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SONAR
2.2

PRO TOOLS
PRO TOOLS

B&H

PHOTO - VIDEO - PRO AUDIO

The Professional Audio SourceBook

Section 11b

Integrated Systems

Cakewalk.....**892-903**

Digidesign.....**904-947**

Emagic.....**948-971**

MOTU.....**972-993**

Steinberg.....**994-1031**

Cool Breeze.....**1032-1033**

CAKEWALK

SONAR 2.2 & SONAR XL 2.2

Digital Multitrack Recording System

SONAR 2.2 is Cakewalk's flagship audio and MIDI production sofware for Windows Me/2000/XP. SONAR 2.2 offers unlimited MIDI and audio tracks, realtime 32-bit DirectX8 effects and DXi soft synths and powerful Acid-style loop construction all tied together with automated mixing of virtually every parameter. SONAR provides support for 24-bit/96kHz audio hardware using ASIO and Windows WDM drivers, offering latencies as low as 1.5ms. Almost all of SONAR recording, precision editing, mixing and routing functions can be accessed directly from a single window known as the Track View. This elegant and intuitive interface combined with SONAR's extensive built-in control surface support delivers an exceptional level of speed and efficiency that is sure to optimize your creative potential and workflow. SONAR 2.2 ships with a suite of essential DirectX8 effects plug-ins along with three powerful DXi soft synths including: Cyclone, an Acid-compatible Groove Sampler; as well as Virtual Sound Canvas 1.5 and DreamStation 2.0 synthesizers. Also available is SONAR XL 2.2 which adds an advanced DXi drum sampler workstation and 64-bit DirectX 8 audio-mastering effects to the plug-ins already included with SONAR 2.2.

FEATURES

- Integrated multitrack recording, editing, loop construction, automated mixing, and delivery of audio and MIDI

Audio Support

- Simultaneously record multiple audio tracks with support for multiple multi-channel hardware up to 24-bit/96 kHz.
- Unlimited audio tracks and real-time effects inserts, 16 auxiliary busses, and up to 64 virtual main outputs.
- WDM and ASIO driver compatibility (Windows 2000/XP) supports latency as low as 1.5ms and provides extremely fast audio processing and mixing including live input monitoring of effects and immediately responsive DXi soft synths.

MIDI Support

- Unlimited MIDI tracks and MIDI I/O ports
- Internal MIDI precision of 960 PPQN for rock-solid synchronization, recording and editing accuracy
- Real-time MIDI FX plug-ins for non-destructive MIDI editing.
- Precise multitrack Piano Roll, Notation, Event List and Drum Grid MIDI editing.

Loop Construction

- Support for beat slicing and import/export of ACIDized Wav file as well as live performance of loops using the included DXi soft Synth Cyclone.

Audio/MIDI Editing

- Non-destructive slip editing (trimming) of audio and MIDI data in the Track View
- Unlimited undo/redo with history for all editing functions.

Included Soft Synths and Effects Plug-ins

- Includes 3 DXi soft synths (4 in SONAR XL), 16 realtime DirectX audio effects (18 in SONAR XL) and 14 MIDI FX plug-ins.

Control Surface Support

- Direct support for the Mackie Control, CM Labs MotorMix, Tascam US-428 and US-224 as well as the Radikal Technologies SAC-2.2 provide dedicated real-time, hands-on control of your mix, automation, effects, and more.
- A Global Control plug-in features a learn-mode that allows you to quickly integrate other MIDI-compatible control surfaces.

Import/Export Audio

- Import multiple file formats: AIF, ASF, AU, AVI, BUN, MID, MP2, MP3, MPEG, MPG, SND, WAV, WRK
- Individual tracks or entire mixes including automation, plug-ins and DXi soft synths can be bounced to a new track within the current project or exported to disk
- Export as WAV, ACIDized WAV or export audio to AVI, Quicktime or MPEG video.
- Encode audio to MP3 with a 30 day trial version of Fraunhofer MP3 encoder, RealAudio G2, and Windows Media ASF.
- Import/Export of OMFI (Open Media Framework Interchange) and Broadcast Wave files — the film, video and audio industry's standards for saving and transferring digital post-production projects between different workstation platforms.

Synchronization

- Frame-accurate SMPTE synchronization with variable frame rates and auto-detection of incoming timecode
- Able to send/receive MIDI clock, receive MTC (MIDI TIME CODE) and send MMC (MIDI Machine Control) commands

SONAR 2.2 & SONAR XL 2.2

SONAR's streamlined Track View is the heart of your recording and editing environment. What's great about this view is that you can do all of your recording, arranging, mixing, and most (if not all) of your editing in one place. This really maximizes your creative workflow.

A number of tools are available for editing audio and MIDI clips including split, scrubbing, zooming, snap grid settings

Audio Scale Ruler is a vertical zoom tool for audio clips that allows detailed editing of quiet passages

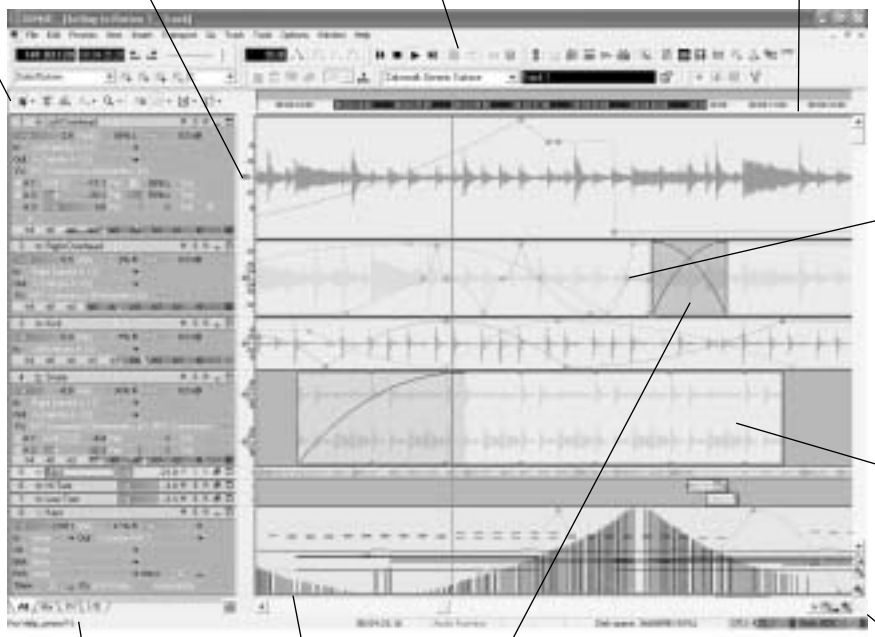
The customizable Toolbar ensures that the functions you need the most (transports, looping, tempo, markers, record mode, synchronization and more) are always a mouse click away. You can click on any toolbar and drag it to any location on the Track View.

The time ruler is switchable between Measures/Beats/Ticks, samples, Hrs/Mins/Secs/Frames. The shaded area represents loop and punch points

Track Pane
A dedicated channel strip for each audio and MIDI track allows you to control mixing, automation and effects without leaving the Track View.
Each channel strip can be individually resized allowing you bring into focus the specific track(s) you're working on.

Audio Track Controls Include:
Volume, Pan, Input Trim
Mute, Solo, Record arm
Input/output assignment
Effects inserts (insert, bypass)
Aux sends (level, pre/post assignment, pan, bypass)
Polarity invert
Mono/Stereo assignment
Input/Output Meter (switchable peak, RMS and peak + RMS with clip indicator and Hold function)

MIDI Track Controls Include:
Volume, Pan
Velocity + (Velocity trim)
MIDI input/output channel assignment
MIDI port assignment
Bank and Program selection with patch lists provided for all major synths
MIDI effects inserts (insert)
General MIDI compatible
Chorus and Reverb send controls
Key + (transpose)
Time + (time offset)



The Clips Pane is where you record and arrange Audio, Groove and MIDI clips

Automation data including mixing and effects for Audio and Groove clips can be freely drawn and edited with sample accuracy using a choice of 4 shapes – linear, fast and slow curves as well as jump (instantaneous change).

Beat–matched Audio Looping
Simply click and drag loops (Grooveclips or ACIDized .WAV files) where you want them and make tempo and pitch changes to audio in real-time. Click and drag the left or right edge of a groove-clip to have a loop repeat. You can even combine different loops on the same track.

These tabs allow you to quickly choose which items are to be displayed in the track pane (all parameters), Mix (volume, pan, trim), effects, I/O assignment

Crossfades can be created automatically between overlapping audio clips using one of 9 available crossfade presets.

Controller, RPN and NRPN data for MIDI clips can be edited in the Track View can be freely drawn using the same tools available to Audio clips
Controller data edited in the Piano Roll or Event List Views are also displayed with each MIDI clip

The Status Bar
Provides realtime display of the cursor location, whether the audio engine is running, how much disk space is available as well as global Mute, Solo and record status for the project.
The CPU and hard disk meters allow you to monitor the status of your system's available resources.

The zoom tools provide horizontal and vertical zoom down to the ample level allowing detailed audio editing directly from the Track View

Audio Loop Construction Toolkit

- Use the flexible beat slicing and time stretching/pitch shifting tools in the Loop Construction View and incorporate perfectly beat matched loops alongside your standard audio and MIDI tracks.
- Make tempo and pitch changes to audio in real-time.
- Combine an infinite number of different loops on the same track.
- The Loop Explorer allows you to quickly find, organize, and audition loops in real-time – even during playback.
- Import and export ACIDized WAV files, or create loops from any recorded audio, WAV, MP3, or AIFF file.
- Click and drag to lay down loops when and where you want them.
- Includes hundreds of license free loops.

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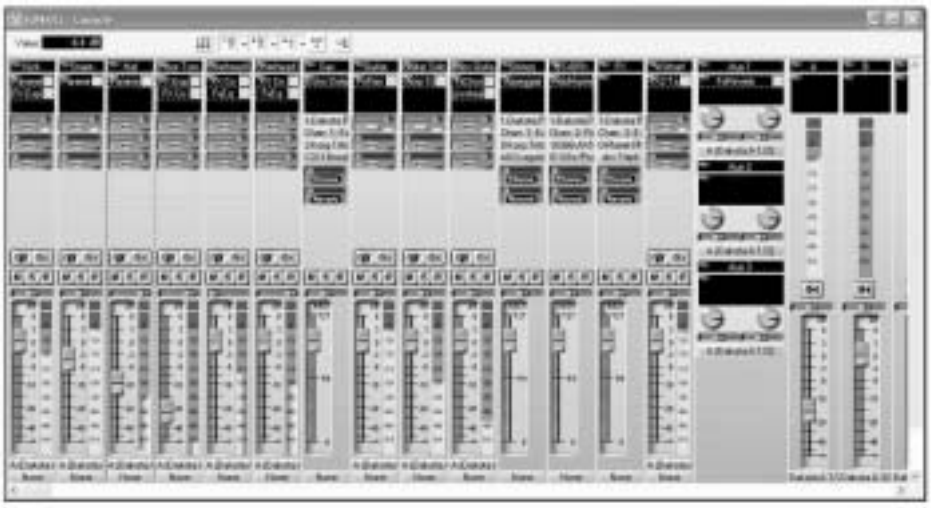
SONAR 2.2 & SONAR XL 2.2

Console View

Although you can control a complete mix directly from the Track View window, the Console View provides an alternative for mixing and automating audio and MIDI tracks using a familiar hardware-style mixing interface.

- Console View channels include audio, MIDI, auxes, virtual mains (master outputs).
- Each audio and MIDI track includes level, pan, mute, solo, record arm and comprehensive metering as well as access to plug-ins, auxes, busses and I/O routing.
- A pull down menu lets you to decide which audio and MIDI channels are to be displayed.
- Automation created in the Console View is automatically reflected as envelope automation in the Track View and vice-versa.
- Remote control of all mixing parameters are available via MIDI.



PLUG-INS

Fully-Automatable DirectX 8 Realtime Audio Effects

- Includes the following fully-editable, fully-automatable 32-bit DSP-FX audio plug-ins designed by Power Technology — StudioVerb, Parametric EQ, Delay, Chorus and Flange
- Automation can occur directly from the effect's interface, via MIDI or for an even higher level of precision, by drawing vector envelopes in the Track View
- Additional 32-bit, non-automatable effects include: EQ, Expander, Gate, Limiter, Tape Saturation, Pitch Shifting, and more
- Real-time, live input monitoring of effects is possible when using audio hardware that supports WDM drivers

Expand Your Suite Of Audio Processing Tools

- Hundreds of additional DirectX-compatible audio plug-ins are available from industry-leading third party developers including Antares and Waves

Alien Connections – ReValver – Virtual Guitar Amp Systems

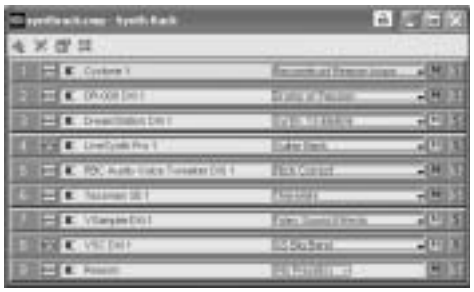
- Combining a wide variety of realistic pre-amp models with EQ, power amps and cabinets with post- EQ, and effects that can be routed in virtually any order — provides nearly endless possibilities
- Automatable parameters allow you to switch or morph between different guitar tones within one track

SONAR 2.2 & SONAR XL 2.2

DXi (DirectX Instruments)

- DXi is the open standard for soft synth plug-ins, based on Microsoft's DirectX technology
- DXi synths are CPU efficient with low latency — unlimited DXi synths can be loaded simultaneously (CPU dependent) with full automation and multiple output capabilities
- Three DXi instruments are included while additional DXi synths are available separately from leading developers including Native Instruments, IK Multimedia and others

Synth Rack

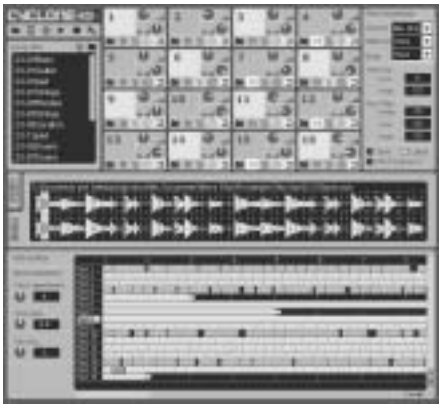


- The Synth Rack View allows you to easily insert instruments or ReWire devices into your project. It makes loading and working with synths in your project a snap – host Audio and MIDI tracks with proper I/O assignments are created automatically when an instrument is loaded
- View all of the loaded DXi synths at a glance along with their current presets

Audio Simulation – DreamStation 2.0 DXi Polyphonic Analog Synth

- Accurately reproduces analog synth sounds by modeling analog circuits and oscillators.
- Combines subtractive synthesis with FM synthesis.
- 3 oscillators, multimode self oscillating IIR filter, VCA, LFO, user EG for each voice.
- Waveforms include sine, triangle, sawtooth, pulse, square and noise.
- Filter types include 12dB/Octave Lowpass, Highpass, Bandpass, 24dB/Octave Lowpass and Formant.
- Up to 16 voices polyphony.
- Linear frequency modulation, Hard synchronization, Ring modulation, Distortion.
- Supports sample rates up to 96kHz.

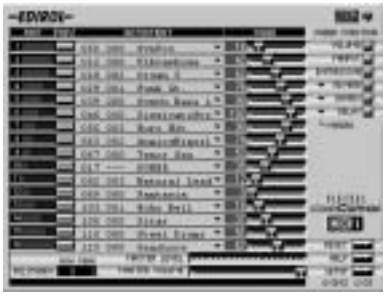
Cyclone DXi Groove Sampler



- Cyclone is a 16-part groove sampler, composition tool, and loop editor wrapped up in a single DXi synth – Load up to 16 loops (ACIDized .Wav or SONAR Groove Clip) or samples onto the 16 trigger pads and create loop-based compositions in real-time using any MIDI device, MIDI tracks, computer keyboard, or mouse.
- Samples will automatically match the tempo and pitch of your project.
- Rearrange, combine, slice, tweak, and customize samples to create new grooves.
- Control gain, pitch, and pan of individual loop slices.
- Fully adjustable loop points allow you to create unique polyrhythmic textures
- Supports multiple outputs & key mapping
- Export combined loops as a Groove clip that can be used in SONAR & other apps
- Snap to grid with assignable resolution.
- Slice preview

EDIROL – Virtual Sound Canvas 1.5 DXi

- Modeled after one of the world's most popular sound modules
- 16-part multi-timbral up to 128-voice polyphony
- GM2/GS compatible – 902 tones plus 26 drum sets
- Reverb, chorus and delay effects



ReWire 2.0 Support

- Patch Cakewalk's own Project5, as well as Propellerhead's Reason, ReBirth, and other ReWire 1.0 and 2.0 compatible devices right into the Synth Rack.
- Route ReWire channels into audio tracks and process with DirectX effects
- You can even use MIDI FX, automation, and sequencing capabilities to control Reason
- Add VST instruments and effects with an optional VST to DX converter.

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SONAR 2.2 & SONAR XL 2.2

MIDI Processing and Editing

- Quantize from a whole note to 32nd note triplets with multiple parameters including strength, swing, window and offset
- Groove Quantize functions include importing DNA grooves and extracting timing info from audio files
- Additional MIDI processing functions include transpose, slide, scale velocity and retrograde (reverse)

Multitrack Event List

- Provides a list of all selected events occurring in all selected tracks
- A display filter lets you to specify the data type(s) to be viewed and edited (notes, pitch bend, controller, etc...)

Multitrack Piano Roll

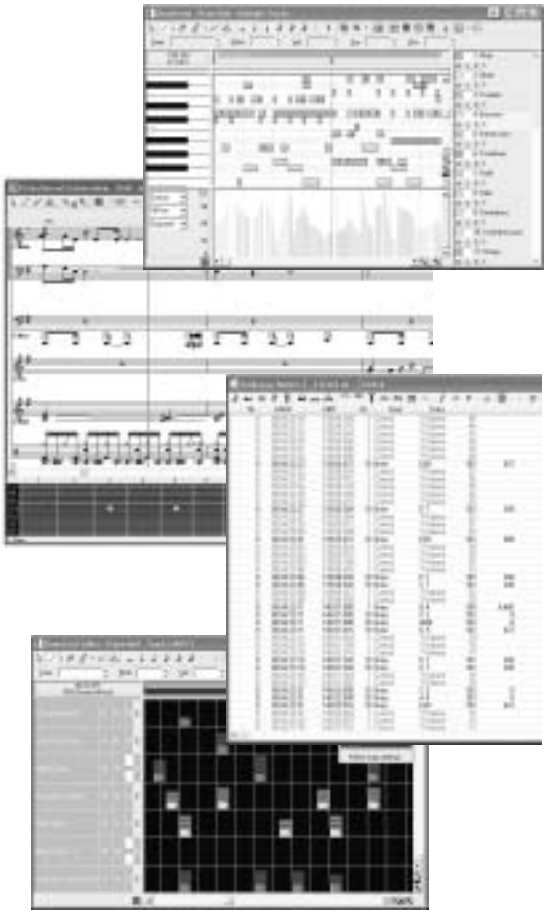
- The multitrack piano roll is a flexible and intuitive display that lets you select, and edit multiple tracks of MIDI notes and controller data simultaneously with a 64th note grid line resolution
- Includes monophonic and polyphonic Pattern Brush tool that allows you to paint complex MIDI parts

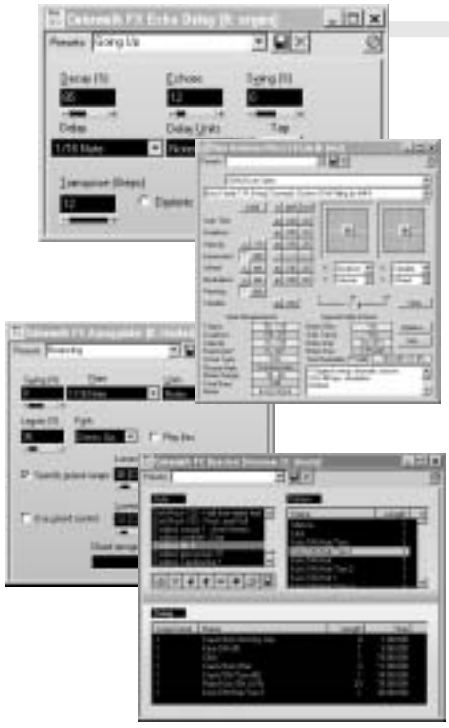
Drum Grid Editor

- Paint rhythmic patterns in a single mouse stroke using hundreds of included Smart Loops patterns, or create your own
- Custom drum maps – preview and create kits with real-time remapping across multiple MIDI devices, multiple outputs as well as DXi synths

Create Scores Fast

- View and edit MIDI events in standard notation, then print sheet music of complete arrangements or individual parts in sizable fonts
- Print 24 staves per page, along with lyrics, chord grids, percussion notation, dynamic markings, and enharmonic spellings
- Guitar tablature with customizable fretboard display
- A dedicated Lyrics view displays scrolling text during record or playback





MIDI FX plug-in library

- Non-destructively edit MIDI tracks with 14 included real-time MIDI FX
- Real-time MIDI plug-ins can be used on input, applied in as track inserts in the Track or Console view, or used as off-line commands

Session Drummer —

- Create and arrange drum patterns in real-time, selecting from a library of professional MIDI drum performances or your own MIDI drum tracks

NTONYX Style Enhancer Micro 2.0 Lite —

- Uses performance modeling in real-time to give MIDI recordings a more "human" feel

SlicyDrummer Lite—

- Instantly create drum loops by mixing and matching prerecorded patterns for each individual drum instrument

MusicLab Rhythm'n'Chords 2.0 Lite—

- Easily create MIDI rhythm guitar parts – Enter chord symbols, select a rhythm pattern and your guitar part is ready

MusicLab VeloMaster Lite —

- Real time MIDI dynamics processing of note velocity using an interactive graph.

MusicLab Looper —

- Create and edit MIDI loops – simply select the section a part of the track you want to loop, and drag it into the Looper window
- Quickly find and audition loops from your MIDI loop libraries.

MusicLab Fixed Length —

- Quickly set note lengths for your MIDI tracks – a compressor/expander for note duration

Plus the following additional plug-ins:
Arpeggiator, Quantize, Delay/Echo, MIDI Filter, Transpose, Velocity and Chord Analyzer

SONAR 2.2 & SONAR XL 2.2

SONAR XL

SONAR 2.0 XL provides all the capabilities of SONAR plus two 64-bit, fully-automatable DirectX 8 mastering effects, and an advanced DXi soft synth drum sampler.

- The Timeworks Equalizer is a fully-automatable, 64-bit mastering EQ with a integrated 30-band spectrum analyzer and phase meter. Both clean and vintage EQ algorithms, high and low shelf filters with resonance, 6 bands of bell filters, sweepable filter points, and adjustable Q
- The Timeworks CompressorX is a pristine sounding, versatile, 64-bit, fully-automatable mastering-quality compressor. It features hard or soft-knee compression, no-clip brick wall limiting, ultra-fast attack/release times, and analog-style metering
- The DR-008 is a powerful DXi drum sampler and synthesizer that provides advanced analog drum modeling (808, 909, etc...), flexible 32-bit sample playback (Wav, Aiff, LM4, etc...) along with pattern-based sequencing. Other features include 96 virtual drum pads for loading samplers and drum models, 8 stereo outputs, 8 aux outputs and a variety of editing functions for each pad. Six sample-based drum kits are included.
- Support for Digidesign audio hardware, including the Digi 001, 002, Mbox, and Pro Tools HD products using ASIO drivers under Windows XP.

Sonar 2.2 and XL 2.2 System Requirements	Minimum	Recommended
Operating System	Windows Me/2000/XP	2000/XP
Processor Speed	500 MHz	1.2 GHz
RAM	64 MB	256 MB
Hard disk space	100 MB for full program installation	
Hard disk type	Any	EIDE/Ultra DMA (7200 RPM) or SCSI Hard Drive
Graphics (resolution; color depth)	800 x 600; 256 colors	1024 x 768; 24-bit color
MIDI Interface	Windows-compatible	Windows-compatible
Sound Card [1]	Windows- compatible	WDM compatible [2]

1. Required for audio playback 2. Requires Windows Me/2000/XP

Pyro 2003 – Complete MP3 and CD Maker

Pyro provides an integrated environment that allows you to play, organize, edit, and restore your digital music, create audio and data CDs and download their music to a portable player. Pyro allows you to make MP3s, burn CDs, digitize and clean old LPs or cassettes, archive important data files and more — all within one centralized user interface.

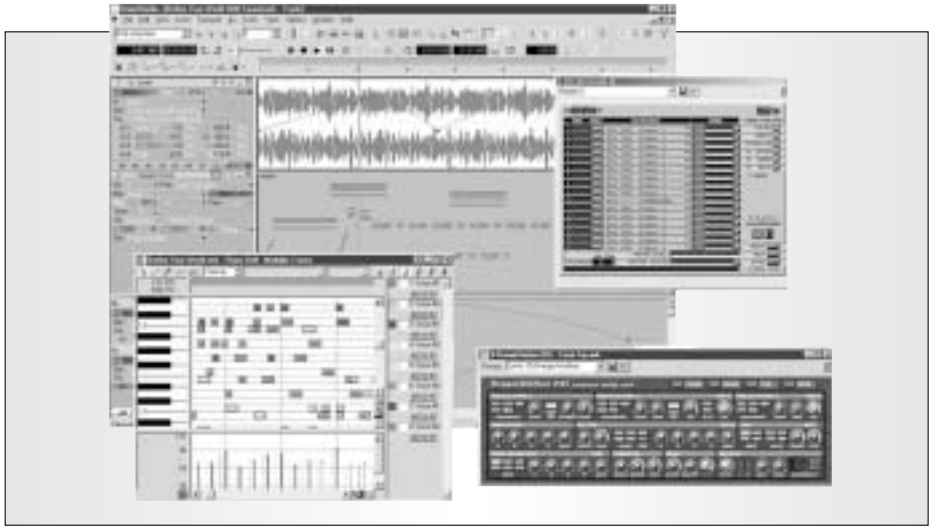
- Quickly turn your CDs into MP3s, WAV or WMA files
- Quickly locate and organize all the music files on your PC.
- Create unlimited MP3s
- MP3 files open automatically in Pyro's unique preview display waveform within seconds
- Convert LPs and cassettes into CDs, MP3s, WAV, WMA files.
- Auto-recorder with timer for recording LPs, cassettes and internet broadcasts.
- Rip individual songs or entire albums
- Split long audio files into multiple tracks
- Fully-integrated 64-bit EQ as well as click and noise removal.
- Integrated audio editor with waveform preview: non-destructive audio editing; edit fades, crossfades & volume visually
- Automatic crossfades and volume normalization between overlapping tracks.
- Instantly download song titles and artist info from Gracenote/CDDB.
- Portable music player support
- CD labeler kit included
- Back up your valuable PC files to data CD

CAKEWALK

HOME STUDIO 2004 & HOME STUDIO XL

Affordable Audio and MIDI Recording Software

Cakewalk's Home Studio 2004 and Home Studio XL are simple yet powerful recording tools, for the entry level musician and songwriter, based on Cakewalk's SONAR next-generation audio and MIDI technology. Home Studio 2004's intuitive Track View window lets you quickly record, edit, arrange, mix and automate unlimited audio and MIDI tracks in a single window. Acid style loop creation allows you to create and modify loops to match the tempo and pitch of any music project. A CD featuring an ACIDized loop library is included. Both programs include a number of DirectX audio effects and DXi Soft Synths, as well as MIDI effects with support for third party plug-ins. Both Home Studio 2002 and Home Studio XL are compatible with Windows 98/98SE/Me/2000/XP.



- Record and play back unlimited audio and MIDI tracks.
- Support for 16- and 24-bit audio up to 48kHz
- 960 PPQ MIDI resolution
- Real-time mixing console view
- 16 simultaneous real-time audio effects plus 16 simultaneous real-time MIDI effects
- 2 Auxiliary busses and 1 virtual Main Buss
- DirectX automation support
- Import .Wav, ACIDized .Wav and MP3 files and export to .Wav, MP3 and Real Audio G2
- Loop-based song construction tools with automatic tempo and key matching of Groove-Clips and ACIDized .Wav files
- Non-destructive slip-editing of audio and MIDI clips
- Unlimited number of edit undos
- Audio and MIDI envelope automation of volume, pan, aux sends and MIDI controller data
- Bounce down individual tracks or an entire mix with automation and effects
- Professional MIDI editing including multitrack piano roll view and SysEx editing.
- Integrated DXi Soft Synth Plug-ins include Virtual Sound Canvas and DreamStation with support for third-party plug-ins.
- Includes 6 realtime audio effects including Amp Sim Lite, Reverb, Chorus, Delay, Flange, EQ with support for hundreds of available third-party DirectX plug-ins.
- 5 realtime MIDI effects – Arpeggiator, Quantize, Delay/echo, Change Velocity, MIDI event filter, Session Drummer, NTONYX Syle Enhancer Micro 2.0 Lite and MusicLab VeloMaster Lite.
- Import and synchronize AVI video to music projects
- Compose, edit and print sheet music, along with chord symbols, guitar chord grids, lyrics, dynamic markings
- Remote Control (for MIDI Gear)
- Includes a complete library of ACIDized audio loops as well as Fruityloops Express loop generator.
- Burn CDs and create MP3s with trial version of Pyro.

Home Studio XL Adds—

- FXPansion DR008 SE Drum Sampler
- An extra CD containing over 600 loops from the Smart Loops collections, also including dance and techno loops from PowerFX and X-Mix
- AFX1 - Total Dynamics Processing - A complete home studio mastering suite: Compressor/gate to keep levels similar, a limiter to keep your volumes below a set threshold, and an expander/gate to make loud parts louder and soft parts softer.

SOFTWARE COMPARISON CHART

Cakewalk Product Comparison	SONAR 2.2 XL	SONAR 2.2	Home Studio XL	Home Studio 2004
Number of Audio Tracks	unlimited	unlimited	unlimited	unlimited
Number of MIDI Tracks	unlimited	unlimited	unlimited	unlimited
Number of real-time audio effects	unlimited	unlimited	16	16
Number of real-time MIDI effects	unlimited	unlimited	16	16
Control surface Support	Yes	Yes	Limited	Limited
Synth Rack	Yes	Yes	No	No
Multi-port Synths	Yes	Yes	No	No
DXi 2.0 support	Yes	Yes	No	No
Rewire 2.0 support	Yes	Yes	Yes	Yes
Advanced Project Management	Yes	Yes	No	No
Cyclone DXi	Yes	Yes	No	No
Yamaha OPT Panels Support	Yes	Yes	No	No
Multi-port drum editing	Yes	Yes	No	No
# of Aux Buses	16	16	2	2
Virtual Main Buses (Stereo Outputs)	64	64	1 at a time	1 at a time
Direct X Automation Support	Yes	Yes	Yes	Yes
Direct X Automatable Plug-Ins	Yes	Yes	No	No
Audio FX 1 Plug	Yes	Yes	Yes	No
Audio FX 2 Plug	Yes	Yes	No	No
Sonic Timeworks EQ	Yes	No	No	No
Sonic Timeworks Compressor X	Yes	No	No	No
Import ACID .wav files	Yes	Yes	Yes	Yes
Groove-Clip	Yes	Yes	Yes	Yes
Loop Construction View	Yes	Yes	Yes	Yes
Assorted ACID-format Loops	Yes	Yes	Yes	Yes
Unlimited Undo	Yes	Yes	Yes	Yes
Bounce Down Tracks	Yes	Yes	Yes	Yes
Audio Envelopes	Yes	Yes	Yes	Yes
MIDI Envelopes	Yes	Yes	Yes	Yes
SMPTE/MTC, MIDI sync, MMC	Yes	Yes	No	No
Professional MIDI Editing	Yes	Yes	Yes	Yes
Virtual Sound Canvas DXi Soft Synth	Yes	Yes	Yes	Yes
DreamStation DXi Soft Synth	Yes	Yes	Yes	Yes
Live Synth DXi	Trial	Trial	Trial	No
DR008 DXi Drum Sampler	Yes	No	Yes	No
Fruityloops 2.7 Express	Yes	Yes	No	No
FX Pad (DX8 plugin)	No	No	No	No
Real Time Audio Effects	18	18	6	6
Real Time MIDI Effects	15	15	5	5
Multiple Monitor Support	Yes	Yes	No	No
Studioware Panels	Yes	Yes	Yes	Yes
Multiple Sound Card Support	Yes	Yes	No	No
Lyrics and Markers View	Yes	Yes	Yes	Yes
Video	Yes	Yes	Yes	Yes
Compose and Print Sheet Music	Yes	Yes	Yes	Yes
Sysx Editing	Yes	Yes	Yes	Yes
Audio Support	up to 24-bit	up to 24-bit	up to 24-bit	up to 24-bit
Max Sample Rate	96 kHz	96 kHz	48 kHz	48 kHz
Remote Control (for MIDI Gear)	Yes	Yes	Yes	Yes
CAL Programming Language	Yes	Yes	No	No
Fraunhofer MP3 Export	limited trial	limited trial	limited trial	limited trial
Export to WAV, Real Audio G2	Yes	Yes	Yes	Yes

PROJECT5

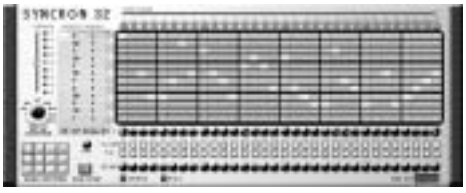
Soft Synth Workstation

Project5 is a complete virtual studio that combines a suite of DXi compatible soft synths and samplers with sequencers, audio and MIDI effects and Acid-compatible audio looping tools — all in a single integrated production environment. The Project5 soft synths include a polyphonic analog-modeling synth, multi-format compatible professional sampler, drum synthesizer, sampling drum machine as well as the coveted Cyclone DXi groove sampler. The Project5 sequencers allow real-time and step-recording, as well as piano-roll style editing and step sequencing. Project 5's live performance audio engine provides you with realtime control over the soft synths and samplers with advanced, user-configurable synth layering and keyboard mapping, as well as the ability to trigger patterns in realtime. Project5 also allows you to customize and expand your studio's arsenal with support for additional soft synths, audio and MIDI effects, sample libraries. Everything in Project5 is automatable! That means that you can automate every mix, synth, and effect parameter. Make changes on screen or use learn mode to quickly integrate your favorite hardware surfaces and MIDI devices. Project 5 will work with any WDM, MME, or ASIO-compatible Windows hardware, and also sends MIDI Sync to outboard sequencers. In addition, Project5 instruments and effects will integrate directly into SONAR. Project5 comes packed with nearly 2 CDs of professional samples and ACID-format loops from Q-Up Arts, FXpansion Audio, ProSamples, and Smart Loops.

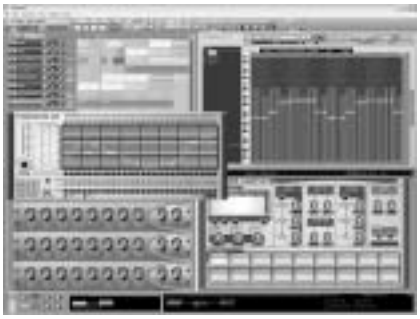
P-SEQ - Pattern Sequencer

- Easily create and edit music and automation using an intuitive "piano roll" style pattern sequencer that superimposes track automation with note data.
- Record using step and real-time modes
- Pattern preview, auto-looping, and a range of editing tools allow you to tweak each pattern to perfection.
- You can automate track and MIDI data as well as any DXi or audio effect parameter.
- The Pattern Bin lets you browse, organize, and audition multiple patterns. Patterns can be dragged to the Pattern Editor for additional editing.
- All data can be treated as a pattern and automation can be written to pattern independent of note data. Edited patterns can be sent to a track where you can click and drag to repeat patterns for the required duration, and cut and paste patterns to when and where you like.

SYNCHRON32 - Step Sequencer



- Analog hardware-style step-sequencing allows you to quickly generate patterns, trigger synths, and trigger patterns in real-time from MIDI devices.
- Provides 32 steps with control over pitch; rhythmic duration with shuffle; tempo sync; per-step flam, legato, bends; polyphonic mode; 32 banks for pattern presets.
- After creating patterns in SYNCHRON32, you can simply right click in the Track View and select from the list of preset patterns. Then click and drag to repeat patterns for the required duration, and cut and paste patterns wherever you like.



- ACID-compatible loop integration with automatic beat matching, flexible time stretching/pitch shifting, and support for multiple loops per track. Click and drag to roll out tracks using ACIDized loops that match your projects tempo and pitch.
- Advanced synth layering and keyboard mapping capabilities allow you to perform and record using multiple MIDI controllers routed to multiple instruments; or use multiple, layered instruments or split synths from one MIDI controller.
- The realtime live performance audio engine provides a continuous musical workflow, allowing changes to be made on the fly and never compromises playback.

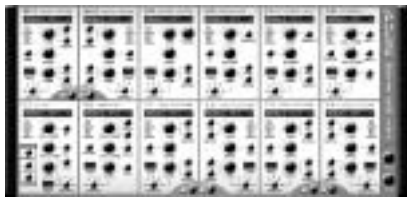
CAKEWALK

PROJECT5

PSYN — Virtual Analog Synth

- A fully automatable, 64-note polyphony, subtractive synthesizer with multiple filters, oscillators, envelope generators, and LFOs designed to give you access to classic 70s analog and contemporary electronic sounds. Other features include: a modulation matrix that provides tempo sync effects; portamento, ring modulation, FM synthesis and more.

nPulse — Analog Modular Drum Synthesizer

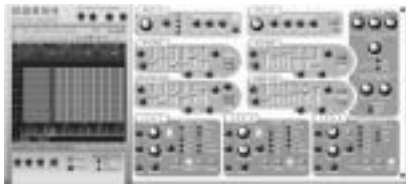


- 12-voice multi-timbral drum synth with one oscillator per voice combines the vintage-style electronic drum voices of classic TR-series drum machines, with the flexibility of modern day soft synths.
- 5 assignable outputs; multiple presets; sync effects; key-mapping.

Velocity — Drum Sampler

- The multi-timbral drum sampler provides 18 polyphonic voices with up to 32 velocity-layered samples and 5 stereo outputs.
- Precise sample editing with effects.
- Supports WAV, AIF, LM4, and proprietary format sample formats.

DS-864 — Digital Sampler

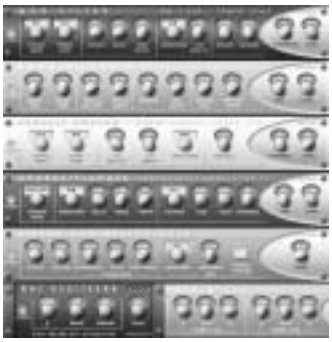


- Flexible and easy-to-use with support for up to 8 layers, 64 voice polyphony and 8 audio outputs.
- Supports key mapping and velocity zones
- Sample-level editing and effects for creation of new sounds.
- Two resonant filters with key tracking can be configured in series or parallel
- Four 6-stage envelopes with multiple slopes
- Support for Akai S5000/6000, Kurzweil, Sound Fonts 2, WAV, AIF, and proprietary sample formats.

Cyclone — Groove Sampler

- 16-part, ACID-compatible groove sampler, composition tool, and loop editor.
- Trigger loops in real-time following the tempo and pitch changes of a project.
- Edit individual slices of individual loops, and even combine parts of multiple loops.

Automatable Effects



- Access a rack worth of quality automatable DX audio effects including: Envelope/LFO Filter; Stereo Delay/Echo with tempo sync; Exciter; Classic Phaser; Studio Reverb; Stereo Chorus/Flanger, Stereo Graphic and Parametric EQ; and a Compressor/Gate.

Spectral Transformations

- Turn your audio inside out with six unique realtime effects integrated into one plug-in.
- Transposer – real-time pitch shifting produces major tonal changes ranging from high reedy sounds, to richer low sounds.
- Accumulator – glissando, delay, pitch bends and reverberation effects.
- Exaggerator sweeps through the peaks and valleys of spectral frequencies bands.
- Lo-Hi Filter removes frequencies above or below specified frequency levels.
- Tracer allows you to thin the sound until only a 'trace' of its former self remains.
- Shifter adds/subtracts the values to various frequency components.

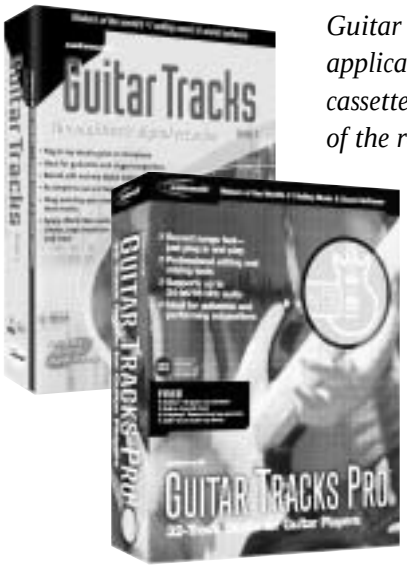
Expand and Customize

- Add DXi or VSTi synths to expand your studio. Use Project5 instruments and effects directly in SONAR.
- Edit and mix using the included audio & MIDI FX. You can also add third party MFX or DX effects as well as VST effects using the included VST/DX adapter.
- Integrate Project5 with a ReWire-compatible host like SONAR 2.x for advanced audio recording, editing, and mixing.
- Works with any WDM, DirectSound, or ASIO compatible Windows hardware.
- Sends MIDI Sync to outboard sequencers.

CAKEWALK

GUITAR TRACKS PRO & GUITAR TRACKS 2

Multitrack Recording Software For Guitar Players



Guitar Tracks Pro and Guitar Tracks 2 are straight forward digital audio recording and mixing applications for the Windows platform, that combine the ease of use of a portable multitrack cassette recorder with the power and flexibility of your PC. Each software package provides all of the recording, mixing, and editing tools the guitarist or singer/songwriter needs to achieve professional results. Guitar Tracks 2 features two track simultaneous record and eight track playback at 16-bit/48kHz. Guitar Tracks Pro features up to 32 simultaneous record/playback tracks with support for 24-bit/96kHz audio hardware. Both packages also feature guitar amp simulator plug-ins and other high-quality DirectX effects with support for third party plug-ins, a software-based drum loop generators and a chromatic-tuner. Whether you are a seasoned pro that needs a scratchpad for capturing ideas at the drop of a hat, or taking your first step towards computer-based recording, you will find that the no nonsense user interface and transparency of Guitar Tracks 2 and Guitar Tracks Pro will not stand between you and your music.

- Multitrack cassette recorder interface — just plug in your guitar or a mic into your sound card and start recording
- Record, edit and mix up to eight tracks of digital audio (32 tracks with Guitar Tracks Pro) and Mix down to stereo WAV files to burn CDs or make MP3s for the Internet (Trial version MP3 Encoder Included)
- Easy punch-ins, looping, and locate markers help the creative process keep moving
- The Edit View lets you move around song ideas with drag and drop ease
- Cut, copy and paste audio clips with the click of a mouse
- Digitally bounce audio for virtually unlimited tracks
- Includes stereo EQ, delay, flange, chorus, reverb and guitar amp simulation with two vintage amp models, British Overdrive and American Lead
- DirectX plug-in compatibility provides access to hundreds of 3rd party plug-ins
- Built-in chromatic tuner
- Includes Drag-and-Drop Drummer Lite – a simple tool that lets you construct pro-quality drum tracks from a library of digital audio drum loops
- The included SlowBlast guitar practice software lets you grab a guitar riff from an audio CD, slow it down, without changing its pitch and loop it until you learn it

Guitar Tracks Pro Adds –

- Record and playback up to 32 tracks of digital audio.
- 32-bit mixing and audio effects, and support for up to 24-bit/96 kHz audio
- Clip-based envelope mixing
- Dynamics processing including compressor, gate, expander
- ReValver SE guitar amp simulator lets you choose and tweak various pre-amps and power amps, 9-band EQ, Auto-Wah, and Stereo Reverb
- Fruityloops Express drum loop generator provides unlimited beat sequences with a variety of drum kits, audio samples, and drum patterns to use or modify.
- ACIDized audio loop library included

System Requirements

Windows 98, 98 SE, Me, 2000, XP
300 MHz processor; 64 MB RAM; 100 MB free hard disk space, CD-ROM drive and a Windows-compatible sound card

	Guitar Tracks Pro	Guitar Tracks 2
Maximum Number of Tracks	32	8
Highest Supported Audio Format	24-bit/96 kHz	16-bit/48 kHz
Multi-channel Audio Card support	Yes	Stereo only
Max # of Simultaneous Effects	16	8
ReValver SE Amp Simulator	Yes	No
Dynamics Processing	Yes	No
ACIDized Loop compatible	Yes	No
Chromatic Tuner	Yes	Yes
Fruityloops Express	Yes	No

B&H PHOTO - VIDEO - PRO AUDIO
ONE HOUR FREE PARKING
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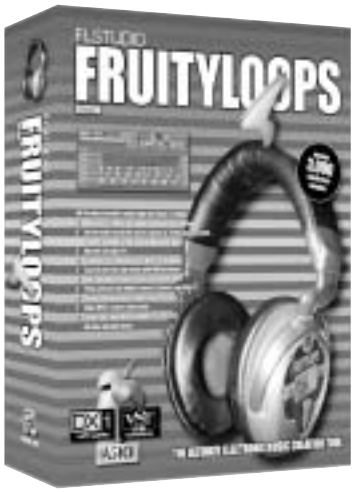
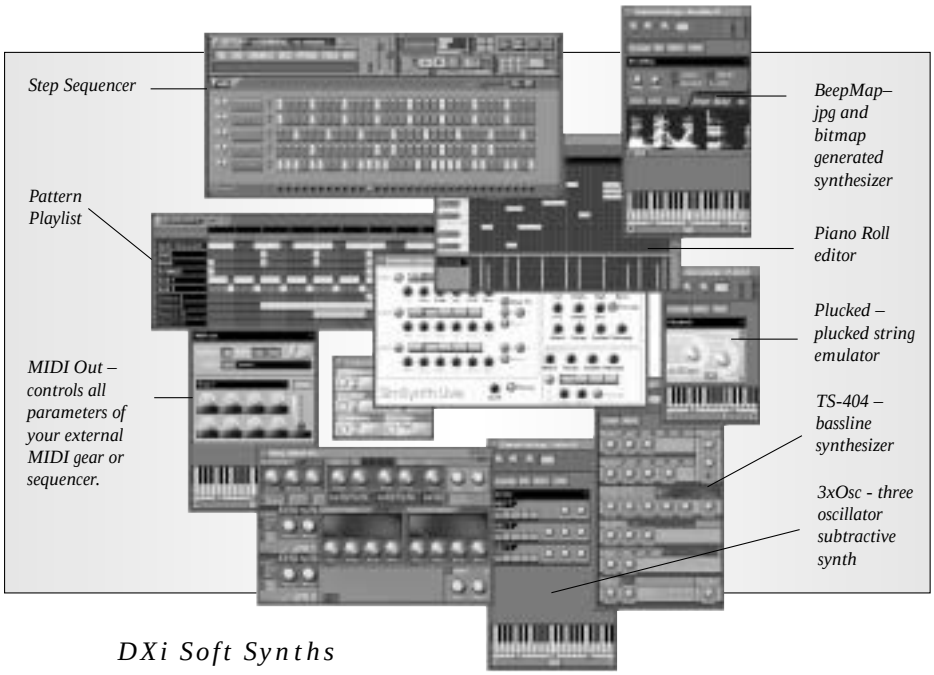
FRUITYLOOPS 4

Music Creation Tool



FruityLoops is a hybrid loop creation and drum sequencing tool for Windows 2000 PCs, that combines loop generation, synth emulation, and pattern-based sequencing within a user-friendly photo-realistic interface. Features include an integrated BeatSlicer and Sample Browser, CD-quality stereo output, an integrated TS-404 bass line generator, a virtual keyboard, MIDI and DirectSound support, and individual panning/volume/pitch/mix controls. In addition to the built-in effects and sound generators, FruityLoops also provides support for DXi soft synths and DirectX audio effects. You can export samples to WAV, MP3, or MIDI files.



- Standalone and VSTi includes a wide variety of sound generators, sampled sounds, and emulations of vintage gear combined into one easy to use program
- CD quality 16Bit/44KHz stereo output
- Export loops and songs to .WAV, MP3, and MIDI
- Includes five polyphonic soft synths, over 3000 samples, and 250 loops right out of the box.
- Integrated TS-404 bass line generator
- Unlimited number of tracks and samples
- Pattern-based sequencing with 4 to 64 notes per pattern.
- Piano Roll view with chords, note lengths and slides
- External control from MIDI keyboard or PC keyboard.
- Integrated sample browser
- Control panning, volume, pitch, mix, and tonal characteristics for individual samples
- Playlist view for mixing several patterns
- Peak meters
- Skin support for custom graphics
- BeatSlicer support

Minimum System Requirements

Windows 95/98/Me/2000, Pentium class 200MHz processor, 32MB RAM, Windows-compatible audio hardware, CD-ROM drive

DXi Soft Synths

- Supports DX Instruments (DXi) from Cakewalk and includes the Dreamstation DXi soft synth.
- Additional software synths are available from leading manufacturers like Native Instruments, Edirol and many others.

Automation

- You can record movements you make on any wheel or slider in Fruityloops or on your external MIDI controller in realtime.
- Automation of main sliders, volume, effects, oscillators, resonance, cut-off, panning, mute, effects sends, tempo, and more.
- After recording you can edit it all in a handy, graphical event editor. You can also draw in automation data or use an
- LFO generator to automatically create fluent automation movements.

Create and Mix On The Fly

Create drum and melodic patterns using Fruityloops instruments and the included Piano Roll view. Then arrange your patterns using the Playlist view to create your own songs and mixes.

DirectX & VST Plug-in Support

- 16 auxiliary effects channels and one master effects channel is provided for patching DirectX audio effects.
- VST plug-ins are also supported including: 7 Band EQ, Bassboost, Overdrive, Ultrafunk Compressor, Delay, Fast LP, Filter, SmartElectronix Flanger, Free Filter, SmartElectronix Phaser, Ultrafunk Reverb, and more.

DIGIDESIGN

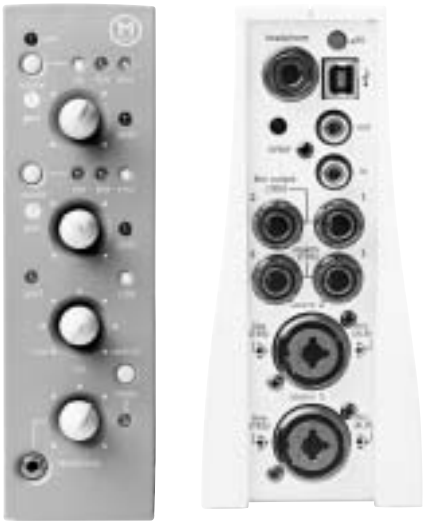
M-BOX

2 Channel USB-powered Pro Tools LE-based Micro Studio

Mbox is a compact and affordable 2-channel USB-powered audio interface for MacOS 9.1 and up, MacOS X 10.2.3 and up, and Windows XP, that's been specifically engineered to offer the home/project studio and the pro who needs a studio quality digital recording, mixing and editing environment that can be taken virtually anywhere. Mbox features a pristine 24-bit input-to-output signal path with two Focusrite designed (Green Range) mic preamps accessible via 1/4″ TRS / XLR analog inputs; two 1/4″ analog outputs as well as 1/8″ and 1//4″ headphone jacks with a dedicated volume control for monitoring. A 24-bit stereo S/PDIF digital I/O is also provided for transferring data to and from the Mbox entirely in the digital domain. Every Mbox includes ProTools LE software which features 32 audio tracks and 128 MIDI tracks along with a host of RTAS (Realtime) and AudioSuite (File-based) effects plug-ins.

FEATURES

- Two analog inputs featuring two Focusrite mic preamps with variable gain and switchable 48V phantom power.
- XLR, 1/4″ inputs using Neutrik combo connectors with separate source selection (MIC/LINE/INST) and gain controls with peak LEDs per channel.
- Two analog inserts, using 1/4″ TRS connectors, allow you to use outboard processors while recording to disk.
- 1/4″ TRS left and right outputs with 24-bit D-to-A converters.
- Support for 44.1 kHz and 48 kHz sample rates.
- 24-bit signal path from input to output
- 24-bit coaxial S/PDIF digital I/O allows you to work entirely within the digital domain.
- Zero-latency monitoring
- Inputs and outputs accept both balanced and unbalanced connections.
- 1/4″ and 1/8″ headphone outputs with dedicated volume control.
- 100% USB powered
- Mbox sessions can be migrated to another Pro Tools platform, from Digi 001 to Pro Tools|HD, for further manipulation.
- Includes a USB cable



Specifications

Mic pre-amp: > -120 dB EIN @ > 40 dB gain	
A/D Dynamic Range:	101 dB (A-weighted) 99 dB (unweighted)
Maximum Input:	+24 dBu
D/A Dynamic Range:	103 dB (A-weighted) 101 dB (unweighted)
Frequency Response:	20 - 20k Hz (±0.5dB)
Maximum Output:	+4.2 dBu

Software Supplied with System

- **Pro Tools LE** Software — 32 audio tracks, 128 MIDI tracks with powerful editing, mixing real-time plug-in support and automation.
- **DigiRack RTAS and AudioSuite Plug-Ins:** D-Verb, Dither, Dynamics II, EQ II, Invert/Duplicate, Mod Delay, Normalize/Gain Change, Reverse/DC Removal, Signal Generator, Time Comp-Exp/Pitch Shift, Trim
- Digidesign **ASIO Driver** for Windows XP allows you to use the Mbox with a wide range of popular third-party audio apps such as Cakewalk SONAR 2.2, Propellerhead Reason and Ableton Live.

DigiStudio

DigiStudio is featured component of ProTools software that provides a revolutionary way to collaborate with other Pro Tools users via the Internet. DigiStudio participants interact from any Net-connected location to exchange Pro Tools session media, from raw audio tracks to MIDI data to plug-in information to automation.

DIGI 001

PCI-based Pro Tools LE Music Production System

The Digi 001 is a computer-based 24-bit digital audio workstation system that offers a seamless hardware and software solution, on both the MacOS and Windows platforms, for project studios and production suites.

The Digi 001 system combines a rackmountable breakout interface and PCI card that together provide 18 channels of simultaneous analog and digital I/O, including two high-quality mic preamps and MIDI I/O. Also included is the latest version of Digidesign's powerful recording, mixing, automation and editing software, Pro Tools LE, which offers 32 tracks of audio, 128 MIDI tracks as well as real-time (RTAS) plug-in support.

FEATURES

18 Simultaneous Inputs And Outputs

- All inputs and outputs run at a 24-bit resolution at 44.1 or 48 kHz sample rates
- Eight channels of 1/4″ balanced analog inputs and outputs
- 2 mic preamps, with switchable phantom power, variable and a switchable 26dB pad are provided on the front panel.
- Eight channels of ADAT optical I/O (located on the PCI card)
- Coaxial S/PDIF digital I/O
- One MIDI In and one MIDI out port is provided for accessing an external control surface, keyboard controller, synth, sampler or other MIDI device.
- A pair of 1/4″ TRS stereo monitor outputs with a dedicated volume control run in parallel to the Main outputs (outputs one and two).
- Headphone output with separate volume control.
- 1/4″ footswitch port for QuickPunch recording control.
- Rack ears are provided for installing the I/O box in a standard 19″ rack.

Digi 001 Factory Bundle

- With over $2,400 worth of plug-ins from Digidesign and their Development Partners the Digi 001 Factory bundle is an ideal choice for rounding out your home and project studio production environment.

Plug-ins include:

- Digidesign's D-Fi, D-Verb and Maxim combining a unique blend of creative processing plug-ins, high-quality reverb and mastering tools.
- The classic analog sounds of the 1176, LA-2A compressors and the mooger-fooger Lowpass filter from Bomb Factory.
- Supertap, Metaflanger and Q10 EQ from Waves
- Native Instruments Dynamo 001 Edition analog synthesizer
- Also includes the iLok USB Smart Key which provides a portable, convenient way to store software authorizations.

DIGIDESIGN

DIGI 002

FireWire-based Pro Tools LE Music Production System

The Digidesign Digi 002 is a 24-bit/96kHz FireWire-based mini studio that combines a touch-sensitive control surface borrowed technology from Digidesign's Control|24; an audio interface with eighteen simultaneous audio ins and outs, including 4 mic preamps; MIDI I/O; along with the latest version of Pro Tools LE software that works with both Windows XP and Mac OS 9.x and Mac OS X 10.2.3 and higher. The Digi 002 delivers seamless integration between hardware and software as each and every adjustment of the control surface is reflected in the Pro Tools LE software interface — and vice versa. Adding even greater flexibility, the Digi 002 can be uncoupled from Pro Tools and used as a stand-alone mode as an 8x4x2 digital mixer with onboard EQ, dynamics, delay and reverb. The Digi 002 comes bundled with over $2200 worth of high-powered plug-ins from Digidesign, IK Multimedia, Native Instruments, and Waves.

FEATURES

- Audio, MIDI and control surface information is passed over a single IEEE 1394 FireWire cable.
- All audio is processed at 24-bit resolution with sample rates up to 96 kHz providing a dynamic range greater than 108 dB.

18 Simultaneous Channels of Inputs and Outputs

- 8 simultaneous 24-bit/96 kHz analog inputs: eight 1/4″ TRS inputs and four XLR mic pres with individual gain and high-pass filter; 48V phantom power enabled on channel pairs.
- Eight 1/4″ TRS analog outputs with 24-bit/96 kHz D-to-A converters
- Left and Right 1/4″ TRS Monitor outputs (+4 dBu) with dedicated volume control mirror Main outputs 1 and 2.
- 1/4″ TRS headphone output with dedicated volume control knob
- Unbalanced RCA –10 dBV fixed output
- Eight channels of ADAT optical I/O (up to 48kHz), switchable to 2 channels of optical S/PDIF I/O (up to 96 kHz).
- Two channels of coaxial S/PDIF digital I/O supporting up to 24-bit, 96 kHz audio
- Alternate RCA –10 dBV inputs for monitoring tape decks, CD players, etc.)

Control Surface

- The top panel is arranged into four sections: The Fader section includes eight channel strips; The Console/Channel View section provides controls for viewing and controlling inserts, plug-ins and sends; The Transport and Navigation controls access many on-screen navigation features.

Additional Features

- One MIDI In port and two MIDI Out ports, providing up to 16 MIDI input channels and 32 MIDI output channels can be used for adding a keyboard controller and/or external synths and samplers, etc.
- 1/4″ TRS Footswitch for QuickPunch I/O control.

Included Software

Includes the latest version of Pro Tools LE software as well as a number of high quality plug-ins, offering more power and flexibility than ever before including up to 32 tracks. The free plug-ins are valued at over $2,250 and include: SampleTank LE and Amplitube by IK Multimedia, D-Fi, D-fx and Maxim by Digidesign, PR0-52 by Native Instruments, Renaissance Collection by Waves

Stand Alone Mixing

- The Digi 002 can be used in stand-alone mode, (without your computer) as an 8x4x2 digital mixer with onboard effects (including dynamics processing, EQ, delay and reverb) and snapshots.
- 8 analog inputs including 4 mic preamps, with dedicated volume, pan, solo and mute controls.
- Dedicated three-band EQ available on input channels 1–8
- Dedicated Compressor/Limiter available on input channels 1–4
- Built-in high-quality Reverb and Delay
- Four sends on each input channel:
  Sends 1–2 dedicated to internal Delay and Reverb effects
  Sends 3–4 can be used for integrating external effects.
- Stereo Main and Monitor 1/4″ TRS (+4dBu) outputs plus an alternate Main Output pair (–10 dBV) that mirrors the Main Outputs.
- Stereo headphone output with level control
- 10 scribble strips for pan/volume and effects control, send levels, and track names
- Channel metering available using rotary encoder LED rings (in Meter mode)

DIGI 002

Mic Pre Controls including variable Gain and source select (Mic/Line/Inst)

Multi-purpose scribble strips for displaying track name, pan, send, fader, plug-in values and timeline position.

Multi-purpose, velocity-sensitive rotary encoders with LED position indicators.

Solo/Mute/Rec enable buttons

Eight 100mm motorized touch-sensitive faders

Headphone output with level control plus a separate Monitor output control.

Instantly switch between channel views – EQ, Dynamics, Inserts and Pan/Send.

Status indicators displays MIDI, FireWire and L/R output activity in realtime as well as the currently selected sample rate

Specialized function keys for Pro Tools software and standalone mode

Navigation buttons can be assigned for fader bank select, zoom in/out and nudge

Instantly switch between Plug-in, Mix and Edit windows. Play/Rec mode switches include Loop Play, Loop Record and Quick Punch

Transport controls – Play, Record, Stop, FF, Rew and Return To Zero

Two IEEE-1394 FireWire Ports — the first port connects the Digi 002 to the "Host" computer while the second port allows you to daisy-chain additional peripherals such as FireWire hard drive.

Eight simultaneous balanced inputs: four 1/4˝ TRS line / instrument inputs and four XLR mic inputs (channels 1 -4); and four 1/4˝ TRS line inputs (channels 5-8).

Digi 002 Rack — 2U FireWire Interface

Digi 002 Rack is Digidesign's first rackmount FireWire-based Pro Tools product. Designed with both recording and performing musicians in mind, Digi 002 Rack features analog, digital and MIDI I/O, 24-bit/96 kHz converters, and 32-track Pro Tools LE software to provide you with a creative playground like no other.

- FireWire connectivity — A single FireWire/IEEE-1394 cable conveys all digital audio, MIDI data, and Pro Tools data between Digi 002 Rack and your PC or Mac
- 24-bit/96 kHz fidelity
- 18 channels of audio I/O: 8 analog (with 4 mic preamps), 8 ADAT optical, and 2 S/PDIF
- Integrated MIDI I/O (16 channels in/32 channels out)
- 32-track Pro Tools LE 6.x software

Includes DigiRack plug-ins and the Digi 002pack v2.0: a cross-platform RTAS, AudioSuite plug-in bundle.

Digidesign Maxim and DiFi — World-class peak limiting and sound level-maximizing and Analog and retro signal processing in the digital domain

IK Multimedia SampleTank SE — Includes 64 factory preset instruments to enhance your compositions; and **AmpliTube** with over 1,200 amp configurations as well as stomp box and effects modeling.

DIGIDESIGN

PRO TOOLS LE

Host-Based Music Production Software

Pro Tools LE is the music production software that is bundled with Digidesign's host-based hardware audio interfaces. Using the host processing capabilities of today's super fast Mac and Windows computers Pro Tools LE allows you to record and play up to 32 mono digital audio tracks and up to 128 MIDI tracks with a host of non-linear, random-access, precision editing and mix automation functions all within a non-destructive environment. Pro Tools LE is essentially divided into two main working environments: The Edit window and the Mix window. The Edit Window provides a graphic overview of your song along a timeline that allows you to adjust every aspect of both audio and MIDI data simultaneously and at sample-level resolution. Using the Edit window you can trim (resize) waveforms, reprocess regions of audio, as well as rearrange and automate your song all within one streamlined and elegant interface. The Mix window's console-style graphic interface displays audio and MIDI channels in the same order that they appear in the Edit window. The Mix window not only provides access to standard volume, pan, mute and solo functions, it allows you to process your audio tracks with realtime (RTAS) effects plug-ins — up to five effects sends and five inserts per track, depending on available CPU resources. Both the Edit and Mix Windows provide a variety of methods for automating your mix to perfection. Audio Tracks can be recorded with selectable 16-bit or 24-bit resolution at sample rates up to 48kHz for the Mbox and Digi 001 and up to 96 kHz for the Digi 002.

FEATURES

Audio

- Simultaneously record and play back up to 32 tracks of audio at sample rates of up to 48 kHz (96 kHz with the DIGI002).
- 24-bit signal path from A-to-D to D-to-A.

MIDI

- Record and play up to 128 MIDI tracks
- MIDI events and sequences can be manipulated right alongside audio regions with sample level accuracy.

Audio Editing

- Most audio editing is non-destructive — whether cutting, pasting, trimming, separating, or clearing regions, you are only performing these functions on a map of the actual audio data. The source audio files remain untouched.

Multiple Undo

- Pro Tools can keep track of up to 16 of the last undo-able operations, allowing you to return to a previous editing state.

Plug-ins

- A number of high quality realtime (RTAS) and file based (AudioSuite) plug-ins, from dynamics to effects to sound design, are included with Pro Tools and many others are available from third party developers.
- Because of their seamless integration into the Pro Tools application, and their ability to be instantiated onto multiple tracks, software plug-ins often improve upon the capabilities of the hardware counterparts — customized settings are saved with your session and parameters can be automated.

Mix Automation

- Pro Tools LE provides dynamic automation of volume, pan, and mute controls for audio tracks and sends, MIDI tracks, and real-time plug-in parameters.
- You can write automation moves in real time during playback of your session.
- Edit breakpoint automation data, in the Edit Window, with the same techniques you use to edit audio and MIDI data.

Importing Audio

- ProTools LE can import the following Audio files types: AIFF; WAV; SD II; SD I
- MP3 import via optional software
- Sound Resource (AIFL—Macintosh only)
- WMA (Windows Media—Windows only)
- On Macintosh systems, you can import tracks from an audio CD — ideal for working with CD-based sample libraries.

