIDI Mixer 7s is a powerful line mixer for up to seven stereo inputs—from synthesizers and effects processors to tape recorders and microphones. The 7s gives you real-time MIDI control of your mix in a space-saving single rack mount unit. Engineer your sounds live-on-stage or recall and fine tune your mixdowns in the studio.

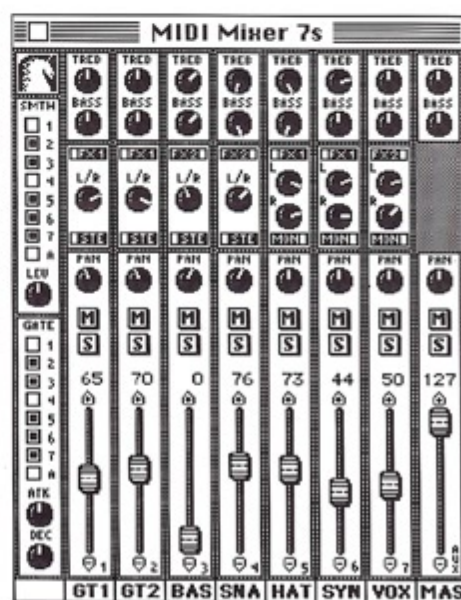
You can control the MIDI Mixer 7s from any sequencer, the wheels and sliders on your master keyboard, or a MIDI fader box. Record your moves into your favorite

sequencer to capture a fully automated mixdown. The 7s features seven stereo inputs with bass, treble, pan and stereo effects sends on each channel and an additional stereo auxiliary input/output. All of these parameters can be automated via MIDI—not just mute and solo! And multiple units can be chained together to provide as many stereo input channels as needed.

The MIDI Mixer 7s also gives you high-end features like eight stereo noise gates for an ultra-quiet mix. An advanced smoothing algorithm assures even response. And a software control panel is included to operate the

MIDI Mixer 7s from your computer. The individual channel input trims adjust for any signal level. A front panel headphone output with separate volume control provides private monitoring.

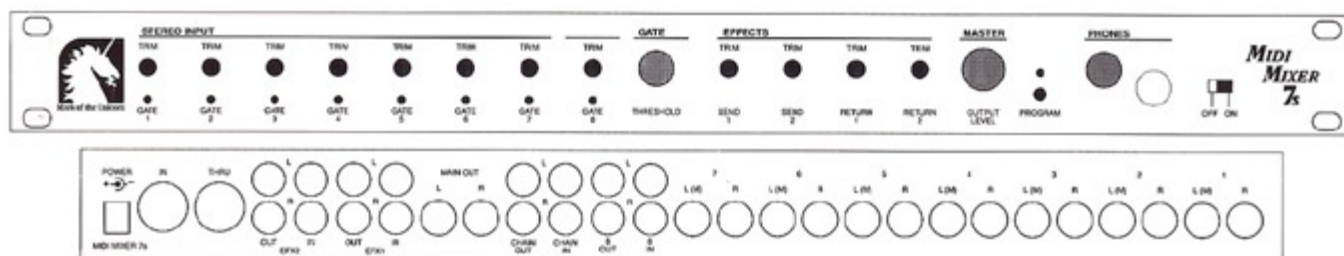
The MIDI Mixer 7s makes professional features accessible to any MIDI musician. Whether you're mixing keyboards, reverbs, vocals or guitars, the MIDI Mixer 7s is magic on the mix—live or in the studio.



Use the MIDI Mixer 7s to mix multiple stereo synthesizers and effects.



- Seven Stereo Inputs
- Two Stereo Effects Sends/Returns
- Bass and Treble Boost/Cut
- Eight Stereo Noise Gates
- Stereo Chain Input/Output
- Left/Right Master Outputs
- Control via MIDI
- MIDI In and Thru
- Stereo Auxiliary Input/Output
- Master Output Volume Control
- Headphone Output/Volume Control
- Input Gate/Peak LEDs
- Channel Input Trims
- Effects Input/Output Trims
- Works with any Sequencer or Controller
- Single Space, Rack-Mountable Chassis



MIDI Mixer 7s Specifications

Audio Outputs

- Master Left/Right Output
 - 1/4" Connectors
 - Line Level
 - 220 Ohm Series Resistance
- Master Headphone Output
 - 1/4" Stereo Connector
 - 220 Ohm Series Resistance
- Stereo Auxiliary Output
 - RCA Connectors
 - Line Level
 - 220 Ohm Series Resistance
- Stereo Chain Output
 - RCA Connectors
 - Line Level
 - 220 Ohm Series Resistance
- Two Stereo Effects Outputs
 - RCA Connectors
 - Line Level
 - 220 Ohm Series Resistance

MIDI

- MIDI In
- MIDI Thru

Noise Gates

- Attack Time: 5ms-100ms
- Release Time: 100ms-5 sec.

Audio Inputs

- Seven Stereo (or Mono) Pairs
 - 1/4" Connectors
 - Line Level
 - 20,000 Ohms Termination
- Stereo Auxiliary Input
 - RCA Connectors
 - Line Level
 - 10,000 Ohms Termination
- Stereo Chain Input
 - RCA Connectors
 - Line Level
 - 10,000 Ohms Termination
- Two Stereo Effects Returns
 - RCA Connectors
 - Line Level
 - 10,000 Ohms Termination

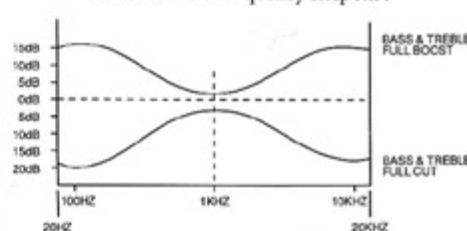
Audio Specifications

- Frequency Response
 - ± 1 db 20Hz to 20KHz
- Signal to noise ratio
 - 90 dB with noise gate
 - 78 dB without noise gate
- Total Harmonic Distortion
 - .1% typical

Front Panel Control

- Seven Input Channel Trims
 - >90 dB Range
- Auxiliary Input Trim
 - >90 dB Range
- Gate/Peak Indicator Threshold Level
- Stereo Effects 1 and 2 Send Levels
 - >90 dB Range
- Stereo Effects 1 and 2 Returns Levels
 - >90 dB Range
- Master Volume
 - >90 dB Range
- Headphone Volume
 - >90 dB Range

Tone Controls Frequency Response





Mark of the Unicorn, Inc.
222 Third Street
Cambridge, MA 02142
(617) 576-2760

Dear Performer Customer:

Performer is widely recognized throughout the music industry for its speed, power and attention to musical detail. The new features included in this latest Version 2.3 add considerably to Performer's capabilities and provide you with the leading edge in sequencer software technology.

Before you run the program, please follow the installation procedure explained on pages 5 through 9 of the user's manual to ensure that your master disk won't be damaged as you use the program. Next, you might want to begin by reading the "About Performer" section on pages 1 through 4 of the user's manual to get a brief overview of the program and its features.

After you start up Performer, notice its unique "look and feel." Look at the Controls window and you will notice that in addition to tape-deck style controls, there are a number of Memory buttons that automate the stop, rewind and shuttle functions. The Counter window displays three types of time (measures/beat/tick/real-time/frames), which are updated continuously during playback and recording. Direct SMPTE synchronization is possible with the appropriate interface device and frame numbers (SMPTE location numbers) can be used for location and editing.

Performer 2.3 allows you to record from several MIDI channels simultaneously and to record and play back using both serial ports. You can loop each track in a sequence separately in as many locations as you like and you can even record while looping! In addition to the standard Edit menu commands like Cut, Paste and Copy, Performer 2.3 provides the Repeat, Snip, Splice and Shift commands to allow you to add, delete and move data in new and useful ways. The Change Meter command not only inserts new meter markings in a sequence but can also rearrange the notes in a musical manner.

These are just the highlights of Performer's capabilities. Three features which you can expect in the next version of Performer include a conductor track and more advanced key signatures and tempo change functions. Of course, this forthcoming update will be sent to you at no additional charge. Please be certain to complete and mail the registration card contained in your manual so that we can keep you updated. Thank you.

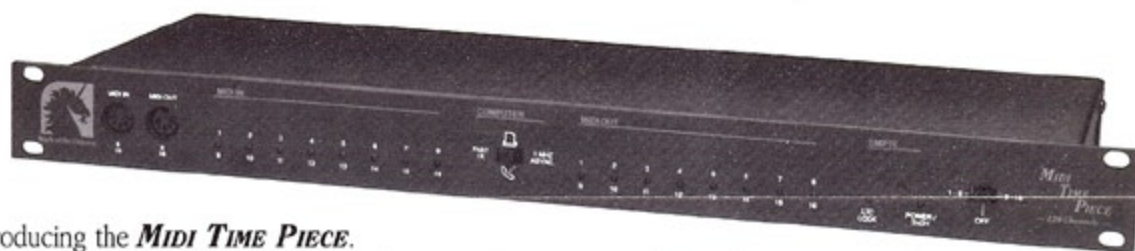
Sincerely,

The Performer Development Team



Introducing the

MIDI TIME PIECE™



Introducing the **MIDI TIME PIECE**.

A revolutionary MIDI/SMPTE interface that provides **128 MIDI channels with eight independent MIDI inputs and outputs**, breaking the 32 channel barrier imposed by earlier interface designs. In fact, you can network up to four **MIDI TIME PIECES** for a total of 512 MIDI channels on your Apple Macintosh!

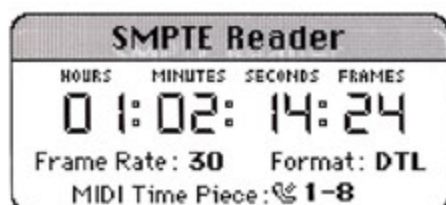
To handle this high-channel capacity, the **MIDI TIME PIECE** has a special **Fast mode** which provides as much MIDI throughput as your Macintosh can process, reducing the "MIDI logjam" common with other interfaces.



Each of the **MTP's** eight MIDI Input/Output cables supports 16 independent MIDI channels, allowing access to many different multi-timbral devices without running into conflicts of overlapping channels.

The **MIDI TIME PIECE** multiple input and output connectors simplify your MIDI set-up and allow you to send and receive data to and from several devices simultaneously, without the need for a separate MIDI merger or patchbay. Two of these are **right on the front panel** for those times when you need to connect another piece of gear in a hurry.

The **MIDI TIME PIECE** also gives you **sophisticated routing and muting capabilities** allowing you to channelize, cablize, mute and merge any inputs to any outputs. Add to this the most reliable SMPTE timecode reader/generator available, pack it all into a single rack space, and the revolution is complete.



The **MIDI TIME PIECE** comes with a desk accessory that gives you complete control over all settings and allows you to save and load configurations.

	MTP	Other Brands
SMPTE Sync	✓	✓
Single Rack Space	✓	✓
128 MIDI Channels	✓	
8 Separate MIDI In, 8 Separate MIDI Out	✓	
Merge/Route any Input to any Output or Channel	✓	
Mute any MIDI Data on any Channel	✓	
Network up to 512 MIDI Channels	✓	
MIDI In/Out on Front Panel	✓	
High-Speed "Fast" Data Rate	✓	

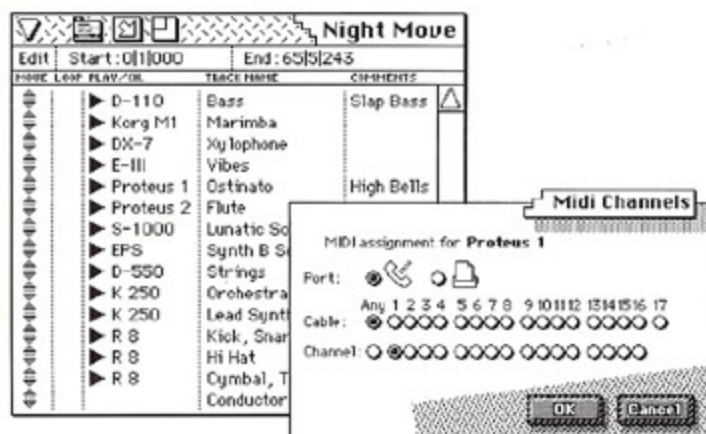
Performer® and the



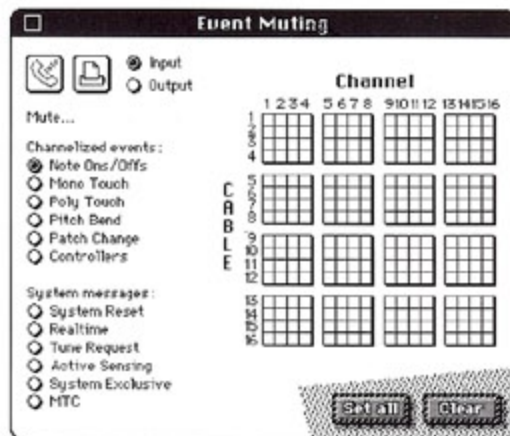
Performer and the **MIDI TIME PIECE** combine to give you the most powerful MIDI sequencing environment available.

With Performer and a single **MIDI TIME PIECE**, you get virtually unlimited tracks, independently assignable over 128 MIDI channels.

Up to four **MIDI TIME PIECES** can be networked with Performer to provide 512 MIDI channels! With a **MTP** network, you can even add in your current Macintosh interface for 544 MIDI channels or connect two Macintoshes to the same **MTP** network.



*Send any track to any channel on any cable.
Configure MIDI assignments by device names.*



*Control your MIDI gear with the **MTP's**
flexible Routing and Muting functions*

MIDI TIME PIECE Specifications

- Multi-cable Macintosh MIDI interface
- 8 independent MIDI in with LED indicators
- 8 independent MIDI out with LED indicators
- 128 MIDI Channels per unit
- Network up to 4 units for 512 Channels
- SMPTE tape sync - 4 formats
- Converts SMPTE to DTL/MTC
- Jam Sync SMPTE
- Single space 19" rack-mountable chassis
- Save/Load configurations to disk
- Merge any inputs
- Re-channelize on input and output
- Route any inputs to any outputs
- Mute any MIDI data on any cable
- Convenient front panel MIDI in and out
- Standard dual-interface mode
- High-speed "Fast" data rate
- RS-422 thru for modem or printer
- Includes two 12' serial port cables
- Works as a stand alone merger/mapper



Mark of the Unicorn, Inc. • 222 Third St. • Cambridge, MA 02142 • (617) 576-2760

1989/1990 Performer v3

Graphic Editor/Notes and CC	Resize Window	Conductor Track	Sliders for volume, pan, & CC	Chunking
-----------------------------	---------------	-----------------	-------------------------------	----------

Top Performer®



Performer Version 3 is here!

What could we add to the program that is already the pre-eminent sequencer for professional recording?

How about graphic editing that displays note events simultaneously with *all* continuous controller data. Filters that let you view just the events you want to see. And zoom controls for precise editing.

Want to compare tracks? Simply re-size the editing display and open up more windows. Notes and phrases play when you point at them. And there's a Conductor Track for editing key signatures, tempo and meter changes.

We've also added a powerful feature that lets you conduct real-time tempo changes before, during or after you record. And unlike the current crop of clunky sequencers, Performer works smoothly and intuitively—something you can't tell from spec sheets.

So whether you're just getting into sequencing software or ready to trade up, check out the one that professionals depend on: Performer.

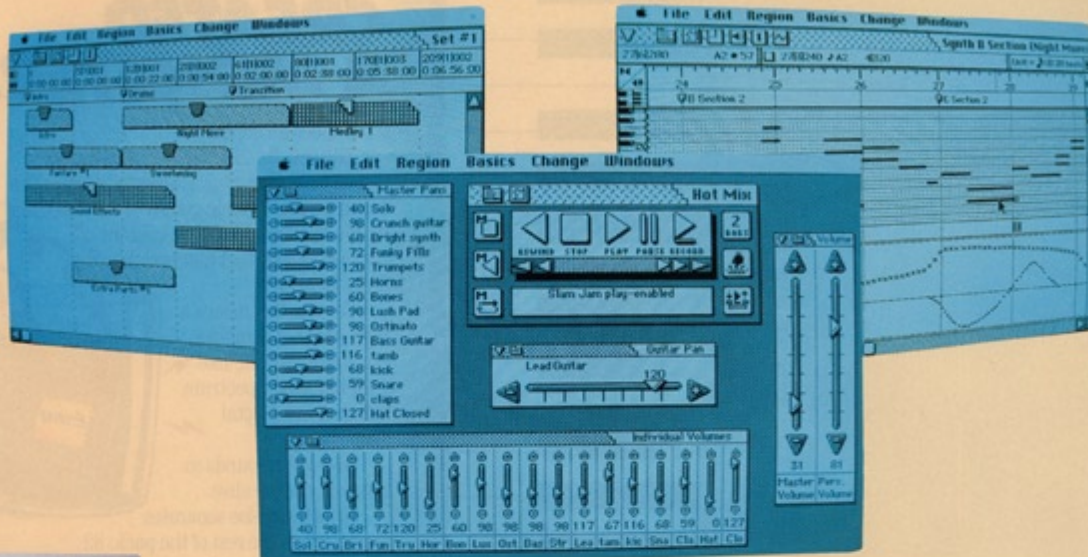
Developed for Apple Macintosh and Atari ST computers by Mark of the Unicorn, Inc., 222 Third Street, Cambridge, MA 02142 (617) 576-2760.



1990 Performer v3.3

Song window	Custom Consoles	Redraw CC data	Smart Quantize	Remember Times
Quick & View filters	Note velocities displayed as CC	Human Feel	Resolution: 480	

Consummator Performer®



Fulfill your musical inspirations with Performer's powerful graphic sequencing environment.

Performer's *animated* Sliders give you unlimited faders to control volume, pan and other MIDI data with a familiar mixing board interface. Sliders can re-assign incoming MIDI data in real time, letting you route any controller on your MIDI hardware to a variety of functions. Performer's Master Sliders can control an entire bank of sliders. And you can customize your consoles with vertical and horizontal sliders in your choice of long or short throw.

Chunking™, Performer's revolutionary graphic arrangement feature, lets you chain and stack multiple Chunks™ of music for sequential and simultaneous playback. And Performer's Remote Controls let you cue and play any sequence on-the-fly, directly from your MIDI keyboard. Performer will even load your sequences automatically from disk as you need them!

Of course, Performer still has the most complete event editing features: they let you work with *all* MIDI data in simultaneous graphic and list editing modes, without constantly switching views.

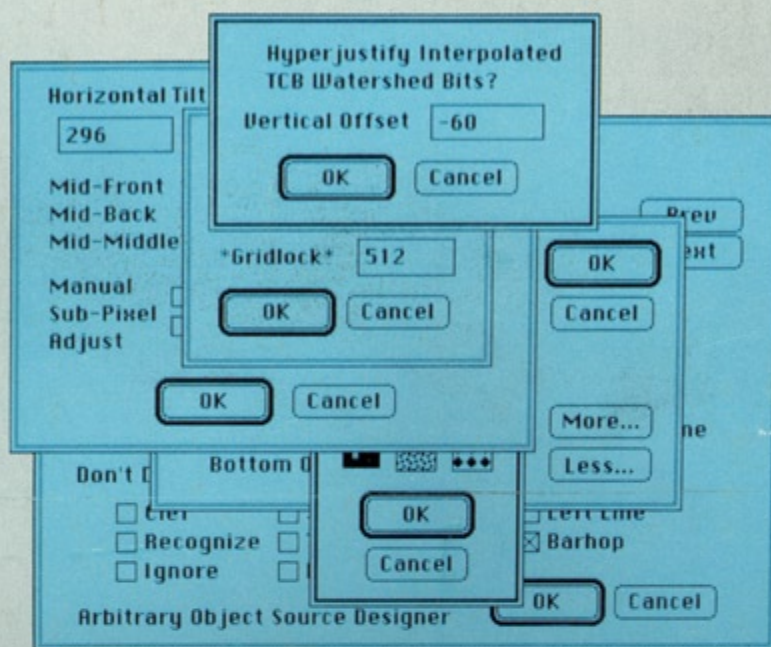
With its comprehensive controls and intuitive design, Performer lets you realize the consummate performer in you.



TEC
TECHNICAL EXCELLENCE & CREATIVITY
THE 1989
TEC AWARDS
WINNER

Mark of the Unicorn, Inc., 222 Third Street, Cambridge, MA 02142 (617) 576-2760

1992 Mosaic



Ok! Ok! Cancel!

Until now, producing music notation on a computer meant choosing between two evils. Simple programs with limited capabilities or complicated programs designed for computer masochists, not composers.

Composer's MOSAIC™ reclaims the elegant artistry of traditional notation while retaining the flexibility of advanced computer publishing. Without an endless



sea of dialog boxes or arcane tools.

Just click-and-drag to position notes, stems, beams and articulations. They always retain their musical meaning. View and edit a voice as an individual part, condensed score and full score—all at the same time. Modify margins, staff layout, text and footers directly on the page.

Enter lyrics wordprocessor-style and then auto-flow them below any voice. Slurs and ties re-shape with a click of the mouse. Unlimited undo and redo lets you experiment without losing your ideas.

MOSAIC has both real and step-time MIDI input and playback and supports the MIDI Time Piece™. Advanced features include complex meters, cross-staff beaming, unlimited multiple voices on a single staff, automatic meter and key change warnings, nested triplets and tuplets, and more.

From complete symphonies to pop lead sheets, Composer's MOSAIC offers you the freedom to produce your manuscripts quickly and elegantly.



Mark of the Unicorn

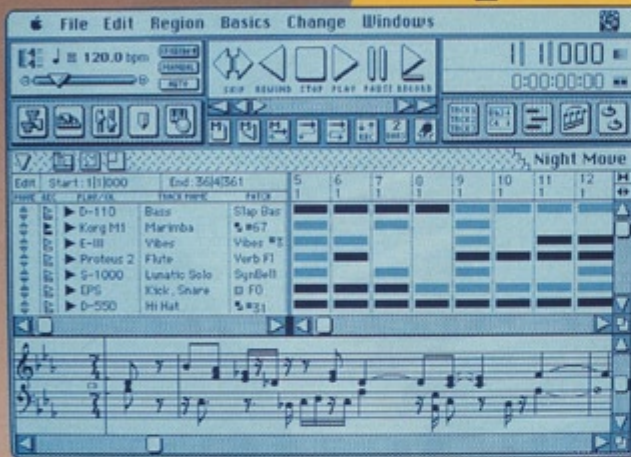
1993 Performer v3.4.2

Performer v3.5

Tracks Overview window	Notation	Consolidated Control Panel	Enhanced Transpose
Un- tempoed recording	On-line help		

We Interrupt the Sequencer Wars to bring you this Special Update

Performer Version 3.5 is here!



Performer Version 3.5's new Tracks Overview, Consolidated Controls and Notation Editing.

overlapping windows. Our enhanced Transpose feature can transform your music in a single keystroke, from big-band voicings to avant-garde experiments. Or save transpose maps to instantly re-map drum machine assignments.



When it comes time to *play* your masterpiece, try the perfect interface. Our MIDI Time Piece is a combination interface, SMPTE synchronizer and patchbay that handles an unmatched 128 MIDI channels. With 8 MIDI in's and 8 MIDI out's, including two on the front panel, you'll never have to crawl behind your rack in the middle of a session. And for video production, Performer offers exclusive SMPTE synchronization features, including lock to slow video-tape shuttling with our new Video Time Piece™ VITC/SMPTE synchronizer and character generator.

Arrange your music with a bird's-eye view of all your tracks using the new Tracks Overview. Select patches by name, in real time. Audition sounds or recall complete setups by simply clicking. Then add our music notation editing window—another Mac sequencer first. You can edit your sequence as *music*, not just numbers or dots.

Performer's new Consolidated Controls panel gives you an all-in-one command center. No more distracting trips to the menu bar or searching through

And while other sequencers force you to march to the *computer's* tempo, Performer's new Untempoed Recording lets you record rubato and then place beats and barlines where *you* want. We've also added on-line help and support for standards like MIDI Time Code and Apple's MIDI Manager.™

With breakthroughs like graphic sequence Chunking,™ animated sliders, full SMPTE support and 128 MIDI channels, Performer places you at the leading edge in sequencer technology.



Mark of the Unicorn, Inc.
222 Third Street, Cambridge, MA 02142,
(617) 576-2760, FAX (617) 576-3609.



"Performer is
gorgeous...blows
away the
competition."

Electronic Musician

We Couldn't Write
A Better Ad.

"Flat out
fun to use."

Keyboard Magazine

"There is no
equivalent."

MacGuide



"Probably the
most powerful
such setup."

Audio Media(UK)



So we spent
our time devel-
oping Performer
3.6 instead. Now

you can use Performer's powerful Edit and
Region commands as your music is playing!

Transpose sections to new keys. Shift
music backward or forward in time. Grab
and move notes, set loops, draw pitch bends,
and change velocities. Edit or re-arrange sets
on-the-fly. All without stopping playback.
And without interrupting your creative flow.

With our drum machine style quantize-
on-input, events quantize
as you record. And all of
Performer's quantize
options work in real-time, including swing-
feel, strength, offset and sensitivity.

Call us for more information and the
authorized dealer nearest you. Performer
Version 3.6 will be sent free of charge to
registered Performer Version 3.5 users.



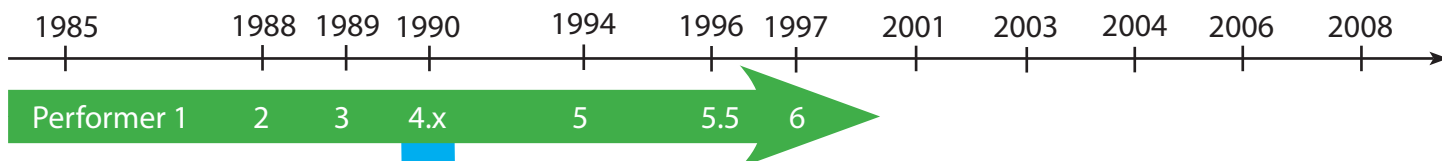
Mark of the Unicorn, Inc.

TEC
1990
WINNER

222 Third Street, Cambridge, MA 02142 Phone: (617) 576-2760 Fax: (617) 576-3609

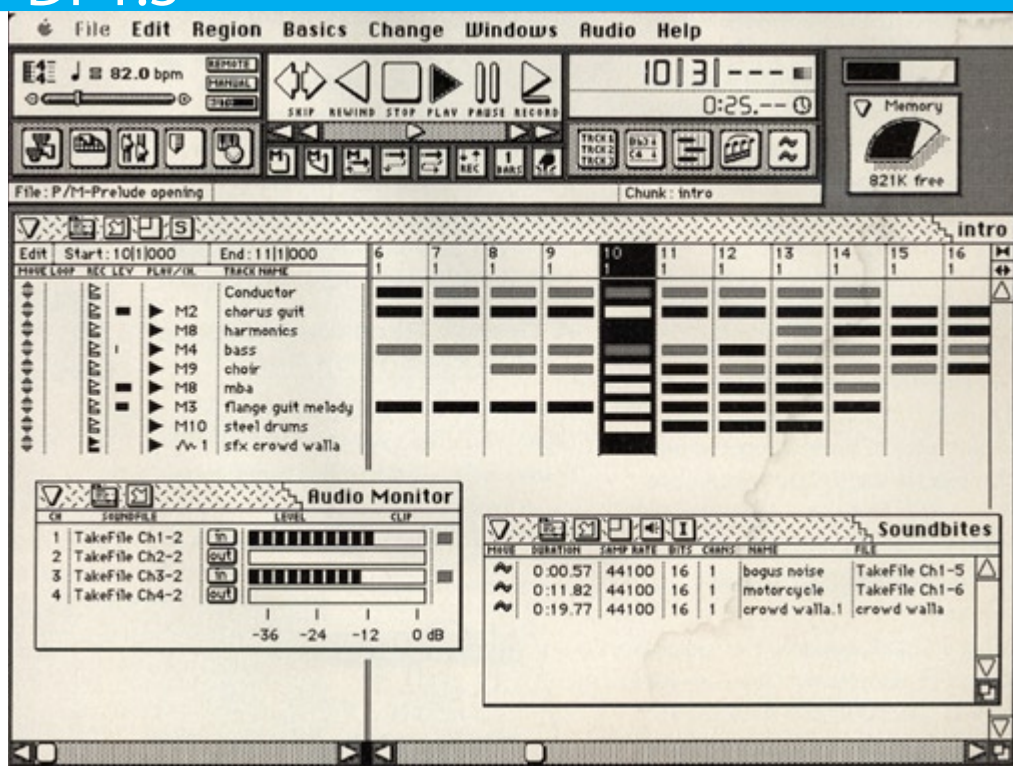
Performer v3.6

Real time Edit/ Regions commands



1993-7 DP1.3

Contains all of the features of Performer 4.1



Need to use Sound Designer (which comes with Digidesign A/MII cards) for DSP functions. Markers for Start and End points of soundbites are passed into SD as region markers so editing in SD is on specific segments.

MOTU wrote it's own drivers for 4 track output from the 2 channel i/o A/MII card.

Can import Sound Designer playlists
Consoles are now user configurable
Event list, graphic editor, notation editor
Invert pitch, Reverse Time, Retrograde
Integrated with Unisyn
Tap Tempo, Record Beats

MIDI activity indicators for individual tracks
Humanize Q

The 873 page (!) manual claims that you can sneak by with 5Mb or memory under System 6 not running Multifinder, and that you need 8Mb under System 7. My experience testing the program on a 5Mb IIsi running a completely stripped-down System 6.07 boils down to this: unless you enjoy having your computer crash all the time, plan on getting 8Mb.

4 channels of audio using the Audio Media II card

Enhanced continuous sync

Recording digital audio with external sync

Tempos to 100ths

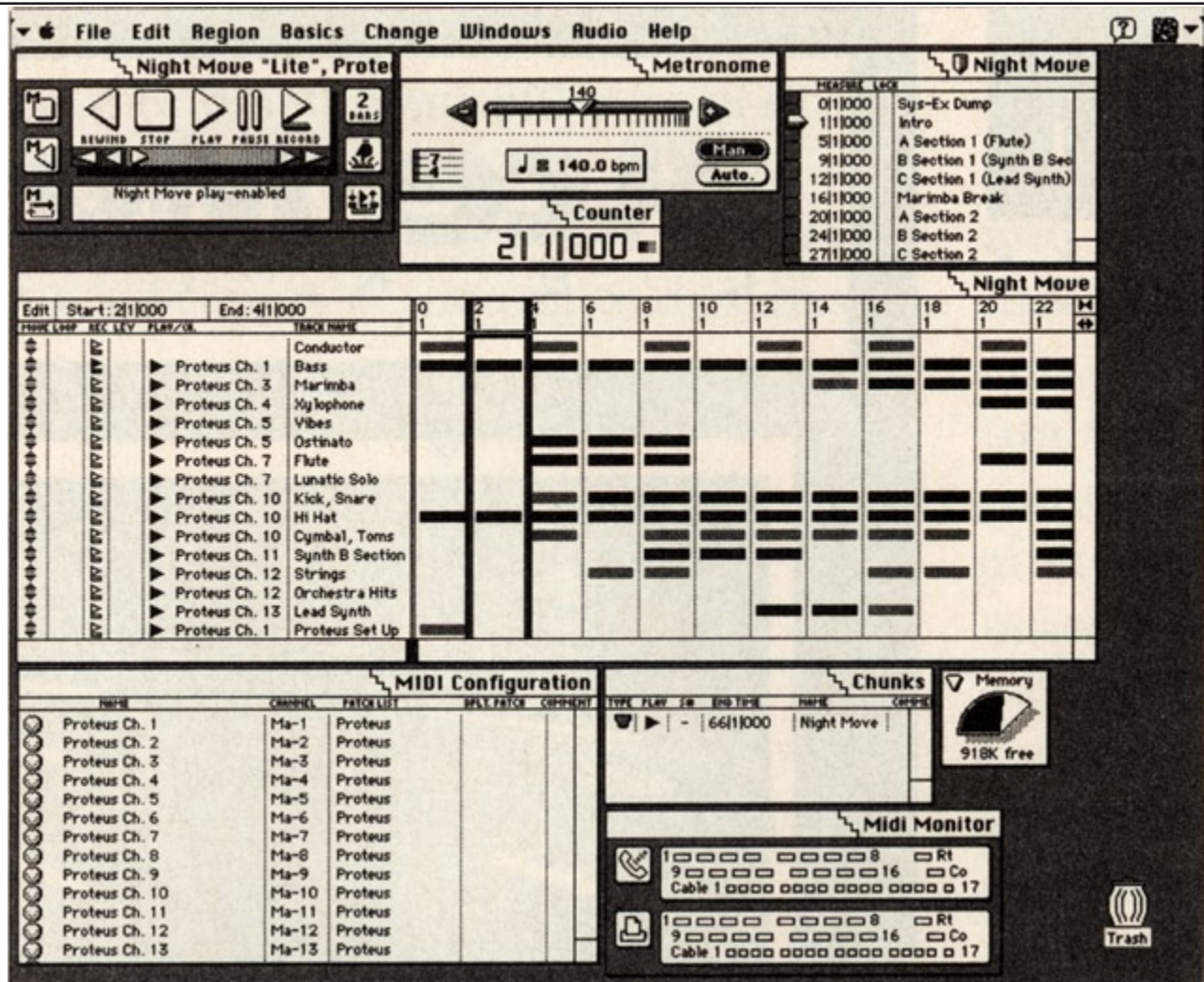
Tracks overview/ Event List/Graphic editor/Wave editor

Treats everything as a separate mono file/Soundfile mixing

Cut/copy/paste/merge/move/pan/gate/split into sections/volume

Crossfades drawn or recorded with Consoles

Consoles for MIDI and audio



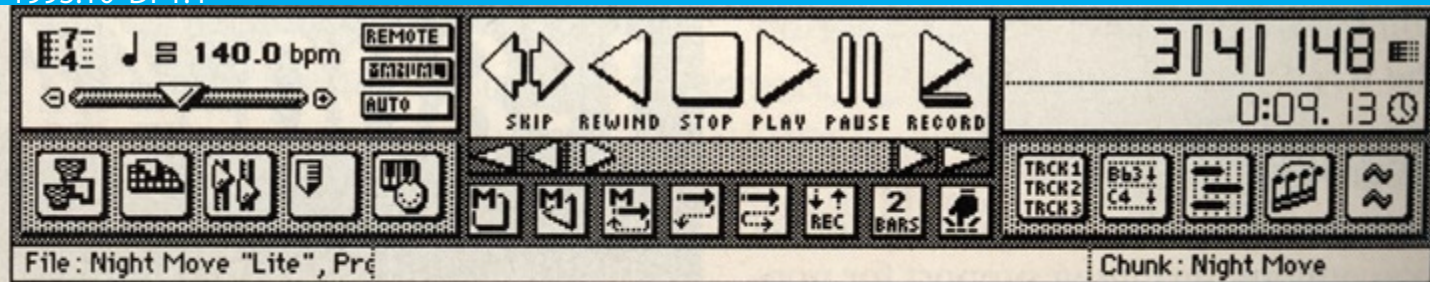


FIG. 2: The Consolidated Controls window unites the main features of the Controls, Counter, and Metronome windows and provides icons that open other main windows.

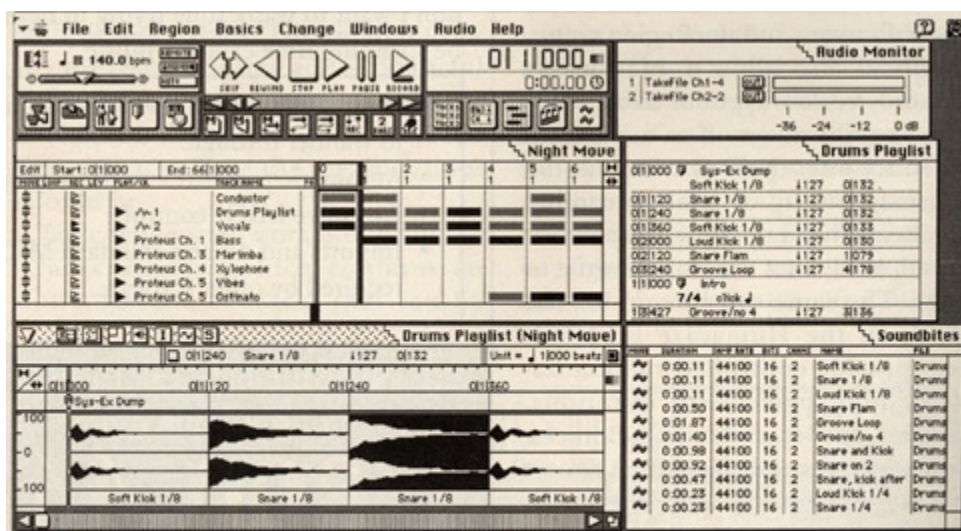


FIG. 4: Audio tracks take their place next to MIDI tracks in the main Tracks window. Other windows provide for monitoring input/output levels, arranging Soundbites, and editing them numerically or visually.

MIDI Device Groups

Chunks/Songs

Audio Graphic Editor

Split/Trim/Compact/Strip

Silence

Soundbites Window

Event Chasing

Create Continous Controllers

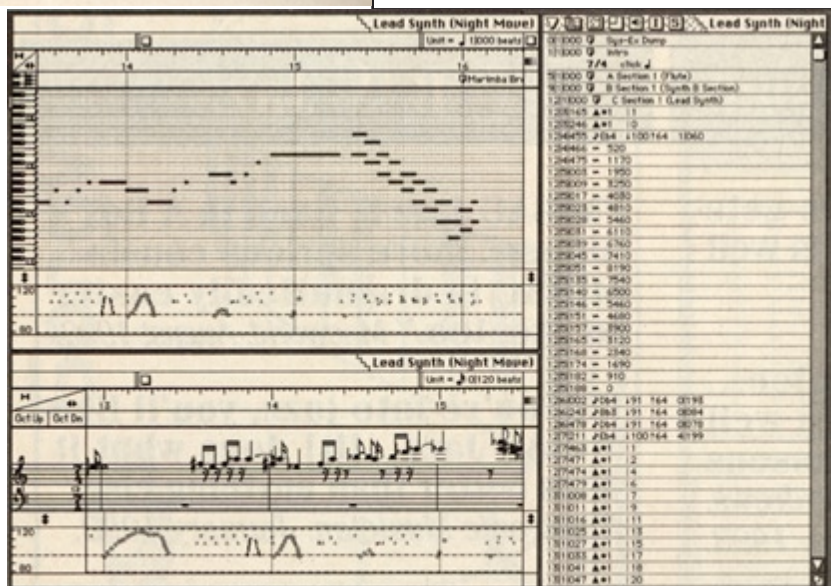


FIG. 3: Digital Performer allows events to be viewed and edited in Event List (numeric), Graphic Editing (piano roll), and Notation Editing (standard notation) windows.

control
room

REVIEW

Mark of the Unicorn Digital Performer

*Integrated sequencing/
digital audio software*

**PART 4
IN OUR SERIES
OF MAC DIGITAL
AUDIO REVIEWS**

By Nick Batzdorf

Let's start off this review by boring the heck out of some of you. Yup, those of you who have been following this series of reviews (as well as one or two of you who are well informed) are already hep to what a digital audio sequencer does. But for the others: it integrates digital audio recording and editing with MIDI sequencing in one computer. Digital audio is recorded, edited, and manipulated alongside the MIDI data.

Digital Performer is identical to MOTU's (Mark of the Unicorn's) Performer sequencer, except that it has digital audio added. So once again, you're getting two reviews for the price of one.

System requirements

You need a Mac II or better (preferably much better), a huge hard disk with a 20mS access time (there's another plug for the 330Mb rackmountable drive that Dynatek, the Canadian data

storage company, was kind enough to loan me), and a digital audio recording system. The systems it works with are MOTU's Digital Waveboard, or Digidesign's Sound Accelerator, Sound Accelerator II, Audiomedia, Audiomedia II, or ProTools. The program is designed to be easily updated for future systems, notably the Yamaha CBX D5.

The 873 page (!) manual claims that you can sneak by with 5Mb or memory under System 6 not running Multifinder, and that you need 8Mb under System 7. My experience testing the program on a 5Mb IISI running a completely stripped-down System 6.07 boils down to this: unless you enjoy having your computer crash all the time, plan on getting 8Mb.

What's different

Digital Performer uses its own audio driver that lets it play back four channels of audio on an Audiomedia II card (of course, mixed down to the card's two outputs). The other digital audio sequencers all use the DAE (Digidesign Audio Engine), which right now is only capable of two channel operation. However, the playing field will become level again when the 4-channel-on-Audiomedia II version of DAE comes out. MOTU even plans to make Digital Performer DAE-compatible.

But a less temporary advantage of MOTU's digital audio driver is that Digital Performer can record digital audio under external sync. The other

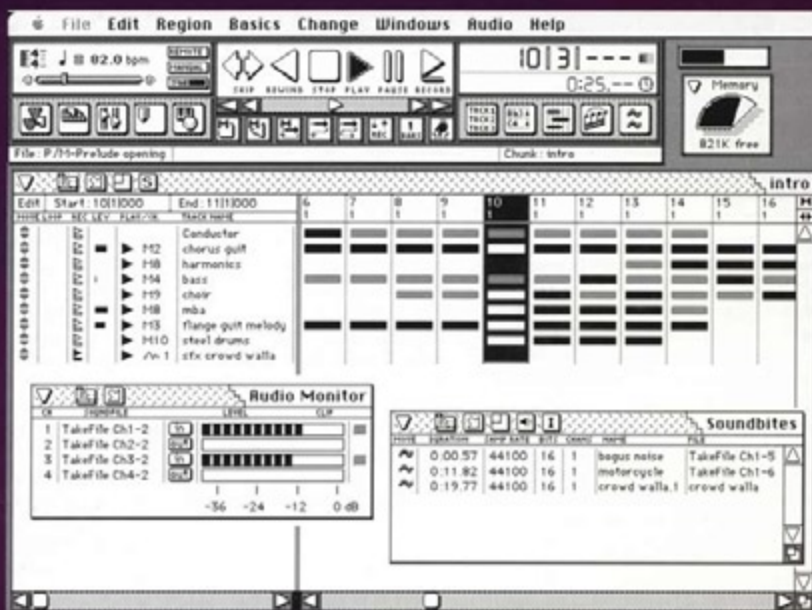
digital audio recording systems are all capable of playing back while being slaved, but they rely on a marginally useful tape calibration procedure that attempts to compensate for variations in the master's speed during recording.

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Home & Studio Recording Magazine*

This feature is probably the most important one that Digital Performer has over its competition. What if you want to use your digital audio sequencer to add to the number of tracks on your tape recorder, or if you want to use the digital audio editor to work on a recorded tape track and keep it in sync?

On the other hand, there's a price you pay for this in audio quality. The way that this and other software is able to follow an external sync source is by real time sample rate conversion (resulting in pitch shifting). But hold the press! MOTU is just about to release an update with completely rewritten external sync. The engineer who wrote it apparently defies you to hear the sample rate conversion. We'll report next month.

Having said all that, I've found that even with the version being reviewed, both the degree of sound degradation and the importance of being able to sync while recording are less crucial



than one might expect. A good tape recorder (I tested these systems with a Tascam TSR-8) doesn't have enough wow and flutter to require much pitch shifting, and it's not particularly hard to slide audio events around if they get out of sync.

Audio

Recording and playing back audio is pretty much straightforward. You designate a record file, select a track to record on, adjust an onscreen level meter, and push the button. Unlike Digidesign's Sound Designer program, Digital Performer treats everything as a separate mono file. To record in stereo, you activate Multirecord and set up two tracks to record on. However, Digital Performer will open interleaved stereo Sound Designer files.

One or another form of the Sound Designer software comes with all the Digidesign cards. As is standard with a digital audio sequencer (see how quickly we become jaded!), you can cut, copy, paste, merge, move, rearrange, pan, noise gate, split into sections, and adjust the volume of digital audio. You can also combine tracks. But you'll need to use Sound Designer for DSP functions that modify the actual waveform, such as dynamics processing and EQ. (Actually, I just saw a beta version of E-magic's Notator Logic with something akin to Sound Designer built in, but that's the exception.)

Also "standard" (for this type of program) is the ability to select an audio region to be automatically selected when Sound Designer is opened. Sound Designer. By the way, Passport Design's Alchemy program also works for editing waveforms, although it's less suited to dealing with these large files.

Finally (also "standard"), you can import Sound Designer playlists. Those of you who read the April and May installments of this series will remember that a playlist contains instructions for playing a series of regions of a soundfile in any order, any number of times. More "standard" stuff: Digital Performer ignores Sound Designer II crossfades. Not really any big deal—you can create your own by drawing them, entering them in an event list, or recording them in using a custom Console you set up. Uh-huh—you can design your own sliders and knobs, assign them to whatever you want them to control (MIDI and/or audio), and record moves in real time.

The sequencer

All of the sequencers with digital audio

sections these days have become so feature-rich that it's only practical to touch upon some of the highlights. Performer is fundamentally a linear sequencer, not a pattern-based one. But that's not to say that you can't string together patterns—the Chunks window lets you arrange sections of music incredibly easily.

You'll see from the screen dump of Performer's base of operations screen, the Tracks window, that there are instrument assignments, etc., on the left, and horizontal blocks of data representing units of music underneath a vertical bar/beat and/or time column on the right. I find this type of overview screen the most logical way to present what's going on in the sequence. Performer isn't the only program with this kind of screen, but it has two rather interesting features.

The first is that the blocks of data are either blank (no MIDI—or audio—data present at that location in the sequence), medium grey (a small amount of data present; you define what "small" means), or black (lots of data there). The other is a Velocity or Data Density meter (you decide) that dances as the music plays. Yeah.

You can click on any block in this overview screen and open an editing window that's already scrolled to that location. Performer gives you a choice of windows: event list editing, graphic editing (which is the one I found myself using almost exclusively), and notation editing.

Performer allows you to select discontinuous data for editing on any window. Global editing is very cleverly implemented in the Tracks window. For instance, if you want to cut a section out of the sequence—again, across any or all tracks—you can zoom in to define as precise a boundary as necessary.

All the standard editing features are included, such as selection by definable criteria: apply the edit to every 16th note between X and Y that I recorded on a Friday while drinking coffee with my left hand before reaching puberty... Some even more esoteric/interesting editing features (you decide) provided include Invert Pitch (around a specified axis note), Reverse Time (switch the order of attacks within the region), and Retrograde (reverse the order of notes).

You may or may not find the Notation editing window useful. In my opinion, it's only practical if you want a quick and dirty print-out, if you only ever need to produce something simple like a single part (and you're never in a hurry), or if you'd rather work with a

somewhat crude transcription than one of the other types of editing. This isn't a substitute for a serious notation program, nor is it intended to be. I'd personally find treble and bass staves in the graphic editing window much more helpful.

But anyone who uses a notation program will find the Smart Quantize feature extremely useful. This algorithm not only understands the difference between triplets and duplets, it quantizes notes' releases so that things become much less messy when transcribed. Nipper.

Performer is integrated with MOTU's Unisyn universal editor, and it can talk instrument names instead of channels and patch numbers. However, there's nothing to stop you from dealing in channels and numbers.

The last features worth singling out are related: Tap Tempo and Record Beats. Tap tempo lets you control the sequence's tempo by tapping. Record beats lets you record with no click, then go back and tap in to tell the program where the beats are, so you can quantize or even import the file into a notation program. Hopefully, a future update of the program will make this feature editable, and also let you tap in downbeats on the fly to make changing meters simpler to deal with.

Therefore,

I was drawn into Performer right away, probably because it thinks pretty much the way I do. And just because the manual (which is very good) weighs as much as a brick, don't think that it's a difficult program—it's not. Everything is clearly and logically laid out.

The digital audio section of the program works as it should, and it's temporarily the only one that lets you record and play back four tracks on an Audiomedia II card. It is the only one that can slave to another machine while recording, without resorting to outboard equipment.

So is it the one for you? Can't say—these days, they're all amazing, and even if they can be made to act the same, they're all fundamentally somewhat different. After the end of this series we'll try to compare all the programs and discuss their relative strengths. But there's no question that Digital Performer is a heavyweight contender. ☛

Price: \$895.

More from: Mark of the Unicorn, 1280 Massachusetts Ave., MA 02138 617/576-2760, fax -3609.

MARK OF THE UNICORN DIGITAL PERFORMER

MIDI SEQUENCING/AUDIO
RECORDING SOFTWARE (MAC)



By Jim Aikin

PERFORMER HAS LONG ENJOYED AN enviable reputation as one of the foremost MIDI sequencers for the Macintosh. It's a powerful, professional piece of software, no doubt about it — but its advanced functionality and ease of use are only part of the reason for its reputation. Other companies have often beaten Mark of the Unicorn to the punch with slick new features, but none has been able to shake loose Performer's large installed user base in the studios. From what we've heard, if you're called to do a production session in L.A., you'd better have Performer on your hard drive.

As direct-to-hard-disk digital audio has begun to be integrated into the sequencing environment, the picture hasn't changed much.

Performer is not the first Mac sequencer to sprout audio tracks, it's coming out of the starting gate well behind Opcode's Studio Vision (see Keyboard Report, Jan. '91) and rounding the clubhouse curve head to head with Steinberg/Jones's Cubase Audio (see Keyboard Report, Jan. '93). But for the true-blue Performer user, who is already firmly ensconced behind a 48-channel console, it matters less whether MOTU is first than whether they nail the high-end features that will integrate hard disk audio seamlessly into the recording environment.

Digital Performer does a fine job of handling the basic tasks of recording and playback, though (not surprisingly) there are a few features that we'd like to see added. In our tests, version 1.2 performed flawlessly. Audio recording is handled much like MIDI recording, with a few important exceptions that we'll explain as we go along. If you're familiar with Performer, you

should be able to get up and running in a few minutes. Version 1.3 of Digital Performer, which we received just before press time, contains all of the features in the Performer 4.1 update. The most impressive aspect of 1.3, at least for those of us who are trying to wring maximum performance out of a minimum recording setup, is that it will play back not two but four channels of digital audio using a two-channel audio board. We'll have more to say about this and the other feature updates in 4.1/1.3 below.

Hardware. We did our review using a Digidesign Audiomedia II board. Like its competitors, Digital Performer is reportedly compatible with Digidesign's whole line of hardware, and inevitably the number of audio channels is hardware-dependent. Audiomedia II has two inputs and two outputs (plus stereo digital I/O), but by means of some slick programming MOTU has been able to coax four channels of audio playback out of the board. Each channel can have its own volume and pan position, but obviously all four signals must be mixed to a stereo pair at the card's output. Since only two hardware inputs are provided, only two channels of audio can be recorded at a time.

According to our sources, Digidesign is still (at press time) putting the finishing touches on their own four-channel Audiomedia II driver software. Once the driver becomes available, both Cubase Audio and Studio Vision will add four-channel capability. MOTU has taken a short cut by writing their own driver, which is how they got out in front of the pack in this crucial area.

Performer at a Glance. There's far too much in this program for us to explain it all. (The manual is almost 900 pages long!) Keyboard published a thorough overview of Performer 3.42 in our Aug. 1990 issue, and if you want to crawl around in the attic and get dusty, our first two reviews of the program appeared in May '86 and July '88. This time around we'll do no more than hit the high spots.

If you want to, you can record MIDI into Performer using a straightforward tape recorder emulation called the Track Window. This can contain an unlimited number of tracks, and each track can be set to play back on any combination of MIDI channels. To put rhythm tracks together quickly, you can set any individual track to loop. Performer's track loops are more powerful and flexible than the loops in most sequencers: Each track can contain multiple loops, which can start and end at any point, and loops can be nested.

At a higher level, all of the tracks in a Track Window sequence can be handled as a single chunk. Chunks can be moved around freely in the Song Window to assemble a finished song out of repeating and overlapping sections. Songs can also be nested within other songs. You can create new chunks by clicking and

DIGITAL PERFORMER 1.3

Description: MIDI sequencing software with direct-to-hard-disk digital audio recording.

Hardware Requirements: Macintosh II, IIfx, and IIfx supported but not recommended; Macintosh IIfx, IIfx, IIfx, Quadra 700, 900, or 950, Performa, or Centris 650 recommended. 5Mb RAM (8Mb with System 7). Hard disk with 20ms seek time or less. MIDI interface. MOTU Digital Waveboard or Digidesign Sound Accelerator, Sound Accelerator II, Audiomedia, Audiomedia II, or Pro Tools audio board.

MIDI Features: 480 ppq clock resolution. Up to 512 MIDI channels with linked multi-port MIDI interfaces. Unlimited tracks. Editing during playback. Automated punch-in/out, multi-channel recording. Step recording. Graphic, event list, and notation editing. Time locations can be displayed in bar/beat/clock, real-time, or SMPTE format. Continuous controller and velocity curves can be drawn with mouse. User-configurable screen sliders and knobs with programmable max and min values. Key-sensitive transposition and harmonization. "Humanize" randomization of velocity, duration, event time, and tempo. Chaining and nesting of sequence chunks within a file. Independent and nested track loops. Meter and tempo changes, automatic tempo scaling. Tap tempo map recording. Autolocate markers with names. Remote control from MIDI keyboard. Librarian capability for configuring studio. SMPTE sync with Direct Time Lock and MTC. Programmable event chasing, including notes and sys-ex. Notation printout. Direct NuBus MIDI track output for sound playback cards. On-line help.

Audio Features: Four channels of audio playback using a two-channel Audiomedia II, Sound Tools II, or Digital Waveboard. Input/output metering with clipping indicator. Graphic waveform display. Automatic soundfile indexing during multiple takes. Unused audio regions can be eliminated from files. Audio volume and pan control via screen sliders. Audio segments can be time-shifted after recording. File compacting to remove unused audio segments.

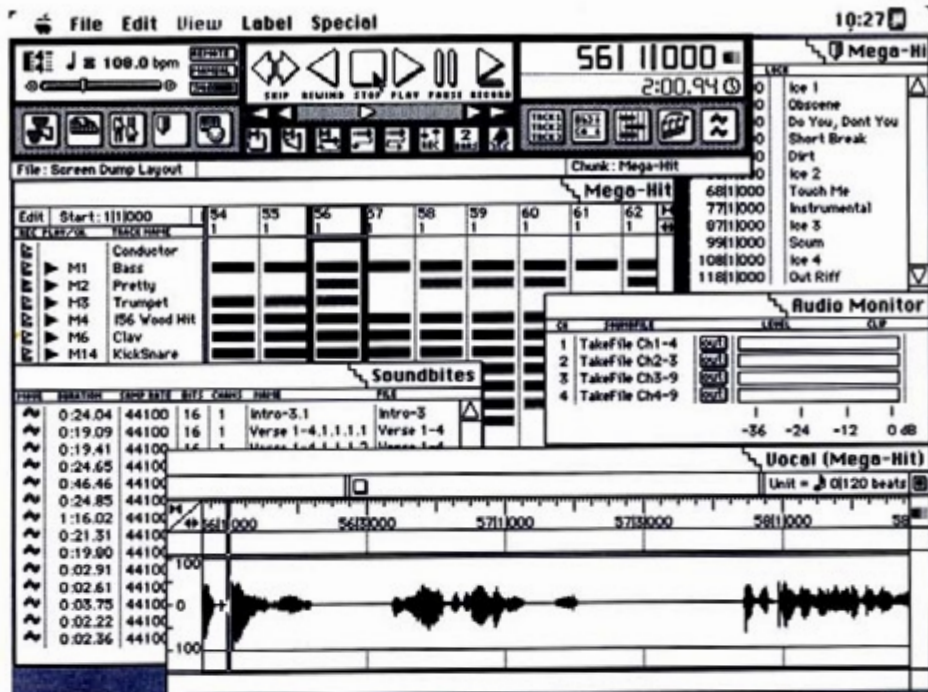
Copy Protection: One hard disk install on master (key) disk; second master disk with one install provided in return for warranty registration.

Suggested Retail Price: \$895.00.

Contact: Mark of the Unicorn, 1280 Massachusetts Ave., Cambridge, MA 02138. (617) 576-2760. Fax (617) 576-3609.

One possible screen layout in Digital Performer. Clockwise from upper left: consolidated control panel, markers window, audio monitor, a graphic editing window for an audio track, the soundbites list, and the tracks window for one chunk. The dark rectangle around bar 56 in the tracks display scrolls from bar to bar when the music is playing. In the audio monitor window, the four long empty rectangles are VU meters.

These can be switched to display either input or output level by clicking on the buttons to the left of the meters. Because of a minor bug in Performer's copy-protection scheme, we had to switch to the Finder to make this screen dump; as a result, the menu bar doesn't show Performer's menu headings.



dragging in the Track Window of any sequence, or convert an arrangement of chunks back into a linear sequence with a single command. This makes rearranging your material a snap.

Cut-and-paste editing and click-and-drag editing are fully supported. You can select discontinuous edit regions by shift-clicking, and a standard undo command is always available. In the Track Window, edit regions are viewed as rectangular blocks. Normally, each block represents a bar of music, but you can zoom in or out so that each block represents as little as 30 clock ticks or as much as eight bars. Three other edit environments are provided: an event list, a graphic (horizontal piano roll) display, and a notation display. In the graphic and notation displays, you can draw controller and velocity contours with the mouse.

One of Performer's great strengths is its ability to address a large MIDI system intelligently. If you have a multiport interface, you can download a sys-ex snapshot of the patches in your entire studio with a single command, which is highly useful for the professional who works on a variety of projects. The SMPTE sync options are just as heavy-duty.

Performer has had on-screen sliders since

PROS & CONS

Pros: Professional-level sequencing environment integrated with digital audio recording. Four channels of audio playback from two-channel board.

Cons: No track playback parameters. Notation editing and printing are primitive.

version 3.42, but in the new update the slider windows (called Consoles) are completely user-configurable. You can choose sliders, knobs, or switches, assign them to the controller of your choice, make them as large or small as you like, decide where to park the numerical readout, and even choose a background screen texture, which makes it easy to distinguish several Consoles from one another at a glance. The sliders are animated on playback, and various recording options are supported.

Other New Features. In no particular order of importance... Performer has been supporting MIDI Manager, MIDI Time Code, and MOTU's Video Time Piece for quite a while now. Streamers can be triggered on the video screen, and a "record while still-framed" option allows MIDI data to be recorded while the sequencer is VITC-synced and the video is being advanced by single frames. NuBus device support allows tracks to address Digidesign Sam-

pleCell and MacProteus synth cards. You can record in free time and then tell the software where the beats and bar lines are. Tempos in the conductor track can be scaled automatically. Transposition can be key-sensitive, and a harmonize command automatically copies the selected material, transposes it intelligently, and merges it back into the same track. Whatever columns you don't need to see in the Track Window (loop indicators, track move arrows, record-enable switches, and so on) can be hidden to clean up the screen (though the column setup must be recreated at every session, as it won't be saved with a disk file). You can print out a list of tracks, markers, or the events in a track. Digital Performer is now integrated with MOTU's Unisyn universal editor/librarian in the sense that Performer can continue playback in the background while you switch to Unisyn to edit a patch. Patch and device names are also shared by the two programs.

Here's a big step forward: Most edit operations can now be performed without interrupting playback or recording. Scrolling cursors are now provided in the graphic, notation, and track windows. As of version 1.3, there are even MIDI activity indicators (finally!) for individual tracks. Sliders can be given maximum and minimum values, which is very helpful. Quantization can be executed on input. Velocity, start time, and duration can now be randomized using a fairly flexible "humanize" feature. (If you know any random humans, call the Mayo Clinic at once; medical science will want to study them.) With the "create chunk" command, you can highlight a time region on any combination of tracks and make the section into a new chunk instantly. And on-line help is now part of the program.

Notation Editing & Printing. As of version 1.3, Digital Performer will print out notation or export it to a desktop publishing program. If you need to print a part once in a while for another musician to learn, Performer's notation utilities will serve perfectly well. For any more demanding applications, however, Performer is hopeless. If you need real notation, don't get bogged down in this silly mess; buy a copy of MOTU's excellent Mosaic software.

As an editing environment, Performer's notation window is no more than a redesigned version of the graphic editing window. You can insert notes, delete them, and drag them around, but insertions and drags must be done in standard metrical values (not even triplets), which places more constraints on the editing than in the graphic editing environment. The track always appears on a grand staff, and notes in the treble clef have their stems up while notes in the bass clef have stems down.

You can choose whatever region you'd like to print, and alter the spacing (globally) between staves and between systems. You can put a title on the first page of a score and add a header or footer to the pages (with automatic page numbering). But you can't choose the font or type size for the text. You can't do simple tasks like flipping stems, altering accidentals, or changing the number of measures on a line. In this mode, stems will be pointed in the proper direction, and you can choose whether or not to have parts shown on a grand staff if they cross a programmable boundary such as Middle C. Rests cannot be consolidated, however, when printing parts.

Audio Recording. And now for the big news. Well, actually it's not that big news, except for the ability to play back four channels of audio from a two-channel Audiomedia II board, which is definitely cool. Digital Performer handles audio pretty much the way other programs do. You've got a small window with VU meters and clipping indicators for your audio channels. Buttons let you choose whether to view the input or output level, and you can choose whether or not to monitor the input (that is, pass it through to the output). This same window also displays the file names for the tracks you're about to record. Input attenuation is handled from a pop-up dialog box rather than from a screen slider, which is counter-intuitive but functional.

When you record a number of takes, the

program automatically adds index numbers to the file names. It does the same type of thing when you split a file up into "soundbites" (MOTU's name for audio segments). Immediately after recording, the soundfile and soundbite are identical, but by creating soundbites you can remove silent areas from the playback, shift phrases around, use a single soundbite in several places, and so on. When you start splitting up a soundfile, the default names assigned to the newly created soundbites get absurd very quickly — the soundbite list fills up with items like "Verse 3-4.1.1.1" and "Verse 3-4.1.1.1.1." You can change these, of course — but first you have to figure out which soundbite is which. There just has to be a better way to handle default naming, but we're not sure what it is.

One of the nice things about hard disk recording is that punch-ins are non-destructive. Performer lets you set up an automatic punch-in/out, and this creates a separate soundfile on the disk. In playback, this new file takes precedence over the earlier recording, and the earlier recording magically reappears after the end of the punch. It's all very easy to use, very intuitive. What's slightly less intuitive, if you're a tape recorder jockey, is that each time you do a take, you're adding a new file to the disk — 20 takes of the same lead break, 20 files. This is not necessarily a bad thing; you may very easily do 20 takes and then decide that take 7 was the keeper. But going back to erase all of the false starts takes extra time, especially since you may have to listen to them closely to verify that they're not the file(s) you want to keep. It wouldn't actually be a bad idea if there were a command (such as command-Z, the standard Macintosh "undo") that would erase a false start from the disk. As it is, you have to open up a separate window and then use a pull-down menu to erase unneeded files.

Audio volume and panning data can be added just like MIDI controller data, using screen sliders. In addition, Performer lets you give each soundbite a "velocity," just as if it were a MIDI note. This is a second way of controlling the loudness, and is useful when all you need is a static shift in volume. You can save the volume controller data for actual fades; you can also keep a fade curve intact while raising or lowering the overall level of playback, which could be a big help at times.

All of the soundbites being used in a song are listed in a Soundbites Window. In this window you can rename soundbites and files, and import soundfiles recorded in some other program. Once they're imported, placing them in an audio track is a snap. Click on a soundbite in this window, and you'll hear it played back.

Digital Performer has two audio editing capabilities — mixing (bouncing tracks) and the "compact" command. When tracks are mixed, the volume and pan data is applied. After separating a long soundfile into the soundbites that you want to keep, you can use the compact command to tighten up the file on the disk by removing material that is no longer in use. Digital Performer creates its own waveform contours for screen display in its graphic edit window.

If you need to do more sophisticated types of editing, you can switch to Sound Designer II (which comes bundled with Audiomedia II)

from within Performer. Markers for the start and end points of soundbites are passed into Sound Designer as region markers, which makes it easy to do edits on specific segments of audio data without affecting the rest of the file.

Soundbites can be edited just like MIDI notes, by dragging them left or right in a graphic editing window or typing in a new start time. You can even quantize the start times of soundbites, which could be useful if you've got a cool snare hit in a Sound Designer file and want to park it on the beat. However, Digital Performer falls short of the competition in two key ways. First, Cubase and Studio Vision both let you mark a point within the audio segment as the quantize point, while Performer will only quantize the start point of a segment. If you're trying to get a sampled vocal phrase to lie on the beat, this is not a trivial feature. To get the same musical results with Performer, you'll have to use trial and error, plus maybe a pocket calculator. And second, in Cubase you can "close up" the start or end of an audio event without otherwise affecting it, by clicking and dragging on handles in the audio's graphic editing window. This is a quick way to get rid of mike stand thumps and other such artifacts, and is also useful for creating stuttering effects. Again, you can get the same music out of Digital Performer, but it takes more keystrokes and data manipulation.

External Sync. Digital Performer can be synced to an external sync source (presumably a tape deck) using SMPTE that has been converted into MIDI Time Code or MOTU's Direct Time Lock enhanced format. It's the only program of the three that doesn't offer tape calibration; the audio playback rate will be adjusted on the fly to match the tape. As long as your time code is relatively consistent, this should cause no problems.

Just for fun, we tried syncing Digital Performer to MIDI clocks. The MIDI event playback worked fine, but in this mode the program was unable to play its own audio. Yeah, MIDI clock sync is primitive, but we still think this inability is kind of a shame. What if you're using the audio tracks to play short percussion events, or vocal samples that can be triggered and allowed to free-run without harm to the music? In a situation of this sort, MIDI sync might be useful.

The audio menu contains an item called "Continuous Sync." This must be switched on in order for the program to play back properly when used by itself — never mind external sync. If you've recorded several audio files within one piece, such as separate takes for the verses in a song, you'll find that the later verses start as much as a sixteenth-note late unless Continuous Sync is active. It's supposed to be switched on by default, but a bug sometimes switches it off when you load a file.

Conclusions. Working with Performer is generally a pleasure. It offers plenty of subtle ways to manipulate and massage the MIDI data, and lots of other powerful, high-end features as well. The addition of audio recording takes the program a giant step further toward the dream concept of the studio-in-a-box. If you're already a happy Performer user, we can recommend Digital Performer without hesitation. ■



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FIRST

four

The digital audio sequencer to offer tracks with the Audiomedia II from digidesign

digital

FIRSTS

audio

The only program chosen by Yamaha for digital recording on the CBX-D5

Macintosh





Create a Universe of Sounds at Your Fingertips.

An original sound can make your music happen. You want to sculpt your sounds into countless variations, and get at them quickly. Unisyn gives you a creative environment for editing and organizing patches. With support for over 150 MIDI instruments including today's hottest synths and dozens of classic devices, Unisyn organizes your studio into a single console of sound. No more squinting at cryptic LCDs. No more fumbling for sound cartridges. Unisyn stores all of your sounds



and performances on your hard drive for immediate access.

Unisyn works as a stand-alone editor/librarian in any Macintosh setup. Or combine it with our award-

winning Performer sequencer to fine-tune your sounds while your music plays. And for a limited time, Unisyn is available at a very special price to all Mark of the Unicorn users, and as a competitive upgrade.

For more information, please contact Mark of the Unicorn or the authorized dealer nearest you.



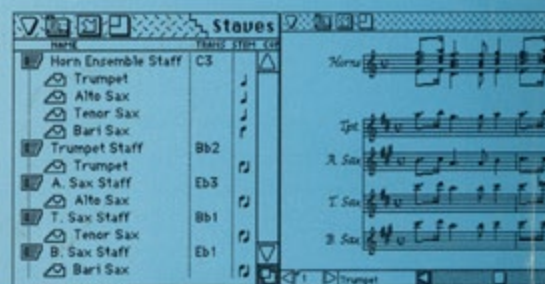
Mark of the Unicorn



"...it's going to be the notation software to own."
Jim Aikin, Keyboard



"Printed output is excellent, and on Quickdraw printers, the best I've seen." Alan Belkin, Computer Music Journal



"Interface details have been meticulously refined to perform various tasks more easily." Alan Belkin, CMJ

Mosaic Scores Big with Composers and Critics Alike.



Ultimately, the music notation software to own. Flexible, friendly and fast. Mosaic strikes a balance between exhaustive programs that are difficult to use and simple applications that lack the flexibility needed for professional results. **"We've seen other notation programs undergo update after update without getting this good."**(Jim Aikin, Keyboard). Move notes, dynamics and symbols simply by dragging. Mix any combination of voices your muse desires. Mosaic's multiple views have linked music and multiple formatting. Edit your music in any view and all other views are updated, automatically. **"Mosaic's 'Views' window - the best approach I have ever seen..."**(Alan Belkin, Computer Music Journal). Breeze through every part with freedom of expression.

Mosaic works like many well known Mac drawing programs. Simply click and drag, shift-select regions, shift-click to constrain movement, etc. Zoom from 20%-800% for precise editing. Work in true WYSIWYG. And with unlimited undo/redo, you can experiment to your mind's desire. **"[Infinite undo] is such a cool feature, we started fantasizing..."**(Jim Aikin). Mosaic's key bindings feature puts the tools you use most at your fingertips, so entering music is natural



and intuitive. **"Automatic enough to allow novices to get notes on paper..."**(Ken Gruberman, MacUser). Mosaic, the program to own, so you can spend your time on something more important...your music. Call Mark of the Unicorn for your authorized dealer. And if you already own notation software, ask about our competitive upgrade. **MacUser Magazine**



Mark of the Unicorn, Inc. 1280 Massachusetts Avenue, Cambridge, MA 02138 Phone +1 617.576.2760 FAX +1 617.576 3609



It happens every time we demonstrate FreeMIDI's auto-config feature in a new studio. We click a button, and a few moments later FreeMIDI has identified the MIDI devices connected to their Macintosh. Eyebrows raise. Then we start moving device icons around so that the on-screen display matches the studio's actual layout. Now people are grinning. Someone says, "I always wished that my Mac could do stuff like this." Now it can.

We show how FreeMIDI supports Bank Select, giving them instant access to hundreds of patches from within Performer, Mosaic or any FreeMIDI-

compatible software. Next, we use FreeMIDI to synchronize multiple programs together using FreeMIDI's integrated transport control and auto locate points.

Before you know it, they're editing patches in Unisyn and controlling Performer's transport at the same time. Then we mention that with FreeMIDI, you're free to run OMS™ applications with or without MIDI Manager or OMS™.

But that's just the beginning. You'll find more when FreeMIDI arrives free, with your Performer Version 5, Mosaic or Unisyn upgrade. Or call us for more information at 617 576 2760.



Introducing FreeStyle™

the Trackless Sequencer



Compose, Record & Print Your Music with MIDI Sequencing and Notation Software

Sequencers that work like multi-track tape decks are great for final productions. But when you're writing songs, you want to work free-style.

Don't worry about what's on track 12. In FreeStyle™, there is no track 12. Just record your ideas as they come to you. FreeStyle organizes your performances as editable "Takes" for players in an ensemble.

Smart loop record and riff metronome. Instant notation. Graphic editing in color. Integrated linear and pattern recording. FreeStyle is like a super-smart, point-and-shoot camera. You focus on the feel of your music and FreeStyle captures it.

At under \$200, FreeStyle is affordable. You don't get MIDI Machine Control or SMPTE sync. What you do get is probably the best songwriting tool you've ever used. And it writes standard MIDI files, so you can export your musical ideas to any other music software.

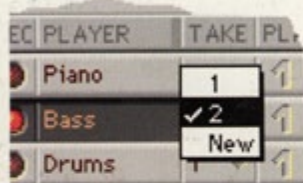
\$5 will get you a Macintosh demo disk direct from Mark of the Unicorn. If you're a registered MOTU user, the demo is free. Just call (617) 576-2760 or FAX us at (617) 576-3609.

Or drop us a line at 1280 Massachusetts Ave., Cambridge, MA 02138.



Are you writing a song or launching the space shuttle?

When it comes to creating music, computers are great because they give you a band at your fingertips. But they can also bog you down with annoying technical distractions.



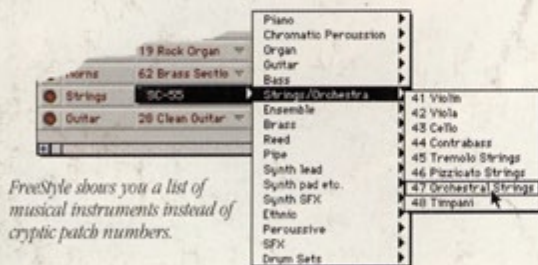
Work with players in an ensemble. FreeStyle remembers all your takes so you can easily choose your favorite parts.

The problem is that until now, nobody's made a sequencer specifically designed for those spontaneous moments when inspiration strikes.

That's why we created FreeStyle.

With its Riff Metronome™, FreeStyle lets you play to an inspiring drum riff instead of the usual boring click—instantly choose among dozens of riffs to find the one that gets you pumped.

After recording your first take, there's no need to mess with loop points. FreeStyle senses when you stop playing and automatically begins looping what you've recorded so you can try another take or add more players.



FreeStyle shows you a list of musical instruments instead of cryptic patch numbers.

With its trackless approach to sequencing, FreeStyle allows you to create an entire song without ever taking your hands off your keyboard or guitar controller. You may even forget your computer is in the room.

FreeStyle works with any MIDI interface such as the one-in three-out FastLane™ or the four-in six-out MIDI Express™, Electronic Musician Magazine's 1994 Editors' Choice Award Winner.



But if you do glance at your computer, you'll see full-color graphic editing and impeccable music notation. And when you're ready to put it all together, FreeStyle's arrangement window lets you easily assemble sections into a song.



Unlike those "EZ" programs, FreeStyle's notation looks great. It's automatic and intelligent with dynamic band-splitting, multiple voices and engraver spacing.

Best of all, you're never locked into one way of working—you can switch freely between linear recording over your entire song and loop-recording within each individual section.

FreeStyle is also designed to keep MIDI complications out of your face, so it has built-in support for General MIDI sound modules and other popular devices. Just plug in your instrument, select the players you want, and start recording.

So, the next time you sit down at your computer to write a song, do it FreeStyle.

It's as musical as your computer can get.



Each section of music can have a pickup bar, so you don't have to copy the pickup notes of your chorus into the last bar of every verse.

FreeStyle™

As musical as your computer can get.