Quicktime Video

- You can use Pro Tools to import QuickTime movies and audio, perform audio post tasks, and export the finished product as a new QuickTime movie.

Third Party Apps

- ProTools hardware and/or ProTools software can be integrated with popular audio production applications allow you to work in a hybrid environment, if you wish. These applications include MOTU's Digital Performer, Emagic Logic Platinum (Mac) and Cakewalk's SONAR 2.2 (Win).

PRO TOOLS LE

The Edit Window

The Edit window provides a timeline display of audio, as well as MIDI data and mixer automation for recording, editing and arranging tracks. As in the Mix window, each track has controls for record enable, solo, mute and automation mode.

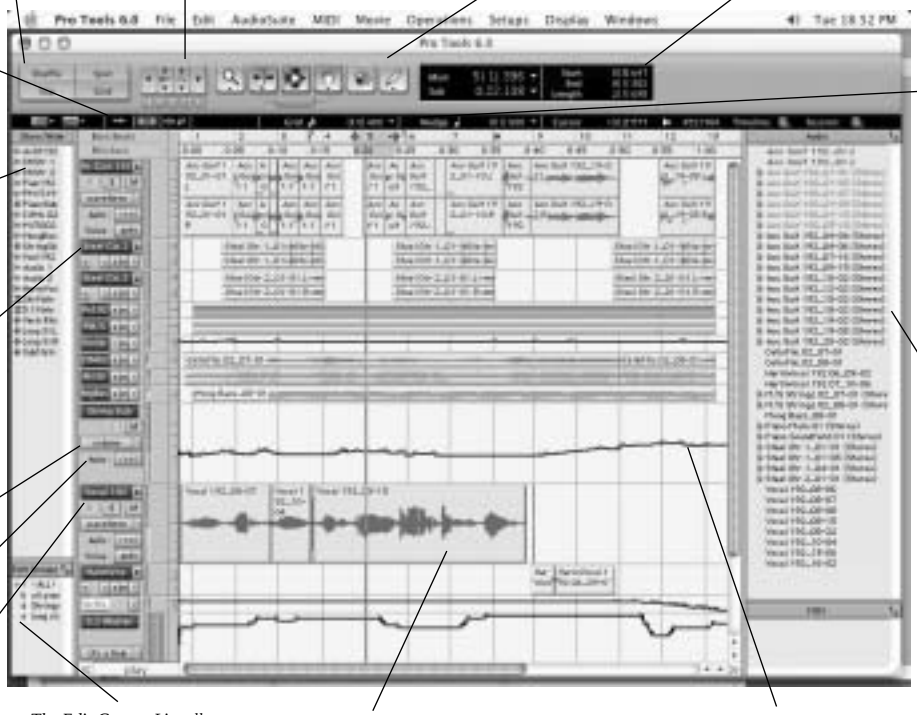
*The Edit Mode buttons affect the movement and placement of regions within the edit window. In **Shuffle** mode, regions automatically snap to one another along the timeline. In **Slip** mode, regions can be moved freely within a track or to other tracks. **Spot** mode allows you to place regions at precise locations based on any available time format. In **Grid** mode, regions and MIDI notes that are moved or inserted "snap" to a user-definable time grid.*

Multi-purpose editing tools include: the Magnifier (zoom) tool; the Trim tool for resizing regions; the Selector tool for defining regions and selecting playback positions; The Grabber tool for selecting regions for placement and editing; The Scrub tool; and the Pencil tool for destructively redrawing a waveform

The current position on the timeline is displayed by the Location indicators. The Event Edit defines the start, end and length of selected audio or MIDI data.

The Tab to Transients option lets you to navigate the cursor to just before the detected transient peak. Ideal for defining selections and play ranges, as well as start and end points for new regions, without having to zoom in on the waveform.

Zoom Buttons and five Zoom memory presets



Select the desired Grid and Nudge values for placement and editing MIDI and audio data. Nudge allows you to move regions, MIDI notes or automation breakpoints by precise increments using the + and - keys. You can also use Nudge to trim a region.

Show/Hide Tracks List

The Playlist Selector pop-up menu allows you to select a group of regions arranged on an audio or MIDI track. Each track has edit playlists and automation playlists.

Regions can be dragged from the Audio Regions list and placed anywhere on the timeline.

Track View selector let's you choose between a waveform and the different automation views available for each track

Automation mode selector

Track name
Track Rec/Solo/Mute buttons

The Edit Groups List allows you to create and organize groups of tracks (i.e all background vocals) for viewing and editing.

Audio Waveform – track heights can be individually resized

Dynamic Breakpoint Automation — Control volume, pan, and mute for audio tracks and sends, MIDI tracks, as well as real-time plug-in parameters. You can write automation moves in real time during playback of your session. You can also edit automation data with the same techniques you use to edit audio and MIDI data.

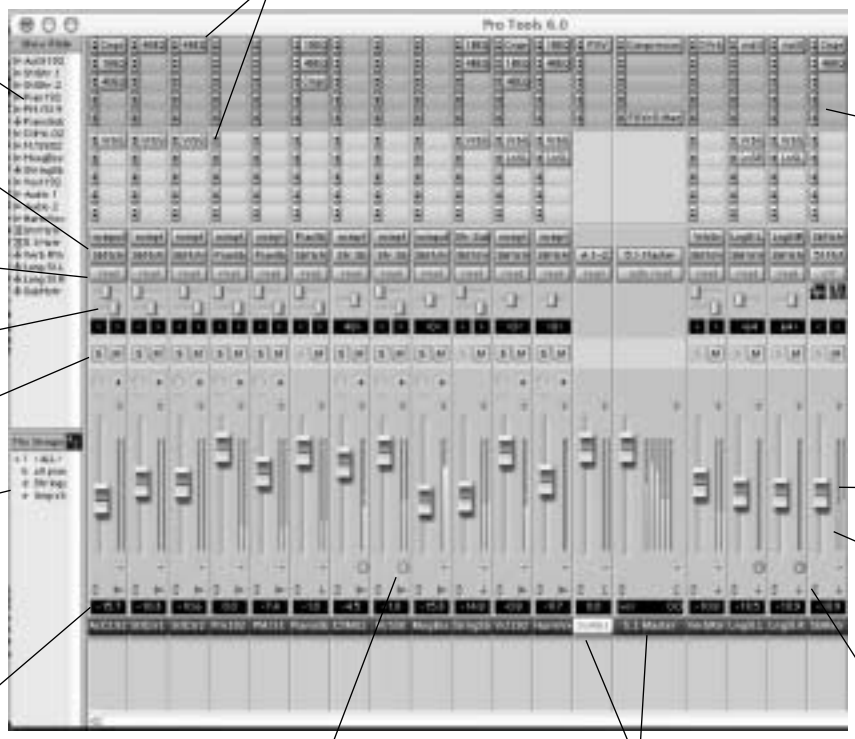
Four Recording Modes

- In normal Non-destructive Record mode, audio is recorded non-destructively, which means that if you record over a track's existing regions, the audio is not erased from your hard drive. Both the new and old audio files remain on your hard drive, available as regions from the Audio Regions List.
- In Destructive Record mode recording over existing regions replaces the original audio permanently.
- Loop Record allows you to record take after take while the same section of audio repeats. This is a convenient technique for quickly recording multiple takes of a part without losing spontaneity.
- QuickPunch allows you to instantaneously punch-in and out on a record-enabled audio track, non-destructively, by clicking the Transport's Record button.

PRO TOOLS LE *continued*

The Mix Window – Integrated Multi-Channel Mixing and Surround Panning

In the Mix window, tracks appear as mixer strips (or channel strips), with controls for inserts, sends, input and output assignments, volume, panning, record-enable, automation mode, and solo/mute. The following section explains each of these track controls.



You can insert up to five plug-ins and access up to five effects sends on each track.

Show/Hide Tracks List

Input and output assignments

Automation Mode

Channel Pan with position display

Solo/Mute buttons

The Mix Groups List allows you to create groups of faders to show or hide.

Peak level indicator and track name

Group ID

An active Stereo Master and a 5.1 Master buss running simultaneously (TDM systems only).

All Pro Tools LE systems provide a total of 16 internal mix busses that can be used as effects returns or for creating submix groups for drums, background vocals, etc.

Volume fader and level meter

Mono and Stereo tracks

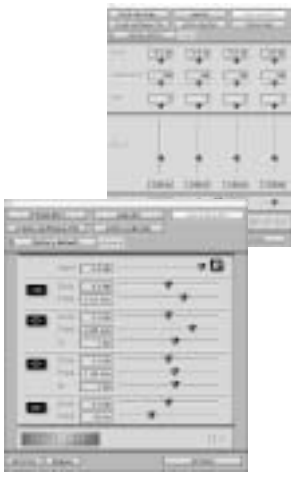
The triangular AutoMatch indicators show the direction you need to move a fader in order to match the original automation level of that fader.

Plug-Ins

- A number of high quality plug-ins, from dynamics to effects to sound design, are included with Pro Tools and a many, many others are available from third party developers.
- Because of their seamless integration into the Pro Tools application, software plug-ins often improve upon the capabilities of the hardware counterparts — you are free to employ presets, customize settings, as well as automate a plug-in's parameters.

RTAS and AudioSuite Plugins

- RTAS (Real-Time AudioSuite) plug-ins are real-time processing effects that rely on the DPS provided by your computer. They can be assigned to multiple tracks as frequently as you like depending on the available CPU resources.
- AudioSuite plug-ins are non-real time, file-based processors. Once an AudioSuite plug-in is applied to an audio file or region, a new audio file is created, leaving the original unprocessed available as a back-up.

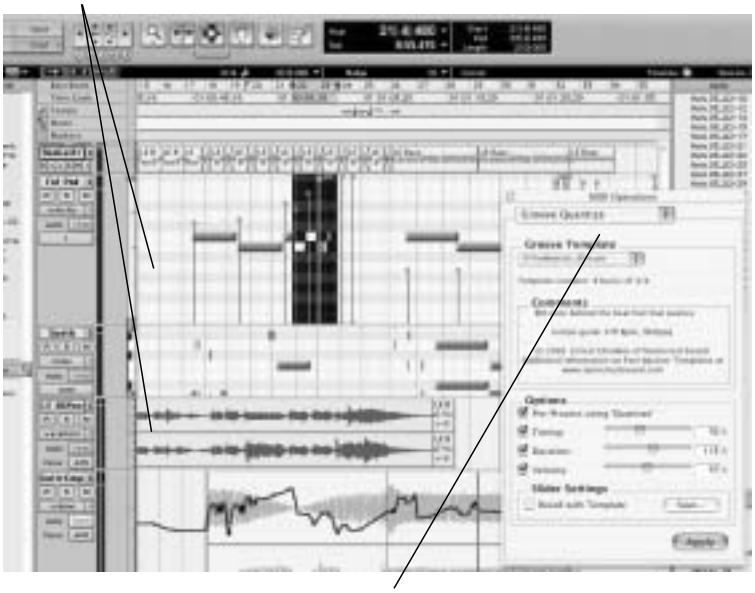


PRO TOOLS LE *continued*

MIDI Functions and Editing

- An integrated MIDI environment, with support for up to 128 MIDI tracks gives you full control over the MIDI components of your projects.
- Full support for Mac OS X's Core MIDI Services.
- MIDI Time Stamping (MTS) support provides sample-accurate MIDI with Pro Tools-compatible software synths and samplers, eliminating the possibility of compromised sync and drift issues.
- Up to sub-millisecond-accurate MIDI with Digidesign's MIDI I/O and other supported MTS-capable interfaces, rivals dedicated hardware sequencers.
- Import and export Standard MIDI Files
- A range of precision editing tools are provided for creating and editing MIDI notes and controller events within the ProTools Edit window including: the Pencil tool which can be used for inseting notes at specific pitches as well as adjusting a note's velocity and duration; as well as the Trimmer and Grabber tools for changing the start and end points of MIDI notes as well as their position along the timeline.
- There are also a number of "MIDI Operations" windows that allow you to transform groups of MIDI notes including: Quantize for correcting timing; Transpose, Change Velocity for making notes louder and softer; and Change Duration.
- The Restore Performance function allows you to return to the original state of a MIDI-based performance at any time. The Flatten Performance feature solidifies your edits and gives you a new, permanent basis from which to proceed.
- The MIDI Event List editor displays a detailed list of all Note and Controller events for a single MIDI track including each events start position, the event type and the event's duration. Events can be inserted, copied and pasted, selected, or deleted. A View Filter allows you to hide certain events for easier editing.

MIDI events and sequences can be edited and manipulated right along side audio.



The Groove Quantize feature incorporates intelligent Bar|Beat adjustment as well as support for the new 960 ppq DigiGroove templates.

Mixdown and Mastering

- In addition to providing an ideal recording, editing, and mixing environment, you are able to add the finishing touches to your projects through mastering.
- Editing capabilities and plug-ins used in conjunction with the Pro Tools software interface enable you to make the necessary fine adjustments to your final mix to achieve the perfect combination of warmth, presence, and balance.
- The real-time "bounce to disk" feature reads all automation information, allows incorporation of various outboard gear, and provides you with mono, stereo, or surround output of your final mix, which can then be handed over to your mastering expert of choice in a variety of digital audio file formats.
- Digidesign's MasterList CD, a software application specifically designed for mastering tasks, can be used to master a single piece or a collection of work with professional results.

POW-r Dithering

- Dithering is used to reduce quantization noise when mixing or fading low-level audio signals during word size reduction to 16-, 18-, or 20-bits.
- The POW-r Dither plug-in is an advanced type of dither that provides optimized word length reduction. It is designed for final-stage critical mixdown and mastering tasks where the highest possible fidelity is desired when reducing bit depth.

PRO TOOLS LE *continued*

Crossfades

- You can quickly and easily create crossfades between two adjacent audio regions to smoothing transitions between regions and prevent pops, clicks, or sudden changes in sound.
- The crossfade duration, position, and shape are all user-definable.
- The Fades dialog window allows you to select, view, and manipulate the curves used to perform the crossfade. Different volume curves can be assigned to the fade-out and fade-in portions of crossfades.
- You can also preview audition the crossfade from within the Fade dialog.

Strip Silence

- The Strip Silence window allows you to automatically divide a selected audio file or region by removing the areas of silence from a selection. This can be useful for quantizing individual audio events to musical values or cueing sound effects to SMPTE locations.
- **Strip Threshold** which sets the amplitude threshold for Strip Silence. Audio falling below this threshold is considered silence and removed.
- **Minimum Strip Duration** Sets the minimum duration (from 0 to 10,000 ms) that the material below the threshold must last to be considered silence.
- **Region Start Pad** and **Region End Pad** specifies a time value to be added to the beginning and end of each new region created with Strip Silence. This is useful for preserving nuances that fall below the threshold, such as the breath before a vocal phrase, or a finger slide on a guitar.

ReWire Support

- Support for Propellerhead's ReWire technology provides real-time streaming of 24-bit audio and MIDI between ReWire compatible software synthesizers, samplers, and other host-based instruments, with sample accurate synchronization and common transport functionality. ReWire-enabled instruments can be be directly routed into the Pro Tools mixer where they can be integrated with your session and access additional mixing and processing functions.

Digidesign Core Audio Driver (Mac OS X)

- The Digidesign Core Audio driver allows third-party applications supporting the Apple Core Audio standard to utilize a Pro Tools system for audio input and output. Depending on the hardware and application, you can record and playback multiple channels of 24-bit audio up to 96 kHz.
- A Digidesign MIDI I/O driver is available for users of the Digidesign MIDI I/O.

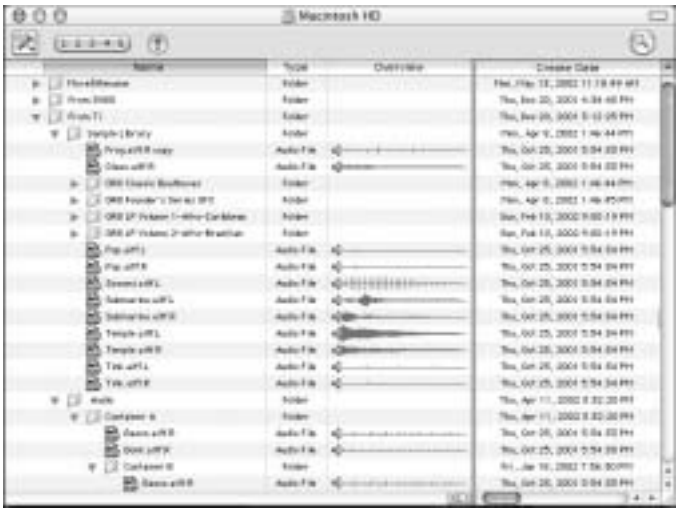
Digidesign ASIO Driver (Windows XP)

- The Digidesign ASIO Driver is a multi-channel, multimedia sound driver that allows third-party audio programs which support the ASIO standard to record and play back using Windows XP Professional or Home.

DigiBase File Management Utility

To help you organize larger Pro Tools sessions a file management utility called DigiBase is similar to Mac's Finder or Windows' Explorer, enabling you to manage all of the files on your system.

- DigiBase allows you to view complete file information including duration, time stamps, along with two user comments fields.
- Display layouts can be customized to focus exclusively on the information you need.
- You can also audition files and view their waveform thumbnails before importing into Pro Tools, regardless of file format or sample rate.
- When you've determined a selection, the one-step drag-and-drop process from DigiBase to your session timeline includes automatic file copy and conversion, guaranteeing compatibility with your project.
- Tasks such as copying, conversion, and fade creation are handled in the background so that you can continue to record and edit without interruption. A new Task Manager feature also enables users to monitor and manage background processes.



PRO TOOLS LE *continued*

DV Toolkit for Pro Tools LE

DV Toolkit is an optional bundle that adds desktop post production functionality to the Pro Tools LE system. Specialized functionality gives users tools to edit audio with timecode functionality; support for the import and export of media files with other applications including new AAF interchange with Avid Xpress DV; and the ability to replace bad on-camera dialog and repair/restore poor field audio.

- AAF and OMF Import and Export (with bundled DigiTranslator option)
- Timecode ruler in the Pro Tools LE interface for spot-to-timecode capabilities
- One-of-a kind lip sync capability when replacing noisy location dialog with Synchro Arts VocALign Project
- DINR AudioSuite Noise Reduction plug-in

Enhanced Windows XP Features

- Streamlined new look for the Mix, Edit, and Transport windows, the powerful DigiBase file management utility, enhanced MIDI functionality and Beat Detective features and more.

Windows Media Audio 9 Encoder

- Microsoft's Windows Media Format is the optimal digital media format available for streaming and download-and-play applications on PCs, set-top boxes, and portable devices. Soon, Pro Tools users will be able to take advantage of this powerful format using the new Pro Tools Windows Media Audio Encoder. The Windows Media Audio Encoder allows Pro Tools TDM and LE users to both import and export WMA files in the simple and familiar Pro Tools environment. Visit Microsoft's booth to see it in action and www.microsoft.com for more information on Windows Media.

Pro Tool's support for Windows Media 9 Series offers:

- 16-bit 24-bit audio encoding
- 44.1kHz, 48kHz, and 96kHz sampling rates
- 2-channel stereo, 5.1 and 7.1 multichannel configurations
- One-pass and Two-pass encoding
- Support for Windows Media Audio (WMA) 9 Lossless encoding.

ProTools LE Compatible Hardware Comparison

System Type	Mbox	Digi 001	Digi 002
Simultaneous Playback Tracks	32 (Pro Tools 6.0 or higher and Pro Tools 5.3.1 or higher on Windows)	32 (Pro Tools 6.0 or higher and Pro Tools 5.3.1 or higher on Windows)	32
Highest Supported Sample Rate	48kHz	48kHz	96kHz
Number of I/O Channels	up to 2 in/2 out	up to 18 in/18 out	18 in/18 out (up to 48 kHz) 10 in/10 out (at 96kHz)
A-to-D Conversion	24-bit	24-bit	24-bit
D-to-A Conversion	24-bit	24-bit	24-bit
Digital I/O	24-bit	24-bit	24-bit

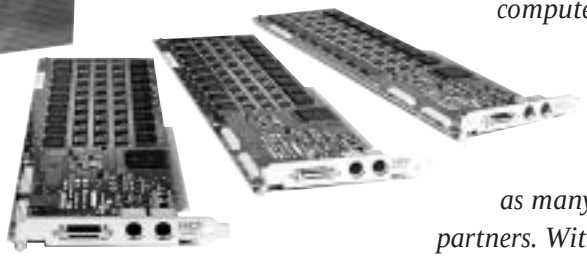
Canopus — DV converter specialized for NLE

Convert your S-VHS, Hi8 and 8mm analog tapes to DV in one simple step using the ADVC-100. The converted DV streams are transferred to your PC or Mac via IEEE 1394 (i.Link, FireWire) and stored on your hard drive where they can be manipulated using your favorite photo or video editing applications. This device is ideal for all OHCI and DV-only capture cards for Macintosh or PC.

- Uses Canopus's award-winning DV CODEC Technology, which is found in AVID's Xpress DV software and the full line of Canopus DV capture cards.
- Locked Audio Support allows you to capture long clips w/perfect audio sync.
- Analog output of NTSC color bars for reference signal)
- 4-pin DV jack on front; 6-pin FireWire jack on back
- Analog video In/Out: NTSC (525/60), PAL (625/50) S-video and composite
- Analog input connector on front
- Analog output connector on back
- Includes AC adapter, DV cable (6 pin - 4 pin), Video cable (S-video/comp)

DIGIDESIGN

PRO TOOLS|HD



High-Definition Audio Production System

Pro Tools|HD is Digidesign's latest and most advanced digital audio workstation ever, with support for up to 24 high resolution audio tracks at 192 kHz sample rate and all of the processing power required for audio recording and playback, mixing, effects and automation being supplied via dedicated HD Process cards that reside in the PCI slots of your computer. Pro Tools|HD is available in three basic configurations, or Core systems, consisting of one to three HD Process cards (HD 1, HD 2, and HD 3), and packaged with the latest versions of Pro Tools TDM software along with a host of effects plug-ins from Digidesign, as well as many third party plugins from Digidesign's development partners. With twice the DSP-based mixing and plug-in processing power as previous Pro Tools systems, Pro Tools|HD delivers a substantial increase in guaranteed track count (up to 128), with up to 96 channels of I/O as well as increased routing and expansion flexibility. Digidesign and its development partners offer a variety of high resolution audio interfaces (at least one interface is required) and other in-demand peripherals, including control surfaces, MIDI and sync interfaces, software plug-ins, as well as support for a total of seven HD Process cards, allowing you to custom configure a fully integrated and professional production solution that suits your specific needs.

FEATURES

Modular Design – Expandable DSP Power and I/O Capacity

- Support for 24-bit audio with a sample rate up to 192 kHz.
- Guaranteed support for up to 128 simultaneous audio tracks with no stress on the computer (96 tracks with an HD 1 system).
- Pro Tools|HD's dedicated processing power and I/O capacity is based around a full length PCI card known as the HD Process card. The first card in the system is called the HD Core card. The HD Core card supports up to 96 tracks of direct-to-disk recording and playback, 32 channels of I/O and enough DSP power for mixing and plug-in processing.
- The HD system's modular hardware design supports up to 6 additional HD Process cards (for a total of 7) allowing you to dramatically increase your system's mixing and plug-in processing power as your needs grow. Each HD Process card provides up to 32 additional channels of I/O and you can expand your system to a total of 96 channels of I/O using multiple HD cards.

A Complete Professional Audio Solution

- There are three world-class, high-resolution audio interfaces available to the HD system: 192 I/O and 192 Digital I/O support sample rates up to 192 kHz and the 96 I/O which supports sample rates up to 96 kHz. Each interface offers a wide range of standard analog and digital connections allowing integration of the HD system into any professional working environment.
- A proprietary multi-pin DigiLink interface is used for connecting the HD Core and HD Process cards with an HD compatible audio interfaces. Interfaces can be connected up to 100 feet from your computer with sample rate support up to 96kHz. This allow you to keep your computer and hard drives nestled away in a machine room thus allowing a quieter control room.
- Digidesign offers a number of additional dedicated peripherals, including control surfaces, synchronization and MIDI interfaces, mic preamp and more, for enhancing Pro Tools' advanced recording, editing and mixing functions.

Core Systems

Pro Tools|HD 1 features the HD Core card, supporting up to 32 channels of I/O, 96 simultaneous audio tracks, and housing a host of powerful DSPs that provide the dedicated mixing and processing horsepower audio professionals have come to expect from Pro Tools.

Pro Tools|HD 2 includes the HD Core card and an additional HD Process card, offering more than double the mixing and processing power of HD 1 systems, support for 64 channels of I/O, and up to 128 simultaneous audio tracks.

Pro Tools|HD 3 features the HD Core card and two additional HD Process cards, supporting up to 96 channels of I/O and 128 simultaneous audio tracks. This configuration offers the ultimate in power and flexibility, enabling you to complete projects more quickly and efficiently than ever before.

- Each Core system requires at least one Pro Tools|HD audio interface — 192 I/O, 192 Digital I/O, or 96 I/O — for handling the input and output (I/O) of audio signals to and from your system.

B&H PHOTO - VIDEO - PRO AUDIO
ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)

PRO TOOLS|HD

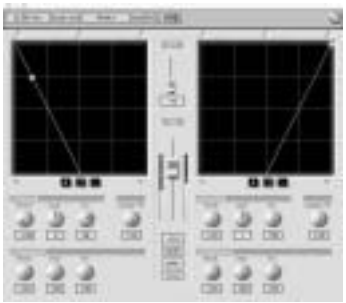
TDM-Based Software

The Pro Tools TDM software included with every Pro Tools|HD system, features all of the recording, editing and mixing functions of the host-based Pro Tools LE software, plus adds a powerful set of additional features implemented to take full advantage of the HD systems dedicated DSP and enhanced I/O capabilities. For starters, because Pro Tools TDM software relies on the HD process card and the TDM bus and not your computer for processing tasks, you are guaranteed playback of up to 128 audio tracks when using an HD 2 system or higher (96 tracks are guaranteed with an HD 1). In addition, Digidesign's proprietary TDM plug-in architecture will allow you to instantiate numerous DSP intensive effects without affecting the load on your CPU. Pro Tools TDM software also supports complete surround sound capabilities allowing you to mix in every popular surround format available.

Four Types Of Plug-ins

- **TDM** plug-ins are exceptionally powerful realtime effects that utilize the DSP power provided by the HD Process cards in your Pro Tools system.of TDM technology rather than relying on the limited resources of the host computer. This affords much more processing power for DSP intensive plug-ins such as reverbs and surround processors.
- **HTDM** and **RTAS** plug-ins rely on your host computer's resources and are designed to run as efficiently as possible to offer the same and different processing options as TDM plug-ins. HTDM was designed as an optimum plug-in architecture for integrating realtime synthesis and sampling plug-ins within the Pro Tools environment.
- **AudioSuite** is Digidesign's proprietary non-real-time, file-based plug-in format. When an AudioSuite plug-in is applied to an audio region, a new audio file is created with the processing permanently intact while the original audio remains untouched on your disk drive.

Surround Mixing



- Pro Tools TDM software enables you to mix in every popular surround format — including LCRS, 5.1, 6.1, and 7.1. You can even work in several surround formats simultaneously.

Pro Tools|HD 1 systems provide recording and playback of 24-bit and 16-bit audio files with the following track counts:

- Up to 96 tracks at 44.1 kHz or 48 kHz
- Up to 48 tracks at 88.2 kHz or 96 kHz
- Up to 12 tracks at 176.4 kHz or 192 kHz

Pro Tools|HD 2 and HD 3 systems provide recording and playback of 24-bit and 16-bit audio files with the following track counts:

- Up to 128 tracks at 44.1 kHz or 48 kHz
- Up to 64 tracks at 88.2 kHz or 96 kHz
- Up to 24 tracks at 176.4 kHz or 192 kHz

Beat Detective

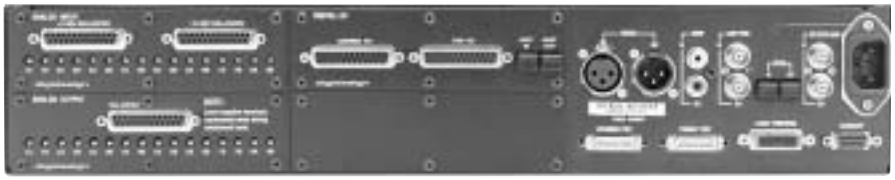
- Beat Detective automatically detects the tempo of a session and conforms an audio track or selection to that tempo by separating it into regions and aligning (quantize) it to the beats.
- Beat Detective lets you extract tempo and groove information, from audio performances, which can be applied to groove templates, called DigiGrooves. Beat Detective allows you to apply the attributes of these templates to other to audio selections. DigiGroove templates can also be used with Groove Quantize for MIDI data on all Pro Tools systems.

DIGIDESIGN

192 I/O

World-Class 24-Bit/192 kHz Multi-Channel Audio Interface

The 192 I/O is a 16 channel, high-definition, 24-bit/192 kHz, digital audio interface specifically designed to take full advantage of the increased fidelity and dynamic range capabilities available within the Pro Tools|HD environment. The 192 I/O features support for up to 16 simultaneous channels of inputs and outputs based on a wide range of available analog and digital interfaces including: 8 channels of high-definition, pristine quality analog I/O; 8 channels of AES/EBU; eight channels of TDIF; 16 channels of ADAT; and 2 additional channels of AES/EBU and S/PDIF digital I/O. Aside from its outstanding sonic specs, 192 I/O features the most flexible architecture ever offered in a Digidesign audio interface. With an I/O expansion bay, 192 I/O allows you to expand I/O options with one of three available expansion cards. Whether you want more analog inputs than outputs or more digital I/O. 192 I/O is the best sounding audio interface ever offered by Digidesign, rivaling interfaces costing more than twice its price.



FEATURES

Multi-Channel I/O

- 16 simultaneous discrete channels of high-definition I/O with Pro Tools|HD derived from 50 possible inputs and outputs.
- Eight channels of 24-bit A-to-D and D-to-A converters for superior analog input and output at sampling rates of 44.1, 48, 88.2, 96, 176.4, and 192 kHz.
- Eight channels of 24-bit AES/EBU digital I/O on a DB-25 connector with support for sampling rates of up to 192 kHz.
- An eight channel TDIF digital I/O port is provided on a DB–25 connector.
- Sixteen channels of optical I/O via two sets of eight channel ADAT Lightpipe I/O connectors. One optical pair can be switched to two channels of optical S/PDIF I/O.
- An additional AES/EBU digital I/O, using XLR conectors, is provided with support for sampling rates up to 96 kHz.
- 24-bit-capable coaxial S/PDIF digital I/O supporting sample rates of up to 96 kHz.
- Switchable, real-time sample rate conversion on the multi-channel digital inputs allows easy streaming of digital signals at any sample rate.
- Word Clock input and output for synchronizing 192 I/O with external Word Clock or 256x (Slave Clock) devices.

Metering

- 4-segment LED Meters to monitor input and output on each of the 16 channels.

Expansion

- Simultaneous use of up to eight 192 I/O units is supported, for a maximum of 96 channels of I/O at 96 kHz.
- An DigiLink Expansion Port is provided for direct connection of an additional 192 I/O or 96 I/O.
- Optional addition of cards to expand analog or digital I/O.
- A Legacy Port is included for Digidesign MIX-series audio interfaces.

Soft Clip Limiting

- When using the A-to-D converters, a switchable Soft-Clip Limiter algorithm allows you to achieve higher signal levels to disk helping eliminate clipping transients that can cause digital distortion while the same time offering the warmth and compression characteristics of analog tape saturation.
- With Soft Clip enabled, the 192 I/O supports an additional 4 dB of headroom by rounding off the top 4 dB to the clip point.

DigiLink Cables

- A 1.5´ DigiLink cable and 1.5´ BNC cable is included with each interface.

192 DIGITAL I/O

World-Class 24-Bit/192 kHz Multi-Channel Audio Interface

The 192 Digital I/O is a high-definition audio interface designed for those of you using a digital mixer or third party A-to-D converters with ProTools|HD. The 192 Digital I/O provides you with up to 16 channels of AES/EBU, TDIF, and ADAT I/O via digital I/O cards. The 192 Digital I/O employs the same comprehensive front panel status and metering capabilities, realtime sample rate conversion, expansion ports and additional 2 channel AES/EBU I/O (XLR), coaxial S/PDIF I/O and ADAT I/O that are available on the 192 I/O. And with two Multi-channel expansion bays still available, you are able to add more I/O down the road.

SAME FEATURES AS THE 192 I/O EXCEPT —

Multi-Channel I/O

- 16 discrete channels of digital input and output
- 16 channels of 24-bit AES/EBU I/O at sampling rates of up to 96 kHz in single-wire mode; or 8 channels at sampling rates of up to 192 kHz in dual-wire mode
- 16 channels of 24-bit TDIF I/O at sampling rates of up to 48 kHz
- 16 channels of 24-bit Optical (ADAT) I/O at sampling rates of up to 48 kHz

Comparison	96 I/O	192 I/O	192 Digital I/O
Multi-Channel I/O Cards:			
Max Simultaneous I/O	16	16	16
Analog Inputs	8 channels up to 192kHz (1/4″ TRS)	8 channels up to 192kHz (DB25)	–
Analog Outputs	8 up to 96kHz (1/4″ TRS)	8 up to 192kHz (DB25)	
AES/EBU I/O (DB25) AES/EBU I/O (DB25)	– –	8 channels up to 192kHz (single wire mode) 4 channels up to 192kHz (dual wire mode)	16 channels up to 96kHz (single wire mode) 8 channels up to 192kHz (dual wire mode)
ADAT Lightpipe I/O	8 channels up to 48kHz	8 channels up to 48kHz	8 channels up to 48kHz
T/DIF I/O	–	8 channels up to 48kHz	16 channels @ 48kHz
Available I/O Bays		1	2
EnclosureConnectors			
Coaxial S/PDIF I/O	2 channels up to 96kHz	2 channels up to 96kHz	2 channels up to 96kHz
AES/EBU I/O (XLR)	2 channels up to 96kHz	2 channels up to 96kHz	2 channels up to 96kHz
ADAT Lightpipe I/O	8 channels up to 48kHz switchable to 2 channel S/PDIF	8 channels up to 48kHz switchable to 2 channel S/PDIF	8 channels up to 48kHz switchable to 2 channel S/PDIF
DigiLink ports	1 primary, 1 expansion	1 primary, 1 expansion	1 primary, 1 expansion
LOOP SYNC In and Out	BNC	BNC	BNC
EXT. CLOCK In and Out	BNC supports Word Clock or 256x (Slave Clock) devices	BNC supports Word Clock or 256x (Slave Clock) devices	BNC supports Word Clock or 256x (Slave Clock) devices
AC Power	Auto Power-selecting (100V to 240V)	Auto Power-selecting (100V to 240V)	Auto Power-selecting (100V to 240V)

DIGIDESIGN

96 I/O

High-Quality, 24-Bit/96 kHz Multi-Channel Audio Interface

The 96 I/O offers Pro Tools users a high-resolution, multi-channel audio interface with excellent sonic performance. An affordable 16-channel audio interface for Pro Tools|HD, 96 I/O features a wealth of I/O options, including 8 channels of high-definition analog I/O, 8 channels of ADAT optical I/O, 2 channels of AES/EBU and S/PDIF I/O, and Word Clock I/O. Over the past few years, Pro Tools|24 MIX systems have offered professionals a comprehensive and completely flexible, proven solution for music, post production, broadcast and multimedia applications. Now, Digidesign has topped Pro Tools|24 MIX systems on every level with Pro Tools|HD: the new, high-definition Pro Tools digital audio workstation. With Pro Tools|HD, Digidesign brings professionals the best sound quality ever in a Pro Tools system, along with twice the power of previous MIX systems, increased expandability options and much more. Among the new audio interface options available for Pro Tools|HD, 96 I/O offers a high definition, multi-channel audio interface at a low price point.

FEATURES

- Eight channels of 24-bit analog inputs and outputs using balanced 1/4″ TRS connectors
- Eight channels of ADAT optical I/O switchable to a optical S/PDIF pair
- Stereo AES/EBU (XLR) and stereo S/PDIF (coaxial) digital I/O as well as Word Clock I/O (BNC)
- Support for 96, 88.2, 48 and 44.1 kHz sample rates conforming with the latest standards of professional digital audio production.
- All channels can be configured on a per pair basis allowing you to select up to 16 channels of simultaneous I/O from the 20 available I/O channels
- The Expansion Port on the rear panel allows you to use the supplied DigiLink cable to connect another 96 I/O for 16 more channels of high-definition input and output.
- Legacy Peripheral port supports connection of 888|24 I/O, 882|20 I/O, 1622 I/O, or 24-Bit ADAT Bridge I/O at sample rates up to 48kHz

Specifications	192 I/O	96 I/O
A/D		
Sample Rate:	44.1, 48, 88.2, 96, 176.4, 192 kHz ±10%	44.1, 48, 88.2, 96 kHz ±10%
Dynamic Range:	120 dB (A-weighted), 118 dB (unweighted); see Notes 1 and 2	115 dB (A-weighted), 112 dB (unweighted); see Notes 1 and 4
THD+N:	0.00035% (-109 dB); +21 dBu @ 997 Hz; see Note 1	0.0007% (–103 dB); +17 dBu @ 997 Hz; see Note 1
Frequency Response:	±0.05 dB @ +2 dBu, 20 Hz – 20 kHz; see Notes 1 and 3	±0.05 dB @ –2 dBu, 20 Hz – 20 kHz; see Notes 1 and 2
D/A		
Sample Rate:	44.1, 48, 88.2, 96, 176.4, 192 kHz ±10%	44.1, 48, 88.2, 96 kHz ±10%
Dynamic Range:	118 dB (A-weighted), 115 dB (unweighted); see Notes 1 and 4	114 dB (A-weighted), 112 dB (unweighted); see Notes 1 and 3
THD+N:	0.00056% (-105 dB); -1 ' @ 997 Hz; see Note 1	0.0013% (–97 dB); –1 dBFS @ 997 Hz; see Note 1
Frequency Response:	±0.05 dB, -20 dBFS, 20 Hz – 20 kHz; see Notes 1 and 3	+0.1/–0.2 dB; –20 dBFS, 20 Hz – 20 kHz; see Notes 1 and 2

Sample Rate = 48 kHz, Noise BW = 22 Hz – 20 kHz unless otherwise noted, Tambient = +25 C

Note 1: Measurement made using +4 dBu inputs or outputs

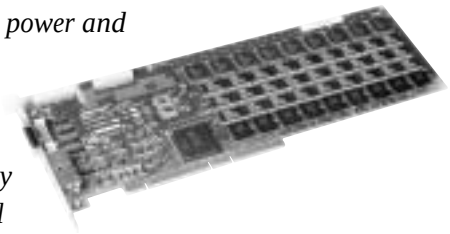
Note 2: ADC measured with analog input at -38 dBu @ 997 Hz

Note 3: Measured relative to level at 1 kHz

Note 4: Measured with digital input at -60 dBFS @ 997 Hz

PRO TOOLS HD ACCESSORIES

HD Process Cards



Boosting the DSP power and I/O capacity of your Pro Tools|HD system can be achieved by adding additional HD Process cards. Up to six cards may be added to an HD Core system (a total of 7 cards), each providing 32 more channels of I/O capacity (up to 96 channels total), and dramatically increasing the system's mixing and plug-in processing power.

DigiSnake Cables –
Customized Audio Cabling for HD Systems

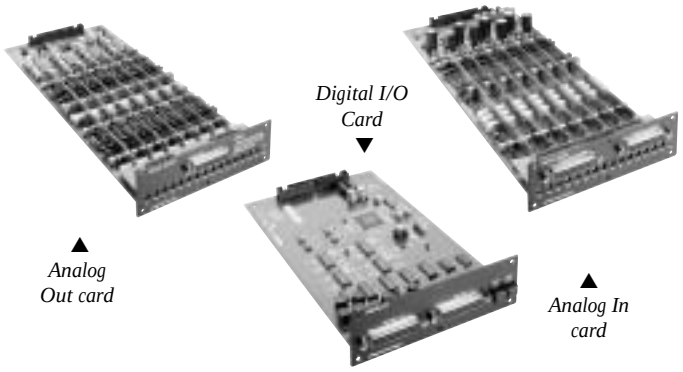
Digidesign offers an array of quality cabling options to ensure the fidelity of audio signals as they travel between the I/O components of your Pro Tools system. Uniquely designed for Digidesign gear, DigiSnakes are custom colored and labeled, feature a lifetime warranty, and are comprised of 110 ohm "digital grade" cable to accommodate either digital or analog signals. DigiSnakes make connecting your gear a quick, easy process, freeing you to spend your valuable time on your audio projects rather than the wires they travel across.

DigiSnakes are available in 4´, 12´ and 25´ options:

DB25-DB25 DigiSnake, 12´ **70.00**
DB25-DB25 DigiSnake, 25´ **95.00**
DB25-DB25 DigiSnake, 4´ **65.00**
DB25-DB25 TDIF Only DigiSnake, 12´ **150.00**
DB25-DB25R ProControl DigiSnake, 25´ **95.00**
DB25-TRS DigiSnake, 12´ **95.00**
DB25-TRS DigiSnake, 4´ **90.00**
DB25-TS +4 dBu/-10 dBV Padded DigiSnake, 12´ **115.00**
DB25-TS +4 dBu/-10 dBV Padded DigiSnake, 4´ **110.00**
DB25-XLR M+F AES/EBU DigiSnake, 12´ **95.00**
DB25-XLR M+F AES/EBU DigiSnake, 4´ **90.00**
DB25-XLRF DigiSnake, 12´ **95.00**
DB25-XLRF DigiSnake, 4´ **90.00**
DB25-XLRM DigiSnake, 12´ **95.00**
DB25-XLRM DigiSnake, 4´ **90.00**
ProControl DigiSnake Kit **345.00**

192 I/O Expansion Cards

Thinking of adding more analog inputs, outputs or digital connections to your 192 I/O? The 192 AD expansion card provides eight more channels of high definition analog input while the 192 DA card adds eight channels of analog output. To increase your digital I/O options, the 192 Digital card adds eight more channels of AES/EBU, TDIF and ADAT I/O.



DigiLink Cables

Lightweight DigiLink cables provide connectivity between HD audio interfaces and HD Core or HD Process cards, and are also used to daisy chain 192 I/O and 96 I/O units. DigiLink cables allow you to keep the computer in a soundproof location up to 100´ away from your audio interfaces.*

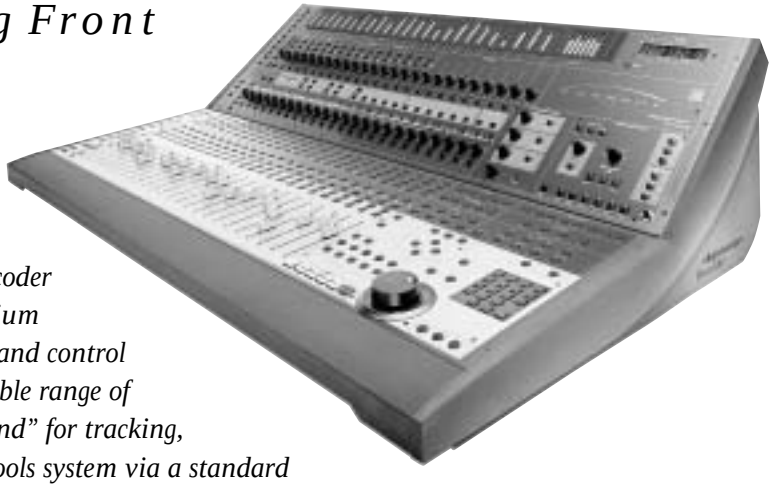
DigiLink Cable 1.5´ **50.00**
DigiLink Cable 100´ **295.00**
DigiLink Cable 12´ **65.00**
DigiLink Cable 25´ **95.00**
DigiLink Cable 50´ **150.00**

** 100´ DigiLink supports up to 96 kHz sample rates*

DIGIDESIGN

CONTROL|24

Control Surface and Analog Front End for Pro Tools TDM



Control|24 is a dedicated control surface, co-developed by Digidesign and Focusrite, that offers hands-on access to nearly every recording, mixing, automation and editing function in Pro Tools. Features include 24 channel strips, each featuring a dedicated rotary data encoder and touch-sensitive motorized fader, along with 16 premium microphone preamps, a comprehensive transport control and control room monitoring sections, and a line submixer. This flexible range of audio routing features make Control|24 an ideal "front-end" for tracking, monitoring or mixing. Control|24 connects to your Pro Tools system via a standard Ethernet connection which delivers maximum responsiveness and resolution. Whether you are new to Pro Tools or a seasoned pro, the extensive features and affordable price of Control|24 make for an extremely cost-effective, and powerful environment for recording, editing, and mixing audio and MIDI.

FEATURES

24 Channel Control Strips

- Each channel has a motorized, touch-sensitive fader and a multi-function knob (which defaults to pan)
- Dedicated EQ and Dynamics switches on every channel
- Dedicated illuminated switches for Mute, Solo, Record Arm, Channel Selects, and Automation Mode on every channel.

Recording Mix Automation

- Control|24 provides touch-sensitive access to the dynamic automation of faders, pans, fader mutes, send levels, send mutes and plug-in Parameters available to Pro Tools.
- MIDI volume and pan, as well as channel mute, can also be automated for additional mix capability.
- Control|24 replicates Pro Tools on-screen automation features, with channel-based and session-wide automation controls.
- AUTO switches found in each channel strip allow you to select the desired channel automation mode (Read, Write, Trim, Latch, Touch, and Off). The current automation state is indicated using the LED labels to the right of each AUTO switch.

16 Focusrite Class A Mic Preamps

- 16 high-quality preamplifiers accessible via XLR mic, 1/4″ line connectors, make an ideal analog front end for your Pro Tools system. Inputs 1 and two also feature D.I. (direct inject) inputs for plugging in your bass or guitar.
- The mic pre design, based on the same preamps found in the Platinum line of analog processors from Focusrite, delivers smooth sound across a wide frequency bandwidth and dynamic range with extremely low noise and distortion.
- The gain range for mic level signals is from 0 to +60 dBu (Mic). A 12 dB/octave high-pass filter at 75 Hz is also provided.
- Phantom power is switchable in two groups of eight channels from the rear panel.
- The Preamps are output interface easily with your Pro Tools interface via two streamlined 8 channel DB25 connectors.

24 stereo, 14-segment LED meters provide global pre-fader or postfader levels of individual channels.

Choose your input source, arm tracks, control input gain and the 12 dB/octave high-pass filter at 75 Hz for each input channel.

26, four-character scribble strips provide system feedback such as channel names and plug-in parameters.

CONTROL|24

Transports and Navigation

Group function buttons: Create; Enable; Edit; Delete; and Suspend.

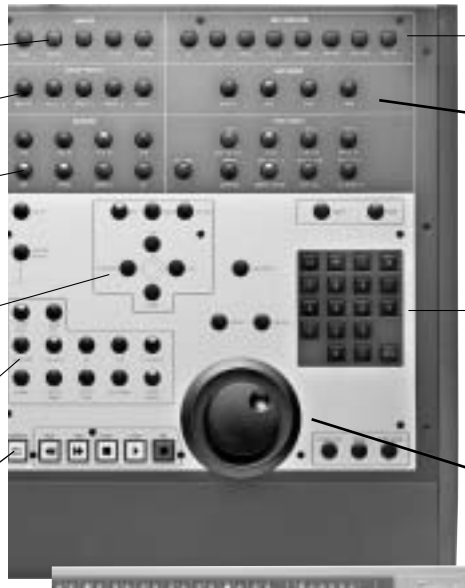
Store and recall five Zoom presets

You're a single button push away from the various Pro Tools windows: Mix, Edit, Transport, Plugins, etc...

Navigation and Zoom functions The UP, NEXT, DOWN, and PREVIOUS arrow buttons provide roughly the same functionality as the arrow keys on your computer keyboard as well as some additional features. In Zoom mode, the quadrant buttons are used to zoom in and out and adjust the perceived amplitude of the waveform display in the Edit window on-screen.

The Control Section can access special transport functions such as Loop modes, Quick Punch, Pre/Post Roll, as well as machine control status.

Standard transport controls and a talkback button



Direct access Pro Tools' most important editing functions: Cut, Copy, Paste, Delete, Separate, Capture, Duplicate and repeat

Edit Mode buttons: Shuffle, Slip, Spot and Grid

Edit Tools for audio and MIDI are all a button click away.

The Numeric Keypad mimics keypad operation in Pro Tools and is used for memory location store and recall, data entry of counter values or numerics, for completing an editing operation (using the ENTER key), and for Pro Tools Transport and Shuttle modes.

The Scrub/Shuttle wheel can be used for scrubbing and shuttling, to help define regions, and other edit operations.

Submixer / Monitor Section

The integrated submixer consists of eight stereo inputs that can serve a wide variety of purposes including: submixing returns from MDMs, routing synthesizers, samplers, or drum machines, or returning aux busses. You can also use the submixer to bring multiple input channels down to a stereo pair, to be routed into a pair of Pro Tools audio interface inputs.

High-resolution LED display for transport location at a glance

Comprehensive Control Room section capable of up to 5.1 surround monitoring with TDM system.

	ProControl	Control|24	Motor Mix
Touch-Sensitive Faders	Yes	Yes	No
# of Motorized Faders	8 – 48	24	8 – 32
Expandable	Up to 48 Faders plus Edit Pack	No	Up to 32 Faders
Built-In Mic Preamps	None	16	None
Surround Monitoring	Up to 5.1	Up to 5.1	None
Supported Systems	Pro Tools TDM only	Pro Tools TDM only	Pro Tools TDM & LE
Connection Type	Ethernet	Ethernet	MIDI

DigiSnake Kits for Control|24

Digidesign offers two optional, complete DigiSnake Kits for Control|24 that include seven custom-labeled, custom color-coded cable snakes — one with D-Sub to XLR/TRS connectors, and one with D-Sub to TRS connectors — allowing you to quickly and easily connect this versatile control surface to your Pro Tools system.

(D-Sub to XLR-TRS, or D-Sub to TRS)

Control|24 TRS DigiSnake Kit (Complete, TRS-only Custom Cable Kit Package for Control|24) **695.00**

Control|24 XLR/TRS DigiSnake Kit (Complete Custom Cable Kit Package for Control|24) **695.00**

DIGIDESIGN

PROCONTROL

Control Surface System For ProTools TDM

ProControl is Digidesign's most comprehensive control surface that adds a high-quality tactile mixing and editing controls to Pro Tools TDM systems. ProControl has the look and feel of a high-end mixing console, with dedicated channels strips, transport controls and a mains section that will allow you to exploit the extensive recording, editing, mixing, DSP processing and automation capabilities that Pro Tools has to offer. ProControl's eight channel strips are centered around exceptionally smooth DigiFaders: Digidesign's patented 100mm motorized digital faders which can be configured to control volume and send levels for mono, stereo and surround channels. ProControl also features a comprehensive analog monitoring section that supports stereo and surround sound monitoring with audio fed from your ProTools interfaces directly into ProControl's analog I/O section. ProControl's flexible, modular design allows you to integrate up to 48 physical faders using additional eight channel Fader Packs while the optional Edit Pack provides tactile surround mixing via two motorized DigiPanners as well as a color-coded QWERTY keyboard.

FEATURES

- The most comprehensive tactile access to all of Pro Tools editing, mixing and automation parameters.
- Eight bank-switchable channel strips expandable to a total of 48 channel strips with optional Fader Packs.
- The DSP Edit/Assign section allows you to view and edit plugins, sends, and inserts, or perform surround panning, using an intuitive array of rotary encoders and displays.
- Dedicated stereo and surround sound control room monitoring and routing section with onboard analog I/O for routing monitor signals between ProControl and ProTools|HD interfaces.
- Automation Switch Group lets you effortlessly switch between Write, Touch, Latch, Trim, and Read modes for fader levels, pans, sends, mutes, plug-in parameters, and more.
- High-quality, illuminated transport control switches, weighted Scrub/Shuttle Wheel
- Connectivity to Pro Tools TDM systems via high-speed Ethernet.
- Cross platform for Mac OS and Windows TDM systems

Faders and Channel Controls

- The are a total of eight, bank-switchable channel strips each with dedicated fader, multi-function rotary encoder and a variety of illuminated switches. The flexible mixing environment of Pro Tools lets you customize any channel strip for mono, stereo, or surround operation.
- 100 mm. touch-sensitive DigiFaders for controlling channel volume or send level.
- Data encoder with 15-LED indicator rings for pan, send and I/O control.
- Large, illuminated Solo and Mute buttons
- Illuminated Channel Select buttons for I/O assignment, automation, grouping and other channel-specific edit functions.
- Dedicated, illuminated switches for EQ and Dynamics editing/bypass control, insert assignment/bypass and record-ready states
- Each channel strip also features an 8-segment LED scribble strip for displaying channel name and headroom.
- Another 8-segment LED dot-style scribble strip displays parameter values of the data encoder data.

DigiFader Touch-Sensitive Moving Faders

- The patented DigiFader is a true digital fader that incorporates a sealed encoder, servo-controlled motor, and "flex-circuit." This unique design provides the feel, performance, and reliability of moving faders found on other high-end mixing consoles.
- Each 100mm DigiFader provides 10-bits of resolution or 1024 steps; Pro Tools then provides 24-bit interpolation of these values, to ensure accurate reproduction of fader moves.
- The use of advanced touch-sensitive circuitry allows you to means all you have to override servo control by merely touching the fader.

Meter Section

- Eight LED meters for Input/Track level indication
- Time Counter Display
- Six LED meters for master output level

PROCONTROL

Fader Pack

- Fader Pack features everything found on the fader section of the ProControl Main Unit.
- Up to five Fader Packs can be added to ProControl, offering simultaneous access to a total of 48 channel strips.

Main Section

- The Main section features standard transport controls; and a Scrub/Shuttle wheel; as well as Audition Mode switches that allow you to quickly listen to the selection start or end, with or without pre- and post-roll.
- Dedicated Window switches provide direct access to the desired Pro Tools window.
- Fourteen dedicated edit buttons are provided for accessing Pro Tools various editing Modes, Tools and Functions. Dedicated save and undo witches are also provided.
- The Channel Matrix is a multi-purpose channel status and navigation control section, consisting of 32 primary switches, that provides a number of unique capabilities to Pro Tools including: Bank and channel navigation; Shortcuts, commands, text, and data entry; Channel Solo, Mute, Record, and Select status; Plug-in parameter page selection; and Group selection, creation, and editing.
- An integrated Trackpad is provided for times that you require mouse like control on the Pro Tools graphical user interface.
- Two Bank Select switches along with a Nudge function switch allow you to easily scroll though banks of eight channels or select adjacent channels.
- Four Zoom/Select switches – labeled up, down, previous next – provide the same functionality as the arrow keys on your computer keyboard for zooming in on audi and MIDI regions as well as navigating through and selecting various functions.
- A Numeric Keypad is also provided for memory location store/recall, data entry of counter values and any other function that is available to your computer's keyboard.

DSP Edit/Assign Area

The DSP Edit/Assign section is dedicated to tapping in to Pro Tools' powerful DSP processing environment, by offering intuitive editing and total recall of all plug-in parameters. This area provides 26 illuminated switches plus eight data encoders and scribble strips for assigning and editing plug-ins.

Analog Monitor and Control Room Sections

- To harness the powerful and flexible routing capabilities of ProTools, ProControl provides a number of analog I/O connectors that can be connected directly to your ProTools|HD I/O interfaces and controlled via the dedicated monitoring section.
- Two eight-channel DB25 input connectors supply ProControl with Pro Tools audio interface output signals, and external signal busses.
- An eight-channel DB25 output connector supplies ProControl monitor outputs for main speakers, alternate speakers, cue mix systems, mastering decks, and other destinations.
- The Control Room Monitoring section supports stereo and surround monitoring with volume control, source and speaker selection, mute, dim, mono, talkback, listenback, and signal routing options.

Digidesign also offers an optional, complete cable kit for ProControl that includes 3 custom-labeled, color-coded cable snakes — allowing you to quickly and easily connect this world-class control surface to your Pro Tools system.

Edit Pack – *Dedicated Editing and Surround Mixing Unit for ProControl*

- Two DigiPanners — motorized, touch-sensitive panning joysticks based on patented DigiFader technology
- Twenty dedicated dual-function switches
- Eight high-resolution, 40-segment, dualchroma meters
- Three eight-character, seven-segment numeric displays for region or selection Start, End and Length values
- Color-coded, QWERTY keyboard with support for USB, ADB and PS-2 connections
- Ergonomic, two-button 1.5″ trackball
- Comprehensive Machine Control section with eight track-arming switches and complete Edit Mode control
- Host computer and ProControl connection via high-speed Ethernet

DIGIDESIGN

MOTOR MIX

Compact, Expandable Control Surface For Pro Tools TDM and Pro Tools LE Systems

Motor Mix is a compact and low-cost control surface that offers real time, hands-on control of any Pro Tools system including transport control, track arming, motorized faders, mute/solo switches, pan/send control, plug-in editing and more for Pro Tools and other computer-based digital workstations. Each unit features eight 100mm motorized faders, and eight rotary encoder knobs for controlling panning, EQ, auxiliary send levels, Plug-In settings and more. Nearly every aspect of a mix is accessible using Motor Mix including automation functions. A 2 line, 40 character LCD display reflects the Motor Mix's current operating status including rotary pot settings and effects parameters; channel assignments, levels and pan settings etc... Up to four Motor Mix units can be linked together, providing a total of 32 simultaneous faders. Motor Mix's small footprint, comprehensive feature set and expandability makes it a cost effective solution for smaller editing suites, home project studios and hybrid audio/video environments.

FEATURES

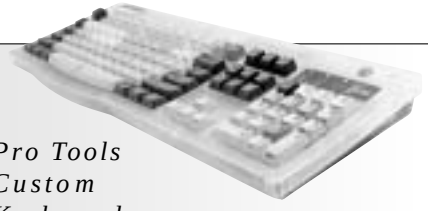
Eight Channel Strips

- Each of the eight channel strips incorporates a 100mm long-life Motion Sensing motorized fader as well as a high-quality, continuously variable rotary pot for control of panning, aux sends, dynamics, plug-ins and more. A detented rotary selector with push button, accompanied by a dual 7-segment LED display, provides control over the rotary pot functionality.
- Each channel also features dedicated, backlit Channel Select, Solo and Mute buttons.
- Four View buttons provide access to an unlimited number of mixer channels. Channels can be switched in banks of 8 channels or via group assignments up to 8 channels.
- Eight Multi Switches, with green LED status indicator, provide access to eight different channel functions including channel eq, dynamics, delay and more.
- Eight "Burn" Switches with red LED status indicator can be assigned to control channel audio recording, automation enables, or other commands you can embed into project files.

Transport Controls and Function Switches

- Eight System Keys, flanking the left side of the unit provide access to a number of functions including: automation enable and mode selection; group creation; plug-in assignment, control and compare; insert control; Pro Tools window navigation; edit tool selection; as well as Save and Undo and more
- The Eight System Keys on the right side of the unit provide access to a full range of transport controls including Play, Stop, Fast Forward and Rewind; input/output assignments; locate functions; monitor and audition functions for pre/post roll and in/out punch points; as well as enter and escape functions and more.

- A highly visible 40x2 dot LCD display provides a readout for channel assignments and rotary pot settings such as PAN, Aux Send Level, effect parameters, input/output assignments, channel level meter, and soft key control.
- MIDI In and Out connectors provide bi-directional communication between Motor Mix and your computer's MIDI interface.
- Expandable – link up to four units for a total of 32 fader tracks with Pro Tools. Motor Mix intelligently switches in banks up to 24 channels wide when using an expanded system.
- Small footprint (10½″ wide x 12½″ deep) allows MotorMix to fit in space-limited project studios.
- An attractive dual slope chassis design provides easy viewing with an ergonomic feel.

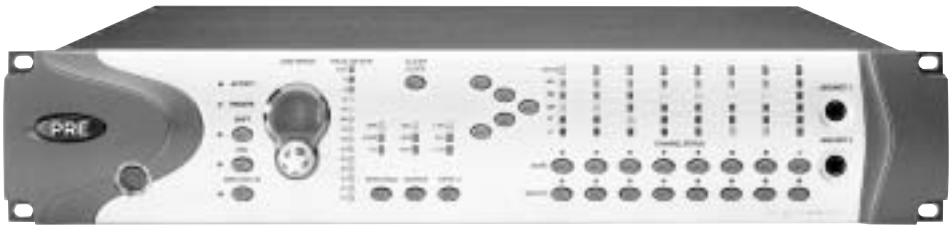


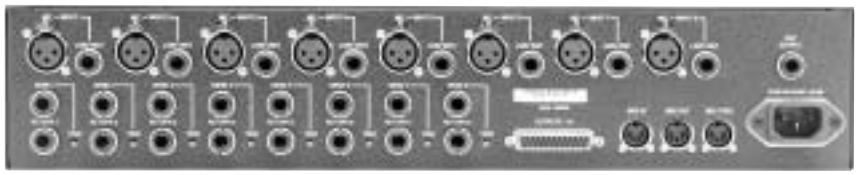
Pro Tools Custom Keyboard

This USB computer keyboard features all of the Pro Tools key commands and shortcuts printed directly on its color-coded key caps, along with all the conventional QWERTY keyboard letters and symbols.

PRE

Remote Controllable, World-Class 8-Channel Mic Preamp





PRE is an eight channel, remote controllable microphone preamplifier designed to complement the 192 kHz capabilities and world-class converters available to Pro Tools|HD systems. Featuring 8 discrete, matched-transistor, hybrid mic-preamp circuits, PRE can accept nearly any input signal, easily accommodating mic, line, and direct instrument (DI) level inputs on all eight channels. PRE's MIDI In, Out and Thru ports allow you to control PRE's front panel functions remotely via the Pro Tools software interface or Digidesign control surfaces. This allows you to place PRE anywhere in your studio (closer to the mic source) as well as instantly recall settings with your session. All of PRE's function are also available in stand-alone mode, making the same high-end sonic quality available for non-Pro Tools applications and all standard MIDI controllers.

FEATURES

Inputs and Outputs

- Eight high-performance, discrete matched transistor hybrid microphone pre-amplification circuits can accommodate nearly any input source.
- Each channel features support for XLR mic as well as 1/4″ direct instrument (DI) and line level inputs on the rear panel. Two of the 1/4″ line/inst inputs are also duplicated on the front panel for easy access.
- Input gain for each channel is variable from 0 dB to +69 dB, in approx. 3 dB steps.
- Switchable 75 Hz @ 18 dB/octave high pass filter, phase (polarity) reverse, 48 V (phantom power) and an 18 dB pad for each channel.
- Selectable impedance matching for optimizing mic, line or instrument inputs
- Separate 1/4″ send and return insert points are provided for each inputs allowing you to access your favorite outboard processor.
- All eight channels are output via DB25 connector. This allows easy, uncluttered interfacing between PRE and your Pro Tools interface or other mixer/recorder.

Remote Control

- MIDI In/Out/Thru ports accommodate remote operation via Pro Tools software and Digidesign control surfaces.
- Remote control via Pro Tools allows you to instantly recall all settings on a session by session basis and create mix templates with all routing and control.
- Remote operation also allows you to keep PRE near the audio source and away from the computer environment.

Additional Features

- A built in oscillator, with a 1/4″ output connector offers a convenient way of calibrating to other peripherals, such as the 96 I/O and 192 I/O audio interfaces.
- All features are also supported in stand-alone mode, including remote control via MIDI, making PRE an ideal analog front end for any recording system.
- Up to nine PREs are supported through software for up to 72 channels of remote-controlled Mic Preamp channels.

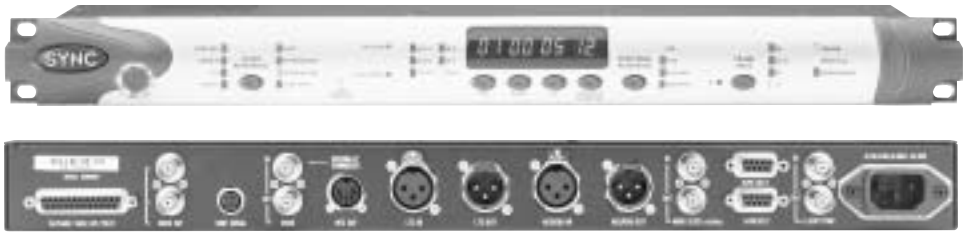
Specs

INPUT STAGE	
Circuit Topology:	Discrete Matched Transistor Hybrid
Input Gain:	–18 to +66 dB in 1 dB steps
Mic E.I.N (unweighted):	–127 dB (60dB gain) 150Ω source
THD+N (@ 1 kHz):	0.001% @ +10 dBu 0 dB gain
CMRR:	> 80 dB @ 60 Hz, > 72 dB @ 10 kHz
Crosstalk:	< –100 dB @ 40 dB gain, 1 kHz
Frequency Response:	(–3 dB) 5 Hz – 1 MHz
Frequency Response:	±0.5 dB @ 40 dB gain 10 Hz – 100 kHz
Max: Input Level:	(any type) +45 dBu
Input Impedance:	Mic 1.5 k; Line 10 k, Inst/D.I. 1.5 Mohms
OUTPUT STAGE	
Max Output:	+26 dBu, balanced 600 Ω, DC coupled
Output Impedance:	~50 ohms
Nominal Level:	+4 dBu
Trim level:	–10 dB

DIGIDESIGN

SYNC I/O

High-Quality, Versatile Synchronizer for Pro Tools



SYNC I/O is a multi-purpose synchronization device that supports all industry-standard clock sources and time code formats. Accommodating the high sample rates intrinsic to Pro Tools|HD with the utmost accuracy, SYNC I/O features near sample-accurate lock to time code or bi-phase/tach signals and a 192 kHz capable, high-fidelity, low-jitter Word Clock. AES/EBU clock I/O, video reference in/thru, video program in/out, and a host of other features make SYNC I/O the most consistent, dependable solution for Pro Tools|HD installations in commercial music and post production facilities.