“FreeStyle’s automated transcription abilities are the best we’ve ever seen.”

Keyboard Magazine, November, 1994

If you played this music, could your computer instantly write it this well?

It could if you were using FreeStyle™ from Mark of the Unicorn.

FreeStyle notates what you play better than the most expensive publishing programs on the Macintosh. And yet it costs under \$200! Can your sequencer do this?

- Display notes as you play them in a page view with engraver spacing
- Separate left and right-hand performances with a floating split point
- Show multiple voices per staff as needed
- Correctly notate arpeggios tied into a chord
- Ignore inaudible notes for cleaner transcription
- Recognize any tuplet you can play – even septuplets!
- Correctly notate swung eighths and triplets without affecting playback
- Print full scores and transposed parts quickly & beautifully

FreeStyle also has full-color graphic editing, and some of the most innovative sequencer features available. FreeStyle uses musical concepts like players, sounds and takes, so you don’t have to hassle with MIDI channels and track assignments. And setup has never been easier. FreeStyle includes built-in support for many popular synths and sound modules. Best of all, you don’t have to be a computer wiz to learn how to use it. It comes with a video that shows you everything you need to know.

So see your nearest Mark of the Unicorn dealer for a hands-on demo of FreeStyle. And see what your music really looks like!



FreeStyle™

“FreeStyle is the first program we’ve seen that deserves to have the title of ‘intuitive’ bestowed upon it.” Keyboard Magazine

MOTU DOES WINDOWS

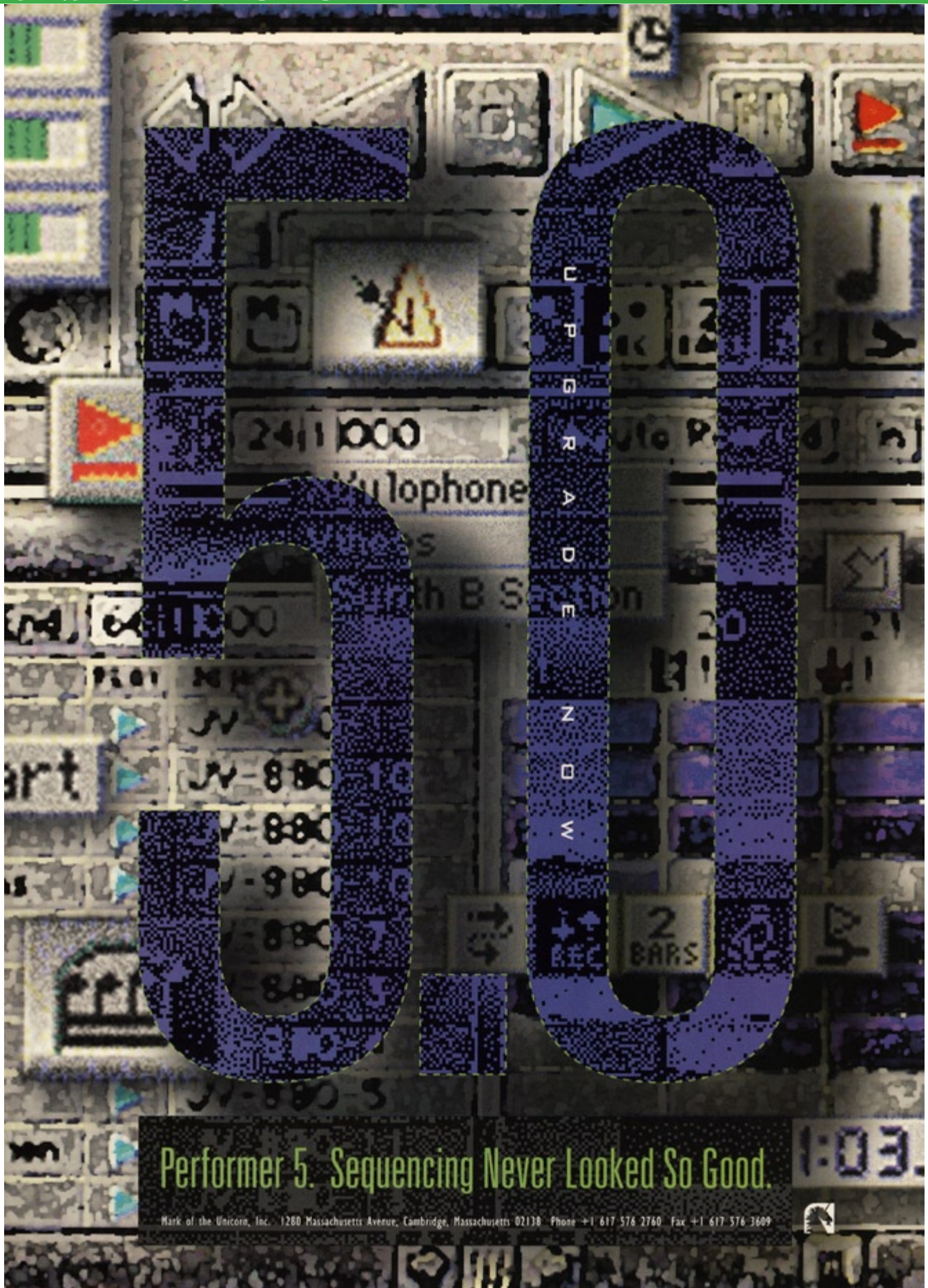
FREESTYLE ~ THE TRACKLESS SEQUENCER
UNISYN ~ UNIVERSAL EDITOR AND LIBRARIAN

The screenshot displays the MOTU software interface with several windows and controls visible:

- Top Bar:** File name "COOLSONG.FSL" and icons for file operations.
- View:** A dropdown menu showing "Perc-Tuned", "Sound Efx", "String-Bow", "String-Pluck", "Synth", "Voice", and "Piano".
- Control Palette:** A window on the left with a "Record Target" set to "Intro, Piano, Take 1" and a "Tempo" of 124.
- Arrangement:** A window on the right showing a timeline with sections like "Intro", "Verse 1", "Fill", and "Intro stabs".
- Track List:** A window in the bottom left showing tracks for "Piano", "Bass", and "Drums".
- Patch Edit:** A window in the bottom right showing a detailed view of a patch, including parameters like "Freq", "Amp", "Filter", and "Envelope".
- Bottom Bar:** A "Type:" dropdown set to "Main Volume" and a "min" label.
- Footer:** A banner at the bottom with the text "See us at AES Booth #1237" and contact information for Mark of the Unicorn, Inc.

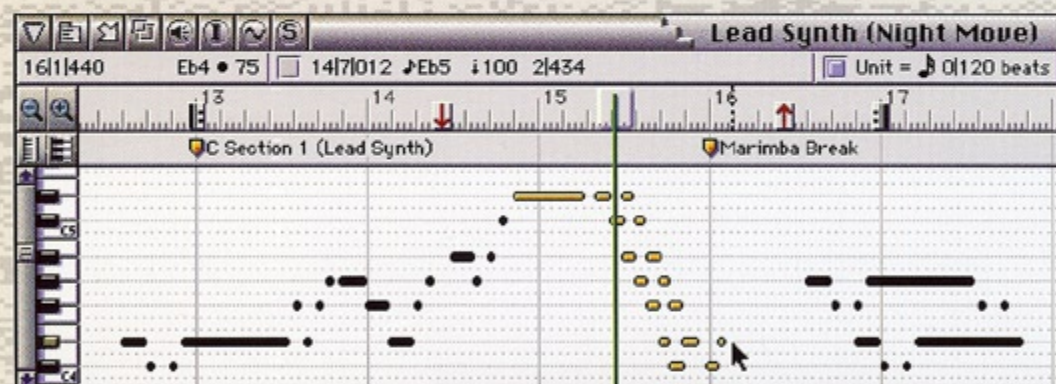
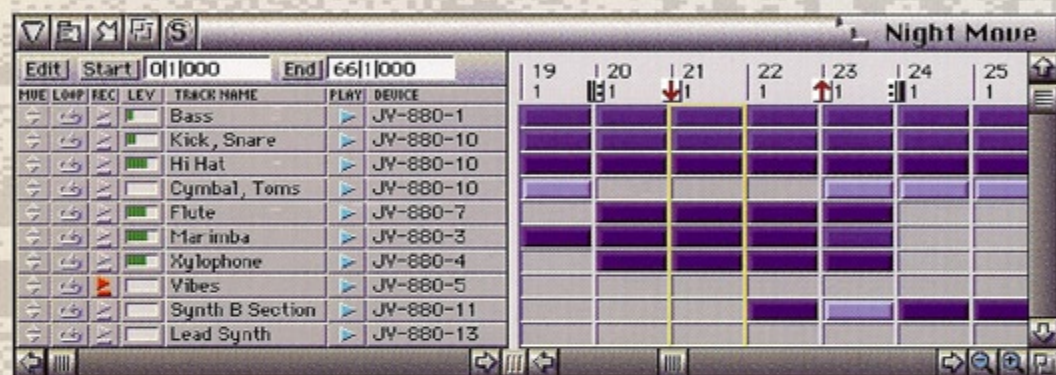
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1994.9 Performer v5



: Performer Ver

For Color
& Monochrome
Macs



THE MIDI SEQUENCER SOFTWARE

Version 5



Concerto No. 16

Arr. Klaymann

Groove Quantize

☒ Save slider and beat division settings with groove
☐ Audition groove with current settings (but don't save)

Pick a groove to apply:

Hip Hop Grooves Recent Files

- Hip Hop 1
- Hip Hop 2
- Hip Hop 3
- Hip Hop 4
- Hip Hop 4b
- Hip Hop 5
- Hip Hop 6

Instant Preview

Fewer Choices

Edit OK Cancel

Timing Velocity Duration

Double Full Off

LOOSER GROOVER GROOVER

100% 76% Off

Beat Division:

16th Triplets

2 measures of 4/4

:Performer 5

Full Color user interface

Performer Version 5 sports a brand new look. Check out the realistic, 3-D look and the intelligent use of color to highlight important information. When you're spending hour after hour working with your computer, you'll appreciate Performer's new refinement and attention to detail, even with a monochrome monitor.

Enhanced QuickScribe™ Score Notation

View and edit your music in page view! Print out scores and parts using the new QuickScribe TrueType® font—included free of charge with Performer 5. New algorithms enhance the accuracy of the transcriptions including triplets and quintuplets. The new toolbox and additional step-entry features make it easy to enter music directly into the notation page even if you're not a proficient keyboard player. Add page numbers, titles, rehearsal marks and more. Control the measure spacing, either fixed or proportional. Click & drag to set page margins just like your favorite word processor. QuickScribe makes it fast and easy to get notation printout right from your sequencer.

MIDI Machine Control

A new MIDI Machine Control window lets you control any MMC compatible device directly from Performer. Now your computer is truly the master remote control for your entire studio. If you have an ADAT® with BRC®, DA-88®, DR-4d®, RD8® or any other MMC tape recorder, this feature is an absolute must.

Locate measure 25, beat 1 in Performer and your tape deck auto-locates to that exact point. Control the record punch-in and punch-out points for your "remote" tracks from Performer. Performer gives you a graphic display of all of your MMC devices so you stay on top of your studio at all times. And Performer will even automatically recognize a host of MMC devices to help you setup your rig and get you recording fast.

Cycle Record

We've combined drum machine-style speed with graphic ease to make a highly flexible yet intuitive Cycle Record. Click & Drag to set your cycle start and end locations as well as auto-record punch in/out points. Performer will cycle seamlessly over the same section of music as long as you wish.

Build your performance layer by layer and see your notes appear on-screen immediately as you record them. Use spot-erase to easily remove any part of the recording you don't want to keep. From perfecting a solo to writing drum patterns, cycle record gives you a helping hand to create exactly the performance you want.

Automatic Configuration

Performer can now automatically configure your MIDI system. It lets you refer to your MIDI devices by name and even select internal patches and sounds by name. Performer 5 also has a whole new level of integration with UNISYN, the universal patch editor/librarian for Macintosh computers.

New for 1994—Color, Groove Quantize, Enhanced QuickScribe™, Advanced Cycle Record, MIDI Machine Control, FreeMIDI, DNA Grooves, DRUMTRAX™ & more

Groove Quantize

Groove Quantize has come of age with Performer Version 5. Performer's Grooves give you an unprecedented level of control over the "feel" of your sequences. Groove Quantize gives you independent control over every quantize grid point. In addition, you can affect the velocity and duration of every event as well.

While Groove Quantize can get quite sophisticated (we've included a comprehensive Groove Editor should you want to tweak your grid points), Performer 5 makes creating a Groove easier than ever before. Simply select a range of notes of any length where you like the feel of the performance, select "Create Groove", and you've got your own, custom Groove, ready for immediate use in other tracks in any of your Performer files.

And only Performer's Groove Quantize lets you tailor your grooves by any of 10 beat divisions. Take an 8th note feel and transform it into a 16th note triplet meter while retaining the underlying characteristics of the style. Choose from Grooves that "push" or "lay back" with a "loose" or "tight" feel. From the subtle to the wild, Performer's groove Quantize has them all.

Performer also has a unique, graphic slider interface for applying grooves. You control exactly how much Timing, Velocity and Duration effect is applied at any time. Dynamically adjust the feel of your grooves in real time—as your music plays.

Performer grooves are not just for drums. They're important for every instrument in your sequence. Take the left hand of the piano and match it with the bass. Use grooves to pull your horn section together—without making it sound robotic or lifeless. You won't believe your ears!

Free DNA Grooves

Version 5 includes 50 free "DNA" Grooves created by WC Music Research, the recognized leaders in rhythmic analysis. These Grooves give you a variety of "feels" derived from hit records and drum tracks by top studio drummers. Vary these Grooves by Performer's 5 beat divisions and you get 500 distinct Groove styles right out of the box! That's 10 times what other sequencers offer.

Free DRUMTRAX Special Edition

Version 5 comes with a great set of drum patterns in Performer format. These patterns have been created by professional studio drummers to give a selection of popular percussion styles at your fingertips. Use these performances as the rhythmic foundation for your sequences, to practice with or to inspire new ideas. It's like having a great drummer waiting for you in your studio whenever you need! The Special Edition even includes Humanize maps to generate new patterns and fills. All free of charge with your Performer Version 5 Upgrade.

Additional Enhancements

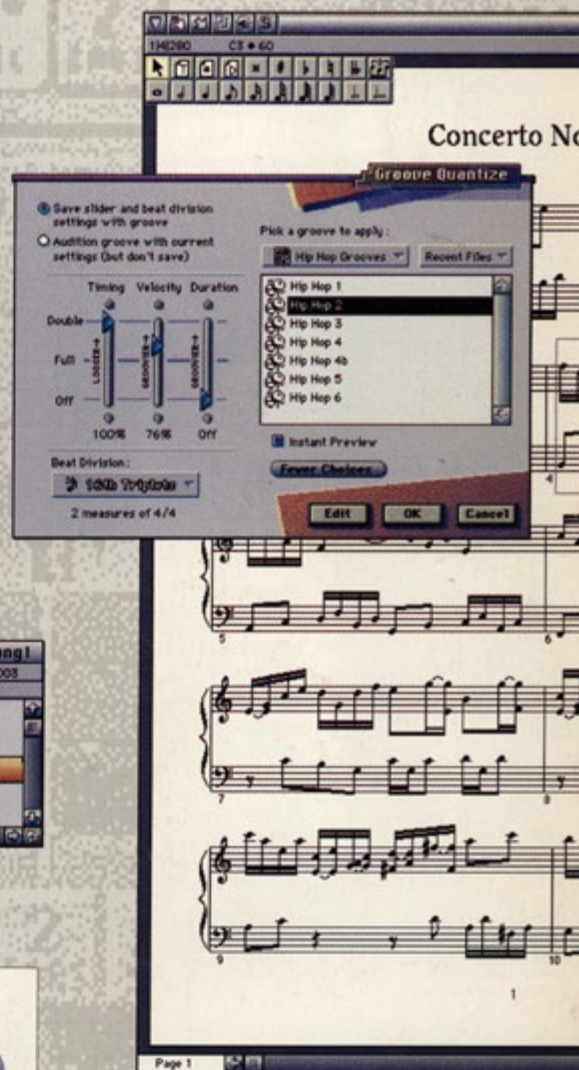
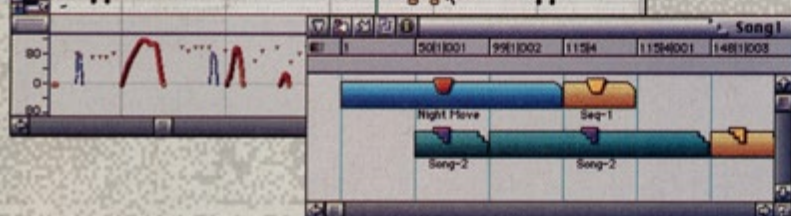
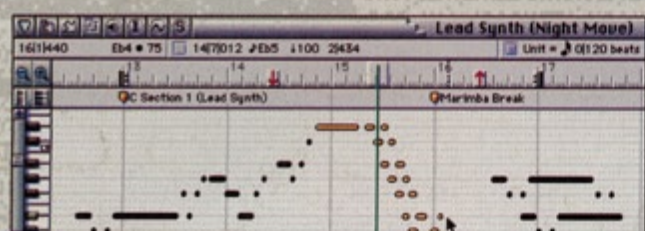
Enhanced Split notes uses an on-screen keyboard to define which pitches are split—great for working with drum tracks. Performer 5 is compatible with AV and PowerBook series Macintosh computers. New installer application makes it easy to get up and running.

Performer has earned an unprecedented four MIX TEC Awards and two MacWorld World Class Awards
Over eight years of hit records, film scores and tours are reflected in the features and design of Performer 5



:Performer 5

THE MIDI SEQUENCER SOFTWARE



New for Performer 5.0

- Color
- Groove Quantize
- 50 DNA Grooves
- MIDI Machine Control
- Enhanced Notation
- Graphic Cycle Record
- DrumTrax™ Drum Patterns
- Bank Select
- FreeMIDI™



Performer has earned an unprecedented four Mix TEC Awards and two MacWorld World Class Awards. Years of hit records, film scores and concert tours are reflected in the features and design of Performer 5.

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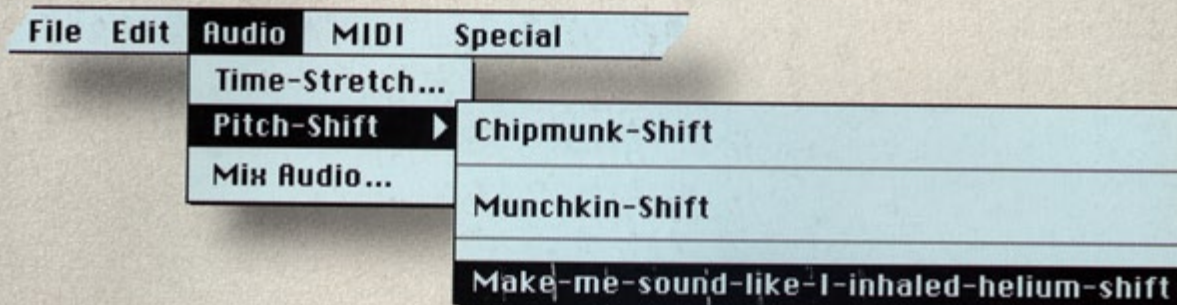
WARNING! The Following Release May Be Too Graphic For Some Users.



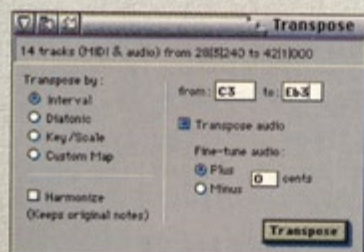
Digital Performer 1.6 for Pro Tools III.



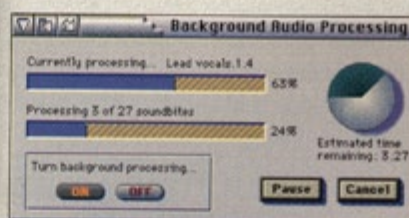
OBJECTS IN MENU MAY BE LESS USEFUL THAN THEY APPEAR



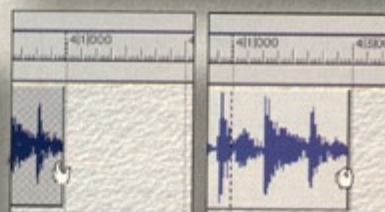
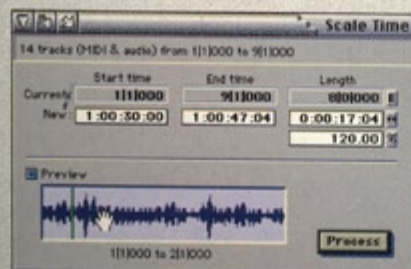
Lots of audio sequencers have pitch-shifting these days. But try shifting a vocal track up a major third. The result? Chipmunk city. The vocals you worked so hard to record sound like Alvin and his buddies. Now pitch-shift your audio with Digital Performer®. What you get is clean, transposed audio that sounds just like the original. Get Digital Performer and try it yourself. You'll be impressed by the results.



In Digital Performer, you can transpose audio and MIDI data at the same time so that you don't have to waste time doing it twice. After all, that's what MIDI sequencing software with integrated digital audio is for.



Digital Performer provides background audio processing so that you can get on with your work while the computer processes your effect.



In Digital Performer, you can time-stretch audio and MIDI together, too. And you can do it with numerical precision or graphical ease.



Together, Performer and Digital Performer have won an unprecedented 4 Mix TEC Awards and two MacWorld World Class Awards.



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World Wide Web: <http://www.motu.com> America On Line: keyword MOTU

DP v1.7

When the Quadra 650 was the machine of the gods.

Pitch Shift a 5th or more

Transpose audio and MIDI at the same time

Background audio processing

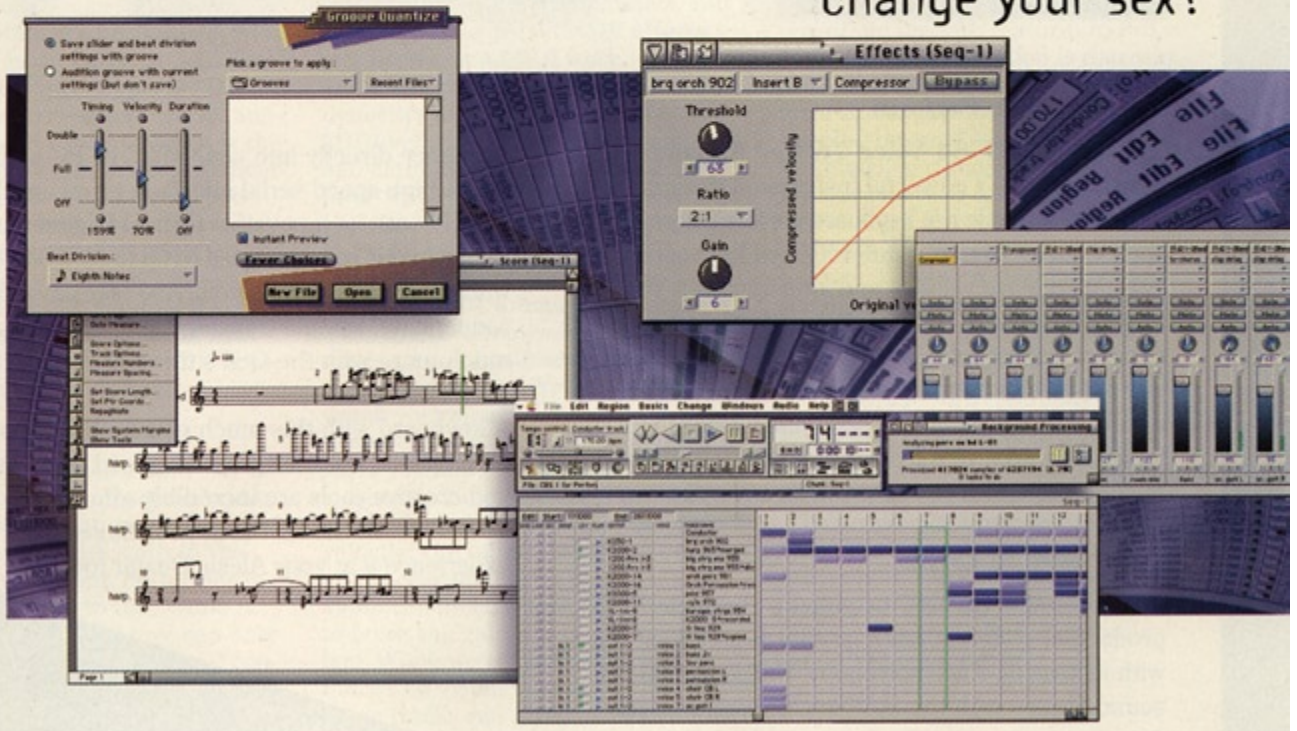


Mark of the Unicorn Digital Performer 1.7.1

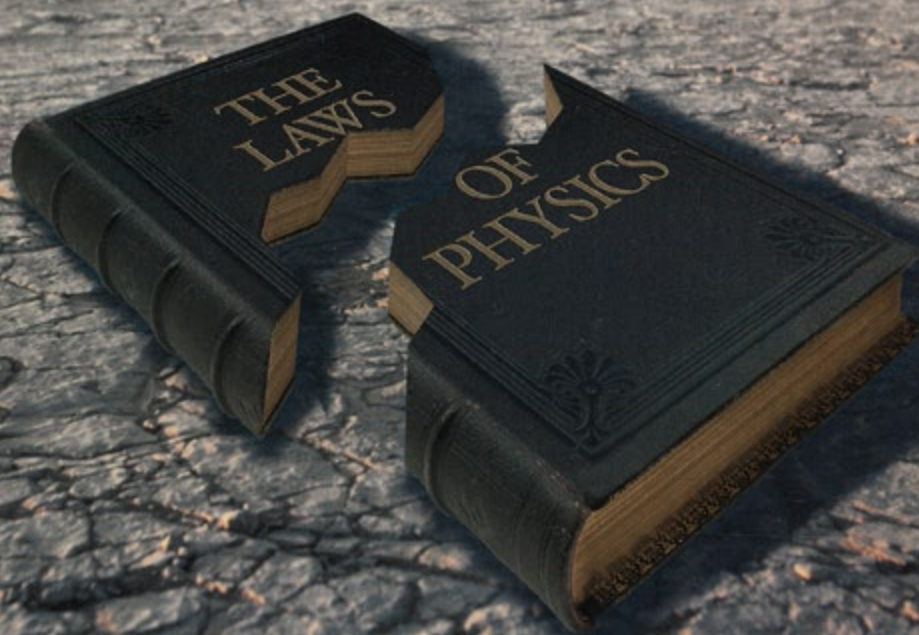
Macintosh digital audio sequencer

BY NICK BATZDORF

Can a sequencer
change your sex?



They said it couldn't be done.



When digital audio pitch shifting
"exceeds a third above or below the
original, the results are very synthetic
and unpleasant...it's the laws of physics."

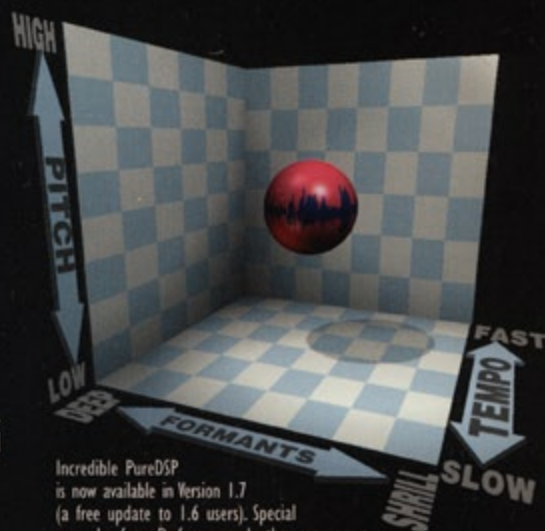
So said a recent software review in a popular music technology magazine.

But that was before Digital Performer® 1.7...

Transpose your vocals by a fifth or more in Digital Performer 1.7 and they still sound like the original singer. No squeaky chipmunks. No darth vader.

Gender-bend your male vocals into female vocals. Turn a soprano singer into a baritone. Even build an entire mixed chorus from a single vocal track. It's all possible with Digital Performer because of our ground-breaking PureDSP™ technology.

With audio effects like these, Digital Performer is a must-have. So get Digital Performer and start breaking a few laws of your own.




Incredible PureDSP is now available in Version 1.7 (a free update to 1.6 users). Special upgrades from Performer and other sequencers are available for a limited time; contact MOTU or your dealer for details.

Macintosh midi sequencing • digital audio recording/editing/mixing/processing • music notation printing



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0000110001011111000011000000101100000101110010010000010110100111000001011
1101011000001100010100 Wow! Didn't that sound great? Want to hear more?
Then get our *free* audio compact disc - incredible DSP from Digital
Performer 1.7. It's yours for the asking. Call 617 576 2760 or fax 
617 576 3609 Mark of the Unicorn Inc 1280 Mass Ave Cambridge Ma 02138

1996 Performer v5.5

Performer:

5.5

More Power...



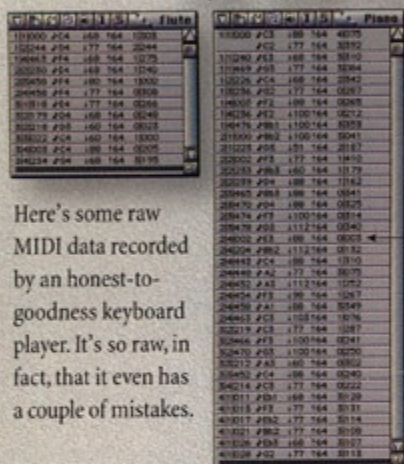
The best we've ever seen!

The bait "FreeStyle's automated transcription abilities are the best we've ever seen!"
—Keyboard Magazine

The switch

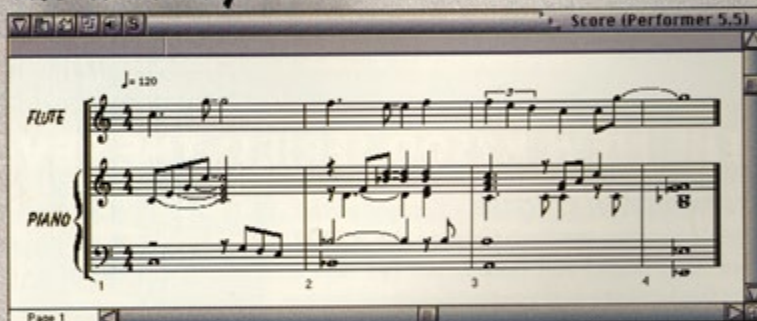
Keyboard was so impressed with the notation transcription in FreeStyle that we decided to put the same technology in Performer 5.5. Floating split points. Multiple voices per staff. Correctly notated swing eighths. N-tuplet recognition. It looks great — more readable than ever before.

The MIDI file



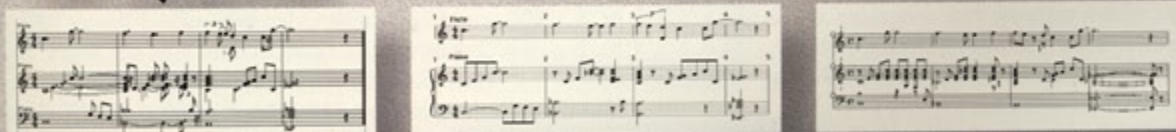
Here's some raw MIDI data recorded by an honest-to-goodness keyboard player. It's so raw, in fact, that it even has a couple of mistakes.

The transcription



Here's how Performer 5.5 transcribes it. Notice the arpeggio that's tied into a chord. The polyphonic voicing. And how the mistake in measure two is ignored. Just think how nice it would be to get notation this readable — instantly.

The competition



Here's what we got when we transcribed this MIDI file in some other sequencers. Seems we've lost a few items in the crowd. One of these examples is even a popular music notation program. Try sitting down and playing one of these ditties.

The taste test Download this standard MIDI file from our web site and try it with the program you're using now. Does it look as good as it should?

The upgrade

PowerPC native. New Tracks Overview. New Notation Transcription Engine. Multiple Takes. Non-destructive Output Processing. MIDI Arpeggiator/Harmonizer/Echo. Mixing Board. Multiple Mixdowns. MIDI Scrubbing. Smart Selection™. Global Selection. Built-in QuickTime Movie Window. Built-in QuickTime Instruments.

:Performer 5.5

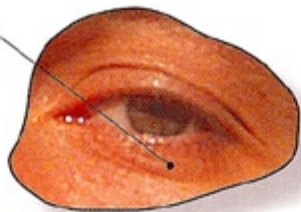


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Performer 5.5 Gives You More

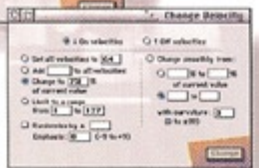
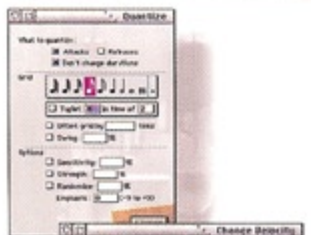
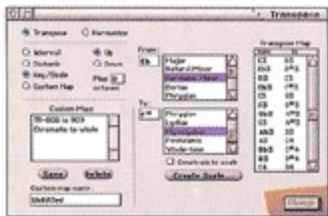
Accelerated for PowerPC!

See the bag under this engineer's eye? Our programmers burned serious amounts of midnight oil grooming Performer's code base with cutting-edge software development tools — not only to make Performer 100% accelerated for Power Macintosh, but also to optimize overall performance on both PowerPC and 68000 machines.



Region Menu Windows

All of your favorite Region menu operations — like Transpose, Quantize, Split Notes, Change Velocity, Humanize and so on — are now *windows* (instead of modal *dialog boxes*) that can stay open on the screen while you do other things, such as change which data is currently selected. For example, you can quickly blow through a series of edits simply by repeatedly selecting data and hitting the *Apply* button. No more extra visits to the menu to reselect the command. Region operations have never been faster or more convenient.



QuickTime Video Playback

Import any standard QuickTime movie into Performer and enjoy the power and flexibility of random access digital video. Achieve full 30 fps video playback with no additional video hardware. Are you losing precious seconds waiting for your video deck to cue up? Instantly jump to any SMPTE frame with your choice of Performer's many transport and locate features. Spot one frame at a time with the arrow keys on your Mac keyboard. Scrub music and picture together, forwards and backwards. You can even display full-screen, 30 fps, broadcast-quality video on a second monitor with QuickTime-compatible video hardware. If you make a living scoring to picture, you owe it to yourself to check into this exciting new technology. And Performer is ready to make it happen for you.



New Tracks Overview

Version 5.5's new tracks overview displays actual data, including notes, controllers, and even meter changes and tempo curves. Now you'll be able to easily and clearly see what's going on in all of your tracks at one glance.

Instantly Switch Sequences

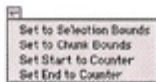
If you have multiple sequences in your file, instantly switch between them with this menu — even during playback. You can also add new sequences directly from the Tracks Window mini-menu.

Instantly Cue To Any Marker

Just choose it from this pop-up menu.

Set Edit Regions Quickly

Setting edit regions is now easier with this convenient pop-up menu.



Multiple Takes Per Track

Not satisfied with that bass part? Just choose *New Take* and try again — even while looping. Still not happy? Choose *New Take* again for the next pass. Takes add spontaneity to the recording process because you no longer need to fuss with adding more tracks. And you can create an unlimited number of takes, conveniently organized and stored in the *Take* pop-up menu next to each track. Even the *Conductor Track* has takes, so you can store and recall alternate tempo maps. Takes will make your track lists shorter and more manageable.

Automated Visual Phrasing

Intelligent phrasing algorithms automatically group data events into convenient blocks, which can be dragged — and otherwise edited — as singular phrases of music.



Improved Soloing

In earlier versions of Performer, track soloing depended on the current track selection. Now, you'll find editing while soloing an absolute breeze because soloing and track selection are independent. When you solo tracks, you don't have to think about which tracks are currently selected for editing. And you can freely change the edit selection without affecting soloing. In essence, you now have two completely independent play-able states (soloed and not soloed), both of which are saved with the file. You can even play-able tracks in solo mode that are muted when solo mode is turned off.

e Power...

Work faster with 100% PowerPC native code.
Enjoy powerful new features.
Take advantage of optimized performance.

Improved Auto Scrolling

Heard something during playback that you want to scroll back to? Now, when you get there, the window will stop auto-scrolling long enough for you to see what you want to see — so that you don't have to stop playback.

MIDI Scrubbing

Grab the wiper handle and drag back and forth to "scrub" playback — great for zeroing in on clams or other artifacts that catch your ear. Or scrub with the fast forward & rewind buttons in the main control panel or Movie window.

Tracks Window Markers

Performer pioneered unlimited markers in software sequencing, and they are one of Performer's most popular features because they give you instant access to any location in your music. Now, markers are displayed right here in the time ruler above your data so you can clearly see them in relation to all of your tracks. You'll always know at a glance where you are in the music.

Drag and Drop Markers

This is the new Markers Well. Just click here, drag a new marker over to the time ruler, and drop it wherever you want. Adding markers couldn't be easier.