FEATURES

- High-fidelity, low-jitter clock design provides maximum audio fidelity, even when locked to varying external timing sources (such as when generating Word Clock from free-running SMPTE time code).
- Extremely fast lock up time while maintaining near sample-accurate lock at sample rates up to 192 kHz.
- Word Clock I/O up to 192 kHz capable
- Time code formats supported include LTC, VITC, bi-phase and MTC out.
- Clock sources supported include video reference (blackburst), video signal, LTC resolve, AES, word, bi-phase, and internal.
- While locked to clock or positional reference formats, SYNC I/O simultaneously generates LTC, VITC, MTC, Super Clock, Word Clock and AES Null Clock.
- Supports direct translation of bi-phase and tach pulses to the various output formats, allowing time code/clock generation from mag machines and flatbed editors. The reference lock point for the signals can be set either from the front panel or from the SYNC I/O Setup application.
- Supports industry-standard pull-up/pull-down rates for film/video
- Two 9-pin ports allow dual device control when using Machine Control option in master or remote slave mode.
- Large, bright, and easy-to-read 7-segment time code display along with source and status lights, allowing quick and easy access to reader/generator functionality.

Local and Remote Modes

- Local Mode allows front panel control of all parameters, including clock references and time code reading or generation.
- Remote Mode allows you to control SYNC I/O's parameters via Pro Tools or the SYNC I/O Setup application. SYNC I/O switches to Remote Mode automatically when either of these applications are launched.
- Using auto-configuration, all settings can be saved and instantly recalled with each session.
- Add visual time code window burn to video signals passed through the video I/O. Positioning and placement of the window burn can be controlled from Pro Tools or SYNC I/O setup software.

DigiDrive FireWire 80—Pro Tools-compatible 80GB FireWire Hard Drive

Process, store and retrieve more information more affordably than ever before. The 80 GB DigiDrive FireWire 80 supports 24 tracks of 24-bit/44.1 kHz audio per drive — and may be connected to a second drive for a total of 48 tracks. It's as easy as hooking up a FireWire cable.

- Rapid throughput via FireWire connectivity
- Certified compatibility with Pro Tools (Mac OS and Windows)
- Designed for both removable rack-mounting (with optional rackmount kit) and interlocked stacking, the self-contained DigiDrive enclosure lets you choose the configuration that best fits your system. Plug & play makes setup simple, and FireWire drives can be hot-swapped without rebooting the host computer.
- Digidesign's exclusive QuietDrive technology dramatically reduces drive noise by up to 20 dB to a whisper. DigiDrive also keeps your data cool and safe with advanced thermal sensing circuitry that enhances cooling efficiency by controlling fan speed. There's even a built-in heat detection/indicator circuit to alert you to potential problems before either the drive or your critical data are threatened.

DIGIDRIVES

Storage Systems for Pro Tools

In a world crowded with generic hard drives, DigiDrives takes the guesswork out of finding the perfect mate for your Digidesign system. Optimized for certified compatibility with Pro Tools, DigiDrives deliver the speed, capacity, versatility and reliability to handle your most demanding projects. And, you can be sure that your investment in a DigiDrive will be a safe one. Dealing directly with Digidesign customer support including guaranteed next business day replacement in most locations will help to keep your sessions on track.

DigiDrive 36|10k and 73|10k

Designed for both removable rack-mounting and interlocked stacking, the fully self-contained DigiDrive enclosure allows you to choose the configuration that fits your system best. It also features Digidesign/Avid's exclusive QuietDrive technology, which dramatically reduces drive noise to a whisper (reduces drive noise by up to 20 dB), so you can listen to your audio instead of your gear.

- Fast 10,000 RPM hard drives (36 and 73 GB capacities) offer transfer rates of up to 160 MB/second, and super-fast seek time of 5.1 ms read and 5.2 ms write.
- The 36GB drive stores 6,800 track minutes of 16-bit/44.1kHz (Red Book) audio, which gives 280 minutes of 16-track recording. At 24-bit resolution, handles 4,400 track minutes, enough for 180 minutes of 24-track recording. (The 73GB doubles all of this).
- Certified compatibility with Pro Tools (Mac OS and Windows). DigiDrive Tuner application optimizes drives for Pro Tools
- Support Fast/Wide, LVD and Ultra160 SCSI standards
- Quick-Release rack-mount or interlocking vertical stacking
- Non-proprietary docking means audio-anywhere portability
- Built-in heat detection/indicator circuit alerts you to potential problems before either the drive or data are threatened.
- Advanced thermal sensing circuitry protects data integrity and also keep your data cool and safe by controlling fan speed.

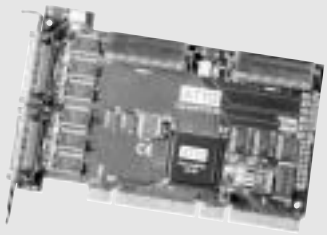
DigiDrive MediaDock II

Maximize the efficiency and versatility of your Pro Tools production environment with the DigiDrive MediaDock line — a removable storage system for post production, professional and project studios. MediaDock provides an optimal solution for data transfer, portability, and backup, streamlining workflow while protecting your work. Products include MediaDock Shuttle|36, MediaDock Shuttle|73 and MediaDock II chassis.

- Incorporating high-performance LVD technology, MediaDock II's compact 2U chassis provides two bays that support DigiDrive MediaDock Shuttles as well as legacy and current LVD shuttles. Both bays have their own SCSI bus with two 68-pin connectors and front-mounted SCSI ID selection switches.
- Front-panel LEDs monitor power, temperature and shuttle functions, while a variable-speed, temperature-sensing fan and an internal auto-ranging power supply ensure that your projects stay up and running. Along with the included rack-mount kit, DigiDrive MediaDock II ships with either two 36 GB or two 73 GB DigiDrive MediaDock Shuttles.

SCSI|128 Kit

SCSI solution for Pro Tools|HD



- SCSI|128 offers 128 tracks of record and playback with Pro Tools|HD on both Mac and Windows when used with LVD drives.
- Built-in LVD support results in improved data integrity, and allows for cable lengths up to 12.5 meters per bus accommodating strategic placement of your LVD-supported SCSI drives.
- Includes ATTO UL3D Dual Channel Ultra3 SCSI Host Adapter and two cables, pre-tuned for optimal performance with Pro Tools|HD.
- UL3D's two external channels handle throughput up to 160 MB/second per channel.
- The SCSI|128 kit also supports up to 64 audio tracks on Pro Tools|24 MIX and d24 systems on both Mac and Windows.

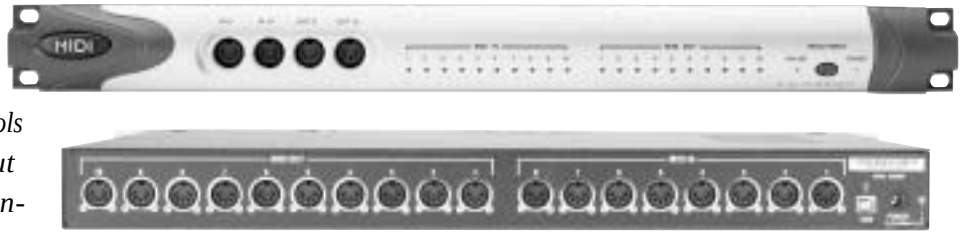
DigiDrive RackMount Kit

- The 2RU DigiDrive Rackmount Kit allows you to quickly and easily slide in or remove up to 2 DigiDrive hard drive units, making it easier than ever for you to transfer your sessions back and forth between different Pro Tools systems.

DIGIDESIGN

MIDI I/O

Professional Multi-Port MIDI Interface



The MIDI I/O is a multi-port MIDI interface designed by Digidesign to deliver a completely robust and powerful MIDI solution for all Pro Tools systems. Equipped with ten MIDI input and output ports for a total of 160 channels, MIDI I/O connects to the computer and is powered via USB. MIDI I/O is housed in a rugged metal 19˝ chassis making it simple to plug and unplug cables when the unit is rack mounted. If you're looking for a way to bring unity to all your racks of synthesizers, samplers and other MIDI gear, MIDI I/O is the interface you've been waiting for.

- Ten simultaneous MIDI I/O ports supporting a total of 160 MIDI channels
- Up to four MIDI I/Os can be connected to your Pro Tools system simultaneously for a total of 40 I/O ports, providing access to a total of 640 MIDI channels.
- Programmable hardware thru mode patches any inputs to any combination of outputs
- Full OMS compatibility
- Connects to the computer via USB, providing an accurate and stable way of transferring multiple channels of MIDI data. The MIDI I/O also draws its power from the USB port – no wall wart, and no need to add another power strip just to plug in one more power cable.
- Output ports 9 and 10 mirrored on front and rear panel
- Digidesign Time-Stamping support delivers rock solid timing accuracy of less than one millisecond thus alleviating the inherent timing and jitter issues normally associated with recording and playing back MIDI information using a computer.

MASTERLIST CD 2.4

CD Mastering Software

MasterList CD 2.4 provides the final link between your digital audio workstation and professional CD masters. With MasterList CD 2.4, your Digidesign digital audio workstation is transformed into a cost-effective, professional CD mastering solution — all in one integrated system. Running stand-alone on any compatible Power Mac—no Digidesign hardware required—MasterList CD lets you easily produce Red-Book standard, CD-DA masters.

- Supports the full feature set of many SCSI-based CD recorders
- Supports 1x, 2x, 4x, 6x, 8x and 12x write speeds
- File support includes Sound Designer II and AIFF 16- and 24-bit, mono and stereo files, as well as split-stereo files from Pro Tools (24-bit files are dithered to 16-bits during disc writing).
- Make seamless transitions between tracks using editable, non-destructive, RAM-based crossfades.
- Up to 100 auto-locate points for auditioning between tracks
- Independent channel level adjustment from 96 dB to +12 dB in 0.1 dB steps.
- Easy level matching across the entire CD, provides location and level details of the audio peak within a selection
- Supports the full set of PQ subcodes, allowing the CD to be precisely defined as desired, whatever your needs.
- Individual track level cut and boost
- Definable crossfades between MasterList items
- Create up to 99 tracks per CD, with up to 100 index points per track. Index points can be manually entered or set using Sound Designer II markers or region boundaries from Sound Designer II and Pro Tools.
- Created CDs can be used to directly make the glass CD master during CD production, eliminating the additional expense and potential errors associated with conventional tape transfer and manual PQ subcode entry.

B&H PHOTO - VIDEO - PRO AUDIO

ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)

MACHINE CONTROL

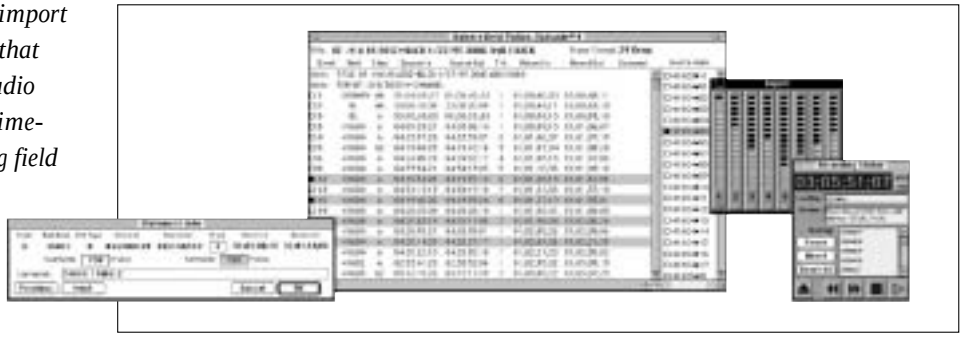
Integrated Machine Control Option for Pro Tools

Available for Mac and Windows-based systems, Machine Control enables easy integration and control of external audio/video equipment within the Pro Tools workstation environment. Machine Control lets you be more productive by allowing you to control external devices using quick, intuitive key commands directly from your computer keyboard. Features that you would expect to find in hardware-based systems, such as FF, REW, jog/shuttle, and so on, are easily accessible via the Pro Tools graphical interface.

- Slave TDM-equipped Pro Tools systems to external controllers via 9-pin Remote Mode for the trigger of playback, recording, and track arming from a remote machine.
- When used with Pro Tools 4.3 and higher, Machine Control also offers track arming with insert and assemble recording.
- Control your audio or video machine's transport operations within the Pro Tools environment: jog shuttle, FF, REW, etc.
- Transport counter keeps you informed of the machine's position at all times
- Status indication in the transport window provides user feedback for the various control modes. Even displays the difference between Shuttle mode and FF/REW modes.
- Scrub audio and video simultaneously from within ProTools. Check your audio and picture sync quickly and efficiently using the scrub-to-picture feature of Machine Control.
- Supports compatible non-linear video recorders/players
- Auto-detects many commonly used transports and presents the appropriate track configuration to the user for intuitive, integrated lay-backs to master tapes.
- Alerts Pro Tools if a machine's local/remote mode has been changed from its front panel, eliminating communication problems that may otherwise occur.

POSTCONFORM

EDL Import/Autoconform Software



PostConform is an EDL (Edit Decision List) import /autoconform software for Pro Tools systems that enables automatic capture and spotting of audio elements to picture. With PostConform, the time-consuming process of loading and conforming field audio and other audio elements can be accomplished automatically, greatly increasing productivity. PostConform automates the process of assembling an EDL into a Pro Tools session file, first by importing and sorting the EDL. Then, the user can select all or only certain source elements for loading and can specify additional record handles for future editing flexibility. At this point, the autoconform process begins. PostConform prompts the user to load successive source reels into a remotely controlled deck. Using Digidesign's optional Machine Control, PostConform automatically locates and records the sound elements selected by the user and assembles these elements into their proper position in the program — as specified by the EDL. If the picture editor makes changes to the program, PostConform can re-conform the loaded sound elements to a new EDL.

- Sources can be recorded and conformed to a new Pro Tools session or placed into the currently-open session via Apple Events
- Adjustable "checkerboard" feature allows you to organize assembled elements and to manage overlapping events
- Flexible sorting of EDL elements by Source In, Record In, or Reel Name
- Includes 9-pin serial machine control cable, but also requires Sync I/O or LTC-to-MTC converter (not included).
- Supports 9-pin and V-LAN compatible external video and audio transports and TimeLine Lynx I or II synchronizers for additional transports
- Supports CMX 3400-and 3600-series EDLs.

DIGITRANSLATOR 2.0

OMF Interchange Utility for Pro Tools

To facilitate the seamless exchange of sound and picture elements, Avid developed OMFI (Open Media Framework Interchange). Dozens of manufacturers support OMFI, and hundreds of Pro Tools customers rely on OMFI every day for file interchange with other workstations, such as Avid's Media Composer.

DigiTranslator 2.0 takes OMF Interchange to the next level by offering rock solid reliability and more control over the conversion process than ever before, all within the Pro Tools environment..

Packed with sophisticated conversion options, DigiTranslator 2.0 allows translation of clip-based volume data, a choice between rendered audio effects or untreated sources, and options for media copying and consolidation. The online tool tips provide constant feedback at every step of the conversion process. With DigiTranslator 2.0 fully integrated into Pro Tools, a previously unattainable degree of efficiency is now available to post professionals. Without launching a separate application, you can take advantage of DigiTranslator 2.0's many features directly, including the import and export of OMF media files and sequences. And, with DigiTranslator's thorough reporting of any translation errors, you always know what to tell the picture editor if a problem arises.

- Supports import and export of OMF media files and sequences directly into Pro Tools without launching a separate application.
- Translation of both clip-based and keyframe volume data into Pro Tools breakpoint automation playlists
- Reads and writes Broadcast WAV (.WAV) files, as well as AIFF and Sound Designer II OMF audio files
- Choice of importing either rendered audio effects or their untreated source files
- Integrated frame rate, sample rate and bit-depth conversion
- Embedded-media OMF sequences play back without time-consuming extractions
- Creates sample-accurate exports of Pro Tools audio and session files for Avid and other OMF 2.0-capable systems
- Supports import/export of 24-bit OMF files
- Engineered and tested to deliver reliable interchange with Avid picture workstations
- Simultaneously converts audio and/or video media data
- Pro Tools requires AVoption or AVoption|XL for import and playback of AVID video media.

Advanced Authoring Format (AAF) Support

Pro Tools 6.1 adds support for Advanced Authoring Format (AAF) via the DigiTranslator option. AAF is a media interchange file format that enables content creators to easily exchange sequence information, digital media, and metadata across platforms and between systems and applications. AAF simplifies project management, saves time, and preserves valuable metadata that in the past was typically lost when transferring program material between applications.

Digidesign will be the first audio company to bring this new level of interchange to the market. Additionally, Avid, a founding member of the AAF Association, will now support AAF interchange across the entire Avid and Digidesign product line.

DOLBY SURROUND TOOLS

Surround Encoding/Decoding TDM Plug-ins

Dolby Surround Tools makes surround mixing very efficient for Pro Tools users. D-A and A-D conversions are no longer needed due to the Dolby Surround Tools' encoding and decoding processes matching those of the industry standard Dolby Model SEU4 and SDU4 units. In addition, Dolby Surround Tools also supports the Pro Tools multi-channel mixer and sample rates up to 96 kHz.

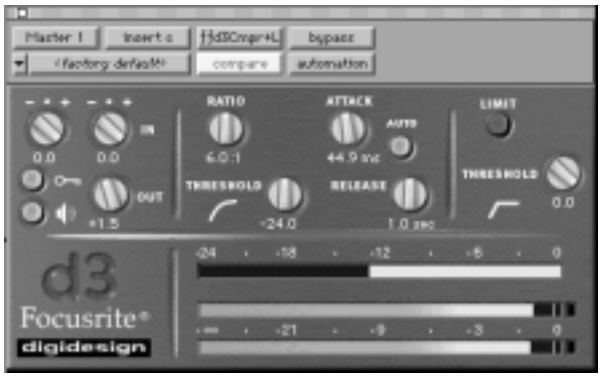
While Dolby Surround Tools is not designed for the final mixing of matrix-encoded theatrical film soundtracks, it can be used to preview the results of the process (4-2-4 monitoring) on the discrete four-channel audio tracks (L, C, R, S) that will subsequently be combined with other elements during the final mixing of film soundtracks. This is a vital asset for any facility that regularly supplies four-channel sound effects and music recordings for theatrical film productions. (Dolby Laboratories continues to supply producers with dedicated film sound encoder systems for final film mastering.

FOCUSRITE D2/D3 BUNDLE

Multiband EQ and Compressor (TDM, RTAS & AudioSuite)

Modeled after their respective Red Range hardware counterparts, the Focusrite D2/D3 bundle brings high quality equalization and professional dynamic control to Pro Tools.

Designed by Rupert Neve, the 24-bit D2 is for the professional who requires the highest levels of performance and maximum versatility in a software-based EQ providing multiple modular configurations. With superior resolution, intuitive graphics, dynamic automation and save/copy/paste options, the D2 takes full advantage of the power and capabilities of the Pro Tools TDM environment.



The D3 provides flexibility and versatility through separate insert configurations in addition to its highly impressive sonic characteristics. The D3 also functions in AudioSuite, providing file-based processing and conservation of DSP resources. Like the D2, the D3 takes takes full advantage of the power and capabilities of Pro Tools to offer dynamic automation, multiple inserts and save/copy/paste options.

Both the D2 and D3 interfaces closely emulate their respective sibling Red Range hardware units, with their red brushed-aluminum panel graphics, illuminated push buttons and rotary control knobs. A floating editor window supplies instant access to the various modules of the D2 - six band, four band, or dual/single band - or, in the case of the D3, one-button access to both compressor and limiter modules. A numeric display area is located below each rotary knob for continuous feedback and also allows numeric entry from the key-board, if desired. For precise processing, independent input and output level controls and high-resolution plasma-type meters are also provided. With the D2, offset level adjustment is accommodated by use of the left, right and link controls.

Red Range 2 Dual EQ

- Provides three different mono or stereo modules: six band, four band, and dual/single band. These versatile configurations allow DSP power to be used where it is needed most. Any band type (or types) can be accessed up to the available DSP power in the system.
- Includes high- and low-pass filters, high and low shelving filters and high-mid and low-mid peaking filters.
- Analog-style overload indicators track clipping and a highly accurate Cartesian graph displays EQ settings as they are being adjusted. When an offset exists for the left and right channels, the graph will display both channels simultaneously.

Red Range 3 Compressor/Limiter

- Provides two mono or stereo configurations.
- The Compressor+Limiter supplies both compression and limiting at all times. Also allows users to select compression or limiting, conserving DSP power for other operations as necessary.
- One D3 plug-in can be used multiple times simultaneously, limited only by DSP capacity.
- Pro Tools supports side-chain processing with D3, accepting post-fader input from any track or bus to control dynamics parameters.
- All settings are automatically restored and recalled with the Pro Tools session.

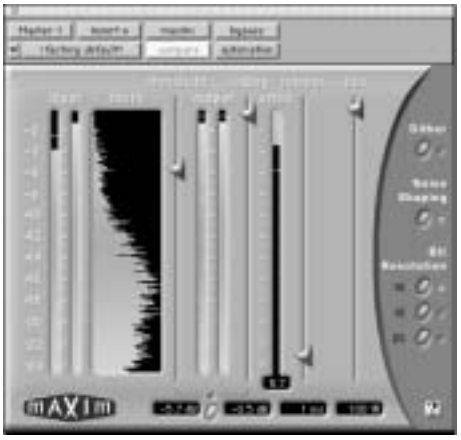
Don't forget that, like other TDM Plug-Ins, you can run multiple D2 and D3 plug-ins up to the limits of your available DSP power. This means that, for the price of one plug-in bundle, you'll have access to multiple Focusrite processors, making this extremely cost effective.

DIGIDESIGN

MAXIM

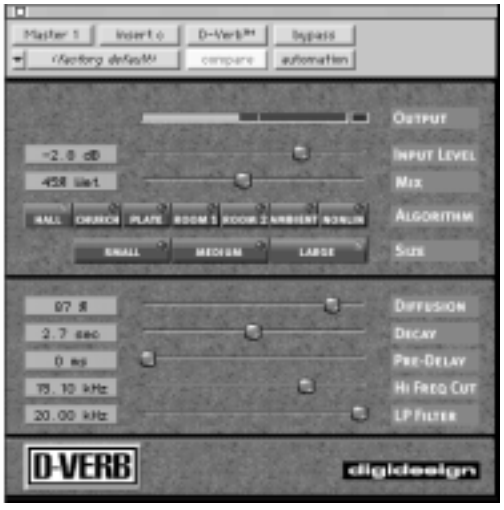
Peak Limiting and Sound Level Maximizer

Create professional-sounding master tracks for your Pro Tools sessions with Maxim. More than just a world-class peak limiter, Maxim optimizes the overall level of the audio input while preserving the integrity of the original sound. Its proprietary sound level maximizing technique distinguishes it from analog limiters and digital versions of them, which often add unwanted distortion or coloration to the audio. The result is transparent, or perfect, peak limiting. Maxim also offers built-in dithering, on-line help, and a full-color Histogram, making it an indispensable plug-in for mixing and mastering in the Pro Tools TDM-based, RTAS or AudioSuite environments.



- Rather than clipping peaks, Maxim uses an advanced proprietary technique that takes advantage of the Pro Tools non-linear environment to intelligently process the signal
- It looks ahead to anticipate peaks in the audio file and then reduces them —relative to the track's lower level audio — without changing the overall sound quality. The result is perfect peak limiting that preserves the sonic characteristics of the audio in a way not possible with any other limiters.
- In addition, Maxim automatically adjusts the over-all gain of the audio to meet the ceiling as limiting is applied. In other words, it combines advanced peak limiting (without clipping) and normalization
- Flexible enough to be used as a dynamics processor on any a channel or across an entire mix
- 16-, 18- or 20-bit Dithering improves audio performance and reduces quantization noise when mixing or fading low-level audio signals.
- Color Histogram helps you determine where the energy resides in a song, and provides valuable visual feedback for precise threshold adjustment. Maxim always provides a full graph reading,whether the playback period is 10 seconds or 10 minutes long.
- Display also includes plasma-type input and output meters, a threshold slider, output ceiling, and attenuation meter.
- Compatible with Mac OS, Windows 98, and Windows NT-based Pro Tools systems.

In addition to TDM, RTAS, and AudioSuite compatibility, Maxim, D-Verb and D-Fi all offer realtime, dynamic automation of virtually every parameter.



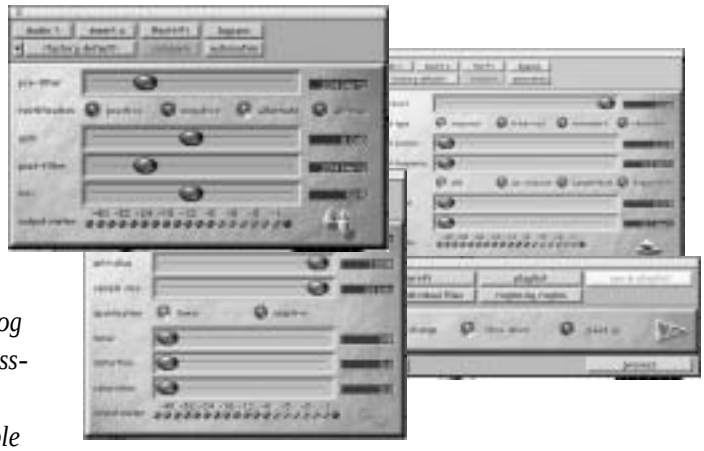
D-VERB *High-Quality Reverb*

D-Verb brings professional-quality reverb or ambience processing to your Windows or Mac-based Pro Tools session. From spacious halls to intimate rooms, D-Verb provides you with several different high-quality reverb algorithms to apply to single or multiple tracks of your session. Delivering real-time processing with automation of every parameter, D-Verb can be run on single or multiple tracks, auxiliary inputs and group masters, and in mono, stereo, or mono-to-stereo to create a stereo image from a monotrack. With an attractive interface, easy on-screen editing, superb audio quality, the ability to do the work of multiple stand-alone reverb processors, and your choice of TDM, RTAS or AudioSuite processing, D-Verb is the perfect addition to any Pro Tools system.

- D-Verb has seven reverb algorithm (Hall, Church, Plate, Room 1, Room 2, Ambience and Non-Linear) and has control over room size, diffusion, decay and pre-delay.
- Separate low-pass and high-cut filters make it easy to tailor the reverb sound to your needs. Reverb presets may be saved or recalled from disk for added flexibility.
- Multiple reverbs may be run simultaneously
- All-digital signal and mixing path
- Save, Copy, and Paste settings

D-Fi

Analog and Retro Processing in the Digital Domain



Retro instruments and processors are often used to create certain sonic signatures in contemporary music. D-Fi is a unique family of four (Lo-Fi, Sci-Fi, Recti-Fi and Vari-Fi) plug-ins that can provide similar sound design tools to Pro Tools users, without having to re-sample the audio files through an 8-bit sampler or run a file through a modular analog synth. While Lo-Fi provides bit-reduction for retro sound processing without the expense of retro equipment, Sci-Fi adds analog synth-type ring modulation, frequency modulation, and variable frequency resonators. Recti-Fi provides super- and sub-harmonic synthesis, and Vari-Fi allows processing of disk files to create the effect of audio changing speed to or from a complete stop.

While Pro Tools offers extremely high quality signal paths with extremely low distortion and noise artifacts, the D-Fi plug-ins alter this in the name of creativity. Lo-Fi diminishes the audio quality through bit-rate reduction, and pure unadulterated noise and distortion. Sci-Fi contorts the audio signals through ring modulators and resonators. Recti-Fi warps the signal through waveform rectification. Vari-Fi simulates turntables starting-up or slowing-down while playing back audio. All support MultiShell II for DSP sharing on TDM systems.

Lo-Fi

- Variable amplitude noise generator
- Sample rate reduction
- Sample size reduction
- Anti-aliasing control
- Soft clipping distortion and saturation

Recti-Fi

- Full wave rectifier
- Subharmonic synthesizer
- Pre-filter for adjusting effect frequency
- Post-filter for smoothing generated waveform

Sci-Fi

- Ring modulator
- Frequency modulation
- Positive and negative resonator
- Modulation control by LFO, envelope follower, sample-and-hold, and trigger-and-hold

Vari-Fi (AudioSuite Only)

- Speed up from a complete stop to normal speed, or slow down to a complete stop from normal speed

Digidesign and Digidesign Development Partners make a wide range of plug-ins for four different Digidesign Plug-In formats — Pro Tools|HD professional systems supports all four.

TDM

Digidesign's Time Division Multiplexing (TDM) technology is the foundation of the Pro Tools professional environment, providing 24-bit mixing and real-time digital signal processing (DSP) capabilities. TDM Plug-Ins use the dedicated hardware of TDM systems, which offer easy expandability — add as many TDM plug-ins as you want —up to the DSP capacity of your system, no matter how many edits or how much automation you have in a session. If you need more DSP, simply add another HD Process card.

Real-Time AudioSuite (RTAS)

Real-Time AudioSuite Plug-Ins are host-based processors, using the computer's processing power to do their job. Functionally, RTAS Plug-Ins offer many of the real-time benefits of TDM Plug-Ins. They are fully automatable, their parameters can change in real time, and their effects are not permanently written to the audio file. Since they are host-based, RTAS Plug-Ins require trade-offs between track and plug-in count, edit density and amount of mix automation in a session.

HTDM

Host Time Division Multiplexing (HTDM)represent a hybrid of TDM and RTAS technologies. HTDM Plug-Ins provide all the logistical functionality of standard TDM Plug-Ins, but, like RTAS Plug-Ins, they allow for all the processing to be done on the host. In so doing, HTDM Plug-Ins offer two primary benefits: The resources of the Pro Tools|HD Core and/or Process card remain available for other tasks; and, despite running on the host, HTDM Plug-Ins can be instantiated on any track, a characteristic previously confined to TDM Plug-Ins only.

AudioSuite

AudioSuite Plug-Ins provide file-based processing, meaning they process or alter the sound file and create a new file with the processed sound. The resulting effect is applied to the entire file. AudioSuite Plug-Ins are great for conserving DSP power and certain types of processing where there is no real-time benefit or application, such as normalization and noise reduction.

DIGIDESIGN

BRUNO & RESO

Cross-Synthesis Plug-In Duo for TDM Systems

Take your audio into creative new realms of sound with Bruno and Reso, two TDM plug-ins for Pro Tools. Both use a cross-synthesis technique to synthesize any existing audio in real-time to create some very unique and interesting results.
Both plug-ins can be played interactively via MIDI using an external controller. Play a chord progression or a scale on your keyboard, and Bruno or Reso will apply the performance to your audio. In addition, an on-screen keyboard allows you to latch the keys to create chords or play a scale right on the screen. Bruno & Reso is a seriously advanced piece of software, but it isn't rocket science to use. Just grab the knobs, start dialing and have fun. In the process, you'll take your audio to amazing new place.

- With up to 24 voices, Bruno & Reso allow you to create a deep layer of adjustable resonant tones. Shaping and modulation parameters can be adjusted with a wide selection of on-screen control knobs.
- Timbre, amplitude, pitch, stereo spread, low-pass filter, Q and follower characteristics can be fully automated. In addition, velocity and pitch bend parameters can be controlled by your keyboard. MIDI clock capabilities and an envelope follower let Bruno/Reso match the groove of the source material.

Bruno

Bruno uses time-slicing, a technique whereby timbres are extracted from the source audio during playback and crossfaded together. Crossfade lengths between these sections can be adjusted and a switch function produces additional textural changes. Switch can be triggered by threshold, MIDI beat clock or keyed to an external track. Further shaping and modulation is achieved through a wide variety of timbre, amplitude, pitch, voice and stereo spread parameters.

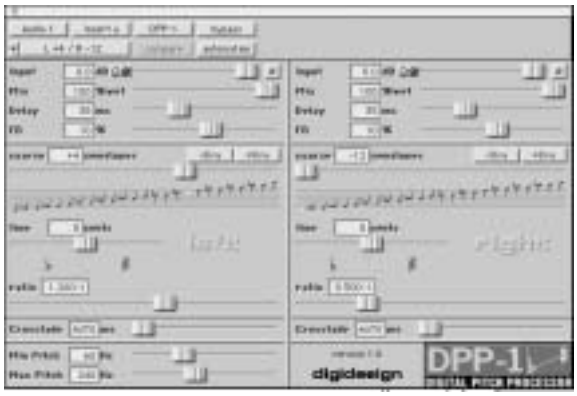
Ruso

Reso has similar features as Bruno, but uses a resonance generator to add harmonic overtones. Damping and other processing knobs help shape the sound. An all/odd harmonics toggle can be triggered from an external keyboard in the same manner as Bruno's switch control. At the end of the chain, a resonant filter modulates low-pass frequency sweeps with adjustable Q and follower knobs.

DPP-1

Pitch Processor for TDM Systems

The DPP-1 brings high-quality 24-bit pitch change and delay processing to the Pro Tools TDM environment. The DPP-1 can operate in mono or stereo modes, and supplies up to 4 octaves of high-quality stereo pitch transposition on single or multiple mixer channels. With easy on-screen editing and program storage, and the ability to run multiple pitch processors for the price of one plug-in, the DPP-1 can do the work of multiple standalone pitch processors — at a far lower cost.



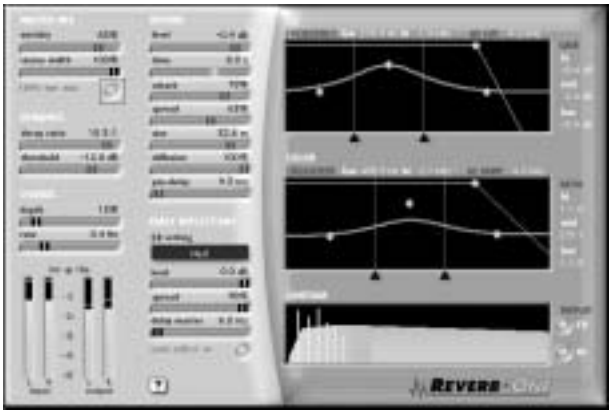
DPP-1

The DPP-1 supplies an intuitive user interface that utilizes musical staff notes and octave switches for up to 4 octaves of stereo pitch change, adjustable in semi-tones or cents. Clicking on a musical note value on the on-screen staff allows quick navigation to new pitches. In addition to pitch change, the DPP-1 supplies an additional delay line with up to 125 ms. of delay per channel, with positive or negative feedback. Signal presence and internal clipping metering is provided.

- Internal 24-bit processing and high-quality deglitching pitch change algorithm provides excellent sound quality
- Easy-to-use software interface makes operation straightforward
- Pro Tools TDM systems supply a versatile mixing and processing environment, letting you use the DPP-1 Pitch Processor on single or multiple channels, which can come from any input source: disk playback, live input, TDM-equipped SampleCell II Plus, etc.
- Libraries of parameter settings can be saved and loaded by using the Pro Tools Plug-In Librarian. With the additional DSP power available, you can run multiple DPP-1 Pitch Processors simultaneously.
- Independent processing control over left and right channels
- 4-octave pitch range
- Delay processing with feedback
- Automation features, including dynamic TDM Plug-In automation

REVERB ONE

World-Class Reverb Processing for TDM Systems



If you're looking for a reverberation processor of uncompromising sonic quality that's also easy to use, look no further than the Reverb One. A TDM plug-in, Reverb One is a reverb processor built from the ground up by Digidesign to satisfy demanding audio professionals. At every step in its development, Reverb One was subjected to critical listening tests, resulting in a TDM plug-in that can compete with any software or hardware reverb processor on the market today. Reverb One gives you complete control of the reverberant characteristics of your mix, and is equally at home in music, post production and sound design applications that require the utmost in clarity and precision.

➢ In addition to the exceptional quality of its reverberation, Reverb One provides a unique set of shaping tools that let you modify the details of a sonic space. You'll find standard controls for room reflections settings and decay time, as well as for multi-band equalization, reverb dynamics (for long tails or gated characters) and chorusing. With Reverb One, you get everything you need to control all aspects of reverb in a single plug-in window — and editing reverb characteristics is straightforward with its intuitive, editable graphic displays.

➢ For all the versatility of Reverb One, it is remarkably easy to use. Its interface conveys reverberation character at a glance, and a wealth of carefully designed presets gives you everything you need to get started. From natural-sounding halls, to vintage plates or that classic digital reverb setting, Reverb One allows you to customize your creative soundscape to anything you can imagine.

➢ As with any TDM plug-in, you can take advantage of the ability to automate any Reverb One parameter in real-time, and to recall all plug-in settings in Pro Tools. With its extraordinary sound quality and versatility, it's hard to believe that Reverb One only takes up a single DSP chip.

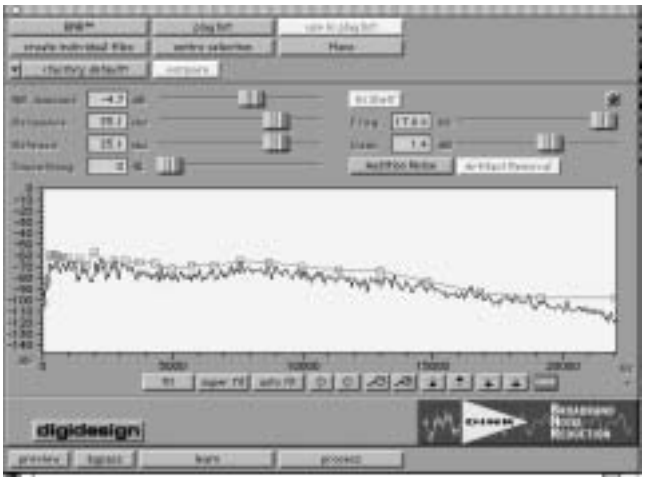
- Independently controllable reverb settings, including Level, Decay Time, Attack, Spread, Room Size, Diffusion, Pre-Delay
- Extensive library of reverb presets
- Early reflection controls, including Level, Delay, Spread, plus early reflection room presets
- Dynamics and Chorus sections for shaping reverb decay and optimizing reverb effects
- Multiband EQ with adjustable crossover points for shaping tone spectrum of both early reflections and reverb tail
- Reverb color controls allow independent adjustment of harmonic content and decay times over different frequency ranges
- Interactive early reflection and reverberation contour display

DIGIDESIGN

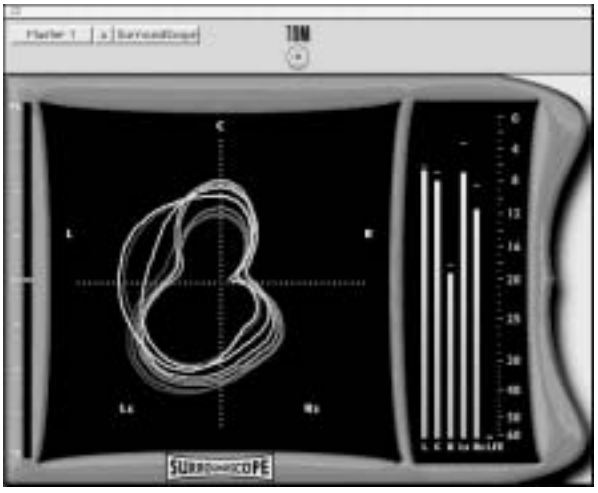
DINR

Intelligent Noise Reduction (TDM & AudioSuite)

DINR (Digidesign Intelligent Noise Reduction) is an award-winning plug-in for real-time, high-quality broadband noise reduction and hum removal. A software-based, digital signal processing module, DINR is designed to reduce the full spectrum of unwanted noise, from air-conditioner rumble to tape hiss to guitar-amp buzz, for more professional results.



- DINR reduces noise by intelligently subtracting the noise from the digital audio file. First, the noise signature is created by selecting and analyzing an example of the noise within the source material. Once the noise is analyzed, an on-screen slider can be used to apply from 0.1 dB to an infinite amount of noise reduction.
- Other parameter settings can also be adjusted on-the-fly to achieve maximum noise reduction while minimizing signal loss and artifact generation.
- And since DINR analyzes and subtracts noise entirely within the digital realm, the results can be virtually free of side-effects such as distortion, dynamic modulation and the undesired fluctuations in frequency response associated with conventional noise reduction systems.
- Parameter settings can be saved and recalled for use on other source audio files affected with similar noise. Plus, the noise signature of any device can be kept and used with other source material the device may affect.
- All noise signatures and parameter settings are automatically stored with your Pro Tools session for instant recall.
- High fidelity, real-time processing with TDM and file-based processing with AudioSuite
- Automation features including dynamic TDM plug-in automation
- Compatible with Pro Tools systems (4.1.1 or higher) running on Mac or Windows NT



SURROUNDSCOPE

Surround Metering (TDM & RTAS)

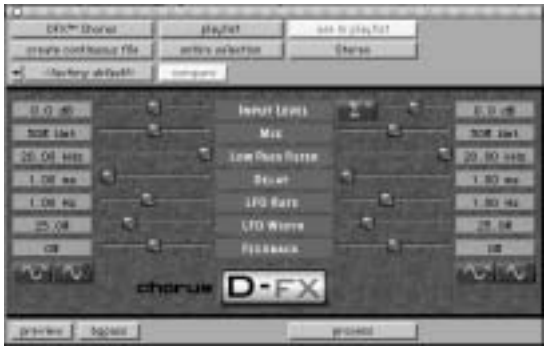
Now you can visualize the surround capabilities of Pro Tools with DigiDesign's SurroundScope plug-in. With its intuitive interface, you can accurately see what your listeners will hear — right from within Pro Tools. SurroundScope provides a graphical display of the signal level for each audio channel within the multi-channel sound field in a Pro Tools mix. The phase meter shows coherency of your signal across the full spectrum, from perfect mono to completely out of phase. In addition to its surround and phase displays, SurroundScope features a multi-channel level meter that supports up to eight channel tracks.

- Real-time, accurate display of stereo or multi-channel phase information and levels
- Support for all standard multi-channel formats: stereo, LCR, LCRS, Quad, 5.0, 5.1, 6.0, 6.1, 7.0 and 7.1
- Auto detection of a track's channel format
- Multi-dimensional display shows position of the audio signal within the multichannel track or surround mix
- Full-featured center-zero and Lissajous phase meter display
- Highly accurate level meters for each channel of a multi-channel

B&H PHOTO - VIDEO - PRO AUDIO

D-FX

AudioSuite Plug-In Package



The D-fx family of AudioSuite plug-ins offers a great selection of time-domain effects all in one affordable package and is a perfect addition to any system running Pro Tools software. D-fx includes several effects including Chorus, Flanger, Multi-Tap Delay and Ping-Pong Delay. D-fx also includes D-Verb for use in both RTAS and AudioSuite environments.

- The perfect addition to any system running Pro Tools, D-fx offers a great selection of time-domain effects in one affordable package
- Each D-fx plug-in is designed for intuitive use, with a consistent graphic interface for every effect. All parameters are displayed on one screen allowing instant adjustments.
- Since D-fx is completely integrated into the Pro Tools software, there's no transition time lost switching between effects processing and editing.
- In "stereo" mode, all D-fx plug-ins allow processing of two channels as left and right; or, combine the two input signals for a mono in/stereo out effect
- Use with Pro Tools systems for file-based effects processing
- Save and recall settings, using Pro Tools Plug-in Librarian and Settings pop-up menus

SOUND REPLACER

Drum Hit & Sound Replacement (AudioSuite)

SoundReplacer is definitely one of the most unique and innovative plug-ins on the market today. As a Drum Hit and Sound Replacement tool for Pro Tools, SoundReplacer allows you to replace or blend up to three different samples to three independent adjustable amplitude threshold zones with your existing audio file. For more than just repairing weak mixes, this AudioSuite plug-in has enormous creative potential for sound design and post production applications.

- SoundReplacer is a unique AudioSuite Plug-In that lets you replace or mix an audio event with new samples from your sound library or hard drive. It is the perfect solution for that all-too-familiar situation of the imperfect drum track. SoundReplacer allows you to retain the feel of the original performance by automatically adjusting the dynamics of the replacement sound to match the changing levels within the performance.
- What's more, SoundReplacer lets you replace or blend up to three different samples to three different adjustable amplitude threshold zones in the audio file. Variations in amplitude within the performance determine which sample is triggered at a given time. Performances can be further adjusted with a mix slider, dynamics slider and a peak align feature.
- Although perfect for repairing weak mixes, SoundReplacer also has enormous creative potential for sound design and post production applications. Sound effects designers can morph three different characteristics to a single source file, thereby adding a sense of realism to an audio track.
- Load your favorite samples from your sound library, hard drive, etc.
- Trigger up to three samples, each set to a customizable threshold zone
- Crossfade or hard shift between samples
- Set the amount of sample replacement using the adjustable mix slider
- Expand or contract a performance's dynamic range
- Ensure phase-accurate alignment using the Peak Align option

ACCESS VIRUS

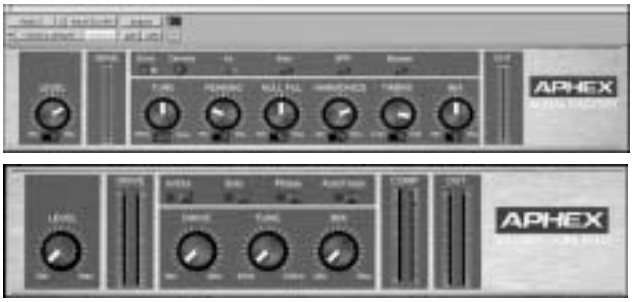
World-Class DSP-based Synthesizer for Pro Tools TDM

Based on the highly acclaimed and successful Access Virus hardware synthesizer, Access Virus is a TDM-based synthesizer plug-in that transforms your Pro Tools system into a luscious 20-voice synth at 48k and 10-voice synth at 96k on Pro Tools|HD – with up to eight different sounds per DSP chip. In addition to offering incredible warmth and quality, this "virtual analog" synthesizer also features perfect Pro Tools integration, extensive automation and total recall capabilities. MIDI and audio connections are a breeze to set up, allowing you to start playing Virus in seconds. It is also offers several user interface pages for different sets of parameters, so every single control can receive a dedicated knob or switch. Gone are the headaches associated with glaring at tiny LCD displays.

- Access Virus features three oscillators, two filters, three LFOs and two envelopes for every voice. It also provides built-in effects like chorus and delay for creating stunning pads, screaming leads, punchy bass sounds or whatever you might have in your mind.
- Includes more than 500 extremely variable and useful sounds -everything from Moog basses to analog drumkits
- Fully automated with frame accuracy for over 150 parameters
- Direct Pro Tools integration allows easy MIDI/audio routing and takes advantage of the powerful mixing features in Pro Tools
- Use input mode to modify single tracks or entire mixes with powerful resonant filters. Enable the vocoder and add the robotic sound to your recording using other tracks.
- Built-in arpeggiator syncs to MIDI beat clock and follows your song tempo at any time. (Ultra low latency for extremely fast MIDI-to-audio timing).
- Loads patches directly from the original Access Virus hardware—no need to reprogram all your existing sounds
- Runs on a dedicated DSP for true power-on-demand, up to eight multi-timbral synthesizers per DSP
- Up to 80 voices on a Pro Tools|24 MIXplus system
- Pro Tools plug-in library function allows easy patch management and exchange

APHEX BIG BOTTOM PRO / AURAL EXCITER

Bass and Harmonic-Generating, Detail Enhancing Bundle



Want to enhance the bass frequencies in your Pro Tools sessions? Aphex Systems' Big Bottom Pro is a powerful TDM plug-in for Pro Tools that will add all the excitement and punch you need to the lower frequencies in your mix. And Big Bottom Pro comes bundled with Aural Exciter giving you the same unique ability to increase presence and restore natural brightness and detail, without significant EQ. The Aural Exciter/Big Bottom Pro plug-in bundle supports Mac and Windows-based Pro Tools|HD systems at sample rates up to 192 kHz.

The Big Bottom circuit works on the bass end frequencies and adds low-end presence and punch without adding peak level. This lets you pack more bass into your sound without overloading recorders or blowing up speakers. The Big Bottom Pro plug-in is an enhanced, pro version of this powerful circuit. Used together with Aural Exciter, Big Bottom Pro completes the enhancement of the entire audio spectrum.

The hardware version of Aphex Aural Exciter, its patented circuitry helps recorded or amplified audio get closer to the natural acoustic sound — clean, open, present and detailed. The effect is achieved by adding musically and dynamically related harmonics to the input signal. This effect has been used on thousands of recordings, movies, commercials, broadcasts and live concerts.

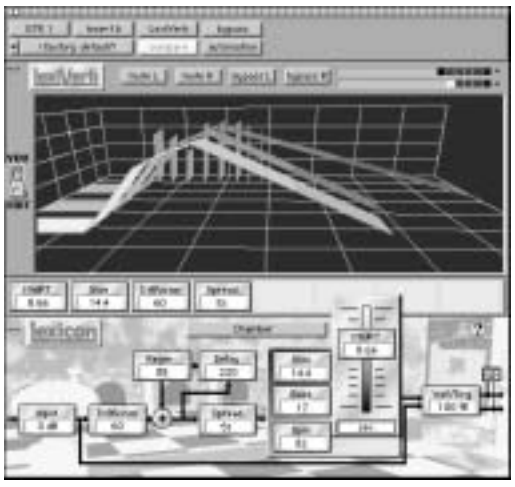
- Brings instruments and vocals up "out of the mix"
- Patented Harmonic Generation Process can actually increase bandwidth without increasing level
- Increases presence, clarity, speech intelligibility, and detail without significantly increasing peak output
- Total flexibility in "tuning" the Aural Exciter to your needs

DRAWMER DYNAMICS

High Quality, Multi-Band Dynamics for Pro Tools TDM

The Drawmer Dynamics plug-in provides premium quality gating, compression and limiting to Pro Tools TDM users. Drawing on 20 years of experience in innovative signal processing, the Drawmer Dynamics plug-in offers the performance attributes as well as the look and feel of world-renowned Drawmer analog units.

- Based on Drawmer's legendary DS201 Noise Gate, the Gate/Compressor/Limiter plug-in is the ultimate processing tool for percussive and highly transient material.
- The Side-Chain Trigger can be set to key the gate from any audio track you choose, providing limitless processing possibilities. Key filters "tune" the gate to the required frequency to assist triggering, while the ultra-fast attack time adds punch. Audio is further enhanced by the compressor and is kept under precise control by the limiter.
- For less percussive signals like vocals, guitar, and piano, Drawmer's Program Adaptive Circuits can intelligently shape and enhance the signal, breathing life into dull tracks and gently controlling excessively dynamic passages.
- The Expander/Compressor/Limiter plug-in is based on the Drawmer DL241 Auto Compressor and DL251 Limiter. Auto gain adjusts the gain of the compressor when the threshold or ratio controls are adjusted.
- Drawmer Dynamics takes full advantage of the latest Pro Tools functionality including dynamic automation, total save and recall of all parameters and mapping to external control surfaces.



LEXICON LEXIVERB

Reverb Plug-in for Pro Tools TDM

LexiVerb combines world-class Lexicon reverb with a simple, yet powerful interface to create an indispensable tool for your Pro Tools system. Pro Tools automation is supported and LexiVerb parameter groupings, giving you total control over multiple parameters with a single fader. LexiVerb provides over 100 presets built from four powerful algorithms.
With the award-winning LexiVerb TDM Plug-In, no additional hardware is necessary to obtain the legendary Lexicon Sound — the sound that's heard on more than 80% of the world's most successful albums and soundtrack

- With LexiVerb, Pro Tools users can achieve that legendary Lexicon Sound with all the benefits of the TDM plug-in architecture. LexiVerb features four powerful, classic Lexicon reverb algorithms: Chamber, Plate, Inverse and Gate with 100 factory presets designed for any recording task.
- Each algorithm is displayed graphically in a three-dimensional space, allowing easy control over reverb characteristics.
- Low, mid and high frequency envelopes can be altered in real time by tweaking up to eight assignable faders.
- There are also customizable macro controls for assigning as many as four parameters to a single fader. The Macro editor allows you to group parameters together as well as adjust how they scale with one another.
- Several adjustable parameters reside within each LexiVerb algorithm. These include Bass, Diffusion (echo density), Delay, HF Cutoff, Input, MidRT (time), PreDelay, Regeneration (feedback), Size, Slope, Spin, Spread and Wet/Dry mix settings.
- The Spin setting is unique to LexiVerb. It sets the randomization rate of the reverb tail for a more natural sound without destabilizing the position of the instruments.

Line 6 — Amp Farm

Guitar Recording TDM Plug-In

The ultimate solution for guitarists and Pro Tools TDM users, Amp features Line 6's TubeTone technology, to bring you physical models of specific, sought-after classic amplifiers. Process live guitar inputs or tweak the amp setup for pre-recorded tracks. Amp Farm lets you adjust your amp tone right up to the final mix, with full automation of all controls, including Amp Model selection. No special pickups are required —just record your guitar output directly into Pro Tools and say goodbye to the hassles of working with traditional amplifiers (the hauling, the buzzing, the special miking techniques, etc.)

- Controls are simple and intuitive, making Amp Farm extremely easy to use.
- Your Amp Farm amp set-up can be changed at any time, even after tracks are recorded, with full automation. You can even switch amps on the fly, and everything is stored right in your Pro Tools session. A library of presets is also included.
- Line 6's TubeTone uses a 100% digital software technology to physically model the sonic properties of tubes and emulate the tone generating circuitry of classic amplifiers—add a whole collection of classic guitar amps to your studio — all programmable and automatable.
  - 1959 Fender Bassman, 1965 Fender Twin, 1964 Fender Deluxe, 1964 Marshall JTM 45
  - 1968 Marshall Plexi, 1990 Marshall JCM 800, 1960 Vox AC 30, 1963 Vox AC 30 with top-boost
  - 1994 Mesa Boogie Dual Rectifier Trem-overb combo, 1995 Mesa Boogie Dual Rectifier head
  - 1989 Soldano Super Lead Overdrive head, 1987 Soldano X88R Preamp, 1996 Matchless Chieftain

Line 6 — Echo Farm

Vintage Echo TDM Plug-In

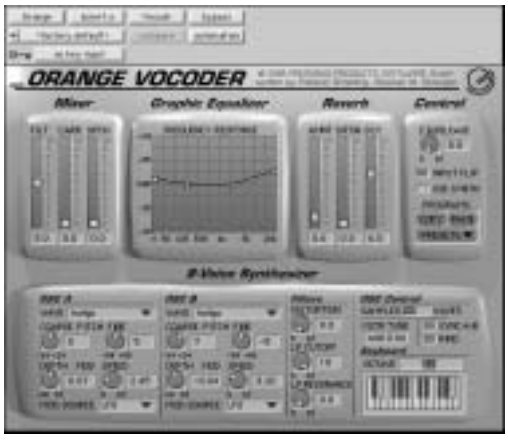
Line 6's Amp Farm revolutionized the way guitar is recorded. Now, the same patented modeling technology is available in the Echo Farm TDM plug-in. Echo Farm brings the sound of vintage echo effects units to your Pro Tools system—no need to wrestle with cantankerous vintage hardware to get classic tape echo, old school analog delay or filter-swept echo-phonic modulations, Echo Farm perfectly emulates the sonic properties of tubes, tape, and vintage echo unit electronics.

- Easy to use as a classic stomp box, with control of tape wow and flutter, filter-swept modulation, bit resolution, and more
- Just pull up Echo Farm to get these classic vintage tones with all the modern advantages, including extended delay time, bpm/note value delay time setting, tap tempo and complete automation.
- Echo Farm isn't limited to just guitar processing. Put any audio signal through it — vocals, synths, drum tracks— and add the classic sound of vintage echo to your mix.
- Add a whole collection of classic echo units to your studio — all programmable and automatable
- Set delay times by knob, milliseconds, or bpm/note value — or just click your mouse a few times on the tap tempo button.
- Defeatable Time Ramp gives smooth tape-style delay time changes complete with pitch smear
- Use Echo Farm as a guitar stomp box in front of Amp Farm, or as a processor for all your other audio track
- Models based on the following effects units:
  - Maestro EP-1 Tube and EP-3 Echoplex
  - Roland RE-101 Space Echo
  - Boss DM-2 Analog Delay
  - Electro-Harmonix Deluxe Memoryman
  - Dynamic Delay (ala TC Electronics 2290)
  - Lo Res Delay (variable from 24 to 6 bits)
  - Sweep Echo (filter-sweep delay)
  - Digital Delay with Modulation, Ping Pong
  - Reverse (xirdneH imiJ ekil tsuJ), and Auto-Volume Echo.

PROSONIQ — ORANGE VOCODER

Real-time Vocoder and Software Synthesizer (RTAS)

Tired of dull sounding tracks? Want to breathe some funk into your mix? Well, here's the perfect tool. Prosoniq's Orange Vocoder offers perhaps the fastest, most flexible and most transparent sounding simulation of an analog vocoder effect. Following a long tradition of German Vocoder effects, the Orange Vocoder is fully customizable and features an 8-voice virtual analog synthesizer unit, Freeform EQ and Filterbank Reverb all controllable from within one easy-to-use interface.



- Real-time Vocoder effect for the RTAS platform, uses either any input source/ audio track or the built in oscillator as carrier signal, and any audio track as modulator.
- Graphical control over every parameter, full use Pro Tools LE's, advanced automation capabilities, and an attractive user interface
- Supports both RTAS sidechain routing and Pro Tools automation
- Integrated 8-voice virtual analog synthesizer with 2 oscillators per voice featuring 10 basic waveforms and 7 sampled sounds. Voice detune, pitch LFO, 4-pole Lowpass filter with cutoff and resonance, oscillator hard sync, and ring modulator.
- Fully customizable Freeform EQ with max. 12 nodes, ranging from 20Hz to 20kHz and resolving ±30 dB FS
- Input Channel Flip: instantly exchange carrier and modulator signals without re-routing tracks.
- Post-Vocoder Filterbank Reverb Effect with Mix, Decay and Density
- Integrated preset program switch for easy parameter adjustment

SONIC SOLUTIONS — NoNoise

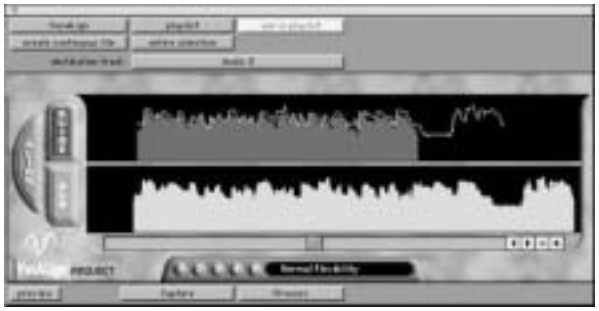
Powerful Noise Reduction/Audio Restoration Plug-in Suite

Sonic Solutions' Emmy Award-winning NoNOISE is the premier tool for restoring audio recordings. Its advanced processes isolate and eliminate audio artifacts such as hiss, scratches, hum, mechanical and impulsive noise, ambient and background noise — while preserving the integrity of the original recording. NoNOISE is not a single process or software module, but a set of powerful tools to remove bothersome noise without damage to the program material. Use it to restore old recordings, remove unwanted noises from field recordings, and repair audio materials that have suffered damage. Since it's introduction over 15 years ago, Sonic's NoNOISE technology has been used to restore hundreds of thousands of music, film, video recordings, as well as forensic recordings used by intelligence and police organizations around the world.

- NoNOISE is comprised of a set of powerful tools that address the full spectrum of noise issues, as well as offering both automatic and manual means of analysis and repair without damage to program material.
- Capabilities include frequency analysis, peak distortion removal, broadband denoising, click detection, production (automatic) and manual declicking, and decrackling.
- Ideal not only in the mastering and re-mastering stages of audio production, but also for many other audio treatments needed to restore, clean, or enhance recorded material.
- A variety of high-resolution filters (also implemented as TDM plug-ins) is included: Presence, Notch, High and Low Shelf, High and Low Pass, DC-Removal, Emphasis, De-emphasis and RIAA/No RIAA.
- While NoNOISE for Pro Tools does not include all of the application features found in the SonicStudio version, it is designed to strike an ideal balance between the workflows of both experienced Pro Tools users and SonicStudio users.

SYNCHRO ARTS — VocALign

Audio Alignment for Music and Post Production (AudioSuite)



VocALign is an amazing tool which reduces the time taken to re-record dialog or vocals —saving money by drastically reducing production and studio time. Artists can now concentrate on performance and not sync during overdubbing sessions. VocALign's unique ability to align two signals enables it to be used creatively to take guide or even "live" tracks and create performances with perfectly aligned overdubs.

This AudioSuite plug-in gives Pro Tools users perfectly aligned double-tracked vocals, tight backing vocals, easy re-grooving of recorded vocals for remixing and shorter overdub sessions. Users also have the ability to choose the best rhythm and pace for a specific vocal, or even lay down the required tempo pattern for the artist. For postproduction, VocALign will automatically edit a line of replacement dialog so that it aligns with the dialog recorded with the original film or video. The artist can concentrate on performance and the result is perfectly lip-sync'd dialog, or more convincing foreign language dubs and reduced studio time re-recording the dialog.

- Takes just seconds to automatically align two audio signals so that the timing of one matches the other
- Sophisticated pattern matching techniques reject guide track noise and work with different speakers, singers, words, instruments and sounds
- User interface allows adjustment of selected audio regions for processing, and the scrolling, scalable display allows visual confirmation of sync
- User-adjustable processing presets ensure optimal performance
- Pitch of aligned audio is unchanged

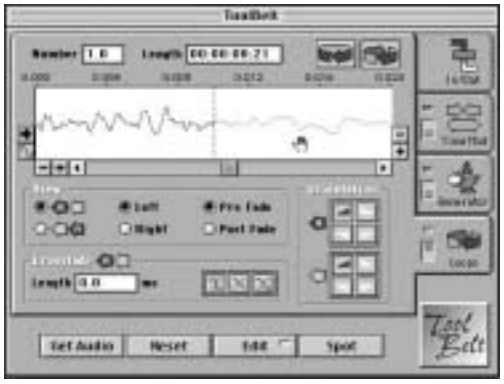
Artists can now concentrate on performance and not sync during overdubbing sessions

- Align a vocal or instrumental performance to a previous take
- Re-create a "live" vocal's timing in the overdub session
- Tighten up backing singers with one another or with the lead
- Tighten two instrumental performances
- Lock double tracked vocals together
- Remixers: completely change the timing of a vocal performance
- ADR: Lip-sync replacement dialog automatically

SYNCHRO ARTS — ToolBelt

High Speed Tools for Efficient Audio Production

A stand-alone program that both captures audio from Pro Tools and returns it with single keystrokes, ToolBelt provides five high-quality, non-real-time processes (Audio Generator, TimeMod, Power Looping, Reversing, Inverting) in a time-saving, production-efficient interface. In fact, many of these processes and features are simply not available in any other products.



ToolBelt's processes can be used separately or in combination. ToolBelt also provides keystrokes for auditioning selected processes or changes to signals before they are returned to Pro Tools.

Applications Include:

- Sound Effects: Create altered sounds and atmosphere loops quickly and easily
- Repair Work: Correct timing errors and channel inversion
- Dialog Editing: Make lengths fit; make background fills quickly; create special vocal effects
- Music Editing: Create precise musical loops and special effects; change tempos without pitch change

TOOLBELT

TOOLBELT FEATURES

- ToolBelt's unique Audio Generator can automatically extend very short pieces of atmospheric or back- ground sounds into long, natural sounding regions without sounding looped. It's great for making fills for dialog and effects editing.
- Looping function provides graphical displays and A/B pattern-making facilities
- TimeMod provides high-quality, mono and stereo time compression / expansion without pitch changes; maintains stereo phase and musical rhythm
- Stereo channels can be independently processed
- Audio playback from ToolBelt allows input and output auditioning
- Invert function (180° phase change)
- Built-in macros for seamless integration with Pro Tools
- Intuitive interface and simple operation
- Processed audio can be placed back, sample-accurate, on any session track
- Compatible with 8, 16 and 24-bit audio

SYNCHRO ARTS — TITAN

The Essential Aid for Conforming Soundtracks

TITAN is a must-have application designed for Pro Tools editors involved in audio post-production for film or video, who spend long hours manually making sync adjustments after conforming or processing audio, or have to recut and rename regions in continuous audio tracks that have been transferred into a Pro Tools session from another system.
TITAN is a multi-function program that creates new Pro Tools sessions in a fraction of the time normally required. This powerful application aids and speeds up the autoconforming process, creates sessions from EDL-based change lists, automatically performing many of the tedious and repetitive tasks normally associated with the conforming of audio.

TITAN is a stand-alone application that provides separate functions for processing a Pro Tools session file. An efficient user interface provides easy access to functions, track selection and processing options. The Flash Conform function instantly conforms soundtracks from an EDL and pre-loaded soundfiles, and can conform or reconform entire sessions in seconds— a big time saver

Fix Sync Function

The Fix Sync function automatically corrects the position of audio that is out of sync by up to ±1.3 second to sample level accuracy. Similarly, it can correct the sync of audio that has passed through signal processing devices and has been delayed by unknown amounts. TITAN virtually eliminates the need to adjust sync manually while listening for phasing or visually comparing waveforms with a worktrack.