Marker Shortcuts

Here are just a few of the new intuitive, timesaving shortcuts we've added. Drag a marker to change its location. Click it to instantly select everything between it and the next one. Option-click it to lock it to a SMPTE frame. What could be easier?

Sync Other Gear With MTC

Version 5.5 can transmit MIDI Time Code (MTC) to other MIDI hardware and software for frame-accurate synchronization. For example, you can run Performer 5.5 at the same time as Pro Tools™ — synchronizing them together with MIDI Time Code — for simultaneous playback of MIDI tracks in Performer with audio tracks in Pro Tools. You can also drive any piece of gear that can slave to MIDI Time Code from Performer.



Improved Event Chasing

Event chasing now works in sequences even when they are placed inside of Songs. And it even supports nested loops in tracks. So no matter how complicated your multiple, nested loops are, you'll still get the correct playback no matter where you start in the track.

Timesaving Shortcuts

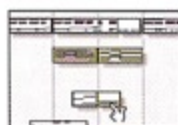
Blocks maintain their relationship to barlines when you drag them, but you can temporarily override this "snapping" feature by holding down the shift key for unrestricted placement.

Glide Over Play Buttons

Have you ever wanted to mute or play-enable a group of tracks all at once? Now you can: just drag ("glide") over their play-enabled buttons in one continuous motion. The buttons toggle their state as you drag, making soloing and muting an effortless sweep of the cursor.

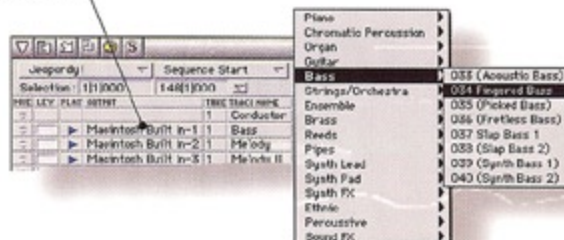
More Ways to Select Data

You'll appreciate the easy, intuitive ways you can select your music in the new Tracks Overview. Click a phrase to select all of the data events within it. Drag over the grid to select any region of time. Use the shift key to extend your selection.



Playback With No Gear!

Performer now supports QuickTime Musical Instruments, Apple's new built-in software synthesizer. This lets you play sequences using the Macintosh's built-in, 8-bit General MIDI sounds played back from the computer's internal speaker. Just imagine: now you can play Performer sequences on your PowerBook while sitting in the back seat of your limo...



Virtual Automated Mixing

The new Mixing Board window is your virtual, automated mixing environment. Just like a familiar mixing console, it has channel strips for volume, pan, effects inserts (non-destructive MIDI output processors), solo, mute and automation for all MIDI tracks. Create unlimited fader groups. And best of all, the Mixing Board is always there; you never have to build it from scratch.

Customized Board Layouts

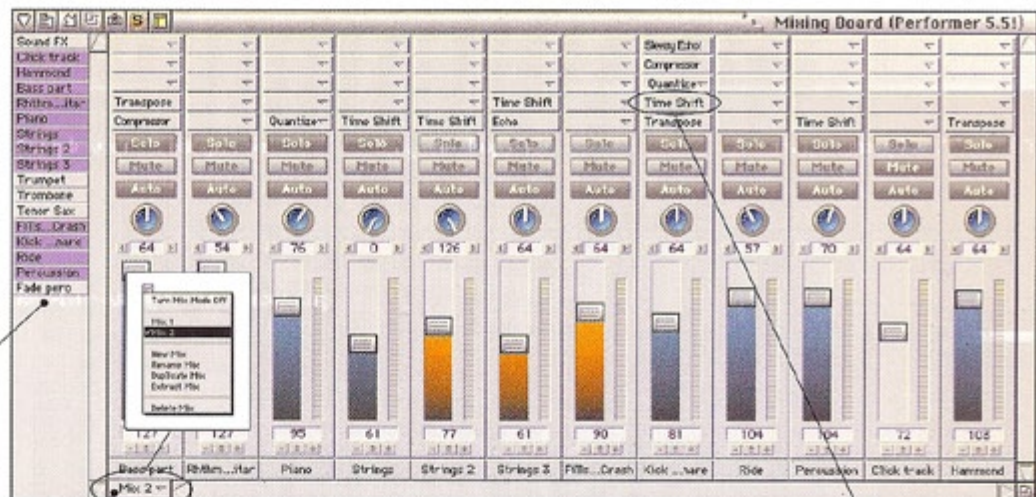
Instantly configure the Mixing Board window to display any combination of the tracks—or even mixer sections. For example, hide the inserts if you aren't using them. And save board layouts for instant recall.

"Do What I Mean"

Have you ever selected a few bars and moved them somewhere else—only to realize that the notes on the first downbeat got left behind because they were actually played just a few ticks early? Have you ever tried to paste a section that ends with a pitch bend—only to discover that the music that follows is subtly out-of-tune? How about pasting meter changes and discovering barlines that are out of alignment? Performer 5.5's new Smart Selection™ feature fixes problems like these by intelligently and musically deciding what really belongs in your time range selections, and preserving important settings in the regions that you aren't editing. Using proprietary, notation-based algorithms, Smart Selection frees you from nitty gritty selection issues and provides worry-free, fast edits. Just use grid-snapping to quickly make selections on beats and barlines, and let Smart Selection take care of making it sound the way it should. Turning on Smart Selection is like telling Performer, "Do what I mean, not what I say."

Measure Relative Pasting

Smart Selection also provides measure relative pasting for more fast edits: just place the playback wiper (or main counter) anywhere in the measure you want to paste into, and data gets pasted at its original location within the bar. Or you can turn Smart Selection off to paste exactly at the wiper (or main counter) location.



Multiple Mixdowns

Ride faders and knobs during playback to record automated mixes. Create snapshots of the entire mixer—or any portion of it—anywhere in your sequence with the click of a button. Save your fully automated mixdown for instant recall at any time, and then create an unlimited number of alternate mixdowns—all available from this pop-up menu for instant recall.

Global Selection

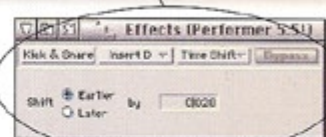
This could be one of the most requested features we've ever had. Make a selection in any window, and the selection appears in all other windows throughout the program. In fact, the selection remains even if the edit window is not in front—or even closed. Now you can apply successive Edit or Region menu commands *without having to reselect the same data each time*.

"The Best Notation Transcription You Can Get"

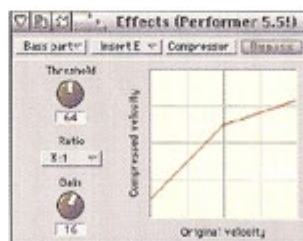
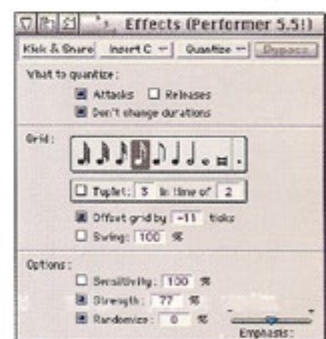
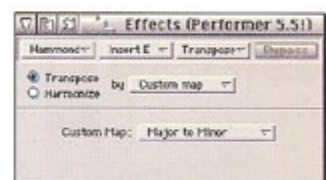
Keyboard Magazine was so amazed by the notation transcription algorithms we introduced in FreeStyle, they said its "automated transcription abilities are the best we've ever seen." And now we've incorporated that same transcription technology into Performer 5.5. Play in your music and get the most accurate transcription available. Instantly. Advanced features include floating split points, multiple voices per staff, and n-tuplet recognition. Additional features like the new *Straighten Swing* option make the QuickScribe Window's notation more readable than ever.

Non-Destructive MIDI Output Processing

Each track can have up to five real-time MIDI effects processors. Processors include Shift, Quantize, Transpose (by interval or by pitch map, either preset or custom), Velocity Compression and Echo. All effects are non-destructive, meaning they only affect data in real-time during playback; original data in the track is left untouched. Effects can be changed or bypassed at any time. Just imagine: now you can do things like shift tracks on-the-fly in real time, adjusting the shift amount while listening to the mix. And the original data in the track is untouched, so it's easier to view and edit. Note: processing even happens when you are just patching through from your controller—even when Performer is not playing back.



Just click the insert pop-up menu to open these real-time effects windows.



1996/1997 DP v2

Has all of the new features of P5.5 including 100% PPC native code

3D interface

Can record audio alongside MIDI tracks

Can edit audio and MIDI together

Audio-MIDI data shown in the Tracks Overview window

Tracks Overview window: Graphical representation of audio-MIDI data as data blocks.

Audio-MIDI edits in the Graphic Editor

Drag/drop Markers

Audio

Adjust Soundbite to Sequence

Adjust Sequence to to Soundbite

Apply Tempo Map from Sequence to Soundbite

Apply Tempo Map from Soundbite to Sequence

MIDI

Unlimited tracks

Gliding over buttons

Non-destructive MIDI edits

MIDI Echo

Smart Selections (MIDI)

The screenshot displays the 1996/1997 DP v2 software interface. The top menu bar includes File, Edit, Region, Basics, Change, Windows, and Audio. The main window is divided into several sections:

- Tempo control:** Shows a conductor track with a tempo of 43.00 bpm and a time display of 4:34:42.
- Effects:** A panel for the 'Lennon/McCartney' track, showing settings for Backing Vocal, Insert A, High shelf, and Bypass.
- Tracks Overview:** A table listing tracks with columns for Mute, Loop, Lev, Rec, Input, Play, Output, Time, Voice, Track Name, Patch, DFLT Patch, and ChnBl. Tracks include Conductor, Wuritzer Piano, Fender Bass, Strings-1, Strings-2, Strings-3, Brass, Piano, Drums, and various vocal tracks.
- Soundbites:** A window showing a list of audio files with columns for Name, Duration, DSP, and File. The selected file is 'Goo Goo Ga Joob!' from 'Takefile in1-15'.

The interface also features a central timeline with a 4/4 A Major key signature and a bottom section for audio editing, including a waveform display and a 'Soundbites' list.

Groundbreaking PureDSP pitchshifting and time-scaling effects

MIDI arpeggiator and Echo effects

Built-in support for the new MIDI Timepiece AV

Adjust Beats (Record w/o metronome, align to grid afterwards)

Expanded support for Pro Tool III and TDM

Multiple mixdowns

Show/Hide mixer features i.e. board layouts. Mix Mode

Group faders, automation

Stair-step automation

MIDI effects inserts

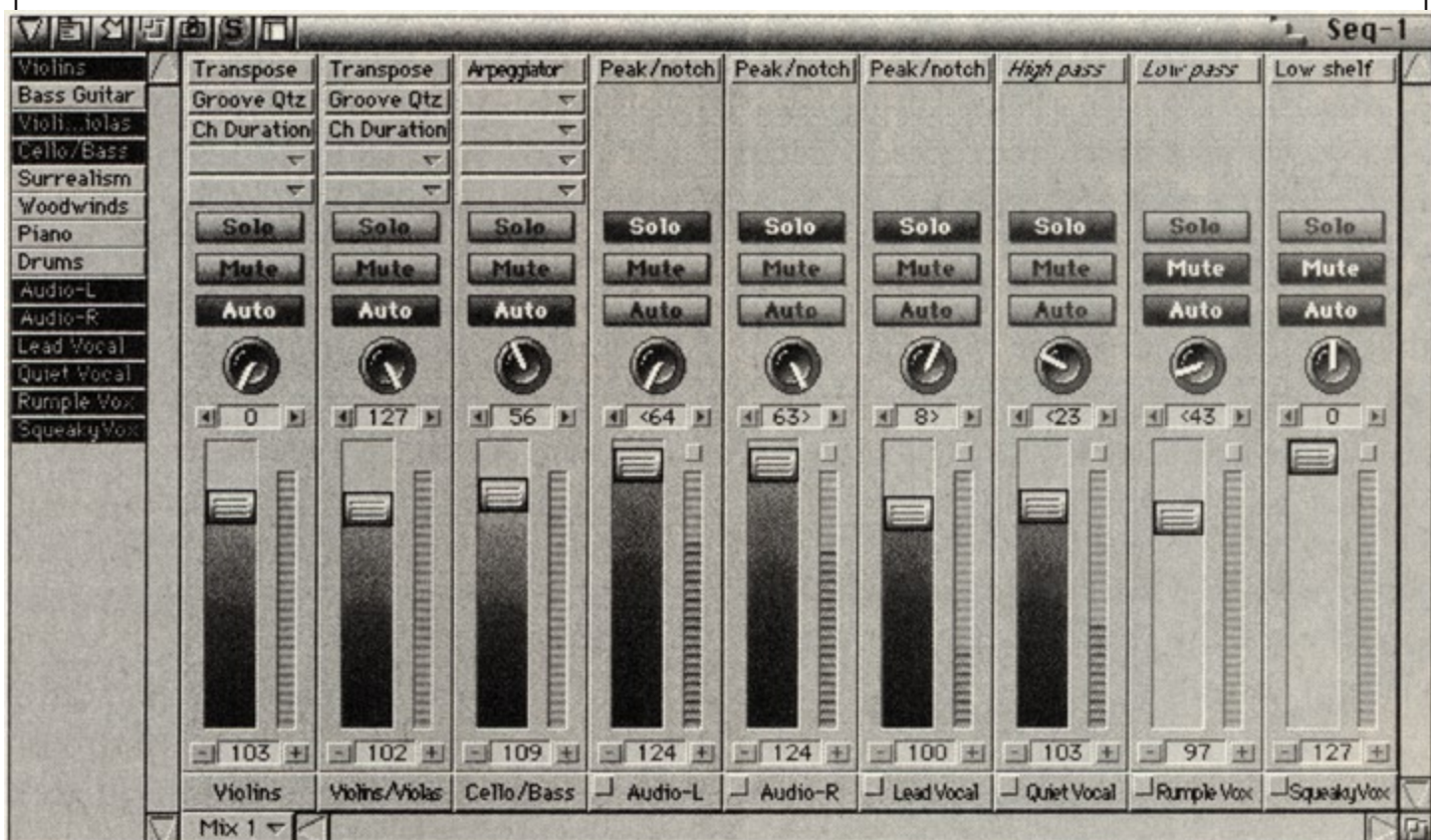


FIG. 2: The redesigned Mixing Board provides control of each MIDI and audio track, and it can be automated. MIDI tracks include five effects inserts. The number of audio inserts depends on the audio hardware.



Mark of the Unicorn, Inc.

1280 Massachusetts Avenue
Cambridge, MA 02138

Voice (617) 576-2760
FAX (617) 576-3609

Dear Performer User:

Digital Performer version 2.0 is shipping! And now is a great time to upgrade to Digital Performer and the exciting world of disk-based digital audio recording.

Just imagine! For the incredibly low upgrade price of \$295 (\$500 savings off the MSRP), you'll be able to record vocals, acoustic guitar or any instrument right alongside your MIDI tracks. Then you'll be able to non-destructively edit audio tracks with the same ease and flexibility of MIDI tracks. In fact, you can edit MIDI and audio together. Want to copy the chorus 24 bars later? No problem. Just select the audio vocals and MIDI accompaniment together, copy and paste. It's that easy.

And with Digital Performer's ground-breaking PureDSP™ pitch-shifting and time-scaling effects, you'll have the flexibility to transpose audio or change its tempo using Performer features you already know - like the tempo slider and Transpose command.

And, if you order Digital Performer now, you'll automatically receive the next upgrade of Digital Performer free of charge. Due this spring '97, the next version will support Apple's Sound Manager, giving you the ability to record and playback digital audio tracks with no addition hardware in your Power Macintosh or 68040-based AV Macintosh.

If you're wondering what the industry has been saying about Digital Performer, MacWorld magazine just awarded Digital Performer its World Class Award for 1997, saying, "When it comes to altering audio...Digital Performer is the hands-down winner. The results are astonishing." Electronic Musician nominated Digital Performer for their 1996 Editors' Choice Award, and MacUser magazine honored Digital Performer as a 1996 MacUser Editors' Choice Award Finalist.

What are these industry experts so jazzed about? Digital Performer 2.0 has all the new features in Performer 5.5, including 100% PowerPC native code for blazing speed on Power Macintoshes. Other new Digital Performer 2.0 features include:

- Multiple mixdowns let you save the automated mixdown of your entire sequence for instant recall at any time and then create an unlimited number of alternate mixdowns.
- Non-destructive MIDI output processing effects let you apply all of Performer's powerful MIDI editing features, such as Quantize, Groove Quantize, Shift, Change Velocity and others to MIDI tracks without altering the original data so that you can change the effect or bypass it (turn it off) at any time.
- MIDI Arpeggiator and Echo effects are included in Digital Performer's arsenal of real-time MIDI output effects. Imagine using a full-featured arpeggiator with any synth you own!
- Built-in Support for the new MIDI Timepiece AV, which just won the Electronic Musician 1997 Editors' Choice Award and the New Media Magazine 1997 Hyper Award.
- Adjust Beats feature lets you record without a metronome and then drag beats and barlines in Digital Performer's graphic editing windows to line them up with MIDI note data or the peaks in an audio waveform - without changing how everything plays back.
- PureDSP™ sample rate conversion lets you convert digitally recorded audio from, say, 48kHz (as recorded on your ADAT) to 44.1kHz (for your final CD mix) - without the usual harmonic distortion and noise introduced by other programs with this feature. See the enclosed flyer, called "DSP ALERT!", for details on the fidelity of Digital Performer's sample rate conversion.
- Expanded support for Pro Tools III and TDM includes 16 TDM busses, Aux Tracks with mono and stereo inputs, 4 sends per track (pre or post fader), and master faders.

So, take a look at the enclosed materials and order your upgrade today. And thanks for choosing Performer.

Sincerely,



Jim Cooper
Director of Marketing

midi sequencing & digital audio recording

Digital *Performer*

Digital Performer
20
MORE POWER

Mark of the Unicorn



Digital Performer version 2

DSP ALERT!

Not all DSP software is created equal

Many audio software packages provide sample rate conversion, which lets you convert, for example, material recorded on your ADAT at 48kHz down to 44.1kHz for your final CD mix. But watch out! Some programs use a rudimentary process called linear interpolation, which taints your audio with significant aliasing and imaging, particularly in the high frequencies.

Digital Performer's sample rate conversion, on the other hand, uses a proprietary digital filter to eliminate all aliasing and imaging in the audible range.

But since the proof is in the pudding, here's a real-world example — with no smoke and mirrors. The test is simple: start with an audio file originally recorded at 48kHz (Shown at right is a vocal audio file recorded by Harry Belafonte, who is using Digital Performer for his next release.)

Sample rate convert it to 44.1kHz and then back to 48kHz in each program. Then subtract the original samples from the processed ones.

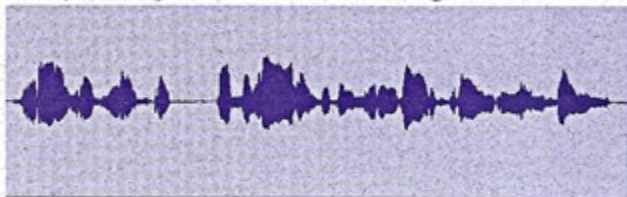
What's left over? Any distortion and noise produced by the sample rate conversion. By subtracting the original waveform from the processed waveform, you can hear (and see) the artifacts produced by the conversion independently from the original audio signal (Harry's voice, in this case.)

Doing this in Logic Audio 2.6 introduces significant harmonic distortion. At 14kHz, for example, Logic produces 18.1% Total Harmonic Distortion (THD+n). Sadly, other audio software packages — even "high-end" ones — produce similar results.

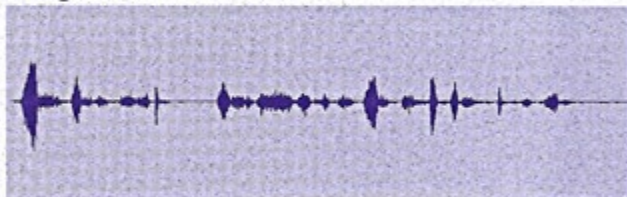
Digital Performer, on the other hand, produces virtually no distortion within the audible range (less than 0.002% at 14kHz). In the comparison at the right we've boosted the remaining distortion from both programs by 20dB so you can clearly see the difference.

If you are reading this at the NAMM show, come by Mark of the Unicorn booth 3329 in Hall C to hear for yourself how good — and how bad — sample rate conversion can be.

Harry's original voice recording



Distortion produced by Logic Audio™ 2.6 Sample Rate Conversion



(Boosted by 20dB)

Distortion produced by Digital Performer™ 2.0 PureDSP™ Sample Rate Conversion



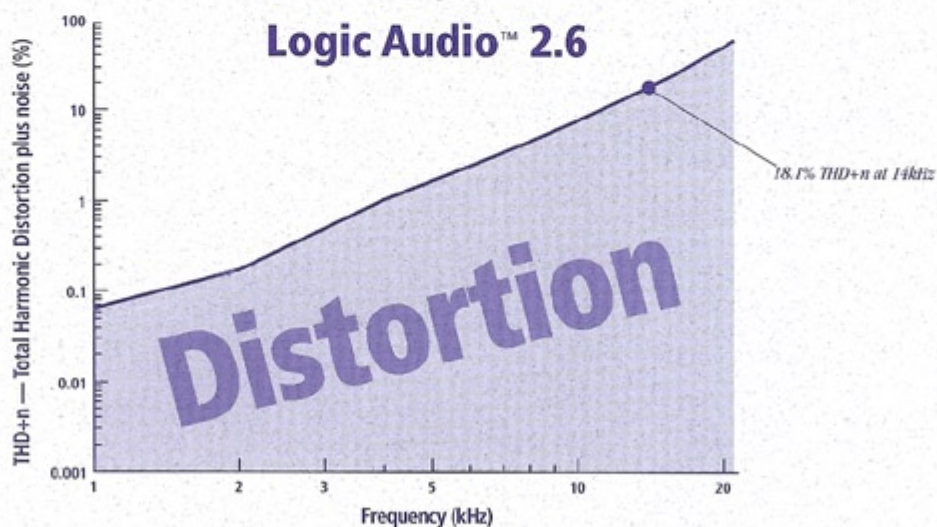
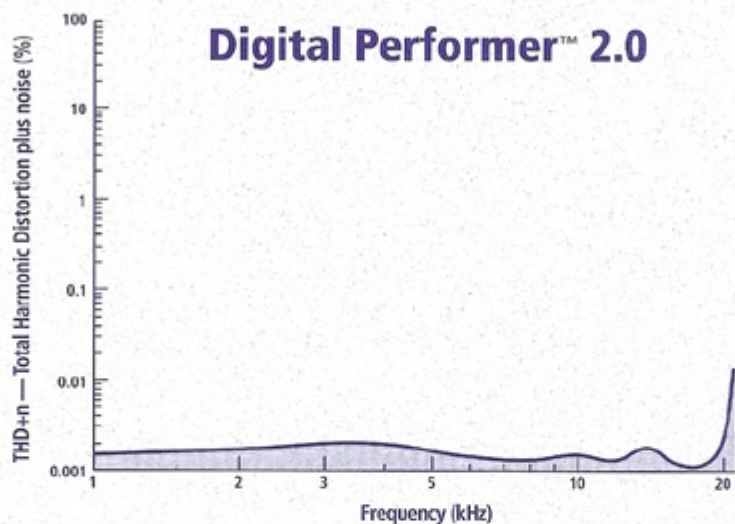
(Boosted by 20dB)

**Hear the difference for yourself
at Mark of the Unicorn booth 3329 in Hall C.**



Mark of the Unicorn

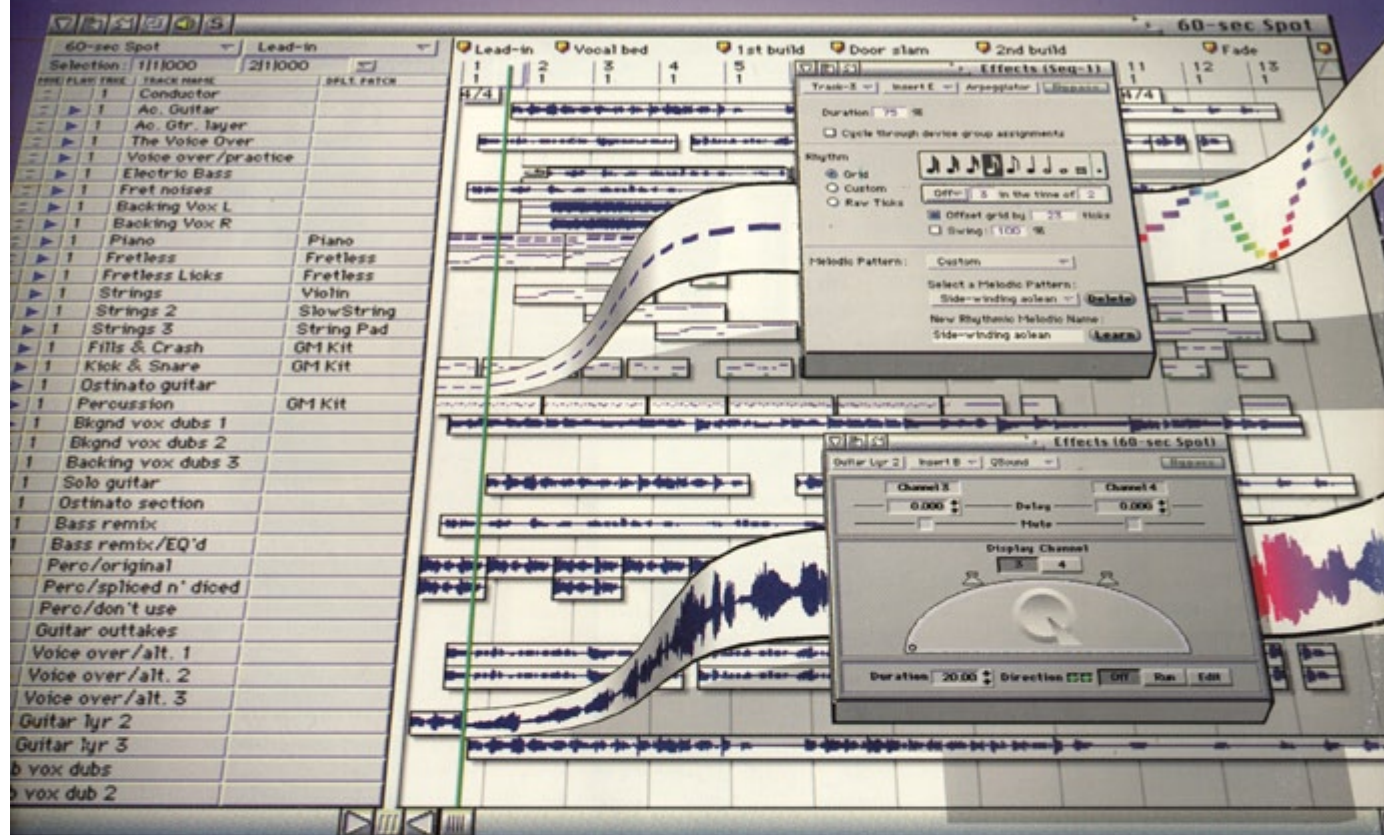
Sample Rate Conversion from 48 to 44.1kHz: Digital Performer 2.0 versus Logic Audio 2.6



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Web site: www.motu.com

feel the effects

midi effects. audio effects. in real time. nondestructive. at your fingertips.



...that MIDI percussion track needs some groove quantizing. And the lead vocal audio track has way too much reverb. Gotta tweak the scale on that MIDI arpeggiator so it matches the new key. With Digital Performer 2.0, you can do it as fast as you can think it, in real time, as the music plays. And non-destructively, too, so you aren't altering your original material. Digital Performer has effects

inserts on both MIDI and audio tracks, which are integrated into a seamless, fully automated on-screen mixing console. Now add Pro Tools™, Digidesign's industry-leading hard disk recording system — along with dozens of cutting-edge TDM™ plug-ins — and Digital Performer turns into the most powerful, flexible and intuitive MIDI and digital audio recording system available.

version 2 feature highlights

- 100% PowerPC native (still runs great on any 68030 Mac or faster)
- Support for Apple Sound Manager — play and record CD-quality digital audio on Power Macintosh with no extra hardware (available as a free upgrade Q1 1997)
- Exceptional sample rate conversion produces virtually no harmonic distortion
- Expanded support for Pro Tools III TDM, including 16 TDM busses, 4 sends per track (pre or post), aux tracks and master faders
- Supports QuickTime Musical Instruments plays MIDI on Macintosh internal speaker
- Drag-and-drop markers in the main tracks overview and audio editor

- Unlimited "takes" per track — keeps your track list short and manageable
- Nondestructive MIDI output processing
- MIDI echo and arpeggiator effects — now every synth you own can be an arpeggiator!
- Unlimited multiple mixdowns for an entire sequence with instant recall
- Adjust Beats feature lets you drag beats and barlines to line up with notes
- Global selection — data stays selected in all windows, even after successive edits
- Smart Selections™ provides "intelligent assistance" for fast, musical editing
- MIDI scrubbing
- Improved real-time notation — the best automated transcription you can get

circle #554 on reader service card



Digital Performer wins another in 1997!



Digital Performer 2.0

New version!

Macintosh midi sequencing & digital audio recording/editing/mixing/effects with music notation printing

Mark of the Unicorn, Inc. 1280 Mass Ave. Cambridge, MA 02138 VOX 617-576-2760 FAX 617-576-3609 WEB www.motu.com AOL keyword MOTU

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SEQUENCING

All of Performer Version 5

Digital Performer contains all of the powerful MIDI sequencing capabilities of Performer Version 5, which redefined the look and feel of professional music sequencing — from painstaking attention to graphic interface to the extensive depth of its features. In fact, Performer is nothing less than the measuring stick by which every professional sequencer is judged. And while such a statement may raise a few eyebrows, we are proud to back



it up with a trophy case full of awards from some of the most respected music and computer magazines you can think of. Performer is the only sequencer to receive MIX Magazine's TEC Award for Creative Excellence over and over (3 times for

Performer, once for Digital Performer). And if that isn't enough, consider that Performer is also the only sequencer to have been awarded MacWorld Magazine's World Class Award two years running. And we are proud to announce that Digital Performer has just won another World Class Award for 1997. Such acclaim has never been duplicated. Ever. No one has even come close.

A wide variety of classic Performer innovations are now de rigueur for pro sequencers. From unlimited tracks, sequences and songs to full SMPTE support with Markers, to our Tracks overview, to hundreds of MIDI channels, to tap-tempo and much more, we've kept our competition playing follow-the-leader for years. And now, the latest versions of Performer and Digital Performer introduce a host of new advancements to make producing your music faster and easier.

Keyboard magazine says it best: "...if you're called to do a production session in LA, you'd better have Performer on your hard drive."



Together, Performer and Digital Performer have won an unprecedented 4 Mix TEC Awards and 3 MacWorld World Class Awards — the latest being awarded to Digital Performer in 1997.

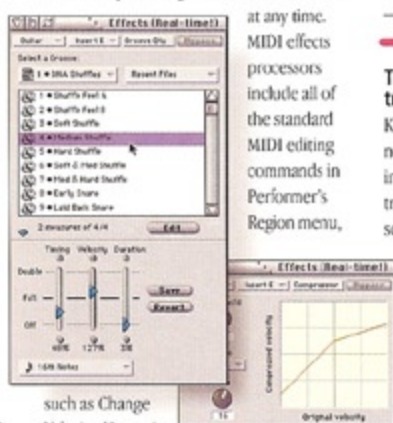
Complete studio integration

Digital Performer serves as the command center for your entire studio, pulling together a comprehensive array of hardware and software tools for state-of-the-art music making.

Real-time editing & effects processing

Digital Performer has all of the MIDI editing features you could ever want. And it also lets you work on your music in real time—while it plays. Edit MIDI or audio on the fly. Apply effects such as Groove Quantize, shift, velocity scaling, and more with instant feedback while you listen — to save time and get the feel just right. It's interactive. Changes can be applied permanently to your data or non-destructively, which lets you change or remove the effect

at any time. MIDI effects processors include all of the standard MIDI editing commands in Performer's Region menu,



such as Change Velocity, Humanize, Invert Pitch, and Groove Quantize.

Advanced editing features

Recently, we've introduced several advanced editing features in Performer and Digital Performer. The first is global selection. Make a selection in any window, and the selection appears in all other windows throughout the program. In fact, the selection remains even if the edit window is not in front — or even closed. This is a great time saver because you can apply successive edits without having to reselect the same data each time. Next is a feature we call Smart Selection™, which provides "intelligent assistance" to your edits, freeing you from nitty-gritty selection issues for fast, worry-free editing. Turning on this feature is like telling Digital Performer, "Do what I mean, not what I say." And finally, Performer now has measure-relative pasting. Just place the scrolling playback wiper anywhere in the measure you want to paste into, and data gets pasted at its original location within the bar — another great time saver when you are working fast.

Drag and drop ease

Want to quickly add a marker to identify a SMPTE hit point? Just grab one from the marker well in the main tracks window and drop it right on the time ruler. Want to add a sound effect or other bit of audio? Just drag it from the Soundbites list and drop it in the main waveform display. What to quickly build a playlist of audio regions? Just drop them in an event list. Digital Performer provides drag-and-drop consistency and ease throughout.

"In general, Digital Performer's gorgeous interface is more enjoyable to work with than that of Studio Vision Pro."

—MacWorld Magazine

The best automated notation transcription you can get

Keyboard Magazine was so amazed by the notation transcription algorithms we introduced in FreeStyle, they said its "automated transcription abilities are the best we've ever seen." We've since incorporated that same transcription technology into Digital Performer. Play in your music and get the most accurate transcription available. Instantly. Advanced features include floating split points, multiple voices per staff, and n-tuplet recognition. The Straighten Swing feature displays swung eighths as straight eighths (instead of triplets). If the notation display looks like a train wreck because it wasn't recorded with the metronome, our new Adjust Beats feature lets you graphically drag beats and barlines to line them up with MIDI note data—without changing how it plays back. The result? Readable notation and time rulers that match your music.



Automated mixing for MIDI & audio

Digital Performer's Mixing Board window gives you a virtual mixing console on your computer screen. Ride faders and knobs during playback to record automated mixes. Create snapshots of the entire mixer — or any portion of it — anywhere in your sequence with the click of a button. Save your fully automated mixdown for instant recall at any time, and then create an unlimited number of alternate mixdowns — all available from this menu for instant recall. And Digital Performer's on-screen mixing board is more flexible than even the most expensive hardware consoles ever made. Effortlessly create fader automation groups with any fader as the master. Each track has its own solo, mute and automation enable/disable buttons. Instantly create customized board layouts: drag track strips anywhere you like, and show or hide any combination of tracks — or even mixer sections (like the inserts section) — with a mouse click. Then save and recall any number of custom Mixing Board configurations. Assign tracks to TDM plug-ins and our new MIDI effects processors for real-time output processing. Faders can respond to any MIDI controller such as a volume slider or pedal, modulation wheel or any data slider. It's easy to perfect your mixes using the physical sliders already on your synths.

Those "nice touches"

Partial solo mode ducks muted tracks instead of completely silencing them. Unlimited takes per track help keep your track list manageable. MIDI and audio scrubbing let you zero in by ear. Digital Performer is loaded with amenities you'll appreciate every time you use it.

Years of hit records, film scores, and cc

DIGITAL AUDIO

No extra hardware required

Digital Performer supports Digidesign hard disk recording systems. And, available first quarter 1997, it can play up to 16 tracks of digital audio on Power Macintosh with no additional hardware.

Unmatched integration of MIDI and hard disk-based digital audio

Digital Performer gives you tight integration between MIDI and digital audio so that you can work musically. Want to transpose the B section up a whole step? Just select the region (both MIDI and audio tracks) and choose Transpose. Other programs make you edit MIDI and audio separately. Why go to two different commands, just to transpose? Then, they make you stare at



a progress bar for ages while they grind away on audio processing. Digital Performer processes audio in the background while you continue recording, playing, and editing MIDI and audio. Editing audio with MIDI is a snap, too. Just select both types of data in Digital Performer's tracks window, and then cut, copy, shift, snip, splice or otherwise edit them. You don't have to worry "Am I working with MIDI, audio or both?"

Multitrack audio editing

As an audio editor, Digital Performer rivals even the most expensive audio-only systems. View and edit all of your digital audio tracks in a single, intuitive window. You won't believe how fast it is to rearrange your audio recordings. Throw away your razor blade and splicing tape. Graphically draw volume automation curves. Pan sounds left to right. Even loop recordings — all as your music plays. Select only the tracks you want to see or show them all. Zoom in to work on fine details or zoom out for a wide overview. Drag, copy and paste digital audio "soundbite" regions just like MIDI data. Now everything from simple dialog editing to complex restructuring of large compositions is as easy as playing with Lego® blocks. Re-size soundbites by dragging their

edges. Scrub digital audio to find exact start and end points for edits. Split and trim soundbites to work with smaller regions. Strip Silence works just like a noise gate with adjustable threshold, attack & release and a "find zero crossings" option that avoids unwanted clicks and pops. Copy and paste regions to repeat verses or sound effects. "Drag and drop" audio regions from the soundbites window to any editing window for intuitive placement. All of these operations are nondestructive so you can always revert back to your original recording should you change your mind. Normalize audio tracks for consistent levels. Record and insert volume and pan effects. Even import material from your favorite sample

CD-ROMs, then use any of Digital Performer's editing functions to customize them for your music. Digital Performer combined with a Digidesign recording system can be used as the ultimate sampler.