- Can process 400 to 500 regions in a session in ten minutes. Manually, the same job could take up to a day
- Stereo regions are adjusted together to keep phase relationships intact
- Display shows size and number of sync errors
- Autonaming of processed sessions, tracks, and regions

Flash Cutter Function

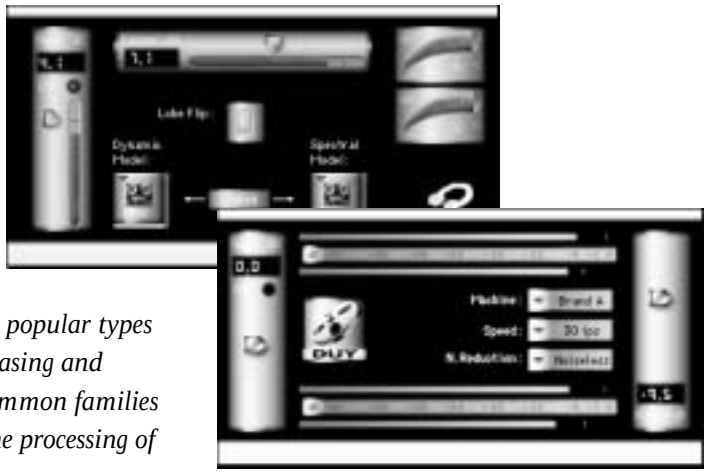
Flash Cutter eliminates the need to manually recut and rename edits in situations when tape is used to transfer audio from any editing system to a Pro Tools system and an OMF transfer is not a practical option. Once the audio on tape has been transferred into continuous tracks in a Pro Tools session, Flash Cutter uses a standard EDL from the first editing system to recreate and name the audio regions automatically.

- Automatically cuts and names hundreds of regions in seconds
- Regions, sessions, and tracks automatically named with user-selected information from EDL
- Handle adjustments allow extending edits if required

DIGIDESIGN

DUY – ANALOG BUNDLE (DAD VALVE & DAD TAPE)

Tape Saturation and Tape Emulation for TDM Systems



Now, in one bundle, you can get analog tape and real-valve sound, with their classic warmth, within the digital domain, and with characteristics and control impossible to achieve in conventional tape recorders or valve systems.

DaD Valve is a revolutionary approach to the simulation of the classical valve sound for digital audio systems. It features the most popular types of valves — triode, tetrode, and pentode — with a full range of biasing and operating levels. It features optimized responses for the 38 most common families of acoustic and electronic musical instruments. Also suitable for the processing of any kind of sound: music, effects and voices.

DaD Tape is a revolutionary approach to the simulation of the analog tape sound for digital audio systems. It features physical modeling of the four most representative tape recorders on the market: an old vintage machine with valve circuitry, a transistor based machine of the late 60's, an operational-amplifier based machine of the 70's and a machine of the latest generation. It also offers simulation of the three most common noise reduction systems, plus a proprietary noiseless-tape mode. Ideal for music, film soundtracks, audio post-production, mastering, broadcast and multimedia.

DaD Tape

- Especially suitable for percussive sounds, mastering of complete mixes.
- Round off peak transients and add warmth to electronic and acoustic instruments, either individually or by sections or sub-mixes.
- Independent input/output sliders and meter
- Switchable tape speed (7-1/2 /15/30 ips) for maximum control—even permits unusual combinations of tape recorders and speeds.
- User adjustable operating level
- Easy and intuitive user interface

DaD Valve

- Proprietary system based on physical modeling providing absolute and independent control over both spectral and dynamic responses, with a total of 1600 different configurations—Ideal for voices and sound effects, mastering of complete mixes
- Easy and intuitive user interface, easily updateable and expandable
- High signal to noise ratio due to high-quality internal resolution
- Processing of all kind of electronic and acoustic instruments, either individually or by sections or sub-mixes
- Suitable for all styles. It adds even harmonics to cold electronic sounds and restores the lost warmth to acoustic instruments

DUY EVERPACK

The Final Touch for RTAS-based Studios

The perfect solution for any M-Box or Digi001 user, the EverPack includes five excellent plug-ins for RTAS and Audiosuite: DUY Z-Room reverb, DaD Valve, DUY Shape, DUY Wide and Max DUY.

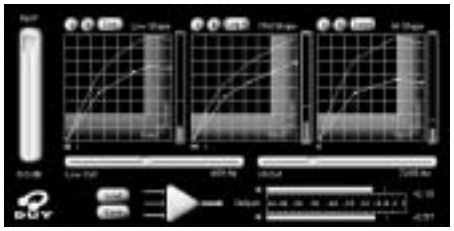
(The same as above except that it is compatible with RTAS, DUY DaD Valve is the valve emulation that gives you total control over the dynamic and spectral response of 1600 modeled combinations of sounds, introducing the typical non-linearities of tubes, and enabling you to warm up any of your sounds.)

B&H PHOTO - VIDEO - PRO AUDIO

ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)

DUY — EverPack

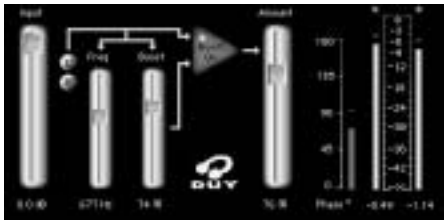
DUY Shape



Perfect for defining individual sounds of mastering entire mixes.Suitable for processing of any kind of sound: music, musical instruments, voices or effects. Processing of independent tracks or mastering of final mixes. Processing possibilities include dynamic enhancing, smooth equalizing, waveshaping compression, frequency enhancing, sound "revitalizer" for old mixes, user defined harmonic redistribution.

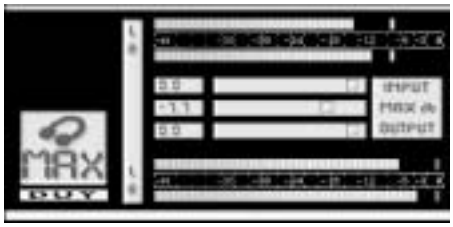
- ◆ FDWS (Frequency Dependent WaveShaping) algorithm processing
- ◆ Adjustable 3-band smooth filter with full audio range continuous crossover points
- ◆ High quality analog sound filters using modeling technology
- ◆ Three independent user-defined Shapers with virtually infinite resolution and accuracy. Each shaper has:
  - – Eight different Shaper curve types including Linear, Log and Cosine functions.
  - – Linear expand function to optimize dynamics
- ◆ A set of 5 factory presets for typical applications
- ◆ Simultaneous input and output plasma-style meters
- ◆ Mix switch for Low, Mid, Hi Shape or all (default) which allows easy independent adjustments

DUY Wide



- ◆ Spatial enhancing and widening of stereo image.
- ◆ Sound placement outside of physical stereo speaker locations.
- ◆ Individual per channel phase inverter
- ◆ Mono compatible.
- ◆ Doesn't add unwanted color to the signal
- ◆ Range of effect from subtle to dramatic
- ◆ High signal to noise ratio due to an internal resolution of 48 bits.
- ◆ Spatial enhancing of existing mixes, both independent stereo tracks and final mixes.
- ◆ Remastering, rebalancing and spatial enhancing of stereo and multichannel mixes.
- ◆ Complex spatial processing of pairs of channels in multichannel mixes.

MAX Duy



- ◆ Exclusive ILO (Intelligent Level Optimization) algorithm provides:
- - Seamless level maximizing.
- - Zero harmonic distortion even at low frequencies.
- - Unnecessary level scaling and limiting thus improving signal to noise ratio
- - Release free operation avoiding unwanted pumping effect.
- - Overall improvement in signal to noise ratio.
- ◆ Easy and intuitive user interface
- ◆ Maximum resolution peak level meters with hold and shift function.
- ◆ High signal to noise ratio due to an internal resolution of 48 bits.
- ◆ Sound level optimization for music, film soundtracks, broadcast and multimedia.
- ◆ Suitable for the processing of any kind of sound: music, musical instruments, voices or effects, for both individual tracks and final mixes.
- ◆ CD mastering

DUY Z-Room

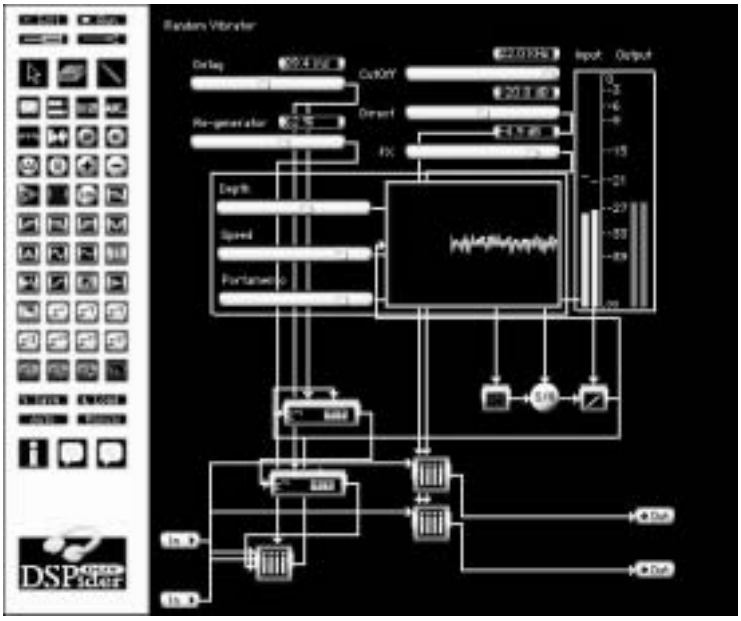
Z-Room is a high-quality reverb, it features excellent density and diffusion that provide an unparalleled sound quality. DUY Shape is a sound enhancer featuring 3-band smooth filters with full audio range continuous crossover points and three independent user-defined shapers with virtually infinite resolution accuracy. DUY Wide is a stereo and multichannel spatial enhancer, which allows widening of the stereo image, as well as sound placement outside the physical speaker locations. DUY Wide is mono-compatible. Max DUY is a sound level maximizer based on DUY's exclusive ILO algorithm, featuring seamless level maximizing, zero harmonic distortion even at low frequencies, and release-free operation.

DIGIDESIGN

DUY — DSPIDER

"The Plug-in Creator"

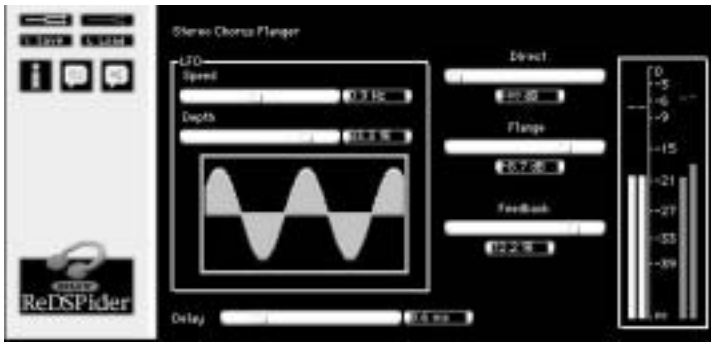
DSPider is a modular plug-in creator for TDM that consists of 40 modules that can be linked by the user in countless different ways, providing a unique and revolutionary approach to the creation of user-defined processors. DSPider allows the development of virtually any type of existing processing device, and provides a preset library with over 220 loadable and modifiable presets such as compressors, reverbs, equalizers, limiters, synths, noise reduction systems, 3D effects, de-essers, sound effects generators, etc. Applications include the whole spectrum of the audio world: post-production, music, broadcast, mastering, multimedia, education, research, etc.



- DSPider allows users to "build" their own plug-ins. As a result, a huge range of unique and exciting effects and processors can be created with just one plug-in.
- Instant assistance is provided by help balloons and "talking help". Electronic instructions for patches enable easy and intuitive use.
- 3rd party developers can create or modify patches, allowing the development of virtually any type of existing processing device, including those that don't currently exist in the marketplace. This makes possible the creation of a vast range of unique proprietary processors and signature sounds. A "Locked Patch" option allows developers to maintain the secrecy of their algorithms.
- Advanced Mode provides a large working surface and enables you to edit and run patches, whereas the Reader Mode has a reduced screen and is designed especially for users to run patches.
- Patch Manager lets users switch between patches automatically, allowing the optimization of DSP resources and a previously unavailable degree of control and flexibility.

The Modules:

DSPider´s 40-module list ranges from simple operators such as addition, subtraction, multiplication, shift, etc., to multi-functional modules like filters, oscillators, waveshapers, filters, multiple delays, envelope followers, pitch trackers, ramp generators, sample-and-hold, spectral shapers, etc. A flexible multi-reflexion chamber and multiple delay modules allow the creation of complex user-defined reverbs. By providing modules previously only available in modular synthesizers, DSPider permits exclusive processing capabilities and the creation of entirely new audio processors. Graphic modules like sliders, numeric readouts, plasma meter readers, scopes, etc., allow the creation of complex graphics. All modules can be easily programmed and patched with a simple "drag and drop" procedure.



DUY —REDSPIDER

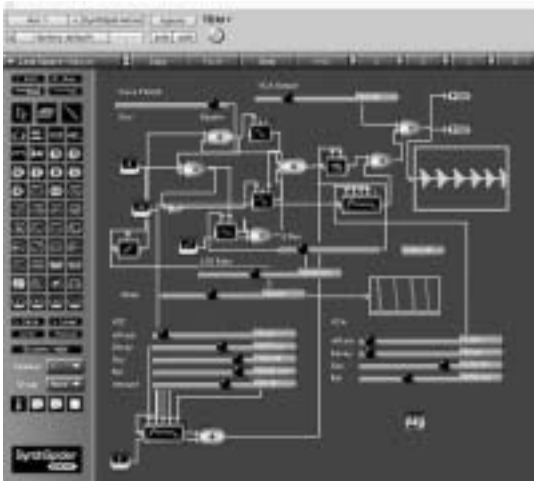
Plug-in Library for TDM

Based on the great success of DSPider, DUY's ReDSPider is the first plug-in library for the Digidesign TDM Bus. ReDSPider features over 220 plug-ins which include compressors, limiters, reverbs, noise gates, expanders, equalizers, 3D effects, synth sounds, sound enhancers, de-noisers and many more. You don't need DSPider to use ReDSPider! Supports sample rates up to 96 kHz

DUY — SYNTHSPIDER

Creating Sounds and FX

A modular TDM synthesizer software, SynthSpider links the 40 supplied modules, allowing you to create your own sounds and sequences. The high quality of DUY's algorithms is reflected in the power of the modules, which include filters, envelope followers, wave generators, and even a built-in analog-like sequencer, plus a "scanwave generator" that allows you to use external audio. Unlike other TDM synthesizers, SynthSpider's modularity makes it the most versatile tool of its kind. MIDI-compatible, SynthSpider includes the most powerful tools to make your sounds be totally unique. The perfect tool for sound designers, composers or sound effects creators, SynthSpider's applications include the whole spectrum of the audio world: post-production, music, broadcast, multimedia, education, research, etc.



FEATURES

- A large library of presets is provided with SynthSpider. A "normal" synthesizer would just include variations of an identical setup, but due to the modularity of SynthSpider, all these presets have a different internal structure and open a whole range of possibilities for the user, who can modify any of the given presets and save them as proprietary.
- The "Locked Patch" option allows developers to maintain the secrecy of their algorithms.
- Users can create or modify presets, allowing the development of virtually any type of sound, that doesn't currently exist in the marketplace. This makes possible the creation of a vast range of unique proprietary sounds.
- The Advanced Mode provides a large working surface and enables you to edit and run patches, whereas the Reader Mode has a reduced screen and is designed especially for users to run presets.
- The exclusive Patch Manager feature provides users the possibility to switch between presets automatically, allowing the optimization of DSP resources and a previously unavailable degree of control and flexibility.
- Instant assistance is provided by help balloons and "talking help". Electronic instructions for patches enable easy and intuitive use.

DUY GLOBAL TDM BUNDLE

The Perfect Software Package for any TDM Studio

DUY's Global Bundle contains six high-quality TDM plug-ins that will become the best solution for your ProTools-based studio:

DaD Valve & Tape ("DUY Analog Bundle"): analog tube and tape saturation and compression emulation

DUY ReDSPider: a package of over 200 different TDM plug-ins including compressors, reverbs, EQs, special effects and distortion.

DUY Shape: an adjustable 3-band waveshaper that will become the only tool you will ever want to use for high-precision sound definition. You can modify the curves to achieve expansion/compression of the signal levels. Perfect for defining individual sounds of mastering entire mixes.

Max DUY: Sound level maximizer, featuring DUY's exclusive ILO algorithm for the optimization of the level of the signal, the ease of use combines with the sound quality. Max DUY can also be used as a limiter.

DUY Wide: Spatial stereo enhancer. Features frequency compensation and includes a high resolution phase meter

EMAGIC

LOGIC 6 SERIES

Music Production Software For The Mac

Emagic's Logic 6 Series consists of a choice of three levels of digital audio and MIDI production software applications for the Mac OS— Logic Audio, Logic Gold and Logic Platinum. Each version of Logic has a virtually identical feature set combining support for high resolution 24-bit / 96kHz audio files (192kHz with Logic Platinum), and unlimited MIDI tracks along with a plethora of virtual plug-in effects and instruments along with powerful sample-accurate automation capabilities of just about every parameter. All versions include a myriad of editing capabilities for audio and MIDI as well as scoring. Support for a wide range of third party hardware and plug-ins as well as Logic's own plug-ins are just part of Emagic's commitment to providing their customers with cutting edge production tools. Logic Audio allows you work with up to 48 stereo or mono audio tracks, Logic Audio Gold provides 64 stereo or mono audio tracks and Logic Audio Platinum 5 provides 96 stereo or mono audio tracks. Whether you're a beginner, project studio or professional, there's a version of Logic with the right feature set and functionality to suit your needs.

They All Feature

- Optimized for Apple's G4 Velocity Engine including dual processor models.
- 960 ppqn timing resolution (1/3840 Note)
- Tempo resolution accurate to 1/10,000 bpm from 0.05 to 9,999 bpm
- Multiple undo/redo

Audio

- Ultra-precise 32-bit internal processing with support for 16 and 24-bit audio files up to a sample rate of 96kHz (192kHz with Logic Platinum)
- Support for MacAV, ASIO, Direct I/O, and Audiowerk under OS 9.x and Core Audio under OSX.
- The built-in Sample editor allows sample accurate non-destructive and DSP-based editing of mono and stereo audio files
- Entire mixes complete including live inputs, effects and automation can be bounced to disk in realtime
- The transparent POW-r dithering process assures that high resolution recordings retain their true sonic character even at 16Bit/44.1kHz CD resolution.
- Hardware independent audio scrubbing
- Hardware independent realtime sample-rate conversion.

MIDI

- Virtually unlimited MIDI tracks
- Non-destructive, realtime quantization, transposition, velocity, track delay, gating and more
- Multiple MIDI editing environments: Matrix Editor, Event List, Hyper Editor, Score Editor and Transform Window
- Ultra-precise MIDI timing using Emagic's AMT8 and Unitor8 MIDI interfaces
- OMS, MTP (OS9) & CoreMIDI (OSX) support
- A wide range of synchronization options including MTC, MMC and SMPTE ensures that Logic connects easily to both the digital and analog worlds

Effects and Virtual Synths

- Includes a wide variety of high end effect plug-ins as well as three soft synths
- Support is provided for Emagic's line of virtual instruments as well as third party VST2.0 plugins and virtual instruments under OS9 and Audio Units under OSX

Track-based Automation

- Track-based, sample-accurate automation is provided, with 32 Bit data resolution, for virtually every parameter including effect plug-ins and Audio Instruments

Logic Control Support

- Logic Control is a hardware control surface, co-designed by Emagic and Mackie Designs, that offers complete hands-on control over hundreds of MIDI and audio functions, including Logic's 32-Bit track automation system.

Screensets and Key Commands

- Instantly switch between 90 screensets, containing customized window configurations including window size, position and zoom settings, using your computer's keyboard numeric keypad you are able to
- The most important program functions and navigational macros can be quickly accessed by 100s of user-definable Key Commands and MIDI commands

Environment

- Provides extensive control and customization of your external MIDI set-up, audio routing, mixing and real-time effects
- Assign Logic's software-based processing devices (faders, arpeggiators, delays and more) to create unique controllers for your MIDI gear and audio tracks.
- Create a different environment for your MIDI instruments, audio tracks, audio instruments, etc... and store a Screenset for each one

LOGIC 6 SERIES

Arrange Window – Logic's Primary Workspace with an Emphasis on Realtime Composition

Transport controls
Cycle record/playback
Punch in/out recording
Track solo
Metronome and Sync options
Tempo and time signature

Track Information
Track number, Mute and Record buttons Track icon and name Current automation parameter, meter and mode

Markers allow you to quickly "jump" to any location in your songs

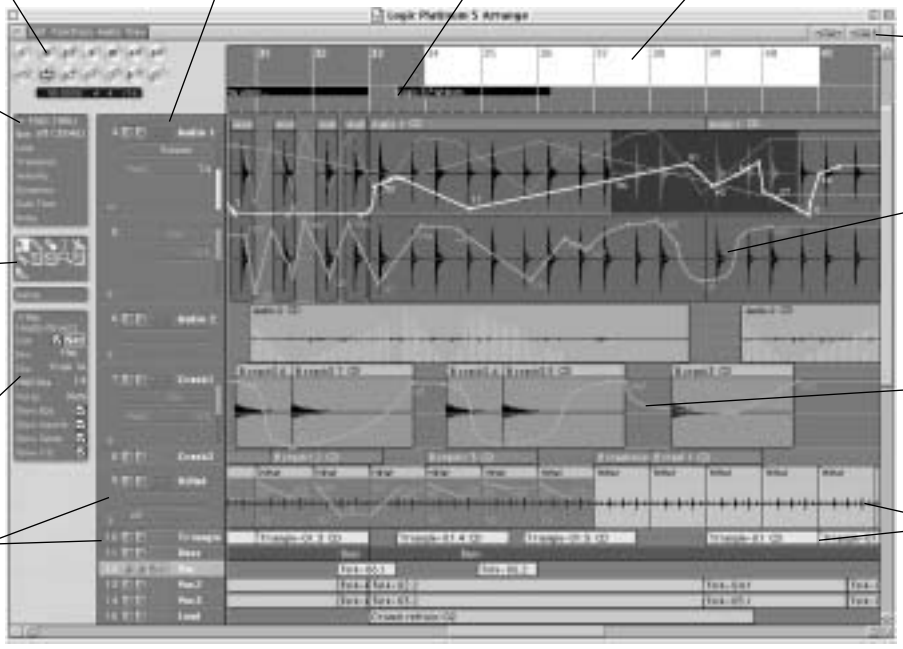
Click and drag your mouse from left to right along the timeline to select the desired bars for cycle record/playback

Individual Sequence parameters include realtime non-destructive control over quantization, transposition, velocity, dynamics (velocity compression), gate time, delay (by note value or ms.) as well as loop on and off

*The Tool Palette includes a pointer, pencil, eraser, scissor, glue, crossfade and other tools for editing audio regions and MIDI sequences – hit your keyboard's **esc** key and the Tool Palette will appear at your cursor position*

Track Parameters
Track name, icon, device (audio driver) or port (MIDI), MIDI Channel and more..

Audio and MIDI objects can all be individually resized, soloed, muted, looped and mixed in the Arrange window - all in real-time and without stopping the sequencer or your creativity



Zoom in and out of the Arrange window (horizontally and vertically) using the telescope tools

Color-coded automation data is displayed directly in the Arrange window as envelopes with break points that can be freely drawn, edited and scaled

Automation curves are freely adjustable between convex, concave, s-form or linear shapes

Because automation is track-based, it can be copied and moved independently of their associated MIDI sequences and audio regions

MIDI sequences and audio regions can be recorded, arranged and edited in a virtually identical fashion.

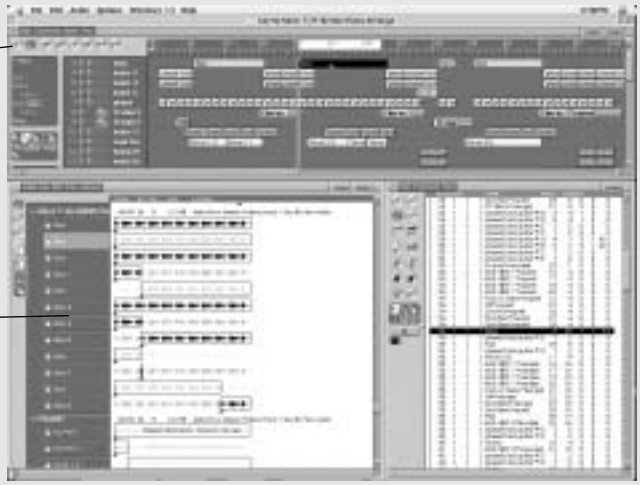
File Formats and Compatibility

- Mono, interleaved stereo and split (L/R) stereo audio files can be recorded, imported and exported using Sound Designer II, Aiff and Wave file formats
- REX2 (recycle) files can be imported into the arrange window and in the optional EXS24 mk2 software sampler
- The audio output of ReWire compatible software instruments, such as Propellerhead's Rebirth and Reason, can be streamed into Logic's mixer where they have full access to Logic's extensive array of effects and mixing facilities.
- Built-in Quicktime movie support allows you to efficiently view and synchronize video within your project. An ideal for scoring to picture without the need to synchronize to an external VTR.

Access up to 90 customized Screensets like this one with a single keystroke

Each editing window features a Catch and Link button that when activated allow multiple windows to interactively follow the currently active window's event selection as well as any movement along the timeline – Notice that the bass region selected in the arrange window is also highlighted in the Audio and Event List windows

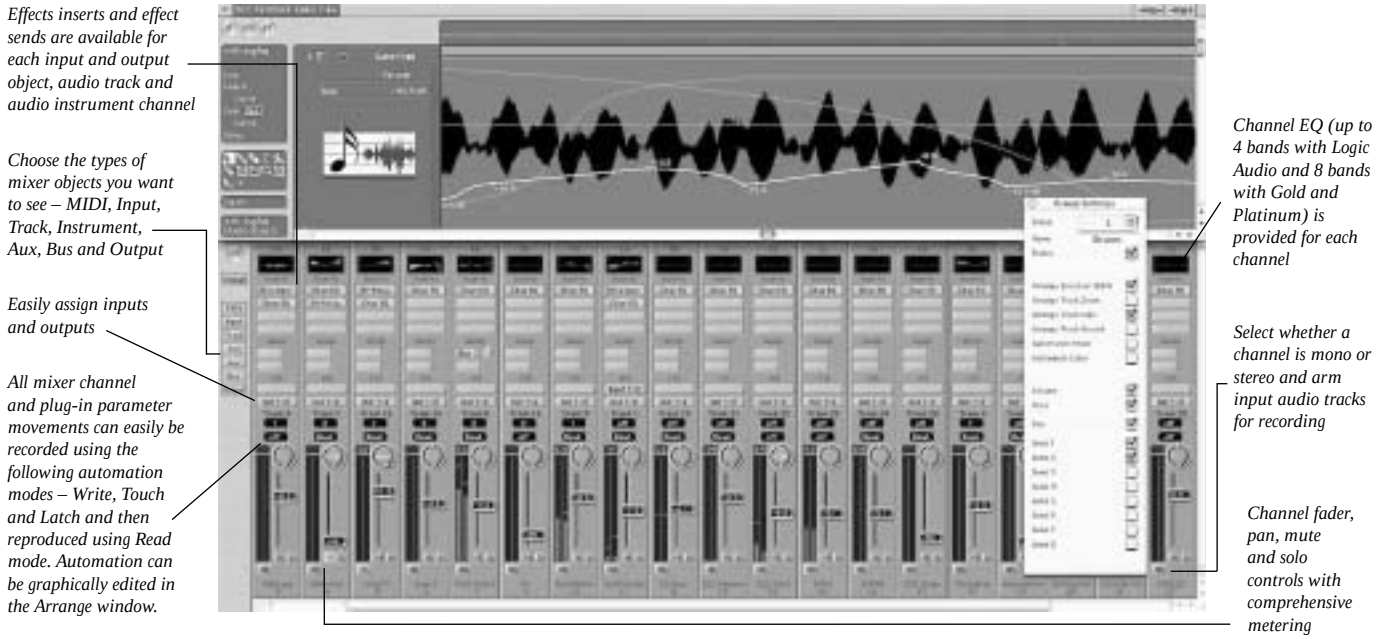
Audio Window
Audio files and their associated audio regions, recorded (or imported) into your session, are automatically listed in the Audio window where they are easily organized. Audio files and regions can be auditioned here and then dragged onto the desired track in the arrange window. Double clicking on an audio file or region will launch the selection in Logic's built-in Sample Editor



LOGIC 6 SERIES *continued*

Adaptive Track Mixer

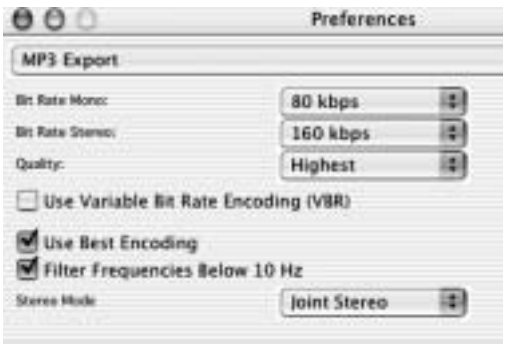
The Adaptive Track Mixer reflects the track layout of audio and MIDI channels shown in the Arrange window.



Customizable Audio Objects

- Audio Track Objects are used for record and playback of audio files.
- Audio Input Objects allow you to monitor live audio inputs with effects. Logic Gold and Platinum add the ability of pre-processing (recording) Input Objects with effects
- Bus objects (mono/stereo) are available for use as effects returns and for creating sub mix groups.
- Aux Input Objects (mono/stereo) are available for creating multiple outputs for virtual instruments and for adding functionality to the busses.
- Audio Instrument objects can be created for accessing virtual instruments.

Support of More Audio Formats (OS X only)



Logic 6 can import and export MP3 files. In addition, QuickTime audio formats can be imported and exported including: AAC, Qdesign Music 2, Qualcomm PureVoice, Law, Alaw and IMA formats.

The master output object features a Bounce to disk button that allows you to bounce any number of tracks, even an entire mix, including any automation and effects to a mono or stereo (single or split left and right) audio file.

POW-r Word Length Reduction

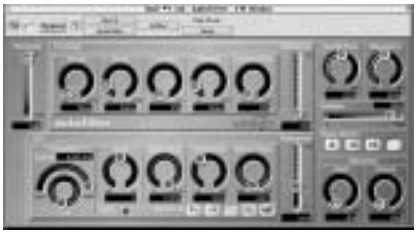
- POW-r is a high-end dithering algorithm designed by the POW-r consortium — a team of digital audio designers who come together to create one of the audio industry's most transparent and dynamically stable methods of Word Length Reduction.
- POW-r #1: uses a special dithering curve to minimize quantization noise.
- POW-r #2: (Noise Shaping): uses additional noise shaping over a wide frequency range which can extend the dynamic range by 5-10 dB.
- POW-r #3: (Noise Shaping): uses additional, optimized noise shaping which can extend the dynamic range by 20 dB within the 2-4kHz range - the range the human ear is most sensitive to.

LOGIC 6 SERIES *continued*

Fully Automated Plug-in Effects System

- Dozens of effects plug-ins are included covering a wide range of precision and creative processing tools from the standard dynamics, reverbs, delays and EQs, to unique sound sculpting tools and mastering processors
- All plug-ins operate at 32-Bit resolution, and support sample rates from 11kHz to 200kHz, ensuring outstanding audio quality and making signal overloads virtually impossible
- Third party support is also provided for VST/VST2 (OS9 only) and Audio Units under OSX
- Plug-ins can be accessed in a number of ways including: Inserted directly on to live input channels; audio playback tracks; or virtual audio instruments; they can also be inserted on busses and aux channels and accessed via direct channel routing or via channel sends

- Sidechain Inputs (Gold and Platinum only) — Audio tracks, inputs and busses can be used as sidechain sources for sidechain capable plug-ins and audio instruments. For example, this allows the optional EVOC20 vocoder to process live audio inputs via the sidechain input



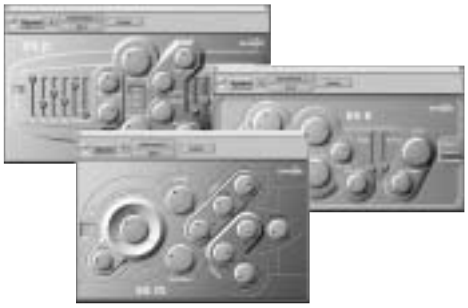
- The Plug-In I/O (Platinum only) allows you to insert the signals of an external processor into any audio object channel. A pop-up menu provides access to the I/O available in your audio hardware.
- Effects can be assigned to live input channels for monitoring purposes or for pre-processing.

Virtual Audio Instruments

- Soft synths and samplers including Emagic's optional ES1, ES2, EXS24, EVP88, EVD6 and EVB3 can be inserted into Audio Instrument channels and seamlessly integrated into Logic's mixer with access to effects and automation
- Third party support is provided for VST2 under 09 instruments and Audio Units under OSX
- Playback timing for all audio instruments is sample accurate
- Logic Audio supports up to 16 audio instruments, Logic Audio Gold supports up to 32 and Logic Audio Platinum supports up to 64
- Multiple Outputs for virtual instruments is also supported

Integrated Synthesizers

- Logic 5 incorporates three powerful subtractive analog software synths as standard – The ES M monophonic bass synthesizer, the ES P for the creation of polyphonic sounds and the ES E for ensemble sounds



REALTIME NATIVE PLUG-INS

	Audio	Gold	Platinum
Reverbs:			
3.0 Reverb	✓	✓	✓
AVerb	✓	✓	✓
SilverVerb	✓	✓	✓
GoldVerb		✓	✓
PlatinumVerb			✓
EnVerb			✓
EQ:			
DJ EQ	✓	✓	✓
Fat EQ		✓	✓
Hi and Low Shelving	✓	✓	✓
Parametric	✓	✓	✓
Silver EQ	✓	✓	✓
Hi and Low Cut Filter	✓	✓	✓
Hi and Low Pass Filter		✓	✓
Delays:			
Stereo Delay	✓	✓	✓
Sample Delay	✓	✓	✓
Tape Delay	✓	✓	✓
Dynamics:			
Silver Compressor	✓	✓	✓
Silver Gate	✓	✓	✓
Compressor		✓	✓
Expander		✓	✓
Limiter		✓	✓
Noise Gate		✓	✓
DeEsser			✓
Adaptive Limiter			✓
Multipressor			✓
Distortions:			
BitCrusher		✓	✓
Distortion	✓	✓	✓
Clip Distortion	✓	✓	✓
Overdrive	✓	✓	✓
Phase Distortion	✓	✓	✓
Modulation Effects:			
Chorus	✓	✓	✓
Flanger	✓	✓	✓
Modulation Delay	✓	✓	✓
Tremolo	✓	✓	✓
Ensemble		✓	✓
Phaser		✓	✓
Spread'er			✓
Enhancers:			
StereoSpread			✓
SubBass			✓
Exciter		✓	✓
Special:			
Volume	✓	✓	✓
Gain'er	✓	✓	✓
AutoFilter			✓
Enveloper			✓
Native I/O Insert			✓
Pitch ShifterII	✓	✓	✓
Spectral Gate			✓
Oscillator		✓	✓
DeNoiser	✓	✓	✓
Helper:			
Direction Mixer		✓	✓

LOGIC 6 SERIES *continued*

MIDI Editor Windows

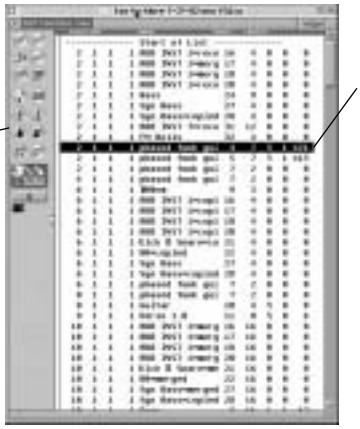
Logic's linked editors provide the power to fine-tune your music at any level. View a composition in its entirety or select and make changes to the smallest detail with the Matrix, Event List, Score or Hyper Editors.

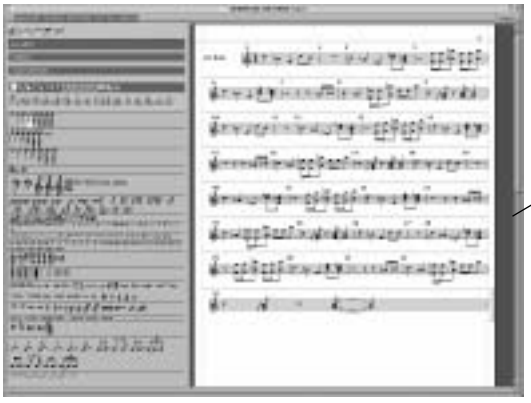
The Matrix Editor is a piano roll style editor that offers an intuitive approach to editing the pitch, placement and duration of MIDI events using a vertical piano keyboard and horizontal timeline axis

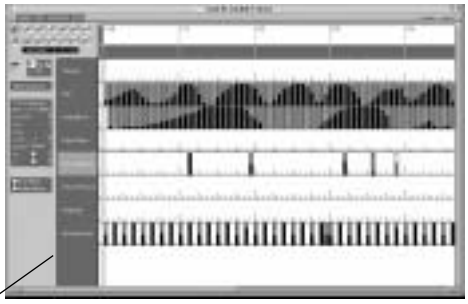
The velocity of each MIDI note is represented by the intensity of the events color (blue = 0, red = 127). A velocity tool allows you to adjust the velocity of selected notes.

Use Hyper draw to automate MIDI controller data

A filter allows you to choose the specific type of data you would like to edit.

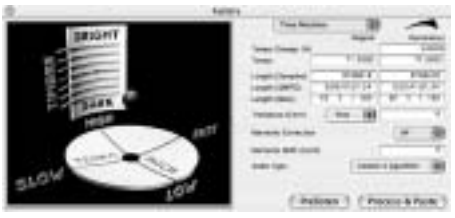


The Event List Editor can be used to view and edit the position, track and length of sequences and audio regions in the arrange window as well as let you view and edit individual events (notes, controller data, pitch bend, program change) within MIDI sequences.

The Score Editor is a MIDI editor that displays traditional music notation. It also provides layout functions which make it possible to create professional score printouts quickly and easily.



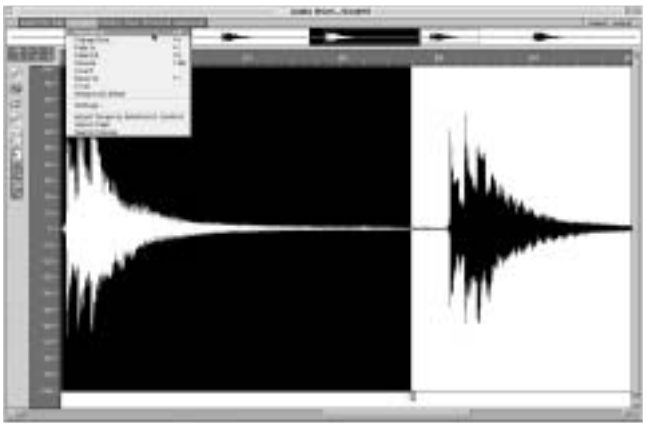
The Hyper Editor is the ideal Step Sequencer. You can insert and edit note and controller data quickly and easily using only a few simple tools. Event values are represented by vertical bars. Use the pencil tool to insert single events such as program changes or draw sweeping curves to control filter cutoff etc..

Sample Editor



The Sample Editor provides a wide range of sample accurate waveform editing capabilities from creating regions to performing DSP functions including Normalize, Trim, Silence, Reverse, Fade In/Out, Remove DC Offset, Time compression/ expansion and formant corrected pitch shifting using Time Factory II and much more.

The enhanced TimeMachine II time compression and expansion, available in Logic Gold and Platinum, provides five algorithms designed to work with specific source material – Monophonic, Pads, Beats, Version 5 and the default Any Material.



LOGIC 6 SERIES *continued*

DOT – DSP Optimization Technology

- Native support is provided for the latest Apple G4 Velocity Engine-equipped computers including multi-processor models. In some cases, these optimizations can increase the total number of tracks, effects and audio instruments that are available for simultaneous use.
- DOT can effectively double the amount of available CPU power, when DOT optimized plug-in modules are used in Logic. A number of Logic plug-ins are specifically optimized for the latest G4 processors.

Rock Solid MIDI Timing and Synchronization with AMT (Active MID Transmission)

The Logic Series incorporates a proprietary Emagic technology called AMT (Active MIDI Transmission). Using Emagic's Unitor8 or AMT8 MIDI interfaces with Logic ensures that MIDI timing is precise across all ports, even in the largest of MIDI systems. Literally hundreds of MIDI ports can be addressed, with MIDI data arriving simultaneously at each, no matter how dense the MIDI arrangement. If you need to synchronize with external sources, the entire Logic Series will send and receive MIDI Clock, MTC, MMC and word clock signals, making it ideal for film, TV and post-production facilities.

XSKey Expandable System Key – Copy Protection System

This programmable hardware key for the USB port includes the license for Logic 5, and temporary licenses for all Emagic software instruments.
Following the initial launch of Logic 5, you can try out all Emagic software instruments for a period of one month without any functional restrictions.

	Logic Audio	Gold	Platinum
Audio Files and Processing:			
Highest Supported Bit Depth / Sample Rate	24-bit/96kHz	24-bit/96kHz	24-bit/192kHz
Ultra-precise 32 Bit internal processing	✓	✓	✓
Export/Import Region Time Stamps	✓	✓	✓
Realtime Variable Pitch	–	–	✓
Software Sample Rate Conversion	–	–	✓
Arrange Window:			
Nondestructive Audio Editing	✓	✓	✓
Nondestructive Crossfades	✓	✓	✓
Variable fade curves for crosssfades	–	✓	✓
Time Stretching In Arrange	✓	✓	✓
Arrange Punch on the Fly		✓	✓
Max Number:			
Playback Tracks (single audio hardware)	48	64	128
Playback Tracks (multiple audio hardware)	N/A	128	256
Inserts per Track	4	8	15
Busses / Aux Channels	8 / 8	16 / 16	64 / 64
Audio Instruments	16	32	64
Multiple Outputs for Audio Instruments	8	16	64
Max. Simultaneous I/O	12	24	Unlimited
Number Of Included Plug-Ins	28	42	53
Multiple Undo/Redo Steps	3	30	Unlimited
Undo/Redo History	–	–	✓
Definable Key Commands	300	600	800
Side Chain for Plug-Ins	–	4	4
Hardware Support:			
ASIO Support (OS 9)	✓	✓	✓
Core Audio (OS X)	✓	✓	✓
Digidesign Direct I/O (OS 9)	✓	✓	✓
ProTools TDM (OS 9)	–	–	✓
ProToolsHD	–	–	✓*
Logic Control Support	✓	✓	✓
Mixing and Automation:			
32-bit Sample Accurate, Track-based Automation	✓	✓	✓
Freely Adjustable Automation Curves	–	–	✓
Adaptive Track Mixer for Audio & MIDI tracks	X	X	X
Software Monitoring	✓	✓	✓
Audio Input Objects monitoring with effects	✓	✓	✓
Pre-processing (recording) with effects	–	✓	✓
Bus and Input Objects as sidechain inputs	–	–	✓
Copy complete mixer configurations and their settings		✓	✓
Route track to bus / Route bus to bus	✓ / –	✓ / ✓	✓ / ✓
Tracks as side chain input source	–	✓	✓
Surround (including TDM systems)	–	–	✓
ReWire / Rewire2 support	✓	✓	✓
Track / Offline Bouncing with effects	✓	✓	✓
High-end POW-r dithering Algorithm	✓	✓	✓
File Support:			
MP3 import/export/convert (OS X only)	✓	✓	✓
REX2 File Support	✓	✓	✓
OMF (Avid/ProTools) import/export	–	–	✓
Open TL import/export	Import only	Import only	✓

**Requires PTHD extension*

LOGIC 6 SERIES *continued*

Emagic has released version 6 of the Logic Series. This update provides a new level of processor efficiency and extensive enhancements to the Arrange window that offers more editing and mixing power than ever before. In addition, Logic 6 debuts two new setup and file management solutions — the Setup Assistant and the Project Manager. Users will also benefit from an improved feature set for film scoring, a newly-developed superior sounding EQ and MP3 import/export functionality. Further optimization of the automation system round out this update.

Logic 6 Arrange and Adaptive Track Mixer Window Features

The "Freeze" button is a CPU resource maximizing feature available to all audio and audio instrument tracks. Activating the "Freeze" button automatically creates an offline bounce of an audio or audio instrument track and disables any of the plug-ins associated with that track. The unprocessed track is then replaced with the processed (or bounced) track thus freeing-up potentially very large amounts of CPU-power which can be used for other purposes. Tracks can be unfrozen at any time for further editing.

User-definable Arrange window Icons.

Logic 6 also supports Time Stretching directly in the Arrange window. This allows the length of an audio file or a loop to be quickly adapted to the chosen bar.

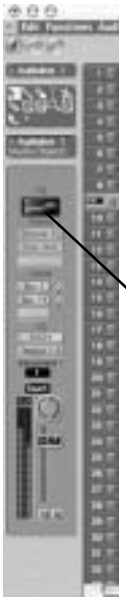
Sample accurate display resolution in the Arrange window.

The Marquee Tool is an arrange window tool that allows region and sequence-independent selection and editing of data.

The Video Thumbnail track (Logic Platinum only) displays single frames of QuickTime video, horizontally in the Arrange Window. The higher the zoom resolution, the higher the number of thumbnails will be displayed. A DV-formatted QuickTime movie can be output via FireWire to a standard DV camera or FireWire conversion box allowing you to view the video on a standard TV or video monitor.

(Logic Platinum only) Each channel can now be assigned to one or more of 32 available Groups. Each group can be a mix group, an edit group, or both. This feature improves Logic Platinum's fundamental automation engine while at the same time accelerates workflow and affords users improved live editing possibilities. Such as, improved vocal editing, assigning level meters to a group, or muting drum sets.

The Offline Bounce feature allows users to bounce tracks faster than real-time or to bounce songs that would otherwise cause system overloads.



The Arrange Channel Strip

You can view and edit a tracks channel strip from within the Arrange window. Selecting the desired track in the Arrange window will display the corresponding channel strip in the parameter section. This allows you to edit and mix a track without ever leaving the Arrange window.

The Channel EQ

The Channel EQ is an intuitive 8-band EQ (4-band in Logic Audio) with fixed modes: a highpass filter, a low shelving EQ, four parametric EQ bands, a high shelving EQ and a lowpass filter. Each band is fully parametric. Each channel EQ has an optional "high resolution analyzer" graphic display mode that can be applied pre/post the EQ allowing you to analyze the signal before and after the EQ.

Expanded Control Surface Support

Logic 6 can be controlled by the following third-party hardware controller units: CM Automation Motormix, Mackie HUI and Baby HUI, Radikal Technologies SAC-2k and SAC 2.2, Yamaha DM2000, 02R96 and 01V96. These hardware controllers can be used in combination with each other or as part of an expandable Logic Control and Logic Control XT system.

LOGIC 6 SERIES *continued*

Quick Automation Access

- The integrated One Fader Automation facility allows the selected automation parameter to be controlled by any controller such as a Mod Wheel.

Improved Time Machine

- The Time Machine in Logic 6 features a new algorithm that provides enhanced sound quality and more accurate time stretching and pitch shifting.

The Setup Assistant (OSX Only)

- The Setup Assistant Starting allows the initial setup of Logic to be quicker and easier than ever.
- The Setup Assistant is an unique tool that guides users step-by-step — even the extreme novice — through the process of setting up and configuring Logic. In a simple and interactive Q & A session users learn how to easily create preferences, configure key settings and create their first template song in Logic.

Save As Project

- All media files can be saved in a new "project" file format, making archiving and transport of projects created in Logic both efficient and easy.

LOGIC PLATINUM ADDS –

Intelligent Project Manager

- The Project Manager consolidates all media files on local volumes by recognizing the dependencies between audio files, sampler instruments, settings and movies.
- The Project Manager allows you to rename files, add or edit comments and change references to one, or multiple song files.
- Extensive search facilities further enhance the usefulness of this tool which can be accessed directly from the arrange window.

Surround Sound

- Surround mixing is available in any of 12 formats (up to 7.1) for audio channels, busses and instruments. Individual formats can be assigned for each track, bus or instrument.
- Import and export of OMF (Avid / ProTools) files

Multiple Undo with History

- Easy to use multiple undo/redo system with a user definable number of maximum undo/redo steps
- The undo/redo history window gives access to a complete script of the song's evolutionary progress, allowing any step to be selected, and all steps up to that point to be reconstructed. This history can be stored, and reactivated the next time the song is launched.

Added Functionality For ProTools Users

PTHD Extension

The Emagic PTHD Extension connects Logic Platinum and Pro Tools HD hardware to form a uniquely powerful system, providing not only superlative audio quality and generous I/O capabilities, but also – via Digidesign's TDM II – access to an ever-increasing number of exciting DSP plug-ins.

- Enables Pro Tools HD audio hardware to run together with Logic Platinum 5.1.3 or higher on Mac OS 9.x
- Supports up to 128 tracks, 24Bit/192kHz, TDM II

ESB TDM

Provides a link between your TDM system, and your computer's previously unexploited native CPU processing resources.

- Allows Logic's native audio engine to be routed into the TDM mixer. This enables all Logic tracks, native and VST plug-ins, including Audio Instruments, to be used in conjunction with your TDM system DSPs.
- ESB TDM also enhances the functionality of the EXS24 by allowing it to be inserted into the Aux channels of Logic Platinum's TDM mixer.

Host TDM Enabler

- Allows you to insert ES1, ES2, EVP88, EVB3 and EVD6 in TDM Aux channels under any TDM/HTDM host software
- Software instruments, using your computer's CPU, can be processed directly with any of your TDM plug-ins.
- Can be used with Logic Platinum, Motu Digital Performer or Digidesign Pro Tools Software (running on Pro Tools 24 MIX, Pro Tools MIX or ProTools HD systems).
- Supports up to 32 channels (16 stereo channels) with sample rates up to 192 kHz.

EMAGIC

EXS-24 MKII

Emagic Xtreme Sampler 24-bit

The ESX-24MKII is professional 64-voice software sampler whose integration into Logic's mixing, sequencing and sample editing environments makes it an essential component for all Logic users. The ESX-24MKII provides sample-accurate playback timing, stunning audio quality up to 24-bit/96kHz and is fully accessible to all of the effects and automation capabilities available within your version of Logic. The EXS24MKII's Instrument Editor provides an ergonomic user interface that allows you to quickly and easily assign and edit individual samples for designing simple single sample instrument or complex multi-sample, multi-layered sample instrument. The advanced synthesis engine features an awesome sounding multimode filter section, fast envelopes and three tempo-syncable LFOs as well as an extensive range of modulation routing possibilities.

FEATURES

- Multiple instances of EXS 24, each with up to 64 simultaneous voices, are supported within each version of Logic at extremely low processor loads.
- Assign samples to up to 5 stereo pairs and 6 individual mono outputs per instance of the EXS-24mkII.
- The amount of available sample time is limited only to the amount of available RAM in your computer or by available hard disk space when using VSM (Virtual Sample Memory).
- User-defined hierarchical menu structure and intelligent Sample Instrument search facility with naming filter.

Perfect Integration With Logic

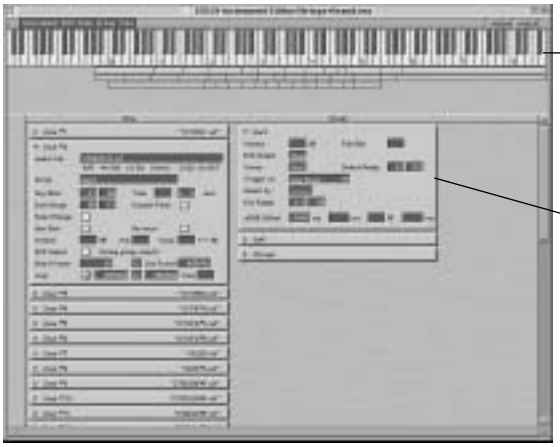
- Each EXS-24 instance is loaded as an Audio Instrument in Logic's 32-bit internal mixer where it has full access to all effects plug-ins and automation functions.
- Individual samples can be launched directly into Logic's Sample Editor for fine tuning sample and loop start and end points and for applying DSP processing.
- All Sample Instruments and their settings are automatically saved and loaded with your song.

Sample Format Compatibility

- Reads AIFF, WAV and SDII in 8 to 24 Bit depths and up to 96 kHz
- Converts AKAI S1000/S3000, SampleCell and SoundFont2 as well as Gigasampler format samples and programs
- Import ReCycled (.REX) files
- The imported samples can be in any bit resolution from 8 to 24 Bits
- A CD ROM with over 500MB of high quality sounds will be shipped to you after registering

The Instrument Editor uses Zones and Groups to control the playback characteristics of individual samples contained in a Sample Instrument. You can add as many Zones and Groups as you like to create anything from a single sample played across the entire keyboard to dense, multi-layered constructions comprised of numerous individual samples.

Each sample in a Sampler Instrument is loaded into its own Zone where you can define many of that sample's playback properties.
– Key Note as well as upper and lower key range (zone)
– Assign the Zone to a Group if desired
– Minimum and maximum Velocity ranges
– Volume and pan as well as a Scale function which balances the levels between the lower and higher notes in the keyboard range.
– Non-destructive reverse playback
– Sample tune/fine tune and pitch disable
– Sample start and end points as well as loop start and end points with fine tune and auto crossfade adjust.
– One Shot parameter plays a sample straight through — ideal for triggering drums sounds or sound effects
– The two "E" buttons launch a sample from its Zone directly into Logic's sample editor where you can graphically edit loop and sample start and end points as well as take advantage of the sample editor's powerful DSP functions.



This 9 1/2 Octave virtual keyboard allows you to trigger notes while you set up the zones and groups for the instrument. The key range for each Zone is graphically represented beneath the keyboard.

Groups offer several parameters for controlling multiple Zones simultaneously.
– Define the maximum number of voices – ideal for creating hihat mute groups or for voice limiting
– Volume and pan controls
– EXS Output lets you assign the output destination of an entire group (i.e. toms from a drum kit)
– Velocity range for dynamically switching samples
– High and Low key range
– Offset the ADSR of the group against the global ADSR in the plug-in window
– Offset the Cutoff and Resonance for each group ±50% from the main cutoff and resonance controls in the plug-in window.

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EXS-24 MKII

The Plug-in window gives you access to all of the sampler's synthesizer parameters such as filters, LFOs, envelopes and more.

The pitch of the Sample Instrument can be tuned ±2 octaves in semitone increments. Pitchbend has a selectable range of ±36 semitones. Glide and Pitcher sliders allow you to control portamento time. Random detune simulates the tuning drift of analog synthesizers.

Choose between Legato, Mono and Poly modes (up to 64 voices). Unison mode plays multiple voices when each key is triggered: In Poly mode, 2 voices per note; In Mono or Legato mode, you can adjust the number of voices per note up to 8.

Easily select and load an Instrument from the Sampler Instruments sub-folder using the pulldown menu. The + and - keys allow you to scroll through adjacent Sample Instruments.

The Multimode Filter features a cutoff frequency, resonance, drive (distortion) and key follow controls
A choice of three filter types: 12dB/oct High Pass and Band Pass filters as well a Low Pass filter with four steepness curves — 12dB/oct, 18dB/oct, 24dB/oct classic as When using the Low Pass Filter, a Fat switch helps preserve strong bass even with higher resonance settings. The filter section can be turned off to conserve polyphony.

"Hold" lets you define the modulation source assigned to control sustain "Xfade" allows you to crossfade between layered sample Zones with adjacent "Select Range" settings.

Control the global output level and set minimum and maximum velocities to dynamically controlling sound levels.

The Modulation Matrix supports up to 10 modulation routing configurations each with an independent source and destination. A fader lets you set the modulation depth with a positive or negative value. A second source can be added allowing you to manipulate the strength of the original source via an external controller (i.e. key velocity can be used to control LFO speed which in turn is controlling the filter's cutoff). Individual routings can be bypassed.

The Amplitude Envelope features control over attack, decay, sustain and release – the attack parameter is controllable via velocity

Three LFOs can each be assigned as a mod source in the Modulation Matrix. The Rate for each LFO can oscillate freely between 0 and 35 Hz, or can be tempo synchronized in values between 32 bars and 1/128 triplets. LFO one and two provide a choice of Triangle, rising and falling Sawtooth, Square up and Square down, a random stepped and smoothed random waveforms. LFO three always uses a triangular waveform. LFO one is a polyphonic LFO with key sync. This means that it is triggered individually for each note. An envelope generator lets you control the decay or delay of LFO one. LFO two and three are monophonic and runs continuously.

A dedicated ADSR envelope is provided for controlling the filter's cutoff frequency – the attack parameter is controllable via velocity

The decay time of the filter and amplitude envelopes can be shortened for higher notes to emulate the decay time response of acoustic instruments.
A convex or concave response curve can be applied to the filter and amplitude envelopes attack slope

EXSP24 – Emagic Xtreme Sample Player 24 Sample player for VST 2.0

The EXSP24 sample player runs on host applications capable of supporting VST 2.0 Instruments. It includes the intuitive user interface and many of the features which made the Emagic Xtreme Sampler 24 Bit (EXS24) so successful. As with the EXS24, the EXSP24 can play samples ranging from 8 to 24 Bit depths, any sample rate from 11 to 96kHz, in any combination. Sample import facilities will include support for WAV, AIFF, SDII and SoundFont2 across platforms. Parameter changes, such as enveloping, filtering and modulation can be saved as a preset. Samples will automatically load as part of saved song files. To edit samples and instruments, Logic Audio and an EXS24 are required.

EMAGIC

LOGIC CONTROL • LOGIC CONTROL XT

Realtime Control Solution For The Entire Logic 5 Series

Logic Control is an ergonomic, expandable remote control surface, co-developed by Emagic and Mackie Designs, that provides the most comprehensive tactile control support available for the Logic 5 Series line of music production workstations. Logic Control offers realtime control over hundreds of editing, mixing and automation functions for MIDI and audio tracks, plug-ins and software instruments. Eight full-featured channel strips with 1024 step, ultra-fast motorized, touch-sensitive faders; infinitely variable Rotary V-Pots and dedicated channel function keys have direct access to any of Logic's channels using the onboard Bank Switching functions. Other features include dedicated transport controls, a Jog/Scrub wheel, navigational cursor keys, a myriad of automation and function buttons and a large backlit LCD display that all work together to ensure seamless interaction between Logic software and Logic Control and you. The Logic Control system can be extended to incorporate an unlimited number of physical channels by adding multiple 8 channel Logic Control XT expansion modules.

FEATURES

- Bi-directional communication – every change in Logic Control is reflected in Logic and vice-versa
- Convenient hands-on control of Logic 5's 32-bit track-based automation
- Total recall of faders and displays with song loading
- 100mm Penny & Giles ultra-fast 1024 step motorized faders (8 channel and 1 master) follow value changes immediately
- Each of the 8 channels also features an infinite stepped rotary V-Pot encoder with circular LED graphs and push button; Solo, Mute, Record and track Select buttons; and a signal present LED for audio or MIDI
- Large transport controls with status LEDs as well as a Scrub/Jog wheel and Scrub key with status LED
- 41 function keys with 23 status LEDs plus 8 additional, freely assignable function keys
- 2 x 55 character multifunctional backlit LCD displays parameter changes in realtime – Level meters for all channels can be activated, vertical or horizontal including overload display
- Control parameters such as volumes, EQs, MIDI, busses, plug-ins, slot selection, sends, Screensets and more
- Select, launch and edit sends, EQs, plugins and audio instruments (Emagic's as well as third party), without stopping the sequence

Fundamental Operation Modes

- Choose between Track View and Global View to decide whether the channel order in Logic Control reflects the track order in the Arrange window or, if Logic Control's display will reflect a specific type of channel (MIDI tracks, audio tracks, instruments, aux, busses, ins and outs)
- There are two additional modes selectable from within the Track and Global Views: In Multi Channel View, a specific parameter, such as panning, is displayed for all tracks. This parameter will be shown in the LCD and can be adjusted via the V-Pot. In Channel Strip View mode you can control a complete function group, such as EQ, for a selected channel.
- Each operating mode is immediately accessible with a single key stroke.
- Flip mode exchanges the functions of the motorized faders with the V-Pots allowing you to, for example, control EQ gain using the motorized faders.

Customizable

- Faders, knobs and switches are all easily assignable to any Logic function accessible as a Key Command using standard drag and drop methods within Logic's elegant Controller Assignment window

The Rear Panel

- MIDI in and out provides communication between Logic Control and Logic with true plug & play installation and allows future firmware updates
- Two assignable foot switch inputs can control, for example, Start/Stop and Punch In/Out and one assignable controller input for use as a volume or wah pedal
- International (100-250V) external power supply for standard power cords

Construction

- High-quality, durable components including a sturdy 1mm steel chassis and case

Third Party Compatibility

- The Logic Control System can control every OMS-compatible Mac OS 9 audio and MIDI application, that offers support of the Mackie Control or the Mackie HUI including Pro Tools (including Pro Tools LE and Pro Tools Free), Digital Performer and Nuendo. This is ideal if you need to switch between different host programs, and want a dedicated control surface at the heart of all of them.

LOGIC CONTROL

Large 55 x 2-digit multifunction backlit LCD display shows detailed information on all selected parameter names and values; track names and the contents of dialog boxes and can even be used for level metering – vertically, or horizontally with peak hold and overload indicator.

Six buttons, accompanied by a 2-digit, LED display allows you to select which parameter groups the Channel Strips are going to control – Track, Pan/Surround, EQ, Send, Plug-In, Instrument

10-digit, LED display, switchable between SMPTE or bar/beats/sub division/ticks, for song position information

Eight freely definable user keys

These eight buttons allow direct selection of specific mixer tracks such as audio tracks, MIDI tracks, inputs, busses etc.

*The **Modifier** buttons duplicate the Shift, Option, Control and Command keys of your computer keyboard*
*The **Automation** buttons activate the Read, Write, Touch, Latch, Trim and Group modes*
*Four **Utility** buttons provide direct access to saving your song, Undo as well as cancel or confirm in dialogs.*

Marker, Nudge, Cycle, Drop, Click and Solo buttons extend the functionality of the basic transport controls

Five Transport buttons with status LED for Forward, Rewind, Stop, Play, Record

The Jog/Scrub wheel provides precise location to any song position as well as audio scrubbing

V-Pot: A digital endless rotary knob with LED position indicators and push button allows parameter adjustments of pan, EQ, send levels, etc.

A signal present LED that shows if an audio signal is present

Four buttons with integrated colored LEDs control channel functions such as: Record, Solo, Mute and Channel Selection

The eight Channel Faders and the Master Fader are motorized 100mm touch-sensitive Penny & Giles faders with a 10-Bit (1024 step) resolution

Comfortable, durable wrist rest

The six buttons just above the master fader allow you to shift the mixer left or right one channel at time or in 8 channel banks; Flip the assignment if the channel fader and V-Pots and toggle the track view to access global view parameters.

Four cursor keys (up/down/left/right) allow you to quick navigate through plug-in slots and parameter pages. The Zoom button to switches the Navigation buttons to zoom controls

Logic Control XT –
Extension Unit For Logic Control

- Adds eight complete physical channel strips and an LCD to your Logic Control system using the same high-quality key components as the Logic Control
- Practically unlimited number can be added to your system allowing greater customization and extending the number of simultaneously adjustable parameters.
- Each Logic Control/XT combination forms a Control Surface Group (CSG). Each CSG can control different parameters; e.g. one group controls volume/pan and the second one controls an audio instrument.

Why MIDI and not Ethernet?

Each Logic Control or XT unit requires a discrete MIDI in and out connection. MIDI, as a protocol, was designed for realtime performances. It has, for many years now, proven to be accurate enough for that most timing-sensitive of MIDI events – note information. By comparison, the timing of controller events is far less critical. To move a fader to a target value, an amount of data equivalent to a single note event is all that is required. In conjunction with the fast Penny & Giles motorized fader units, there is more than enough head-room in MIDI's bandwidth to deal with the most complex mixes. MIDI, in comparison with Ethernet, provides simple connectivity and proven, stable low-latency performance.

EMAGIC

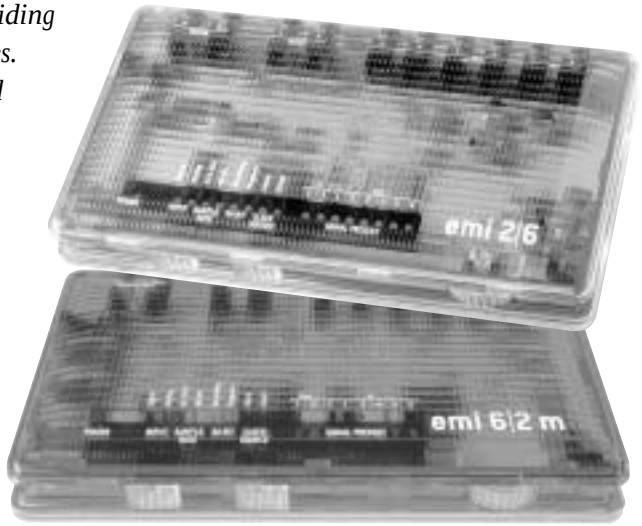
EMI 2|6 • EMI 6|2m

COMPUTER AUDIO

960

24-bit / 96kHz Multi-channel USB Audio Interfaces

The EMI 2I6 and EMI 6|2 m are portable USB audio solutions providing professional 24 Bit audio quality at 44.1, 48 and 96 kHz sample rates. The EMI 2I6 features two analog inputs, six analog outputs and and S/PDIF I/O while the provides EMI 6|2 m six analog recording and two analog playback channels and two cinch sockets, which can be used as either S/PDIF digital I/O, or as MIDI in and outputs. Both units are extremely lightweight and compact — approximately the size of video cassette, and are powered directly via your computer's USB port — ideal for mobile recording with notebook computers. Both units also employ Emagic's low latency technology which guarantee monitoring of audio input signals with no perceptible delay as well as realtime performance of software synths. Both interfaces are compatible with Core Audio under Mac OS X as well as SoundManager and ASIO using Mac OS 9.1 and higher.



FEATURES

They Both Feature

- 24 bit A-to-D and D-to A converters
- Support is provided for 16 or 24 Bit audio resolutions at 44.1, 48 and 96 kHz sampling rates

EMI 2|6 Inputs and Outputs

- The EMI-2|6 features two analog inputs, six analog outputs using unbalanced RCA (phono) connectors – compatible with -10 dBV and +4 dBu audio levels
- Coaxial stereo S/PDIF digital I/O is also provided
- Also includes a stereo headphone jack, with independent volume control

EMI 6|2m Inputs and Outputs

- The EMI-6|2m features six analog inputs with and two analog outputs using unbalanced RCA (phono) connectors – compatible with -10 dBV and +4 dBu audio levels
- 2 cinch sockets can be used as either a coaxial S/PDIF digital I/O or as a 16 channel MIDI In/Out port

Visual Monitoring

- Status LEDs for all interface modes
- Signal presence LEDs for all inputs and outputs

Zero Latency Monitoring

- Latency-free hardware monitoring allows you to monitor the audio recording channels with no audible delay. The stereo monitor signal can be routed to the analog, digital or integrated headphone outputs.

Ideal for Virtual Instruments

- Emagic's advanced Low Latency technology ensures that software-based virtual instruments such as Emagic´s EVP88, EXS24, ES1 and VST2.0-compatible instruments can be played in real-time.

The USB Advantage

- The unit is automatically recognized by the computer, making installation simple and painless
- Because power is supplied via USB there is no need for additional cabling (an optional power supply is also available from emagic)
- Integrated USB HUB provides two additional USB ports
- Doesn't require any free PCI or other card slots – no need to open up your computer
- Hot plug capability means that the interface be connected and disconnected without turning off the computer

The EMI 2|6 – An Ideal Surround Sound Solution

The EMI 2I6 provides an affordable Surround mixing hardware solution via suitable audio software, such as Logic Audio Platinum. All Surround formats up to, and including 5.1, are supported. This makes the EMI 2I6 the ideal companion for the production of Surround sound audio mixes for DVD or film distribution.

System Requirements

Free USB port; CD-ROM or DVD drive

MACINTOSH:

Minimum: Mac OS 9.1

Recommended: Mac OS X 10.2.2 or higher
Compatible with Core Audio (Mac OS X), SoundManager, ASIO (Mac OS 9)

WINDOWS:

Minimum: Pentium or compatible with 233MHz and 64 MB of RAM under Windows 98 SE 3)

Recommended: Windows XP with Service Pack 1 (SP1)
Compatible with DirectSound, MME, ASIO and EASI applications

B&H PHOTO - VIDEO - PRO AUDIO

MT4 • AMT8 • UNITOR8 MkII

Multiport MIDI Interfaces For Windows and Mac

The MT4 is a portable USB-powered MIDI interface with two MIDI in and four MIDI out ports. The AMT8 and Unitor8 MkII are each 8 port, USB compatible MIDI interfaces. The Unitor8 MkII adds SMPTE I/O for synchronizing to external video and audio gear making it an ideal communications hub between your music computers, MIDI devices, tape and video machines and automated mixing devices. Both the MT8 and Unitor8 MkII benefit from Emagic's Active MIDI Transmission technology which provides a measurable, and more importantly audible improvement of MIDI timing. All three interfaces are networkable over USB and can be mixed and matched allowing up to 8 interfaces to be stacked together.

MT4 Features

- The ideal MIDI interface for USB-equipped laptop computers, or for smaller desktop installations.
- Two MIDI in ports and four MIDI out ports provide you with 32 input and 64 output MIDI channels.
- USB connection provides both superior MIDI timing and power. An LED confirms USB activity.
- Minimum size and weight
- Two slip-resistant rubber inserts bind the housing providing extra stability
- MIDI activity on each port is indicated by a dedicated LED.
- Software configurable Patch Mode allows the MT4 to be used as a MIDI patch bays with up to 32 patches that can be saved and recalled.
- Directly supported by Logic Audio and MicroLogic AV Version 4.01 and up and by SoundDiver 2.07 upwards
- Supplied drivers provide compatibility with OMS-compatible software

Active MIDI Transmission

A segment of the sequencing engine of AMT compatible software, (e.g. Logic Audio), is put into the MIDI interface, (AMT8 or Unitor8 MkII), where it takes care of sending the MIDI events to the individual outputs with the highest possible timing accuracy. At the same time, the transfer of data from the computer to the interface is optimized with extreme efficiency by sending notes in parcels during the pauses between the musical events. These parcels are then unpacked in the interface and sent to the individual outputs at precisely the required time.

AMT8 Features

- 8 MIDI In and outs with Activity LEDs
- Networkable (up to 8 units)
- Mac compatible (AMT, MTP emulation and OMS)
- Windows 95/98, Windows NT 4.0, Windows 2000 and Windows XP compatible (AMT, MME)
- MME compatible multi-client MIDI driver (multiple midi programs can use different MIDI ports simultaneously)
- Stand Alone Operation with 32 Patches
- Panic/Patch button
- USB connection (PC/Mac) as well as RS-422 for Macintosh and RS-232 for PC

Unitor8 MkII Adds–

- LTC Generator and Reader with 1/4″ I/O jacks and read/write status LEDs
- LTC Sync at 12-1000% original tape speed - forward and rewind
- VITC Generator and Reader with S-Video connectors and read/write status LEDs
- VITC-Sync during single frame advance forward/back
- Timecode Video Burn-In - also during LTC Sync
- Timecode Refresh function, adjustable Freewheeling, Jam Sync function, Adjustable MTC Full Frame Message
- Click input allows an audio trigger signal or foot switch to be the synchronization source
- Operating system can be updated via SysEx

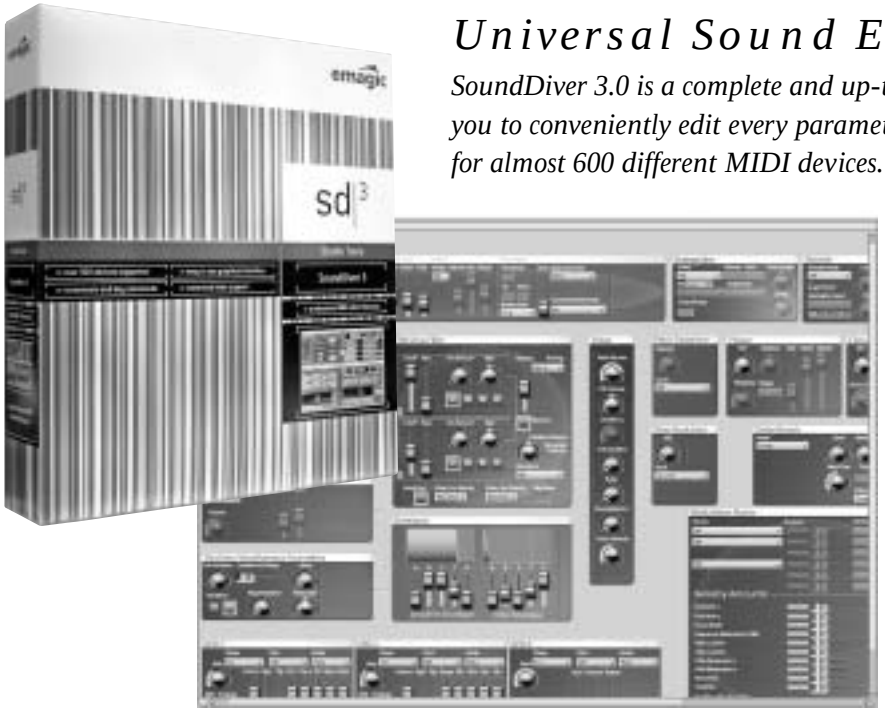
Features	MT4	AMT8	Unitor8
MIDI Input Ports	2	8	8
MIDI Output Ports	4	8	8
MIDI activity LEDs	•	•	•
USB Power	•		
Patch Mode	•	•	•
USB port	•	•	•
RS-232 port (Win)		•	•
RS-422 port (Mac)		•	•
AMT Compatible		•	•
Panic button		•	•
Click input			•
SMPTE I/O			•
OS update via MIDI			•

EMAGIC

SOUND DIVER 3

COMPUTER AUDIO

962



Universal Sound Editor

SoundDiver 3.0 is a complete and up-to-date MIDI Editor/Librarian that allows you to conveniently edit every parameter, and catalog, store and organize the patches for almost 600 different MIDI devices. SoundDiver's slick user interface features graphic representations of all editing parameters with switchable editing depths as well as photorealistic representations of your MIDI devices.

A user definable Key and/or remote MIDI command is available for almost every SoundDiver function. AutoLink offers advanced communication with Logic Audio that allows you to display proper patch names within in Logic as well as synchronized the switching of screensets. External hardware control surface support allows you to edit and control devices remotely via MIDI.

- Includes editors and librarians for almost 600 MIDI devices
- Once launched, SoundDiver automatically scans and identifies your devices and displays them onscreen, along with their parameters.
- The attractive 3-D look with photorealistic device icons and clearly laid-out user-interface allows you to easily edit every aspect of your setup with just a few mouse clicks.
- Access all the potential of your synthesizers and MIDI devices.
- Virtually unlimited undo and redo steps
- Create randomly generated sounds, copy or paste complete function blocks or all adjustments of a complex envelope.
- Freely definable key and MIDI commands and screensets help to speed up your work allowing you to be more productive and create sounds faster and easier.
- Refined help system offers context sensitive help and ToolTips.

Sound Management

- SoundDiver creates collections of SysEx data called Libraries, can contain programs, sounds, combinations, multi's, effects or other data independently of how they are managed in the respective hardware devices. This simplifies the task of sound management by allowing you to organize data in using a consist methodology within the software
- Libraries can contain compilations of sounds from different devices or can be specific to each.
- All data can be sorted freely or automatically by name, module, data type, date or comment.
- The library functions allow you to quickly find the right sounds; for example, by searching a specific sound category such as "pads" within your entire system. A new library can then be created from this result, with all the dependencies between source libraries intelligently managed.

Hardware Controllers

- Remotely control every MIDI device in your studio using a central hardware control surface such as the Logic Control.
- Free Controller Assignments currently allow virtually every parameter of every editor to be controlled by any MIDI message – an ideal solution for editing, or accessing the live performance potential, of your MIDI instruments and effects devices such as delays, filter banks, reverbs.
- MIDI controllers with the appropriate support will display the current parameter assignments. If equipped with motorized faders, they will even follow every move you make on screen.

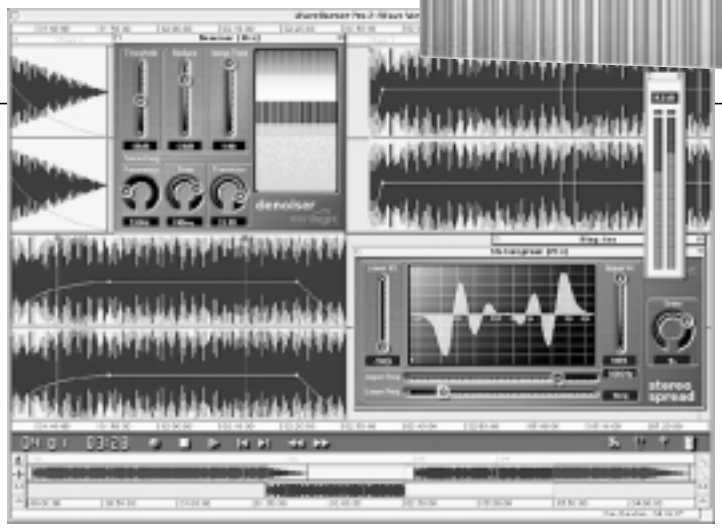
AutoLink

- AutoLink is an active connection between Logic and SoundDiver that allows you, for example, to display patches by name rather than as a list of program numbers.
- Opening a song transfers all included sounds and patches to your MIDI devices.
- Edits and parameter changes made in SoundDiver can be recorded in Logic.
- Screenset switching is synchronized between Logic and SoundDiver, making the two applications behave like a single program with all the inherent advantages.

WAVEBURNER PRO

Professional Red Book Audio-CD Mastering and Burning Software

WaveBurner Pro is Emagic's professional, award winning Red Book audio-CD mastering and burning software for the Mac OS. WaveBurner Pro allows you to quickly and intuitively assemble a playlist of tracks using non-destructive editing of regions and crossfades, plus the creation of break, track and index markers. WaveBurner Pro's comprehensive plug-in support, audio material can be further refined and processed in WaveBurner Pro. A host of mastering plug-ins from the Logic Series is included for applying to individual regions or to the final mix. Third Party VST plug-ins are also supported. Waveburner Pro is compatible with a wide range of internal ATAPI and external FireWire and SCSI CD burners with support for write speeds up to 32x.



FEATURES

- Create Red-Book-compatible CDs with support for full PQ editing from a variety of audio file formats
- CDTEXT support
- Supports Copy Prohibit, Pre-Emphasis, ISRC number and UPC/EAN code

Recording Function

- All processing is done at an internal 32-bit floating point resolution until the final mastering stage where the signal is converted to the 16-bit audio CD standard using the acclaimed 'POW-r' (Psychoacoustically Optimized Wordlength Reduction), dithering algorithm which uniquely reduces word length without adding noise or tonal coloration developed by the POW-R Consortium LLC
- Real-time conversion to 44.1kHz from high definition audio files up to 24 Bit/96 kHz

Editing

- Non-destructive editing within the Waveform Window of Tracks, Pauses, Indices, Level, Fades and Crossfades
- Create multiple tracks from one audio file or a single track from multiple audio files
- Crossfade support, including S-shape curves, allows you to make silky smooth transitions between audio regions
- Audio in track pauses
- First track number larger than 1 possible

Integrated Mastering Plug-Ins

- A suite of precision mastering plug-ins are provided for taking on critical mastering tasks. These include:
  - Fat EQ
  - Compressor/limiter
  - Multi-band compressor
  - StereoSpread
- A number of audio restoration tools are also provided for removing undesirable noise artifacts from cassette or vinyl recordings without destroying the top or bottom end of an audio file
- A virtually unlimited number of plug-ins can be inserted at one time, the total number depends on CPU performance
- Compatible with third party VST plug-ins

Supported Audio Hardware

- Audiowerk2 or Audiowerk8 SoundManager, ASIO, Direct I/O

Supported Data Formats

- Direct loading of WAV, AIFF, SDII (also split stereo) files is supported
- MP3 file import and conversion to CD audio is also supported
- Disc image export/import
- Export the Tracklist as text file

System Requirements

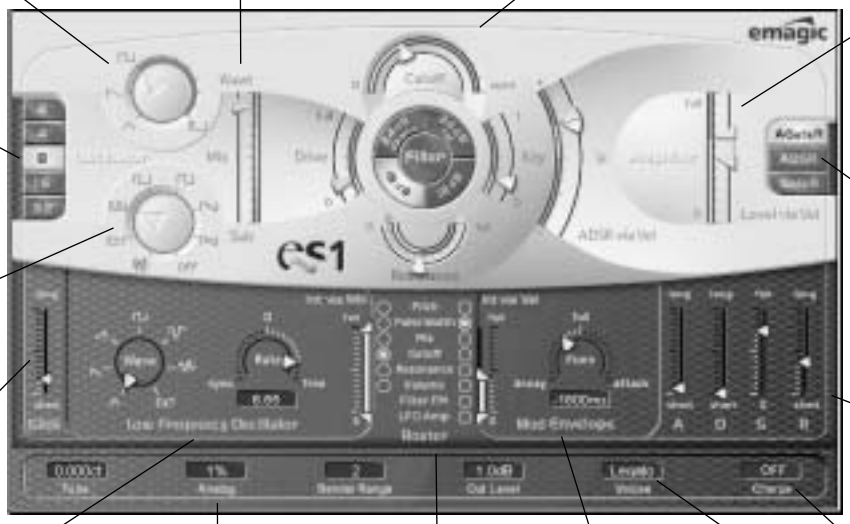
- PPC 604e/200 MHz, Mac OS 8.6 or higher, 96 MB RAM, QuickTime 4.x for MP3
- Supports all internal CD burner drives from Apple, and all SCSI or FireWire devices which support the Multi Media Command Standard (MMC or SCSI-3)
- Support is also available for many legacy SCSI CD recorders (independent of MMC)

EMAGIC

ES-1 EMAGIC SYNTHESIZER ONE

Analog Modeling Synthesizer for Logic

The ES1 was Emagic's first native virtual instrument and since it's release, in 1999, it has become the staple analog modeling synthesizer for Logic users seeking the classic sounds of vintage subtractive synthesizers. Emagic's Synthesizer One features all of the essential elements that have given analog synthesizers such a lasting presence in modern music production – rich sounding oscillators, fat filters, flexible modulation possibilities and extremely fast envelopes. Playback timing for the ES1, as with all other virtual synths, is sample-accurate and the 32-bit sound engine ensures exceptional sound quality. The ES1 integrates seamlessly into Logic's digital mixing environment where it can be further processed by adding plug-ins. And what's more, every parameter can be fully automated. Includes dozens of preset instruments from bone rattling basses to lush pads and from scorching leads to exotic effects and percussion – all easily accessible using Logic's hierarchal menu system.



Each instrument uses a single oscillator with a choice of Triangle, Sawtooth and Pulse waveforms.

The main and sub oscillators are blended before being fed to the filter section

Low Pass Filter has four selectable slopes (12dB/18dB/24dB classic/24dB fat) and features variable drive(distortion) cutoff, key follow and resonance up to self-oscillation. The cutoff can be controlled via the ADSR or via your keyboard

The main and sub oscillators are blended before being fed to the filter section

This double slider provides control over minimum and maximum velocity values

The octave range for the main oscillator is selectable from 2 to 32 feet.

***AGateR** lets you control Attack via the ADSR and Release via note-off.*
***ADSR** controls volume via the ADSR*
***GateR** – same as above except that Attack is always zero*

The sub-oscillator follows the pitch of the main oscillator with a choice of 5 waveforms as well as noise. You can also assign an external audio source to the sub-oscillator

Classic ADSR envelope reacts with microsecond accuracy.

Glide controls the portamento control

Switchable chorus effect adds spaciousness and dimension to patches

The LFO's rate can be set to run freely or synchronized to your session's tempo. The LFO features a choice of Triangle, positive and negative Saw, Square, Sample and Hold and Smooth Random waveforms. You can also assign an external source as a modulator of the LFO.

The Analog parameter randomly adjusts the pitch and filters cutoff frequency for each note to replicate the character of classic polyphonic synths

The modulation router allows you to assign a target for the LFO and modulation envelope

The Mod Envelope allows you to assert velocity sensitive decay or attack attributes to a wide range of targets like filter cutoff, oscillator mix, pitch and more

Choose up to 16 note polyphony for each instrument plus legato mode

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ES-2

Emagic Synthesizer 2 – Advanced Hybrid Modeling Synthesizer for Logic

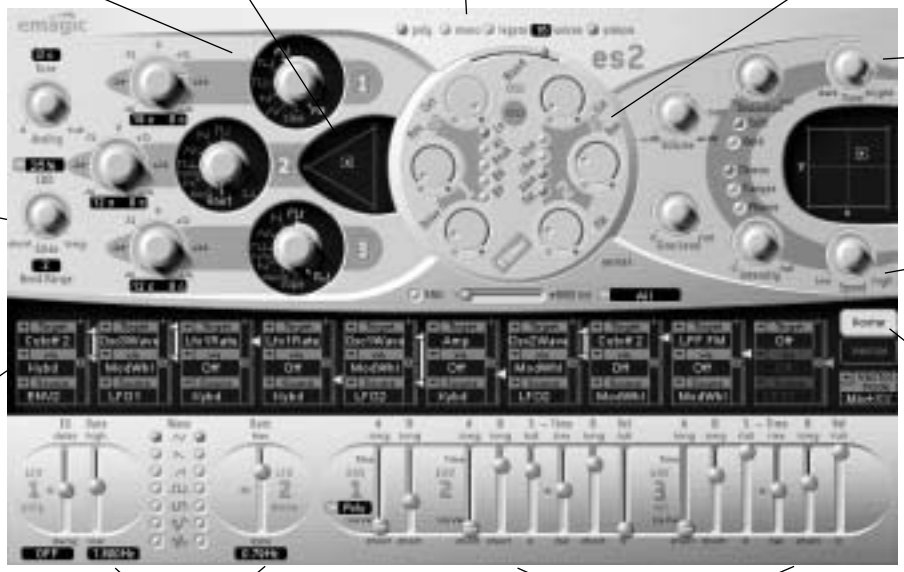
The ES2 is a unique and powerful software instrument for Logic 5 users, that combines the warmth of subtractive synthesis found in classic analog synths and digital synthesis techniques such as Vector Synthesis, Wavetable Scanning and Frequency Modulation (FM) with a myriad of in-demand synthesis techniques. Each ES2 can be assigned up to 32 voices, each offering three especially flexible oscillators, two filters, extensive modulation possibilities. The Unison function allows you to create massive layered textures up to 32 voices deep. All of these features and more have been wrapped up in an innovative ergonomic user interface to provide you with a seemingly endless realm of sonic possibilities. Includes over 400 sounds created by renowned sound designers that will immediately unlock the awesome potential of the ES2 right out of the gate.

3 Oscillators
(Oscillator 2 and 3 can be synced to Oscillator 1) with a choice of classic analog waveforms (Triangle, Saw, etc.) and 100 digital waveforms as well as noise, FM and ring modulation

Vector synthesis for dynamic oscillator mix and control of 2 further selectable parameters

Up to 32-note polyphony per ES2 instance (CPU dependent), selectable mono and legato modes as well as unison mode which allows you to layer all 32 notes into one huge patch

Two filters configurable to run in serial or parallel:
A Multimode Filter with a variable distortion circuit, (selectable between Band Pass, Band Reject, Peak, Hi Pass); and a Low Pass Low Pass Filter with selectable slope (12 / 18 / 24 dB) and a switchable fatness parameter for enhanced bass response, even at high resonance settings. Frequency modulation of the low pass filter via oscillator 1.A sine wave from oscillator 1 can be mixed with the filter output for increased low end.



Built-in Distortion circuit switchable between hard and soft modes features its own tone control knob

Portamento control and pitch bend range

Built-in modulation effects (chorus, flanging and phasing) with independent Intensity and Speed controls, offers including.

10 freely assignable modulation paths, with independent control of modulation intensity, lets you route any of the 22 available modulation sources to any of the 34 available targets.

The Router display can be switched to graphically indicate LFO and envelope shapes or, when switched to "Vector", can be used for dynamic oscillator mix control and control of two freely selectable parameters over time.

Two independent LFOs, one monophonic LFO and one polyphonic LFO with envelope control each with selectable free or beat-synced modes and seven selectable waveforms

Three Envelopes – 2 ADSR envelopes with sustain time and 1 AD/AR envelope (selectable between monophonic or polyphonic) Attack times are controllable via velocity

EMAGIC

EVOC 20 – EMAGIC VOCODER 20 BAND

Professional Vocoders and Formant Filter Bank for Logic

The EVOC 20 package contains a suite of three software plug-ins that model a variety of analog vocoders that allow the sonic characteristic of the analysis signal to be printed to the synthesis signal. The first plug-in is the evoc20-PS. It uses a 16 voice, polyphonic synthesizer, playable in realtime over MIDI to emulate classic vocoder effects. The second plug-in, the evoc20-TO, uses a monophonic oscillator to track the pitch of the analysis (input) signal. Each plug-in supports up to 20 bands of filtering, formant stretch and shift high and low knobs that allow you to determine the part of the signal to effected. The The third unit is a formant filterbank that uses volume faders for controlling up to 20 filter bands available for the two filters. The elegant and intuitive graphical user interface of each plug-in begs to be tweaked and guarantees instant gratification.

EVOC20 PS - Polyphonic Synthesizer

- Combines a vocoder with a polyphonic synthesizer, playable in realtime via MIDI.
- Utilizes a 16 voice dual oscillator polyphonic synthesizer with 50 special waveforms, FM capabilities and colored noise whose signal can be articulated by any input signal, giving you classic vocoder sounds like talking robots, singing strings, percussive choirs and more.
- Up to 20 filter bands can be used for the articulation process
- The Resonance control adjusts the vocoder's sound characteristic
- Formants can be stretched and shifted or modulated by the syncable LFO
- The Unvoiced/Voiced Detector increases speech intelligibility by adjusting the reaction speed to sound changes in the analysis signal
- The Freeze button holds the latest sound characteristic of the analysis signal
- The Ensemble effect provides that familiar warm, swirling sound.
- Stereo spread control enhances the width of processed signals.

EVOC20 TO - Tracking Oscillator

- Similar architecture in most respects to the evoc20-PS (up to 20 filter bands, modulatable formants, controllable filter resonance for sharp or soft vocoder sounds, Freeze, adjustable reaction times and the U/V Detection circuit) except that the evoc20-TO uses a monophonic pitch tracking oscillator, instead of a polyphonic synthesizer to follow the pitch of the analysis signal
- The oscillator's waveform can be switched between sawtooth and 2 oscillator FM.
- Pitch tracking that can be limited to any musical scale
- Many surprising sounds can be attained when polyphonic input signals or drums are used as the input signal

EVOC20 FB - Filter Bank

- The input signal is run through two distinct, fully adjustable analog-style filter banks in parallel
- Up to 20 filter bands per filter can be blended manually or via a syncable LFO.
- Each discrete filter band features independent level controls with the option to dampen frequencies up to 100%, enabling precise and drastic sound sculpting.

- Filter resonance, adjustable filter slopes, and optional distortion provide an expansive range of tone colorings.
- A second LFO, syncable to song tempo, can be used to modulate the formants through the movement of filter bands. Formant movements can also be manually achieved.

B&H PHOTO - VIDEO - PRO AUDIO

ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)

EVP88 • EVP73

Emagic Vintage Piano 88

The EVP-88 is a virtual software instrument that digitally reproduces, the unique feel, warm tones and expressiveness of vintage Fender Rhodes, Wurlitzer and Hohner electric pianos with stunning accuracy. These highly sought after electric pianos include the Fender Rhodes Mark I of the Suitcase and Mark I & II of the Stage series, the Wurlitzer Electric Piano 200A and the Hohner Electra Piano, as well as many tasteful variations – there are 12 models in all. Emagic's native realtime tone generation ensures that each piano responds to every nuance of a player's performance with impressive realism. The EVP-88 also features a variety of authentic effects including EQ, Distortion, Phaser, Chorus and Tremolo. A group of realtime model parameters are also provided allowing you to adjust stretch tuning, control the volume of the bell and damper as well as control the decay and release time for the tines.

- Emagic's native tone generation captures the essence of 12 different vintage electro mechanical piano models
- Playable with full polyphony over a range of 88 notes, with 88 voices (CPU dependent).
- Integrates directly into Logic's digital mixer with sample accurate timing, access to all plug-in effects and automation with total recall.
- Tonal characteristics are easily modified using the variable Decay and Release EG, as well as volume controls for emphasizing Bell and Damper noise.
- Stretched Tuning Curve and Warmth controls add even more realism to the sound.
- Stereo spread can also be quickly modified.

Effects

- Two band (bass and treble) EQ controls based on Emagic's Fat EQ
- Drive (distortion) circuit with gain and tone controls allows you to add just the right amount of bite.
- The variable intensity Chorus adds a final high-quality shimmer
- The four step Phaser with color control and controls and the Tremolo with variable rate and intensity controls recreate classic effects that add movement to your mix. The Phaser and Tremolo also feature an adjustable stereophase control allowing you to add even greater width and depth to the effects.

EVP73 – Emagic Vintage Piano 73

- VST plug-in modeled after the Fender Rhodes Stage Piano Mk II electric piano
- Compatible with any host application capable of running VST 2.0 Instruments
- Provides seamless integration into the host application's mixer.
- 73-note polyphony and the same core engine, great sound and retro styling of the EVP88.
- The realtime native tone generation system allows harmonic interaction of generated notes in response to the users playing style.
- Includes the same decay and release envelope generator, bell and damper controls, stereo width and tremolo controls as the EVP-88

EVB3

Emagic Vintage B3

The EVB3 is an optional software instrument for Logic 5 that not only emulates the sound of the legendary Hammond with stunning authenticity, using Emagic's Component Modeling Technology, but improves upon it by offering an even broader range of musical and creative possibilities. Every nuance of the original, from the tone wheels and the drawbars to the range of Leslie speaker simulations, and other effects, have been faithfully captured and are easily controllable with a graphical user interface that replicates the layout of the original B3. Whether you're a jazz, gospel or rock organist, or a remixer/producer, you will find the responsiveness and seemingly limitless sonic palette of the EVB3 an indispensible component in your virtual instrument arsenal.

FEATURES

General

- 32 Bit Engine
- Up to 195 Voices of polyphony per EVB3 - (CPU dependent)
- Sample-accurate playback timing
- Fully automatable and supported by Logic Control

Tone Generation

- The very best organs and Leslie speaker cabinets were analyzed to provide Logic 5 users an authentic, realtime emulation of the electro mechanical tone generation of the Hammond B3 Tonewheel Organ including control over key click noises and tone wheel crosstalk attributed to the artifacts and colorations inherent in aged components. Other events such as the loudness robbing and tapering which typified the B3 can also be easily simulated.
- Each tone wheel is synthesized by Emagic's Component Modeling Technology.
- Rotor cabinet simulation allows you to choose between different cabinet types and horn combinations
- The virtual microphone for the horn can be freely placed at any distance or angle.

Intuitive User Interface

- Laid out like the original Hammond B3 organ, with two (Upper and Lower) keyboard manuals and a Bass pedal board.
- Both keyboards provide instant access to different drawbar combinations via 24 preset buttons, available to each manual.
- An additional octave above and below the five octaves of the original, allowing screaming highs and really fat bass sounds
- High-resolution drawbar control system provides over 250 million possible combinations
- The Upper and Lower Manual feature two sets of 9 drawbars each with 8 values.
- The Bass Pedal features 2 drawbars each with 8 values
- Percussion Decay, volume, upper manual level
- Envelope for bass pedals, upper and lower manuals
- You can morph between presets via MIDI
- All parameter modifications can be stored as Settings.

Effects

- Leslie Cabinet emulation with Chorale, Brake and Tremolo modes. Can be modulated via aftertouch, sustain pedal or modulation wheel
- 6 Types of Scanned Vibrato with adjustable Rate and Chorus controls.
- 3 band EQ based on Logic's Fat EQ and Reverb
- A Wah Wah effect with 6 classic filter types can be controlled via any MIDI controller. Even the peak can easily controlled via foot controller
- Realistic tube distortion with tone warp controls and 3 distortion types
- It is also possible to determine the order of the effects in the signal path

Effects Plug-ins

- The Leslie, Vibrato and Distortion effects are also included as separate plug-ins allowing audio tracks to be run through the effects in any order

EVD6

Emagic Virtual D6 Clavinet

The EVD6 is a software instrument for Logic 5, which uses Emagic's component modeling technology, powered by a 32-bit floating point processing engine, to flawlessly recreate the classic sounds of the ultra-funky Hohner D6 clavinet. The EVD6 sports a stylish retro-look and an intuitive graphic user interface that is packed with several enhancements that deliver sound creation and modulation possibilities that far exceed those available to the original stringed instruments. Each instance of the EVD6 provides up to 73 note polyphony depending on CPU resources. And like the other Emagic software instruments available to the Logic 5 series, the EVD6 provides sample-accurate playback timing; can be fully automated and is supported by Logic Control.

FEATURES

Tone Generation

- Authentic, realtime emulation of multiple clavinet models including the Hohner D6 with its characteristic overstrung design as well as a number of exotic stringed instrument sounds are represented in the included presets
- Component modeling delivers a flawless simulation of the electro mechanical mechanism of the original instruments.
- Key Click on key down/up with Intensity, Random and Velocity parameters emulates key strike and release noises caused by the aging of the strikers in the original
- As with the original D6, the combination of pick-ups can be freely selected from 4 configurations. The position of the pick-ups can also be changed in realtime or automated to create phaser-like sounds.
- Rocker switches are provided for the Filter section with Brilliant, Treble, Medium and Soft settings. An enhancement of the EVD6, not available on the original D6 is the ability to turn the filter section off.
- Sounds can be easily modified via high-resolution controls that allow precise adjustment of string Decay, Release, Damping, Tension Modulation, Stiffness, Inharmonicity and Pitch Fall
- Discrete Exciter with Shape and Brilliance controls
- Stereo Spread control for Pickup or Key
- Damper wheel control
- All parameter modifications can be stored as Settings.

Three Foot Pedal Effects

- Three integrated foot pedal effects include; Phaser with adjustable Rate and Intensity controls, Distortion with adjustable Tone and Gain controls, as well as a Wah effect with 6 classic vintage Wah Wah filter models
- The routing order of the effects in the signal path is freely configurable
- The Wah effect has adjustable Width and Depth controls for creating autowah effects or you can control the wah effect's cutoff frequency via a MIDI footpedal (or any other MIDI controller).

Wah Effect Plug-in

- A Wah Wah / distortion effect is also available as an independent plug-in that can be applied to other sound sources in Logic 5.

Emagic's Software Synthesizer Technology

- Emagic's broad range of software instruments were developed to take full advantage of the capabilities of native sound synthesis and processing.
- Each instrument delivers outstanding sonic quality with minimal latency and ergonomically designed user interfaces.
- Each software instrument integrates seamlessly within Logic 's internal digital mixer, where they can access additional plug-in effects as well as the 32-bit automation engine.
- The direct connection of software instruments within Logic's sequencing engine guarantees unsurpassed precision with sample-accurate timing that is superior to any external MIDI synthesizer.
- Another advantage of software instruments is that all effects, mix settings, instrument patches and edits are saved with your song file where and are instantly recalled with your song.
- Software instrument parameters can be easily controlled using external control surfaces including Emagic's Logic Control.

EMAGIC

SOFTWARE BUNDLES

Logic Audio Big Box

The Logic Audio Big Box includes Logic Audio 5 audio and MIDI production software, the critically acclaimed EVP73 Emagic Vintage Piano, the astoundingly fat ES1 Emagic Synthesizer, plus the super versatile, ultra low-latency EXSP24 Sample Player, which includes over 600 MB of high-quality samples ready to play. To sweeten the pot, the Big Box also comes with the in-demand Xtreme Analog sample CD containing over 200 fat sounds sampled from classic analog synths. With five individual world-beating Emagic products in one box, this jackpot is no gamble.

EMI 6|2 m Production Kit: The All-In-One Recording Solution

The EMI 6|2 m Production Kit is a bundle of six complete Emagic products in one package: the EMI 6|2 m USB/Hub/MIDI interface; the latest version of the award winning Logic Gold 5 recording software: and the Emagic instruments EVB3, EVP88 and the EXSP24 bundled with the Xtreme Digital Sample Library. The EMI 6|2 m is a USB interface that provides six 24 Bit analog inputs and two analog outputs, at sample rates up to 96 kHz, MIDI I/O, a stereo headphone jack and stereo S/PDIF digital I/O, with the latter doubling for MIDI I/O duties. The Logic Gold 5 professional music production software delivers up to 64 tracks of 24bit/96 kHz audio, 32 bit floating point internal processing, unlimited MIDI tracks and 34 integrated plug-ins with support for third party Audio Unit (Mac OS X) and VST 2.0 (Mac OS 9) plug-ins. The EVB3 is a software-based B3 that uncannily captures the essence of the original with unmatched realism. The EVP88 captures the sound of the legendary Fender Rhodes, Wurlitzer and Hohner electric pianos. The EXSP24 sample player is also included along with the Xtreme Digital sample collection.

Emagic Vintage Collection: Analog Legends for The Digital World

The Emagic Vintage Collection includes the successful. multiple award-winning EVP88, the EVD6 and the EVB3, all for a special price. With the Emagic Vintage Collection, the vintage myths of the Fender Rhodes, Wurlitzer and Hohner electric pianos, Hohner Clavinet and the legendary B3 comes to life in today's computers. Uniquely, these vintage software instruments do not just statically recreate an instrument's tonal characteristics, as would be the case with samples. Rather, they expressively react to the player's every nuance with impressive realism. The use of the Emagic Vintage Collection requires an installed copy of Logic Audio 5.3 (or higher) for Macintosh.

Emagic Synth Collection: A Fine Selection of Synthesis Techniques

The Emagic Synth Collection includes three multiple award-winning software synthesizers for Logic Users: the ES2, the EVOC20 and the ES1 — all in one premium, specially priced package. The ES2 is a brilliant and powerful sounding soft synth with a unique ergonomic user interface that draws from the past to redefine the future. Its combines an extraordinary synthesis engine that delivers exceptional tonal quality in all registers with a complex voice architecture that provides extensive sonic possibilities. Able to combine the full-bodied energy of analog systems with the shimmering detail of glistening digital tone generation, the ES2 owes its enormous sonic wealth to an unsurpassed palette of in-demand synthesis techniques. The EVOC20 package provides Logic users with three powerful tools for sound design: A classic polyphonic vocoder with built-in synthesizer, a formant filter bank, and a pitch tracking vocoder. Each plug-in provides maximum flexibility and features pristine 32 Bit sound quality. As a real synthesizer, the ES1 offers extremely flexible tone generation that puts the entire palette of analog sounds at your disposal: earth-shaking basses, rich pads and textures, screaming leads, ultra-sharp percussion and exotic effects.

SOFTWARE BUNDLES

TDM Collection

The TDM Collection combines three sought-after Emagic software products in one specially priced package: ESB TDM, Host TDM Enabler and PTHD Extension. Emagic's **ProTools HD Extension** (PTHD | Ext) for Logic Platinum (Mac) provides compatibility with Digidesign's ProTools HD system including the latest TDM II architecture, with support for sampling rates up to 192 kHz. The **Emagic System Bridge TDM** (ESB TDM) is the ideal link between the DSP world of the TDM system and the computer's native CPU processing. The ESB TDM allows you to incorporate native audio tracks, Logic's and VST plug-ins and Audio Instruments into Logic's TDM mixer. The ESB TDM also allows you to use the EXS24mkII directly in the Aux channels of Logic Audio Platinum's TDM mixer. The **Host TDM Enabler** allows you to insert the Emagic software instruments ES1, ES2, EVP88, EVB3 and EVD6 – available separately – into aux channels of the TDM mixer, including TDM-compatible hosts other than Logic Platinum, where their audio signals can be further processed with any of the TDM plug-ins.The TDM Collection requires an installed copy of Logic Platinum 5.5 (or higher) for Mac OS 9, apart from the Host TDM Enabler, which can also be used with other TDM-compatible host software.

EXS24 AND EXSP24 FORMAT CD ROMS

Xtreme Analog

The Xtreme Analog CD-ROM contains a vast array of expertly compiled multisampled analog synthesizer waveforms, many of which were generated in stacked or unison mode for maximum impact. These fat, rich analog oscillator waveforms and layers are used as the initial sound source and then shaped using the EXS24mkII's extensive range of powerful synthesis capabilities including PWM, Sync, FM, cross modulation, filters, envelopes and LFOs. The user-friendly interface of the EXS24 positively invites the intuitive editing of sounds with both individual waveforms and complete Instruments, further enhancing the creative potential of the Xtreme Analog sound library. The velocity-controllable sample start point modulation function of the EXS has been utilized to create a number of dramatic and extremely vivid sound structures. And for the traditionalists, you can check out the exceptionally authentic core sounds of several legendary synthesizers, including the Jupiter 8, Matrix 12 and Oberheim Xpander.

Xtreme Digital

As with Xtreme Analog, the most important goal with Xtreme Digital, was to create the fattest, deepest sounds possible, covering stacked sounds and complex sound variations. Xtreme Digital provides sounds of unparalleled richness, as most of the stereo multisamples equate to a sound comprised of four single sounds from an expensive digital synthesizer or workstation. The complexity and depth of the samples makes many of the sounds on the CD-ROM surprisingly light on RAM, while maintaining the highest possible quality. To create individual sounds from scratch, you will find basic waveforms in the Sampler Instrument/Initial Waveforms folder.

A special Highlight of the CD are the 12 Chromatic Kits. These are percussive, metallic synthesizer sounds that have been sampled chromatically. As you'd expect in a multisampled drum kit, each key in the 5 octave range features a different sound. In most cases, these sounds have a atonal characteristic, making them well-suited for drums and percussion.

Xtreme HipHop

With Xtreme HipHop, Emagic and King Tech have compiled the most comprehensive resource available for the types of sounds, loops and performances demanded by the the most discerning HipHop, R&B, and Pop producer. Xtreme HipHop contains hard hitting, street-ready sounds from some of Hip Hop's most noted producers and artists. In addition to the traditional rough and nasty street kicks, snares and hihats you would expect from these contributors, Xtreme HipHop offers a huge bank of bonus instrument files and sound bites including: Rhodes phrases, pads, scratches, turntable noises, wah guitars, vinyl hits and more. Every sample on the CD was hand picked and meticulously edited for maximum impact. They deliver fat sounds that have been processed under the advice of some of today's hottest mixers, producers, and engineers. Of course, by using the superb filtering, envelopes, and multi-layering capabilities of the EXS24 or EXSP24 you can contour the samples found on the Xtreme HipHop CDs even further.

MOTU

DIGITAL PERFORMER

Audio Workstation Software with MIDI Sequencing for MacOS

An integrated digital audio and MIDI sequencing production system, Digital Performer provides a comprehensive environment for editing, arranging, mixing, processing and mastering multitrack audio projects for a wide variety of applications. Digital Performer allows you to simultaneously record and playback multiple tracks of digital audio and MIDI data in a totally integrated, creative environment. It features dozens of real-time DSP-effects with easy to use graphical controls, complete automation and supports multiple processor computers. Extensive audio file editing is also included, from the usual cut, paste and copy tools to MOTU's PureDSP functions, providing independent control over the duration and pitch of audio files with exceptional sound quality. This allows for tempo-conforming drum loops, adding vocal harmonies or even gender-bending vocal tracks. Digital Performer's award-winning multitrack sequencer design, combined with non-destructive digital audio editing capabilities, provide you with unprecedented flexibility and control over the audio you create. And now, version 4 takes full advantage of OS X's MIDI and audio services, providing 100% compatibility and inter operability with OS X and all CoreMIDI- and CoreAudio-compatible software and hardware.

FEATURES

Audio

- Unlimited audio tracks (as many tracks as your CPU and hardware will allow) with support for high resolution 24-bit audio up to sample rates of 192kHz.
- Direct support is provided for MOTU's range of professional audio interfaces, such as the 2408MKIII, as well as a wide range of third party audio hardware using Core Audio drivers. ProTools HD support is expected in the near future as a free update.
- Audio tracks can be mono, stereo and surround (n-channel) tracks.
- The Bounce to Disk feature allows you to combine an unlimited number of audio tracks, along with effects and realtime automation, into a single mono, stereo or surround track. Need to hear 100 audio tracks at one time? Just bounce them down. Original tracks are always preserved, so you can go back and tweak them if needed.

MIDI

- Record and playback an unlimited number of MIDI tracks simultaneously.
- MIDI can be edited with a resolution of 1/10,000.000 PPQ (pulses per quarter).
- MIDI timing resolution is accurate within a single MIDI byte (under 1/3 of a ms) when used with a MOTU USB MIDI interface.
- Individually zoomable tracks, flexible window arrangement, and navigation tools allow for trouble-free manipulation within even the largest projects.

Effects

- Dozens of real-time 32-bit and 64-bit DSP-effects are provided with DP to meet the demands of today's audio production including EQs, dynamics processors, reverbs, modulation effects, delay, filters, preamp simulators, mastering plug-ins and more

Audio Editing

- View and edit all of your digital audio tracks in a single, intuitive window
- Audio editing is accurate to a single sample
- Everything from simple dialog editing to complex restructuring of large compositions is as easy as playing with Lego blocks

Automation

- Everything is automatable, including effects parameters with five advanced automation modes and sample accurate editing of automation data
- Support for control surfaces including Mackie Control, Mackie HUI, CM Labs MotorMix, Radikal Technologies SAC-2.2
- Save your fully automated mixdown for instant recall at any time, and then create an unlimited number of alternate mixdowns
- Virtually every parameter can be immediately accessed via customized key commands or MIDI controller. You can even save your key command settings and import them into a DP session at another studio.

How Many Audio Tracks?

The maximum number of tracks you can play back at a time depends primarily on your CPU speed, how fast your hard drive is and how much RAM you have. Based on a Dual 1.2Ghz G4 w/512MB RAM you can expect to get approximately 140-150 independent tracks of audio with 8-band EQ and dynamics on every track.

DIGITAL PERFORMER

Sequence Editor

Side-by-side display of MIDI and audio tracks — The Sequence Editor window provides combined viewing and editing of MIDI notes, audio soundbites (audio regions), audio automation and MIDI controller data in one window along a single timeline.

Zoom in to work on fine details or zoom out for a wide overview.

This expanded MIDI track uses a graphical Piano Roll style editor to display MIDI events and controller data using 'audio style' breakpoint automation.

Record and insert volume and pan effects.

Open the various MIDI and audio editors and other windows with a single mouse click.

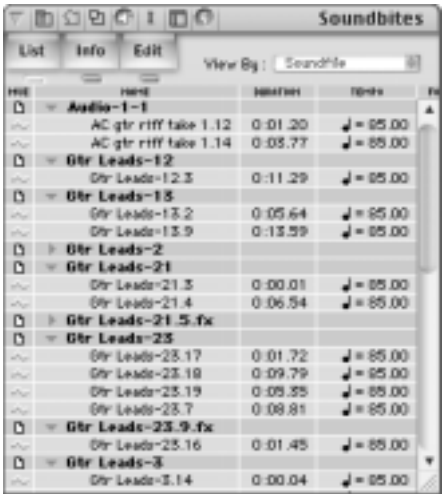
***Movie track** – a QuickTime movie track displays movie frames side by side with MIDI and audio data. DP intelligently displays more frames as you zoom in and fewer frames when you zoom out, so that frames are never obscured by overlapping one another.*

Independent vertical zooming – Both MIDI and audio tracks can be independently resized vertically. Many zoom shortcuts are provided, including the ability to enlarge one track and automatically scale all other tracks to fit in the window.

Scale individual audio track sizes as well as adjust the waveform height within each track.

Non-Destructive Audio Editing
Copy and paste regions to repeat verses or sound effects.
Graphically draw volume and pan automation curves.

Soundbites Window

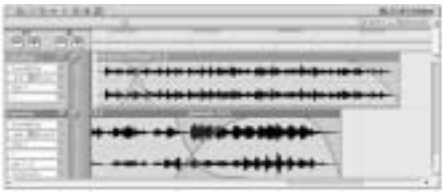


- "Drag and drop" audio regions from the soundbites window to any editing window for intuitive placement.
- Sort by any parameter (length, bit depth etc.) Trace the genealogy of the soundbite by viewing it's family tree

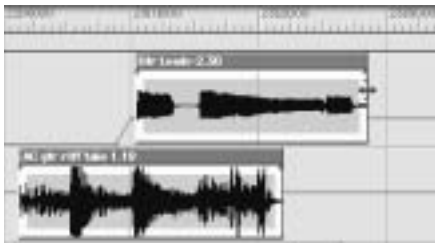
Waveform Editor

***The Tool Palette includes:** arrow cursor, pencil, waveform tool, waveform selector, rhythm brush (for painting percussive patterns in the Drum Editor), magnifying glass, loop insert, and scrub. These tools operate consistently across all applicable windows. If a tool does not apply to the currently active window, it grays out.*

- The fully-integrated waveform editor provides all of the tools you'd expect from a premium editor including:
  - – View and Edit mono and stereo audio files and create soundbite boundaries with single sample accuracy
  - – Use the pencil tool for removing clicks
  - – A loop tool lets you create perfect loops for your sampler as well as mute and scissor tools
- Many navigation tools are provided to help you work more efficiently like scrubbing, jumping to selection or loop boundaries, as well as user-definable zoom levels



Crossfades help you eliminate unwanted clicks and pops when overlapping soundbites and allow you to perform fade-ins and fade-outs of soundbites. Crossfades (of any length you specify) can also be set to be automatically applied any time you cut, copy, paste, splice and otherwise edit your audio files.



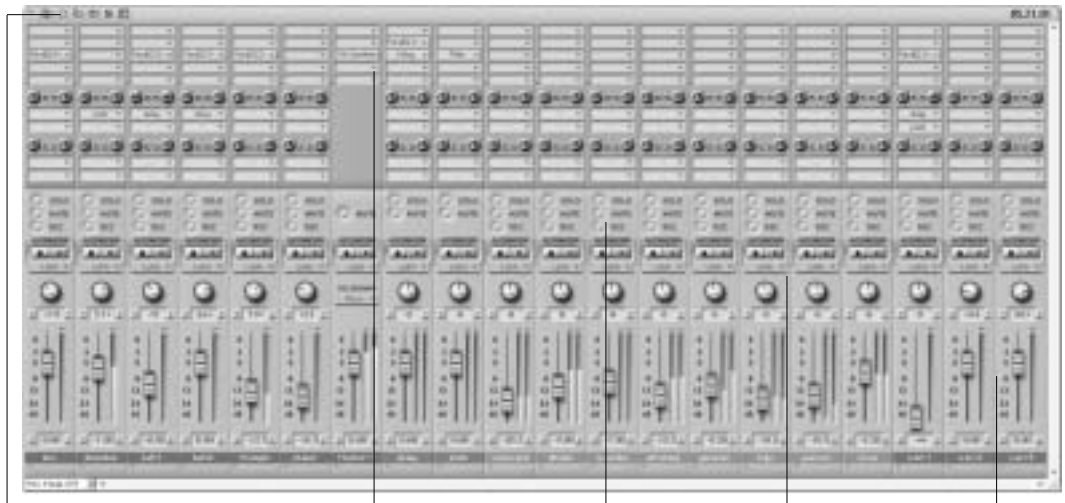
Re-size soundbites by dragging their edges. Split and trim soundbites to work with smaller regions.

MOTU

DIGITAL PERFORMER *continued*

DP's Mixing Board – a virtual mixing console on your computer screen

- More flexible than even the most expensive hardware consoles ever made
- 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.
- Save and recall any number of custom Mixing Board configurations
- Assign tracks to plug-ins and MIDI effects processors for real-time output processing
- Faders can respond to control surfaces or any MIDI controller such as a volume slider or pedal, mod wheel or any data slider.
- View your MIDI and audio tracks in a single, unified mixer
- Save multiple effect presets as a single clipping and then drag and drop them onto any track in any mix
- Use Aux tracks to combine hardware instruments and virtual instruments into one mix



Create snapshots of the entire mixer - or any portion of it – anywhere in your sequence with the click of a button.

Configure up to twenty effects inserts per each audio channel, and the 32 stereo busses.

Solo, mute and record enable buttons

Automation mode and enable/disable buttons

Ride faders and knobs during playback to record automated mixes.

32-Bit and 64-Bit Fully Automatable Realtime DSP Effects

- 32-bit and 64-Bit realtime effects with easy to use intuitive graphical controls
- Effects can be inserted on a single channel or on a bus and accessed via a channel send
- Effects can be easily organized into folders
- Multiple plug-in windows and surround panners can be opened simultaneously
- Up to 20 effects can be inserted pre or post fader per channel
- The number of simultaneous effects is limited only to the speed of your computer
- Multi-processor support of MOTU's and third party plug-ins provides nearly twice as much processing power with dual processor CPUs
- Compatible with effects supporting mono, stereo or surround inputs and mono, stereo or surround outputs
- Sidechain inputs allow you to control an effect parameter from any audio signal in mixing environment by busing the audio to the sidechain input.

Included Effects

- 2, 4 and 8 band EQ
- PreAmp-1 tube-simulation and distortion plug-in
- 3 reverbs
- 2 noise gates including the MasterWorks Gate with real time look ahead gating
- 2 compressors
- A synth-style multimode filter
- Echo & delay effects including a surround delay
- Modulation effects including chorus, phaser, flanger, the Sonic Modulator and more

DIGITAL PERFORMER *continued*

Automation

- Everything in the mixing environment can be automated in real time, including effects parameters, track mutes/solos, effects bypassing, send levels, send mutes
- Automation can be recorded during playback, or you can draw and edit parameters in the audio graphic editor
- Support for three types of automation data: ramps, stare-step, one-shot (such as waveform type - sine, square, etc.)
- Automation data is always displayed using real-world values such as decibels and milliseconds
- Mute and Solo automation allows you to bring tracks in and out of the mix in real time as you listen
- Save your fully automated mixdown for instant recall at any time, and then create an unlimited number of alternate mixdowns
- Using beat/tempo based automation you can control plug-in effects to move in perfect time with your music, from LFO synchronization to filter sweeps that land on downbeats to multitap delays that create syncopated rhythms
- Sample-accurate 32-bit floating ramp automation insures smooth automation movements without unwanted artifacts or zipper noise
- Five advanced automation modes allow you to: Modify automation data you've already recorded; Scale values up or down while maintaining its current contour; Overwrite automation that's already there - but only after you punch in
- Effects automation can be controlled in realtime via MIDI allowing you to add seemingly complex sound design elements, such as sequenced filtering effects in minutes
- Effortlessly create fader automation groups with any fader as the master
- Support for control surfaces including Mackie Control, Mackie HUI, CM Labs MotorMix, Radikal Technologies SAC-2.2 and more

Automatic Audio Conversion

- DP can automatically convert audio data wherever necessary to conform to the current project's sample rate, sample format and tempo. This greatly streamlines the process of importing audio quickly into your projects.
- Automatic conversion options include:
  - Automatic sample format and sample rate conversion when importing audio
  - Automatic time-stretching of audio when placing soundbites into a track
  - Automatic time-stretching of audio when the tempo is changed
  - Automatic placement of imported audio files in a pre-designated folder, regardless of if format conversion took place or not

Acid File Import

- Acid WAV files can be imported using standard drag and drop. If the Acid file has a tempo and automatic tempo conversion is enabled, it will automatically conform to the sequence tempo when placed in a track.
- REX 2 file import allows you to conform Recycled audio files to your DP sessions tempo
- ReWire support allows you to integrate outputs from Propellerheads' ReBirth and Reason applications into DP
- Import and export SDII. Aiff and .Wav files

Time Compression/Expansion

- PureDSP (time compression/expansion) functions provide high quality, independent control over the duration and pitch of audio files allowing you to conform the tempo of drum loops to your project and add vocal harmonies or gender-bend effects to vocal tracks
- Both PureDSP and off-line audio processing occurs in the background so you can continue working
- The graphic time-stretching function allows you to grab the edge of a soundbite with the hand cursor and stretch it longer or shorter.

Sampler Integration

- The Samplers window lets you transfer samples between your project, supported sampler and the Mac's desktop (hard drive) via SCSI using simple drag and drop
- Imported samples are automatically converted into Sound Designer II files and back to the sampler's format when exported
- Using the integrated waveform editor, you can define a region of audio from your project, edit it, trim the edges with sample level precision, specify loop points, normalize, fade in & fade out and send it to your sampler - without ever leaving DP

POLAR

- POLAR is a unique, interactive, RAM-based loop recording environment that allows you to layer multiple passes of audio (limited only to the amount of available RAM) without having to stop recording.
- Use POLAR to layer vocal harmonies; generate mesmerizing polyrhythms; build an entire song or just plain jam.
- When going for that 'perfect take' POLAR can mute the previous take for you automatically so you can concentrate on the music not on playing engineer.

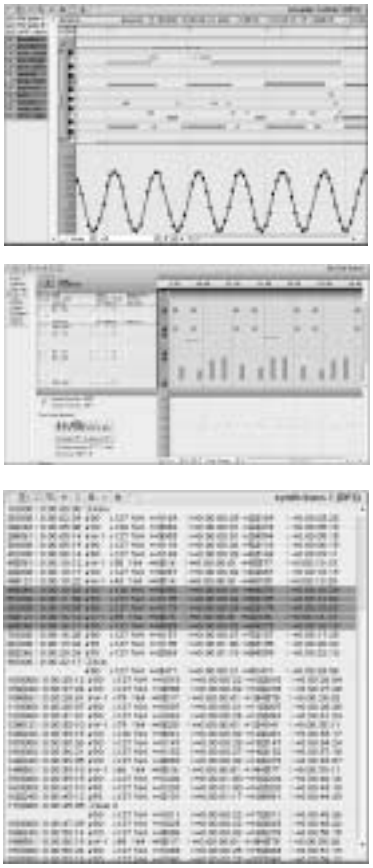
- Because POLAR records audio directly to RAM, you can overdub on the fly without affecting your disk tracks.

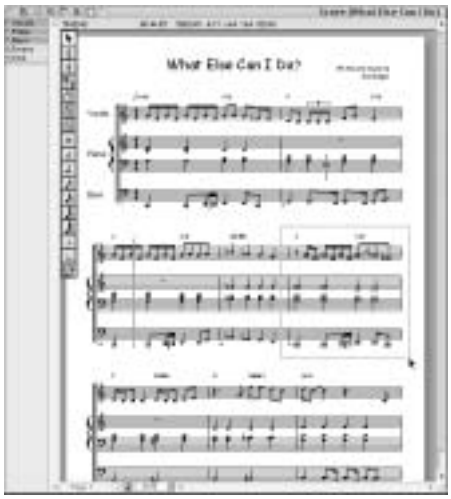
DIGITAL PERFORMER *continued*

MIDI Editing

- DP provides a range of environments, besides the Sequence Editor, for editing MIDI data including a Graphic (piano style) Editor, an Event List editor, a dedicated Drum Editor and QuickScribe (notation). This combination of editors offers you the flexibility of fine-tuning single MIDI events, or make changes to entire sections
- Multiple MIDI tracks can be edited and displayed in one Graphic Editor window – notes for each track are displayed in the track's color. A track selector list allows you to show/hide tracks as desired
- Three freely switchable MIDI continuous controller editing modes provide flexible and intuitive automation of MIDI instruments

  1) DP's classic 'points' mode
  2) 'Vision-style' colored bars
  3) Audio-style breakpoint automation lines which intelligently interpolates CC data



QuickScribe Notation Window

- Print the whole score or individual parts
- Continuous scrolling moves the music under the wiper which stays fixed to the center of the window.
- Support for five different clefs: treble, bass, grand staff, alto and tenor clefs.
- You can choose a specific instrument transposition as well as a score transposition for each instrument.

Adjustable PPQ

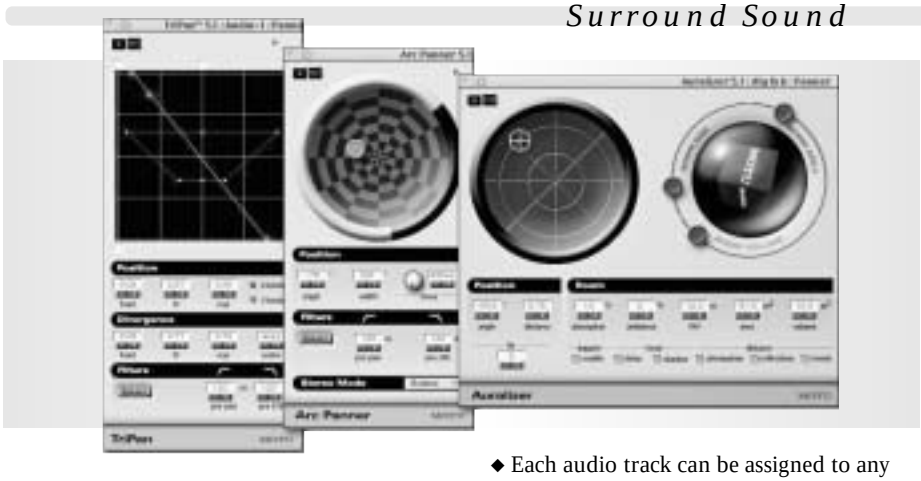
The display resolution can be adjusted to 480, 960, 1920 or any number from 2 to 10,000 PPQ and each tick value can be displayed with up to four decimal places. For example, if you normally edit MIDI data at 480 PPQ, you can set your edit resolution to 480.000 for 1000 times more precision. With the resolution at its maximum value of 10000.0000, you can nudge a MIDI event by a little as one one-hundred millionth of a quarter note.

Non-Destructive MIDI Effects Plug-ins

- A variety of MIDI processing plug-ins can be can be inserted into the mixing board window and applied to your MIDI tracks non-destructively in real time
- Bundled MIDI plug-ins include:
  Arpeggiator; Echo; Remove Duplicates (gets rid of duplicate events on the same tick); Transpose; and Shift can all be applied non-destructively and in real-time
- Plug-in settings can be saved and recalled for use on other tracks or in other sessions
- Realtime MIDI Effects can be 'printed', (destructively applied) to the track. This allows you to add effects to certain portions of a track, instead of the entire track

DIGITAL PERFORMER *continued*

Surround Sound



- A complete environment is available for creating surround recordings from start to finish including support for quad, LCRS, 5.1, 6.1, 7.1 and 10.2 surround formats
- Four panner plug-ins are provided including a localizing room simulator – support is also provided for third party panners
- Each audio track can be assigned to any surround sound format and have its own, independent surround panner
- The desired surround panner can be controlled with the panning dish available for each track's channel strip in the Mixing Board. Panners can also be opened as separate windows (just like a plug-in)
- Panning movements are fully automatable
- MacOS Input Sprockets support allows you to connect a compatible USB joystick to your Power Macintosh and use it to control any MOTU or third-party surround panner
- Record, edit and apply effects to multi-channel tracks as easily as mono and stereo tracks – master the multichannel mix using a wide range of channel effects, including the MasterWorks Limiter and bounce the surround submix to disk or record the output of a multichannel mic setup or print a multichannel reverb
- The included Auralizer effect is a room simulator that allows you to localize a sound in space using psychoacoustic cues – design the size and absorptive characteristics of the space you wish to place your audio, then place a sound precisely in that space.

DIGITAL PERFORMER 4.0 AND MAC OS X SUPPORT

- Universal compatibility and interoperability with Mac OS X and all CoreAudio- and CoreMIDI-compatible software and hardware. No special drivers or wrappers — just install your software, plug in your hardware, and go.
- Operate multiple audio hardware systems simultaneously with Digital Performer — use your MOTU 828 FireWire audio interface together with your MOTU 2408mk3 PCI audio interface - or use any combination of CoreAudio-compatible interfaces.
- Mac OS X's Audio MIDI Setup utility delivers universal MIDI system management. DP4 shares a common studio setup with all of your Mac OS X MIDI applications.

- Easy device remapping from FreeMIDI to CoreMIDI when you open a project created in an earlier version of Digital Performer.
- Mac OS X's MIDI device patch lists and drum note names allow you to view the sounds in your MIDI synthesizers by name in Digital Performer's patch lists. Build drum kits with instrument names like "808 kick" and "sizzling hat" rather than note numbers. All of FreeMIDI's of patch lists have been ported to Mac OS X, where they can be used by any CoreMIDI-compatible software.
- Support for interapplication MIDI - Digital Performer can publish an unlimited number of MIDI inputs and outputs, allowing it to transmit and receive a virtually unlimited number of MIDI data streams to and from other CoreMIDI-compatible software.
- Mac OS X's MIDI Time Stamping achieves a 12th of a millisecond MIDI timing accuracy on input and a 3rd of a millisecond on output when used with a MIDI Time Stamping compatible hardware including MOTU's rack-mount MIDI interfaces.
- ReWire 2.0 support provides compatibility with Propellerhead Reason 2.0, Rebirth and all other Rewire applications. Direct MIDI I/O support allows you to sequence MIDI tracks in Digital Performer using your ReWire instruments as virtual synths.
- Enhanced QuickScribe notation transcription engine - display and print unquantized MIDI tracks as beautifully engraved music scores, instrument parts and lead sheets.

Digital Performer Version 4 features that are on the way - to be supplied as a free update soon:

- Support for Audio Units plug-ins for effects and virtual instrument.
- Support for Pro Tools hardware running under the Digidesign Audio Engine (DAE) including ProTools HD hardware.