PureDSP™ audio processing

PureDSP™ is Digital Performer's ground-breaking digital audio pitch-shifting, time-stretching, "spectral-shifting" and sample rate conversion technology. What makes PureDSP unique is the quality and speed of its processing. For example, PureDSP can pitch-shift monophonic audio by intervals as great as an octave while

preserving the original character of the sound. No chipmunk-like or Darth Vader-sounding vocals. What's more, Digital Performer can time-scale while maintaining accurate timing and audio quality. Other audio software makes you choose one or the other. Let's take a closer look at what you can do with PureDSP.

Transposing audio

The ability to transpose audio — by itself or together with MIDI — opens up a world of possibilities for you. Perhaps you want a melodic line a third higher. Or, you may decide that you want to modulate a section or even the entire piece to a different key. With PureDSP, you can

"When it comes to altering audio rather than converting it, Digital Performer is the hands-down winner. The results are astonishing."
—MacWorld Magazine

feel free to try your music in any key or perform multiple modulations. You can also create octave doublings. Octave transpositions without extreme distortion were unheard of before Digital Performer. Now you can double your lead vocal

track with octaves above, below or even both! And you can create them even if the passage would normally put the octaves out of the singer's range. PureDSP also provides standard pitch shifting, just in case you do want to create cartoon voice or science fiction effects. Standard pitch shift is also great for polyphonic or non-pitched recordings.

Pitch correction

Another essential use of PureDSP is pitch correction. Say your vocalist nailed the take but that high G was just a little bit flat. You can fine-tune the pitch of any portion of your audio by increments as small as one cent. Tweak that note until it's perfect. The result can be more natural sounding than punching in or switching takes to correct the mistake. And it will take you a fraction of the time! PureDSP may just turn out to be your vocalist's best friend!

PureDSP Time scaling

Digital Performer can change the tempo or duration of an audio recording without affecting the pitch. What sets Digital Performer apart is the exceptionally wide range of time compression/expansion it provides without distorting the tonal quality and compromising rhythmic accuracy. Other programs may let you change tempo by 2-3% without noticeable problems. But what about slowing the tempo from 120 to 96 bpm — a full 20%? Imagine having the freedom to experiment with a variety of different tempos, even after the vocalists and instrumentalists have already laid down their tracks. Got a sample loop CD, but that two bar drum loop is not at the tempo you want? No problem. Just tell Digital Performer that it's eight



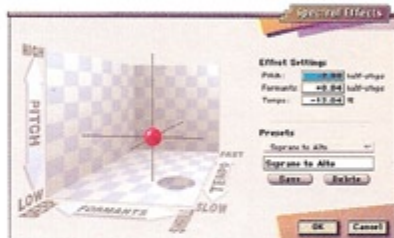
beats long and Digital Performer will precisely scale it to the tempo of your sequence. Would you rather cop the tempo of the loop? Once again, no problem. Just choose "Adjust Sequence to Soundbite Tempo" and you're ready to roll. All of your MIDI tracks will exactly match the tempo of the loop. Now think about tempo maps. That's right, you can gradually speed up or slow down audio — even if it was recorded at a steady tempo. Create a complete tempo map with a slower verse, a push into the chorus, a new tempo at the C section with a lazy ritard at the end — all using Digital Performer's many

easy tempo management features. Thanks to PureDSP, perfectly synchronized audio tracks are just two steps away. But now consider the opposite: let's say you recorded your audio to a sequence with a complex tempo map — it's

"Digital Performer's Hi-Fi pitch-shifting algorithms are outstanding in their ability to minimize the artifacts inherent in this process."

—Craig Anderton, EQ Magazine

very expressive. Now you want a pop version of the same piece at a constant tempo with a groove. Just change Digital Performer's timing from conductor track to manual, set the slider to the tempo you want, select the audio tracks and choose "Adjust Soundbites to Sequence Tempo." Try that with any other recording



system! Imagine what you could do with your existing recordings: reuse old material in one of your current projects, regardless of its original tempo. Create dance mixes without rerecording. Make composites with material that was recorded in different sessions at slightly different tempos. The possibilities are truly endless.

Speed and background processing

DSP processing can be time-consuming. Digital Performer addresses this challenge in a number of ways. First, Digital Performer uses perhaps the fastest, off-line DSP code available. Then it employs an exclusive method of analyzing your audio files, in the background, as soon you finish recording them. Chances are, by the time you get around to applying one of Digital Performer's PureDSP effects, such as transposing or time-stretching, the analysis will have already been completed. At the moment you apply the effect, Digital Performer begins processing in the background and control of your computer is then immediately returned to you. Here, all other programs make you stare at a progress bar on your screen while you wait for minutes or even hours. Meanwhile, you lose your creative flow, your clients get impatient and money goes out the window. In Digital Performer, however, you can edit, playback, even record new digital

ncert tours are reflected in the features ai

MORE POWER

audio or MIDI tracks while background processing does its stuff. But that's still not all: the waveforms of the audio you are processing get redrawn with their new shape right away. You can actually perform further edits on the audio—such as cut, copy or paste—even before it's done being processed! This can save you a tremendous amount of time during sessions. You can also



reorder items in the background processing queue, so you get to decide what will be processed next. Taking it one step further, you can then queue up any number of other audio regions for background processing. Digital Performer will keep working away in the background until all are complete. It's like having an assistant engineer that never sleeps!

Spectral effects / gender-bending

Digital Performer's spectral effects feature lets you transpose the tonal characteristics of pitched audio independently of the pitch itself. This

lets you change the quality of the sound in ways you may have never imagined. For example, you can actually "gender-bend" a male vocal part to make it

sound female, or vice versa. Our Spectral Effects window even provides a host of gender-bending presets, and you can create and save your own, too. You can also apply spectral shifting to acoustic instruments to produce sounds never heard before.

Sample rate conversion

Many audio software packages provide sample rate conversion, which lets you convert, for example, material recorded on your ADAT: 48kHz down to 44.1kHz for your final CD mix. But watch out: they use a straightforward process called linear interpolation, which taints your audio with significant aliasing and imaging, particularly in the high frequencies. Digital Performer's sample rate conversion blows them away with an algorithm that eliminates all aliasing and imaging in the audible range. What's more, Digital Performer provides "draft" quality conversion so that you can hear your audio right away (at the correct pitch) while "best-quality" processing continues in the background.

Pro Tools III & TDM support

If you are considering — or already have — a Digidesign Pro Tools III system, Digital Performer is ready to take your studio to a new level both in features and in the number of random access digital audio tracks. You can build a system of



up to 48 tracks with 64 inputs/outputs. And you get complete compatibility with Digidesign's versatile new TDM bus. Control any TDM module such as EQ, voice processors or reverbs — right from Digital Performer. Best of all, Digital Performer handles TDM in much the same way as Pro Tools, so you'll enjoy familiarity and ease when using Digital Performer. Here are just a few examples. Digital Performer provides multiple TDM busses for flexible internal routing and easy routing to and from external devices. Audio tracks, Aux tracks, and master faders can be assigned to any of 16 TDM busses. Aux tracks, with both mono and stereo inputs, provide a wide array of powerful and flexible mixing capabilities, and can help conserve precious TDM DSP resources. Aux tracks can also help automate TDM plug-in effects. Each audio track and aux track provides four pre or post fader sends with level and mute controls. Master faders provide control over TDM mixer outputs and serve as a convenient mechanism for sub-mixing and other tasks. Digital Performer also has a "Direct Line Outputs" mode that allows audio tracks to be assigned to individual outputs or busses, an essential feature when interfacing a Digidesign

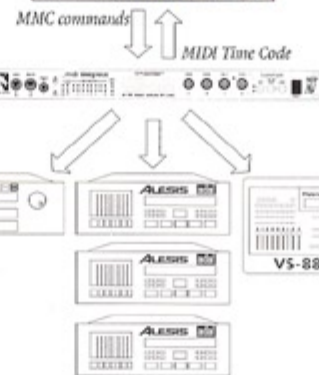
I/O with an external mixing environment.



The full power of Digidesign's TDM plug-in environment is at your fingertips in Digital Performer. And because our TDM support is closely modeled after Pro Tools, you'll be power-sequencing with your audio tracks right away.

MIDI Machine Control (MMC)

Digital Performer gives you control over any MMC-compatible recorders, such as the Tascam DA-88, Alesis ADAT and many others. Operate Digital Performer's main transports or instantly cue to any location and watch your MMC devices chase with frame-accurate timing. Set auto punch-in and preroll times. You can do it all directly in Digital Performer. If you add our award-winning MIDI Timepiece™ AV to your rig, you can expand your realm: of transport control to include ADATs (without a BRG) and any devices that can slave to SMPTE time code, like the Akai D88 hard disk recorder.



QuickTime video playback

Import any standard QuickTime movie into Digital Performer and enjoy the power and flexibility of random access digital video. Achieve full 30 fps video playback with no additional video hardware.

Are you losing precious seconds waiting for your video deck to cue up? Instantly jump to any SMPTE



frame with your choice of Digital Performer's many transport and locate features. Spot one frame at a time with your Mac keyboard. Scrub music and picture together, forwards and backwards. You can even display full-screen, 30 fps, broadcast-quality video on a second monitor with QuickTime-compatible video hardware. If you make a living scoring to picture, you owe it to yourself to check into this exciting new technology.

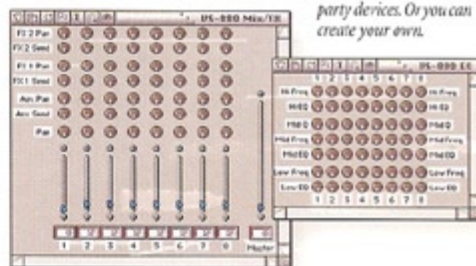
UNISYN: integrated sound management and patch editing

Unisyn is MOTU's universal editor/librarian. Unisyn gives you the most comprehensive sound management features available on the Macintosh. Audition sounds while your sequence plays. Create new patches, edit sounds, arrange banks and much more. Store thousands of sounds at your fingertips and recall them instantly using database-style search criteria, such as "plucked electric bass" with "bright stereo flange". Generate entire banks of new sounds with a few clicks of the mouse. "Morph" from one sound to another. Frustrated because you can't recreate the settings in your MIDI gear for last month's project? Let Unisyn do it with a few clicks of the mouse.



This bank of sounds was created with a few mouse clicks. Two Roland JV-1080 sounds have been gradually "morphed" from one to the other to create a completely new bank of sounds. UNISYN helps you master your synthesis and develop your own, unique sounds.

Digital Performer includes custom control consoles like this for the Roland VS-880 hard disk recorder, Yamaha ProMix 01, and other 3rd party devices. Or you can create your own.



And design of Digital Performer Version 2.

Digital Performer Version 2 Gives You More Power...

Advanced features.
Comprehensive studio integration.
Innovative digital audio sequencer design.
Award-winning history and recognition in the industry.

The collage displays several key features of Digital Performer Version 2:

- MIDI sequencing - All Performer 5 Features:** A screenshot of the MIDI piano roll showing multiple tracks and notes.
- Tempo control:** A control panel with a tempo slider set to 92.00 bpm and a digital display showing 0:31:49:16.
- Remote control of external devices via MMC:** A window showing MIDI Machine Control (MMC) settings and transport controls.
- Digital audio recording - up to 48 tracks:** A screenshot of the audio recording interface with multiple tracks and waveforms.
- MIDI system management with FreeMIDI:** A window showing MIDI system management options.
- Automated mixing for MIDI and audio:** A screenshot of the mixing console with various faders and knobs.
- TDM plug-in support and virtual mixing:** A screenshot showing TDM (Time Division Multiplexing) plug-in support.
- Background Processing:** A window showing background processing tasks and progress.
- Built-in QuickTime Movie window/digital video:** A screenshot of the QuickTime movie window showing a video of hands playing a piano.
- PureDSP audio effects / background processing:** A screenshot of the PureDSP audio effects interface.
- Full-score music notation editing and printing:** A screenshot of the score editor showing musical notation for piano and guitar.
- Real-time, nondestructive MIDI effects:** A screenshot of the MIDI effects interface.
- MIDI Device/Patch Management with UNISYN:** A screenshot of the UNISYN MIDI device management window.
- Customized consoles for 3rd party hardware:** A screenshot of a customized console interface for 3rd party hardware.

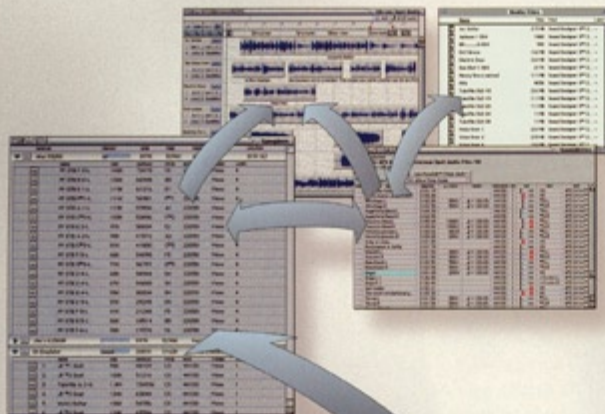
1997.5 DP v2.1 PowerPC native audio (Sound Manager)

A 604E/150MHz processor with 32MB of RAM could produce 6 to 24 tracks. Even the slowest (PPC 7200/75- *my first Mac*) can playback 6 audio tracks.

System Performance window (cpu)	New Bounce command	5 inserts, 4 sends	Real-time audio effects
True Ramp automation	Adjustable number of internal busses, aux tracks and master faders		

How would you like to -----> do all of this

up to 40 or more tracks of digital audio recording, mixing, bussing, EQ and effects processing — all non-destructively in real time



Introducing the Samplers window. Connect your sampler to your Mac and drag and drop samples between them. Store all of your samples directly on your Mac. Apply powerful audio processing and DSP to your samples. Digital Performer unites the worlds of sampler-based audio and hard disk recording.

and this!



Digital Performer 2.1 provides unparalleled integration between your Macintosh hard disk recording capabilities and today's hottest samplers, like the E4 series from E-mu Systems and many others.



on this
any Power Macintosh



without this

expensive extra hardware inside your Mac



and also
get this



Real time audio effects, including reverb, dynamics processing (compressor, limiter, expander and gate), chorus, echo and more. Real time means non-destructive — you can change them or remove them at any time.

circle #552 on reader service card



Macintosh midi sequencing & digital audio recording/editing/mixing/effects with music notation printing

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Digital Performer 2.1



UNISYN 1.5

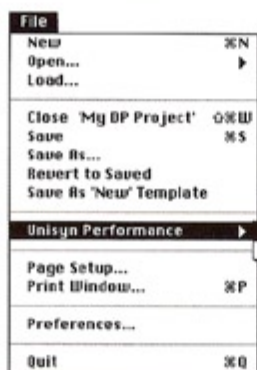
This is the best UNISYN ever—with new features and support for many new devices!

Improved Performer Integration

If you use Unisyn to manage the sounds and settings in your MIDI gear when sequencing with Performer, you'll want to get Unisyn 1.5 for this new feature alone: you can now save your Unisyn performances directly in your Performer (Version 6 or higher) sequence files. That's right. No more juggling Performer and Unisyn files. You can now store a Unisyn performance (a 'snapshot' of the settings in your entire MIDI rig) with your Performer projects. Just open Unisyn and Performer at the same time, and then use the new Store/Load Performance commands in Performer's File menu to save the current Unisyn performance directly in the Performer file. Then, months later, when you re-open the Performer file, you can load the same performance back into Unisyn with one command. It's that easy!

Improved FreeMIDI support

Unisyn now works in concert with FreeMIDI to provide you with a complete, up-to-date list of all the patches in each FreeMIDI device, while at the same time maintaining the factory default patch lists. These patches can be chosen by pop-up menus within all FreeMIDI programs, such as Performer and FreeStyle.



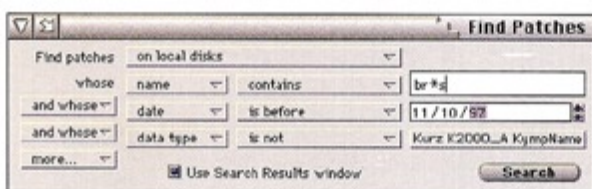
Expand your searches

Unisyn can now search all your unopened library files to find patches. It can search one disk or all the disks in your system. It can even search across a network. If you want, you can make it search just the main libraries for each patch type. Or, you can simply search the open library files.

Get results

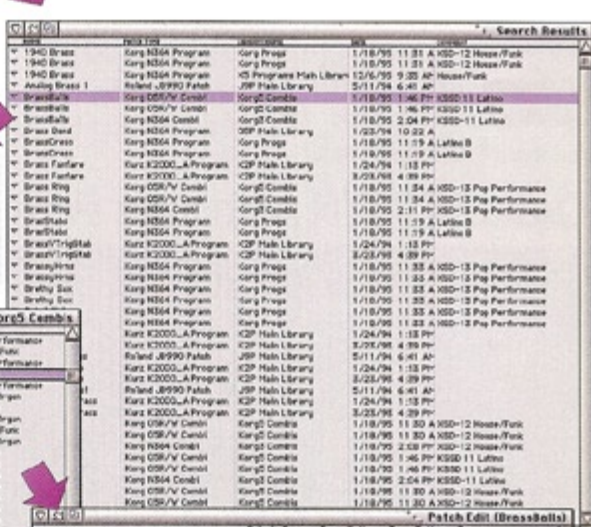
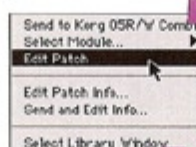
Unisyn presents what it finds in the Search Results window,

which provides the same information about each patch as Unisyn's familiar library window. You know exactly what each patch is and where it came from with additional Patch Type and Library File info. If you find a ton of patches in the search, no problem. Just sort the list in the Search Results window with powerful, flexible sorting features. Sorting is hierarchical and follows the order of the columns. You can rearrange them by simply dragging them left or right. For example, you may want to see patches grouped by type first, then by name. Or, you might want to sort patches primarily



Find patches faster

Unisyn's Find command has been greatly enhanced. First, it's easier to use because it now looks and feels just like the Mac OS Find command. It allows you to search for patches according to their data type, keywords, date of creation, name or comment—or any combination. For example, you might ask Unisyn to find patches "in all Main Libraries whose name contains 'P*no' or whose keywords contain piano and whose patch type is Korg 01/W Program and whose date is within a year of 7/11/97".



by file and then by date of creation. Sort any way you wish to quickly find exactly what you need! You can also audition and edit patches in the Search Results window with a convenient mini-menu that allows you to directly edit patch information (keywords, comments). Or simply open and select the library where a patch comes from.

Automatic keyword assignment

Imagine being able to drag and drop entire banks of patches into your Unisyn libraries and have Unisyn assign keywords to each patch automatically. Unisyn 1.5 makes this dream a reality. When you store patches in Unisyn 1.5's library (database) files, Unisyn looks at the name of each patch to determine what kind of patch it is and then gives it appropriate keywords like keyboard, piano, and electric. In addition, you have complete control over how Unisyn assigns keywords. If you have your own way of naming patches, you can program Unisyn to "read" your customized patch names and generate the desired keywords.

You can even edit Unisyn keyword mappings in your favorite word processor. If necessary, you can create customized keyword maps to suit your own personal way of working with patch names. For example, you might use one keyword mapping scheme for effects processor patches, while using an entirely different scheme for your synthesizers and samplers. But whether you use Unisyn's factory keyword maps or your own custom maps, keyword searching is now even more powerful because Unisyn saves you the time-consuming task of assigning keywords one patch at a time.

Improved Main Libraries

It is no longer necessary to use a specific name for your Main Library file (e.g. "DXV Main Library"). The Main Library file for a given type of patch can be chosen at will and changed whenever you feel like it. It doesn't even need to be on the same disk as Unisyn - it could be anywhere on your network. You can even move it to a different folder and Unisyn will still be able to find it.

Enter keywords and comments faster

You can now apply keywords to groups of library patches all at once by simply highlighting the patches you want to change and choosing Edit Patch Info.

International date support

Dates, such as those shown in the library window, are now shown in the library window in whatever format is chosen in the Mac's Date/Time Control Panel.

Improved MIDI Monitor

The Show Sent and Show Received monitors now have their own windows. And on a color monitor, Unisyn uses color to highlight MIDI status bytes.

Improved Windows Menu

All open files are now shown in the Windows menu. As always, Unisyn reduces screen clutter by hiding the windows which do not pertain to the currently selected Module, but now all windows are shown in the Windows menu, making it easy to go directly to the file you want, rather than having to think about selecting the correct Module.

New Profiles!

Alesis DM-5
Alesis Nanobass
Alesis Nanopiano
Alesis Nanosynth
Korg A2
Korg NS5R
Korg N264
Korg N364
Korg Prophecy
Kurzweil K2500/K2500R
Line 6 AxSys 212
E-mu Carnival
E-mu Orbit
E-mu Planet Phatt
Large Generic Bulk Dump
Nord Lead
Nord Lead/Rack
Roland JD-990
Roland JV-80
Roland JV-880
Roland JV-90
Roland JV-1080
Roland SC-88
Roland SC-88 Pro
Roland VS-880
Roland XP-10
Roland XP-50
Roland XP-80

Order UNISYN with your Performer 6 upgrade for special savings!

360 Systems MIDI Patcher	Boss DS-330 SE-50	Proteus/1XR Proteus/1XR Orch Proteus/2 Proteus/2XR Proteus/3 Proteus/3XR Proteus/FX Proteus/XL Proteus/Proteologic Proteus/XL Proteus/MPS Proteus/MPS+Orch Proteus/Proteus Vintage Keys Vintage Keys Plus	SQ-2 SQ-R SQ-80 VFX VFX-S0 J.L. Cooper MSB+ KAT DrumKAT 3.5 Kawai K1 K1-m K1-II K3 K3-m K4 K4r KS* KS-m*	DW-8000 EX-800 EX-8000 I1 I2 I3 I4S Kong 707 OS 8 P3 Symphony M1 M1R M1R/EX M2R N364264 NSSR Poly 6 Poly 800 Prophecy T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16 T17 T18 T19 T20 T21 T22 T23 T24 T25 T26 T27 T28 T29 T30 T31 T32 T33 T34 T35 T36 T37 T38 T39 T40 T41 T42 T43 T44 T45 T46 T47 T48 T49 T50 T51 T52 T53 T54 T55 T56 T57 T58 T59 T60 T61 T62 T63 T64 T65 T66 T67 T68 T69 T70 T71 T72 T73 T74 T75 T76 T77 T78 T79 T80 T81 T82 T83 T84 T85 T86 T87 T88 T89 T90 T91 T92 T93 T94 T95 T96 T97 T98 T99 T100	01/Wid 01/W Pro 01/W ProX 01R/W 03R/W 06R/W X2 X3 X3R X5 X5D X5DR Kurzweil K-2300 K-2300R K2500 K2500R Lexicon LXP-1 LXP-5 LXP-15 PCM-70 Reflex Line 6 Axis guitar amp Mackie DTT 1604	MOTU MIDI Mixer 7s Nord Lead Rack Oberheim Matrix 6 Matrix-12* Matrix-1000 Kpander* Peavey DPM-3 DPM-V3 Rane MAR 93 MPE 14 MPE 28 MPE 47 Roland A-880 Alpha June 1 Alpha June 2 CM-32P CM-32L CM-84 D-1C D-2E	D-110 D-50 D-550 D-70 DEP-5 GM-70 GP-4 GR-50 JD-800 JD-990 Juno 106 JV-55 JV-60 JV-680 JV-880 JV-90 JV-1000 JV-1080 JX-8P MKS-20 MKS-50 MKS-70 MKS-80 Alpha June 1 Alpha June 2 CM-32P CM-32L CM-84 D-1C D-2E	SD-55mcII SD-155 SD-88 SD-88 Pro U-110 U-20 U-220 XP-10 XP-50 XP-80 VS-880 Sequential DrumTraks MAX Prophet V Prophet 600 Stx-Trac Sony DPS-07* DPS-R7* Tech 21 SansAmp PSA-1 Waldorf Microwave Yamaha DNP-7 DX-21	DX-27 DX-100 DX-7 DX-7 s DX-7 II FD FB-01 KK-88 KK-76 PreMidi1 RX-11 SPX-90 SPX-90 II SY-55 SY-77 SY-85 TG-33 TG-55 TG-77 TG-103 TG-500 TX-7 TX-1 TX-216/816 TX-802 TX-812 V-90
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Mark of the Unicorn

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Mark of the Unicorn, Inc.

1280 Massachusetts Avenue
Cambridge, MA 02138

Voice (617) 576-2760

FAX (617) 576-3609

Dear Performer User:

Get ready to experience the hard disk recording revolution because Digital Performer 2.1 now records and plays digital audio without additional hardware.

How many audio tracks will you get? Our tests show that on a medium-fast Power Mac (such as a 604e/150), you'll be able to play 16 to 24 tracks. On a faster Power Mac (604e/225) equipped with SCSI acceleration, you'll get as many as 40 tracks of audio!

And with Version 2.1's new Bounce-to-Disk feature, you can play a virtually unlimited number of audio tracks with any Power Mac, because you can bounce as many tracks as you want down to one track (or a stereo pair), while preserving your original tracks.

Digital Performer 2.1 also includes real time EQ, reverb, dynamics, echo and other audio effects plug-ins. It's like having an entire effects rack at your fingertips. Just choose the desired effect from the inserts in the Mixing Board window.

But that's not all. Digital Performer 2.1 also provides a powerful virtual mixing environment with as many internal buses as you need, aux tracks, automated master faders, and much more. You can bus several tracks to the same effect, or mix dozens of tracks down to stereo and apply effects at the output stage. Other audio sequencers require thousands of dollars of extra hardware to even get close to Digital Performer's pro quality mixing environment.

Check out the enclosed brochure for all the effects plug-ins you'll get with Version 2.1. And speaking of plug-ins, Digital Performer 2.1

(over, please)

also supports Adobe Premiere audio plug-ins, which give you access to today's hottest DSP technology from industry leading plug-in developers - all accessible directly within Digital Performer.

And check this out! For the first time ever, Digital Performer unites the worlds of sampler-based audio, hard disk recording, and MIDI sequencing with built-in sampler support. Now you can drag and drop samples between your Mac and your sampler directly within Digital Performer. Transfer samples into Digital Performer and then edit them graphically. Apply Digital Performer's sophisticated DSP processing - or apply a Premiere plug-in - and then transfer them back to your sampler by simply dragging them into Digital Performer's Samplers window. Store your sound libraries directly on your Mac hard drive. Version 2.1 supports the latest samplers from Akai, E-mu, Kurzweil, and Roland.

As you can see, we've been hard at work making Digital Performer the best audio sequencer ever. And with two major upgrades shipped this year already, there's never been a better time to upgrade to Digital Performer, especially now that you don't have to buy extra hardware to record and play audio tracks. As many of our beta testers have told us, Digital Performer 2.1 may well make you more creative and productive than you've ever been before.

So take a look at the enclosed materials and order your upgrade today. And thank you for choosing Performer.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim", with a stylized flourish above the "i".

Jim Cooper
Director of Marketing



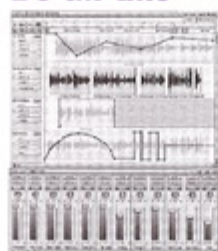
Digital Performer 2.1 Upgrade Form

To order by phone, call 617-576-2760
9am-6pm, Monday through Friday, EST

Upgrade Today To Get These Great New Features In Digital Performer 2.1!

- ✓ **Support for Sound Manager**
No extra hardware required!
- ✓ **Real time audio effects plug-ins**
A virtual FX rack at your fingertips!
- ✓ **Sample System**
Drag and drop audio between your Mac and samplers!
- ✓ **Adobe Premiere plug-ins with background processing**
Gives you access to the exploding world of audio DSP plug-ins!
- ✓ **Bounce to Disk feature**
Virtually unlimited audio tracks!

Do all this



(digital audio recording, mixing and effects)

on this



(any Power Macintosh)

without this!



(expensive extra hardware)

- ✓ **Ramp automation**
Provides smoother, more efficient performance!
- ✓ **Audio region layering**
Powerful and intuitive graphic editing!
- ✓ **Drag and drop audio Import/Export**
Handling audio has never been easier!
- ✓ **Much, much more**
You'll be more creative and more productive than ever!

To receive your Digital Performer 2.1 Upgrade, simply fill out this postage-paid card and mail it today. For even faster service, call us at 617-576-2760 Monday through Friday, 9:00am-6:00pm Eastern Time. Please have your MasterCard or Visa number ready. If you wish to use a personal check or money order (US bank funds only please), mail your check with this completed order card to the address on the other side of this form.

Please send me Digital Performer Version 2.1 for \$295 plus shipping.

Please check one:

- ☐ Please send my upgrade on CD-ROM. (Includes two authorization 3.5-inch disks.)
- ☐ Please send my upgrade on 3.5-inch disks only.

My VISA or MasterCard number is:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Shipping:

USA
\$ 4.95

Canada
\$ 9.95

Other Countries
\$39.00

Please allow 3 to 6 weeks for delivery after the upgrade is released. Your credit card will not be charged until your order is shipped. These offers are subject to change without notice.

Expires _____ / _____ Signature _____

Performer Serial Number (found on your mailing label) _____

Name (as on your credit card) _____

Address _____

City _____

State _____ Zip Code _____

Country _____

Phone Number (if we have any questions about your order)

(_____) _____ — _____

NATIVE AUDIO

Digital Performer version 2.1 lets you -----> do all of this

Your Power Macintosh is now a complete virtual recording studio with mixing, effects and EQ

Digital Performer can now record and play back digital audio without any additional hardware installed inside your Power Macintosh. Imagine being able to record anything: vocals, acoustic guitar, sound effects or anything else — right alongside your MIDI tracks. Forget about buying lots of extra gear. Now you can do it all with your Power Macintosh. All you need is a microphone connected to its audio input and a set of speakers connected to its audio output! All of your mixing and effects can be done in Digital Performer in real time.



Digital Performer helps you get the maximum number of tracks possible — as well as optimum performance — from your Macintosh. If you get more RAM, a faster hard drive for your Mac, or a more powerful Mac altogether, you'll get more tracks and more simultaneous effects!

The number of audio tracks (voices) you can record and play



Digital Performer combines MIDI sequencing and hard disk recording in a seamless, state-of-the-art virtual studio environment. You can record, edit, mix and master MIDI and audio tracks side by side.

simultaneously depends on your Macintosh hardware, but our tests show that even on the *slowest* Power Mac (such as a 7200/75), you'll be able to play back at least 6 tracks of audio. And with Version 2.1's new Bounce



You get real time MIDI and audio effects. Real time means non-destructive — you can change them or remove them at any time.

command, you'll be able to hear as many tracks as you need! On a fast Power Mac (a 604c/225, for example) you'll be able to play as many as 40 channels of audio, and perhaps even more if your computer permits. And you can even fine-tune Digital

Performer's audio engine to optimize performance on your

Mac and maximize the number of audio tracks you can play. But Digital Performer 2.1 gives you more than just audio tracks: it

provides a complete audio recording environment, including many features previously available only on expensive hardware-based systems. Advanced features include an adjustable number of internal busses, aux tracks,

master faders and sends. Digital Performer even provides a new plug-in architecture for real-time audio effects,

such as reverb, compression and parametric EQ. Digital Performer 2.1's new native audio recording features may just give you the most significant boost to your creativity and productivity that you've ever experienced in making music with your Mac.



(Digital audio recording, mixing and effects)

on this



(Any Power Macintosh)

without this!



(expensive extra hardware)

AUDIO EFFECTS

Reverb

Parametric EQ

Compressor

Expander

Gate

Limiter

Chorus

Echo

Flanger

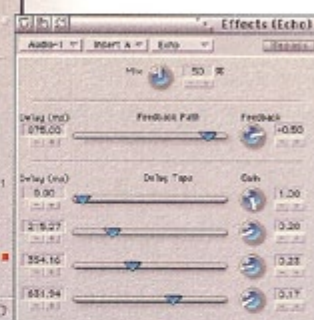
Phase Shifter

Auto Pan

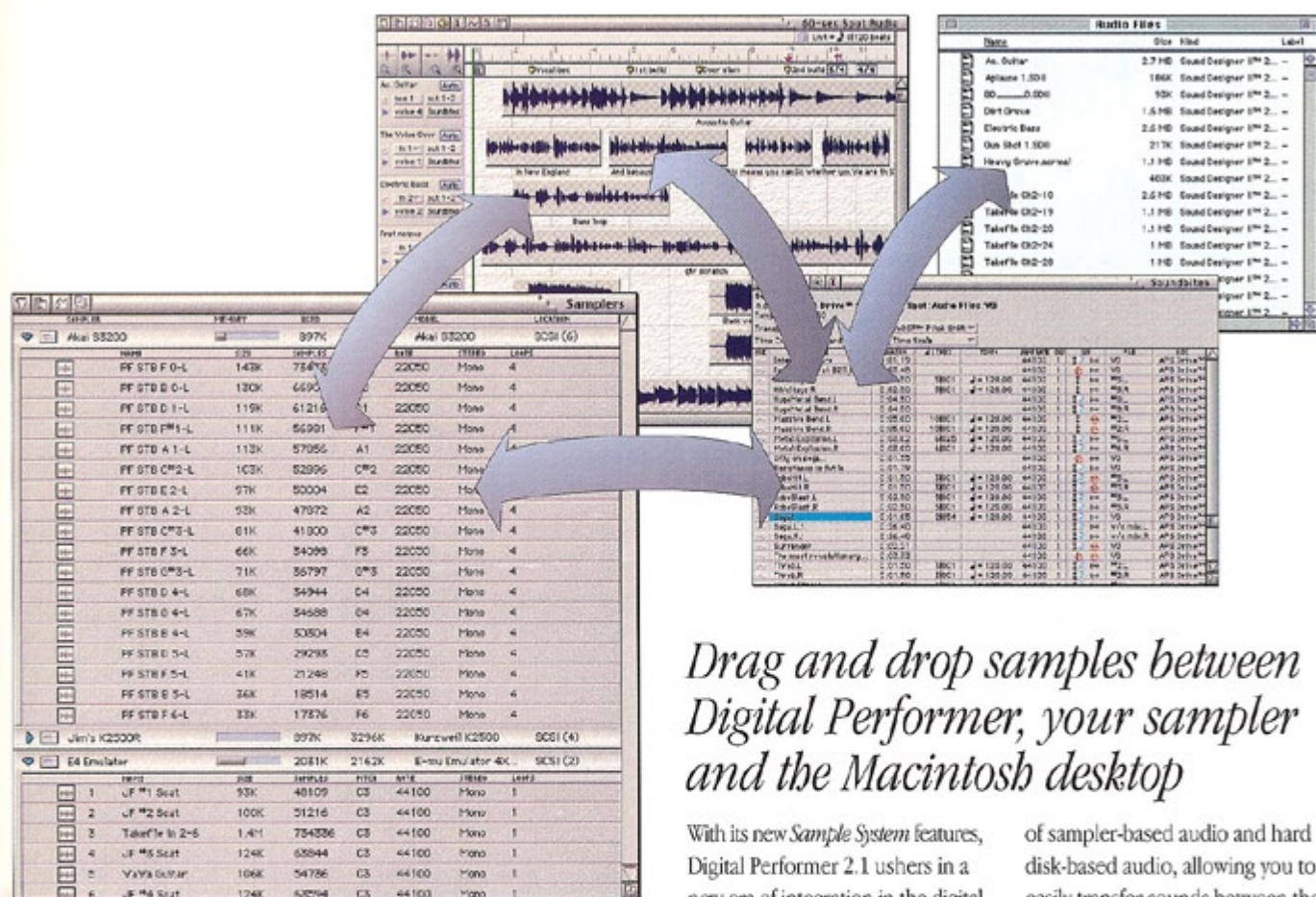
Tremolo

*Just look at all
these real-time
audio effects!*

When you're using the Macintosh's built-in audio capabilities, Digital Performer 2.1 provides real-time effects plug-ins, including reverb, dynamics processors and EQ. These effects can be applied to audio tracks via the five effects inserts for each audio track in the Mixing Board window. Convenient presets are provided for reverb, chorus and others. And you can even create, save and load your own custom presets. The number of effects you can apply at any one time depends only on the speed of your computer. There is no built-in limit in Digital Performer: the faster your Macintosh, the more effects you can use at one time. Digital Performer's flexible internal busing allows you to conserve precious CPU bandwidth by busing multiple tracks to the same effect. The best part is: you don't need extra hardware to use these effects! Digital Performer does it all right inside your Power Macintosh, right at your fingertips.