MOTU

2408MK3

PCI-based Audio Workstation

A cost-effective solution for recording and editing digital audio without sacrificing the power and flexibility needed in today's project and commercial studio environments, the 2408MK3 has everything you need to turn your computer into a powerful 24-bit/96kHz digital audio workstation. The 2408MK3 provides 8 channels of pristine 96kHz analog recording and playback, combined with 24 channels of ADAT and Tascam digital I/O — the most ever offered in a single rack space audio interface. Connect up to four interfaces to the PCI-424 card and you have a system capable of 96 simultaneous active input and output connections at 96kHz. The 2408MK3 is ideal for both the computer-based studio with no mixing board and more elaborate studios built around a digital mixer of any size. For the computer-based studio, the bundled PCI-424 card also features CueMix DSP, a flexible DSP-driven mixing and monitoring matrix that eliminates the need for an external mixer or patch-bay. Connect all your studio gear, including synths, keyboards, and even effects processors. Then control it all from the desktop with no audible monitoring latency and no processor drain on your computer. With 24 channels of digital I/O, the 2408 is ideal for connecting your computer to a digital mixer. Both ADAT and TDIF digital connections are supported at up to 96kHz. And with built-in video and SMPTE synch, you can slave your entire workstation directly to video or SMPTE time code with sub-frame accuracy—without a dedicated synchronizer. The 2408mk3 is cross-platform compatibility with Mac, Windows 98SE/Me/2K/XP and most audio software and host-based effects via WDM/ASIO/Sound Manager drivers. Or use the included AudioDesk workstation software for Mac, with 24-bit recording/editing and 32-bit mixing/processing/mastering.

Inputs/Outputs

- The rear panel of the 2408MK3 rack-mount interface provides eight 1/4″ balanced TRS analog inputs and outputs, an extra pair of main analog outs (1/4″ TRS), three banks of 8-channel ADAT optical "lightpipe", three banks of 8-channel Tascam TDIF, RCA S/PDIF (with an extra S/PDIF output), Audio Wire and BNC word clock I/O.
- The extra stereo output has front panel volume control so you can plug powered monitors directly into the 2408mk3.
- You can choose any three banks (up to 24 channels) to be active at one time. This means you can hook up three ADATs, three DA-88s, and eight analog devices all at the same time and access any three banks - in any combination of formats. And you can freely switch formats at any time.

Expansion Capability

- A core 2408mk3 system provides 24 inputs and outputs, but it also offers the most expansion ever offered in a single PCI card. Up to four interfaces can be connected to the PCI-424 for up to 96 channels of simultaneous input and output at sample rates up to 96kHz. Think about the possibilities: you could connect twelve 8-channel ADAT or TDIF compatible devices including MDMs, digital mixers, and A-to-D converters to your computer, along with 32 channels of analog I/O, and simultaneously record and play as many tracks of audio as your computer allows.
- All four audio formats (analog, optical, TDIF and S/PDIF) support operation at 44.1, 48, 88.2 or 96 kHz. Each 2408mk3 provides up to 24 channels of simultaneous I/O at 44.1 or 48kHz or up to 12 channels —three 4-channel banks– of digital I/O at 88.2 or 96kHz.

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EQUIPMENT LEASING AVAILABLE

S/PDIF Input/Output

- The 2408MK3 provides S/PDIF digital I/O so you can exchange digital audio with a wide variety of other devices. But the 2408MK3 takes S/PDIF one step further than other systems by providing an extra S/PDIF stereo output of the main mix. You can use this extra stereo digital output for whatever you want. For example, you can leave it connected to a DAT machine so that at any time you can record a stereo mix of the project you are working on - without having to swap cables with another S/PDIF device that may be connected.

SMPTE & Word Clock

- The 2408MK3 is the first audio interface to provide on-board video and SMPTE time code synchronization features. This allows you to slave your 2408MK3 system to video, SMPTE time code or both - without a dedicated synchronizer. The PCI-424 card provides a DSP-driven phase-lock engine with sophisticated filtering that provides fast lockup times and sub-frame accuracy.
- S/PDIF jacks (RCA) on the rear panel can be switched via software to become a dedicated SMPTE LTC timecode I/O. However, because the 2408mk3's sync features are driven by the PCI–424's DSP, any analog input can be chosen for SMPTE input, and any active channel, digital or analog, can be chosen as a SMPTE time code output.
- Supplied software also provides a complete set of tools to generate SMPTE for striping, regenerating or slaving other devices to the computer. Synchronization features are cross-platform and compatible with all audio sequencer software.

Legacy I/O Support

- Users who already own a 2408MKII or other PCI-based MOTU recording system can connect their legacy MOTU hardware to the PCI–424 card of a 2408MK3 system.
- All legacy PCI-based MOTU interfaces are supported, including the original 2408, 2408MKII, 1296, 1224, 24I and 308. Users can mix and match legacy interfaces with the new 2408MK3 as they please.
- Legacy interfaces can also take full advantage of the PCI-424's CueMix DSP near-zero latency monitoring.

PCI-424 Card & Cuemix DSP

For the computer-based studio, the PCI–424 card features CueMix DSP, a flexible DSP-driven mixing and monitoring matrix that provides the same near-zero monitoring latency as today's latest digital mixers. CueMix DSP allows you to connect keyboards, synth modules, drum machines, and even effects processors and then monitor these live inputs with no audible delay and no processor drain on the host CPU.

The CueMix DSP engine resides on the PCI–424 card, so it works across all interfaces connected to the card. The CueMix Console software provides an on-screen mixer that gives users hands-on control of their monitor mix, regardless of what audio software they prefer to use. Digital Performer users have the additional option of controlling CueMix DSP directly within DP's mixing environment.

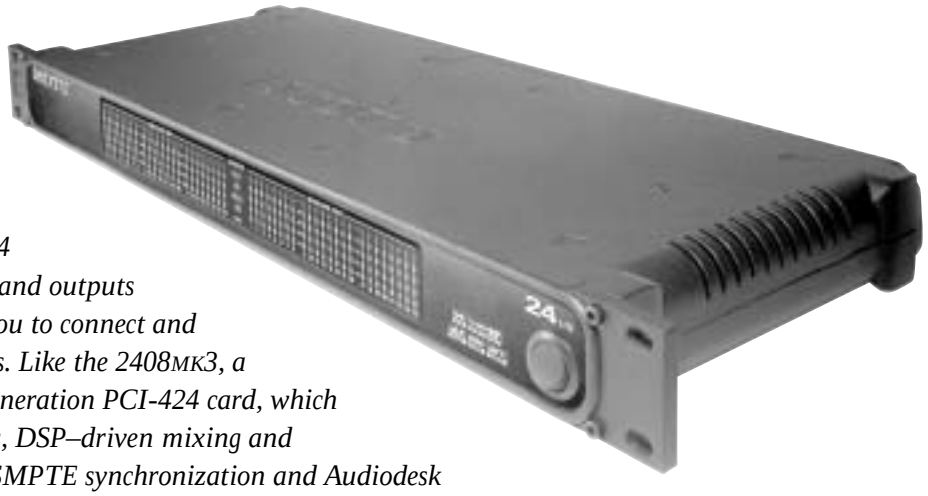
- The PCI-424 is expandable to 96 active inputs/outputs. It supports sample rates up to 192kHz and provides DSP-driven monitor mixing across 96 inputs @96kHz with zero host buffer latency.
- PCI-424 resolves directly to SMPTE time code via any available analog input with sub-frame accuracy. No separate SMPTE synchronizer required. Also provides word clock and ADAT Sync to achieve sample-accurate digital transfers between digital recorders and the computer.
- Cuemix DSP allows you to mix multiple channels into multiple mix busses or directly assigned outputs. Manage your monitor mix with the Cuemix Console.
- Cuemix Console provides independent level and pan controls for each input on every mix. And with CuemixDSP you aren't limited to four stereo mixes. You can configure a unique mix for every physical stereo output you have available. This means you can have up to 48 separate stereo mixes on a 96 output system.

Additional Features

- Includes a setup wizard for both Mac and PC based systems that will have you up and running in minutes. The Setup wizard is an interactive, stand-alone director movie that helps you connect everything together. It even configures the 2408MK3 driver for you when you're done!
- Switchable input levels (+4/ –10dB) for each analog input pair via software.
- 2408MK3 connects to the PCI-424 card (installs in the computer), via 6-pin IEEE 1394 cable. The PCI-424 supports cable lengths of up to 50 feet. Long cable runs are often necessary in studios where the computer is housed in a separate room than the rack–mounted 2408MK3 audio interface.
- Dedicated front-panel five-segment level meters for every analog input and output.
- Separate front-panel volume knobs provide independent volume control for the front-panel headphone jack and the rear-panel main outputs.
- Across-the-board software compatibility — the 2408MK3 ships with a complete set of drivers for Windows 98SE/Me/2K/XP and Macintosh and is compatible with virtually all audio software on both platforms.
- Core 2408MK3 system all includes AudioDesk, MOTU's sample–accurate workstation software for Macintosh with 24-bit recording/editing and 32-bit automated mixing, processing and mastering.

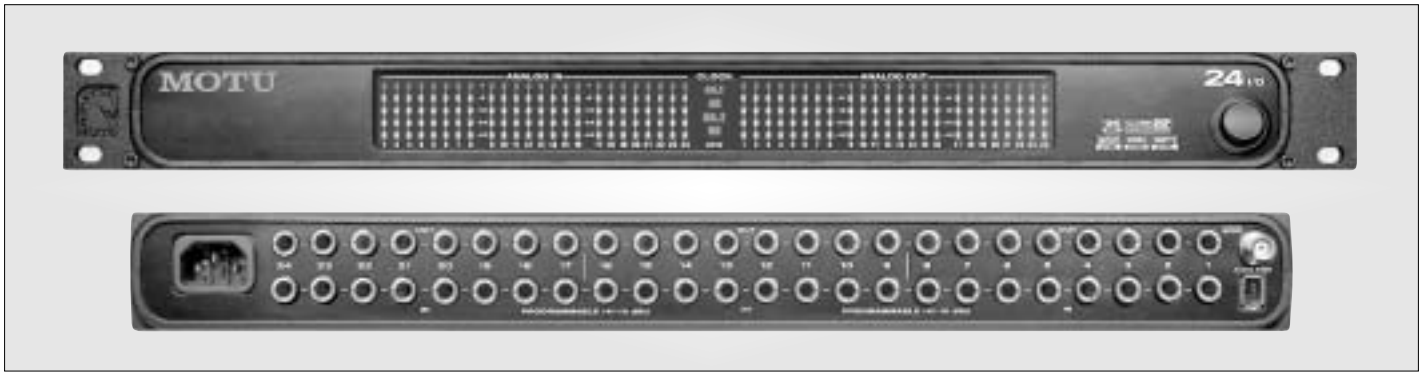
MOTU

24I/O



The 24I/O is a single rack-space 96kHz audio interface for Macintosh and Windows systems that fulfills the promise of host-based hard disk recording: to record, edit, mix process, and master multitrack recording projects entirely inside your computer. It provides 24 balanced 1/4˝ (TRS) 96kHz analog inputs and outputs in a single rack-space enclosure, allowing you to connect and record from 24 simultaneous analog sources. Like the 2408MK3, a 24i/o core system includes MOTU's next generation PCI-424 card, which provides expansion up to 96 inputs/outputs, DSP–driven mixing and monitoring, legacy I/O support, on-board SMPTE synchronization and Audiodesk workstation software for Macintosh.

The 24I/O rack interface which is also available separately as an expansion I/O for 24i/o or 2408mk3 systems provides 5-segment front-panel meters for every input and output and software-switchable (-10/+4) analog input levels.



Metering

The 24I/O's front panel is essentially a dedicated meter bridge for your hard disk recording system. Audio activity for every input and output is represented by its own five-segment LED bar graph.

Front Panel Power Switch

Useful in the unlikely event you wish to turn off your 24I/O. An interesting fact about MOTU Audio interfaces is that they are hot swappable. This means you can power off, plug-in, add and remove interfaces without turning your computer off or restarting. In fact, if you already have a 2408MK3 or other PCI-424 system, adding a 24I/O is as easy as plugging in an AudioWire cable.

24-bit analog TRS I/O

The 24 analog inputs and outputs are professional-grade 1/4˝ TRS (balanced/unbalanced) connectors operating at either -10dB or +4dB. The input level can be switched via software in banks of eight inputs. In addition, CumixDSP provides continuously variable input trim with up to 12dB boost per channel.

Word Clock I/O

The 24I/O audio interface provides industry standard word clock sync on a single BNC connector that can be programmed for input or output via software. When operating as a word clock input, the word connector allows the 24I/O to synchronize smoothly with today's digital audio studio. When operating as a word clock output, the word connector can be used as a master clock to drive other digital devices in your studio, such as a digital mixer.

AudioWire

Uses the second generation AudioWire introduced with the 2408MK3. It is a high-bandwidth digital audio format capable of carrying up to 24 channels of 96 kHz digital audio in and out of the computer at the same time. AudioWire can readily handle the 24 simultaneous inputs and outputs of the 24I/O audio interface.

Power Supply

Comes with an internal power supply and standard detachable IEC power cable. No wall warts or line lumps.

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HD192

High-Definition 192kHz Audio Interface for Mac and PC

Designed for those who demand the very best audio quality available, the HD192 is equipped with the latest generation 24-bit, enhanced multi-bit 128x oversampling 192kHz converters to achieve a remarkable A-weighted signal-to-noise ratio of 120 dB with balanced XLR connectors throughout. Ideal for surround applications, the HD192's 12 inputs and 12 outputs can support two simultaneous 5.1 mixes. And the HD192 is full of advanced features, like AES/EBU I/O with sample rate conversion both in and out.
The PCI-424 card introduced with the 2408mk3 is 192-kHz ready. Just connect the HD192 expansion interface to record 192-kHz audio. The HD192 can be purchased as an expander for an existing PCI-424-based MOTU Audio System, or as a core system which includes the PCI-424 card and Audiodesk workstation software.

Highest-Quality A/D Converters

- The most important link in the digital recording chain is the A/D converter. It is the critical component that converts your analog input signal into digital information. The higher the quality of the A/D converter, the better your recordings will sound. The 192kHz converters in the HD192 are the same ones used in more expensive HD systems. With 120dB A-weighted dynamic range and a THD+N of 0.0005%, the HD192 is simply the best sounding front end you can buy for your digital audio workstation.

Comprehensive Metering

- The HD192's front panel provides dedicated 19-segment level meters for all 12 inputs and outputs. Two over meters are included, a temporary over meter and an over/hold meter that is resettable via software. Comprehensive clock status LEDs are also included so you can see at a glance the current sampling rate and clock source.

Front Panel Power Switch

- Useful in the unlikely event you wish to turn off your HD192. An interesting fact about MOTU Audio interfaces is that they are hot swappable. This means you can power off, plug-in, add and remove interfaces without turning your computer off or restarting.

Inputs/Outputs

- All 12 XLR inputs and outputs on the HD192 rear panel support operation at 44.1, 48, 88.2, 96, 176.4 and 192 kHz and use professional-grade XLR connectors operating at +4 dB.

AES/EBU

- The HD192 features stereo AES/EBU digital I/O with built in sample rate conversion. This gives you the ability to integrate external digital audio sources, no matter what the sample rate, while recording audio at higher sample rates on the analog I/O of the HD192. For example, you can still take advantage of the 96-kHz digital I/O on your favorite outboard reverb, while recording audio at 192-kHz.

Word Clock I/O

- An industry-standard word clock input and output allow the HD192 to synchronize smoothly with today's digital audio studio. The word clock output can be used as a master clock to drive other digital devices in your studio, such as a digital mixer. The AES digital I/O can be driven separately via a dedicated word clock input. You can even slave to a 48kHz clock source, even when the HD192 is operating at 192-kHz.

Audio Wire

- The HD192 uses the same second generation Audio Wire as the 2408MK3. It is a high-bandwidth digital audio format capable of carrying up to 24 channels of 96-kHz or 12 channels of 192-kHz digital audio in and out of the computer at the same time.

Power Supply

- Like all MOTU hardware products, the HD192 comes with an internal power supply and standard detachable IEC power cable. No wall warts or line lumps.

MOTU

828MKII

COMPUTER AUDIO

982

Firewire Audio Interface with ADAT Digital I/O, Mic Preamps and Sync

An affordable, FireWire -based digital audio hard disk recording system for Mac (OS 9, OS X) and Windows (ME, 2000, XP), the 828MKII takes professional audio recording a leap forward in portability and plug-and-play operation, With a total of 20 simultaneous inputs and 22 outputs, two built-in mic pre-amps, zero latency monitoring, and the ability to synchronize to anything via ADAT sync, the 828 provides a complete studio in a box. Also included with the 828MKII is the acclaimed AudioDesk workstation software for Macintosh as well as ASIO, CoreAudio, Sound Manager, GSIF, and WDM drivers for compatibility with your favorite software.

FEATURES

- Eight 1/4″ TRS bal/unbal analog inputs and outputs using 24-bit / 96kHz converters. Input level can be switched between +4/-10 for each input via software.
- Two 24-bit 96kHz analog inputs, on the front panel, using 1/4″ / XLR combo Neutrik connectors, accept either high impedance quarter-inch inputs or low impedance XLR microphone inputs. The microphone preamplifers provide plenty of gain and individually switchable phantom power and variable trim.
- Dual 1/4″ Sends allow you to insert a compressor or effects processor into the two front panel input channels.
- Dedicated 1/4″ TRS main outputs can be connected directly to your powered monitor system.
- Front panel 1/4″ headphone jack
- A dual function knob on the front panel provides separate volume control over main outputs and headphones.
- Eight channels of 24-bit ADAT lightpipe I/O (4 channels at 96kHz) — switchable to stereo optical S/PDIF.
- Stereo 24-bit / 96kHz coaxial S/PDIF I/O
- Dual FireWire ports – one to connect the 828mkII to your computer and a second port to daisy-chain more devices, including additional 828, 828mkII and 896 interfaces without the need for a FireWire hub.
- The CueMix DSP mixer controls, on the front panel, allow you to create up to four stereo monitor mixes with 20 inputs each. Mix to any four output pairs you wish. Because the mixing takes place in the 828mkII itself, your computer's processor is free for other tasks.
- The backlit LCD display provides an intuitive interface to configure your entire system. It even allows you to use the 828mkII as a stand-alone mixer.
- Front panel signal present LEDs for the analog, S/PDIF and optical I/O, as well as tach, lock status and clock rate.
- ADAT 9-pin sync input jack allows sample accurate audio transfers with Alesis ADATs, or any device that supports ADAT sync
- MIDI I/O is provided for accessing a control surface or synth.
- The dedicated 1/4″ SMPTE I/O allows the 828mkII to resolve directly to an external analog tape deck or video source.
- Word clock input and output (BNC) provides synchronization with a wide variety of digital devices or a centralized word clock source.
- A pedal input allows you to plug-in a footswitch for hands-free punch-in recording (software auto-senses pedal polarity for easy setup
- A built in international power supply uses a standard IEC cable. No noisy wall warts or line lumps to keep track of.

Bundled Software

Drivers

Includes drivers (ASIO, WDM, GSIF, CoreAudio, Sound Manager) for all popular Mac and Windows audio software.

AudioDesk

AudioDesk gives you all the advanced features you need to record, edit, mix, process and master an audio project in your Macintosh. It even includes MOTU's ground-breaking PureDSP time-stretching and pitch-shifting technology and dozens of real-time, 32-bit effects plug-ins.

CueMix Plus - Monitoring Control Panel

The 828 gives you the ability to select an input via software and mix it with the main outputs inside the 828mkII to create a no latency monitor mix. Because the mix does not have to travel back to the computer, the result is delay-less patch-thru. This mix is sent out the independent main+monitor outs and headphones. You can adjust the patch thru volume relative to the main mix with the convenient front panel monitor level knob.

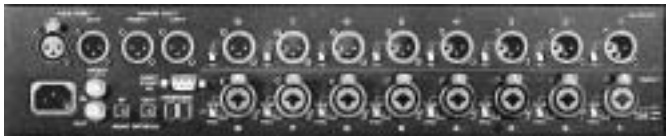
896

96kHz Firewire Audio Interface

The 896 is a 96kHz Firewire audio interface for Macintosh and Windows. It provides everything you need to make great recordings, all in a durable 2U rack mountable package.

The 896 is expandable. Should your needs grow in the future, simply add additional 896 or 828 interfaces for more I/O.

The 896 is the perfect companion for your laptop computer. With eight built-in mic pre-amps with individually switchable phantom power and no-latency CueMix Plus monitoring, you don't need a mixer for portable recording. Included with the 896 is the acclaimed AudioDesk workstation software for Macintosh. Of course, the 896 ships with Sound Manager, ASIO, GSIF and WDM drivers for compatibility with your favorite software.



FEATURES

AES/EBU Digital I/O

- AES/EBU digital in/out provides digital I/O at any supported sample rate up to 96kHz. Sample rate conversion is supplied on either input or output. For example, it can convert 44.1 kHz audio input to 96 kHz or it can convert 96 kHz audio to 48 kHz.
- In addition, the AES/EBU OUT can resolve to the AES/EBU input while converting, with the input serving as a clock source only (not as an input source).

Analog Inputs

- Each input is equipped with a 24-bit 64x oversampling A/D converter, built-in pre-amp, front-panel trim knob, front-panel 48 volt phantom power switch and a rear-panel 3-way input level switch with three settings: MIC, LINE and +4/FIXED.
- The MIC and LINE settings provide front-panel trim, while the +4/FIXED setting bypasses the trim circuit for unattenuated signals up to approximately +18dBu.
- Together, the MIC and LINE settings provide a trim range of approximately 55dB with some overlap. The LINE setting can accommodate a -10 or +4 input signal.
- MIC setting can be used for mics or unamplified instrument pickups (guitars, etc.).

Analog Outputs

- Eight analog outputs on XLR connectors. each equipped with 24-bit 128x "enhanced multibit" D/A converters and their own switch for either +4/-10dB operation.

Main Outputs

- These two extra XLR outputs can be connected directly to a set of powered monitors. A front panel volume knob is provided for convenient hands-on volume control.
- The main outputs mirror the signal on outputs 1 and 2. In addition, they sum these signals with up to two channels of live input from a pair of inputs via the 896's no-latency monitoring bus. You may choose any two analog or AES/EBU inputs (via software) as the monitor inputs. A separate knob is provided on the front panel for convenient hands-on adjustment of the live input level, relative to the main mix.

Word Clock I/O

- I/O allows the 896 to resolve word clock via a standard synchronizer such as the MOTU MIDI Timepiece AV. Lock to SMPTE time code, blackburst, video or other external clock sources. Slave to word clock at half- or double speed. Send word clock at half speed when running at 88.2 or 96 kHz.

Firewire Interface

- Up to four interfaces can be daisy-chained (connected one to another) on a single FireWire bus (without a hub), providing 72 channels of I/O at 44.1 or 48 kHz. At high sample rates (88.2 or 96 kHz), the ADAT optical channels are disabled and two or three interfaces can supply analog and AES/EBU I/O for 20 to 30 channels of I/O, respectively (depending on system performance).
- A MOTU 828 FireWire audio interface can also be connected to the second FireWire jack of a MOTU 896. In addition, multiple 828s can be mixed and matched with multiple 896s using standard FireWire hubs

Additional Features

- Front panel volume control of monitor input level on main outs
- Front panel headphone jack with independent volume control
- Extensive multi-segment front panel metering for all I/O and clock modes
- Software-configurable peak and clip hold times
- Trim controls for all inputs on front panel
- Front panel footswitch/punch jack

MOTU

AUDIODESK

Multitrack Audio Recording Software — Bundled with all MOTU Audio Interfaces

AudioDesk is a full-featured audio workstation software package for Mac. This is not a watered-down "recording-only" version of another company's software. Instead, the software provides all of the high-end features you'd expect in a serious workstation application, like 24-bit recording and real-time, 32-bit effects processing.

The software includes multi-track waveform editing, sample-accurate placement of audio, a complete virtual mixing environment with up to 64 stereo busses, automated mixing, graphic editing of mix automation, scrubbing, trimming, spotting, crossfades, support for third-party effects plug-ins (in the MOTU Audio System and Adobe Premier formats), unlimited digital track bouncing (including effects and automation), and much more.

FEATURES

Effects

- Real-time effects all of which are processed with 32-bit, floating-point calculations.
- Because the effects are host-based, the faster your Mac, the more simultaneous effects you can use.
- An entire rack of outboard effects gear right on your Mac —
  - Up to 40 bands of parametric EQ per track
  - Dynamics Processing (expander, compressor, limiter, gate)
  - eVerb reverb plug-in (includes acoustic modeling)
  - PreAmp-1 tube pre-amp simulator (simulates tube warmth and presence, as well as wild distortion effects)
  - Chorus
  - Echo
  - Flange
  - Autopan
  - Tremolo, and more
- More real time effects are available from 3rd party companies including Anatares, Kind Of Loud, Waves, TC Works, Native Instruments. The Adobe Premiere plug in format is also supported

Non-Destructive Editing

- View and edit all of your digital audio tracks in a single, intuitive window
- Graphically draw volume automation curves and pan sounds from left to right
- 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
- Everything from simple dialog editing to structuring complex musical arrangements is as easy as playing with Lego blocks
- Re-size soundbites (audio regions) 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
- Crossfade lets you create seamless transitions between overlapping soundbites — eliminating 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
- Even import material from your favorite sample CD-ROMs, then use any of AudioDesk's editing functions to customize them for your music

AUDIODESK

Automation

- 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.
- Easily 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.
- Any number of custom Mixing Board configurations can be saved and recalled at any time.
- Assign tracks to plug-ins 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.

Transport/MMC

- Control any MMC-compatible (MIDI Machine Control) recorder including Tascam DTRS, Alesis ADAT and others.
- MMC devices will chase AudioDesk's transports with frame-accurate timing. Set auto punch-in and preroll times.

OMF Export To Pro Tools

- Built in OMF integration tools allow you to seamlessly export your project to a ProTools environment.
- Besides copying audio data the OMF Export translates critical information such as session offset, audio region placement, and crossfades (either rendered as audio regions or transferred as editable crossfades) is preserved.

Audio Region Layering

- The Audio Layering feature lets you 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.
- What you see in the Audio Graphic Editor is always exactly what you will hear.
- Soundbite layering commands give you all the control you need to manage even the most complex multilayered tracks.

Drag And Drop Ease

- AudioDesk provides drag-and-drop consistency and ease throughout
- Add markers to identify SMPTE hit points — grab a marker from the marker well in the main tracks window and drop it right on the time ruler.
- Add a sound effect or other bit of audio by dragging it from the Soundbites list and dropping it in the main waveform display.
- Quickly build a playlist of audio regions by dropping them in an event list.

MOTU HARDWARE AT A GLANCE

	828MKII	896	HD192	2408mk3	24I/O
Analog Inputs (channels)	8	8	12	8	24
Analog Outputs (channels)	8	8	12	8	24
S/PDIF RCA (channels)	2	-	-	2	-
S/PDIF Optical (channels)	2	-	-	-	-
AES/EBU (channels)	-	2	2	-	-
Tascam TDIF (channels)	-	-	-	24	-
ADAT Lightpipe (channels)	8	8	-	24	-
Sampling Rates	44.1, 48, 88.2, 96K	44.1, 48, 88.2, 96K	44.1, 48, 88.2, 96, 176.4, 192K	44.1, 48, 88.2, 96K	44.1, 48, 88.2, 96K
Protocol	FireWire	FireWire	AudioWire	AudioWire	AudioWire
Rack Spaces	1U	2U	2U	1U	1U
Expandable	yes	yes	yes	yes	yes

AudioDesk is bundled free with all MOTU Audio Interfaces

MOTU

MIDI INTERFACES

MOTU manufactures a wide range of MIDI interfaces for both Mac and Windows compatible computers to meet the requirements of any MIDI Setup. Whether you are looking for a basic 2x2 interface or the ability to integrate video, hard disk and tape based recording systems, MOTU has got you covered. And now, MOTU's award-winning line of MIDI interfaces are available for those of you with USB equipped Macs and soon PC's. Featuring easy to use plug-n-play setup as well as hot swap capabilities that allow you to plug and unplug your interface even when your computer is turned on. For even greater flexibility, you can mix and match any interfaces and even use multiple interfaces connected to a standard USB hub. From the affordable FastLane to the top of the line MIDI Timepiece AV, MOTU has a USB interface for every application and price range.

FASTLANE USB

2x2 MIDI Interface for Mac & Windows

A professional MIDI interface for the home studio, FastLane installs in seconds and opens your computer to a world of music software. And FastLane's unique advantage: a MIDI thru button allows you to play to your gear even when your computer is turned off-without having to disconnect cables. No other USB interface offers this feature for this price.

FastLane takes full advantage of USB, giving you increased MIDI throughput, better timing accuracy, support for "hot-swapping" and plug-and-play expansion. Need to connect another sound module or synth? No problem. Just add another FastLane via a standard USB hub. Or mix and match FastLane with another multi-port USB interface. FastLane is specially engineered to operate with multiple USB devices, so your software will never lose contact with it, regardless of how many times you restart your computer or how many other USB devices you connect.

- Two 16 channel MIDI I/O ports provide 32 simultaneous channels of MIDI inputs and outputs for USB-equipped Mac and Windows 98/ME computers.
- USB allows hot swapping and plug-and-play expansion — add another FastLane to a standard USB hub or mix and match interfaces to suite your needs.
- Connects any MIDI (Musical Instrument Digital Interface) device, such as a synth or sampler, to the computer via USB.
- MIDI Thru button splits MIDI signals from each input to both outputs simultaneously allowing you to play a MIDI sound module from a MIDI keyboard or other controller even when the computer is turned off.
- Powered by its connection to USB — no power supply or batteries are needed.
- Four status LEDs indicate MIDI activity.
- Compatible with both FreeMIDI and OMS on the Mac
- Available in graphite, charcoal, indigo, red and sage
- Includes a USB cable and easy-to-install software drivers on CD-ROM.

MICRO LITE *5-in/5-out MIDI Interface*

The Micro Lite is a professional MIDI interface that provides portable, plug-and-play connectivity to any USB-equipped Mac or Windows computer. Features high-speed MIDI throughput, sub-millisecond timing accuracy, support for "hot-swapping" and plug-and-play expansion. And, powered by the USB port — no wall wart or AC plug required.

- Five MIDI inputs and outputs provide 80 MIDI channels. Add additional MIDI ports by plugging in another MOTU MIDI interface.
- Includes drivers for Mac OS9, Mac OS X and Windows

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POCKET EXPRESS

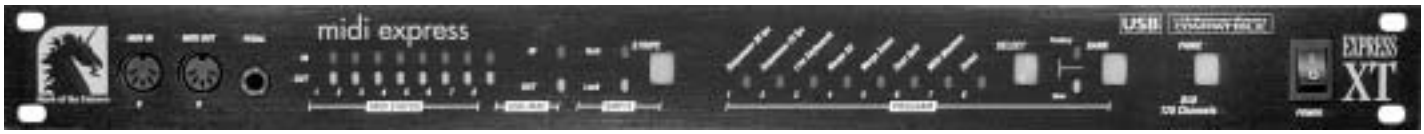
Single 2x4 MIDI/SMPTE Interface

This 2 in, 4 out 32-channel MIDI/SMPTE interface works with either your Macintosh or Windows computer at a great price. Installs in seconds and opens your computer to a world of music software. Fully independent, paired outputs provide 32 separate MIDI channels. And the Pocket Express's unique advantage in its price range: a computer bypass button allows you to play your MIDI gear even when the computer is turned off.

Compatible with all Mac and Windows MIDI software. Includes full SMPTE synchronization capabilities in all formats, including jam-sync for trouble-free synchronization. And another Pocket Express unique advantage at its price: front panel SMPTE controls for fast, convenient striping and lockup.

MIDI EXPRESS XT

8-in/8-out MIDI/SMPTE Interface/Patchbay/Merger



The MIDI Express XT USB is a multiport MIDI interface and SMPTE synchronizer for Mac and Windows. Featuring 128 channels, the Express XT is ideal for medium-sized MIDI setups and essential tasks such as MIDI sequencing, multimedia production, and sound management with patch/editor librarian software.

- 8 MIDI inputs and 9 MIDI outputs provide 128 MIDI channels via USB
- Sixteen convenient one-touch front-panel presets (8 factory and 8 user programmable) with memory backup for plug and play performance.
- Converts LTC to MIDI Time Code (MTC) allowing you to sync your computer or any other devices to SMPTE time code.
- Converts and stripes SMPTE in all formats (24, 25, 29.97 drop/non-drop, and 30 fps). SMPTE jam sync with adjustable freewheeling for drop-out free sync.
- Full support for MIDI Machine Control—serves as either an MMC master or slave; distributes transport commands to all other MMC devices.
- Pedal input for momentary foot switch or audio click-to-MIDI conversion.
- Internal power supply (no wall-warts)
- 8x8 MIDI merge matrix works as a standalone MIDI patchbay/merger processor. Bundled software console provides comprehensive routing, merging, and muting on your Mac or PC.

—Route any inputs to any outputs
—Merge any inputs to any outputs
—Mute any MIDI data on any cable
—Re-channelize on input and output
—Recalls setups via MIDI patch change

MICRO EXPRESS

4-in/6-out MIDI Interface w/Sync

The Micro Express is a mini version of the MIDI Express XT. It has all of the same features as the Express XT - except that it is smaller and even more affordable. The Micro Express is a half-rack unit with 4 inputs and 6 outputs for 96 MIDI channels.

MOTU

MIDI TIMEPIECE AV

8x8 MIDI Interface/Synchronizer/Patchbay/Merger

Combine MIDI with ADATs, ProTools, or video. The MIDI Timepiece AV takes the world-renowned MIDI Express XT and adds synchronization that you really need, like video genlock, ADAT sync, and word clock sync. Even Digidesign superclock! Slave ADATs, Digidesign hardware or word-clock compatible devices to SMTPE and video. Drive your ADATs from your sequencer without an Alesis BRC. Or control everything from an MMC controller like JL Cooper's CuePoint. The MTP AV pulls it all together for stable, centralized, hassle-free synchronization and MIDI networking. For Macintosh, Windows, and stand-alone setups.

The MTP AV is also an 8x8 merger and router. You can merge any combinations of the eight inputs simultaneously to any combination of the eight outputs. Because the MTP AV's internal memory can be programmed from the front panel, the MTP AV is the perfect choice for live performance applications where fast and flexible MIDI patching is essential. You can take the MTP AV on the road because it can operate with or without a computer. The MTP AV can be set to change scenes in response to patch changes, allowing remote control from any MIDI controller.

Takes full advantage of USB, giving you increased MIDI throughput, better timing accuracy, support for "hot-swapping" and plug-and-play expansion. Need to connect another sound module or synth? No problem. Just add another MIDI interface via a standard USB hub.

FEATURES

- 8 MIDI inputs, 8 MIDI outputs (128 MIDI channels)
- Networking offers up to 512 MIDI channels
- Support for Mac and Windows in one unit - it can even network Mac & PC to each other
- Video sync input - genlocks to video or blackburst
- ADAT sync output - drives ADATs without a BRC
- Word clock sync output
- Digidesign "superclock" output -drives Pro Tools
- MIDI Machine Control - controls everything, even ADATs, from an MMC sequencer or LRC
- Stripes frame-locked LTC onto video
- Syncs ADAT with Pro Tools
- Slaves ADAT, Pro Tools and your computer to video
- Provides 0.1% pullup/pulldown for digital audio with video

MIDI EXPRESS 128

8-in/8-out MIDI Interface

Built from the same technology found in MOTU's flagship MIDI Timepiece, the MIDI Express 128 is a professional MIDI interface that provides plug-and-play connectivity to any USB-equipped Mac or Windows computer. Taking full advantage of USB, MIDI Express 128 gives you high-speed MIDI throughput, sub-millisecond timing accuracy, support for "hot-swapping" and plug-and-play expansion. Need to connect another sound module or synth? No problem. Just add another MOTU USB MIDI interface via any available USB port.

- Eight independent MIDI inputs and outputs for a total of 128 MIDI channels.
- Expansion is simple. Add additional MIDI ports by plugging in another MOTU MIDI interface.
- Includes drivers for Mac OS9, Mac OS X and Windows Me/2000/XP.
- Bus-powered from USB connection. No additional power necessary, and no wall wart or AC plug.

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ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)

DIGITAL TIMEPIECE

Digital Synchronization Hub

The Digital Timepiece synchronizes digital audio equipment with knife-edge precision: MOTU 2408MK3, Digidesign ProTools systems (without a VSD or SDD), Alesis ADAT (without a BRC), Tascam DA-88 (without an SY-88 or RC-848), ADAT and DA-88 compatibles, SONY 9-pin video decks, word clock, S/PDIF DAT decks, Digidesign Audiomedia II & III, NTSC/PAL video (all formats), computer software and digital audio workstations - including support for SMPTE time code, VITC, MIDI Time Code and MIDI Machine Control.

Until now, phase-locked synchronization between these systems has been difficult or impossible. The Digital Timepiece is the first synchronizer to lock them all together with a stable, high-resolution time base - with no dithering, rounding, or software delays. Choose any one device as the master; all the rest slave precisely and reliably. And drive everything from a MMC controller, computer sequencer or digital audio workstation.

FEATURES

- Universal synchronizer for SMPTE, digital audio, and video systems
- Supplies all components necessary for accurate, stable synchronization: address (SMPTE time code location and audio sample number), time base (word clock), and machine control (transport and cueing)
- Choose any source as the time base master, and the Digital Timepiece continuously and simultaneously generates all other synchronization formats to drive all connected devices in perfect phase lock
- Sample accurate phase-lock during playback for all word clock devices, including ProTools
- Sample accurate locating for all devices that support it, including ADATs, DA-88s and ADAT/DA-88 compatibles
- Front panel selection of any time base includes ADAT, DA-88, MTC, SMPTE (LTC), Video (VITC), word clock (1x), Digidesign "superclock" (Word Word 256x), S/PDIF, Control Track, or Internal
- Generates extremely stable, high-resolution time base with custom-designed VLSI technology and a proprietary high-frequency phase engine
- Fast lock-up time
- No dithering, rounding, or software delays for pristine sound
- Eliminates the need for expensive synchronization add-on equipment, such as the Digidesign SMPTE Slave Driver, Video Slave Driver, Alesis BRC, Tascam SY-88 card, and more
- Supports MIDI Machine Control - serves as either an MMC master or slave, distributes MMC transport commands from a sequencer, or any MMC transport controller to all other devices, including SONY 9-pin VCRs, ADAT and DA-88
- Proprietary control track sync format provides address, time base, and machine control - allows multiple DTP's to be synchronized together, also allows support for future devices
- 44.1 or 48 kHz samples rates with 0.1% pull-up

Video Features

- Supports SONY 9-pin
- Video sync generator
- Reads and writes VITC
- SMPTE burn-in and status display
- Sequencer-triggered streamers with full-screen punch
- 0.1% pull-up/pull-down at either 44.1 or 48 KHz for drop-frame conversion

Supported Devices

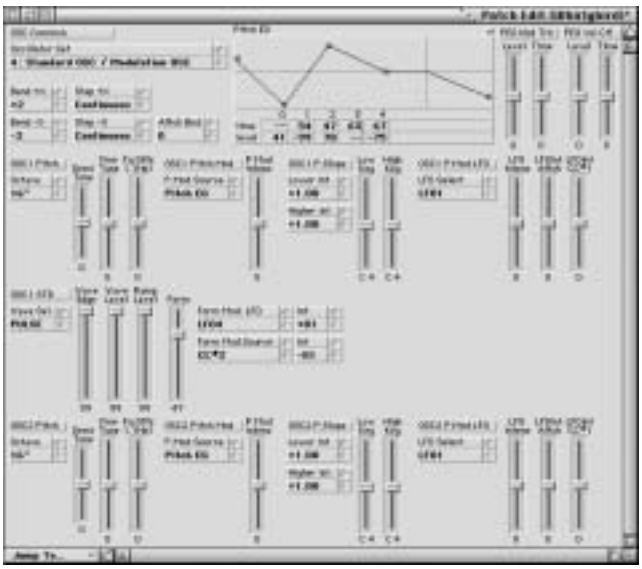
- Alesis ADAT or any other ADAT-sync compatible device (without Alesis BRC)
- Tascam DA-88 and DA-38 (without an SY-88 sync card or RC-848 controller)
- Digidesign hard disk recording systems such as Pro Tools III and Pro Tools Project (without a SMPTE Slave Driver or Video Slave Driver)
- Any digital audio recording system that can slave to (and, optionally, generate) standard word clock
- S/PDIF-compatible audio devices, such as DAT decks and hard disk recording cards like Digidesign's Audiomedia III - includes S/PDIF thru button on front panel.
- SONY 9-pin compatible video decks
- MIDI Machine Control (MMC) devices
- Computer software or any hardware system that can slave (or generate) SMPTE Time Code (LTC or VITC in all formats, including 29.97 drop and non-drop)
- Video (VITC and Video Black)
- Any devices that slave to (or generate) MIDI Time Code (MTC)

MOTU

UNISYN

MIDI Device Editor/Librarian

The industry's most popular editor/librarian, Unisyn provides the most comprehensive sound management features available on the Macintosh and Windows, including seamless integration with Performer. You can modify a sound in Unisyn using graphic envelope controls and faders, while getting instant feedback within the context of your music as Performer plays the sequence. Generate entire banks of new sounds with a click of the mouse using Blend, Randomize, and Copy/Paste Parameter features. Unisyn can even share bank names with Performer and other FreeMIDI-compatible software for accurate pop-up sound lists. Unisyn can 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". Frustrated because you can't recreate the settings in your gear for last month's project? Unisyn can do it with a few clicks of the mouse.



FEATURES

- Includes over 40 new devices such as the Korg Triton series, Proteus 2000/2500, Waldorf synths and Roland modules like the powerful XV-5080.
- Digital Performer users will feel right at home with Unisyn's new interface. Editors have been updated to provide a clearer, more easy to use layout of parameters.
- Unlimited undo allows you to concentrate on your editing, not on the software.
- Intelligently manages removable media
- Nearly everything is remembered between sessions. You automatically pickup right where you left off.
- 26 window sets provide a quick and flexible way to manage window layouts.
- Maintains links from parent files (for example, performances) with their associated 'children' (for example, patches) to make managing your data a breeze.
- 'Compare' feature displays which parameters have changed and what the different values are. Compare is "live," keeping track of your changes as you edit a patch.
- Most profiles use a modular bank upload/download system - which speeds up your workflow by only downloading the data that is required.
- Existing profiles have been updated to take advantage of Unisyn improvements such as parent/child relationships, card/cartridge management and hierarchical patch editor structure.
- Unisyn's blend & mingle and randomize features are combined into a full-blown patch generator that generates hundreds of patches at the click of a button (unrestricted by the bank size of the device)
- Snapshots group together all the individual elements that used by your devices so everything can be restored perfectly, even if your MIDI setup changes. All the required data resides inside a snapshot.
- Improved pasting options allow you to paste sections or groups of data from one patch to another to greatly speed sound design.
- All-purpose documents (formerly known as libraries) can contain a mixed combination of patches, banks and snapshots, consisting of any type of data. The number of items in the document is unlimited.
- Unisyn allows you to assign any number of keywords to a patch so you can locate patches quickly and easily.

FreeMIDI

FreeMIDI is a complete MIDI operating system for Macintosh. It ships free and is automatically installed with all MOTU audio software products. FreeMIDI is also supported by many third party developers. (FreeMIDI developer kits can be downloaded from MOTU's website).

FreeMIDI automatically detects what type of MIDI interface is connected to the Mac's serial or USB ports, automatically detects what MIDI devices are connected to interface (it "knows" over 200 types of devices), and provides a graphical representation of their MIDI studio.

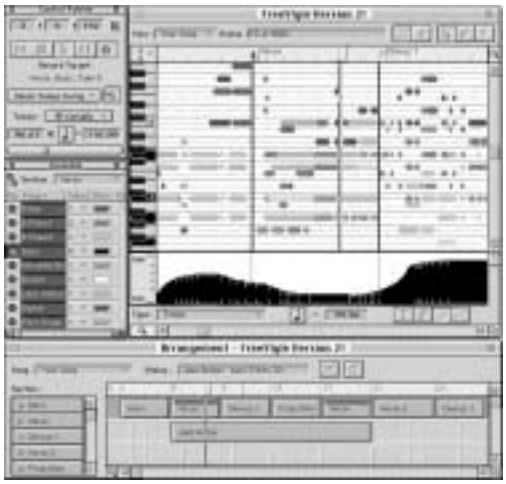
FreeMIDI also provides pop-up sound lists for over 100 popular MIDI synthesizers-as well as generic support for any General MIDI device. It even includes advanced features such as inter-application communication and multiple application real-time synchronization.

MOTU

FREESTYLE

Trackless Sequencing and Instant Notation Printing Software

A trackless sequencer with instant music notation, Freestyle is powerful, yet easy to use so you have the freedom to concentrate on what is most important—your music. Create compositions intuitively using ensembles, players, takes and arrangements. Get inspired with FreeStyle's dozens of drum riffs. Notate your performances as you play. See your music on screen exactly as it will print. Get started quickly with built-in support for dozens of popular MIDI instruments, including any General MIDI device. FreeStyle provides both tape recorder and drum machine style composing.



FEATURES

- Event List window displays any type of MIDI data, from notes to system exclusive data to Registered and Non-Registered Parameter Numbers. Show or hide any combination of MIDI data; Edit any data parameter numerically; Scrub over the list of data with the playback wiper; Fly through consecutive edits with the arrow keys.
- Sense Tempo feature lets you sit down in front of your keyboard and just start playing. No robotic metronome clicks. No countoff. Just you and your inspiration. FreeStyle records your every nuance - both the notes you play and the tempos at which you play them - at the highest resolution available today in any sequencer.
- FreeStyle also has a host of beat adjustment features to produce optimum transcription and musical editing

—With the Identify Beats feature, just click on notes that occur on downbeats in the graphic editor or notation window.

—Adjust Beats feature lets you drag barlines and beats in FreeStyle's graphic editor to match the notes below, scrubbing the music as you drag so you can easily zero in on the correct downbeat.

—With Record Beats you can simply tap along with your rubato performance to tell FreeStyle where the beats are.

— After using any combination of these beat adjustment features, you can choose to listen to your music with its original tempo and feel, or you can temporarily switch to "Constant" tempo mode to hear it at a perfectly straight tempo.

- Change meter and key signature anywhere in your music. If you're in a hurry, just click on a barline to insert a meter or key change there. If you want to map out a whole section, use the Change Meter or Change Key windows.
- Draw, record and edit as many tempo changes as you like
- Add, duplicate, name and delete as many different tempo maps as you want for a section - lets you freely experiment with different tempos
- "% Variable" tempo mode: Speed up and slow down your music with the tempo slider, even if it already has an elaborate tempo map
- Create tempo changes by moving the tempo slider
- Assign more than one sound to a player - even from different MIDI instruments
- Override FreeStyle's dynamic channel assignment feature for complete control over your MIDI gear
- Support for QuickTime Musical Instruments allows you to play music on your Mac without a MIDI instrument
- MIDI Monitor window tells you what's going on with your MIDI gear - and with FreeStyle's MIDI output - at one glance
- Visual Step Record lets you rapidly enter and visually verify note data
- Choose Notes command lets you select and deselect notes based on their location, pitch, duration and velocity
- Name-able takes helps you keep track of multiple takes for a player
- Note spelling algorithms give you improved automated transcription so you spend less time fiddling with accidentals, while manual note spelling adjustment gives you complete control over note spellings
- Score transposition–display a player in any key you wish in your scores
- Recording transposition–choose any transposition you wish while recording a player– play in any key and have FreeStyle transpose what you play on the fly
- Tweak Notes (velocity, duration, scaling) feature lets you make notes longer, shorter, louder, faster - and other effects - in one convenient step, while the music plays
- Duplicate Take command copies the entire contents of a take in one easy step
- Switch Staff command moves notes from one staff to another on a grand staff in one easy step
- Change a player's sound in mid-performance - even to an entirely different MIDI instrument
- Expanded MIDI file support—reads and writes Type 0 and Type 1 MIDI files
- SMPTE synchronization lets you slave FreeStyle to your tape deck and record vocals and other audio tracks in perfect sync. Or lock FreeStyle to film or video. All frame rates are supported. FreeStyle also transmits MIDI Time Code (MTC), which allows you to synchronize it with popular hard disk recorders

MOTU

MACHFIVE

Universal Sampler Plug-In

A universal sampler plug-in for Mac and Windows, MachFive supports all major plug-in formats on both platforms (MAS, VST, RTAS, HTDM, Audio Units and DXi) and imports all major audio file, sample and soundbank formats including AKAI, Kurzweil, Roland, EMU, SampleCell, GIGA, EXS24, HALion, Creamware, WAV, ACID, AIFF, SDII, REX and more. MachFive also offers many advanced sampling features, including support for 192kHz and the ability to import and playback multi-channel samples in surround.

MachFive operates inside application such as Digital Performer, Pro Tools, Logic Audio, Cubase, Sonar and virtually any major application for Mac and Windows. This allows MachFive to be employed as a flexible, state-of-the-art sound source directly within their projects and then save all MachFive settings with the project for instant and total recall. Since all MachFive settings are saved with their host application session, you enjoy the highest degree of convenience and speed because there is no separate application or associated documents to manage.

FEATURES

As a plug-in, MachFive displays all editing and performance parameters in one window, showing users everything in one glance, without the need to flip through different pages or dig through menus.

With unprecedented compatibility and inter-operability, MachFive is a truly universal software sampler. It supports every major production platform on Mac and Windows (MAS, VST, Audio Units, HTDM, RTAS and DXi), so you can effortlessly move from one platform to another —or collaborate with those who use different audio software.

For example, a user might compose and track a project in Digital Performer or Logic and then move to Pro Tools for mixing. The user would simply save a MachFive performance (a snapshot of all MachFive settings) in DP or Logic and then load it into MachFive running in Pro Tools. All settings are exactly preserved, and MachFive is ready to go.

Compatible with all Sample Libraries

- MachFive includes UVI-Xtract, an import utility that allows users to audition and load programs and samples from every major sampler format, including Akai, Roland, Kurzweil, SampleCell, HALion, EXS24, Gigasampler and others.
- UVI-Extract even allows users to insert sample content CD-ROMs from Roland, EMU, AKAI and other formats into their computer — discs that otherwise cannot be mounted on their computer desktop — and then convert programs (or even the entire disc) in just a few clicks.
- MachFive helps users consolidate their current sound libraries into a unified MachFive library, instantly accessible from within their host application.

Flexible Multi-Timbral Performance

- Open as many MachFive plug-ins as the host CPU permits. Each plug-in instance of MachFive provides 16 parts (separate instruments). Each part has its own unique audio output assignment, volume, pan, etc. Each part can receive MIDI data from any channel and send its output to unique audio outputs (depending on the host audio software).
- Simple stacks can be created by assigning two or more parts to the same MIDI channel. However, MachFive also provides Expert Mode, which lets you create complex layers and splits that can be dynamically triggered and modified on the fly. Expert Mode was designed for demanding live performance situations.

MachFive

Intelligent File Management

The most critical feature users need from a sampler is easy access to their sounds. MachFive offers unprecedented sound bank management, helping users concentrate on their music — not file handling chores on their hard disk. MachFive always remembers where sounds are located, and it has been optimized for browsing and loading libraries. Even multi-gigabyte libraries are quickly and efficiently scanned.

Powerful Synthesis Engine

The central section of the MachFive window shows the filter, three envelopes and every modulation tool. Six filter algorithms are provided and everything can be controlled and automated by MIDI. Modulation options are provided at every stage of the synth section. The award-winning UVI-Engine that powers MachFive delivers unlimited polyphony and ultra-low latency.

Multichannel Waveform Editor

MachFive accepts audio samples in all formats from mono to 5.1 surround. The waveform display allows truncating, normalizing, fading and many other destructive DSP audio manipulations — all in real time. Users can even set the crossfade of a loop in real time while listening to their full mix.

24-bit 192kHz Audio

MachFive takes advantage of high definition audio interfaces like the MOTU HD192, allowing users to build their sound libraries at any sample rate up to 192kHz. MachFive also provides on-the-fly downsampling, allowing users to build a high-resolution sample library and use it at any sample rate that their current project calls for, without the need for lengthy sample rate conversion operations.

Surround-capable Sampler

MachFive is a true surround sampler. Users can play and transpose 5.1 audio files in real time, add multi-channel effects and route multi-channel presets to their host software's mixer with multiple outputs (if the host software supports these surround features).

Drag & Drop Import of Samples

Users can simply drag samples from their computer desktop or host application to the MachFive keyboard. Users can even drag multiple samples in one step to map into layers or splits, chromatically, on white keys only, according to their name, or even according to their pitch, which MachFive can determine automatically. Users can also audition samples when importing them, listening to each note as they stretch the sample over a range of keys.

Integrated Multi-Effects

Each multi-timbral part can have up to four unique effects, for up to 64 effects per performance with instant recall, including reverb, tempo-synced delay, tremolo, chorus (and other modulation effects), filter, BitCrusher, and others. All effects settings are saved for total recall. Users can also save effects with each preset for permanent storage in their sound library. The effect section allows users to leave a part's effects in place while they audition other parts.

Analyze and Tune

MachFive is a one-stop sound design factory, with tools such as a graphic spectrum analyzer and a built-in tuner with graphic display. When importing samples, you can even ask it to analyze the sample, determine its pitch and assign it to the appropriate keymap pitch.

Modulation and Tempo Sync

Four LFOs are available per preset: two that can be applied across a preset's entire keygroup, plus two additional LFOs that can be applied individually to each sample. Each LFO can be routed to an assortment of destinations including filter frequency, filter resonance, drive, pitch, pan and amplitude. MachFive can sync both the LFO and effects parameters to sequence tempo.

MachFive Specifications

Compatible Audio Formats	
AIFF:	mono, interleaved (2, 4, 6 channels)
AIFF:	Separate files: 2 (stereo), 4 (quad), and 6 (5.1) channels
SDII:	mono, stereo interleaved
SDII:	Separate files: 2 (stereo), 4 (quad) and 6 (5.1) channels
WAVE:	mono, stereo interleaved
WAVE:	Separate files: 2 (stereo), 4 (quad) and 6 (5.1) channels

Soundbank Import Formats
Akai S1000 / S3000
Akai S5000 / S6000
Akai MPC2000 / MPC3000
Roland S7xx
EMU III / ESI / IV / EOS
Tascam GigaSampler/GigaStudio
Emagic EXS24
Digidesign SampleCell
Creamware Pulsar STS

Sample Import Formats
Kurzweil K2xxx
Akai MPC .snd
Creamware Pulsar .s
WAV/ACID
AIFF
SDII
REX

Channel Formats
mono to stereo
mono to quad
mono to 5.1
stereo
stereo to quad
stereo to 5.1
quad to 5.1

Plug-in Formats
MAS, VST (Mac & PC), RTAS, HTDM, Audio Units, DXi

STEINBERG

CUBASE SL • CUBASE SX

Professional Music Creation and Production Software

The Cubase legacy continues with Cubase SL and Cubase SX — the most advanced and powerful versions of Steinberg's renowned Virtual Recording Studio software to date. Designed from the ground up to take advantage of the latest breakthroughs in processor and operation systems technologies including WindowsXP and Mac OSX, both Cubase SL and Cubase SX provide the potential for recording and playing back an unlimited number audio tracks (up to 96kHz) and MIDI tracks and feature a comprehensive suite of advanced editing facilities, realtime effects, mixing and automation facilities. Both applications support realtime VST 2.0 effects plug-ins and virtual instruments, and low-latency, multi-channel ASIO 2.0 compatible audio hardware allowing you to outfit your computer-based recording studio to suits your specific requirements. VST System Link functionality allows several computers to be linked together and actually perform as one fully integrated system. Cubase SX adds comprehensive 5.1 surround sound support, complete score layout features and a wider range of automation modes.

THEY BOTH FEATURE

Audio

- Native audio – no expensive additional outboard equipment is required to record and playback audio. Plus ASIO soundcard support for low latencies.
- Up to 200 or more simultaneous playback of Audio Channels (cpu dependent)
- Recording multiple channels of audio simultaneously.
- Support for 16-Bit, 24-Bit and 32-Bit float audio files at sample rates of 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz.
- Record of AIFF, WAVE and Broadcast WAVE files, (Sound Designer II for Mac)
- Non-destructive Part Editor
- Destructive rendering of virtual effect processors into parts from the Project Window (with process history).
- Very quick and efficient parts bouncing
- Simple 'Drag-and-Drop' functionality means allows objects to be moved quickly, not just within projects, but also between multiple projects.

Mixing and Automation

- Adaptive and configurable track mixer selectable (wide/narrow) views.
- Up to 64 Group Channels with access to the same audio effects and EQ as normal audio tracks.
- Sample accurate automation with automation tracks for every audio, group track and plug-in.

VST Effects and Instruments

- Includes a wide range range of professional real-time VST effects and (VSTi) virtual instruments.
- Supports virtual instruments with multiple outputs (VST 2.0 standard)

Sample Editing

- Destructive Sample Editor with offline process history.
- Sample accurate zoom and in-place editing of audio directly in the Project window.
- Automatic tempo matching of audio loops with integrated Slice and Stretch functions.

MIDI

- Unlimited MIDI tracks and multiple MIDI recording modes: Cycle, Mix, Overdub, Step, Punch.
- Sample-accurate timing for MIDI-events. For ease of use the displayed musical resolution is set to 480ppq. If you need a higher resolution for your editing needs you can simply switch to sample resolution.
- A wide range of MIDI editors are provided including: Key (piano keyboard); Drum; Event List; SysEx and Logical. Cubase SX adds professional Score editing.
- Supports high-precision MIDI timing when using an LTB compatible MIDI interface such as Steinberg's Midex 8.
- A Tempo Track allows you to control song tempo using a graphic editing interface.
- Sends MIDI clock and send/receive MIDI timecode (MTC).
- Extensive control surface support including Steinberg's own Houston, Mackie Control, Yamaha Digital Mixers, Radikal Technologies SAC-2.2 and more.

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CUBASE SL • CUBASE SX

The Project Window

The Project Window – provides an overview of the entire project area and allows real-time recording, playback placement, editing and automation of audio and MIDI. You can move, nudge, fade in, fade out, change volume, or crossfade parts directly from the Project Window with great ease and efficiency.

Point and click on these icons to access the five most common editing windows within a project – the inspector pane, project overview, object parameter list, audio pool window and project console window

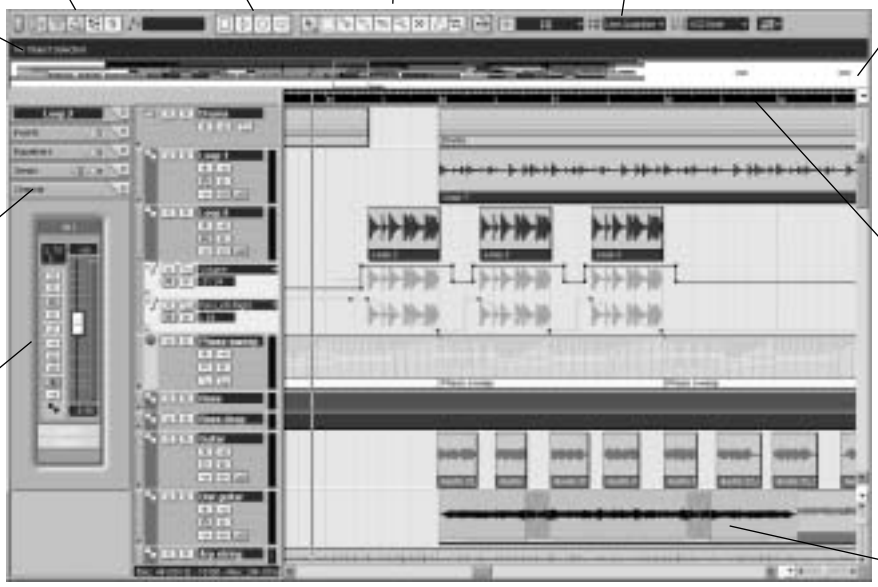
These tools allow you to edit and arrange single or multiple objects within the project window:
- *The Arrow Tool – Sizing, Time Stretch, Sizing Moves content*
- *Range Tool (both A and B selection)*
- *The Pencil Tool lets you draw controller and automation data (freehand or grid based) using 5 Modes – Draw, Line, Sine, Triangle, Square*
- *Scrub Tool has 2 Modes – tape-style Scrub and position Play*
- *Other tools include – • Glue Tool • Erase Tool • Magnifier Tool • Mute Tool*

Project Overview
Provides quick and easy access to any location within the project window – the smart cursor allows you to click and drag on the bottom of the overview to navigate to the specific area of the project you want to access or click and drag at the top of the overview to zoom select a new zoom value of the project window.

The most common Transport Controls – stop, play, record and loop

The Grid and Quantize is adjustable down to single sample resolution
There are 5 Grid modes to choose from – Grid, Event, Magnetic, Cursor and Shuffle

All Event based information such as Part Name, Start and End Points, Length, Offset, Snap, Volume and Fade-info is shown within the object parameter 'Infoline'.



Track Inspector
Provides instant access to any parameter of the currently selected audio or MIDI track.

Timeline Ruler
Option Positions and lengths displayed as:
Bars+Beats – Bars|beats|sixteenth notes and ticks (120 per 1/16 note)
Seconds – Hours, minutes, seconds and milliseconds
SMPTE Frame (Hours, minutes, seconds & frames) – 24, 25, 29.97, 30 fps as well as 29.97 and 30 dfps
Samples – Samples

Each component of a channel's mixer is displayed as a folder that can be expanded to reveal that components parameters – add insert-effects, adjust aux sends, pan and volume and more, without calling up the mixer

Non-destructive, editable crossfades

Supported Audio Formats

- Import of AIFF, AIFC, WAVE, Broadcast WAVE, WMA, MP3, REX files as well as SDII on Mac.
- Export audio to MP3, RealAudio G2, AIFF, Broadcast Wave and WAVE, as well as Windows Media Audio and Real Audio V5 on PC and SDII on Mac.
- Import/export files with sample rates of up to 96kHz depending on format.

Supported Video Formats

- MOV, QT, AVI, MPG, MPEG

Video Functions

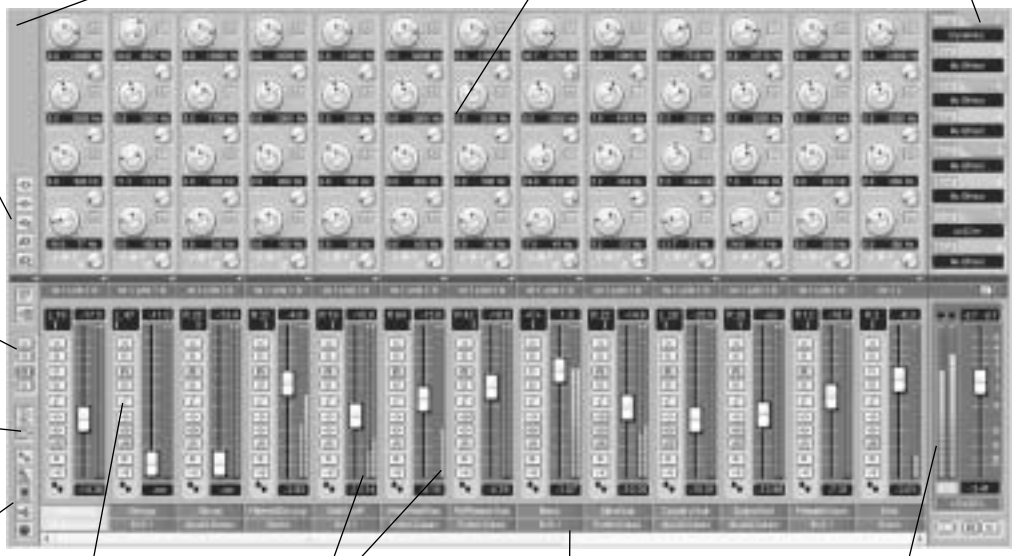
As working in sync with the picture is an essential demand for film scoring, Cubase does not only allow playback of video files within a video window, it also provides you with a thumbnail video track for fast and easy composing to the picture and placing musical events at takes and frames.

Unlimited Undo/Redo with Offline Process History

Off-line processing of individual audio files allows effects to be 'stamped' onto them layer after layer. The off-line process history, allows you to jump back to any individual process such as the reverb and edit it, remove it or replace it with another effect.

CUBASE SL • CUBASE SX *continued*

Mixer Channels



EQ, Insert, Aux sections of Channel strip can be bypassed fast and individually

Each channel within the mixer has 4-bands of parametric EQ, 8 insert points for plug-in effects and 8 aux sends

The Master Section features 8 insert slots plus dithering using Apogee's UV-22 HR algorithm

The extended view adds a top zone to the standard size mixer that adds an upper zone where you can switch between views for EQ and aux-send or insert effects per channel or globally.

Global Solo/Mute and automation Read/Write buttons

Complete channel setups can be copied and pasted between channels or even saved to disk and loaded into new projects – a great way to create a custom library of multiple effects or virtual instruments with effects.

Select the type of channels you want to view in the mixing console – audio, group, virtual instrument, ReWire and MIDI channels

Click the Edit button to open the Channel Settings window (detailed below)

Mixer channels can be switched between mono or stereo

Any combination of mixer channels can be freely grouped or sent to one (or more) of up to 64 sub group channels.

The response time of the meters is adjustable (fast/slow/hold)

Channel Settings Window

4-band fully parametric EQ with variable frequency (20 to 20k Hz), gain (±24db) and Q per band–
Bands 1 and 4 are switchable between Shelf, HPF, LPF and Bell
Bands 2 and 3 has a Bell curve

These 8 Aux Sends can be routed to the FX rack, Groups or Bus outs.

Pan control

Mute/Solo

Read/Write Automation

Ultra-smooth volume faders with 15-bit resolution and 2 decimal precision

Up to 8 effects inserts are available for each audio channel

Save and load EQ presets

Hardware Control Surface Support

- Of course, Cubase is fully compatible with Steinberg's Houston controller surface which allows you to grab hold of the virtual world of Cubase with physical knobs, buttons and faders.
- Features such as transport control, scrub, fast forward, rewind, track muting, track arming, control over plug-in parameters and full moving-fader control over your mix are just a few of the possibilities.
- A wide number of 3rd Party remote controllers are supported including devices made by Mackie, JL Cooper, CM Automation, Radikal Technologies, Roland, Tascam, and Yamaha.

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AT 349 W. 34th STREET (with purchase of $100 or more)

CUBASE SL • CUBASE SX *continued*

VST Realtime Effects Processors

- Steinberg's Virtual Studio Technology (VST) interface allows the seamless integration of virtual effect processors and instruments into your digital audio environment. These processors run the gamut from software emulations of classic hardware effect units and instruments to never-heard-before creative processors. All functions of a VST effect processor or instrument are directly controllable and automatable.
- A complete suite of Steinberg VST effect processors is included with Cubase SL and SX and because VST is an open standard, new virtual effect processors and virtual instruments are constantly being developed by Steinberg as well as numerous third party companies including Antares, Waves, Waldorf, Native Instruments, IK Multimedia and many more.
- DirextX plug-in support is also available on the PC

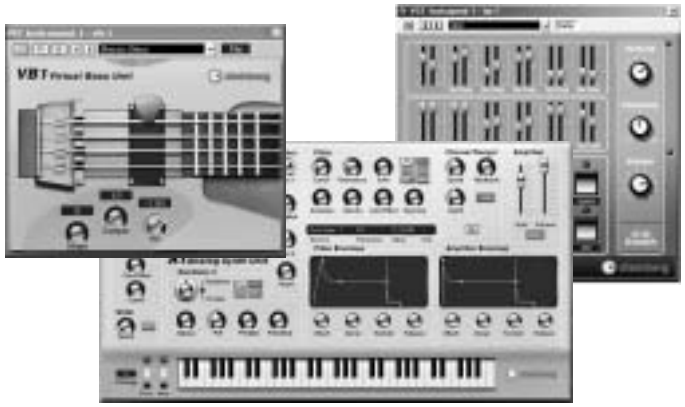
Included VST Effects Processors

Multitap Delay	Flanger	Reverb
Classic Delay	Phaser	Reverb 32
Dynamics	Rotary	Vocoder
DeEsser by SPL	Chorus	Phatsync
Overdrive	Metalizer	Bitcrusher
QuadraFuzz	Transformer	Ring modulation
Chopper	Grungalizer	SMPTE Generator
datube	Symphonic	6 to 2 Mixer

VSTi (VST Instruments)

- VST Instruments are software synthesizers and sampler that are loaded into Cubase just like standard VST plugins.
- VST instruments can be triggered via MIDI, just like their hardware counterparts, and their audio outputs appear on separate channels in the Mixer, allowing you to add effects or EQ, just as with audio tracks.

Included VST Instruments



- Three VST instruments are included and numerous others can be purchased separately from Steinberg and third party manufacturers.
  A1 – Analog Synthesizer Unit developed by Waldorf
  VB1 – Bass Emulation Unit
  LM7 – 24- Bit Drum Sampler Unit

MIDI Plug-in Effects

- A number of realtime MIDI effect plug-ins are included for transforming and generating MIDI events in a variety of ways.
- MIDI effects can be applied in real time to the MIDI data played back from the track or can be inserted while playing live on your MIDI keyboard - an inspiring performance tool
- Just like any other parameter in the Cubase mixer, MIDI plug-ins can also be fully automated.
- MIDI Plug-ins Effects Include: Arpache (Arpeggiator), AutoPan, Chorder (create chords from single keys), MIDI Echo, Microtuner, Quantize, Step Designer (step sequencer), MIDI Compressor, and many more.

ReWire 2.0 Support

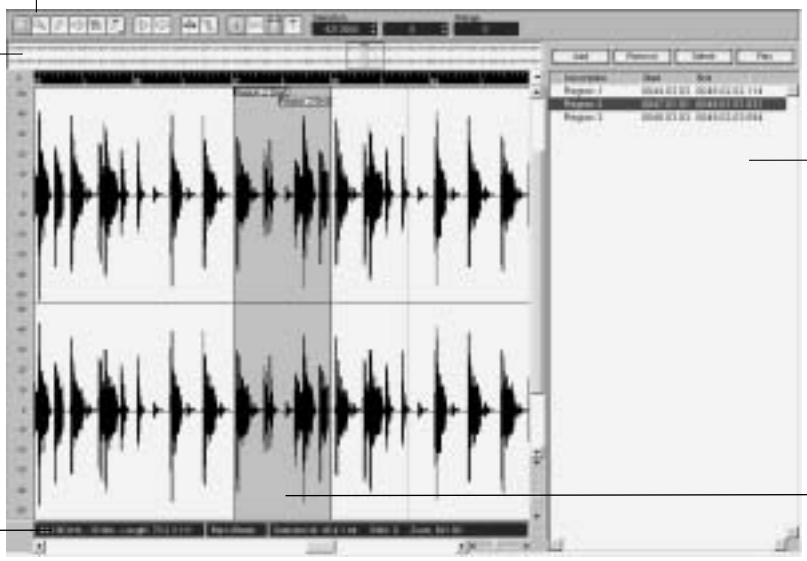
Stream up to 64 audio channels between ReWire compatible applications, such as Propellerhead's Reason and Rebirth, and Cubase with sample accurate synchronization. Audio outputs from the ReWire compatible application are connected via Rewire to the VST mixer, allowing VST Effects, EQ and Dynamics to be applied in real time. MIDI-streaming between applications — the ReWire application shows up in Cubase as a MIDI out port, ready to trigger. Use Cubase to control the ReWire apps transports.

Sample Editor

Even though you can do most of your editing directly within the Project window, an integrated Sample Editor is included for editing mono and stereo audio files. The Sample Editor allows viewing and manipulating of audio data at the Audio Clip level. Functions such as cutting and pasting, removing or drawing audio data is fully "non-destructive", in the sense that you can undo changes or revert to the original versions at any point, using the Offline Process History. Any audio clip can be permanently edited and changed with full backup, plus multi-level undo and redo. A number of integrated non-destructive audio processes are provided for optimizing and even resynthesizing audio files: Acoustic Stamp, Crossfade, Envelope, Fade-Ins and Outs, Gain Change, Normalize, Phase Reverse, Pitch Shift and Timestretch, DC Offset removal, Reverse and Stereo Flip.

Sample Editor tools include: the selection tool for creating regions within an audio clip; the magnifier tool; The Pencil tool allows you to to manually edit out a spike or click; and the Scrub tool which allows you to locate positions in the audio by playing forwards or backwards at any speed.

The Thumbnail display provides an overview of the whole Clip.



All regions created from an audio clip are shown with their name, start and end positions in the Regions List display. You can audition regions and drag and drop them directly from this list into the Project window.

Regions can also be exported as audio files

The Info Line shows all relevant information about the edited Audio Clip.

Regions allow you to define important sections within an Audio Clip. Regions can be dragged into the Project window from the Editor or the Pool.

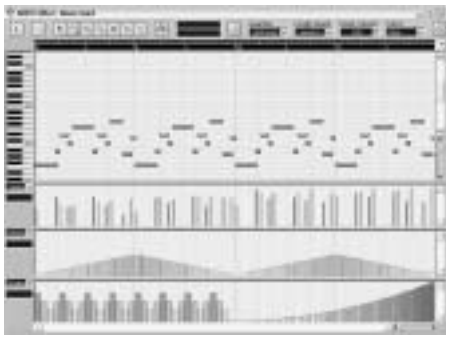
THE LOOP EDITOR

- The Loop Editor allows you to automatically match the of an audio phrase or loop to your song's tempo by applying time compression and expansion to short audio-segments contained with the audio file.
- Audio segments can be created automatically or by manually — the phrase or loop is analyzed and then segments are generated using the audio file's transients as markers.
- You can then make tempo changes to your song in real-time and your audio playback will follow.
- Use odd meters and loops of unlimited length when mixing.
- You can combine a number of loops with different feels and tempi and conform them to your song's tempo.
- Match the groove of MIDI tracks to looped audio or vice versa. Quantize the groove of looped audio.
- Re-arrange grooves by exchanging single samples inside your loop.
- The Loop Editor is also provides an easy auto cutting and match quantizing of single words from vocals takes.

CUBASE SL • CUBASE SX *continued*

MIDI Editing

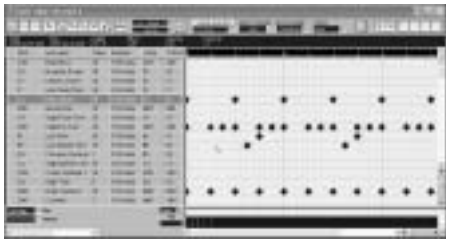
Key Editor



- The Key Editor / Piano-roll Editor features many standard functions for manipulating MIDI note and event data. You can Draw, Move, Copy, Delete, Mute, re-Size, Transpose and change Velocity for note-events.
- The Multi-Lane Controller Editing functions allow simultaneous editing of various controller data sets at the same time.
- The Mathematical Curve Function (such as parabola, sine, triangle, square) allows you to draw precise Controller data curves quickly and easily.
- Step Recording allows recording events off-line by inputting notes via MIDI-in at the start position and automatically stepping these to the next Grid point (e.g. 1/16th). This allows the easy creation of musical lines that are difficult or impossible to play.

Drum Editor

- The Drum Editor features standard editing functions (Draw, Move, Copy, Delete, Mute, Size, Transpose note-events, Velocity and Controllers) as well as Drum Map support allows you to assign sound names (eg. kick, snare) to notes.
- Each sound or notepitch can have its own settings for Quantize, Output and Channel.
- The Drum Editor also provides access to the same Multi Lane Controller Editing, Mathematical Curve and Step Recording functions found in the Key editor.

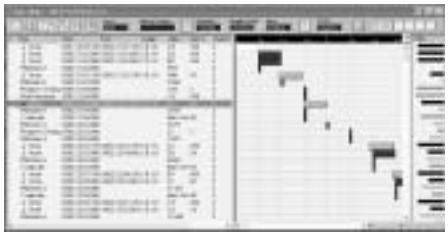


Logical Editor

- The Logical Editor allows you to find certain MIDI events, based on defined criteria and conditions. You can then manage and edit this data using the list of available actions.
- Applications range from simple MIDI event filtering to complex tasks such as changing the scale of a piece of music from minor to arabian.

List Editor

- The List Editor allows all data (MIDI, Audio events, Automation, etc.) to be edited numerically.
- It provides an overview of the whole project so that you can easily browse through all of the project's tracks. This allows very precise control when adjusting the 'fine detail' like sample-accurate positioning of multiple data types.
- The event display shows the events graphically while the value display shows the "value" of each event, allowing for easy viewing and graphical editing.
- The information available in the List Editor Includes: Event Type; Start and End position; Length; Data 1 and Data 2 (eg. pitch and modulation); Channel and Comment.
- Single and multiple events can be muted and unmuted using the dedicated Mute Tool.



Steinberg Technology

ASIO

- ASIO (Audio Stream Input/Output) is a high performance, low latency audio driver architecture that forms the backbone of Steinberg's Virtual Studio Technology. ASIO was developed to deliver a truly professional audio recording solution — one that supports variable bit depths and sample rates, multi-channel I/O and synchronization — all within a native computer environment.
- ASIO is a supported standard by many leading audio hardware manufacturers including MOTU, M-Audio, Tascam, Edirol, Steinberg and many more.

VST System Link

- VST System Link is a platform independent communication protocol that provides sample accurate networking of several computers running VST System Link-compatible host applications including Cubase SX, Cubase SL and Nuendo. It enables synchronization, transport control and audio data between two or more workstations over standard digital audio cabling systems such as ADAT, TDIF, AES/EBU or S/PDIF.
- Expandability, Flexibility and connectivity for your virtual studio — exploit the DSP resources of multiple computers within a single project.

Accurate MIDI Timing with LTB

- LTB (Linear Time Base) is a multi-channel communication protocol which offers sub-millisecond MIDI timing accuracy.
- LTB is a MIDI Time Stamping technique that bypasses the computer's operating system and thus significantly reduces latency.
- LTB is utilized by the MIDEX series of hardware MIDI USB interfaces to offer the lowest latency of any MIDI interface available.
- Supported by Cubase SL and SX as well as Nuendo.

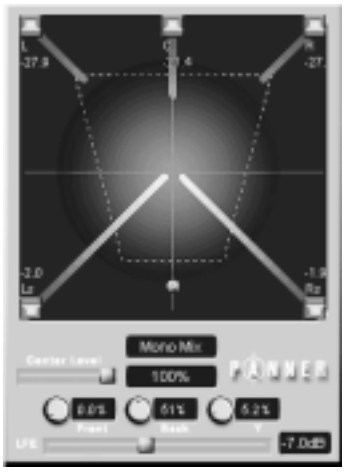
CUBASE SL • CUBASE SX *continued*

Cubase SX Adds-

TrueTape Recording Technology Tape Saturation

- TrueTape is a unique Steinberg technology that emulates the behavior of a professional analog tape recorder.
- While digital audio recording has a number of benefits, some may perceive digital sound to be somewhat "sterile" and "cold" compared to high quality analog recordings. The TrueTape algorithm remedies this by recreating the desirable warmth and compression sounds of analog tape saturation at the recording stage using Cubase's high resolution 32-bit floating point format.
- The Drive control allows you to adjust the amount of tape saturation effect to your liking.

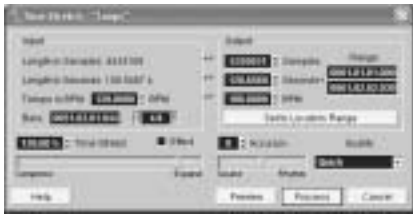
Surround Sound



- Cubase SX supports up to six-channel surround sound with a configurable speaker set-up - allowing the user to adjust to his specific studio configuration.
- Supported surround formats in the Master Setup include: Stereo; Quadro; LRCS; Standard 3/2; and 5.1

Advanced Time Stretching

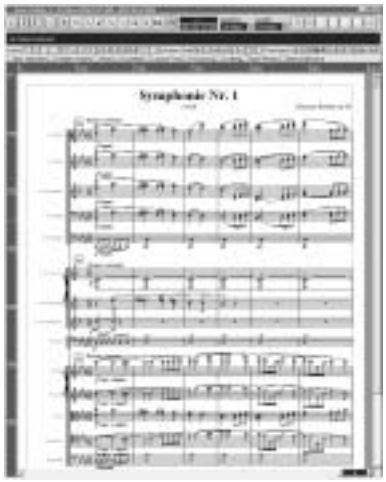
- The Time Stretch function allows you to change the length and "tempo" of the selected audio, without affecting its pitch.



- There are five different Quality modes available for time stretch: Quick, Standard, High, MPEX, and Drum.
- The MPEX Quality mode is based on Prosoniq's (Minimum Perceived Loss Time Compression/Expansion) algorithm which uses an artificial neural network for time series prediction in the scale space domain to achieve high end time and pitch scaling.
- Drum mode is a special algorithm developed by Spectral Design, optimized for processing rhythmic material.

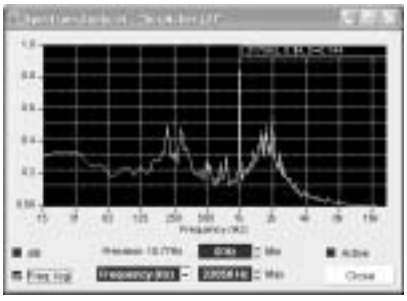
Apogee UV22HR Dithering

- The UV22 HR is a high quality dithering plug-in based on an advanced word length reduction algorithm developed by Apogee.
- You can use the UV22 HR plug-in whenever you need to take your audio from the 32-bit float resolution within Cubase to lower bit resolution, especially when exporting/converting to 16-bit resolution for audio CD burning.

Complete Scoring

- Cubase SX includes all of the scoring and playback features of Cubase Score VST, which for many years has been one of the industry standard software applications used for film soundtrack production and music education. This is because of its perfect integration of score writing, sequencing and music production.
- 32 staves per page
- 8 voice polyphonic
- Page layout and editing
- Drum notation & guitar tablature
- Over 100 symbols

Spectrum Analyzer

- The Spectrum Analyzer function analyzes the selected audio, computes the average level distribution over the frequency range and displays this as a two-dimensional graph, with frequency on the x-axis and level on the y-axis.



CUBASE SL • CUBASE SX *continued*

Features	*Cubase SL*	*Cubase SX*
Interactive, real-time graphic editing	✓	✓
Unlimited Undo and Redo functions	✓	✓
VST System Link	✓	✓
Best compatibility with Houston controller	✓	✓
Video track with Thumbnail Preview	✓	✓
Various Project Templates included	✓	✓
Cubase VST 5.x song import	✓	✓
Native audio – no expensive additional outboard equipment required	✓	✓
Simultaneous playback of hundreds of audio tracks *	✓	✓
Adaptive and configurable track mixer	Wide and narrow view	Wide, narrow and freely configurable extended view
Supports 6 channels surround sound	–	✓
Effect Insert Slots per Channel	5	8
VST Instrument Slots	16	32
Includes VST Instruments such as A1 Virtual-analog Synth Unit powered by Waldorf	✓	✓
Includes professional real-time VST effects	✓	Plus DeEsser by SPL
Sample accurate automation with automation tracks for every audio, group track and plug in	✓	✓
Automation modes	Touch Fader	Touch Fader, X-Over and Autolatch
Dithering	Apogee UV22	Apogee UV22HR
TrueTape recording technology for tape saturation	–	✓
Up to 64 sub-groups with the same EQ and effect features as a normal audio channel	✓	✓
Offline Process History	For built-in audio processes	For built-in audio processes and all plug-ins
Very quick and efficient parts bouncing	✓	✓
Huge selection of integrated audio processes	✓	✓
Spectral Analysis	–	✓
Statistic Functions	–	✓
Audio/Tempo analysis and Audio/Groove analysis	✓	✓
Slice & Stretch for audio loops, automatic tempo matching	✓	✓
Pitch-shifting / time stretching algorithm	3 different modes	Plus MPEX
CD audio grabbing	✓	✓
ReWire 2 support	✓	✓
Full MP3 Fraunhofer Encoding	Available as an upgrade	✓
Recording modes: Mix, Overwrite, Normal, Merge	✓	✓
Editors: Key (piano keyboard), Drum, List, SysEx, Score, Logical	✓	✓
Professional Score layout and printing functions	–	✓
Supports LTB for high-precision MIDI timing	✓	✓
Soft Quantize	✓	✓
Supports Steinberg MIDI plug-ins	✓	✓

**CPU dependent*

STEINBERG

HOUSTON

COMPUTER AUDIO

1002

Motorized Control Surface for Cubase and Nuendo

A MIDI/USB remote controller designed specifically for the VST audio engine, Houston provides access to potentially every parameter available in VST windows. It features a total of nine 100mm touch sensitive motorized faders, eight rotary encoders with LED position indicators and a matrix of buttons bringing total hands-on mixing within Nuendo or Cubase, without having to use the mouse or PC keyboard. Additionally it offers a large LCD display, transport controls, and a jog & scrub wheel. A numeric keypad is available for entering values and for selecting setups and marker positions. The ultimate controller for Steinberg's virtual studio, Houston is also extremely fast and flexible with all basic parameters displayed at the push of a single button.

FEATURES

- Houston uses an all-for-one or one-for-all layout meaning that both the display and related rotary encoders are showing the same parameter for all eight channels or eight related parameters for one channel.
- Parameters for VST audio effects and VST Instruments can be displayed, edited and automated from the Houston's controls.
- A compact desktop unit (same width as a standard PC keyboard), Houston connects to the host computer via MIDI or USB.
- Illuminated function matrix clearly indicates the current display and all basic VST parameters. If a set of related parameters require more than a set of eight controls, the page up and page down buttons let you jump to the additional parameters. And since you always stay in the context of the selected function group, it isn't necessary to repeatedly press buttons to scroll through all available parameters. With two button pushes you gain access to virtually all VST function groups.
- Houston supports the mixer views and windows sets of both Cubase and Nuendo. It is possible to open and close windows completely remotely, and to change the currently addressed set of eight channels—and these can be any of the VST audio channels regardless of whether they are audio, group or synthesizer channels.
- Song and edit buttons to easily save a song or revert to the last version, undo/redo the last action, confirm, cancel and deny actions in open dialogs and windows.
- Number pad for general purposes plus buttons for quickly accessing windows sets, marker positions, etc. For even greater comfort, the ZAP button lets you toggle between the two last functions.
- Fader section with nine motorized faders. A number of option buttons let you switch between the different target faders within the host application and select fader sets. You can also jump back and forth between the available sets of eight channels each.
- Transport Controls and Jog Dial for full and easy navigation within your song.
- Rear panel with MIDI trio and USB port. Houston lets you freely choose whether it should communicate with your host application via MIDI or USB.

What are the differences between Cubase SX and Nuendo?

Cubase SX is clearly a music creation and production program, with audio and MIDI features specifically designed for these activities such as the Drum Editor, Score Editor and a newly designed Audio Loop Editor. Multi-lane Controller Editing is provided offering complete control over the playback characteristics of all MIDI and VST-I equipment used. MIDI plug-ins and enhanced MIDI processing functions are now standard and we have built in the support for loading up to 16 Virtual Studio Instruments simultaneously. Extensive groove and swing functions are designed specifically for easy handling of rhythmic musical elements and excellent automation control is built in so you can create the perfect final mix.

Nuendo, on the other hand is designed as a media-production system. It can handle post-production, DVD authoring, music recording and many other types of specialist production tasks. It features tools such as Sony 9-pin support, OMF-Import, replace audio in video file, get audio from video file, Premiere EDL import and independent project pools, to name just a few. Other features are the Matrix Encoder/ Decoder plug-in as well as support for Dolby and DTS Encoders.

MIDEX 3 / MIDEX8

USB MIDI Interface with LTB Technology

The Midex 3 and Midex 8 are hardware MIDI solutions for those who place emphasis on absolutely accurate timing. Designed for VST-based studios who use external sound generators to supplement their range of virtual instruments, the portable Midex 3 has one MIDI in and three for 48 MIDI channels, while the Midex 8 with its eight MIDI inputs and eight MIDI outputs allow up to 128 MIDI channels to be addressed. Both don't need an external power supply, as their interface's power is supplied by the USB bus.

Numbered MIDI port LEDs provide a clear overview over your MIDI set-up. Midex 3 and Midex 8's comprehensive range of functions is rounded off by the relay-controlled MIDI Thru function as well as an integrated cable tester. Several Midex 3s or Midex 8s can be combined to build larger MIDI systems.

- Several Midex 3s or 8s can be combined to build larger MIDI systems
- LTB protocol – Linear Time Base prevents audible timing lapses and guarantees accurate sending of MIDI events to within a single millisecond
- Powered by USB – no external power supply needed (Midex 8 has a connection for external power unit – just in case)
- They are automatically detected once they are connected to the computer. They can also be connected to a computer which is already switched on thanks to USB
- Incorporate MIDI Thru function
- They include USB cable and driver CD with online manual in 6 languages
- Numbered MIDI port LEDs for a clear overview of your music project

Midex with LTB Technology — Superior timing and more than just an interface!

Today's complex operating systems and computer configuration can lead to small timing inaccuracies in MIDI event sends—making precise MIDI timing difficult. This can be up to 5 ms in extreme cases – small but audible. Depending on musical taste or the user's individual expectations, these inaccuracies can compromise the quality of songs. Additional delays caused by sound generators are also increasingly being seen as unacceptable among producers of today's dance music or any other musical styles where maximum 'tightness' is deemed particularly important. In the age of virtual instruments, precision MIDI timing is essential because VST instruments operate with sample accurate timing. When they are used together with hardware sound modules, timing inaccuracies can become painfully apparent.

The solution is Steinberg's LTB technology, a high-speed MIDI protocol which gets around an operating system's limitations in a simple yet elegant way. With LTB, every MIDI event is sent to the MIDI interface ahead of time, together with information describing the exact point of time when it is to be sent out from the interface. Here it is stored and released from every Midex port to the respective sound generator at precisely the right time. This guarantees a timing accuracy for single MIDI events of under a single millisecond - on every port. This is made possible by a micro sequencer built into all Midex devices. It offers a timing accuracy which was previously only possible when working with old analog or hardware MIDI sequencers. LTB is incorporated into all Steinberg Midex series MIDI interfaces as well as Nuendo and the latest versions of Cubase.

- Numbered MIDI port LEDs for a clear overview of your music project
- Integrated MIDI cable test function
- Steinberg's latest drivers offer multi client capability, allowing you to address single Midex inputs and outputs with different programs. This lets you combine stand alone applications such as Reaktor and Cubase with your MIDI hardware – even if one program uses LTB while the others do not.
- They offer secure and reliable use with Macintosh OS as well as Windows 98SE, ME, 2000 and XP. A special driver optimization gets around limitations in certain Windows versions which allowed only 10 MIDI ports to be used simultaneously.

Midex 3 Only

- 3 separate MIDI outputs and one MIDI input – up to 48 different MIDI channels can be addressed per Midex 3
- Sturdy Macrolon housing

Midex 8 Only

- 8 separate MIDI outputs and 8 MIDI inputs –up to 128 different MIDI channels can be addressed per Midex 8
- Easy access to extra MIDI input and output on the Midex 8's front side
- Fits into every professional 19″ rack – or can also be used simply as desktop unit

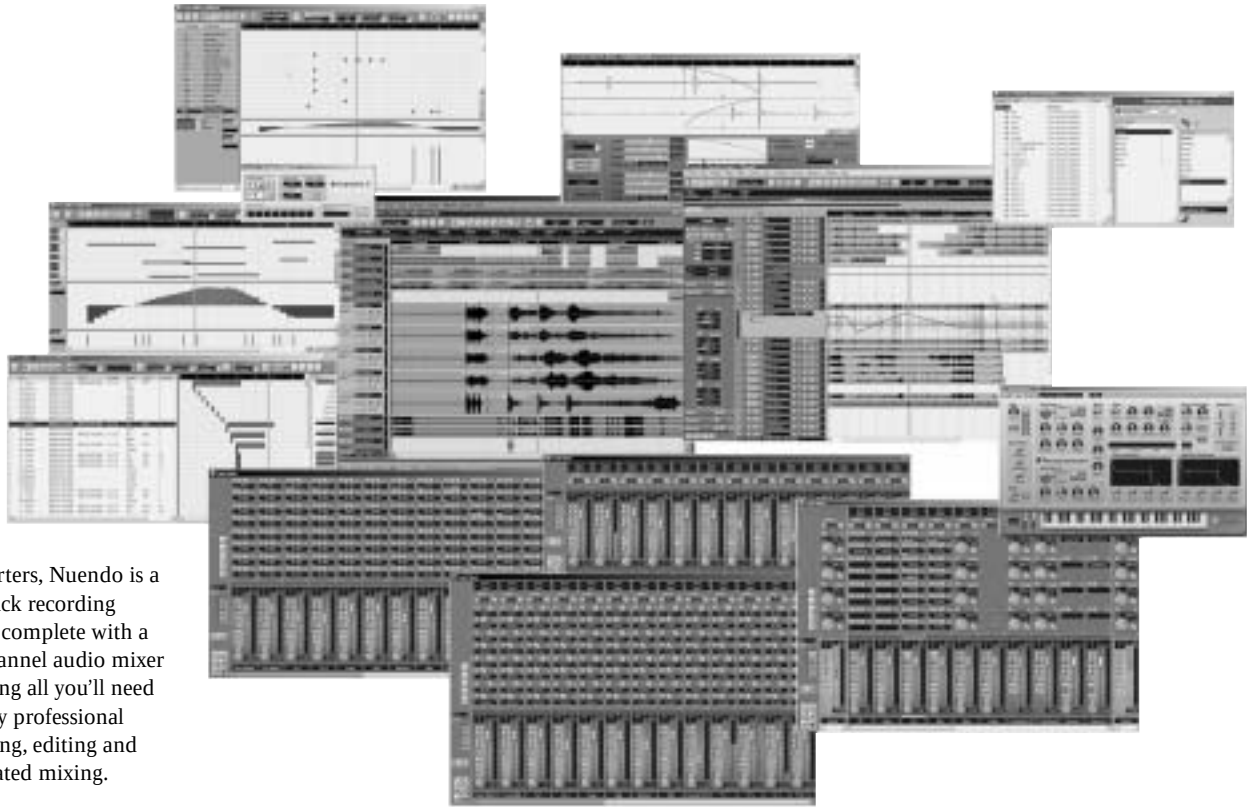
STEINBERG

NUENDO 2.0

Media Production System

Nuendo 2.0 is a high-end digital audio workstation and media production system designed specifically for the demands of modern multimedia productions. Regardless of whether you are working on a music or post production project, in broadcasting or video—Nuendo 2.0 offers a solution which will perform to the highest expectations—and more cost-effective than any other system.

Created to handle any kind of job within the media industry, all recording, editing and mixing functions were developed from scratch, allowing Nuendo to offer the most advanced studio technology. And Nuendo's extensive interface, import and export functions guarantee perfect integration into every studio environment regardless of genre—composition, film, broadcast, music, postproduction, surround, games and multimedia.



For starters, Nuendo is a 200-track recording facility complete with a 200-channel audio mixer including all you'll need for fully professional recording, editing and automated mixing.

As Nuendo supports mono, stereo or surround format (up to eight discrete channels deep) your creativity is never inhibited. From input to final mix, Nuendo 2.0 is all about surround, with multi-channel architecture through the entire signal path. Every input, audio track, effect, group and output now offers up to 12 discrete channels, ready for full-scale 5.1, 7.1, or even 10.2 productions. To make routing in the project even more transparent, you can customize multichannel input/output configurations and switch between them with a single keystroke. Several input and output buses can be utilized at the same time, with any type of configuration possible - mono, stereo or any of a wide range of surround formats - and any track can be routed to and from any of these buses. Nuendo 2.0 even allows switching between multiple monitoring configurations (speaker arrangements) and can simulate a wide variety of end user monitoring environments.

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NUENDO 2.0

Nuendo 2.0 offers complete flexibility in mixing and signal routing. Its 32-bit floating point mixer features multiple multichannel input and output buses. This allows for recording in either split or interleaved surround audio file formats and makes managing a surround project easier than ever before - Nuendo always keeps track of which part of the signal chain is multichannel and which is simply stereo or mono. When routing signals, Nuendo even adds effect return channels that allow effects to be added to the input signal while recording, as well as full delay compensation throughout the signal path.

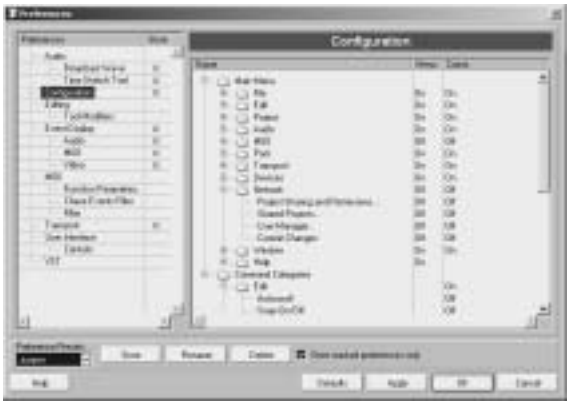
Of course, Nuendo incorporates VST System Link—Steinberg's revolutionary technology that allows users to increase the realtime processing and mixing power for any project by simply adding as many Macs, PCs, desktops or laptops to the system as are needed. But Nuendo 2.0 doesn't stop there. An array of powerful new networking capabilities allows the transferring of tracks and events in a network over TCP/IP LAN. Each user in a network gets his user ID and read/write permissions for each TCP/IP project. The standard network access built into Nuendo 2.0 supports recording to, as well as copying and playing back from dedicated servers or other workstations: all that's needed is TCP/IP LAN. Combining separate Nuendo 2.0 projects is no problem, either - a Merge Project function fuses tracks from one project into another.

Nuendo 2.0 also allows the flawless import of Cubase SX projects, and support is provided for a huge range of export formats in order to exchange projects with systems from other manufacturers. Nuendo 2.0 can also import numerous file formats such as AES31, Open TL 3.0 and OMF. Finally, Nuendo 2.0 allows you to set up a project the way you want it. If there is no need for MIDI functions in a particular mix, for example, all MIDI controls can be hidden for each track to suit your personal way of working. You can hide functions you don't use from Nuendo's menus - making for a better overview and faster response - and you can even define which buttons and controls you want to see on your tracks, and in which order.

Versatile and Flexible

Set up a project the way you want it. All program menus are user-configurable, enabling you to hide features you don't currently need for a specific kind of production. For example, if you don't need MIDI functions for a 10.2 surround mix, you can hide all MIDI menu entries, disable the corresponding key commands and assign these preferences to a template. Do you really need to have video-related menu entries if you are using Nuendo for music production? Simply hide them and design the interface that you need yourself. All hidden features are still waiting in the background in case you will need them in the future.

But Nuendo does not stop there. You can also configure the controls for each track to suit your personal way of working. If, for example, you are engaged in audio recordings, Nuendo can instantly be adapted as a pure audio tracker with only a record and a monitoring button on each track. After finishing your recordings you can "unhide" additional functionality as it is needed or switch to a template which immediately gives you access to all track controls again.



User Presets

Nuendo 2.0 allows for the storing and recall of user preferences presets. This allows you to recall different system settings for various working situations but also take your preferred settings with you and apply them to another system when you are working on a Nuendo system at another location.

Define Your Project

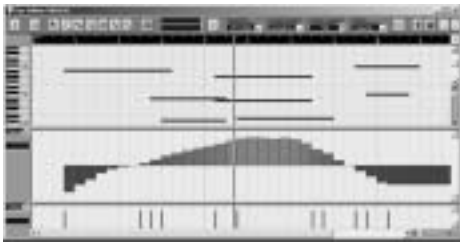
Nuendo 2.0 offers a wide range of timeline formats for just about any situation in audio production, including samples, beats/bars, seconds, feet:frame rates of 16mm and 35mm as well as a freely definable frame rate. Using multiple ruler tracks with various timeline formats, you have the correct position in overview for any of your audio, video or MIDI events. Also, the new mixer allows you to show or hide track classes and channel strip sections to adapt to your visual needs.

NUENDO 2.0 *continued*

Recording

- Pristine 32-bit audio quality with sample rates of up to 192 kHz will capture every nuance of your source audio. Processing audio internally at 32-bit floating point gives you a theoretical headroom of several hundred dB, making it practically impossible to introduce digital clipping.
- Offers a choice of a variety of record formats, including Wave, Broadcast Wave, AIFF and Wave64, for long duration recordings.
- A variety of record modes suit any approach, with the stacked record mode allowing the compiling of takes directly in the Project Window.
- Innovative multi-channel architecture lets you record not only in mono, stereo and 5.1 but in all common surround formats up to 10.2. Record your surround material either as individual files or interleaved as one file, in the destination folder of your choice.
- Recording to timecode is easy. The online recording function puts Nuendo in record mode as soon as a valid timecode signal is received.

MIDI Features



Extensive capabilities, making it easy to set up and configure MIDI devices for use with Nuendo.

- The large range of MIDI editors (Drum, Logical, SysEx and List) make editing MIDI information more intuitive than ever before.
- MIDI plug-ins such as Quantizer, MIDI Echo and Compressor ensure more creative possibilities and flexibility, and are all directly reachable from the Project Window.
- The Nuendo automation system also extends to all MIDI parameters, letting you draw MIDI automation data with any of the mathematical shape tools. Multiple controller lanes within the editors give you a clear oversight over your MIDI data, as all data can now be displayed on the same page.

Mixing

From input to final mix, Nuendo 2.0 is all about surround, with multichannel architecture through the entire signal path. Every input, audio track, effect, group and output offers up to 12 discrete channels, ready for full-scale 5.1, 7.1, or even 10.2 productions. To make routing in the project even more transparent, you can customize multichannel input/output configurations and switch between them with a single keystroke.

- Several input and output busses can also be utilized at the same time, with any type of configuration possible - mono, stereo or any of a wide range of surround formats - and any track can be routed to and from any of these busses. You can even switch between multiple monitoring configurations (speaker arrangements) and simulate a wide variety of end user monitoring environments.
- The mixer itself is user-configurable, so you can choose between a variety of display options. Above the normal mixer with the fader section you can display either insert effects, effect sends, EQs or an additional view with input and output settings including gain change and phase shift per channel. The mixer is also available in a narrow view for simultaneous display of many channels.
- Nuendo 2.0 offers the most flexible mixing experience in digital media production. Its 32-bit floating point mixer features multiple multichannel input and output busses. This allows for recording in either split or interleaved surround audio file formats and makes managing a surround project easier than ever before — and Nuendo keeps track of which part of the signal chain is multichannel and which is simply stereo or mono.
- Provides complete flexibility in signal routing to and from virtual effects for each and every track. It even adds effect return channels which feature the full parameter set of regular channels and of course the complete mixer has full delay compensation throughout the complete signal path.

Networking

With VST System Link and the option to integrate IP network collaboration, Nuendo 2.0 features a huge range of functions dedicated to maximize computer processing potential and manpower for your project. Using any of the two technologies alone or combining them has can vastly increase efficiency in your project workflow.

—With VST System Link, not only can CPU intensive tasks of larger projects like effect processing, video or virtual instruments playback be outsourced to selected exclusive computers, but large projects can be allocated to various computers as well. This permits simultaneous playback of hundreds of audio and MIDI tracks from a range of different computers in sample-accurate synchronization.

—Unique TCP/IP functionality allows true networking on any kind of project, from post-production to music, from multimedia to game sound design. This networking technology supports the full range of editing tools over a network, on projects, audio, MIDI and even video tracks. It allows users to connect multiple Nuendo workstation computers via standard LAN network cards. An entire project or just selected tracks can be opened on multiple computers for other members of the network to access and edit.

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NUENDO 2.0 *continued*

Supersonic Editing

Nuendo 2.0 has one of the most powerful editing engines around, with unlimited undo/redo as standard. Not only can you undo cuts, fades or other basic edits, but also bouncing, offline processing and removal of complete tracks can be undone. The Edit History window lists all actions made on your project down to every single event, ready to undo or redo to the point where you want to work from.

Every single audio file shown in the pool or used in the project window has its own offline process history. All processing carried out on a file can be removed, changed or replaced by another process or plug-in, no matter how much processing has taken place in the meantime. All later processes will be reprocessed automatically for you in the blink of an eye.

Supports various kinds of editing styles, depending on your work style. Traditional cuts, nudging, trims and fades can be made using a variety of tools: object based, range based or using a jog wheel from any of the supported remote controllers. Mouse, keyboard or remote control can be used separately or combined for optimal workflow speed.

The Nuendo Project Window gives you a complete, transparent overview of your project, with immediate access to track parameters, views "zoomable" right down to sample level and much more.

Allows scrubbing of all audio at the same time as well as scrubbing the video track. Various forward and backward scrubbing speeds are supported, and can be executed from a specific wheel on the Nuendo transport bar or by the jog or shuttle wheel of a supported remote controller or mixing desk. Fast locating, trimming and scrubbing of video and audio could not be easier.

You can also do all editing within the integrated sample editor. This opens an additional range of features for an even faster workflow: easy creation of regions, bouncing these into a library, creating processed regions or tuning sync points by scrubbing the audio with them. Nuendo offers all this plus a smart hitpoint detection feature for fast locating of audio peaks, adapting grooves and creating groove templates in the sample editor which, of course, supports full drag and drop to tie up with the Project Window.

Surround Sound

Offers everything needed for modern surround productions. Every input channel, audio track, effect, group track and output section of Nuendo offers up to 12 discrete channels, ready for full-scale 5.1, 7.1, or even 10.2 productions. To finalize your production, optional encoders for Dolby Digital and DTS are available. Nuendo lets you simulate a wide variety of end user monitoring environments before you start encoding to these industry standards, to ensure that your mix is always delivered with the highest compatibility to all kinds of end formats.

Plug-Ins

To help you get the best out of your project, a huge array of virtual effects, ranging from standard dynamic processing and filtering to creative modulation effects or restoration processors, is supplied.To help you get the best out of your project, a huge array of virtual effects, ranging from standard dynamic processing and filtering to creative modulation effects or restoration processors, is supplied. Or choose from a wide range of third-party VST or DirectX plug-ins. All plug-ins can be used both online or offline, and as many instances can be loaded as your computer can handle.

If you are using MIDI, Nuendo also offers the latest Steinberg technology to create sounds hitherto unheard of. Arpeggiators, chord processors and many other plug-ins are included that manipulate the dynamics, pitch and time elements of MIDI events, as well as three unique virtual instruments to create warm analogue layers or play back powerful drum samples. The integration of the VST interface opens Nuendo up for additional software samplers like the award-winning HALion Sampler, synthesizers or many other virtual instruments.

Applications

Multimedia: The creative process for music and sound design is supported by integrated sound modules and many features for automatic creation of impressive audio collages. The large set of tools to synthesize and match sound to any kind of visual make Nuendo a real time-saver when creating audio for your project. The integrated video player supports all important multimedia files and lets you keep the focus on your product while you are adding audio information.

Radio Broadcast: Design expressive commercials or jingles, create radio news stories or work on multi-part radio. Nuendo is equipped for all the above and more. The Nuendo project concept means that both pitch and time elements of your projects can freely be manipulated, and guarantees intuitive, single-layer editing, fast browsing of sound archives and concise arranging of content.

NUENDO 2.0 *continued*

General

- Support of ASIO, MME, DirectX, mLAN and CoreAudio
- Optimized multithreading: unlimited amount of processors supported, processor load is dynamically spread over all processors
- Support of Intel Hyperthreading Technology
- Timeline Formats: Timecode, Feet:Frames (16mm, 35mm), Seconds, Samples, Bars and Beats
- Multiple timelines showing various formats at once
- 1 user definable frame rate possible
- Extensive event display possibilities
- Complete user configurability: unused menu entries can be hidden, key commands can be disabled, preferences, key commands and the menu structure can be stored and recalled
- Toggle alternate key command sets
- User configurable project templates store windows settings, layouts, track heights/sizes, project and channel settings, plug-ins w/parameters as well as folders and files in the pool
- Easily configurable window layouts, track controls, toolbar and track inspector
- 2nd track list for fixed tracks

Import Formats

- Audio: import of AIFF, AIFC, Wave, Broadcast Wave, Wave 64, MPEG-2 and 3, Dolby Digital AC-3 (with optional Nuendo Encoder) and Ogg Vorbis. WMA, WMA Pro, WMV, WMV Pro (PC only), REX I & II files, SD2, up to 384 kHz depending on the file format
- AES31 • Cubase SX project • Open TL 3.0
- OMF 1 & 2, embedded audio or file references.
- Premiere Generic EDL
- Ability to convert interleaved multichannel file into multiple mono files on import
- CD audio grabbing (selection inside track possible)
- MIDI File import
- MPEG, AVI, DV AVI, WMV/WMV Pro (PC only) and QT movies video import
- Extract audio from video file
- Nuendo tracks including media files, mixer channel settings & automation

Export Formats

- Mixdown to AIFF, Broadcast Wave, Wave, Wave 64, MP3, MP3 Pro, RealAudio G2, Windows Media, SD2 (Mac), Ogg Vorbis, Dolby Digital AC-3 and DTS (optional encoder)
- Supported export sampling frequencies up to 32-bit/384 kHz (Broadcast Wave, Wave, AIFF)
- Audio mixdown to a mono or multi-channel file up to 12 channels
- AES31 • Open TL 3.0 • MIDI File
- OMF 1 & 2, embedded audio or file references.
- Track sheet printing, smart track sheet functions for better overview
- Real-time mixdown option
- Nuendo tracks including media files, mixer channel settings & automation

Synchronization

- VST System Link for sample accurate sync, audio and MIDI transport between multiple Nuendo systems
- Sync to MTC, ASIO Positioning Protocol or send MTC and MIDI clock
- Send 9-pin & MMC machine control
- SMPTE Generator plug-in
- Fast locate and sync lock up
- Sample accurate sync with ASIO 2.0
- MMC slave with track arming support

Recording/Playback

- Record 16/24/32-bit at up to 192 kHz depending on the audio card
- Recording of multiple channels of audio simultaneously per track, split or interleaved
- Record of AIFF, Wave, Broadcast Wave and Wave 64 for long duration recordings.
- Jog and scrub of the complete project
- Project shuttling with fixed speeds, custom editable key commands, and lock to zoom
- Linear Record modes: Normal, Merge, Replace
- Cycle record modes: Mix (MIDI), Overwrite (MIDI), Keep Last, Stacked lanes
- Online recording: record starts when a valid timecode signal is received
- Separate pre roll / post roll settings and separate activity displays in transport
- Multiple user-definable record destinations

Editing

- Real-time non-destructive crossfades
- Advanced crossfade editor with pre & post roll
- Auto-fade and auto-crossfades with definable fade times for smooth transitions
- Sample editor with region list and sync point editing. Drag and drop regions from the sample editor to the project window
- Unlimited undo/redo with edit history list (includes zoom undo/redo)
- Visible second tracklist with fixed tracks
- Timestretch tool allows fast snap-based stretching of material
- Preset curve tools for automation editing
- Various options to lock events in size, fade-length, position and others
- Folder tracks for group-based overview
- Vertical view option for recording takes in the project; browser view allows all data (events, automation, etc.) to be edited numerically
- Edit mode for syncing events & fades to the picture
- Sync points available in events and regions, s-points scrub the audio
- Detect & strip silence
- Hit point detection for loop editing and cue splitting
- Autoselect event under cursor on selected track(s)
- Zoom presets in the project window and part editor
- Analysis: statistics, FFT based spectral analyzer
- Automation data move with the audio events
- Range selection drawn on playback

File Management

- Pool with logical structure and extensive file information
- Import and export of pool files
- Advanced search field with preview option
- Advanced file converter
- Offline processing from the pool
- Minimize function to delete silence & unused material from audio files
- Archive and backup functions
- Libraries can be created including files, file references, regions, subfolders and sync points

NUENDO 2.0 *continued*

Mixing

- Configurable mixer, showing selected channels and channel strip sections at wish
- Up to 4 mixers available at the same time, for more overview for groups, VSTi's etc.
- Unlimited amount of channels, inputs and outputs, effect returns, VSTi & group channels (depending on your hardware)
- VST Connection window: ASIO & master bus routing with preset management
- Up to 12 speaker channels available for inputs, audio tracks, effects, groups and outputs
- Multiple output configurations for mono, stereo and surround formats at the same time
- Plug-in delay compensation throughout the complete signal path
- Interleaved surround recording and playback
- Switchable dual mono panner, combined panner or stereo balance on stereo tracks
- Flexible effect or dry recording from any physical input to any audio track
- 8 inserts on inputs channels, audio channels, effect return channels, group channels, VSTi, ReWire and output channels with global and individual soft-bypass
- 8 auxiliary sends per input, audio, VSTi and group channel with up to 12 channels
- Phase invert and gain on all channels
- Access to internal effect plug-ins or external effects patched via the audio hardware
- Automation tracks for each audio track, group channel and for plug-ins
- Waveform display visible on automation background
- Automation modes Touch, Autolatch and X-Over for all parameters, Overwrite and Trim for volume
- Copy and save/load channel settings is possible

Remote Control

- Steinberg Houston, JL Cooper MCS-3000 and CS-10, Mackie Control, HUI and Baby HUI, Roland MCR-8, Yamaha 01V, DM2000, O2R96, CM Automation Motormix, Radikal SAC-2K, Tascam US-428 and US-224

Video

- Video track with thumbnail preview
- Video playback with QuickTime, DirectShow, DirectX or Video for Windows
- Audio extraction from video files, replace audio in video files
- Full screen video option

Processing

- Integrated processes: Acoustic Stamp, Envelope, Fade In/Out, Gain, Merge Clipboard, Noise Gate, Normalize, Phase Reverse, Pitch-shift, Remove DC Offset, Reverse, Silence, Stereo Flip, Time Stretch, Resampling
- Process history with the ability to modify, disable/enable or replace previous processes. Offline history can be saved as a batch process
- VST and DX plug-ins can be processed offline

Plug-ins

- Real-time support for VST and DirectX plug-ins (may also be applied offline)
- Bundled stereo plug-ins include: Flanger, Phaser, Overdrive, Chorus, Symphonic, Reverb A/B, QuadraFuzz, SPL DeEsser, Double Delay, ModDelay, Dynamics, Magneto, DaTube, Chopper, Transformer, Metalizer, Rotary, Vocoder, StepFilter, Bitcrusher, Ringmodulator, Grungelizer, MIDI Gate, UV22 HR (Apogee), MultibandCompressor, Test Generator, DeNoiser, DeClicker, Q, Nuendo EQ2
- Surround plug-ins include: SurroundPan, MatrixDecoder/Encoder, Mix8To2, Mix6To2, MultiScope, MixerDelay (distance compensation)

Surround

- Mixer is fully multi-channel based, in every aspect, up to 12 speaker channels
- Plug-in based surround panning
- Surround encoding: downmix plug-in for fast monitoring in other multi-channel formats
- Submixer and distance compensation plug-in
- Matrix encoder/decoder for LCRS or 3/2 encoding
- Optional Dolby Digital/DTS encoding/decoding

Network

- VST System Link for sample accurate sync, audio and MIDI transport between systems
- Peer to peer collaboration with track-locking over TCP/IP LAN
- Hierarchical sharing of complete projects down to single tracks using TCP/IP
- Standard network access allows Nuendo to record, play back and copy files from dedicated servers, other workstations or library servers. A regular TCP/IP LAN is sufficient

MIDI/Music

- Tempo-lock option is available on tracks to allow events to maintain their relative bar and beat position as the tempo changes
- MIDI Device Manager for naming and hiding MIDI devices
- 64 VST instrument slots
- MIDI, ReWire and VSTi channels available in the mixer
- User definable PPQ display resolution
- Key /List/ Logical /Drum editors
- MIDI step recording
- Multiple controller lanes in MIDI editors
- Beat calculator • Rewire 2
- Audio & MIDI metronome

SYSTEM REQUIREMENTS

Macintosh - Minimum

- Power Mac G4, 384 MB RAM, Mac OS X
- USB port required
- Supports ASIO 2 specification for high-end multichannel audio
- Supports Mac OS X specifications for compatible soundcards

Macintosh - Recommended

- Power Mac G4 733MHz or faster, 512MB RAM, Mac OS X, v10.2

PC - Minimum

- Pentium /Athlon 650MHz, 256MB RAM
- Windows 2000, Windows XP
- USB Port required
- Supports ASIO 2 specification for high-end multichannel audio
- Supports Windows MME / DirectSound specification for standard soundcards

PC - Recommended

- Pentium/Athlon 1.4GHz or faster, 512MB RAM

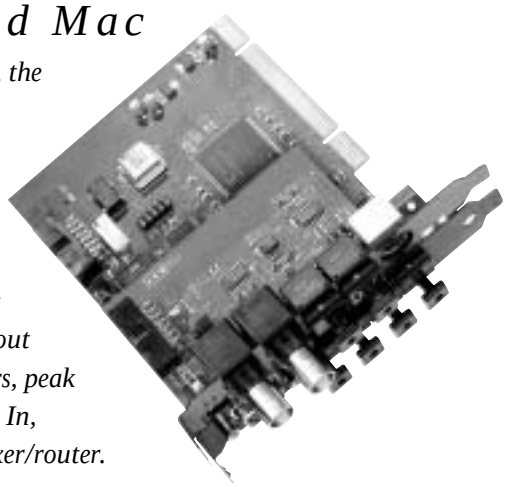
STEINBERG

NUENDO 96/52 DSP

COMPUTER AUDIO

1010

24-Bit/96kHz I/O Audio Card for PC and Mac



Representing the perfect blend of hardware design and ASIO driver implementation, the Nuendo 96/52 DSP delivers an incredible 26 audio inputs/outputs from a single slot PCI card at up to 24-bit/96kHz resolution (12 channel 24-bit/96kHz record/playback on ADAT optical) with unparalleled connectivity (with other digital audio components), complete synchronization possibilities, zero latency monitoring and reduced CPU load. ASIO-poured in hardware means that performance levels previously only achievable with very heavy CPU loading are now possible without exhausting processor power just to get multi-channel audio in and out of the computer in a timely fashion. DSP processing allows freely scalable level meters, peak and RMS calculation in hardware. Card features 3 x ADAT optical I/O, ADAT-Sync In, S/PDIF I/O, word clock I/O, 2 MIDI I/Os and TotalMix, a DSP-based real-time mixer/router.

FEATURES

High Performance

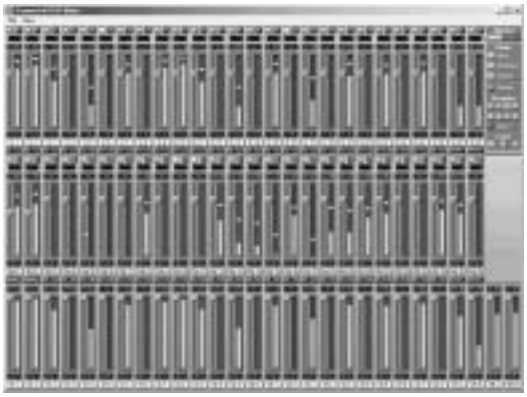
Normally it is the audio software drivers that allow audio hardware for the PCI bus to work with all applications that are using the PC for audio I/O. However, all driver actions are CPU actions, resulting in lost performance that could be better used by the host application. When the Nuendo 96/52 DSP is used with its ASIO driver, the complete data transfer is performed by the smart custom programmed logic of the audio card to the PCI bus. The CPU is simply not used.

Super Fast

The 96/52DSP card is a PCI bus-master device that works exclusively in 32-bit transfer mode. The card moves audio data directly to and from the ASIO host application's memory using the fastest PCI bursts. Nothing could be more efficient. There are no DMA transfers taking place, no multiple 16-bit data movements, and no data bit shuffling.

Auto Sync

With AutoSync activated, the card continuously searches for a valid input signal to lock to. This produces an instantaneous 'record on the fly' performance without having to wait to resynchronize to the input signal. Systems of up to 3 cards are supported and maintaining sync between them is as simple as connecting them all to a common device.



TotalMix Mixer

Any input and output can be routed and mixed to any output. Limited only by the available outputs of the I/O-box, up to 14 independent submixes are available. Internally, the mixer works with 40 bit wordlength. For level alterations there are 65536 steps that allow for a virtually continuous change between 6 dB gain and maximum attenuation. In unity gain setting, the mixer is even bit-transparent and can pass the input signal unaltered.

TotalMix not only leads to perfect and complete ASIO direct monitoring, but is also useful without ASIO. Thanks to a proprietary mixer surface, submix and Zero Latency Monitoring it can be used with all audio applications. An external mixer thus becomes unnecessary many cases.

Unique Features

- Working with multiple digital sources brings its own problems. All devices must be synced precisely or otherwise dropouts and crackles can occur. Ensuring that a system is correctly synchronized is made more transparent with the SyncCheck feature. The card can check all its inputs simultaneously and give an exact read out of the sync quality in the settings dialog.
- SyncAlign features guarantees absolute data alignment across all channels. It cannot scramble channel assignments, and ensures that all ports are started with precise sample alignment. SyncAlign also compensates for any time differences when starting recording while playing.
- Secure BIOS Technology allows to perform hardware updates via software/ driver without any risk. And thanks to its unique 'Zero CPU Load' technology, guarantees highest performance and lowest latency on both notebooks and desktops!
- Change latency on the fly. No manual reset, no re-boot - simply continue when using Cubase or Nuendo.
- Zero Latency Monitoring (ZLM) brings real tape machine feeling to the PC. At Punch-in the corresponding track is switched into bypass directly in the hardware, at Punch-out it switches back to playback. Thus the PC behaves exactly like a 'normal' tape machine.

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EQUIPMENT LEASING AVAILABLE

NUENDO AUDIOLINK 96 SERIES

Versatile 24-bit/96kHz Audio Interface Components

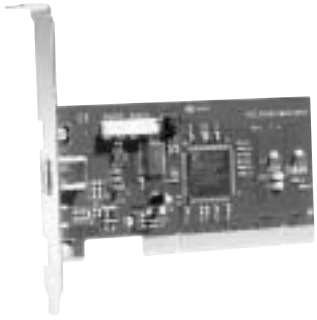
Developed from the technology originally created for the Nuendo 96/52 card, the Nuendo AudioLink 96 Series (consisting of two interface cards, two breakout boxes and the TotalMix software) offers the same low latency, AISO performance and high channel counts that has made the Nuendo 96/52 the audio card of choice for professionals. However, the increased flexibility which the components in the AudioLink 96 series offer, enable users to build a system which meets the specific demands of their current working environment. Studio or location, laptop or desktop, Mac or PC, there is a combination of card, interface box and driver to fit all needs.

Like the Nuendo 96/52, Nuendo AudioLink 96 components will shape a system that supplies 24-bit/96kHz audio; multichannel digital and analog I/O; ADAT optical, S/PDIF, ADAT Sync and Word Clock inputs; and latencies down to 1.5ms. But they also add MIDI I/O and Total Mix software, making the system especially valuable to the user on the move who now has one less box to carry around with them.

And Nuendo AudioLink 96 isn't just a self-contained construction kit for audio interfacing. The ADAT connectors on the Nuendo Digiset and Multiset I/O boxes enable you to hook up to all existing Nuendo converter racks.

COMPONENTS

Nuendo Audiolink 96 PCI



The Nuendo Audiolink 96 PCI is a more traditional PCI card for Mac and Window computers with the same functionality as the Audiolink 96 Mobile. Connects to the Nuendo Audiolink 96 Digiset or Multiset via a special 15´ breakout cable and features the low latency and Zero CPU performance of the Nuendo 96/52 DSP card.

Nuendo Audiolink 96 Mobile

This is an exclusive PCMCIA type II card that fits into all laptop computers for the most compact and powerful Nuendo system on the move. Connects to the Nuendo Audiolink 96 Digiset or Multiset via a special 15-ft. breakout cable. Features the low latency and Zero CPU performance of the Nuendo 96/52 DSP card.

Nuendo Audiolink 96 Digiset

This 9.5˝ breakout box gives you all the connectivity of the Nuendo 96/52 DSP PCI card (3 x ADAT optical I/O for 24 channels each way, S/PDIF coaxial for stereo I/O, ADAT-sync input for sample accurate synchronization, and Word Clock I/O) plus stereo line out for monitoring and two MIDI inputs and outputs. Ideal for those who want to do editing and/or MIDI recording on the move, but then needs to connect into 24 channels of ADAT I/O on returning to the studio for audio recording/mixdown.

Nuendo Audiolink 96 Multiset

Used in conjunction with the Audiolink 96 PCI or Mobile cards, this breakout box connects to external equipment with 8 analog inputs/outputs (balanced, 24-bit/96 kHz), one ADAT optical I/O for 8 additional channels each way, S/PDIF I/O, Word Clock I/O and ADAT-sync input. Plus, there is one MIDI I/O and a separate analog line output. Perfect for those who to do 8-channel recording as well as MIDI/audio editing on the move, but then connect into an additional 8 channels of ADAT I/O on returning to their project studio for recording/mixdown.

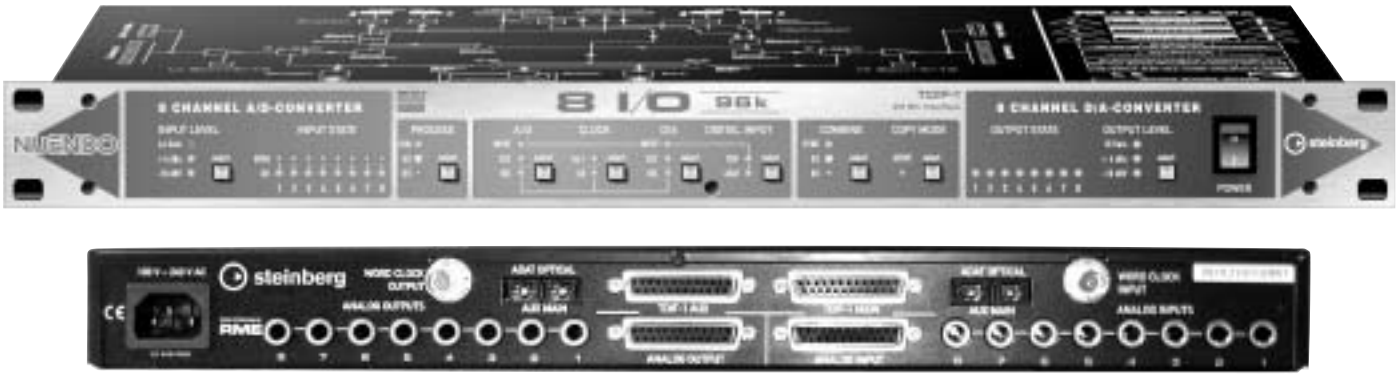
STEINBERG

NUENDO 8•I/O 96K

COMPUTER AUDIO

1012

8-Channel 24-bit A-D/D-A Converter



Perfect for those working at the cutting-edge of audio recording for formats like DVD-Audio, the Nuendo 8•I/O 96k uses the very latest 24-bit converters with 128x over-sampling to attain a real dynamic range of over 110dB at a sampling rate of up to 96k. The analog input circuitry uses a fully servo-balanced and completely symmetrical audio path. The flexible gain architecture allows input sensitivities of low gain, -10 dBV and +4 dBu and output sensitivities of high gain, +4 dBu and -10dBV.
With its intelligent clock control an internal clock is provided in 44.1 up to 96 kHz, but you also can use an external clock. And to ensure a perfect synchronization the Nuendo 8 I/O Sync Check immediately shows sync conflicts in your system and the Nuendo 8 I/O SyncAlign guarantees absolute data alignment across all digital outputs.

FEATURES

- 96k converters feature 8 channels of A/D conversion that can be output via both 24-bit ADAT optical and TDIF-1 interfaces and 8 channels of D/A conversion driven from either the 24-bit ADAT or the TDIF-1 interfaces, all in a single rack space.
- To make the best of the excellent dynamic range of the A/D converters, the input level switch steps through the AD8-I/O's three input sensitivities: Low Gain, +4dBu, or -10dBV. Similarly, the output level can be independently selected from High Gain, +4dBu, or -10dBV.
- Inputs can be accurately calibrated to the audio source using the signal present & signal clip indicators provided. Each analog output has its own 'Signal Present' LED that works in an analog way (brighter at higher levels). Pushing OUTPUT LEVEL switches between High Gain, +4dBu or -10dBV as the selected analog output level.
- Nuendo SyncAlign guarantees absolute data alignment across all channels. It ensures that all ports are started with precise sample alignment, and it also compensates for any time differences when starting recording while playing.
- All digital inputs/outputs operate over the full 24-bit range, and the Nuendo 8•I/O 96k can also be used as a a digital patch bay and format converter.
- Intelligent Clock Control (ICC) provides functionality not found on any other converter. For example, the AD converter clock can be derived from the internal clock at 44.1, 48 or 96kHz or externally from the BNC connector or from any of the digital inputs. The DA have the same range of options.
- The larger the system, the greater the chance sync isn't maintained across all digital and word clock inputs. And if all devices aren't synced precisely, dropouts and crackles can occur. To ensure that a system is is correctly synchronized and working at the best possible audio fidelity, the 8•I/O 96k incorporates SyncCheck to check all its inputs simultaneously and give to give an exact read out of the sync quality in the settings dialog.

Nuendo Studio System One 96k —The Complete Audio Production Solution

Nuendo Studio System One is a complete production solution designed for the audio production process, whether for music, post production or Surround Sound authoring for film, TV and DVD projects. Available for Mac or PC, the bundle includes Nuendo 2.0 software, the Nuendo Surround Edition, Nuendo PCI 96/52DSP card and the Nuendo 8•I/O.

STEINBERG

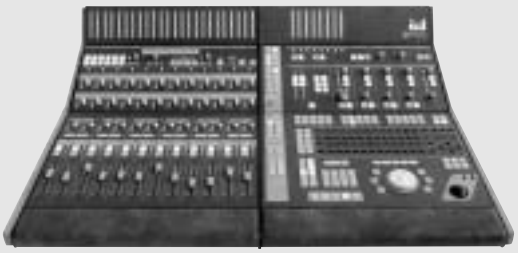
NUENDO DD8

Digital Format and Rate Converter

The Nuendo DD 8 converter is a compact 1U 19˝ rack-mounting device featuring digital interfaces in the following formats: AES/EBU, ADAT, TDIF. With its 8 channels of AES/EBU input and output it serves as a perfect AES/EBU front end for Nuendo users. The DD8 can also be employed as a digital patchbay for splitting digital signals and as a sample rate/digital format converter. Because it offers several combinations of the basic functionalities it can be a real lifesaver in studio environments, where many problems related to digital signals have to be solved every day.