SAMPLE SYSTEM



Drag and drop samples between Digital Performer, your sampler and the Macintosh desktop

With its new *Sample System* features, Digital Performer 2.1 ushers in a new era of integration in the digital audio studio. Digital Performer's new Samplers window lets you connect a sampler to your Macintosh as a SCSI device and then use drag and drop techniques to transfer audio from the sampler onto your Mac hard disk and vice versa (from the Mac into the sampler). You can also drag and drop audio between the sampler and any window in Digital Performer that holds audio, such as the Audio Graphic Editor, the Soundbites window, audio track event lists, etc. Wherever necessary, Digital Performer automatically converts samples into Sound Designer II files and vice versa. Once again, Digital Performer leads the way by bringing together the worlds

of sampler-based audio and hard disk-based audio, allowing you to easily transfer sounds between the two environments so that you can take advantage of the inherent strengths offered by each one. Digital Performer 2.1 supports the following industry-leading samplers:

AKAI®
S3200, S3200XL, CD3000XL
S3000, S2800, S2000

E-mu Systems, Inc.®
E4, E4x, E4x turbo
E6400, E64, ESI-32

KURZWEIL®
K2000, K2500

Roland®
S-760



Digital Performer 2.1 provides you with unparalleled integration between your Macintosh hard disk recording capabilities and today's hottest samplers, like the E4 series from E-mu Systems, Inc.

EVEN MORE POWER

Digital Performer 2.1 new features-----

Plug yourself in to a whole new world

Adobe Premiere plug-ins are third-party audio processing modules that support the Adobe Premiere plug-in format. Digital Performer 2.1 now supports Premiere plug-ins, allowing you to use them on your audio directly within Digital Performer. And while other programs make you stare at a progress bar until plug-in processing is completed, Digital Performer processes Premiere plug-ins in the background, just like its PureDSP™ pitch-shifting, time-scaling, spectral effects and sample rate conversion features.



Open your creativity to the exciting new world of audio plug-ins — all within the familiar environment of Digital Performer.



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Cambridge, MA 02138, USA
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Fax: (617) 576-3609
Email: info@motu.com
Web site: www.motu.com

Ramp automation

Digital Performer 2.1 gives you ramp-style automation of volume and pan data in audio tracks. Ramps give you smoother, more efficient automation. And when you open old files, Digital Performer converts old data into new improved ramp automation, while at the same time preserving the original performance.

Audio region layering

Imagine being able to record into a track as many times as you want and then have complete, intuitive graphic control over all of the separate takes to build the perfect performance. Digital Performer's new audio layering features do just that. What you see in the Audio Graphic Editor is always

exactly what you will hear. What could be easier? And Digital Performer's new soundbite layering commands give you all the control you



need to manage even the most complex multilayered tracks.

Drag and drop Import/Export

Importing and exporting audio files has never been easier. Now you can import and export audio regions — or entire audio files — by dragging and dropping them between the Finder and Digital Performer.

Virtually unlimited audio tracks

Version 2.1's new Bounce to Disk feature gives you an unlimited number of audio tracks by letting you non-destructively combine them into a single track or stereo track pair. Need to hear 100 audio tracks at one time? No problem. Bounce them down in real time on Pro Tools/TDM systems or faster than real time on non-TDM or native Power Mac systems.

Original tracks are always preserved, so you can go back and tweak them if needed.

Unlimited tracks, lots of flexibility, and speed. Sounds good, doesn't it?



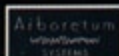
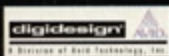
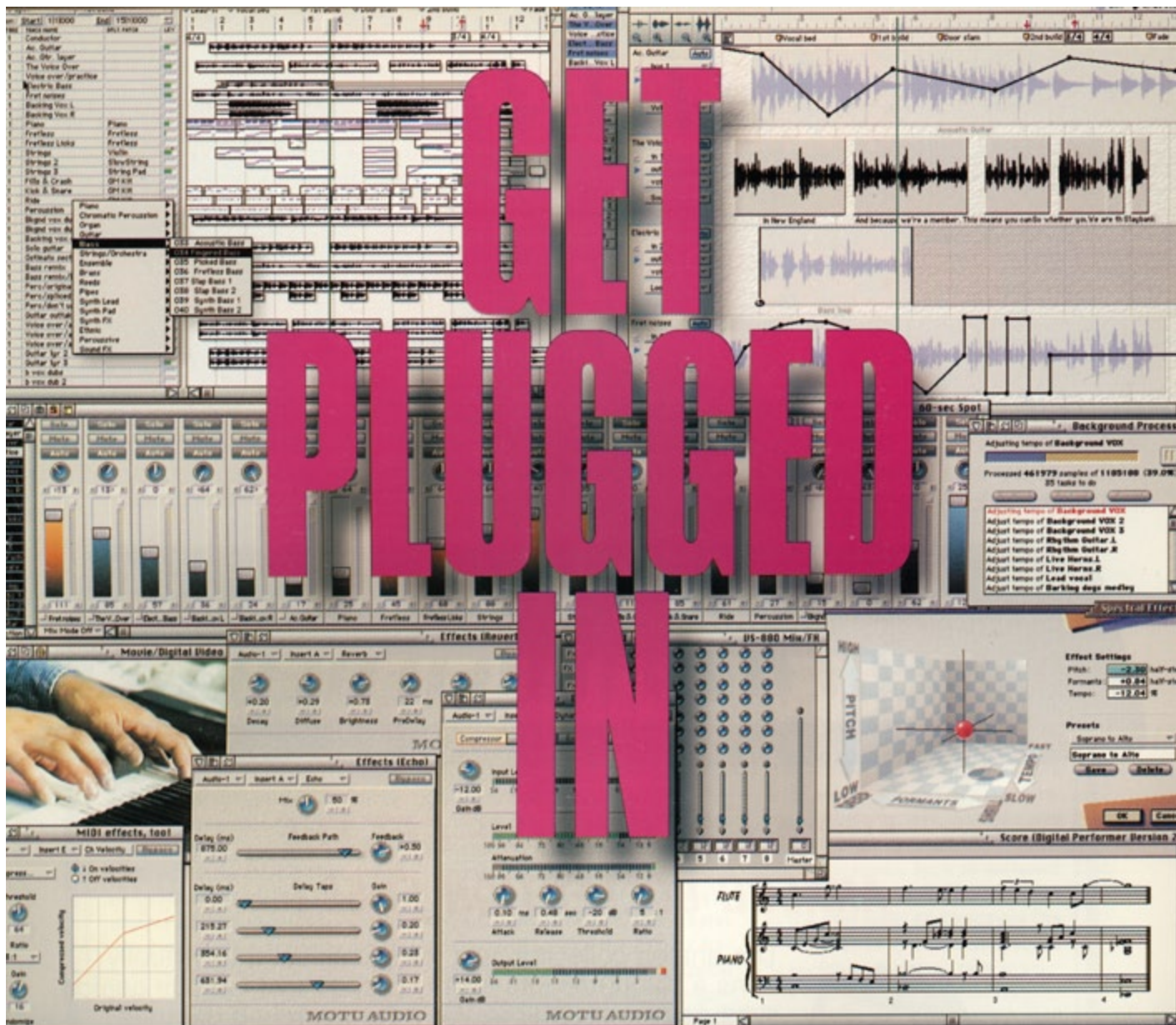
Digital Performer 2.1 gives you ramp-style volume and pan automation for smoother, more efficient performance.

- ✓ **Support for Sound Manager**
No extra hardware required!
- ✓ **Real time audio effects plug-ins**
A virtual FX rack at your fingertips!
- ✓ **Sample System**
Drag and drop audio between your Mac and samplers!
- ✓ **Adobe Premiere plug-ins with background processing**
Gives you access to the exploding world of audio DSP plug-ins!
- ✓ **Bounce to Disk feature**
Virtually unlimited audio tracks!
- ✓ **Ramp automation**
Provides smoother, more efficient performance!
- ✓ **Audio region layering**
Powerful and intuitive graphic editing!
- ✓ **Drag and drop audio Import/Export**
Handling audio has never been easier!
- ✓ **Much, much more**
You'll be more creative and more productive than ever!

VERSION 2.1 SYSTEM REQUIREMENTS

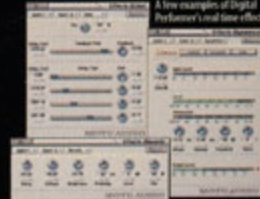
Any Power Macintosh computer (As fast as you can get!)
System 7.5 or higher
20 MB RAM
A fast hard drive. (The faster the better!)
If you are also playing digital video, get separate hard drives for video and audio.

GET PLUGGED IN



Want to use today's hottest digital audio effects plug-ins? Digital Performer 2.1 puts them at your fingertips — from Waves, DUI, Digidesign, Arboretum, Bias, Antares, INA/GRM, TC Works, Dolby Labs, Focusrite, QSound, Wave Mechanics and others. If you work with ProTools III/TDM™, Digital Performer gives you full access to your TDM system. Or you can use any plug-in that supports the Adobe Premiere® format — with no extra hardware. And while other programs make you stare at progress bars,

Digital Performer lets you continue to record, play, edit & mix your project while Premiere plug-ins process in the background. If you're hungry for real-time effects, you don't need extra hardware. All you need is a Power Macintosh. Digital Performer includes a full suite of real-time effects, including 40 bands of parametric EQ per track, dynamics (compressor, expander, limiter, gate), reverb, chorus, flange, echo & more. Our 32-bit floating point processing sounds just as smooth as some of the most expensive effects gear on the planet. And plug-ins from other companies like DUI already support real time processing in Digital Performer with no extra hardware. So get Digital Performer. And get plugged in.



KORG
1212/I/O

digidesign
AUDIO/MIDI/III

Digital Performer supports these affordable high fidelity digital and analog I/O PCI cards with real time effects and as many audio tracks as your Power Mac can handle (up to 40 or more tracks on today's fastest models).

Digital Performer 2.1

Macintosh midi sequencing & digital audio recording/editing/mixing/effects with music notation printing

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circle #568 on reader service card



1997.9 DP2.11

eVerb Up to 40 tracks on a PPC

Support for KORG 1212 I/O PCI audio card (12 simultaneous channels of I/O)

AudioMedia II or III (Up to 24 simultaneous tracks mixed to the AudioMedia's four outputs.)

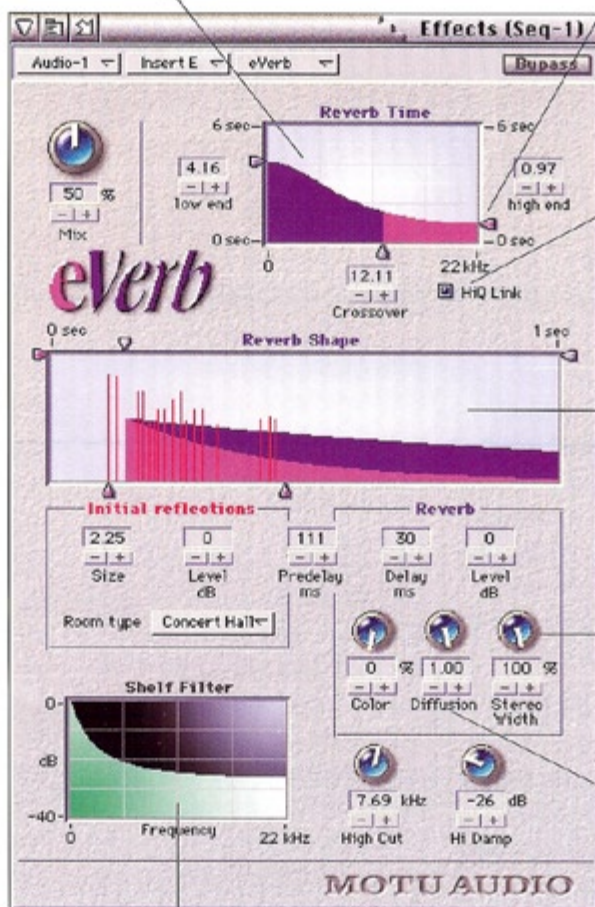
eVerb™

Now included with Digital Performer 2.11!

- ✓ **Hi-fidelity reverb plug-in for Digital Performer**
You get high-end reverb at no extra cost!
- ✓ **Real time operation**
Tweak settings in real time, during playback—or bounce to disk
- ✓ **32-bit, floating point processing**
Ultra high resolution and extremely wide dynamic range
- ✓ **Interactive, graphic controls**
Forget about squinting at tiny LCDs—visualize settings as you drag handles
- ✓ **Great presets (or roll your own!)**
eVerb ships with dozens of useful presets
- ✓ **Acoustic modeling**
Use initial reflections from auditoriums, small rooms, halls and other spaces to shape your sound
- ✓ **Separate hi-end and low-end reverberators**
Fine-tune your reverb sound for any type of audio material—because settings for the low end might not sound right for the highs

This graph shows the amount of reverb time for high and low frequencies between zero and six seconds. You can also graphically adjust the crossover point between high and low frequencies.

Make settings quickly by dragging these handles. This handle controls reverb time of high frequencies. Or type in precise amounts in the text boxes provided.



The Hi-Q option links high-frequency reverb time to the shelf filtering below for exceptionally smooth reverb tails.

This graph shows the shape of the reverb decay for both high and low frequencies. The red lines represent initial reflections (room characteristics). Drag the handles to adjust the reflection levels, reverb levels, delay time and predelay.

eVerb lets you widen the stereo image of your reverb.

Add as much diffusion as you like for silky smoothness, or turn it way down to bring out the bite.

Bright reverbs can be great—but sometimes you need a darker, smoother sounding verb. Use the High Cut and Hi Damp controls to get it sounding just the way you want.



Mark of the Unicorn

Hear eVerb for yourself at Mark of the Unicorn booth 866.



Mark of the Unicorn, Inc.

1280 Massachusetts Avenue
Cambridge, MA 02138

Voice (617) 576-2760
FAX (617) 576-3609

Dear Performer User:

I just returned from the AES show in New York where we debuted Digital Performer 2.11 to applauding crowds of show attendees.

What was all the buzz about? Well, for starters, Digital Performer now ships with eVerb, our new fantastic-sounding real-time reverb plug-in, along with DP's other real-time effects, including parametric EQ (40 bands!), chorus, echo, dynamics & more. The enclosed flyer shows why eVerb is one of the most advanced software reverb plug-ins available.

And you can use these real-time effects on as many simultaneous audio tracks as your Power Mac can handle - up to 40 or more tracks on today's fastest models! If you're on a budget, play and record it all via Sound Manager with no extra audio hardware.

For affordable, professional quality I/O, Digital Performer now supports the KORG 1212 I/O PCI audio card, which gives you 12 simultaneous channels of input and output: 8 channels of ADAT fiber-optic digital I/O, stereo S/PDIF digital I/O, and stereo analog I/O.

Thinking about Digidesign Audiomedia II or III? Digital Performer gives you real-time effects plug-ins and more simultaneous channels of audio than ever before, depending on the speed of your Power Mac. On a medium-fast Power Mac (604e/225), you can play 24 simultaneous tracks mixed to Audiomedia's four outputs - with real time effects!

All of this can be yours at our special upgrade price for Performer users. Use the enclosed order form today. And thanks for using Performer!

Sincerely,

Jim Cooper
Director of Marketing

New in Digital Performer® 2.11

The best of both worlds!

Affordable, high-fidelity digital and analog I/O
together with real time DSP effects plug-ins
and as many audio tracks as your Power Mac can handle
(up to 40 or more tracks on today's fastest models)!

KORG®
1212 I/O

digidesign®
AUDIOMEDIA III

The MOTU Audio System

The MOTU Audio System is a Macintosh system extension that ships with Digital Performer. It is the "audio engine" that provides digital audio recording and playback in Digital Performer via Sound Manager. The MOTU Audio System requires no extra hardware installed in the computer, although it also supports several audio cards.

Real-time effects plug-ins

The MOTU Audio System supplies real-time effects plug-ins, which you can use to process audio tracks during playback with effects like parametric EQ, reverb, chorusing, flanging, dynamics processing (compression, expansion, limiting and gating), echo, phase

shifter, AutoPan, Tremolo and more. The MOTU Audio System is an open system, supporting real time plug-ins from other companies as well. All plug-ins are processed with extremely high fidelity 32-bit, floating point calculations.

Lots of tracks

In general, the overall performance of the MOTU Audio System (the number of audio tracks you can play simultaneously, along with the maximum amount of effects processing you can employ in real time) depends on the overall speed and performance of your computer. On a medium fast Power Mac (like a 604e/200), you can typically play 24 to 32 channels of audio. On today's fastest Power Macs (300-350 MHz)

with a SCSI accelerated hard drive, you can play 40 tracks or more.

Pro-quality I/O

The MOTU Audio System supports the Digidesign Audiomeia™ III and KORG 1212 I/O™ cards, which provide better input/output quality than the Macintosh itself. Other cards may also be supported in the future. When you use the MOTU Audio System with one of these cards, you get the best of both worlds: the MOTU Audio System, which provides real time effects and the highest possible number of audio tracks your Mac allows, along with the high-fidelity analog and digital inputs and outputs supplied by the audio card.

Digital Performer **2.11**



Macintosh midi sequencing & digital audio recording/editing/mixing/effects with music notation printing

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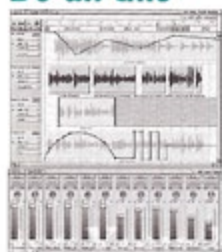
Digital Performer 2.11 Upgrade Form

To order by phone, call 617-576-2760
9am-6pm, Monday through Friday, EST

Upgrade Today To Get These Great New Features In Digital Performer 2.11!

- ✓ **Support for Sound Manager**
No extra hardware required!
- ✓ **Real time audio effects plug-ins**
A virtual FX rack at your fingertips!
- ✓ **eVerb — real-time reverb plug-in**
Expensive sounding verb—included
- ✓ **Lots of simultaneous audio tracks**
Up to 40 or more tracks on today's fastest Power Macs!
- ✓ **Affordable, pro-quality I/O**
Supports KORG 1212 I/O and Digidesign Audiomedia cards with real-time effects and lots of tracks

Do all this



(digital audio recording,
mixing and effects)

on this

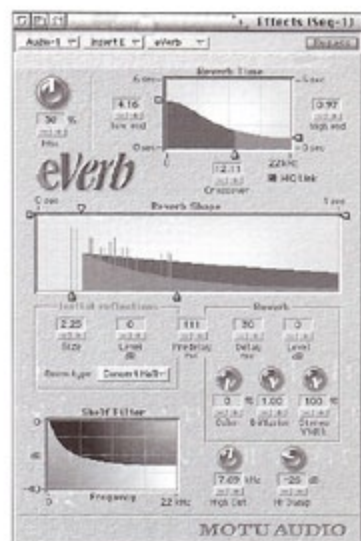


(any Power Macintosh)

without this!



(expensive
extra hardware)



To receive your Digital Performer 2.11 Upgrade, simply fill out this postage-paid card and mail it today. For even faster service, call us at 617-576-2760 Monday through Friday, 9:00am-6:00pm Eastern Time. Please have your MasterCard or Visa number ready. If you wish to use a personal check or money order (US bank funds only please), mail your check with this completed order card to the address on the other side of this form.

Please send me Digital Performer Version 2.11 for \$295 plus shipping.

Please check one

- ☐ Please send my upgrade on CD-ROM. (Includes two authorization 3.5-inch disks.)

My VISA or MasterCard number is:

[illegible]

Shipping:

USA
\$ 4.95

Canada
\$ 9.95

Other Countries
\$39.00

Please allow 3 to 6 weeks for delivery after the upgrade is released. Your credit card will not be charged until your order is shipped. These offers are subject to change without notice.

Expires _____ / _____ Signature _____

Performer Serial Number (found on your mailing label) _____

Name (as on your credit card) _____

Address _____

City _____

State _____ Zip Code _____

Country

Phone Number (if we have any questions about your order)

() _____ — _____

1997.12 Performer v6

Record 16-bit, 44.1k audio tracks directly into P6 using the PPC built-in sound capabilities	Window Sets
Apply automated mixing and real-time effects plug-ins to audio tracks	Powerful MIDI search engine
Store and recall Unisyn v1.5 performances (snapshots) directly in Performer files	
View Filter can now stay open as a window	Shift to a specific time and a specific amount.
Store bits of data- phrases, licks, loops into a Clippings window ("It's like having a clip-art window for MIDI and audio directly in Performer")	



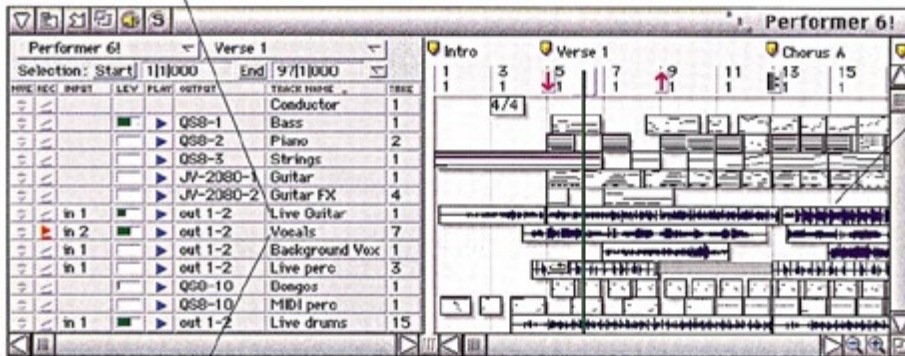
8 voices of CD-quality audio

Performer 6 lets you record and play up to eight simultaneous channels of 16-bit, 44.1 KHz digital audio through the built-in audio hardware of your Power Macintosh.

record it.

If you know Performer, you know digital audio

Add and record audio tracks the same way as MIDI tracks. You'll be recording and editing audio in no time.



Take advantage of the power of your Power Macintosh

Today's Power Macs are ready to record CD-quality audio. Just connect any audio source — such as a CD player or a microphone — into the audio input and you're ready to go.

Record anything directly into Performer

Imagine being able to record anything, from vocals to guitar, directly into your Mac, perfectly synchronized with your MIDI tracks. Make your MIDI instruments go farther by recording them as audio and then playing the original material with new parts from the same synth. You can use this technique to double existing material or record entirely new parts. The possibilities are endless.

edit it.

Graphic editing of mix automation

Automate your mix directly in Performer and edit it graphically.

Editing is instantaneous and non-destructive

Edit your audio — cut, copy, paste, snip, splice, shift, split, trim — to perfect your mix. Record multiple takes and build composite tracks that consist of the best parts of each take. With non-destructive editing, your original recordings are always preserved.

Use Performer's familiar, powerful editing features

Want to loop some audio? Insert a loop, just like you would in a MIDI track. Use the track's familiar event list or draw the loop graphically as shown here. Audio editing in Performer is so similar to MIDI editing, you'll be using all of Performer's powerful editing features on your audio tracks in no time.



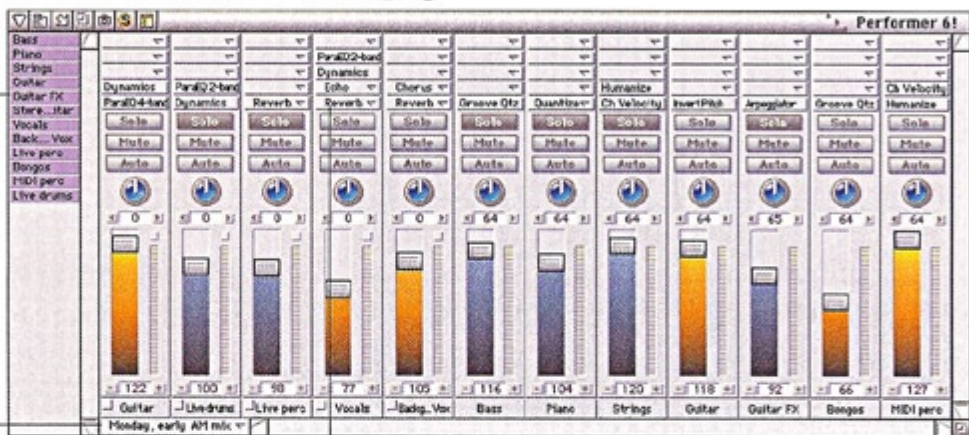
mix it.

Create automated mixdowns for MIDI and audio tracks —

Mix audio and MIDI tracks together seamlessly in Performer's Mixing Board. Show and hide any combination of tracks. Even combine MIDI and audio faders together in fader groups.

Multiple mixdowns

Use Performer's powerful multiple mixdowns feature to experiment freely with your mixes. —————



Apply non-destructive, real time effects to both MIDI and audio tracks

Use insert menus to apply real time, non-destructive effects processing, such as reverb and parametric EQ, to your audio tracks. It's like having an entire effects rack right at your fingertips in Performer. Apply up to 5 effects per track. Audio effects work just like MIDI effects, so you'll be mixing with them in no time.

effect it.

A virtual effects rack at your fingertips

Performer's audio effects processing happens in real time. This means that your original audio is always preserved, and you can turn off the effect in an instant with the Bypass button. No file-based processing here. No sitting around waiting for progress bars. You hear results instantly; you can even tweak settings in real time as you listen to your mix. Performer's real-time effects include reverb, parametric EQ, dynamics processing, echo, flange, chorus, tremolo and AutoPan. Apply them the same way as Performer's MIDI effects (arpeggiator, echo, groove quantize, humanize and others).



audio.

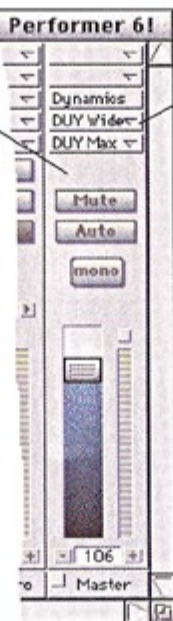
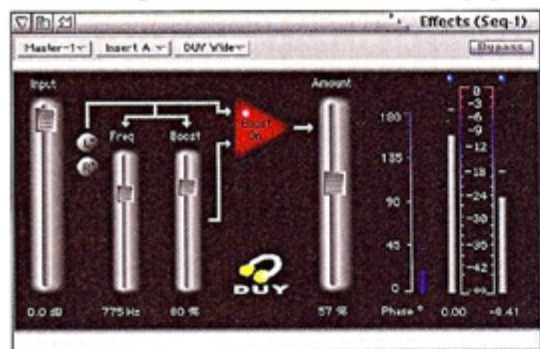
master it.

Master your mix

Create a master fader to control a stereo mix of all your audio tracks as a final mixing stage.

World-class audio effects — at a price you can afford

DUY S.A. is one of the hottest plug-in developers around. And their Performer-compatible real-time plug-ins can boost the quality of your mixes to new heights. Shown here is their stereo enhancer plug-in.

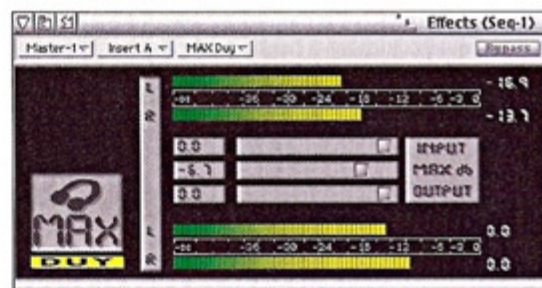


Apply final processing

Use Performer's effects to apply final processing, such as compression, on the final stereo mix of your audio tracks. Or use Performer-compatible real-time plug-ins from other companies, like the ones shown here from DUY S.A.

Level maximization and stereo/spatial enhancement

Two of four plug-ins are shown here: DUY Wide is a stereo spatial enhancer that can widen the stereo separation of your mix in ways from the subtle to the dramatic. MAX DUY is an intelligent level optimizer that gives your mixes maximum punch without the drawbacks of conventional maximizers.



(These two plug-ins are sold separately.)

- ✓ Up to 8 tracks of audio
Record anything (vocals, acoustic instruments, etc.) directly into Performer!
- ✓ 44.1 KHz, 16-bit quality
Record CD-quality audio for your projects.
- ✓ Use your Mac's built-in audio recording features
No need to purchase expensive audio cards.
- ✓ Seamless integration between audio and MIDI
No learning curve: if you know Performer, you know audio!
- ✓ Graphic editing of audio
Make precise, intuitive edits to your music in seconds.
- ✓ Sync audio and MIDI to QuickTime movies
Write scores entirely in your Mac; cue instantly to any location; cycle-record to picture.
- ✓ Non-destructive editing
Your original audio is always preserved; audio edits happen instantly.
- ✓ Workstation caliber editing
Use audio editing features normally found in hi-end audio workstations (DAW).
- ✓ Mix audio & MIDI together
Create elaborate automated mixdowns of all your tracks in one convenient window.
- ✓ Real-time audio plug-ins
Apply reverb, parametric EQ, compression, expansion, limiting, gating, echo, flange, chorus, tremolo and autopan; make changes on the fly in real time.
- ✓ Use world-class plug-ins from other companies
Create the ultimate mix with today's hottest plug-ins.
- ✓ Audio scrubbing
Edit with your ears as well as your eyes.
- ✓ Unlimited number of virtual audio tracks
Create as many audio tracks as you need (play up to eight voices at a time).
- ✓ Automated punch-in
Use Performer's familiar AutoRecord features to overdub as many times as you need.
- ✓ Unlimited audio takes
Audio tracks have unlimited takes, just like MIDI tracks.
- ✓ Graphic edge trimming
Adjust the start/end points of audio regions to eliminate unwanted audio.
- ✓ Link to Digidesign Sound Designer II and Bias Peak waveform editing software
You get instant access to waveform editing software right from Performer.
- ✓ Audio region editing with nudge keys
Quickly tweak the timing of audio regions.
- ✓ Real-time editing of audio
Cut, copy, paste, shift, repeat and otherwise edit audio while your music plays.
- ✓ Drag and drop audio region placement in event list and graphic editor
Instantly place audio events into your sequence; build audio region playlists in seconds.
- ✓ Complete audio file management, including compact command
Eliminate all unused audio in two easy steps.

and that's not all...

:Performer 6



find it.

All Time
Metric Grid
Value
Selection Range
From Counter to Chunk End
From Chunk Start to Counter

Choose exactly where you want to search.

Choose exactly what you want to search for.

Event Type
Key Change
Meter Change
Tempo Change
Pitch Bend
System Exclusive
Song Select
MIDI Pressure
Poly Pressure
Controller
Patch Change
Mode Change
Loop
Sound Bite
Audio Volume
Audio Pan
Marker

Search

Time
Metric Grid

Grid Spacing
[Musical notation: quarter note, eighth note, sixteenth note, dotted quarter note, eighth rest, sixteenth rest]

☐ Tuplet: 3 in time of 2

Number of grid points: 16
Total grid time: 4000

☐ Restart grid at measure boundaries
☐ Pairs of checked points form ranges
Include: ☐ start point ☐ end point

☐ Base settings on current selection

Event Attribute
Events must match all settings

Notes: Duration is 0120 Plus or minus 0040
Notes: On Velocity is greater than 80

☐ Base settings on current selection

Action: Display in search results window
☐ Search in all sequences

Search

This grid lets you find MIDI data based on its metric position within the measure, regardless of meter — an extremely powerful feature. In this example, every 16th-note offbeat is being selected. But you can be even more specific, such as selecting the 1st, 4th, and 7th triplet 8th-notes in each measure.

The most powerful search engine ever seen in a sequencer

In Performer 6, you can search for anything, anywhere, based on any set of criteria you wish. For example, let's say you have a percussion track with lots of syncopation. But some of the 16th-note offbeats are just too loud. You don't want to velocity-compress the whole track because the rest of the percussion in it sounds fine. Here's where Performer's new Search feature comes to your rescue: just set it up to find all notes played on a 16th-note offbeat with a duration of a 16th note (plus or minus 40 ticks) and a velocity greater than 80 — as shown in the example to the left. Then just click the Search button. Before you can say *Wow!*, all such notes instantly appear in the Search Results window. Now you can do whatever you want to them: select them, change them, delete them, scale their velocities — you name it!

You can even search on specific characteristics of each type of data. Below are just a few examples of how detailed you can get.

Create new selection
Select subset of current selection
Add to current selection
Display in search results window

Make selections that are more intricate than you've ever imagined. Or just browse the Search Results window.

Do whatever you want with what you find

Browse, select, edit, print or even export the results of your search as a text file.

Events must match all settings
Events may match any settings

Be specific or general in your searches.

Choose Pitches
Pitch Value
On Velocity
Off Velocity
Duration

Notes: Choose Pitches: Clear Keyboard

[Musical keyboard diagram showing notes C2, C3, C4]

System Exclusive: Hex: Contains: 00 0F 03 02

Meter Change: Value: Is not: 4/4

Sound Bite: Name: Contains: perc hit.4

Duration
Tempo
Sample Rate
Number of Channels
File Name
Choose
Disk
Transpose Preference
Time Scale Preference

Is not
Is less than
Is less than or equal
Is greater than
Is greater than or equal
Is in range
Is (with slip)

Edit

Undo
Cut
Copy
Paste
Erase
Repeat...
Merge
Split
Splice
Shift...

Show Clipboard

Search

Select All
Deselect All
Smart Selections
Cursor Selection Mode

Create and save as many search settings as you want for instant recall. Assign them to hot keys on your Mac keyboard for single-keystroke ease.

Perform New Search...

Search Again
Next Search Result
Prev Search Result
Edit Saved Search Settings...

Name Search Settings

Enter a name for this Search Setting:
16th offbeat accents

OK **Cancel**

Use these buttons to browse through the results of your search.

Use these buttons to select and edit what you've found, or use the Go button to view and edit the data directly in its track event list.

Search Results

Performer 61: Bass: 14[4]360	AE1	1113 1112 0083	14[4]443
Performer 61: Bass: 22[2]360	AE1	1102 1114 0092	22[2]452
Performer 61: Bass: 28[2]360	AE1	1105 1104 0115	28[2]501
Performer 61: Bass: 40[2]360	AE1	1109 1106 0101	40[2]470
Performer 61: Bass: 48[2]348	AE2	1105 1172 0121	48[2]469
Performer 61: Bass: 48[3]345	AE1	189 1104 0081	48[3]426
Performer 61: Bongos: 14[3]360	AE3	1104 0080	14[3]440
Performer 61: Bongos: 16[1]360	AE3	1112 0088	16[1]448
Performer 61: Bongos: 29[3]360	AE3	1104 0080	29[3]440
Performer 61: Bongos: 31[1]360	AE3	1112 0088	31[1]448
Performer 61: MIDI perc: 14[1]20	AE1	193 191 0135	14[1]255
Performer 61: MIDI perc: 14[1]20	AE1	1111 1109 0086	14[1]206
Performer 61: MIDI perc: 23[3]360	AE0	1107 182 0150	23[3]030
Performer 61: MIDI perc: 48[3]360	AE1	1113 1107 0141	48[3]021
Performer 61: MIDI perc: 63[3]360	AE1	1113 1111 0134	63[3]014
Performer 61: MIDI perc: 8[3]360	AE1	1109 1110 0134	8[3]014

Go **Select**

Search quickly with 'Find Similar' features

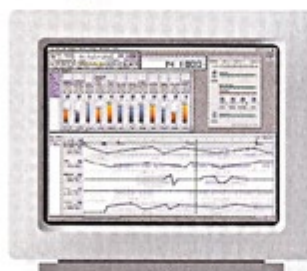
With the 'Base settings on current selections' option, you can simply select some data similar to what you want to search for and then just click the search button. Search effortlessly for musical phrases, clusters of controller data, specific events — you name it — in two easy steps: select the data and click Search.

does

display it.



recording



mixing

Window sets: save and recall your favorite window layouts instantly
 Performer's new Window Sets feature lets you save your favorite window arrangements and recall them instantly with a keystroke — or from the Windows menu. It's almost like duplicating your Macintosh screen as many times as you want. Save as many window sets as you like — there's no limit in Performer. Customize your favorite window layout for recording, mixing, MIDI editing, audio editing, performing live — the possibilities are endless. Include any combination



of windows you want in a set — from one window to dozens. Assign window sets to your favorite keystrokes for instant recall. Getting around in Performer has never been faster and easier!



audio editing



MIDI editing



event list editing



notation editing & printing



Store Unisyn performances

Performer 6 builds on its tight integration with Unisyn, Mark of the Unicorn's universal editor/librarian software by letting you store a Unisyn performance — which consists of a 'snapshot' of the settings in all your MIDI gear — directly in your Performer file.

No more searching through your Unisyn files when you want to recall a Performer session. Just load the Unisyn performance you saved in the Performer file, and then you're ready to hit Performer's play button.

stash it.

The Clippings window

Have you always wished for a way to store little bits of data — phrases, licks, loops — of both MIDI and/or audio data? You know, kind of like musical clip-art. Well, in Performer 6, your wish has come true: introducing the Clippings window. This window stores anything you want, from a single note to an entire sequence. Just drag and drop anything you want into it. To get it back later, just drag it back into the appropriate window in Performer. It's that simple. But best of all, the Clippings window is not restricted to MIDI or audio data. You can store references to any file or folder on your hard drive, such as a word processing document with lyrics in it. You can store stuff in the Clippings window that is specific to a certain Performer file, or stuff that is always available, no matter what file you have open. Once you try the Clippings window, you'll wonder how you ever got along without it.



order it!

and that's not all...