- Switchable 24-bit sample rate converters (SRC) allow for both highest quality sample rate conversion and clock unlinking of all AES/EBU inputs.
- All of the Nuendo DD8's digital I/Os support 96kHz/24-bit. As ADAT optical and TDIF are usually restricted to 48kHz, the unique DS mode (double speed) allows two channels to be used for the transmission of one channel's data. The algorithm used is compatible to S/MUX and Double Wide, and is implemented in the Nuendo 96/52 DSP audio card. (Makes the Nuendo DD8 ideal when Nuendo 96/52 DSP owners need real time AES digital conversion).
- The Nuendo DD8 is a reference quality 8 channel format converter featuring exceptional features like Intelligent Clock Control (ICC), SyncCheck, SyncAlign, Bitclock PLL, digital patchbay functions, and active jitter reduction through SD-PLL and 96kHz/24bit sample rate conversion.
- AES/EBU to ADAT/TDIF and ADAT/TDIF to AES/EBU work both entirely independently and intelligently coupled.
- Dedicated LEDs display the state of the incoming and outgoing signals and all operations running inside the device.
- 8 channel AES/EBU (4 x stereo, XLR) to ADAT optical/TDIF-1 converter
- Sample rate conversion 96 kHz/24 bit switchable for the AES/EBU inputs
- 8 channel ADAT optical/TDIF to AES/EBU (4 x stereo, XLR) converter
- ADAT optical inputs, 24 bit, using bitclock PLL for sample accurate lock
- Clock unlinking (re-synch) by SRC
- ADAT optical outputs, 24 bit, fully compatible with all devices using this interface
- TDIF-1 interface, 24 bit, low jitter PLL, Emphasis support, DA-38, DA-88, DA-98 compatible
- Copy Mode for copying data to an output of the same format (ADAT to ADAT) etc.)
- Active jitter reduction by Serial Double PLL and SRC
- Digital patchbay for copying, duplicating and distributing the digital input signals
- ❖ SyncCheck, unequalled technology for checking clock synchronicity
- S/PDIF mode switchable for the second ADAT optical output

New! ID — Remote Control for Nuendo



Designed and handcrafted by a team of audio professionals to meet the demand for total control of Nuendo with a familiar "console"-like feeling and much more, Steinberg's ID (Input Device) is far more than another generic controller device. ID consists of 4 logical sections dedicated to various aspects of recording, editing, mixing and control room monitoring:

- Fader-section offers 24-channels for direct access. LCDs show track names and status of channel parameters: solo, cut, track- arming, direct channel-strip access and automation-status. 24 touch sensitive motorized faders and encoders control levels.
- Encoder-section features a complete channel strip layout with 24 endless encoders, 24 two line displays and 24 level indicators for direct access to any channel parameter.
- Controlling VST Plug-ins is supported by 24 endless encoders in conjunction with 48 lines of display and 12 additional Favorite-User-Function encoders with displays.
- Edit-Section's integrated Matrix ASCII keyboard and the trackball allow computer and software operation without mouse and keyboard. Also has switches and status displays for nearly every important edit function.

STEINBERG

NUENDO TIME BASE

COMPUTER AUDIO

1014

VST System Synchronizer

Nuendo Time Base is the first synchronizer supporting Steinberg's VST System Link technology. This makes it the perfect solution for sample accurate cueing of tape-based audio and video machines from Nuendo audio production systems. All functions can be controlled and edited from within the Nuendo software. The outstanding feature set of Nuendo Time Base makes it the most versatile and precise synchronizer available today. Nuendo Time Base can also be used as a standalone unit. Any Nuendo system can be used as a 9-pin slave —just hit "Start" and Nuendo will immediately follow every command with the Virtual Machine Option.

FEATURES

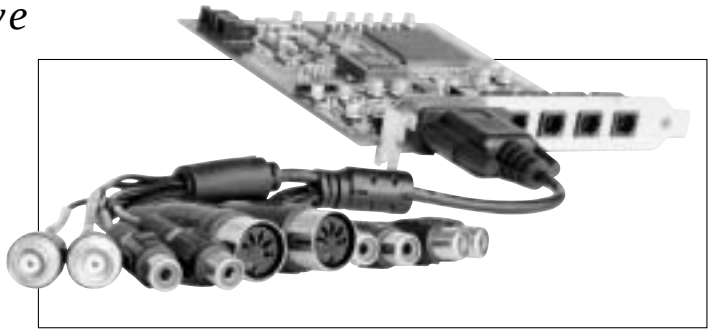
- Synchronization of digital audio and video systems (hard disk recorders, mixers, etc.) via house sync (Blackburst), AES-EBU, LTC, VITC, with analog/digital audio and video tape machines, sequencers, etc. with separate inputs for video sync and VITC R/W
- Read, generate and regenerate timecode (LTC, VITC, MTC and VST System Link)
- Burn visible timecode readout into video picture (2 different sizes, 4 display styles, freely positionable)
- Supports all sample rates from 16 to 192 kHz incl. NTSC Pull up/down
- 9-pin interface provides integration of machine control for decks like Betacam, Tascam DA98, etc.
- Ergonomic practical operation using 4 key pads and text display to show all functions and conditions plus software control, guarantees the user a full overview and intuitive usability
- Optional: Virtual 9-pin Machine. Emulation of 4 different 9-pin machines, allows use of Nuendo as a slave machine on professional 9-pin editors and (console integrated) controllers.

PRACTICAL SETUPS:

1. House sync for all digital devices: with its 4 WordClock outputs, 1 AES/EBU output and one of the best clocks available it is the perfect clock master in any studio with sample rates up to 192 kHz.
2. The Time Base can lock to a Blackburst signal. WordClock, AES/EBU and the timecode generator are video locked.
3. System Link generator: any timecode source - LTC, VITC, 9-pin - will be converted to system link data. By connecting the Nuendo audio card to the AES/EBU connections on the Time Base, Nuendo systems will slave sample accurate to the incoming timecode and machine control. Time Base can be run as a Virtual Machine and outputs the necessary System Link information (+ LTC, VITC inserter) to the connected Nuendo system(s), by running the virtual machine. The whole system including the timecode generator is video locked as long as Blackburst is fed to the Time Base.
4. The 9-pin Machine or the Virtual Machine can be controlled via MMC in parallel to the controls from the Nuendo system.*
5. By using the optional Virtual 9-pin Machine option (VTB), Nuendo – using VST System Link – behaves like a 9-pin Machine to the controlling system. Four different 9-pin emulations are available. (BVW 75, DVW500, 3348, TM). Depending on the chosen emulation, up to 64 tracks (track ready) commands will be supported.*
6. Separate from the video sync loop thru connectors, the Time Base offers a video in-/output which is used to read VITC, insert a VITC signal from the internal VITC generator and a switchable burn-in window. The video signal can be fed to the Time Base for timecode insertion on video playback.
7. NTSC Pull up/down: the Time Base can provide slower or faster clock signals (approx. 0.1%) for NTSC pull up/downs. All devices will receive the changed clock speed.
8. Additionally, the GPI port assures that standard GPI devices used in the studio are controlled by Nuendo via the Time Base, like red-light.

VSL-2020

Ultra-Low Latency ASIO Audio Card for Playing VST Instrument Live



The VSL-2020 provides 32 ADAT channels for pristine transmission of audio and MIDI data in 24-bit/96kHz quality to and from the other computers in your VST System Link network. Flawless support of ASIO 2.0 ensures stable, low-latency multi-channel network operation with other computers running Nuendo or Cubase. The VSL-2020 card is bundled with V-STACK (see below) so you can increase the available music-making power in your studio.

With the VSL-2020 card and V-STACK software you can turn your PC into a live virtual instrument station. The VSL 2020's ultra low latency architecture guarantees dynamic, live play of VST instruments at latencies as low as 32 samples (less than 1ms). V-STACK software hosts up to 16 VST instruments, and provides 8 send effects, 5 insert effect slots and 4 master bus effects for your VSTi sounds. All this in immaculate 32-bit audio quality.

- 32 ADAT channels - 2 optical ADAT I/O with S/MUX support
- S/PDIF I/O - supports AES/EBU and consumer S/PDIF
- Analog I/O - unbalanced (-10dBV) Stereo RCA I/O
- SuperClock (FS 256) and WordClock I/O with BNC connector
- Standard MIDI 5-pole I/O
- 24-bit with 32, 44.1, 48, 88.2 or 96 kHz
- Bundled with V-STACK VST System Link software

V-STACK

VST System Link/Live Performance Software

Since Steinberg introduced the VST 2.0 plug-in format a few years ago, there has been a rapid development of VST Instruments - software synthesizers and other sound sources played and controlled from within a host application. There is now a huge number of VST Instruments available, ranging from simple synthesizers and drum machines to exact software replicas of vintage synths and extremely advanced sound modules with no equivalent in hardware. VST Instruments can often be more flexible than hardware synthesizers, allowing for total recall and full automation of all parameters, patching and mixing in the digital domain, graphic interfaces and solutions that wouldn't be possible in hardware, etc. However, any computer can only play so many VST Instruments at a time - and typically, the more advanced a VST Instrument is, the more processing power it requires. Enter Steinberg's VST System Link. . .

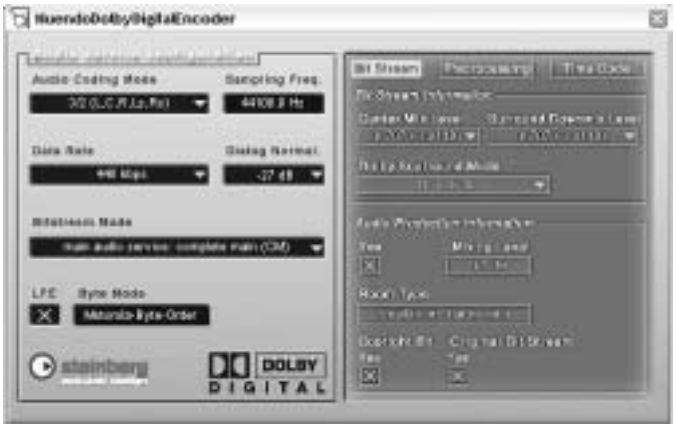
This revolutionary system makes it possible to have several computers working together as one large system, with no other requirements than ASIO compatible audio interfaces with digital audio connections. Computers connected via VST System Link will freely exchange audio and MIDI data, all in perfect sync, creating a digital audio network system. This provides an excellent solution to the problem of CPU-hungry VST Instruments: let one computer play audio and MIDI tracks and dedicate another computer to running VST Instruments only, taking full advantage of all available processor power!

V-STACK is the perfect application for this: a stand-alone VST Instrument host, supporting up to 16 VST Instruments with full mixing capabilities and VST effect support. The VST Instruments are controlled via MIDI over VST System Link or from a regular MIDI interface (e.g. for live use) and the audio can be freely routed to any outputs on your audio interface. Since there is no transport, editing, event handling, etc. all processing power can be focused on VST Instruments and effects!

STEINBERG

NUENDO SURROUND ENCODING

Until recently, the only way to encode audio for surround sound was by using expensive hardware systems which required lots of effort to get the audio in the right form to play into the encoding hardware and then to pass on the encoded audio to the authoring stage of the project. However, with Nuendo the whole process of encoding 5.1 Surround Sound—via DTS or Dolby Digital—can now be integrated into computer-based production systems where the processed files are ready for use in the authoring process.



Nuendo Dolby Digital (AC-3) Encoder

The Nuendo Dolby Digital Encoder software plug-in allows Nuendo projects to be encoded into Dolby Digital—the number one choice for delivering surround sound to millions of home theater system around the world. The multi-channel audio format for DVD discs, Dolby Digital (also known as AC-3) is based on an algorithm that takes advantage of auditory masking and both intra- and inter-channel redundancy. This technique guarantees both outstanding audio quality and bandwidth efficiency. Licensed by Dolby Laboratories, the Nuendo Dolby Digital Encoder comprises the full functionality of the original Dolby hardware. Imagine the sheer convenience of having the encoding system on the same platform as the program which is used to create and process the audio.

Nunedo DTS Encoder

A rival format to Dolby Digital, DTS (Digital Theater Systems) provides a similarly epic sonic experience in DVDs as well as DVD-Audio and SACDs where the increased fidelity of the rear speaker pair means that full bandwidth can be placed in all speakers in the surround field. Specifically licensed by Steinberg to allow Nuendo users access to the next stage in the surround sound production process, the implementation is simplicity itself with the smart integration of the DTS file format in Nuendo's export dialogue. The necessary routines are all automated so that the user merely needs to define which 6 files should be DTS encoded and the resulting encoded files are placed on the desktop ready for use in the authoring stage.

Urban Atmospheres Surround Library

This new surround library provides urban acoustic 5.1 environments recorded in immaculate quality. Spanning 95 scenes on 9 DVDs, Urban Atmospheres are constructed to ensure maximum versatility in building urban soundscapes for film, TV, radio, theater or music.

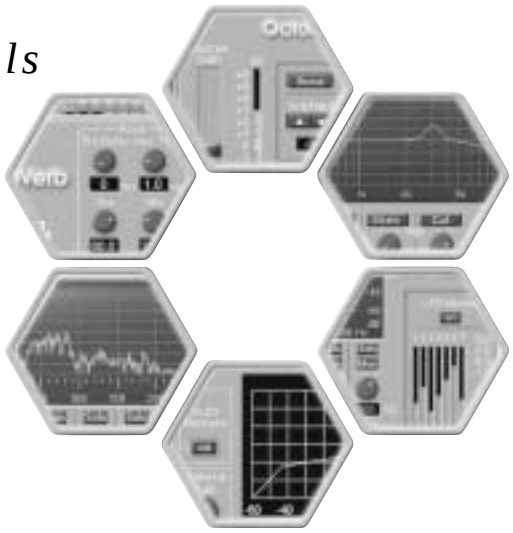
Urban Atmospheres are a collection of high-end sound environments professionally recorded in 5.1 surround that offer unequalled spatial characteristics and pristine sound quality. The SPL Atmos System was used to record 25 indoor and outdoor locations, spanning 95 scenes. These astoundingly authentic recordings were compiled onto 9 DVDs in AIFF format, ready for immediate use in any pro audio system (Windows or Macintosh).

Urban Atmospheres are perfectly suited for any use in sound-tracking or dubbing, be it for film, TV, theater, music or radio plays, or anywhere you need to create a spatially realistic acoustic environment. And because the unique construction kits containing background atmospheric recordings with no conspicuous audio events are combinable with the included foreground events, you can mold the material to suit any requirements or even build your own, even more complex acoustic environments with no additional software required.

B&H PHOTO - VIDEO - PRO AUDIO
MC
DISCOVER NOVUS
AMERICAN EXPRESS Card

NUENDO SURROUND EFFECTS PROCESSING

Nuendo Surround Edition— Eight-channel Real-time Surround Tools



The Nuendo Surround Edition is a collection of 6 surround real-time effect plug-ins designed for daily use in media production work. Offering up to eight channels of compression, equalization, loudness maximization, reverberation, and LFE management, the Surround Edition is the perfect choice for anyone with multi-channel mixing needs. Since the requirements of a surround environment differ quite significantly from the classic two channel world, Steinberg Spectral Design has developed this collection specifically as a tool for the specialist fields of film, theater, DVD and modern music production. In fact these state-of-the-are plug-ins provide all the processing and "finishing" tools needed to produce mixes for both 5.1 and 7.1 productions.

OctoQ: A 7-band EQ with 3 parametric variable-Q mid bands and low and high shelving and cut filters which works at double the selected sample rate

OctoMaxx: A soft/hard gain maximizer with up to 4 linking groups, input/output level meters for each channel and Possible Gain and Achieved Gain meters

Octoverb: A reverb/ambiance plug-in with two independent room models and intelligent adjustment of the reverb tail according to the room size. Also features independent Level, PreDelay, High and Low Damp controls for each channel

OctoComp: A state-of-the-art compressor with auditionable independent sidechain filter for high and low frequencies, continuous blend between RMS and Peak characteristics, an autorelease function and up to 4 'linking' groups with individual settings

LFE Splitter: A 24dB brickwall filter with low cut filters for each of up to 7 full range channels from which it generates one LFE signal with selectable attenuation steps

LFE Combiner: With adjustable low frequency filters and solo mode for each channel and a monitor mode for the LFE signal

The native version of the highly regarded TC-quality reverb expanded to fill the 5.1 space with dense and entirely convincing studio quality reverbs, TC Surround Reverb is the ultimate surround reverb for use with Nuendo—and is indispensable to anyone mixing for film, home theater or DVD.

TC Surround Reverb

The graphic user interface provides intuitive control of all the main parameters for reverb design covering room shape and size through to diffusion and separate controls for early reflections and reverb tail. There are three independent tail controls for low, mid and high band with a sweepable band crossover and and an additional EQ stage with low and high shelf filters, giving an unprecedented sonic flexibility and realism to surround productions.

As Nuendo already takes care of positioning tracks in the 5.1 surround field, TC Surround Verb receives the signal already panned, so instead of it's own panner, it has an innovative surround metering which allows you to keep track of the audio's position in the virtual room. Dry and wet signals are displayed in two different colors, providing maximum visual feedback as to what is happening to the source signals and the effected components.

In the Space Editor you can set up size and shape of the room. This is the first aspect of any reverberation characteristic, where the early reflections from walls, floors and ceilings make a large contribution to the overall sound. The Time Editor allows you to process the reverb tail in three distinct frequency ranges, the PreDelays are separately definable for early reflections and tail, and the Filter Section gives an individual tone for both early reflections and tail with high shelving filters.

STEINBERG

WAVELAB 4.0

The Standard in Digital Audio Editing

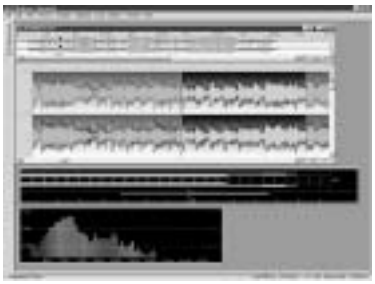
Professional audio editing and mastering software for Windows, WaveLab 4.0 can handle almost any audio editing task—be it sound design, high-quality mastering, internet audio, multimedia applications, and preparing audio for broadcasting or computer telephony. Combining easy-to-use stereo editors with a wealth of mastering features, WaveLab 4.0 offers powerful editing tools and an array of new, high-quality virtual effect processors. With its unique Audio Montage window, WaveLab 4.0 offers a revolutionary, non-destructive editing concept whose flexibility and performance no other software solution can match. Create Audio Montages and carry out precision edits in real-time. Use fades, crossfades, volume envelopes or effects without having to wait. The full implementation of multitasking allows editing and processing in the background during playback. You can even save or record while working on a different file. WaveLab 4.0 also features drag & drop and a customizable user interface, and you can freely scale all windows with a mouse. Comprehensive CD burning capabilities, real-time audio file analysis and batch processors further add to the functional depth of WaveLab 4.0. Plus, Steinberg's latest version also supports samplers, ASIO, WDM, a vast range of file formats as well as file resolutions of up to 32-bit IEEE/192 kHz, and real-time input and output monitoring.

FEATURES

Highest Quality Sound

WaveLab 4.0 offers outstanding sound quality. The internal 32-bit floating processing depth with a sample rate of up to 192 kHz offers superb audio clarity. Apogee's renowned professional UV22HR dithering algorithm converts your audio into other bit rates at the very last step in the mastering process.

Powerful Real-Time Analysis Tools



WaveLab 4.0 features a broad palette of professional analysis tools. Thanks to newly developed high-precision level indicators, you can visually monitor playback audio input and even each single sample position - in real-time, of course. Also included are a new version of the Peak/VU Meter (now free-floating), a 60-band spectrum analyzer and Phasescope, a correlation meter with integrated goniometer. With the FFT meter, you can also, for example, test rooms or PA systems.

Audio Montage

The Audio Montage window is the heart of WaveLab 4.0. Here, audio files and sections of audio are defined, arranged and edited. Open as many clips on as many tracks as you want simultaneously in the audio montage and place, move, cut, fade or crossfade them any way you like. Crossfades, panorama, volume edits and effect send levels are calculated in real-time. You can change the "rubber band" curves with the mouse: hear and see the changes you make straight away - without creating fade files that have to be calculated first. The Audio Montage is absolutely non-destructive, as the clips are only references to the original audio files. This gives you the flexibility of being able to move, cut or delete clips. Each clip can be processed using up to ten VST effects. The sum of all the tracks then passes through the Master Section, where another eight real-time effects (VST, WaveLab, Direct X) are available. Unlimited undo/redo lets you take back any edits or changes you have made.

Integrated Mastering Studio

WaveLab 4.0 offers everything you need to give your audio the finishing touches it deserves: a graphic, editable, fully parametric equalizer, a top level reverb algorithm, comprehensive dynamics section as well as special high-end loudness optimization algorithms. Also built-in are two plugins for restoration of audio recordings, Declicker and Denoiser. Using virtual effect processors in the Master Section couldn't be easier - you can drag & drop the plug-ins around and place them into the desired position in the processing chain. To help you compare results of different effect combinations easily, you can open several instances of WaveLab 4.0 at the same time.

WAVELAB 4.0

Burn Your CDs

WaveLab 4.0 makes burning CD masters easy. You can set track and index markers directly in the waveform, including extremely accurate settings for codes and pauses. The integrated Label Editor lets you make your own CD labels and covers. The backup tool lets you archive your audio files to hard drives, CDs and JAZ. Also features audio-in-pause function for creating hidden tracks, 1:1 CD copying, ISO import and export, PQ sheet import, export and printing.

Transparent File Management

With its integrated audio database and batch processors, WaveLab 4.0 takes care of routine tasks. Organizing sound archives or databases is simple. These versatile tools can edit and convert audio files automatically. Using them couldn't be simpler - just select your audio files, choose the editing functions and set your destination folder. Meta Leveler can be used during batch processing to compensate undesired volume fluctuations.

Audio file formats

Supported file formats include WAV, AIFF, Ensoniq Paris 24-bit, RAW (8/16/20/24 bit), AU, Sound Designer II, ulaw, MP3, Sun/Java and many more…

Additional Functions

- ASIO, WDM and MME driver support
- Analyze audio signals in real-time: Level/Pan, Phase, Spectrum Analyzer, FFT Meter, Wave Meter, Bit Meter
- Full real-time input and output monitoring
- High-quality virtual effect processors Q (parametric 4-band mastering EQ), Multiband Compressor, Spectralizer (Enhancer), Denoiser, Declicker, Voice Attenuator, 192 kHz Resampler
- Backup function, data CD burning, CD copy, CD label creation
- OSQ (Original Sound Quality) - lossless audio file compression
- Save several audio files in the background while you continue working
- Apogee UV22HR Dithering
- Automatic pitch recognition and pitch adjustment
- Autosplit function splits audio files into segments with a range of different criteria

Applications

Mastering

WaveLab 4.0 offers a range of features which are indispensable for mastering: editing, arranging CD tracks, sound processing with internal EQs, dynamics and effects, automatic volume adjustment, UV22HR dithering and noise shaping, CDR writing, tools for problem analysis and comparing files, and a raft of real-time analysis tools (FFT, VU/Pan, Bit, Spectrum etc.)

Broadcast

Ideally suited for use in everyday broadcast audio, Wavelab includes a variety of solutions, such as: easy-to-use speech cutting tools, simple, graphic arrangement of audio files for radio, automatic ducking and automatic real-time crossfades.

Multimedia

Import and export MP3 files, while intelligent functions prepare your files for multimedia applications. These include the audio database and the batch processor. WaveLab 4.0 also features integrated dithering to word lengths between 8 and 24 Bits as well as sample rate conversion (5 to 192 kHz).

Sound Design for Samplers

Communicating directly using MIDI or SCSI, sample editing is a joy. Sound processing with internal EQs, dynamics and effects, volume optimization, distortion control, high quality time stretching and pitch shifting with pitch detection, auto-split functions and professional loop creation features. All supported by crossfade-looper and wave EQ.

WAVELAB ESSENTIAL

Digital Audio Editing For Project Studios

WaveLab Essential offers a range of indispensable digital audio editing features, from superior CD writing functions to comprehensive mastering possibilities. Based on award-winning WaveLab 4.0 technology, WaveLab Essential delivers outstanding quality for your project studio - and all this performance at an unbeatable price.

	WaveLab 4.0	WaveLab Essential
File Formats Supported	full set	slightly reduced set
Sample Rate	192 kHz	96 kHz
Audio Montage	fully featured	2 tracks, reduced feature set
Number of Slots	8	4
Dithering	internal+uv22/hr	internal
Audio CD Burning	x (enhanced)	x
CD Copy	x	
Professional CD Report Generator	x	
Basic Audio CD	x	
Recording Functionality	full	medium
Batch Processing	full, with specialized plugins	file encoding
Automated File Cutting System	x	

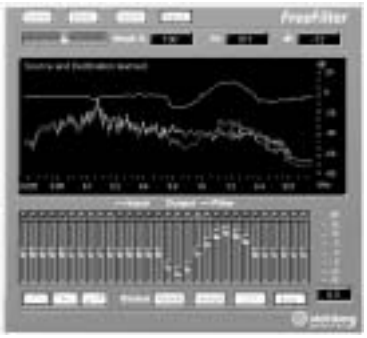
STEINBERG

MASTERING EDITION By Spectral Design

The Complete VST Mastering Solution

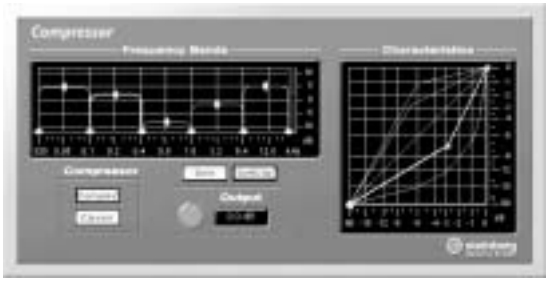
Every recording deserves to be mastered. Without mastering, a mix can sound dull and lifeless. Single tracks sometimes do not fit together with other tracks because of differences in the dynamics or the frequency characteristics.
Designed to meet today's ever-increasing demands in music production, the Steinberg Mastering Edition is a set of six high-quality plug-ins specially designed to help you achieve the most efficient and effective results. Compatible with a wide range of host-based audio applications, together they will satisfy all your mastering needs. So whatever the situation, the Steinberg Mastering Edition gives you the tools needed - in the quality you expect of Steinberg audio software.

The ME Loudness Maximizer sets the standard in loudness optimization. It is the first dynamic processor whose algorithms were modeled with the express purpose of achieving the optimal effective loudness. Even with a mix where the loudness has already been pushed to the limit, the ME Loudness Maximizer can increase the subjective loudness of the audio material without losing "punch" or causing distortion. The intelligent algorithm analyzes the audio material and automatically adjusts all parameters accordingly. The preset functions allow definition of standard working situations, making this high-quality tool very user-friendly. The ideal tool for complex applications such as mixing, mastering, post-production, or broadcasting, the ME Loudness Maximizer guarantees outstanding results—no pumping, no clicks, and no unwanted artifacts or other side effects.



The ME FreeFilter is a linear phase real-time 1/3 octave equalizer, whose up to 30 bands of equalization allow very delicate adjustments of critical frequencies. The uniqueness of ME FreeFilter lies in its ability to conduct an extremely detailed analysis of audio sequences and use this data in a completely new way. The ME FreeFilter can "learn" the frequency spectrum of a piece of music and "copy" it to another. The Morph function allows real-time scalable mixing between the two frequency spectra. This means that different music tracks can quickly and easily be made to sound more alike. A large display shows the frequencies of both "learned" audio signals (and the differences between them) with pinpoint accuracy.

The ME Compressor is a multiband compressor, which divides the audio signal into five independent frequency bands. A line showing compression characteristics is available for each band. This allows highly flexible compression of varying frequency ranges, music signals and even single instruments, within the final mix. The compression characteristics are displayed on a logarithmic scale, making editing more intuitive and allowing highly delicate adjustments. The solo function allows monitoring and adjustment of each band individually. Has two modes:
Classic mode - Standard compressor with fixed Attack and Release times
Complex mode - A new approach to audio compression. Adaptive control produces a cleanly compressed signal without the "pumping" produced by many other compressors. The softclip function gives the output signal that certain sharpness.



MASTERING EDITION By Spectral Design

ME PhaseScope and ME SpectroGraph

The ME PhaseScope and ME SpectroGraph round off the Steinberg Mastering Edition with two display-components indispensable for mastering work. The ME PhaseScope is a Goniometer with integrated correlation meter. The ME SpectroGraph displays a spectral plot as a real-time sonogram, which gives precise verifications of even the smallest detail in the recording.

VOICEMACHINE

Real-time Vocal Pitch Transformer

Consisting of two real-time voice effect tools, VoiceMachine is the ultimate application for redesigning the voice—whether by creating completely new sound files or altering the pitch leaving the natural character untouched. The VM Generator allows you to manipulate a vocal track as if it were an instrument. You can control the pitch and formant characteristics of up to 4 additional voices in realtime, simply by triggering them via MIDI. This lets you create lush vocal arrangements from a single lead vocal track. The VM Processor lets you change the melody or correct and smooth the intonation of a voice while maintaining its natural character. Their VST 2.0 interface allows all parameters to be addressed via definable MIDI controllers.

VM Generator

- Up to 4 voice harmonies can be triggered via MIDI in realtime allowing you to create a backing choir from a single voice in minutes, reducing recording time to a minimum
- Each voice features independent control of pitch change and voice character as well as:

– An LFO that provides vibrato simulation with a choice of three waveforms (Sine, Saw and Triangle) as well as adjustable Rate, Depth and Delay parameters

– Adjustable Gain, Pan, Formant and Fine Tune sliders

VM Processor

- The VM Processor features an intonation correcting algorithm that allows you to fix any tuning problems in your vocal recordings
- The portamento control can be used to smooth the transition between notes as well as create interesting effects at more extreme settings
- The VM Processor allows you to either change the melody or simply correct the intonation by changing the pitch of a voice without changing the voices original character
- Independent realtime control of pitch change and formant shifting voice character delivers natural sound pitch shifting
- Pitch/Character link function for “classic” pitch shift effects
- Independent controls are provided for the pitch shift and character profile to allow natural pitch shifting or used interactively to create a range of effects such as simulating other singing voices, and even imprinting the character of the male voice onto a female vocalist.
- Real-time natural pitch shifting (no ‘singing rodent’ effect)
- Independent control of pitch change and voice character
- LFO with different waveforms and delay for vibrato simulation
- Smoothing intonation problems in vocal recordings

STEINBERG

GRM TOOLS

Real-Time Sound Manipulation Plug-In Collections

GRM Tools is collection of eight unique plug-ins for VST by the Musical Research Group (GRM) at the Institute National de l'Audiovisuel in Paris. Famous for their research into sound processing tools, the possibilities offered by the GRM Tools collection goes far beyond ordinary filter, auto panning or chorus effects. High quality algorithms offer unprecedented flexibility and open up new dimensions in audio manipulation.

All 8 Plug-Ins offer the same interactive integrated preset handling which allows settings to be assigned to one button in order to be reselected with a single click. The key lies in the delay parameter which defines the time frame in milliseconds during which the settings from the one preset blend over into the other. Complex parameter mixes allowing sensational sound movements are created in no time at all!

GRM Tools are indispensable for sound design, dance, electronic and experimental music creation, film and TV, even jingles and radio effects.

- Parameter interpolation and settings management
- Slight to extreme manipulation of the audio source
- Time relevant parameters can be synced to tempo (VST 2.0 compatible host software)

Volume 1

Shuffling

Shuffling is a random micro-splicing and shuffling algorithm. Depending on the selected memory sizes and density, Shuffling introduces bouncing of signal fragments at definable points in the signal's actual timing, whilst preserving the overall continuity of its time sequence. This leads to spectacular panning, panorama width and stereo movement effects.

Comb Filters

Comb Filters is a bank of 5 comb filters with resonance up to self-oscillation. The comb filter amplifies the signal at a given frequency and at all harmonic frequencies (integer multiples of the fundamental) of that frequency. Harmless drum loops grow into exciting new groove happenings by emphasizing certain frequencies or morphing classical instruments into abstract fx tunes.

Pitch Accum

PitchAccum is an algorithm which combines two transposers with their feedback delay device. Transposition is switchable on a periodic or random basis. Harmonizer effects and spectacular pitch related creations can be generated in seconds thanks to the interactive window.

Band Pass

Band Pass consists of a combination of two filters: a high-pass filter and a low-pass filter which together form a variable width band-pass or band-reject filter. The cut-off frequencies can be set individually. This allows creations ranging from "telephone"-effects to filter blends of all kinds - even separately for each channel in the stereo version!

Volume 2

Freeze

Freeze lets you select a 3-second sample from an audio source and create up to 32 loops within that 3-second sample. Treat your loops as you wish.

Reson

Reson consists of up to 128 resonant high-pass, low-pass or band-reject filters, each of which resonates a single frequency and produces an ensemble of very soft resonances in an input signal.

Delays

Delays features a group of up to 128 variable delays, each controlled in its amplitude and timing.

Doppler

Doppler simulates the effect of a sound moving towards or away from you, similar to an ambulance passing by.

◀ *Delays*

Doppler ▶

WARP VST

Virtual Guitar Amp Collection

Imagine a big guitar sound with all its pure emotion and raw energy. Most guitarists envision the classic guitar set-up - usually involving glowing valves and a wall of cabinets. Now you can get that sound on your computer.
Warp VST, Steinberg is a VST 2.0 guitar amp simulator plug-in that allows you to combine one of three legendary amp models with any one of three speaker cabinet models. The sound characteristics of amps and three speaker cabinets have been authentically recreated in software, using Hughes & Kettner's groundbreaking DSM (Dynamic Sector Modelng) technology. When combined with an ASIO I/O solution, Warp VST is practically latency-free allowing you to laydown your guitar in real-time processed with your favorite classic guitar amp combination.

FEATURES

- With a few mouse clicks you can combine any off the 3 virtual amp models with any of the 3 virtual speaker cabinet models
- Each amp and cabinet model reproduces the same sound altering components of the hardware originals
- Full automation capabilities
- Gives you total control over a guitar sound even after the guitarist has left the studio.
- Extremely low latency thanks to Steinberg's ASIO technology. When combined with the AudioLink I/O, Warp VST turns your computer into a powerful guitar amplifier rig with an imperceivable delay between plucking the strings and hearing the signal.
- VST recording systems such as Cubase or Nuendo will allow you to monitor the signal in realtime through Warp VST while recording the untreated signal. This provides you with the flexibility of deciding on your amp/cabinet combination and their settings during mixdown.

Dynamic Sector Modeling (DSM)

- Developed by Hughes & Kettner, DSM represents a breakthrough in amplifier technology that allows an exact recreation of the components and materials of three of the most sought after guitar amplifiers
- Each amp offers its own individual dynamics and distinctive characteristics, selectable with a single mouse click.
- Combines the user friendliness and flexibility of digital technology with the sound quality of a leading analog amplifier.

Three Virtual Amps

- The legendary Jazz Chorus clean sound
- The dynamics of a 60s Plexi Tube Head
- The modern HiGain Chunk-Sound of the Rectifier Era
- Each amp model has the exact gain structure and EQ controls as the originals

Three Virtual Speaker Cabinets

- Combo (12″ speaker, open housing)
- British (4x12″ speakers from the 80s)
- Greenback (4x12″ speakers that support those powerful riffs)

Guitars and Computers

Please note when recording a guitar: Although an electric guitar has a large dynamic range, the output is relatively weak. And since standard soundcards don't have a high-ohm guitar input, you don't get good-sounding results when connecting a guitar directly to a soundcard.
To get the best sound possible, you need to convert the guitar signal in high quality. This can be done with a preamp which brings the guitar signal up to "line in" strength. You can also use an effect pedal that is switched to bypass mode. Some I/O solutions also have instrument inputs with which you can get very good results, such as MindPrint EnVoice, Aardvark Interfaces, Edirol USB interfaces. Important: The guitar signal has to be recorded in your computer as cleanly as possible. Please adjust your recording level accordingly to avoid distortion.

STEINBERG

HALion 2.0

32-bit Virtual VST Sampler

What's your dream sampler? A sampler that is seamlessly integrated into your computer. No rack space, no MIDI or audio cabling mess, no set up problems. Total recall inside each song you do. Up to 16 instruments at a time, assignable to 4 stereo, 4 mono and 5.1 surround outputs – giving you a total of 18 outputs. Easiest handling thanks to drag & drop. Pristine sound quality achieved through 32-bit/96kHz support. Advanced memory management, handling sounds of up to 20GB on any computer system and sample libraries in any popular format including AKAI, EMU, E-magic ESX-24 and Tascam GigaStudio.
So stop dreaming— it's here and it's called HALion 2.0—never before has a software sampler been more intuitive and productive.

FEATURES

- Automation and control effects via MIDI controller data or simply tuning the samples to the right key
- Waveloop editor shows how a modern software sampler should perform. A sophisticated crossfade function helps to set the optimum loop
- Zero crossings are automatically identified and the non-destructive editing saves faulty edit steps. Samples can be pitched, modulated or reversed.
- Creating complete programs and layers in the keyzone window is fast and easy with HALion 2.0's intuitive editing facilities
- Global presets for all envelopes and modulation settings for quick loading of individual settings for each program
- Loading samples into HALion 2.0 is a simple drag and drop-job directly to the keyzone window. The samples appear graphically on the screen. Via resizing and moving the keyzones, velocity and layers are set.
- 18 freely assignable outputs per instance (4x stereo/ 4x mono, 5.1 Surround)
- Pristine sound quality is achieved through • 8-/16-/24-/32-bit file support
- Various filter types (Notch/Hi-Pass/Lo-Pass/Band-Pass) with selectable 12 dB or 24 dB slopes as well as new Waldorf filters and "fatness" function provides opportunities for breathtaking sound experiences.
- Filter and settings can be made individually for each sample (and/or globally for the whole program)
- 16-way multi-timbral with an individual editor for program selection, 128 programs per instance, unlimited layers per program
- 256 Voices per instance, several instances loadable simultaneously
- Full individual parameter set for each sample, ideal for drum sounds
- Extensive, chainable modulation routing capabilities
- 2 synchronizable envelopes with up to 32 freely editable points and 2 LFO´s
- Virtual keyboard for auditioning samples
- WAV, AIFF, AKAI (S1000, S2000, S3000), Roland, and EMU (3/3X, ESI/4/4K, E64/E6400, ESynth and Ultra) import functionality, plus SoundFonts 2.x, GIGA, LM•4, LM•4 MarkII script import, SDII (Mac only) and REX file formats, ensures HALion 2.0 is optimally equipped for the world of sampling CDs.

Modulation/Tune Page for various settings

- Seamless integration within your VST 2.0 compatible host application including; sample-accurate playback timing, complete automation capabilities and extremely low latency thanks to Steinberg´s industry standard ASIO technology. All this makes HALion 2.0 the perfect sampler for optimizing your workflow within the VST system.

The Macro Page

B&H PHOTO - VIDEO - PRO AUDIO EQUIPMENT LEASING AVAILABLE

HALion 2.0

Waveloop Page

- Streaming of samples from disc: GBs of sounds independent of RAM limitations
- MegaTrigg function to activate samples via controllers or keys and trigger them with NoteOff or Pedal command for perfect GIGA import
- Unprecedented navigation system (diagonal using a virtual "Navigation-ball") and drag and drop makes working with your samples faster and easier than ever.
- HALion 2.0 includes 4 CDs with over 1.6GB of sample content by sample experts Wizoo and E-Lab:

➢ XXL Acoustic Piano,
➢ XXL Nylon Guitar • XXL Bass
➢ XXL Drums & Percussion
➢ Clavinets ➢ Clean Guitar
➢ Electric Pianos ➢ Electronic Drums
➢ Synth Basses ➢ Analog Chords
➢ Digital Decays ➢ Pads
➢ House Organ ➢ Osc Toolbox
➢ Erazor FX ➢ Organs
➢ DrumTools
➢ LoopTools 65 bpm - 170 bpm
➢ MusicLoops 90 bpm - 170 bpm
➢ SoundTools Samples
➢ SoundTools Vox

HALion STRING EDITION Vol.1

Symphonic String Orchestra Instrument And Library

The ultimate symphonic strings collection for computer-based music production, the 5GB HALion String Edition Vol. 1 gives you a top quality orchestral string section (8 double basses, 10 cellos, 12 violas and 16 violins), with outstanding playability, a unique, warm character and a natural ambience. A specially-developed VST- and DirectX- compatible player is bundled to provides a direct connection to production systems like Cubase SX/SL and Nuendo. Musician and composer, Claudius Bruese, who helped in the development of the legendary VST piano, THE GRAND, also played a significant part in the production of the HALion String Edition. This software gives the precision in reproducing acoustic instruments, the superior sound quality and clarity, as well as the playing characteristics users around the world have come to expect of products bearing his name.

- 8 CDs with over 5 GBs of sampled string instruments of superior sound
- Complete orchestral strings - 8 double basses, 10 cellos, 12 violas and 16 violins
- Suits all musical styles from classical to contemporary; playing styles such as legato, tremolo, pizzicato or spiccato
- Expressiveness, full dynamic range, up and down bowing
- Natural concert hall ambience, true key release action
- Each section is provided in two versions you can combine freely with other sections.
- Top recording techniques with unobtrusive, natural ambience deliver outstanding sound quality with a warm character, well defined tones and balanced bow sounds
- A multitude of presets make arranging and combining sections a breeze.
- Specially developed VST- and DXi-compatible HALion String Player allows full control over articulations such as crescendo, bowing or portamento.
- Additional HALion programs allow creative editing and limitless combination with other sounds in HALion.

STEINBERG

LM•4 MARKII

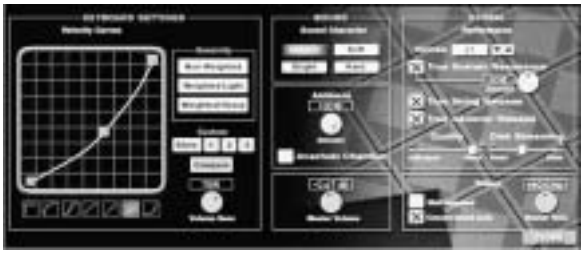
32-bit VST Drum Module —The Ultimate Drum Machine

The LM•4 MarkII, a VST plug-in, recreates another of the classic beat-boxes of the early 80's. Heard on many a hit record of that period, the original was way too expensive for most musicians. Today, Steinberg delivers a virtual recreation at a fraction of the price. This was also achieved while combining intuitive handling and maximum performance yet keeping CPU load to a minimum. In addition, the LM• 4 MarkII comes with a huge range of high-quality 24-bit drum and percussion sounds that cover the most diverse music styles, from Latin and Rock, to House, Electro and Drum'n'Bass. The multiple audio outputs are routed directly into the VST system's audio mixer, ready for EQ and effects. Functions such as Drag & Drop and velocity switching make creating realistic and dynamic grooves a breeze. This makes the LM•4 MarkII the most user-friendly drum module around.

- 32-bit drum module with 18 pads per set
- ADSR envelope and reverse mode per pad
- Precisely scalable volume envelope with Attack, Decay, Sustain and Release (logarithmic, exponential, linear)
- BitCrusher for creating the time-honored vintage sound (powerful lo-fi effects)
- 12 outputs (3 stereo and 6 mono assignable) for each instance of LM•4 MarkII you have loaded in your virtual rack
- Velocity, pitch and panning for each instrument (automatable)
- Create your own sets
- The complete drum module and all settings can be saved with the song (Cubase VST)

THE GRAND

Virtual Concert Grand Piano



The challenge was to develop a virtual concert piano equal in quality to an original acoustic piano, even including the "unmatchable" playing characteristics. The result, The Grand - a top-quality virtual concert piano with a breathtakingly rich and realistic sound, whose tonal precision and outstanding dynamic qualities rival those of a real, quality acoustic concert grand piano.
The Grand is not a digital piano, nor is it a ROM player that reels off piano sounds. Rather it is a perfectly simulated grand concert piano based on the sounds from a top-flight acoustic grand piano—guaranteeing you powerful bass, crystal clear mid-range and brilliant treble. Easily record The Grand in the highest quality without the hassle of tuning and miking—and with perfect integration into the VST system.

- Reproduces the thrilling experience that is a large, grand piano. There are no loops or audio compression. Absolutely realistic, authentic sound based on an intelligent VSTi engine optimized for a concert piano
- Various performance optimization features to get the appropriate balance between sound quality and system performance
- Playable with any MIDI keyboard
- Authentic functionality of sustain and sostenuto pedals
- Complex variation of different sound characteristics such as dynamic response, dying out of notes, hammer action and string resonance
- Free variation of acoustic ambiance thanks to complete separation of piano and room
- The Grand allows you tailor it perfectly to your needs: freely programmable velocity curves, four master tembres (Natural, Soft, Bright, Hard), and well tempered or concert grand tuning.

STEINBERG

MODEL•E

Classic Virtual Analog Synthesizer

The legendary analog sounds —without the restrictions of a hardware synth. Load the Model•E into your VST-compatible host application and put 16 synths at your disposal. Create sounds that combine the best qualities of analog sound synthesis with amazing timing accuracy, deep basses, sweeping filters, three heavy-duty oscillators. Model•E is triggered through MIDI tracks, allowing you to automate every parameter without MIDI cables or hardware interfaces. The virtual outputs appear directly in the Cubase VST Mixer, so you can treat its sounds with virtual effects and EQs.

- Exclusive sound banks created by synth gurus Hubertus MaaB and Wolfram Franke
- Make your own sound banks. Model•E sounds richly analog, but offers sample accurate timing for dynamite precision.
- Up to 64 Voices per instance
- 8 outputs per instrument
- 128 memory slots per instrument
- 16 multi-timbral parts
- All Model•E settings are automatically saved with your song files and the final mix can be streamed to an audio file

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PLEX *Restructuring Synthesizer by Wolfgang Palm*

PLEX is a synthesizer based on an absolutely novel synthesizing process. This process offers you almost limitless possibilities in varying and creating sounds. The original sound is split into four components, lower spectrum, higher spectrum, filter characteristics and amplitude envelope, using a new audio analysis technique. Each component can then be replaced and combined with other elements. An example would be combining the sounds of a trombone and a sitar with the envelope of gong. Just drag the Base part onto the trombone, the Top part onto the sitar and the Filter part on the gong. Doesn't just sound great, it's also surprisingly simple. It's not only the sounds you can create with PLEX that are revolutionary, the innovative and clearly structured user interface also sets new standards in intuitiveness and ease-of-use.

- Developed by synth legend Wolfgang Palm in cooperation with Steinberg, PLEX is based on a new synthesizing technique that gives musicians almost limitless possibilities in varying and creating unique new sounds.
- Independent manipulation of four integrated sound components: upper and lower frequency spectra, filter characteristics and amplitude envelope, while the information contained in each of the components is strictly separated from that contained in other components.
- Each component can then be replaced and combined with components from other original sounds. This means that, for example, the lower spectrum, or "Base" component contains neither amplitude envelope information nor filter characteristics. Replace any component you wish and still produce a "natural"-sounding result.
- Real-time swapping between components of 33 sound sources
- Up to 64 voices, 300 presets included
- 97 special pre-analyzed sound sources - acoustic, synthetic and filter characteristics
- Modulation section with stereo delay and flanger effects
- 3 ADSRs, Global Pitch LFO as well as 3 LFOs that can be synchronized (besides presets such as sine, square, sawtooth and random, Plex also allows you to create 16-step sequences)
- All parameters are MIDI controllable

STEINBERG

PPG WAVE 2.V

In the 80s, the PPG synthesizers and their wavetable synthesis technology could be heard on countless records. Their distinctive sound was an important influence in many music styles. With the PPG Wave 2.V, Waldorf and Steinberg offer an authentic recreation of the legendary PPG Wave 2.3 synthesizer as a VST instrument. That classy PPG sound is now more affordable than ever and can be seamlessly integrated into today's computer-based production environments. The photo-realistic recreation of the original PPG look is combined with a modern audio engine with superb audio qualities, simple user interface and full MIDI automation.

- Using wavetable synthesis is easy because it isn't much different from normal subtractive synthesis. Creating new sounds is as easy as replacing one wavetable with another. No other form of synthesis offers such a simple way of creating entirely new sounds.
- Almost 2000 waveforms (32 wavetables each with 64waveforms) recreate the exclusive sound of this classic synthesizer—with all the advantages that an integrated software production environment such as Cubase VST and Nuendo have to offer.
- Includes over 700 pre-programmed sounds
- Outputs appear in the VST mixer, which means that it can be routed through effects and EQ's.
- MIDI tracks are sent directly to the PPG Wave 2.V, making cables and MIDI interface completely unnecessary.
- Graphic display for envelope generators and Cutoff/Emphasis allows quick and simple sound editing
- Low Pass filter with Emphasis control
- Built-in Arpeggiator
- Two oscillators per voice
- The number of voices (up to 64) is limited only by CPU power. Up to 8 instances of PPG Wave 2.V can be used at once (and each unit is 8-way multi-timbral), giving you more than enough creative power.
- Realtime MIDI control and automation of all parameters

Continually setting new standards in sound quality and functional extras, Waldorf has had a decisive influence over the development of electronic music instruments, and created new sounds which have in turn, helped shape modern music. For over 20 years now, Waldorf has been developing innovative instruments such as microWAVE, Q, the avante-garde WAVE and the classic analog Pulse, allowing you to realize your musical ideas without any limitations.

WALDORF ATTACK

VST Percussion Synthesizer

A true percussion synthesizer, Attack seamlessly integrates the classic visceral 80s analog sounds and the electronic club drums of the 90s into the VST environment of the 21st century. Attack has 24 sounds available per percussion set, spread over two octaves. It requires neither MIDI nor audio cabling, however, all parameters are addressable via MIDI controller, and it offers absolutely sample accurate timing. Treat your ideas to the Attack's sublime sounds. Your groove deserves it.

- Two oscillators, each with nine waveforms (triangle, sine, square, sawtooth, sample and hold, noise, hihat closed, hihat opened, crash), represent the sources.
- Two integrated and synchronizable Modulation Delays for the stereo outs
- All parameters addressable via MIDI controller
- Percussive bass and lead sound– polyphonic playable
- Eight audio outputs (2 stereo, 4 mono)
- Twelve sounds of a drum set can be played melodically. With this you can create tom fills, conga grooves or other percussions in no time. You can even play bass, melody or sequencer lines.
- FM and Ring Modulation expand the sound spectrum with a metallic component and FX sounds:

– 'Crack'-module for authentic analog hand claps

– 6 filter types with resonance up to self-oscillation and overdrive up +52dB

– 2 envelopes for pitch, FM amount, filter cutoff and loudness

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STEINBERG

VIRTUAL GUITARIST

VST Rhythm Guitarist

It's always the same problem: Try calling a professional guitarist in the middle of the night when you need a slick 12 string accompaniment for a ballad or a hard metal groove for an advert soundtrack. Introducing Virtual Guitarist - a perfect rhythm guitarist who plays both acoustic and electric guitar, including all keys and difficult chords, never gets impatient, follows the tempo of your song, sounds better, always plays 100% tight, and is always completely in tune. Of course, the Virtual Guitarist doesn't need to set up his equipment or be miked up, and integrates perfectly into your VST system.

- Acoustic and electric guitar performances by 27 different players with 8 parts per player
- Includes a variety a popular guitar sounds, phrasing and styles including Spanish, Steel String, Resonator, Clean Strat, Wah, power chords and ultra metal
- Intelligent fret noise for 100% authentic guitar sound
- Follows the tempo of your song
- Playable through MIDI, this VSTi creates authentic, professional guitar tracks for all styles—from country to metal.
- Flexible real-time variation (sound, phrasing) with keyboard, mod wheel, Aftertouch, Velocity
- Variable playing - Shuffle (groove), dynamic, timing (tight/loose), long chords, syncopated rhythms

VIRTUAL GUITARIST "ELECTRIC EDITION"

29 different players, variety of guitars/amps

VST Rhythm Guitarist and Effect Sound

Virtual Guitarist "Electric Edition" is the perfect rhythm guitarist for anyone needing electric guitar tracks. This VST instrument is based on real recordings, yet is as flexible as a synthesizer. Featuring 29 new all electric players from the 50s to the present day (recorded by top guitarist Thomas Blug), Virtual Guitarist "Electric Edition" oozes authentic sound character while offering unrivaled playability and outstanding tempo flexibility. Also includes a fully featured multi-effect board, useable both as a separate plug-in that you can use on any audio signal or integrated in the VSTi. Select a player, some chords and it plays perfect tracks. Liven songs up with options like syncopation, phrasing variations or long chords. Change shuffle or dynamics, use track doubling or be creative with the supplied effects.

- Vast range of electric guitar styles for all kinds of music
- Variable playing - shuffle, dynamics, timing, syncopation, long chords
- Stereo width, track doubling and other sound shaping options
- Flexible real-time variation (keyboard, mod-wheel, aftertouch, velocity
- Effects integrated into VSTi or separately usable as VST plug-in
- Effects: Wah, AutoFilter, Chorus, Flanger, Phaser, Delay, Reverb

STEINBERG

COMPUTER AUDIO

1030

GROOVE AGENT

VST Virtual Drummer

Groove Agent is a stunning VSTi that provides you with ready-to-go drum rhythms in only a few mouse clicks. Groove Agent can play the hottest, most popular and influential styles from the past 50 years of music history - inside your VST host application. Based on quality drum samples most of which were recorded especially to analog tape, Groove Agent puts a top studio drummer at your fingertips.
Creating your own drum track couldn't be easier - just choose a music style, a drum kit and you're off. Set the amount of drum room ambience, play fills and half-time breaks. Groove Agent can play at over two dozen different complexity levels, so you can create the right mood with your rhythm track simply by moving a slider. Adjust volume, ambience, decay, tuning and velocity response individually for each instrument.

- Over 50 musical styles (each with their own drum style patterns), programmed by top Swedish musicians
- Combine any style with any drum kit - instantly
- Four unique drum kits plus percussion and numerous electronic drum sounds
- Separate dry and wet (ambience) samples and 4 stereo outputs for total flexibility
- User-configurable drum kits, including tweaking of sounds
- 24-bit drum sounds, most of them recorded via analog tape
- Up to two dozen complexity levels in each style, including fills and half tempo feel variations
- Combine any musical style with any preset kit
- Fine-tune the overall feel with the Shuffle and Humanize controls
- Save snapshots of your tweaks for easy recall
- Anyone who can't do without their own drum sounds but wants Groove Agent to play their "live" drums for them can simply record the MIDI output to a GM-compatible drum track and then use their drum sample player of choice.

D'COTA

Multiple Synthesis VST Instrument

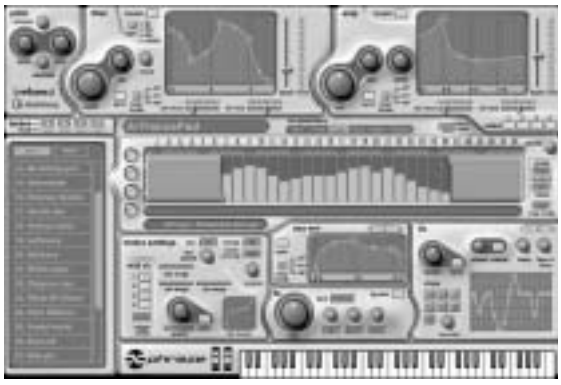
Imagine the best synthesizer you can and then multiply that by three. Why? D'cota combines the power of three types of sound synthesis in the compact editing environment of one synthesizer. All this in an unprecedented sound quality for all three synthesis types, thanks to the aliasing-free sound engine. Each of the three synthesis types offered by D'cota has access to an arsenal of four freely assignable ADSR envelopes and two assignable LFOs. The LFOs can also be synchronized to the song tempo. The effect section adds the simultaneous power of delays, distortion units and modulation effects. This exceptional synthesizer opens new possibilities to create extraordinary sounds.

- 3 different synthesis: Advanced Analog, Spectrum and Wave Impulse
- 8 times multi timbral with up to 128 voices, 4 stereo outputs
- Advanced Random Mode
- Superb sound quality (aliasing free oscillators)
- Multi FX unit with Distortion, Modulation and Delay section
- Ready to start sound preset included

B&H PHOTO - VIDEO - PRO AUDIO
EQUIPMENT LEASING AVAILABLE

XPHRAZE

VST Phrase Synthesizer



Designed for computer-based musicians, arrangers and sound designers, Xphraze brings together two worlds that have been separated for too long: powerful sound shaping and real-time polyphonic phrase creation.
Easy to use, Xphraze lets you create rave chords, complex polyphonic soundscapes, bass and lead riffs, sweeping pads and tempo-synced sound effects. Simply drag a phrase from the pool, tweak the groove and sound, play a note or a chord and listen as Xphraze textures kick in and move perfectly in sync with the song. You can even drag in your own samples and let Xphraze do it's magic to them.
But don't stop there -- you can also use real-time controllers and other sound-mangling tools to change the phrasing or sonic character in ways that were previously unimaginable.
At the heart of this sample-based instrument is a flexible multi-timbral synthesizer engine, offering extensive sound-shaping and real-time modulation possibilities. Powered by an integrated polyphonic phrase generator, Xphraze is capable of conjuring up any kind of rhythmical phrases like polyphonic chord patterns, drum grooves, bass lines and even tempo-synced synth textures ranging from pads to arpeggios.

FEATURES

- 4-part multi-timbral polyphonic phrase synthesizer, full loop and tempo-sync capability (phrase oscillators, envelopes and LFOs).
- Each Timbre consists of: Phrase Oscillator (32 cells) with individual note resolution, amp section and multimode filter (low-pass, high-pass, band-pass and notch filters with 12-72 dB slopes) with freeform loopable envelopes, two additional freeform loopable auxiliary envelopes, two freeform LFOs, arpeggiator, unison mode.
- Each Phrase Oscillator contains individual waveform per cell, plus a maximum of six assignable cell parameters, such as pitch, cutoff, resonance, pan, level and more. Cell parameter curves are freely mouse-editable.
- Unlimited, freely assignable modulation potential with full morph capability (one controller controls multiple parameters at a time, which can be adjusted individually).
- Phrase playback can be fully adjusted for each timbre: play and loop range (start/end) can be adjusted on-screen, switchable trigger/mute per cell, adjustable cell crossfade/duration.
- Performance controllable stereo insert effects for each timbre from 24 effect types, plus two master effects from six types.
- Sample-accurate audio engine with 32-bit floating-point resolution, 192kHz sample rate, and 1024 voices/notes (256 per timbre).
- Four assignable stereo outputs with vector synthesis -- output mix can be controlled via any assignable modulation source.
- Supports VST Instruments, DXi and Audio Units; compatible with Windows (98 and higher), Mac OS 9 / OS X
- Includes a pool of 256 preset phrases and 256 user phrases.
- 500 MB Wave ROM with more than 200 waveforms.
- Imports AIFF and Wave samples, automap function for multisamples
- Integrated mouse-controllable keyboard and wheels.

BPM Force

A software bundled designed for dance producers, BPM Force includes Cubase SL with three Waldorf instruments and filters to offer everything dance music producers need to make those crowd move.

Cubase SL includes the A1 synth for hammering bass lines. Attack delivers the beats - this percussion synthesizer integrates the analog drum sounds of the 80s and the massive club drums of the 90s in your VST System. PPG Wave 2.V, the second coming of a synth legend as a VST instrument, offers everything from luscious synth pads to manic techno sounds. Last but not least is D- Pole, with its 5 filter types that can morph any run-of-the- mill acoustic drum loop into a heavy-duty dance groove. Available for PC and Mac OS X/9.

COOL BREEZE SYSTEMS

COOL SCHOOL INTERACTUS CD-ROMs

Software and Hardware Media Systems for the Creative Mind

Cool Breeze's CSI (Cool School Interactus) series of CD-ROMs provide an easy-to-use and intuitive learning environment. The structure of the CSi CD-ROMs allows the user to go at his own pace. A flexible interface encourages each user to customize his learning path depending on his personal needs and desires. The novice through the veteran will find great benefit in using these CDs. Made up of system designers, engineers, acousticians, programmers, musicians, composers and graphic artists, Cool Breeze offers over 20 years of combined experience in digital audio operations, training, sluggin' brews and systems design.

Vol. 1.1 Pro Tools Basics

Provides Pro Tools basics and a broad fundamental education on the operation of Digidesign digital audio workstations. It's beneficial to anyone from the complete novice to the partially educated, to the old-school linear pro. This CD features many Digidesign products, and covers hardware/software installation procedures and detailed system configuration options. Content covers basic concepts, operation and functionality of Pro Tools, Sound Designer II, and SampleCell II, also sound fundamentals, computer basics, MIDI, and digital audio, Further education includes modules on System Upkeep and Synchronization.

Vol. 2.1 Pro Tools Tips and Plug-ins

Features Pro Tools 4 software from Digidesign and selected 3rd-party Development Partners. It includes screen element definitions with click-state pop-up simulations for Pro Tools 4 and plug-ins from Antares, Digidesign, Focusrite, and Waves. There is a massive glossary of DAW related terms, including DAE errors and over 50 movie tutorials that include basic functionality, production techniques, special short cuts, key commands, and before and after audio examples. Over 150 quick keys and shortcuts are covered. No special hardware needed, just a compatible Mac/Windows machine. Pro Tools and CSi can be open at the same time.

Additionally, Vol. 1.1 and 2.1 include the "CSi AutoPlay" which launches CSi into an "autopilot" mode. Sit back, crack open a cold one, and impress your friends as you soak in the info. The "AutoPlayer" can be disengaged and resumed at any time.

Vol. 3 Desktop Audio

A powerful guide covering the basics of sound production on a computer, whether you're into music, post-production or multimedia. Learn the many concepts, elements, products and possibilities - and gain the knowledge to put together the system that's right for you. Topics covered: goals (where the authors help you state your mission, and explain & categorize the different types of software and hardware), sound, computers & operating systems from the audio perspective, MIDI, digital audio, DAWs, plug-ins, synchronization, system set-up & upkeep, even studio furniture, and much, much more. Includes a searchable glossary of over 1,200 digital audio related terms, and is packed with swingin' music, top-notch graphics, excellent interactive examples, flow charts, pictures, animations, before and after audio examples, video, diagrams, and info-packed movie tutorials!

Vol. 4 Logic Audio Training

Whether you're driving with Silver, Gold or Platinum, this multimedia CD demystifies and opens up the vast capabilities, power and flexibility of Logic Audio 4. Get hip to the basic concepts, operational ins & outs, and new features. Vol. 4 combines the Cool Breeze vibe with the practical expertise of Logic Audio pros. CSi's tutorials include basic functionality, and real-world production techniques. Topics covered: Logic Audio applications, system requirements, hardware & software configurations & set-up, concepts of Logic Song, Audio Objects, Instruments, Ports, Screen sets and much more. Includes a searchable glossary of over 1,200 digital audio related terms, over 40 movie tutorials, loads of graphics, music, flowcharts, video, before-and-after audio samples, and effective interactive examples (software simulations with pop-up and clickstate definitions).

COOL BREEZE SYSTEMS

COOL SCHOOL INTERACTUS CD-ROMs

Vol. 5 Pro Tools 5

Whether you're driving Pro Tools FREE, Mbox, Digi001, Digi003, or a big bad phat TDM rig, this CD will help you get the most out of your Pro Tools system. Sit down with a DAW pro and learn about the new features available in Pro Tools 5. This CD includes screen element definitions with click-state pop-up simulations for the Edit Window, Mix Window, Transport and Menus. There is a massive glossary of DAW related terms, including DAE errors and over 50 movie tutorials which include not only basic functionality, but production techniques, special short cuts, key commands, and before and after audio examples. Movie Tutorials include the Smart Tool, Beat Detective, MIDI Controls, Loop Record and more.

Vol. 6 Digital Performer V3

This Digital Performer training CD-ROM covers the core operations of DP version 3. Sit down with a DAW pro and learn concepts, production techniques and the latest features from Digital Performer 3. This CD-ROM includes screen element definitions with click-state pop-up simulations for the Transport, Mixer, Sequence Editor, MIDI Graphic Editor and Menus. There is a massive glossary of DAW. related terms, and over 40 movie tutorials. The Getting Started topic will take you through set-up, first record, edit and mix. The CSi movie tutorials are designed to include not only basic functionality, but production techniques, special short cuts, key commands, and before and after audio examples.

For Vol. 5 and 6, no special hardware needed, just a compatible Mac/Windows machine. If you own a Pro Tools setup or Digital Performer rig, CSi can be open at the same time. View a movie tutorial in CSi then instantly go to the software and try it yourself. Additionally, Vol. 5 and 6 includes the "CSi AutoPlayer" which launches CSi into an "autopilot" mode. Sit back, relax, drive with no hands and impress your friends as you soak in the info. The "AutoPlayer" can be disengaged and resumed at any time.

Vol. 7 Cubase SX

Covers key operational techniques and the cool features of Cubase. If you prefer the "Show me" style of learning, then CSi is for you. Sit down with a DAW. pro and learn concepts, production techniques and the new options available in Cubase SX. This CD-ROM is for Mac and Windows users, and covers the Project Window, Transport Panel, Key Editor, Drum Editor, Track Mixer, Sample Editor, Pool, and Menus. The Getting Started topic will take you through set-up, first record, edit and mix. The CSi movie tutorials are designed to include not only basic functionality, but production techniques, special short cuts, key commands, and before and after audio examples. No special hardware needed, just a compatible Mac/Windows computer.

Vol. 8 - Pro Tools 6

Covers key operational techniques and the cool features of Pro Tools 6. Sit down with a DAW pro and learn concepts, production techniques and the new options (DigiBase, new MIDI options, Beat Detective, DigiGroove templates, and importing session data are just of the few) available in Pro Tools 6. The Introduction topic will take you through set-up, first record, edit and mix. The tutorials are designed to include not only basic functionality, but production techniques, special short cuts, key commands, and before and after audio examples. No special hardware needed, just a compatible Mac/Windows computer. This CD adds to the information covered on Pro Tools Basics, Pro Tools Tips and Plug-ins and Pro Tools 5.

In addition to the hours of movie tutorials, Vol. 7 and 8 include a massive DAW related glossary and utilize the CSi MovieTutorial interface to provide an easy to use and intuitive learning environment. Plus, the new CSi MT interface includes a title bar that allows you to easily position the interface on your screen. If you're lucky enough to have a big fat monitor or maybe two, you can smoothly switch between Cubase SX or Pro Tools 6 and the CSi tutorials.