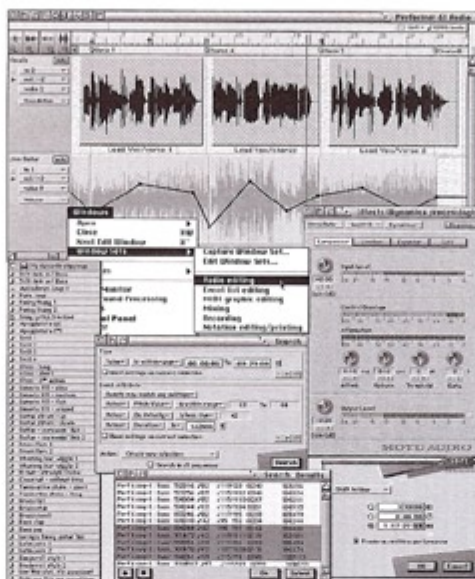


Performer 6 Upgrade Form

To order by phone, call 617-576-2760
9am-6pm, Monday through Friday, EST

Upgrade to Performer 6 by January 15th and get all this for only \$99!

- ✓ **8 tracks of CD-quality digital audio**
Record anything (vocals, acoustic instruments, etc.) directly in Performer.
- ✓ **Use your Mac's built-in audio features**
No need to buy expensive audio cards.
- ✓ **Seamless integration with MIDI**
If you know Performer, you know audio.
- ✓ **Powerful, workstation-style editing**
Make precision edits quickly and intuitively using graphic audio waveforms.
- ✓ **Real-time audio effects plug-ins**
Apply reverb, parametric EQ, dynamics, echo, chorus, flange, auto pan & tremelo.
- ✓ **Third party audio plug-ins**
Use world-class real time effects from today's leading plug-in developers on your audio.



- ✓ **Powerful search engine**
Search for anything, anywhere, based on any set of criteria you wish. Browse, select, edit, print or export search results.
- ✓ **Window sets**
Save and recall window layouts instantly.
- ✓ **Clippings window**
Stash bits of audio and MIDI data — phrases, licks, loops — at your fingertips.
- ✓ **Store Unisyn Performances in Performer**
Store the settings of all your MIDI gear and recall them in one step.
- ✓ **Capture real-time MIDI effects**
Make arpeggiator, echo and other effects permanent for editing or exporting.
- ✓ **Dozens of other enhancements**

Get Unisyn 1.5 for only \$49 when you order it with your Performer 6 upgrade.

That's 50% off Unisyn's regular upgrade price!

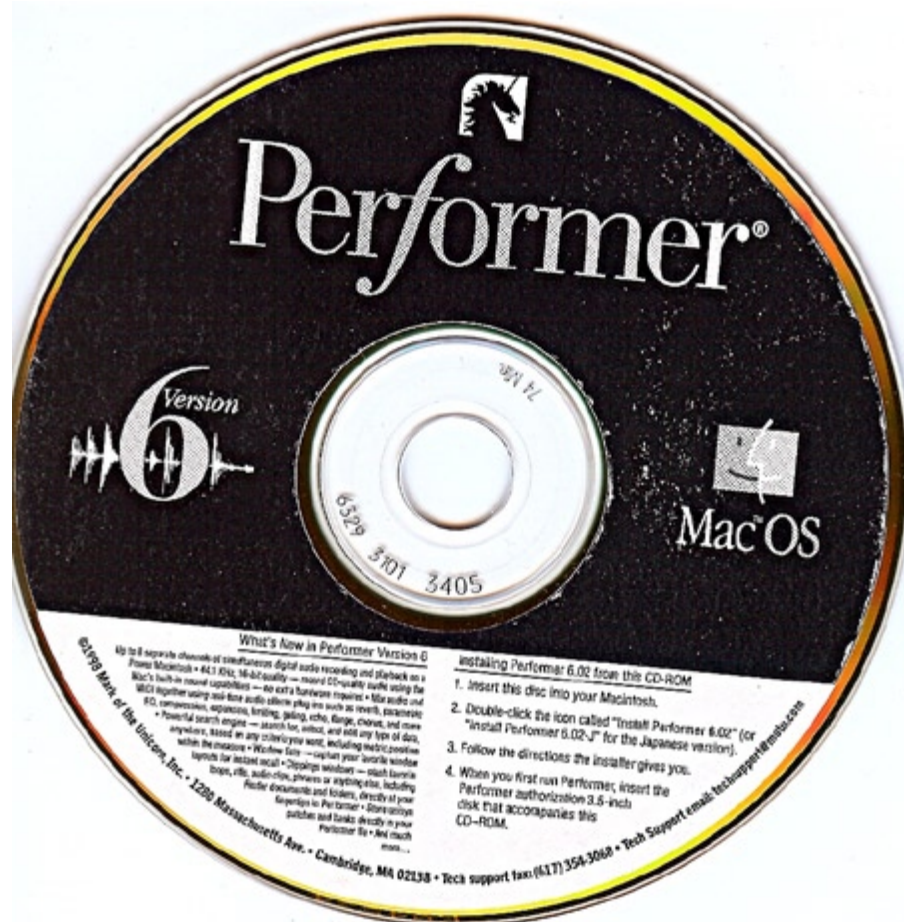
- ✓ **Improved Performer integration**
Store Unisyn Performance "Snapshots" of your entire MIDI rig directly in your Performer files.
- ✓ **Improved FreeMIDI support**
Unisyn provides multiple banks of patch lists to FreeMIDI, including all necessary bank select information.
- ✓ **Improved Searching capabilities**
Search faster, easier, and more accurately. Find the exact sounds you want. Search on data type, keywords, name, date & comment.
- ✓ **Expanded searching**
Search all unopened libraries — on all local disks or even over a network.
- ✓ **Search Results window**
View search results in one convenient window with extensive details and powerful sorting.
- ✓ **Automatic keyword assignment**
Forget about tediously assigning keywords to every patch; just drag and drop entire banks into your libraries and let Unisyn do it for you in an instant.

Instructions for ordering your upgrade

To receive your Performer 6 Upgrade, fill out this postage-paid card and mail it today. For even faster service, call us at (617) 576-2760 Monday through Friday, 9:00am - 6:00pm Eastern Time. Please have your MasterCard or Visa number ready. If you wish to use a personal check or money order (US bank funds only please), mail your check with this completed order card to the address on the other side of this form. These offers are subject to change without notice.

30-day Money-back Guarantee

With this Performer 6 upgrade offer, Mark of the Unicorn is offering a 30-day money-back guarantee. If you're not satisfied with your purchase, we'll refund the entire payment when you return the product and proof of purchase.

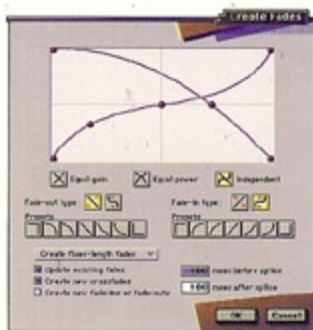


1997.12 DP2.3 (More features than P6)

PreAmp-1 (Tube preamp simulator)	Fades & Crossfades	Sample Rate conversion
Stereo Tracks (Record, edit, mix, automate, crossfade)	Virtual bussing, aux tracks, master faders	
Display it. (Window sets)	Stash it. (Clippings)	View Filter stays open as a window, can now save settings
Adobe Premier Plug-in support	New Shift to time option	New Print real-time MIDI effects command
Event List displays end times	Can now duplicate tracks and all of its takes	Frame click metronome



crossfade it.



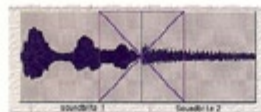
Unlimited fades and crossfades

Crossfades allow you to apply smooth transitions to the boundaries of soundbites — either their start and end points, or where they touch another soundbite. Fades and crossfades are the most effective way to eliminate clicks, pops, and other undesirable artifacts, and they can also be used for special effects.

Apply dozens — or even hundreds — of fades and crossfades in one easy operation.



Use Equal Gain crossfades to avoid the clipping that can occur with Equal Power crossfades.

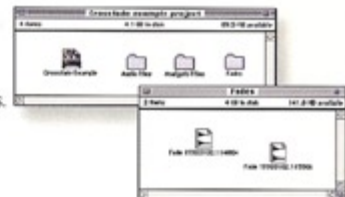


Apply fades and crossfades in Digital Performer's new stereo tracks. It's just as easy as with mono tracks!

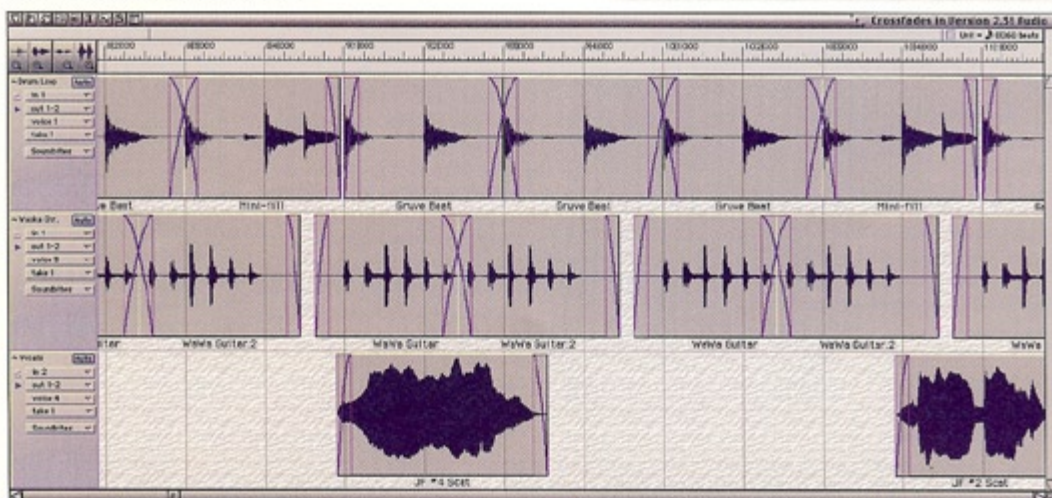
Use Equal Power crossfades to avoid dips in volume that can occur with Equal Gain crossfades.



Create custom crossfade curves as elaborate as you need to tackle even the most challenging crossfade situations.



Crossfades are constructive — they consist of new audio files, calculated and generated by Digital Performer with extensive background processing and file management features. You never have to worry about house-keeping your fade files. Digital Performer does it all for you — without annoying progress bars.



does

warm it up...



PreAmp-1 gives you several gain stages, and the EQs also add (or diminish) frequency-specific gain. Up to 60db of gain is available before the signal even gets to the coloration section. You can then bring the signal back in range with the output control.

Introducing PreAmp-1: the ultimate tube pre-amp effects plug-in

From subtle tube warmth to acid guitar distortion, PreAmp-1 will knock your socks off with its stunning range of effects. PreAmp-1 is the latest in our new line of real-time, 32-bit MOTU Audio System effects plug-ins. You'll be amazed at the sounds you can get out of this plug-in. Fair warning: be ready to spend some time with this plug-in. If you're like us, you'll find yourself playing with it for hours!

PreAmp-1 acoustically models vacuum tube preamp circuitry, but it's much more than just a tube pre-amp simulator. We designed it to be a sound enhancement tool with a wide range of abilities that go well beyond what you have come to expect in conventional hardware pre-amps. PreAmp-1 is appropriate for any sound, from clean vocals and acoustic instruments, to heavy-overdrive guitars and special effects.

The heart of PreAmp-1 is the coloration section, which applies physical modeling of harmonic distortion to your audio. The coloration section is further enhanced with gain, pre- and post-EQ, and pre-compression sections. The design concept for PreAmp-1 is the idea that a high-end tube mic preamp and an overdriven guitar amplifier use the same technology to do very different things. On a mic preamp, the tube is used to "color" the sound, as opposed to adding noticeable distortion. On a guitar amp, gain is used to overdrive various stages of the preamp to produce obvious distortion. The PreAmp-1 is designed to cover these extremes, and all variations in between. In addition to emulating vacuum tubes, PreAmp-1 is capable of doing things a vacuum tube cannot do, further enhancing the range and ability of the plug-in.



Many presets are included. Shown here are two of the heavy distortion presets, with the animated "starburst" graphic giving you instant visual feedback. Build your own library of custom settings and store them at your fingertips in the PreAmp-1 plug-in mini-menu.



...or distort it.



and do it all in stereo.

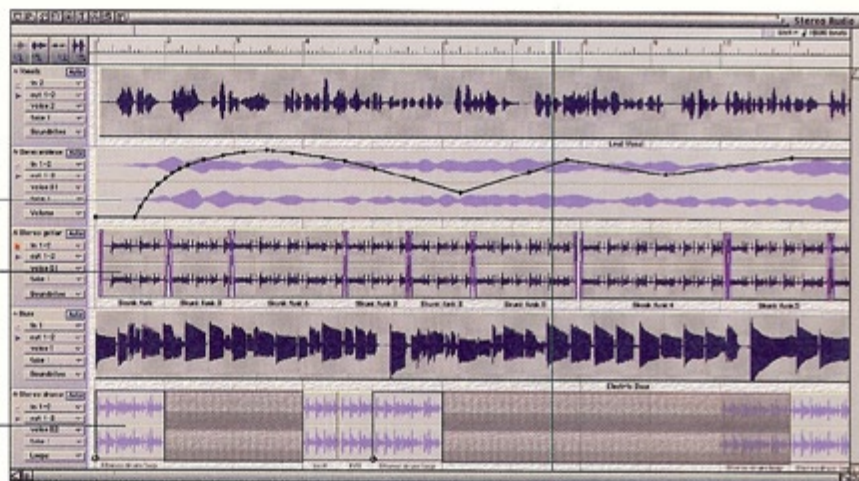
Stereo tracks

Digital Performer now has stereo tracks, which work just like mono tracks except that they have a stereo voice assignment ("Voice S2" instead of "Voice 2"), and they hold stereo pairs of soundbites. Stereo soundbites remain sample-locked, regardless of how you edit them.

Mix in stereo
in one convenient track.

Record and edit in stereo
in one convenient track.

Loop in stereo
in one convenient track.



Stereo tracks are created and managed the same way as mono tracks, so you'll feel comfortable with them right away — and just a few clicks will accomplish what used to take you minutes (like inserting a volume fade over a stereo pair of soundbites).

Selection	Start	End	Track Name	Track
in 1-1	0:00	0:10	Conductor	voice 1
in 1-2	0:10	0:20	Conductor	voice 2
in 1-1	0:20	0:30	Mono track	voice 1
in 1-2	0:30	0:40	Mono track	voice 2
in 1-1	0:40	0:50	Mono aux track	voice 1
in 1-2	0:50	1:00	Mono aux track	voice 2
in 1-1	1:00	1:10	Stereo track	voice 1
in 1-2	1:10	1:20	Stereo track	voice 2
in 1-1	1:20	1:30	Master fader	voice 1
in 1-2	1:30	1:40	Master fader	voice 2
in 1-1	1:40	1:50	MIDI track	voice 1
in 1-2	1:50	2:00	MIDI track	voice 2

Icons have been added next to each track type to help you clearly see what's going on in your track list.

- 4 mono voices "Short"
- 8 mono voices "Medium"
- 12 mono voices "Tall"
- 16 mono voices "Grande"
- 20 mono voices "Venti"
- 24 mono voices "Big One"
- 32 mono voices "Blotter"
- 4 mono & 2 stereo "Espresso"
- 6 mono & 3 stereo "Doppio"
- ✓ 8 mono & 4 stereo "Latte"
- 10 mono & 5 stereo "Cappuccino"
- 12 mono & 6 stereo "Macchiato"
- 16 mono & 8 stereo "Café-o-rama"



Over 200 Mb of free audio samples!

Digital Performer 2.3 ships with over 200 Mb of free audio samples from leading sample developers like Universal Sound Bank™ and NumericalSounds™. You get drum loops of just about every style, percussion samples, stereo "drones", and much more. Many samples are supplied in stereo.

You can configure Digital Performer for any combination of mono and stereo voices — up to the limits of your Power Mac (or your hard disk audio hardware). You can use stereo voices, regardless of your playback hardware. You can even use them with Digidesign systems running under DAE.

and that's not all...

Digital Performer™ 2.3

find it.

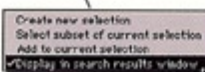


Choose exactly where you want to search.

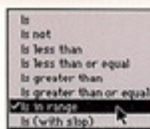
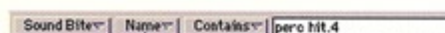
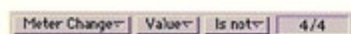
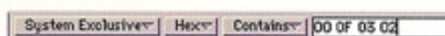
Choose exactly what you want to search for.



You can even search on specific characteristics of each type of data. Below are just a few examples of how detailed you can get.



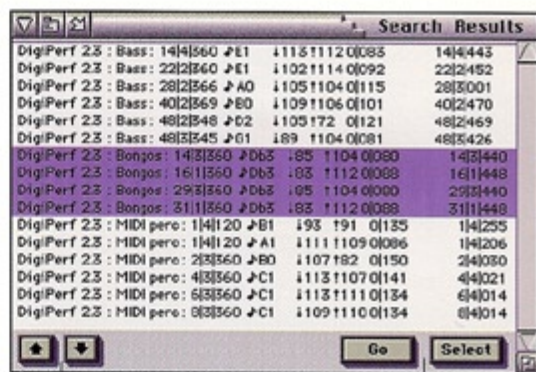
Make selections that are more intricate than you've ever imagined. Or just browse the Search Results window.



This grid lets you find MIDI data based on its metric position within the measure, regardless of meter—an extremely powerful feature. In this example, every 16th-note offbeat is being selected. But you can be even more specific, such as selecting the 1st, 4th, and 7th triplet 8th-notes in each measure.

The most powerful search engine ever seen in a sequencer

In Digital Performer 2.3, you can search for anything, anywhere, based on any set of criteria you wish. For example, let's say you have a percussion track with lots of syncopation. But some of the 16th-note offbeats are just too loud. You don't want to velocity-compress the whole track because the rest of the percussion in it sounds fine. Here's where Digital Performer's new Search feature comes to your rescue: just set it up to find all notes played on a 16th-note offbeat with a duration of a 16th note (plus or minus 40 ticks) and a velocity greater than 80—as shown in the example to the left. Then just click the Search button. Before you can say *Wow!*, all such notes instantly appear in the Search Results window. Now you can do whatever you want to them: select them, change them, delete them, scale their velocities—you name it!



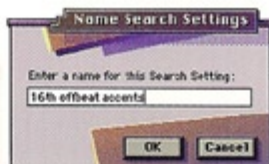
Use these buttons to browse through the results of your search.

Use these buttons to select and edit what you've found, or use the Go button to view and edit the data directly in its track event list.

Create and save as many search settings as you want for instant recall. Assign them to hot keys on your Mac keyboard for single-keystroke ease.

Search quickly with 'Find Similar' features

With the 'Base settings on current selections' option, you can simply select some data similar to what you want to search for and then just click the search button. Search effortlessly for musical phrases, clusters of controller data, specific events—you name it—in two easy steps: select the data and click Search.



does

display it.



recording



mixing

Window sets: save and recall your favorite window layouts instantly

Digital Performer's new Window Sets feature lets you save your favorite window arrangements and recall them instantly with a keystroke — or from the Windows menu. It's almost like duplicating your Macintosh screen as many times as you want. Save as many window sets as you like — there's no limit in Digital Performer. Customize your favorite window layout for recording, mixing, MIDI editing, audio editing,



performing live — the possibilities are endless. Include any combination of windows you want in a set — from one window to dozens. Assign window sets to your favorite keystrokes for instant recall. Getting around in Digital Performer has never been faster and easier!



audio editing



MIDI editing



event list editing



notation editing & printing

File	
New	⌘N
Open...	⌘O
Load...	
Close "My DP Project"	⌘W
Save	⌘S
Save As...	
Revert to Saved	
Save As "New" Template	
Unisyn Performance	
Page Setup...	⌘P
Print Window...	⌘P
Preferences...	
Quit	⌘Q

Store Unisyn performances

Digital Performer 2.3 builds on its tight integration with Unisyn, Mark of the Unicorn's universal editor/librarian software by letting you store a Unisyn performance — which consists of a 'snapshot' of the settings in all your MIDI gear — directly in your Digital Performer file.

No more searching through your Unisyn files when you want to recall a Digital Performer session. Just load the Unisyn performance you saved in the Digital Performer file, and then you're ready to hit Digital Performer's play button.

stash it.

The Clippings window

Have you always wished for a way to store little bits of data — phrases, licks, loops — of both MIDI and/or audio data? You know, kind of like musical clip-art. Well, in Digital Performer 2.3, your wish has come true: introducing the Clippings window. This window stores anything you want, from a single note to an entire sequence. Just drag and drop anything you want into it. To get it back later, just drag it back into the appropriate window in Digital Performer. It's that simple. But best of all, the Clippings window is not restricted to MIDI or audio data. You can store references to any file or folder on your hard drive, such as a word processing document with lyrics in it. You can store stuff in the Clippings window that is specific to a certain Digital Performer file, or stuff that is always available, no matter what file you have open. Once you try the Clippings window, you'll wonder how you ever got along without it.

My favorite clippings	
5/4 Funk v/ Bass	
5/8 Funk v/ Bass	
Audio Drum Loop 1	
Perc Loop	
Funky thing 1	
Funky thing 2	
Song lyrics/ revised	
Apogolatura (b)	
Apogolatura (w)	
Trill 1	
Trill 2	
Trill 3	
Trill 4	
Gloss - long	
Gloss - short	
Gloss - 6/8 aolian	
Generic fill - slow	
Generic fill - medium	
Generic fill - fast	
Generic fill - crazed	
Guitar strum - up	
Guitar strum - down	
Guitar - screamin' lick 1	
Guitar - screamin' lick 2	
Drum flam 1	
Drum flam 2	
Whammy bar wriggle 1	
Whammy bar wriggle 2	
Hi hat - straight 16ths	
Cloze hat - offbeat 8ths	
Tambourine shake - short	
Tambourine shake - long	
Brass fall	
Brass etak	
Brass swell	
Bass slap	
Bass pop	
Leroy's funky guitar lick	
Latin perc 1	
Latin perc 2	
Shoji roll style 1	
Shoji roll style 2	
Use this a lot. It's awesome!	
Only use this one sometimes	



order it!

Dozens of other enhancements

Digital Performer 2.3 is chock full of other enhancements — things you've been asking for that Version 2.3 now delivers. Like the enhanced View Filter: it now stays open as a window, so you can leave it on-screen and make changes on the fly. It also offers a separate view filter for event lists, so you can view continuous controllers in other windows without having to wade through them in the event list. You asked for it—you got it!

But we didn't stop there: you can now save your favorite View Filter settings and recall them by name from the mini-menu.



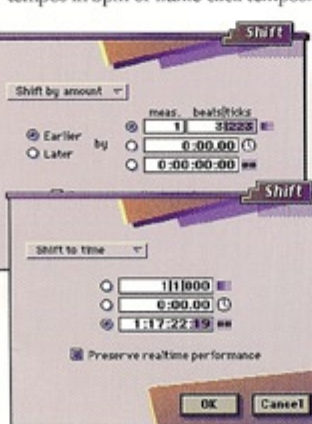
Frame click metronome

Digital Performer 2.3 lets you enter tempos in frame-clicks.

Need to set Digital Performer to a 14-4 click? Just type it in to the tempo setting



and you're done. Digital Performer calculates the bpm tempo to a very, very high degree of accuracy. There's even a global preference to view tempos in bpm or frame-click tempos.



Here are just a few more examples of the many enhancements you'll find in Digital Performer 2.3.

Shift to a specific time

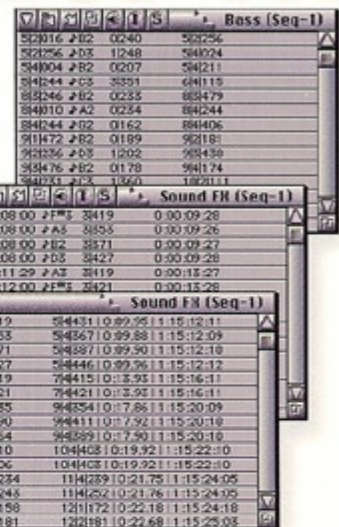
The Shift dialog has always allowed you to move data by a certain amount. Now it also lets you move data to a specific location. Just choose the new 'Shift to time' option and specify the location you want.

Shifting regardless of tempo

In earlier versions of Digital Performer, shifting might not have always produced the results you wanted because the real-time performance of the material was altered due to different tempos at the new location. Now you can have it either way with the new 'Preserve real-time performance' option. When this option is turned on, data sounds exactly the same after shifting, regardless of tempos.

End times are displayed in the event list

Digital Performer 2.3 displays the end times of notes (and regions of audio) in any time format you like. So now you'll instantly know exactly where the note ends, along with its duration.



Duplicating tracks

Digital Performer 2.3 lets you duplicate tracks — including the contents of the track and all of its takes, along with its playback destination & other settings.



Removing duplicate events

Have you ever had several identical events on the same tick — or worse, an entire track full of duplicates? Digital Performer 2.3 can remove all unnecessary duplicate events in one easy operation.

Printing real-time MIDI effects

If you've been working with Digital Performer's real time MIDI effects, such as the arpeggiator or echo effects, you've probably wished that you could "print" the effect to the track — make it permanent, in other words, especially when exporting the sequence as a MIDI file. The new *Print real-time MIDI Effects* command in the Region menu does it in one easy step.



and that's not all...



Mark of the Unicorn, Inc.

1280 Massachusetts Avenue
Cambridge, MA 02138

Voice (617) 576-2760

FAX (617) 576-3609

Dear Performer User:

We've been upgrading Digital Performer at such an astonishing pace that I just had to write you again with the latest news: Digital Performer Version 2.3 is now shipping!

Digital Performer 2.3 contains all of the features recently introduced in Performer 6, plus these exciting new audio features you won't find in Performer:

- PreAmp-1 – the ultimate tube preamp effects plug-in. This tube preamp simulator is the latest in our new line of MOTU Audio System real-time effects plug-ins. Once you hear the sounds you can get from PreAmp-1, from subtle tube warmth to twisted guitar distortion, you'll be happy you upgraded just for this plug-in alone. And you can apply it effectively to just about any material, from vocals, to acoustic instruments, to a stereo mix.
- Fades and crossfades. Fades and crossfades are a "staple" feature for digital audio workstations – they help eliminate clicks, pops and other undesirable artifacts at audio region boundaries. Now you can apply them quickly and easily to your Digital Performer projects. Apply equal-power, equal-gain, or custom crossfade curves with pin-point precision. Or apply dozens – even hundreds – of short fades in one easy operation. You get many useful preset curves, constructive processing (your original audio is always preserved) and background processing (so you never have to wait for progress bars).
- Stereo tracks. Have you ever felt that working in stereo in your current version of Digital Performer was a bit awkward? Digital Performer 2.3 makes it a breeze. Record, edit, mix, automate and even crossfade stereo tracks. Stereo pairs of soundbites always remain perfectly sample-locked, no matter how you edit them.
- Stereo PureDSP pitch-shifting and time-scaling. You can now transpose and time-stretch stereo soundbites, too. Digital Performer's PureDSP processing now faithfully maintains the stereo image and phase coherence.

And remember, Digital Performer also gives you these additional audio features – beyond what you'll find in Performer 6:

- Up to 40 or more tracks of audio on fast Power Macs. How would you like to record and play more simultaneous audio tracks? Digital Performer's MOTU Audio System gives you as many as your Power Mac can handle. If you have Pro Tools, or you are thinking about Pro Tools, you can take full advantage of a full-blown system up to 48 simultaneous tracks.

- Audio hardware support. If you need pro-quality I/O instead of your Macs built-in sound hardware, Digital Performer supports the audio hardware you need, from economical (but great-sounding) systems like Digidesign Audiomedia III and KORG 1212 I/O, to heavy-duty Pro Tools/TDM rigs with multiple I/O's and farm cards.
- eVerb plug-in. How would you like to be able to apply world-class reverb directly to the audio tracks in your sequences? This incredible sounding real-time reverb is included with Digital Performer at no extra charge. Other companies are charging hundreds of dollars for reverb plug-ins of this caliber.
- Bounce to Disk. This feature lets you select any number of audio tracks and combine them digitally into one mono or stereo track. Because it's all mixed digitally, there is no noise build-up over consecutive bounces. You can bounce as many times as you want - giving you, in effect, unlimited audio tracks!
- Sample System. Digital Performer lets you hook up a sampler to your Mac and then drag & drop samples between the sampler, your Mac hard drive and Digital Performer. Samples are automatically converted into Sound Designer II files. In Digital Performer, you can apply any plug-in processing you want and then just send samples back. If you own a Roland S760, Akai 2000-3000 series sampler, or a Kurzweil K2000/2500, you'll love this feature. (Great for sampler xfers, too!)
- Virtual bussing, aux tracks, master faders. Digital Performer goes well beyond Performer in virtual mixing, with up to 64 stereo busses that let you route any audio track anywhere else, including aux tracks and master faders. For example, you can bus several tracks to one reverb to conserve precious CPU bandwidth.
- Adobe Premier Plug-in Support. Digital Performer opens your door to the far-reaching world of audio plug-ins. Apply today's hottest DSP processing from dozens of third-party developers to your mix.
- Sync audio to time code. Digital Performer represents years of digital audio synchronization features tested in the most demanding recording environments.
- Sample rate conversion. Do you ever find yourself needing to convert audio from one sample rate to another - such as from 44.1 to 48 KHz? If so, get Digital Performer and get the best sample rate conversion available.

Order today with our money back guarantee

When you buy your Digital Performer 2.3 upgrade through this mailing, you also get a 30-day money-back guarantee. So go ahead, return your order form or call us now at (617) 576-2760. If you're not completely happy with your purchase, we'll refund the entire payment when you return the product and proof of purchase within 30 days.

Sincerely,



Jim Cooper

Director of Marketing

P.S. Order UNISYN when you order Performer 6 and pay only \$49. That's 50% off the regular upgrade price! Check out the enclosed brochure for details!

Phone number _____
(if we have questions about your order)

1999 DP2.4

Sonic Modulator	24 bit recording	24 to 16 bit dithering	Audio volume display in dB
Drag & Drop MIDI file importing.		AIFF and WAV file import/export	

Get these great new features in Digital Performer 2.4 today!

- ✓ **Sonic Modulator plug-in**
Create rich, unique effects with four LFOs: pitch, phase, amplitude & delay.

- ✓ **24-bit recording**
Complete support for 24-bit recording systems like Pro Tools | 24 and MOTU Audio 2408.



- ✓ **24- to 16-bit dithering**
Dither your ultra hi-fi 24-bit sessions down to 16 bits for CD mastering at the highest possible audio quality.

- ✓ **Sample-accurate sync**
Sample-accurate sync to ADAT with KORG 1212 or MOTU Audio 2408. Or to DA88 with the 2408 and a DTP.

- ✓ **Support for the Yamaha A3000**
Drag & drop audio samples between your A3000 sampler, Digital Performer and your Mac desktop.

- ✓ **Drag & Drop effects plug-ins**
Quickly apply, move and duplicate effects by dropping them into "insert sockets".

- ✓ **Plug-in effect grouping**
Store, recall, move and duplicate effects as a group.

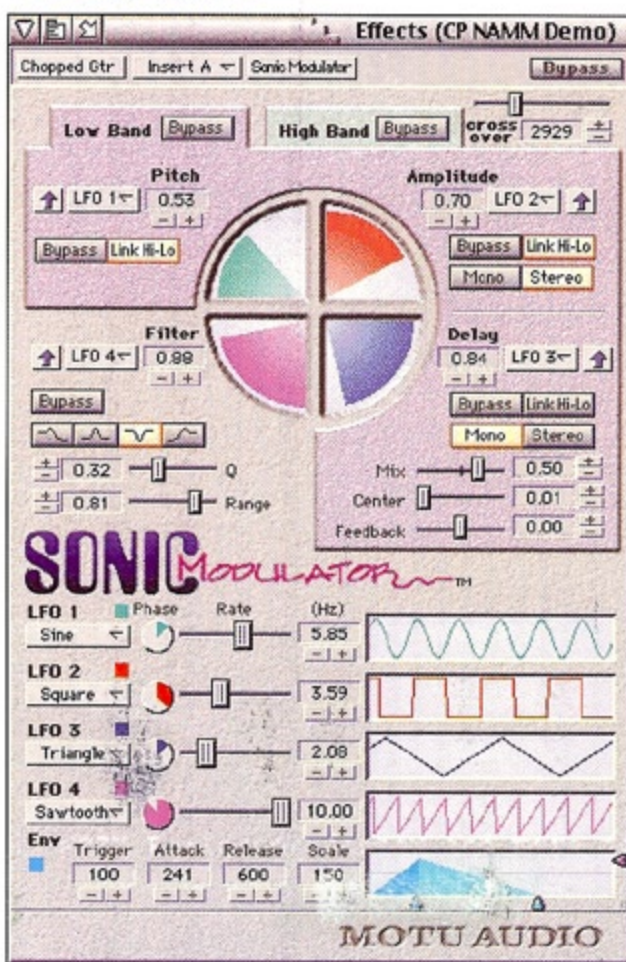
- ✓ **Audio volume display in dB**
Audio tracks now display audio volume in dB; boost up to +6dB.

- ✓ **Enhanced Premiere plug-in support**
Audition Premiere plug-ins through your audio card. Adjust the real-time preview duration up to 60 seconds.

- ✓ **AIFF and WAV file import/export**
Exchange files with other programs on Mac or PC.

- ✓ **Drag & Drop MIDI file importing**
Import MIDI files — dozens or hundreds at a time — with one drag.

SONIC MODULATOR™



- Vibrato
- Deep tremolo
- Sample/hold
- Triggered filter
- Rotary speaker
- Sparkling chorus
- Triggered pan
- "Slow spin"
- "Crystal flange"
- "Jerry Wah"
- "UFO triangle pitch"
- Many, many more

To upgrade in the US and Canada, call MOTU at (617) 576-2760 or fax us at (617) 576-3609.

To upgrade in other countries, contact your local MOTU distributor. You can find your distributor at:
<http://www.motu.com/english/other/distributors.html>

Version 2.3 users will receive 2.4 as a free update.

1999 DP v2.5

Sample-level editing	Built-in Wave Editor	MasterWorks Compressor and Limiter (64 bit)
MAS processing on Regions	Parametric EQ (8 Band)	Back up "Collect" Archive

Sample Accurate Timing

Why settle for anything less?



Edit at the sample level in Digital Performer's multi-track audio editor

Feel the confidence of having total control over your audio — down to the very sample. Zoom all the way in to the sample level so you can see exactly what's going on in your tracks. Trim a region visually to the nearest zero crossing. Nudge your audio one sample at a time. Got phase

problems between two or more tracks? Fix them. Graphically. Need to tweak a few samples here and there? Just redraw them with the pencil tool in the new stereo waveform editor. Digital Performer gives you all the sample-level editing you need.



Make Digital Performer a sample-accurate extension of your ADAT or Tascam tape deck

Digitally transfer tracks into Digital Performer via our 2408 audio interface, and say good-bye to worrisome phase issues and time-consuming sync workarounds. Thanks to ADAT sync (and our Digital Timepiece Control Track Sync for Tascam), your audio won't drift a single sample - even if you fly an audio region back and forth a dozen times. Other popular (and costly) workstations introduce drift with every transfer. Why settle for anything less than perfect timing? With Digital Performer, the 2408 does it for under \$1,000.

Type of sync:

- ☒ Sample-accurate
- ☐ MTC, DTL, or DTL
- ☐ Indirect time lock
- ☐ Standard beat clocks
- ☐ Tap tempo

Does your audio software support sample-accurate sync?

New for Digital Performer 2.5



The MasterWorks multiband compressor and limiter plug-ins put a mastering studio inside your Macintosh... and they're included with Digital Performer.

- Built-in stereo waveform editor — you won't need to spend extra hundreds on separate waveform editing software.
- Sample-accurate editing — view and edit audio at the sample level in Digital Performer's multitrack audio editor.
- MasterWorks mastering plug-ins — 64-bit multiband compressor and limiter.
- Digidesign Direct I/O support — run Digital Performer's native real-time effects on any current Digidesign system including Project II and ProTools | 24 MIXplus.
- Plug-in enhancements — Apply any real-time MAS plug-in as a region operation.
- Support for popular audio I/O cards such as the Sonorus STUDI/O, Yamaha DSP Factory and Event Gina, Darta & Layla.
- Graphic parametric EQ — tweak up to 8 bands visually with floating numerals. Simultaneously drag multiple filters.
- Insert Measures — add time to the beginning of a project while preserving all subsequent material, including tempos and hit points.
- Navigation Enhancements — get around more efficiently than ever.
- Project copying and backup enhancements — easily "collect" all related audio/fade/analysis files when copying and archiving projects.

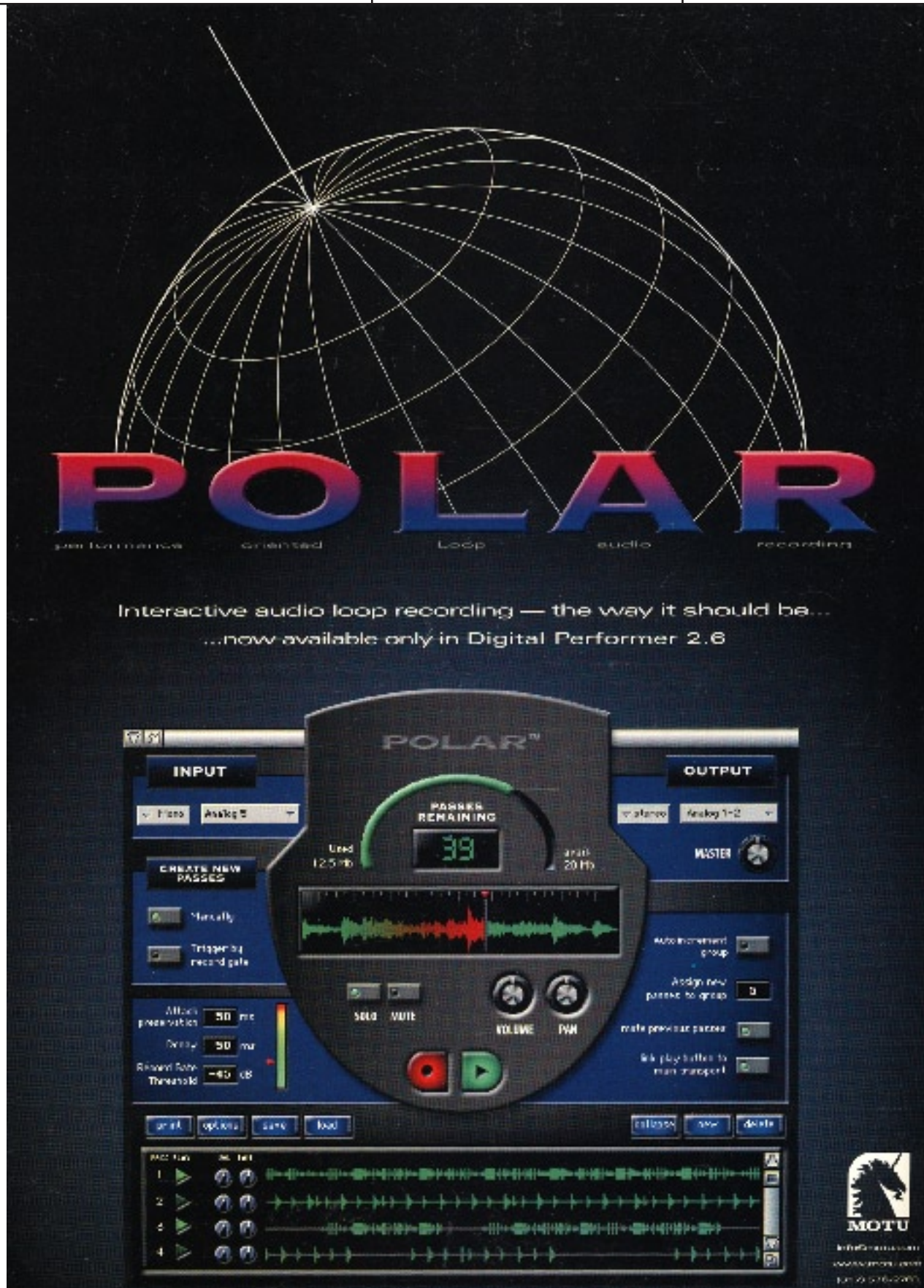


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1999 DP v2.6

POLAR	v2.6.1: MIDI Time Stamp	Import AIFF and Wave files	Live scrolling in all windows
Drag and drop into the Tracks Overview		Naming audio outputs	24 bit waveform editor



The advertisement features a large, stylized graphic of a dome-like structure composed of many thin, intersecting lines, resembling a geodesic dome or a complex network. Below this graphic, the word "POLAR" is written in large, bold, blue and red gradient letters. Underneath "POLAR", the words "performance", "oriented", "Loop", "audio", and "recording" are spaced out.

Below the title, the text reads: "Interactive audio loop recording — the way it should be...
...now available only in Digital Performer 2.6"

The main visual is a screenshot of the POLAR software interface. The interface is dark-themed with various controls and displays. At the top, it says "POLAR™". Below that, there's a "PASSED REMAINING" display showing "39" and a "Used 12.5 Mb" indicator. A central waveform display shows a green and red audio waveform. To the left, under "INPUT", there are buttons for "Photo" and "Analog 1", and a "CREATE NEW PASSES" section with "Manually" and "Trigger by record gate" options. Below that, there are sliders for "All-pass probability" (50%), "Delay" (50%), and "Reverb time" (Threshold -40 dB). To the right, under "OUTPUT", there are buttons for "Analog 1-2" and "MASTER". Below that, there are buttons for "Auto increment group", "Assign new pattern to group", "Make previous pattern", and "Link play button to main transport". At the bottom, there are buttons for "Print", "Options", "Save", "Load", "Collapse", "New", and "Delete". Below these buttons is a "TRACKS" section with four tracks (1, 2, 3, 4) and their corresponding waveforms.

In the bottom right corner, there is a logo for "MOTU" (Motorola) and the text "Info@motu.com", "www.motu.com", and "Jan 20 1999".

Drum Editor	Stereo Delay/ Multi-Mode Filter/Ring Modulator plug-ins	Plug-in automation
Graphic time stretch	Real-time updates of recorded audio i.e display of waveforms	

Why use

Digital Performer's effects automation?

1. Beat/tempo-based automation.

Automate plug-in effects in perfect time with your music, from filter sweeps that land on downbeats to multitap delays that echo in triplet 8ths. Your beat-based effects always stay in rhythm, even through meter and tempo changes. You'll never waste time wondering things like, "how many milliseconds is a 16th note at 126 bpm, anyway?" Rhythmic effects are now just a few clicks away.

2. Sample-accurate ramp automation.

Digital Performer's plug-in automation isn't a kludge — it calculates true ramps in 32-bit floating point glory. And it's sample-accurate, not quantized to buffer boundaries, so you'll never hear weird artifacts or zipper noise in your audio. Instead, your moves will be as smooth as silk.

3. Discrete events and stair-step automation.

Some effect changes are discrete events, like changing an LFO from a sine wave to a square wave. Others require a stair-step approach. Digital Performer has all three: ramps, events and steps.

4. Graphic editing.

View all automation data directly on the audio waveform. Work fast with descriptive icons and convenient control points.

5. View all automation data at one time.

Clearly view all automation data at one time. Easily control the interaction of multiple FX parameters.

6. Units of measurement that actually make sense.

Digital Performer's automation data is always displayed in the correct unit (like milliseconds or percent), instead of arbitrary number ranges like other programs. (0-127, yipee!)

7. Five advanced automation modes

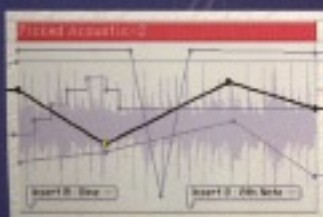
Tweak your heart out with advanced automation modes like Touch, Latch, Overwrite, Trim Touch and Trim Latch. Want to bypass the effect? You can automate that, too.

8. Mackie-HUI™ support.

Tweak FX parameters in real time with real knobs. Record your moves. Feel the power.



Digital Performer includes more than 60 automatable MIDI and audio plug-in effects.



Coming soon in

Digital Performer

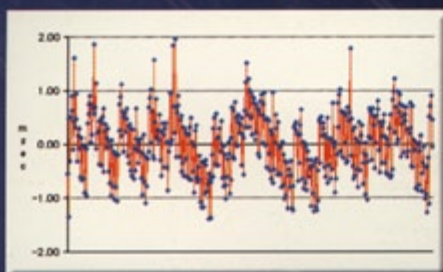
SEE US AT AES BOOTH #1056

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circle #501 on reader service card All trademarks are property of their respective holders.



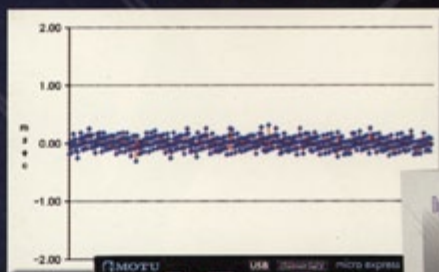
Digital Performer now offers the **most accurate** MIDI timing in the business.

Theirs.



Our closest competition in hardware-based MIDI timing has inherent jitter of 1-2 milliseconds, with spikes that are even higher. Digital Performer's MTS timing is as tight as one third of a millisecond — five times better.

Ours.

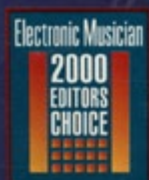


Digital Performer's new MIDI Time Stamping™ technology produces the best MIDI timing resolution and accuracy ever achieved. Other sequencers (even ones with MIDI hardware support) offer 960 or 1920 PPQ. But Digital Performer lets you choose any PPQ resolution you want: 96, 384, 480, 960, 1920, 3840, 10000 or anything in between. And MTS, our hardware-based MIDI timing

engine, delivers that precision to your MIDI gear with sub-millisecond accuracy. So if you believe that timing is everything, all you need is a USB-equipped Power Mac, Digital Performer, and a rack-mountable MOTU USB MIDI interface (like the affordable micro express shown above). Ask your Mark of the Unicorn reseller about our competitive crossgrade.



Work with any PPQ resolution you want.



Digital Performer

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2000.7.12 DP3.0

Multi processor support	Open multiple plug-in windows	Tool palette	CD import
Expanded keyboard shortcuts	Wiper-centered zooming	Surround sound	VocAlign Support
Automation Waveforms	Audio bundles window		

Sequence Editor

Track selector in MIDI Graphic Editor

New MIDI controller editing modes

Display MIDI and audio tracks together

Vertical zoom in the Sequence editor

Movie Track

New Plug-ins

Surround speaker calibration

Bass Manager

Parametric EQ-Surround Edition

MW Limiter

MW Gate

Surround Feedback Delay

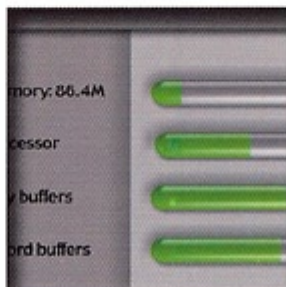
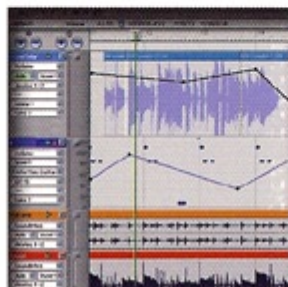
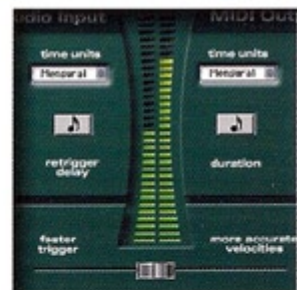
Trigger

Plate

Quan Jr.

MS Decoder

DP3



DP3

Productivity enhancements

Completely new look and feel — DP3 has been completely redesigned from the ground up for a quantum leap forward in productivity.

Multiple processor support — DP3 doubles the available processing power for plug-ins on a dual-processor G4.



Multiple plug-in windows — open multiple plug-in windows and surround panners simultaneously.

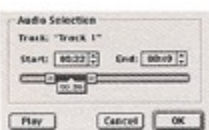
Expanded keyboard shortcuts — the new Commands window lets you assign computer keystrokes and MIDI remote control triggers to virtually any function in DP3 — main menus, mini-menus, buttons — anything. You can completely customize your keyboard interaction with DP3. Load and save your own command sets. If you're familiar with Pro Tools, Opcode Studio Vision or other programs, DP3 includes command sets for them, too, letting you quickly feel right at home with Digital Performer.

VocAlign™ support — dialog replacement in DP3 takes just a few simple mouse clicks with VocAlign from SynchroArts. Hours of ADR can now take only minutes.



QuickTime spotting — quickly place audio, trim soundbites or edit automation while the QuickTime movie chases to your edits, scrubbing at your exact edit points.

CD import — preview and import any portion of an audio CD track, from a few seconds to the entire track.



Pro Tools™

import/export — DP3 can now import (as well as export) entire multitrack projects from (and to) Digidesign Pro Tools (or any other OMF compliant system) via DigiTranslator™ and OMF. You can import Pro Tools sessions, work on them in DP3, and then deliver them as Pro Tools sessions.

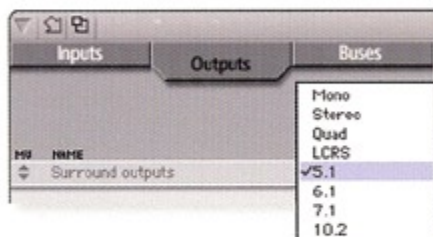
Stationary play head — the playback wiper stays anchored to the center of the window while your data moves behind it.

Wiper-centered zooming — DP3's playback wiper now serves as the anchor point for zooming (in and out). You can quickly zoom in to a specific location and then zoom back out, and the focus point always remains in view. Zooming has never been faster and easier.



Surround

Open architecture for surround — DP3 supports mono, stereo, quad, LCRS, 5.1, 6.1, 7.1 and 10.2 surround formats. New formats (n.n) can be supported in future versions, as they become available.



Open-ended surround plug-in format — DP3 allows you to choose any panner you want for any track, including third party panners. Mix and match panners across a multitrack project as desired.

Four advanced panners included — DP3's four included panner plug-ins go well beyond basic surround panning:

ArcPanner™ — surround panning on a radius.

n-Panner™ — surround panning on a Cartesian grid.

TriPan™ — 'three knob' positional panning with sophisticated divergence control.

Auralizer™ — localizes sound in space using perceptual cues such as the doppler effect and early reflections.



Intelligent stereo surround panning — choose from several panning modes (mirror, parallel, asymmetric and balance) to steer stereo signals in a surround matrix with a single automation pass.

Audio bundles window — quickly rewire the internal routings of your project with a simple, graphical interface. Create flexible setups — from a simple, tape-deck-style 'direct line out' mode to advanced surround configurations. Work with as many surround formats as you wish and switch among them with ease.

Joystick support — use a standard (MacOS Input Sprocket™ compatible) USB joystick to control any DP3 or third-party surround panner.

Editing enhancements

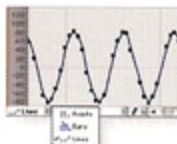
Automation Waveforms – draw sine, triangle, sawtooth, square and pulse-width waves into any automation or MIDI continuous controller track.

Tool palette – all of the cursor functions for any given window (audio editor, MIDI editor, etc.) are just one click away. Makes editing more intuitive by providing tools that work across all windows.



Track selector in MIDI Graphic Editor – edit multiple MIDI tracks in a single editing window.

New MIDI controller editing modes – DP3 now offers three ways to view and edit MIDI CC data: 1) DP's classic 'points' mode, 2) "Vision-style" colored bars, and 3) audio track-style break-point automation lines. DP3 intelligently interpolates new streams of CC data when you work with break-point automation lines. Freely switch between CC edit modes at any time.



Continuous controller tools –

insert, scale, limit and modify MIDI CC data graphically with many convenient tools: line, curve, sine wave, square wave, triangle wave, sawtooth, random, and more. Control period, amplitude and other parameters with modifier keys.

Sequence Editor

Displays MIDI and audio tracks together in one window – complete viewing and editing of MIDI notes, audio clips, audio automation and MIDI controller data on one timeline.

Vertical zooming – MIDI and audio tracks can be independently resized vertically. Many zooming shortcuts are included, such as enlarging one track while scaling all other tracks to fit in the window – with one mouse click.

Movie track – Movie track displays frames over time in the sequence editor to make editing to picture a snap.



MIDI Tracks – complete MIDI graphic editing in the same window with audio tracks. Scale vertical resolution and track height on a per track basis. Use break-point automation in side-by-side MIDI and audio tracks.

Audio Tracks – complete multi-track audio editing. Scale individual track size and waveform display within the track.

Fourteen new plug-ins, including...

Surround speaker calibration – calibrate your listening environment for accurate, reliable surround sound monitoring.

Bass Manager – You can't master surround without bass management. Redirect and extend the frequency response to and from the LFE channel.

Parametric EQ Surround Edition – n-channel EQ.

MasterWorks™ Limiter Surround Edition – a flexible, integrated n-channel limiter designed specifically for mastering surround mixes. Includes completely independent LFE limiting and assignable detector path to any n-channel. Allows you to limit based on any individual channel or the entire mix.

Surround Feedback Delay plug-in – the world's first surround delay plug-in provides detailed control over every channel in your matrix for an incredible surround experience. Graphically draw the path that your sounds will take as they bounce around the surround speakers. Up to 100 discrete feedback paths!



MasterWorks™ Gate – Real time, lookahead gating opens the gate before the signal crosses the threshold.

Trigger™ – convert an audio track in to a MIDI trigger pulse – perfect for replacing drum sounds.

Plate™ – simulates vintage plate reverbs.

Quan Jr™ – dither, noiseshaping and 'lo-fi' effects.

MS Decoder™ – Decodes a 'mid-side' mic matrix without external hardware. Adjustable stereo width control.

QuickScribe™ enhancements

Zooming – display your score at any size on-screen.

Dynamic symbols – display and print dynamic symbols, hairpin crescendos and decrescendos, and other dynamics.

Switch staff – a must-have for piano scores. Click a note and send it to the opposite staff for correct hand positioning.

Enhanced transcription engine – provides context-sensitive note spelling, dynamic hand-splitting, and more.

"Digital Performer's sophistication, power, and innovation really knocked our socks off."

—Electronic Musician



Editing

Work with vertically resizable MIDI and audio tracks side by side with a movie track in one window. Edit mix automation and audio with sample-accurate precision. Choose any MIDI PPO resolution from 96 to 10,000,000 (one one-hundred millionth of a quarter note). Edit MIDI and audio together in one operation. Do everything—even save your file—while playing.



Mixing

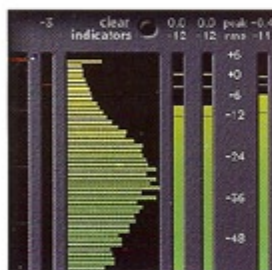
Experience the pristine audio quality of Digital Performer's 32-bit floating point signal path. Create multiple alternate mixes for a single project and instantly switch between them. Feel the precision of sample-accurate automation.

Perfect your mix with five automation modes and a touch-sensitive automated control surface like the Mackie HUI or the Radikal SAC-2K.



Music Production

Add a tempo track to music recorded without a click track. Graphically time stretch audio. Transpose or harmonize audio. Draw periodic automation in sync with the edit grid. Apply beat synchronized effects that follow your tempo changes. Enjoy MIDI timing accuracy to within a 1/3 of a millisecond with a MOTU USB MIDI interface. Perform sound-on-sound loop recording with POLAR.



Mastering

Master your final mix with the 64-bit MasterWorks multiband compressor and lookahead limiter (included). Write your finished file with faster-than-real-time bounce to disk.

DP3 includes a complete suite of mastering tools for surround sound including Surround EQ, Bass Management, Speaker Calibration and the 64-bit MasterWorks Limiter Surround Edition.



Surround

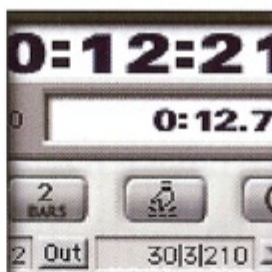
Deliver finished surround mixes from LCRS or 5.1 all the way to 10.2 surround formats. Connect a USB compatible joystick to control surround panners and other mixing functions. Choose among five different modes for panning a stereo signal within your surround matrix. Steer your sound with one of four included surround panning plug-ins—or add one from a third party developer.



Effects

Over 50 real-time MIDI and audio effects are included, such as delay, eq, reverb, modulation effects, dynamics processing (compressor, expander limiter, gate), tube simulation, echo, flanger, phaser, ring modulator, and many more.

Effects parameters can be automated and synchronized to the tempo of your music.



Post Production

Spot and edit to SMPTE timecode. Drive Sony 9-pin devices with a MOTU Digital Timepiece synchronizer. Edit audio, MIDI and mix automation data while the QuickTime movie window scrubs frame-by-frame as you edit. Use the Find Tempo feature to calculate a tempo that matches your hit points. Add sync points and time stamps to audio regions. Import and export your project via OMF.



A Complete System

Digital Performer is the centerpiece of a family of integrated software and hardware tools for audio production. You get an astonishing array of 3rd party real-time audio effects, software synthesizers, samplers, virtual drum machines, hardware control surfaces and audio interfaces. Included in this package is a complete directory of products designed to enhance Digital Performer.



System Requirements

Macintosh PPC, G3 or G4 computer running Mac OS 7.61 to OS 9.x.

You should have a block of at least 64MB RAM available after startup to run Digital Performer.

Optimized for multiple processor G4s.

Audio Hardware Support

Any MOTU audio hardware including the 2408, 1224, 308, 1296, 24i and 828

ASIO-compatible hardware

DAE/TDM systems such as: Pro Tools III, Pro Tools24, Pro Tools24 Mix, Pro Tools24 Mix Plus, Pro Tools24 Mix3

Digidesign Direct I/O

Sound Manager

DP3

DIGITAL PERFORMER 3

Special offer!
Competitive Upgrade
for users of other
audio sequencers

\$395

Limited Time Offer
Suggested Retail \$795



"Value: 5 out of 5"

"We just had to give
this amazing program an
award—for the third
consecutive year."

"Digital Performer is a
rock-solid winner."

—Electronic Musician Magazine

DP3

DIGITAL PERFORMER 3

Digital Performer In Concert

Mike McKnight
Programmer / Keyboards
Madonna 2001 "Drowned World" Tour



"The entire Madonna show is driven by Digital Performer running on two G4 Power Macs with four MOTU 1296 audio interfaces. When I hit the space bar, Digital Performer begins triggering everything: backing tracks, jumbotrons, and (for HBO) the Neve in the recording truck." Is DP reliable? "When you're playing for 20,000 people in the venue and another 120 million on HBO, you've got to have the most reliable, musical system available. DP is that program." And overall? "Digital Performer has revolutionized the way I work. I put DP on the road with the two biggest tours of the year: U2 and Madonna. It has to be the best when you put your ass on the line like that. You can take DP from me when you pry it from my cold, dead fingers!"

Learn more at www.motu.com

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Ray of Light Digital Performer project courtesy of McKnight Sounds, Inc. Madonna image courtesy of Columbia Entertainment



the complete picture



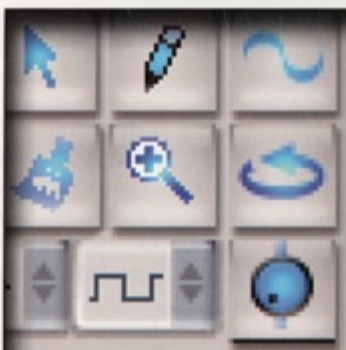
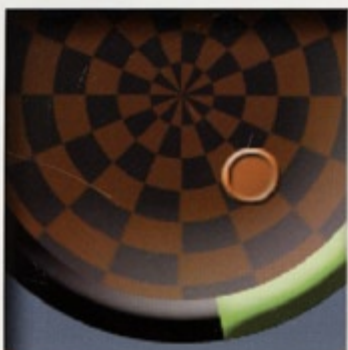
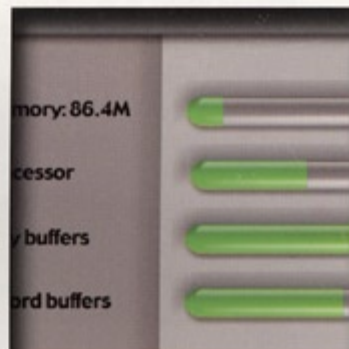
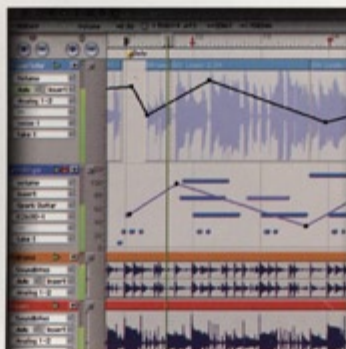
hard disk recording
midi sequencing
audio interfaces
midi interfaces
sync
plug-ins
virtual instruments
midi system management
automated control surface integration
the most complete integrated system available

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2001.9.24 DP v3.01

Sequence Editor	Improved Graphic Editor		Continous scrolling modes		Toolbar window	Snap to grid
CC grid improved: Bars		Pen Tool shapes	Audio Bundles	20 inserts	MasterWorks Gate	Surround Sound



DP3
for
2001

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2003.3.25 DP v4

OS X native	AU support (No more FreeMIDI or OMS)	Project menu : Add Tracks/ Instrument tracks	
Improved menu arrangement: Studio/Settings/Project		Document templates	Recent Files
Audio menu : Freeze Tracks	Mixboard ID display at the bottom	Shift to Marker/Snap to Marker	
v4.1(2003-09-03) supports DAE: Can run DA/TDM plug-ins			

Digital Performer On Network TV

Michael Giacchino
Film / TV Composer
ALIAS (ABC)



"I switched to Digital Performer to score the second season of ABC's ALIAS, and I'll never look back. In my studio or on the scoring stage with my PowerBook and a MOTU 828, Digital Performer gives me all the tools I need to deliver cues under

extreme deadlines and demanding network TV schedules. I scored every episode of ALIAS using the dozens of real-time effects plug-ins included right in the box with Digital Performer. And I can fully customize the way audio is imported to streamline my workflow. It's time-saving features like this that make Digital Performer such a pleasure to work with. After scoring 22 episodes of primetime TV, I know that switching to Digital Performer was the right call."

Learn more at www.motu.com

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ALIAS Digital Performer project courtesy of Michael Giacchino



It's brilliant everywhere.

Digital Performer in the Movies

The Lord of the Rings Motion Picture Trilogy (New Line Cinema)

Howard Shore Composer



"For me, film scoring is a combination of tradition and technology. I write my initial sketches with pencil and paper, but filmmaking today involves a digital world with frequent editing changes. Whether I need to tighten sync on a shot, or conform my original sketch to the latest version of picture, Digital Performer gets me there. At my desk and on the scoring stage, DP is there."

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Lord of the Rings: The Two Towers '99 DP Digital Performer project courtesy of Howard Shore / Prince in New York Music and New Line Cinema.



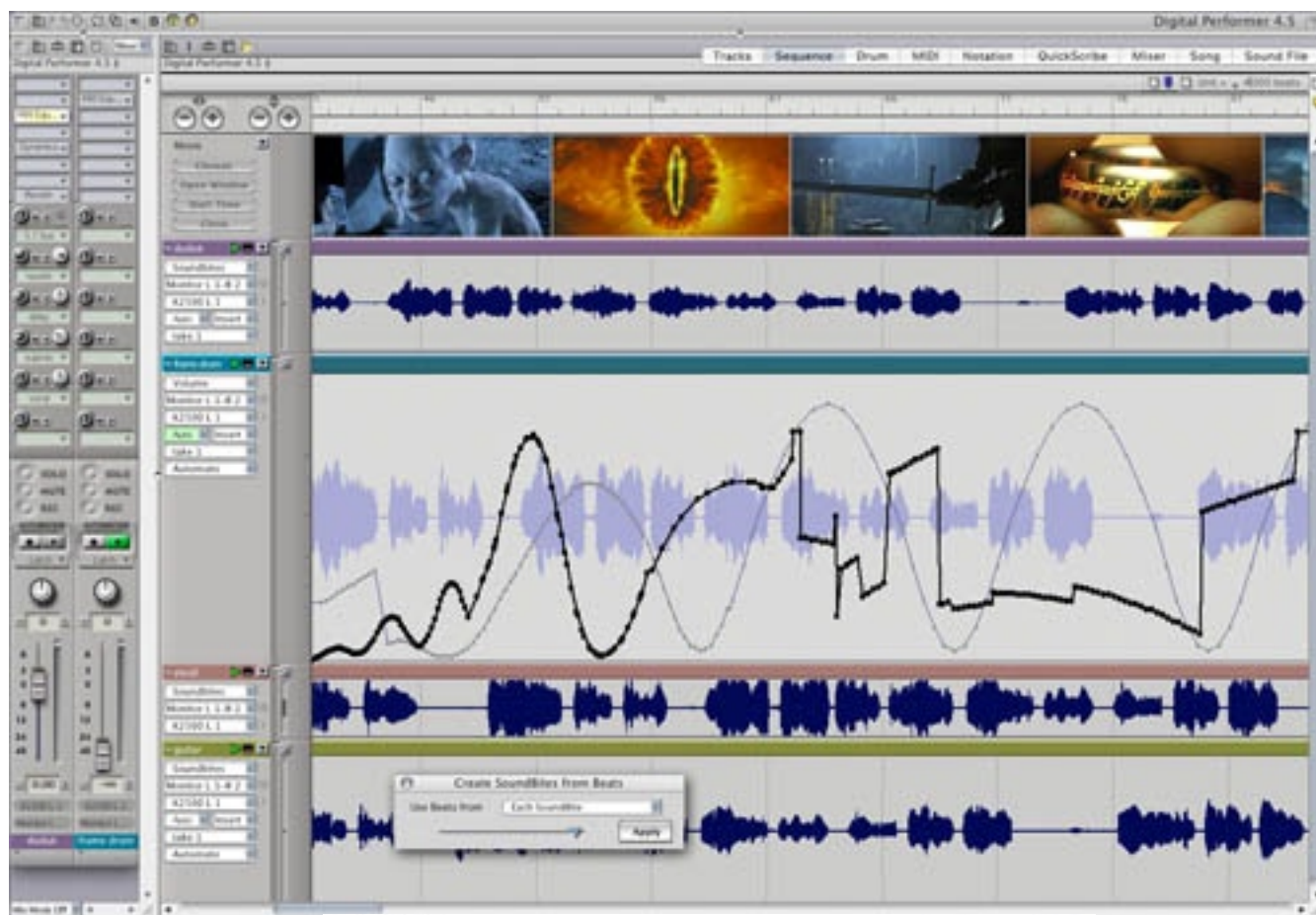
Electronic Musician
2004
EDITORS
CHOICE



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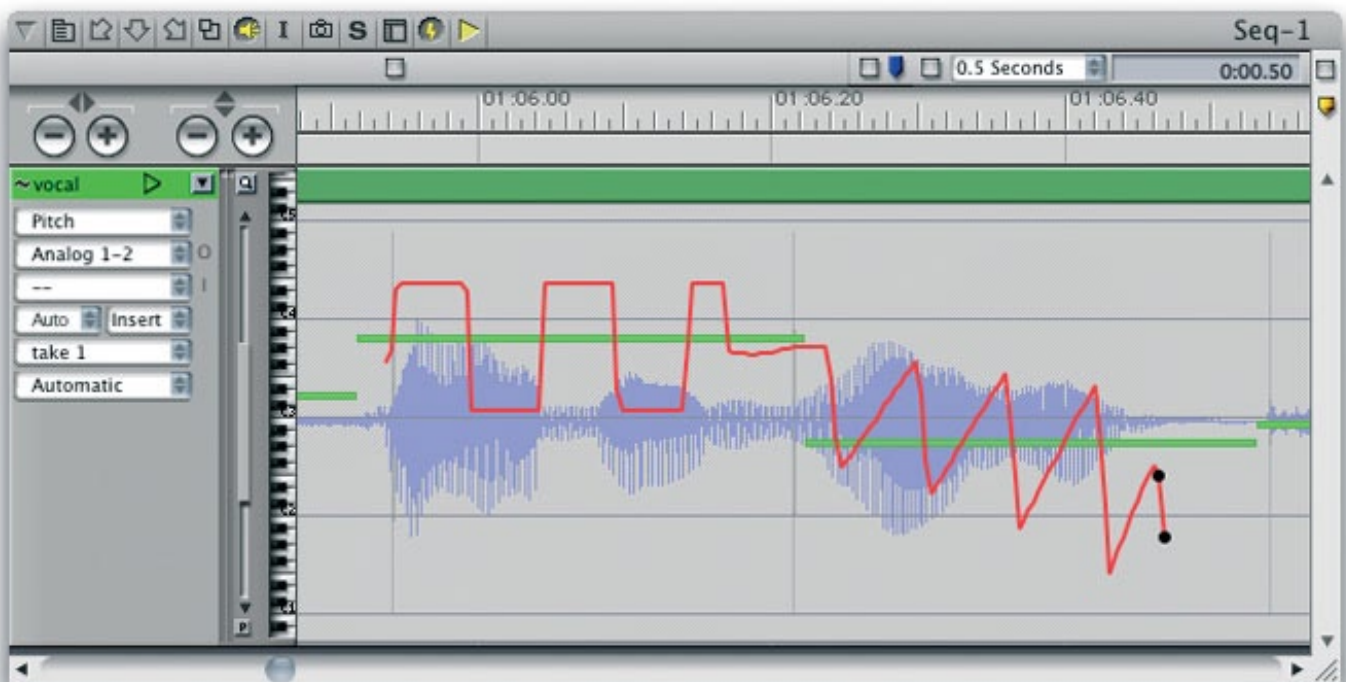
2004.9.29 DP v4.5

Consolidated Window	Beat Detection Engine	MasterWorks EQ
Automatic Voice Allocation	DP v4.5.2 (2005-01-12) Dynamic CPU Management.	



2005.7.7 DP v4.6

Pitch Automation	Pattern Gate	V-Racks	Saving User Presets	Audio Click
Multiple Outputs for AU plug-ins	AAF File Interchange	Bounce to QT		



2006.4.18 DP v5

6 new cpu efficient VI plug-ins	New Editing Tools: Trim, Slip, Slide, Roll	Track Folders	Audio voice allocation
Meter Bridge	Soundbite Volume & Gain	Track Input Monitoring	Streamers, punches and flutters
Click track programming	Input monitoring modes	Clip-based volume automation and gain	MIDI keys



Digital Performer scores **the impossible**

"Digital Performer is a huge part of my scoring process. I do all of my writing in DP. At the Mission Impossible 3 sessions, we had a laptop running DP and a MOTU Traveler to handle prelays and record live stereo stems of Dan Wallin's mix from the main board. DP also drove video to the main monitors and synced the entire 100+ piece orchestra, so that everything was perfectly in line with my composition sequence. I count on DP every day. It performs flawlessly."

— **Michael Giacchino**
Composer
Original Music for M:i:3



Mission Impossible 3 "Bridge Battle" Digital Performer project courtesy of Michael Giacchino and Chad Seiter. Mission Impossible 3 image courtesy of Paramount Pictures. All rights reserved.



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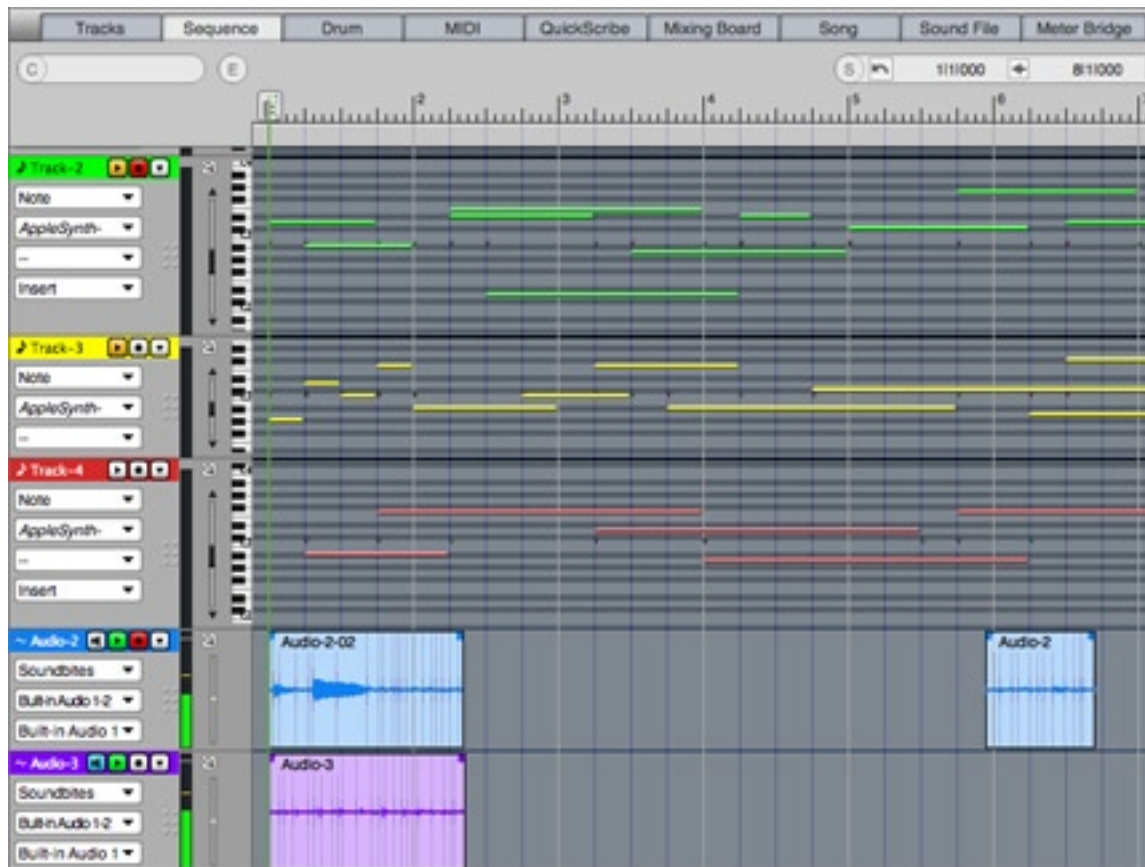
2008 DP v6

Vertical Zoom in the Tracks Overview Window

Track Comping	Plug-in Manager	Inspector Palettes	Waveform Coloring	Direct audio CD Burning
ProVerb			MasterWorks Leveler	



iPerformer's DP6 GUI Mod



Amplidood's DP6 GUI Mod

